

## Annex 5: Monitoring Sheet

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TO CR of JICA Uganda OFFICE

## PROJECT MONITORING SHEET

**Project Title: Improvement of Health Services Through Health Infrastructure Management II****Version of the Sheet: Ver. 01 (Term: 15th July, 2016 - 19th December, 2016)****Name: Hiroshi Tasei****Title: Chief Advisor****Submission Date: 27th December 2016**

## I. Summary

**1 Progress****1-1 Progress of Inputs****1) Dispatch of Project Expert Team**

Assignment of Project Experts is as shown below.

Name	2016							Total (days)
	6	7	8	9	10	11	12	
Hiroshi Tasei Chief Adviser/QI Management System 1								158
Shizu Takahashi Vicw Chief Adviser/QI Management System 2					30			30
Naoki Take 5S-CQI-TQM①		15				75		90
Yujiro Handa 5S-CQI-TQM②				15		16		31
Yasuhiro Hiruma Utilization of Medical Equipment					66	24		90
Naoki Mimuro Maintenance of Medical Equipment						70		70
Emi Onosaka Project Coordinator/Training Management				60			69	129

**2) Provision and Furnishing of Project Office in MoH Headquarters**

- The Ministry of Health (MoH) provided the same project office as that of the previous phase of the project (P1) for the project team to work in MoH headquarters building as well as two photocopy machines and office furniture that were procured through P1. And MoH also provided the same office in the Central Workshop (CWS) as that of P1.

**3) Procurement of Equipment**

- Two 4-wheel-drive vehicles have been procured for the ongoing project by JICA Uganda.

**4) Tanzania KAIZEN Training of Trainers (TOT)**

- The Ministry of Health, Community Development, Gender, Elderly and Children in Tanzania organized a Training of Trainers KAIZEN Approach from 28th November - 2nd December 2016 at the Assistant Medical Officer's training school in Mbeya Zonal Referral Hospital in Tanzania. Two participants from Uganda were invited to participate in this training. The purpose of the training was to build participants' capacity in terms of skills and knowledge on

the KAIZEN Approach for hospital management improvement. Participants from Uganda were:

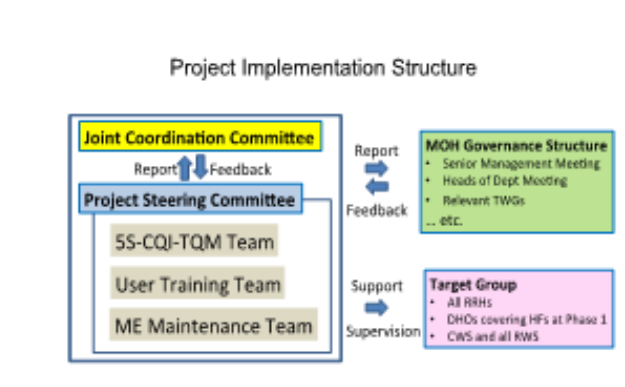
- 1) Dr. Obonyo John Hyacinth, Principal Medical Officer (PMO), Department of Clinical Services (Clinical Services)
  - 2) Mr. Kamugisha Pidson, Nursing Officer (NO), Kabale Regional Referral Hospital (RRH)
- However, two participants could not attend the TOT because their flights were cancelled.

## 1-2 Progress of Activities

### 1-2-1 Activities of Output 1

#### 1) Establishment of project Implementation structure

- The kick-off meeting of the project was held on 6th September, 2016 and was chaired by Asst. Commissioner of Integrated Curative Services, Dr. Jackson Amone, on behalf of the Commissioner of Clinical Services who is the project manager, Dr. Amanudua Jacinto. The project focal persons discussed about the project implementation structure for the current phase project (P2) in the structure drawing. The Project Steering Committee (SC) provides technical direction to project activities according to reviewing and monitoring overall activities. SC will conduct meetings every three months. The Implementation Teams are the implementation body of the project activities. The teams as indicated will conduct project activities specified in Work Plans.



#### 2) Conduct situation analysis of each component

- Each Implementation Team conducted situation analysis for all of the targeted hospitals and workshops to understand the actual performance and provide information to set the indicator goals of the project, and also aim at elaboration of project activities. The situation analysis schedule of each team is as shown below.

##### ➤ 5S-CQI-TQM

Date: 3rd – 14th October

Team members: MoH staff (Clinical Services, Nursing and Quality Assurance Department (QAD), Project Experts

Targets: All Regional Referral Hospitals (RRH), two General Hospitals (GH) (Entebbe and Tororo) and two District Health Teams (Wakiso and Tororo)

##### ➤ Utilization of Medical Equipment (User Training)

Date: 19th September – 7th October

Team members: MoH staff (Clinical Services), Project Experts

Targets: All RRHs and one GH (Entebbe)

➤ **Maintenance of Medical Equipment**

Date: 19th – 30th September, 5th – 12th October

Team members: Engineers from CWS, Project Experts

Targets: All Regional Workshops (RWS)

**1-2-2 Activities of Output 2, 3**

**1) Leadership Improvement Seminar**

- The seminar was conducted at Fairway hotel in Kampala on 10th – 11th November. Participants in the seminar included heads and administrators of all target facilities. The program of the seminar focused on building mindsets of hospital managers towards continuous quality improvement. The two-day seminar was supported by Project Experts.

**1-2-3 Activities of Output 4**

**1) 1st Leadership and Management Training for Workshop Managers and Senior Technicians of Regional Medical Equipment Maintenance Workshops**

- The training was conducted at CWS in Kampala on 7th – 10th November. Participants for the training included Workshop managers and senior technicians in different Workshops. The training program was basically leadership, managerial skills, inventory analysis and store management. The training was conducted by MoH, Project Experts, and external lecturers.

**1-3 Achievement of Output**

**1-3-1 Output 1**

**1) Establishment of project Implementation structure**

- Counterparts and Project Experts have understood the implementation structure of P2 and its activity directions.
- The Implementation Teams have conducted situation analysis for all of the target facilities and developed Work Plans.

**2) Development of Work Plans**

The following activities are planned based on the situation analysis.

-Define criteria for national show case and review a national show case(s):

From December 2016 to March 2017 (Original plan; September 2016)

-Review existing supervision system of MoH

From December 2016 to April 2017 (Original plan; October 2016)

-Integrate components of 5S-CQI-TQM, UT, and ME maintenance to the supervision system

From December 2016 to October 2017 (Original plan; October 2016)

-Hold SC meetings at least bi-monthly with the project

Every three months (Original plan; Bi-monthly)



**1-3-2 Output 2,3****1) Situation analysis of each component**● **5S-CQI-TQM**➤ **5S performance**

All observed hospitals except Entebbe face common challenges in S4 (Standardise) and S5 (Sustain), although Mbale, Kabale and Mubende RRH have the level of “Fair”. Good performers in 5S are both from a group of hospitals targeted by P1 and those newly covered by P2. It cannot be said that P1 hospitals are superior to P2 hospitals in general.

➤ **CQI**

Many RRHs are trained in quality improvement in general including 5S and CQI by Strengthening Uganda’s Systems for Treating AIDS Nationally (SUSTAIN). Quality Implementation Team (QIT) focal persons, therefore, have at least attained some knowledge.

➤ **Functionality of QIT**

Good performers of 5S (especially Mbale, Kabale, Jinja and Mubende RRH) have common factors on functionality of QIT such as active focal persons, hospital administrators and regular internal supervision. However, many hospitals observed are struggling to functionalise QIT.

➤ **Supervision on 5S-CQI-TQM**

Periodical supervision from the central government has not been conducted. And supervision of lower facilities has not been performed in most cases because of financial difficulties. However, the Health Facility Quality of Care Assessment Program (HFQAP) has been launched and the 1st Hospital assessment has been conducted with its assessment tools. Results of the assessment were reported in the National Quality Improvement Conference 2016. The project shall review and revise the existing supervision system and tools through enrichment of checklists of HFQAP. And 12 national facilitators are still functioning. It is necessary to develop additional national facilitators (at least 30) for effective supervision.

➤ **Budget for 5S-CQI-TQM Practice**

Many hospitals observed face difficulties to ensure the budget for 5S and CQI activities except support from Implementing Partners (IP).

➤ **Development of contents of activities**

Contents of activities should be developed based on the current performance of 5S practice. The hospitals are divided into four categories as shown below:

✧ **Category 1:** Entebbe, Mbale, Kabale (from P1) and Mubende RRH (from P2)

These hospitals were institutionalized to have good work environments with certain levels of S4 and S5. They can move forward to CQI.

✧ **Category 2:** Arua, Moroto (from P1) and Jinja RRH (from P2)

These three hospitals are prospective targets to improve the work environment, although they face challenges to establish the base of S4 and S5. It is necessary to deal with them through

**supervision, mentorship and coaching**. **A study tour** is also an opportunity to learn from good practices.

✧ **Category 3:** Hoima, Lira, Masaka, Tororo (from P1) and Mbarara RRH(from P2)

These hospitals have been stagnating or declining in 5S performance. Mbarara RRH is a beginner in 5S but the situation is better than the four hospitals in category 4. **Refresher training** is a requisite, followed by **mentorship, coaching and a study tour**.

✧ **Category 4:** Fort Portal, Gulu, Naguru and Soroti RRH (all from P2)

These four hospitals are categorised as “almost no” 5S or very poor performers. They need to be **trained in 5S from the beginning**, followed by **mentorship, coaching and a study tour**.

Leadership training for administrators for all targets is also necessary.

### ➤ **Development of Work Plans**

The following activities are planned based on the situation analysis.

- Leadership Improvement Seminar; November 2016
- Facilitators’ training (Refresher training); December 2016 and January 2017  
(Original plan; October 2016)
- Development of guidelines, manuals etc.; From January 2017 to June 2017  
(Original plan; From October to December 2016)
- 5S-CQI-TQM training
- Support supervision, mentoring and coaching
- Monitoring and evaluation of 5S-CQI-TQM performance
- Study tour
- Assessment on effectiveness of CQI practice on service quality

### ● **Utilization of Medical Equipment (User Training)**

#### ➤ **Current status of User Training in P1**

✧ 16 active User Trainers at present were confirmed in P1 hospitals.

✧ The table below shows the number of User Training (UT) programs conducted by existing User Trainers and the number of participants after P1 was completed. The amount of trainings conducted in Arua is high because of the Institutional Capacity Building Project in Planning Leadership and Management in the Uganda Health Sector Phase 2 (ICB2 project) by Belgian Technical Cooperation (BTC) supported UT activities since 2013.

P 1 hospital	Arua	Lira	Mbale	Kabale	Hoima	Masaka	Entebbe	Moroto
No of trainings held	117	11	12	22	8	26	26	5
No trained staff	1220	171	315	443	145	251	149	159

➤ **New User Trainers for P2 hospitals**

✧ 14 candidates are nominated from P2 hospitals as new User Trainers according to the following criteria.

- Age limits: persons older than 30, but less than 45.
- Middle cadres with at least 10 years' nursing experience.
- Persons who are diligent and interested in learning.
- Each hospital to nominate 2 staff nurses.
- 2 staff nurses who are unlikely to transfer or unlikely to be off station for at least the four years of the project.

➤ **Development of Work Plans**

✧ The following activities are planned based on the situation analysis.

- Development of guidelines, manuals etc.; From January 2017 to May 2017  
(Original plan; From October to December 2016)
- Refresher and management training for P1 User Trainers
- TOT for P2 User Trainers
- Support Supervision

**2) Leadership Improvement Seminar**

- The seminar has been conducted according to the planned schedule, and total participants were 26: Moroto (1), Mbale (2), Hoima (1), Kabale (2), Masaka (2), FortPortal (2), Soroti (2), Gulu (2), Mbende (1), Jinja (2), Mubarara (2), Lira (1), Naguru (2), Entebbe (3), Wakiso (1) with Arua RRH, Tororo GH and Tororo District Health Officer (DHO) absent. However, textbooks that were used during the seminar shall be delivered to Arua RRH, Tororo GH and Tororo DHO.
- The leadership training should play an important role at the initial stage of the project to enable commitment to quality improvement of the services.

**1-3-3 Output 4**

**1) Situation analysis**

● **Inventory management**

It still faces the challenges of periodical updating, data cleaning and analyzing due to inadequate knowledge and skills. The general performance of routine maintenance work improved at most Workshops from 2012-2014, the period of P1. The four Workshops of Fort Portal, Lira, Kabale and Central excelled in general workshop functions and management compared to the other Workshops.

● **Development of Work Plans**

The following activities are planned based on the challenges identified.

- Development of guidelines, manuals etc.; From January 2017 to May 2017  
(Original plan; From October to December 2016)
- Leadership and management training for Workshop managers and technicians

- Skill-up training on maintenance of basic medical equipment
- Skill-up training on maintenance of specialized equipment
- Strengthen capacity of CWS and Health Infrastructure Division (HID) to support the other Workshops
- Development of a system for sharing knowledge and skills among Workshops
- Procurement of maintenance tools and equipment

## 2) 1st Leadership and Management Training for Workshop Managers and Senior Technicians of Regional Medical Equipment Maintenance Workshops

There were 29 participants in the training and these included all regional Workshop managers, and technicians from CWS. The training was conducted as planned in the schedule. Pre/Post tests for the training were conducted for all participants. All participants increased their scores after training and the average score increased from 39.3 to 73.3, as shown below.

Training contents	Total	PRE Avg.	POST Avg.	Differences
Leadership	29	14.4	19.3	4.9
Planning and budgeting	15	6	12.8	6.8
Procurement Management	27	11.3	20.9	9.6
Stores & Inventory Management	14	5.1	11.7	6.6
Inventory update & Analysis	9	2.5	9.4	6.9
Total score (94)	94	39.3	73.3	34
%	100	41.8	78	36.2

### 1-4 Achievement of the Project Purpose

- 1) Counterparts and Project Experts achieved sharing the understanding of the project purpose of Quality Improvement activities as well as health infrastructure management that is in line with the strategy of MoH. Especially, quality improvement activity is guided by the Uganda Health Sector Quality Improvement Framework and Strategic Plan (2015/2016-2019/2020).
- 2) Counterparts and Project Experts have understood that development of an effective supervision mechanism shall be in line with HFQAP implementation.
- 3) The project has just started and situation analysis of each component has been done. The project has not been reached a stage to indicate efficiency and impact. However, the progress of project activities is slower than expected.

### 1-5 Changes of Risks and Actions for Mitigation

- 1) When the project was started in July, the budget of MoH for fiscal 2016/2017 was already allocated. MoH, therefore, could not provide the necessary funds (allowance, etc.) for project activities. Two activities of the project, "Leadership and Management Training for Workshop

Managers and Senior Technicians of Regional Medical Equipment Maintenance Workshops” and “Leadership Improvement Seminar” have been conducted and funded by JICA. And two activities, User Trainer Refresher training and facilitators’ training, were postponed to next year because other mitigation issues have not yet been solved.

**1-6 Progress of Actions Undertaken by JICA**

- 1) Providing of assistance for furnishing of project office in MoH and procurement of two project vehicles.
- 2) Attending part of the “Leadership and Management Training for Workshop Managers and Senior Technicians of Regional Medical Equipment Maintenance Workshops” and “Leadership Improvement Seminar”.
- 3) Participating in discussions with MoH regarding counterpart funding for next fiscal year.

**1-7 Progress of Actions Undertaken by Government of Uganda**

- 1) MoH has committed itself to provide adequate funds for project activities for the year 2017/2018 up to the end of the project.

**1-8 Progress of Environmental and Social Considerations (if applicable)**

- 1) Counterparts and Project Experts shall consider that the objectives of activities are not only to target facilities but also aim to at social environment improvement. One of the project activities, i.e., the concept of waste segregation management is a positive influence to change the environment.

**1-9 Progress of Considerations on Gender/Peace Building/Poverty Reduction (if applicable)**

**1-10 Other remarkable/considerable issues related/affect to the project (such as other JICA's projects, activities of counterparts, other donors, private sectors, NGOs etc.)**

- 1) The Preparatory Survey for the grant aid project by the Japanese government for improvement of northern Uganda Hospitals (Arua, Gulu and Lira RRH) started in November 2016. The target facilities of the grant aid project are part of the project site. It is expected to instill a positive influence for motivation of hospital staff to improve the workplace environment.
- 2) SUSTAIN, supported by USAID, supports MoH to strengthen comprehensive HIV/AIDS care, prevention, laboratory and tuberculosis services at selected RRH and one Health Center. SUSTAIN’s QI work is being done in collaboration with QAD of MoH and Applying Science to Strengthen and Improvement System (ASSIST). The 5S national facilitators who were trained through P1 are being utilized as QI trainers of the SUSTAIN and ASSIST projects. SUSTAIN supports CQI activities in 14 hospitals including RRH.
- 3) ASSIST, supported by USAID, is providing direct support for improving HIV and family health services to sites in northern Uganda. It is also supporting the institutionalization of QI into the health sector through providing direct technical support to the QAD of MoH in overseeing and

coordinating QI activities. It is expected to co-work in support supervision in target facilities of the project.

- 4) The ICB2 project supported by BTC is to strengthen the planning, leadership and management capacities of (public) health staff, specifically at the decentralized local government level. The target of the ICB2 project is West Nile and Rwenzori including RRH. The ICB2 project is also supporting the rolling out of User Training activities in West Nile and Rwenzori.

## **2 Delay of Work Schedule and/or Problems (if any)**

### **2-1 Details**

- 1) Refresher training for User Trainer and 5S facilitators was postponed.
- 2) The first JCC is not held as scheduled.
- 3) Updating of manuals, handbooks and monitoring tools is not complete.

### **2-2 Causes**

- 1) MoH could not allocate necessary budget for the project activities in fiscal 2016/2017.
- 2) Finalizing of modification for PDM v.0 is not complete.
- 3) Guidelines for facilitators and QI tools are being prepared by QAD and will be finalized in 3rd quarter of 2016/2017 or later so that updating of project material will then follow.

### **2-3 Action to Be Taken**

- 1) Clinical Services shall discuss with the Department of Planning to allocate adequate funds for the project activities in fiscal 2017/2018.
- 2) The project shall finalize PDM ver.1 as soon as possible. PDM ver.1 shall be approved in the next JCC.
- 3) Updating of QI materials will start in the beginning of 2017.

### **2-4 Roles of Responsible Persons/Organization (JICA, Government of Uganda)**

- 1) Dr. Amandua, Commissioner of Clinical Services as well as the project manager, retires in December 2016, and this, therefore, calls for an appointment of a successor for the position as soon as possible.

## **3 Modification of the Project Implementation Plan**

### **3-1 PDM**

- 1) After situation analysis of all implementation components, several changes were found in target facilities as well as the situation of assistance of other implementation partners since P1 was completed. Based on the analysis of 5S-CQI-TQM performance, all P1 hospitals as Output 2 are not superior to P2 hospitals as Output 3. Outputs 2 and 3 shall be revised 5S-CQI-TQM as Output 2 and UT as Output 3. The project has proposed to JICA headquarters to revise PDM v.0 in a much clearer copy for realization of the project activities design.

**3-2 Other modifications on detailed implementation plan**

*(Remarks: The amendment of R/D and PDM (title of the project, duration, project site(s), target group(s), implementation structure, overall goal, project purpose, outputs, activities, and input) should be authorized by JICA HDQs. If the project team deems it necessary to modify any part of R/D and PDM, the team may propose the draft.)*

**II. Project Monitoring Sheet I & II**     *as Attached*

**Project Monitoring Sheet I (Revision of Project Design Matrix)**

Project Title: Project on Improvement of Health Service through Health Infrastructure Management (II)

Implementing agency: Department of Quality Assurance, Ministry of Health (MOH) (5S-CQI-TQM)

Integrated Curative Services Division, Department of Clinical Services, MOH (Utilization of Medical Equipment)

Health Infrastructure Division, Department of Clinical Services, MOH (Maintenance of Medical Equipment)

Target Group: (1) Phase 1 targeted hospitals: Mbale Regional Referral hospital (RRH), Masaka RRH, Entebbe General Hospital (GH), Hoima RRH, Kabale RRH, Arua RRH, Lira RRH, Moroto RRH, Mukuju HC IV, Tororo GH

(2) Phase 2 targeted hospitals: Soroti RRH, Jinja RRH, Gulu RRH, Fort Portal RRH, Mbarara RRH, Mubende RRH, Naguru Referral Hospital

Period of Project: July 2016- July 2020


Project Site: Republic of Uganda

**Version 1 as of 19th December, 2016**

**Dated 27th December, 2016**

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
Overall Goal					
Quality of health care services at all the RRHs in Uganda is improved.	<ul style="list-style-type: none"> <li>•Clients' satisfaction level is improved to the target level. (XX)</li> <li>•Clients' waiting time of patients for consultation, testing, clinical examination, and prescription of drugs are reduced XX%</li> <li>•Maintenance cost regarding medical equipment is decreased in XX%.</li> </ul>	<ul style="list-style-type: none"> <li>•Health Management Information System (HMIS)</li> <li>•Annual Health Sector Performance Report (AHSPR)</li> <li>•Periodical monitoring reports by QITs at target hospitals</li> <li>•Supervision reports made by the steering committee for the project</li> <li>•Baseline and end-line data</li> <li>•Quarterly regional workshop maintenance report</li> </ul>			
Project Purpose					
Health infrastructure management at all the RRHs in Uganda is strengthened with the initiatives of MOH.	<ul style="list-style-type: none"> <li>•Score sheet of 5S-CQI-TQM on targeted hospitals become more than XX%.</li> <li>•The number of CQI practices becomes more than XX (number).</li> <li>•Supervisions on 5S, UT, and ME which is integrated into the system of MOH in a consolidated way are implemented more than XX times.</li> <li>•Percentages of status A of ME becomes higher than XX%</li> </ul>	<ul style="list-style-type: none"> <li>•Minutes of steering committee meetings</li> <li>•Reports of steering committee</li> <li>•Reports from 5S trainers</li> <li>•Score sheets of 5S-GQI-TQM at targeted hospitals.</li> </ul>	<ul style="list-style-type: none"> <li>•Government budget for the RRHs will not be decreased significantly.</li> <li>•Government budget for the workshops will not be decreased significantly.</li> <li>•Political situation in Uganda remains stable.</li> </ul>		The project has just started and situation analysis of each component has been done. The project has not been reached a stage to indicate efficiency and impact. However, the progress of project activities is slower than expected.
Output					
1. Supporting/supervising system for health infrastructure management of all the RRHs is strengthened in the MOH	<ul style="list-style-type: none"> <li>1-1 PDCA cycle of supporting and supervising RRHs is completed once a year or more.</li> <li>1-2 The number of supervision conducted by steering committee becomes more than XX times.</li> <li>1-3 Number of training organized by Technical Working Group (TWG) becomes more than XX times.</li> <li>1-4 Number of certified national CQI facilitators from MOH become more than XX.</li> </ul>	<ul style="list-style-type: none"> <li>•Plans and periodic reports made by steering committee</li> <li>•Activity records made by steering committee of MOH</li> <li>•Records and results of supervision conducted by steering committee</li> <li>•Test results and certification issued for CQI trainers at MOH</li> </ul>	<ul style="list-style-type: none"> <li>•Personnel of counterparts do not leave the job and are not transferred considerably.</li> <li>•Policy related to health infrastructure management will not be changed as a result of the presidential election.</li> </ul>		Output 1 -Counterparts and Project Experts have established Implementation Teams to direct project activities. -Each Implementation Team has conducted situation analysis for all of the target facilities and developed Work Plans. Output 2,3 -The Leadership seminar has been conducted. Output 4 -1st Leadership and Management Training for Workshop Managers and Senior Technicians of Regional Medical Equipment Maintenance Workshops has been conducted.
2. Implementation mechanism of the phase 1 targeted hospitals aimed at CQI level for resource management and quality improvement is established to function as leading cases based on the outcomes of the phase 1.	<ul style="list-style-type: none"> <li>2-1 Number of the phase 1 targeted hospitals which started CQI activities becomes more than XX.</li> <li>2-2 Number of the phase 1 targeted hospitals which completed CQI process at least with one unit becomes more than XX.</li> <li>2-3 Number of UT conducted by regional trainers is more than XX times.</li> <li>2-4 Number of functioning WITs in target hospitals reaches the level of 10 under the 5S-CQI-TQM implementation becomes more than XX.</li> </ul>	<ul style="list-style-type: none"> <li>•Activity records of QITs</li> <li>•Activity records of WITs</li> <li>•Training records on UT conducted by user trainers</li> <li>•Score sheets of 5S-CQI-TQM</li> <li>•Project report about CQI activities</li> <li>•Supervision reports made by TWG</li> </ul>			
3. Foundation for implementation mechanism of the phase 2 targeted hospitals for resource management and quality improvement is introduced and established.	<ul style="list-style-type: none"> <li>3-1 All the phase 2 targeted hospitals implement QIT activities including 5S-CQI-TQM.</li> <li>3-2 Average of comprehension rate of trainees after user training becomes higher than XX%.</li> <li>3-3 More than 1 regional 5S facilitators at each phase 2 targeted hospitals are trained.</li> <li>3-4 More than 2 regional user trainers at each phase 2 targeted hospitals are trained.</li> </ul>	<ul style="list-style-type: none"> <li>•Number of QITs and their activity records</li> <li>•Monitoring and meeting minutes of QITs related to 5S-CQI-TQM</li> <li>•Supervision report made by TWG</li> <li>•Results of pre and post tests for trainees of UT Training records on TOT for 5S-CQI-TQM</li> <li>•Training records on TOT for UT</li> </ul>			
4. ME maintenance and management capacity of workshops (WS) are strengthened.	<ul style="list-style-type: none"> <li>4-1 Trained staff of all the workshops improve their knowledge by XX% after ME maintenance training</li> <li>4-2 Percentages of ME in status E lowered by XX%.</li> </ul>	<ul style="list-style-type: none"> <li>•Training records related to ME maintenance</li> <li>•Results of pre and post tests for trainees of ME maintenance</li> <li>•Inventory lists of each workshop</li> </ul>			



Activities	Inputs		Important Assumption
	The Japanese Side	The Uganda Side	
<p><b>1-1 Establishment of foundation for the project and implementation</b></p> <p>1-1-1 [MOH] Establish TWG for the phase 2 project</p> <p>1-1-2 [MOH] Select focal persons for 5S, user training (UT), and medical equipment (ME) maintenance</p> <p>1-1-3 [TWG] Develop TORs for members of TWG and action plans for implementing the project</p> <p>1-1-4 [TWG] Conduct baseline survey</p> <p>1-1-5 [TWG] Update and/or create manuals, handbooks, guidelines, and monitoring tools for dissemination</p> <p>1-1-6 [TWG] Define criteria for national show case and review a national show case(s)</p> <p>1-1-7 [TWG] Review existing supervision system of MOH.</p> <p>1-1-8 [TWG] Integrate components of 5S-CQI-TQM, UT, and ME maintenance to the supervision system</p> <p><b>1-2 Training and knowledge sharing</b></p> <p>1-2-1 [TWG] Conduct refresher training for national 5S facilitators*</p> <p>1-2-2 [TWG] Conduct training of trainers for 5S-CQI-TQM especially customized for CQI</p> <p>1-2-3 [TWG] Organize opportunities to share good practices and lessons learned such as study tours and QI competition</p> <p><b>1-3 Implementation of activities, and monitoring and evaluation, and reflections</b></p> <p>1-3-1 [TWG] Implement an action plan based on PDCA cycle.</p> <p>1-3-2 [TWG] Conduct supervision which is integrated into the existing system</p> <p>1-3-3 [TWG] Hold meetings at least bi-monthly with the project team</p> <p>1-3-4 [TWG] Conduct a review meeting on established system in MOH</p> <p>1-3-5 [TWG] Make use of review of activity 1-3-4 for institutionalization of the system and methodologies, and reflection to the health sector policy/plan</p> <p>1-3-6 [TWG] Conduct an end-line survey</p>	<p>1. Dispatch of Experts</p> <p>1) Chief advisor / QI Management System</p> <p>2) 5S-CQI-TQM</p> <p>3) Utilization of Medical Equipment</p> <p>4) Maintenance of Medical Equipment</p> <p>5) Project Coordinator/ Training Management</p> <p>2. Machinery and equipment</p> <p>1) Necessary supplies for 5S-CQI-TQM to target hospitals and MOH headquarters</p> <p>2) Testing and calibration tools and equipment etc.</p> <p>3. Allocation of operational costs for project activities</p> <p>4. Training in Japan and/or third countries</p>	<p>1. Assignment of Counterparts</p> <p>2. Facilities</p> <p>1) Office space for Japanese experts</p> <p>3. Administrative cost and other expense such as training and supervision</p> <p>4. Personnel cost for counterparts and other running expenses (daily allowance and transportation expense)</p>	
<p><b>2-1 System development and implementation</b></p> <p>2-1-1 [Phase 1 target hospitals] Revitalize and/or strengthen function of quality improvement team (QIT) and work improvement team (WIT)</p> <p>2-1-2 [Phase 1 target hospitals] develop action plans of WITs at each phase 1 target hospital</p> <p>2-1-3 [Phase 1 target hospitals] Hold periodic meetings of QIT</p> <p>2-1-4 [Phase 1 target hospitals] Implement activities aiming at CQI with proper usage and maintenance of ME in collaboration with UT and ME maintenance activities</p> <p><b>2-2 Training</b></p> <p>2-2-1 [TWG] Conduct leadership and management training for management staff of targeted hospitals</p> <p>2-2-2 [TWG] Conduct refresher training for regional 5S facilitators of targeted hospitals</p> <p>2-2-3 [TWG] Conduct 5S CQI training to hospitals with high level practices of 5S-CQI-TQM</p> <p>2-2-4 [TWG] Conduct refresher training for regional user trainers</p> <p>2-2-5 [User trainers] Train staff of their hospitals on how to use ME on the job training basis</p> <p><b>3-1 System development and implementation</b></p> <p>3-1-1 [TWG] Support target hospitals to establish and/or strengthen quality improvement team (QIT)</p> <p>3-1-2 [TWG] Support target hospitals establish and/or strengthen work improvement team (WIT)</p> <p>3-1-3 [TWG] Support target hospitals to hold QIT periodic meetings</p> <p>3-1-4 [Phase 2 target hospitals] Implement 5S activities with proper usage and maintenance of ME by collaboration with UT and ME maintenance activities</p> <p><b>3-2 Training</b></p> <p>3-2-1 [TWG] Conduct leadership and management training for management staff of target RRHs</p> <p>3-2-2 [National 5S facilitators] Conduct training of trainers (TOT) on 5S-CQI-TQM for regional 5S facilitators of phase 2 targeted hospitals</p> <p>3-2-3 [Regional 5S facilitator] Conduct 5S-CQI-TQM training for staff of phase 2 targeted hospitals</p> <p>3-2-4 [Regional user trainers trained phase 1 project] Conduct TOT regarding UT for the phase 2 targeted hospitals</p> <p>3-2-5 [User trainers] Conduct UT on ME</p> <p>3-2-6 [User trainers] Train other staff of RRHs on how to use ME on the job training basis</p> <p>4-1 [TWG] Conduct leadership and management training for workshop managers including inventory data analysis</p> <p>4-2 [TWG] Conduct training for Workshop (WSs) staff on ME maintenance</p> <p>4-3 [TWG] Conduct training for core staff of the WSs on basics about specialized ME</p> <p>4-4 [TWG] Strengthen support system of the CWS for other RWSs</p> <p>4-5 [TWG] Support WSs to develop a management system for accumulating knowledge and skills</p>			<p>Pre-Conditions</p> <div style="text-align: center;">  </div>

\*Training on 5S for 5S national facilitators and training on CQI for CQI national facilitators are categorized as activities for the output 1 because the majorities of the national 5S facilitators are MOH staff. Other training for regional 5S trainers and regional user trainers are categorized as activities for the output 2 or 3 because both types of regional trainers are staff of the target hospitals.

Project Monitoring Sheet II (Revision of Plan of Operation)

Version 1 as of 19th December, 2016  
Dated 27th December, 2016

Project Title: MOH/JICA Health System Strengthening Project

Inputs	2016		2017				Remarks	Monitoring	
	Plan	Actual	I	II	III	IV		Issue	Solution
<b>Expert</b>									
Chief Advisor/QI Management System	Plan	Actual							
Assist Chief Advisor/QI Management System	Plan	Actual							
5S-CQI-TQM ①	Plan	Actual							
5S-CQI-TQM ②	Plan	Actual							
Utilization of Medical Equipment	Plan	Actual							
Maintenance of Medical Equipment	Plan	Actual							
Project Coordinator/Training Management	Plan	Actual							
<b>Equipment</b>									
Project vehicles and equipment/materials necessary for project administration	Plan	Actual							Procured two vehicles.
	Plan	Actual							
	Plan	Actual							
<b>Training in Japan</b>									
	Plan	Actual							
	Plan	Actual							
<b>In-country/Third country Training</b>									
Tanzania KAIZEN TOT	Plan	Actual							Participants could not attend the TOT because of flight cancellation/delay.
	Plan	Actual							
<b>Activities</b>									
	Plan	Actual							
	Plan	Actual							
<b>1. Supporting/supervising system for health infrastructure management of all the RRHs is strengthened in the MOH</b>									
1-1 Establishment of foundation for the project and implementation									
1-1-1 [MOH] Establish TWG for the phase 2 project	Plan	Actual							Conducted the kick-off meeting of the project to establish the project implementation structure and the Project Steering Committee.
1-1-2 [MOH] Select focal persons for 5S, user training (UT), and medical equipment (ME) maintenance	Plan	Actual							Established 3 Implementation Teams. (5S-CQI-TQM, UT and ME maintenance)
1-1-3 [TWG] Develop TORs for members of TWG and action plans for implementing the project	Plan	Actual							Developed Work Plans based on the situation analysis.
1-1-4 [TWG] Conduct baseline survey	Plan	Actual							Conducted situation analysis for all of the targeted hospitals and workshops.
1-1-5 [TWG] Update and/or create manuals, handbooks, guidelines, and monitoring tools for dissemination	Plan	Actual							Since QAD will develop QI tools within year 2016/2017, project documents should follow their schedule.
1-1-6 [TWG] Define criteria for national show case and review a national show case(s)	Plan	Actual							Since definition of national show case should follow QI framework, it is necessary to discuss with QAD in consideration of HFOAP.
1-1-7 [TWG] Review existing supervision system of MOH.	Plan	Actual							Supervision system should be discussed at 1st Project Steering Committee meeting.
1-1-8 [TWG] Integrate components of 5S-CQI-TQM, UT, and ME maintenance to the supervision system	Plan	Actual							Supervision system should be discussed at 1st Project Steering Committee meeting.
<b>1-2 Training and knowledge sharing</b>									
1-2-1 [TWG] Conduct refresher training for national 5S facilitators*	Plan	Actual							Refresher training for 5S facilitators was postponed because of no budget allocation for training per diem.
1-2-2 [TWG] Conduct training of trainers for 5S-CQI-TQM especially customized for CQI	Plan	Actual							
1-2-3 [TWG] Organize opportunities to share good practices and lessons learned such as study tours and QI competition	Plan	Actual							
<b>1-3 Implementation of activities, and monitoring and evaluation, and reflections</b>									
1-3-1 [TWG] Implement an action plan based on PDCA cycle.	Plan	Actual							
1-3-2 [TWG] Conduct supervision which is integrated into the existing system	Plan	Actual							
1-3-3 [TWG] Hold meetings at least bi-monthly with the project team	Plan	Actual							Conducted the kick-off meeting and the project focal persons agreed that the Steering Committee will conduct meetings every three months.
1-3-4 [TWG] Conduct a review meeting on established system in MOH	Plan	Actual							
1-3-5 [TWG] Make use of review of activity 1-3-4 for institutionalization of the system and methodologies, and reflection to the health sector policy/plan	Plan	Actual							
1-3-6 [TWG] Conduct an end-line survey	Plan	Actual							

Since alternative TOT will be organized in March 2017, Project Experts will arrange.

Since QAD will develop QI tools within year 2016/2017, project documents should follow their schedule.

Since definition of national show case should follow QI framework, it is necessary to discuss with QAD in consideration of HFOAP.

Supervision system should be discussed at 1st Project Steering Committee meeting.

Supervision system should be discussed at 1st Project Steering Committee meeting.

Refresher training for 5S facilitators was postponed because of no budget allocation for training per diem.

Conducted the kick-off meeting and the project focal persons agreed that the Steering Committee will conduct meetings every three months.

Conducted the kick-off meeting of the project to establish the project implementation structure and the Project Steering Committee.

Established 3 Implementation Teams. (5S-CQI-TQM, UT and ME maintenance)

Developed Work Plans based on the situation analysis.

Conducted situation analysis for all of the targeted hospitals and workshops.

Since QAD will develop QI tools within year 2016/2017, project documents should follow their schedule.

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Since definition of national show case should follow QI framework, it is necessary to discuss with QAD in consideration of HFOAP.

Supervision system should be discussed at 1st Project Steering Committee meeting.

**Project Monitoring Sheet II (Revision of Plan of Operation)**

Version 1 as of 19th December, 2016  
 Dated 27th December, 2016

Project Title: MOH/JICA Health System Strengthening Project		2016				2017				Remarks	Issue	Monitoring Solution			
Inputs	Expert	Plan	Actual	I	II	III	IV	I	II				III	IV	
<b>2. Implementation mechanism of the phase 1 targeted hospitals aimed at CQI level for resource management and quality improvement is established to function as leading cases based on the outcomes of the phase 1.</b>															
2-1	System development and implementation	○	○	○											
2-1-1	[Phase 1 target hospitals] Revitalize and/or strengthen function of quality improvement team (QIT) and work improvement team (WIT)	○	○	○											
2-1-2	[Phase 1 target hospitals] develop action plans of WITs at each phase 1 target hospital	○	○	○											
2-1-3	[Phase 1 target hospitals] Hold periodic meetings of QIT	○	○	○											
2-1-4	[Phase 1 target hospitals] Implement activities aiming at CQI with proper usage and maintenance of ME in collaboration with UT and ME	○	○	○											
2-2	Training	○	○	○											
2-2-1	[TWG] Conduct leadership and management training for management staff of targeted hospitals	○	○	○											
2-2-2	[TWG] Conduct refresher training for regional SS facilitators of targeted hospitals	○	○	○											
2-2-3	[TWG] Conduct SS CQI training to hospitals with high level practices of SS-CQI-TQM	○	○	○											
2-2-4	[TWG] Conduct refresher training for regional user trainers	○	○	○											
2-2-5	[User trainers] Train staff of their hospitals on how to use ME on the job training basis	○	○	○											
<b>3. Foundation for implementation mechanism of the phase 2 targeted hospitals for resource management and quality improvement is introduced and established.</b>															
3-1	System development and implementation	○	○	○											
3-1-1	[TWG] Support target hospitals to establish and/or strengthen quality improvement team (QIT)	○	○	○											
3-1-2	[TWG] Support target hospitals establish and/or strengthen work improvement team (WIT)	○	○	○											
3-1-3	[TWG] Support target hospitals to hold QIT periodic meetings	○	○	○											
3-1-4	[Phase 2 target hospitals] Implement SS activities with proper usage and maintenance of ME by collaboration with UT and ME maintenance activities	○	○	○											
3-2	Training	○	○	○											
3-2-1	[TWG] Conduct leadership and management training for management staff of target RRHs	○	○	○											
3-2-2	[National SS facilitators] Conduct training of trainers (TOT) on SS-CQI-TQM for regional SS facilitators of phase 2 targeted hospitals	○	○	○											
3-2-3	[Regional SS facilitator] Conduct SS-CQI-TQM training for staff of phase 2 targeted hospitals	○	○	○											
3-2-4	[Regional user trainers trained phase 1 project] Conduct TOT regarding UT for the phase 2 targeted hospitals	○	○	○											
3-2-5	[User trainers] Conduct UT on ME	○	○	○											
3-2-6	[User trainers] Train other staff of RRHs on how to use ME on the job training basis	○	○	○											
<b>4. ME maintenance and management capacity of workshops (WS) are strengthened.</b>															
4-1	[TWG] Conduct leadership and management training for workshop managers including inventory data analysis	○	○	○											
4-2	[TWG] Conduct training for Workshop (WS) staff on ME maintenance	○	○	○											
4-3	[TWG] Conduct training for core staff of the WSs on basics about specialized ME	○	○	○											
4-4	[TWG] Strengthen support system of the CWS for other RWSSs	○	○	○											
4-5	[TWG] Support WSs to develop a management system for accumulating knowledge and skills	○	○	○											
<b>Duration / Phasing</b>															
<b>Monitoring Plan</b>		Plan	Actual	I	II	III	IV	I	II	III	IV	Remarks		Issue	Solution
<b>Monitoring</b>													Project Experts are discussing PDM with JICA HQ.		
Joint Coordinating Committee															
Set-up the Work Plan of Operation															
Submission of Monitoring Sheet															
Monitoring Mission from Japan															
Joint Monitoring															
Post Monitoring															
<b>Reports/Documents</b>															
Progress report															
Project Completion Report															
<b>Public Relations</b>															

TO CR of JICA Uganda Office

## Project Monitoring Report Sheet

**Project Title: Improvement of Health Services through Health Infrastructure Management II****Version of the sheet: 2 (Term: 20th December 2016 – 30th April 2017)****Name: Prof. Anthony K. Mbonye****Title: Project Director****Name: Hiroshi Tasei****Title: Chief Advisor****Submission Date: 1st August 2017**

## I. Summary

## 1 Progress and Achievements of the Project

## 1-1 Progress of Inputs

[The Japanese side]

## 1-1-1. Dispatch of Project Expert Team

Japanese experts were dispatched on schedule. The list of the dispatched Japanese experts is shown in the table below.

Name	2016	2017					Total (days)
	12	1	2	3	4	5	
Hiroshi Tasei Chief Advisor/QI Management System 1	3	93					96
Shizu Takahashi Vice Chief Advisor/QI Management System 2			15				15
Naoki Take 5S-CQI-TQM①					34		34
Yujiro Handa 5S-CQI-TQM②			15	14			29
Yasuhiro Hiruma Utilization of Medical Equipment			53				53
Naoki Mimuro Maintenance of Medical Equipment			52				52
Emi Onosaka Project Coordinator/Training Management		60			15		75

## 1-1-2. KAIZEN Training of Trainers in Tanzania 2017

The Ministry of Health, Community Development, Gender, Elderly and Children of the United Republic of Tanzania with support from the Japan International Cooperation Agency (JICA),

organized a KAIZEN Training of Trainers on 20th–24th March 2017 at the Kilimanjaro Christian Medical Center, Moshi, Kilimanjaro region, Tanzania.

Four (4) participants from Uganda were invited to participate in this training since they had missed the last KAIZEN training in November 2016 because of the flight cancellation.

The purpose of the training was to build participants' capability in terms of skills and knowledge on the KAIZEN Approach for strengthening resource management and improving quality of health care service.

Participants from Uganda were:

- 1) Dr. Obonyo John Hyacinth, Principal Medical Officer, Department of Clinical Services (Clinical Services)
- 2) Mr. Kamugisha Pidson, Nursing Officer, Kabale Regional Referral Hospital (RRH)
- 3) Ms. Nakasala Sarah Akulep Harriet, Principal Orthopedic Officer, Jinja RRH
- 4) Mr. Ndawula Robert Matovu, Senior Orthopedic Officer, Mubende RRH

All participants completed the sessions. Mr. Kamugisha Pidson and Mr. Ndawula Robert submitted their report and the pilot activity plan. The Japanese experts will make follow-ups of these activities since the participants have to report to JICA Uganda Office all details of KAIZEN process and the result of the pilot activity by 30th September 2017.

### **1-1-3. Printing the project polo-shirts**

The Japanese experts designed the project polo-shirts as a means of public relations. They designed three types of polo-shirts following the components of the project activities, which were 5S-CQM-TQM, User Training and Medical Equipment Maintenance. They printed one hundred and eighty (180) pieces in total and these polo-shirts will be delivered in the trainings and meetings.

### **1-1-4. Holding the 1st Joint Coordination Committee (JCC) meeting**

The 1st JCC meeting of the Project on Improvement of Health Services through Health Infrastructure Management II (the Project) was held on 20th December 2016 and was chaired by Director General Health Services (DGHS), Prof. Anthony K. Mbonye, the Project Director.

- JCC members: DGHS and Commissioner Health Services, Clinical Services, Dr. Amandua Jacinto, the Chief Representative of JICA Uganda Office and the Chief Advisor of the Project, attended the meeting.
- One (1) member from Central Workshop (WS), two (2) from Clinical Services, one (1) from Program Office and two (2) from JICA Uganda office attended the meeting.
- The Work Plan of the Project until November 2017 was shared among all members.
- After the implementation of the Project on Improvement of Health Services through Health

Infrastructure Management (phase 1), the condition of medical equipment in health facilities evaluated have improved from analysis of medical equipment inventory data, but there was delayed update of inventory data due to lack of human resource and funding.

- All members discussed funding of the Ministry of Health, Uganda (MOH) for the project activities. The Chairperson confirmed that the funding will be given by MOH from next fiscal year 2017/2018.

### [The Uganda side]

#### 1-1-5. Assignment of Counterparts

National 5S-CQI-TQM Facilitators and phase 1 User Trainers and MOH officers conducted the trainings and supervisions with Japanese experts on schedule.

Members of the project implementation structure, i.e. JCC, Steering Committee and Implementation Team, were assigned in the kick-off meeting of the Project in September 2016. The meeting, however, was held slightly behind schedule due to absence of counterparts.

#### 1-1-6. Personnel cost for counterparts and other running expenses (daily allowance and transportation expense)

MOH never allocated the budget of personnel cost for participants for project activities in this fiscal year 2016/2017. MOH issued a request letter to JICA concerning additional funds for the Project for this fiscal year. MOH committed to provide adequate funds for the fiscal year 2017/2018 up to the end of the Project.

### 1-2 Progress of the Activities

#### 1-2-1. Activities of the Output 1

##### (1) Awarding Fort Portal WS in 17th Medical Equipment Maintenance Workshop Performance Review Meeting

<b>Related to activity 1-2-3</b>	Planned in December 2016, May 2017, September 2017, October 2017 and December 2017
<b>Details</b>	<ul style="list-style-type: none"> <li>● The Workshop Performance Review Meeting was a quarterly meeting to share all the WS's performance among WS Managers and Senior Technicians. The detail of the meeting is shown on 1-2-3 Activities of the Output 4 (1).</li> <li>● The Project team awarded Fort Portal WS with a trophy as the best performer based on the situation analysis which had been done in September 2016.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● Motivated WS members with award of a trophy before all Hospital Directors, Administrators and WS Managers.</li> </ul>

**(2) Refresher Training of National 5S-CQI-TQM Facilitators**

<b>Related to activity 1-2-1</b>	Planned in October 2016
<b>Details</b>	<ul style="list-style-type: none"> <li>● The training was conducted on 14th-15th February 2017 at MOH Boardroom to improve knowledge and skills of 5S-CQI-TQM instruction.</li> <li>● Refresher training was postponed because of no budget allocation for per diem.</li> <li>● The program included concept of 5S and management, and teaching demonstration by participants.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● Ten (10) facilitators, three (3) from MOH, one (1) from District Health Team and six (6) from health facilities, were trained and certified with sufficient knowledge and skills to perform as National 5S-CQI-TQM Facilitators.</li> </ul>

**(3) Development of CQI Guidelines and 5S-CQI-TQM Facilitators Guidebook**

<b>Related to activity 1-1-5</b>	Planned in October-December 2016
<b>Details</b>	<ul style="list-style-type: none"> <li>● The Project was on the way to develop CQI Guidelines and 5S-CQI-TQM Facilitators Guidebook. Concept notes for these activities were developed and shared.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● The concept notes were developed and shared. The development will proceed based on them.</li> </ul>

**1-2-2. Activities of the Output 2 and 3****(1) 5S-CQI-TQM****1) 5S Training for Poor-performed Hospitals**

<b>Related to activity 3-2-2</b>	Planned in February 2017 and October 2017
<b>Details</b>	<ul style="list-style-type: none"> <li>● The situation analysis carried out in October 2016 evaluated five (5) RRHs i.e. Fort Portal, Gulu, Mbarara, Naguru and Soroti as poor performers or beginners of 5S practice.</li> <li>● This training was conducted on 9th-10th March 2017 at Mbale RRH and on 14th-15th March 2017 at Entebbe General Hospital (GH) to impart knowledge of 5S including an exercise of situation analysis of</li> </ul>

	the health facilities.
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● In total twenty-five (25) staff members, five (5) from each of the five (5) poor-performed hospitals, participated in the training.</li> <li>● Apart from the above hospitals, the training consisted of ten (10) participants from the host hospitals of Entebbe and Mbale; and six (6) from three (3) implementing partners of United Nations High Commissioner for Refugees (UNHCR).</li> <li>● The knowledge of basic 5S and necessary things to do such as formulation of Work Improvement Team (WIT) and how to use 5S tools was greatly understood through this training.</li> <li>● According to the result of pre- and post-test, there was no big difference between the two since most of the participants had already understood the basic concept of “quality” before this training. The contexts of the test should be reconsidered to measure the result of the training more effectively.</li> </ul>

## 2) Follow-up Visit to the Poor-performed Hospitals

<b>Related to Activities 3-1-1, 3-1-2 and 3-1-3</b>	Planned in January-December 2017
<b>Details</b>	<ul style="list-style-type: none"> <li>● One (1) Japanese expert and two (2) National 5S-CQI-TQM Facilitators visited four (4) hospitals, Mbarara on 4th April 2017, Fort Portal on 6th April 2017, Gulu on 10th April 2017 and Soroti on 11th April 2017, as follow-up of the 5S training mentioned above. Purpose of visit: - <ul style="list-style-type: none"> <li>➤ To know the aftermath of 5S-CQI-TQM training in March 2017: What they have done and what they were going to do.</li> <li>➤ To observe “showcase areas” i.e. “starters” of 5S.</li> </ul> </li> </ul>
<b>Achievement</b>	The details are shown in attachment II-1.

## 3) Support of Quality Improvement Training at Kabale RRH

<b>Related to activities 2-1-1, 2-1-2 and 2-1-3</b>	Planned in January-December 2017
<b>Details</b>	<ul style="list-style-type: none"> <li>● The Project team supported the Quality Improvement training conducted by Kabale RRH on 8th-10th February 2017. The training</li> </ul>



	covered various Quality Improvement topics, and the Japanese expert provided an interactive seminar on 5S-CQI-TQM.
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● Fifteen (15) staff members participated in the training.</li> <li>● Some staff members in Kabale were identified as candidates of National 5S-CQI-TQM Facilitators.</li> </ul>

## (2) Utilization of Medical Equipment (User Training)

### 1) Management and Refresher Training for phase 1 User Trainer

<b>Related to activity 2-2-4</b>	Planned in November 2016
<b>Details</b>	<ul style="list-style-type: none"> <li>● The training was conducted at Masaka RRH on 20th-24th February 2017. The training program covered; basic and advanced medical equipment, teaching skills and management of User Training. The training was conducted by a MOH official, a Japanese expert and four (4) Senior User Trainers.</li> <li>● The targets of this training were twenty-six (26) items of basic medical equipment and advanced electronic medical equipment shown in the Table 1 (refer to Attachment III).</li> <li>● Contents of this training were: planning, implementation, reporting of User Training activities and handling of activity funds.</li> <li>● The Japanese expert explained the importance of User Training activities with the inventory data on average of equipment status B for the following years: 2008, 2012, 2014 and 2016 from WS in the Fig.1 (refer to Attachment III).</li> <li>● The budget items in the WS were mentioned as well as the budget allocated for the User Training activities.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● Fourteen (14) out of the sixteen (16) trainers trained by phase 1 participated in the training. Two (2) were absent due to home circumstances and work.</li> <li>● The results of test were fifty-four (54) points for pre-test, sixty-three (63) points for post-test on average (100% for full score). The average improved by nearly ten (10) points compared with the pre-test, hence the positive outcome of the training was confirmed.</li> <li>● Created awareness of User Trainers on budget items and allocation of funds for User Training activities.</li> <li>● Created awareness of importance of User trainers' activities as well</li> </ul>

	<p>as WSS' activities using the inventory data for status B equipment in the Fig. 1 (refer to Attachment III).</p> <ul style="list-style-type: none"> <li>● User Trainers understood the importance of collaboration/integrating with WSSs.</li> </ul>
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## 2) Training of Trainer for the Project User Trainer 1

<b>Related to activity 3-2-4</b>	Planned in February 2017
<b>Details</b>	<ul style="list-style-type: none"> <li>● The training of trainers was conducted at Mubende RRH on 6th–10th March 2017. The content of the training was usage of ten (10) basic medical equipment, teaching and management skills of User Training. The training was conducted by a MOH Official, one (1) Japanese expert and four (4) phase 1 User Trainers.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● All fourteen (14) trainer candidates elected from the seven (7) target hospitals participated in the training.</li> <li>● A lecture on 5S-CQI-TQM included interactive lectures for 5S beginners, deepening their understanding of 5S-CQI-TQM and learned how to carry out User Training.</li> <li>● The results of test were twenty-six (26) points for pre-test, fifty-six (56) points for post-test on average (100% for full score). Therefore, the increase in knowledge and understanding from the training was confirmed.</li> </ul>

### 1-2-3. Activities of the Output 4

#### (1) 17th WS Performance Review Meeting

<b>Related to activity 4-5</b>	Planned in January-December 2017
<b>Details</b>	<ul style="list-style-type: none"> <li>● The meeting was held continuously from the period of phase 1 up to date, and the name was changed from “Workshop Managers Meeting” to “Workshops Performance Review Meeting”. This meeting was held on 20th-21st February 2017 at Jinja, which was the first dynamic meeting that invited RRHs’ Directors, Administrators, MOH Officials, major development partners, i.e. Strengthening Uganda’s Systems for Treatment AIDS Nationally (SUSTAIN), Infectious Disease Institute (IDI), American International Health Association (AIHA) and JICA, and all the WS</li> </ul>

	Managers to dialogue the key issues and counter-measures of the WSs.
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● There was no direct relation with output/outcome indicators. However, this meeting was associated with many of the project activities and contributed to strengthening the WS capacities, which was the same objective as Project Design Matrix (PDM) Output 4.</li> <li>● Through the presentation of Health Infrastructure Division, MOH (HID) by Eng. Mulepo, it was confirmed that the MOH medical equipment management strategy coincides with the project activities.</li> <li>● In the summary presentation of the 2nd Quarter Reports by the WS Managers, the presentation skills had greatly improved compared to phase 1 period. It had been an oral presentation only in the phase 1 period, but now all the managers were using PowerPoint slides indicating improvement of computer literacy.</li> <li>● One advantage was that the major development partners gathered sometimes and shared their activities. Some partners had more flexible budget disbursement and activities than JICA project. From further activities, the partners and counterparts will strive for stronger collaboration between partners, such as joint implementation of training, meetings and supervisions.</li> </ul>

**(2) Maintenance Training on Basic Medical Equipment**

<b>Related to activity 4-2</b>	Planned in February 2017
<b>Details</b>	<ul style="list-style-type: none"> <li>● Training was conducted for four (4) days at Hoima RRH on 14th-17th March 2017 and twenty-one (21) technicians from WSs and GHs and three (3) JICA volunteers participated. Three (3) experienced Senior Technicians from WSs, two (2) User Trainers from Hoima RRH and one (1) external Biomedical Engineer participated as facilitators.</li> <li>● The method of this training was lecture and hands-on practice. The target items in this training were: 1) Microscope, 2) Infant Incubator, 3) Infant Warmer, 4) Operating Table and 5) Electrical Safety Analyzer.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● According to the test results, the average score was forty-six (46)</li> </ul>

	<p>points on the pre-test and seventy-seven (77) points on the post-test registering great improvement. Particularly, the score of Infant warmer, Infant Incubator and Microscope was remarkably increased from pre-test to post-test.</p> <ul style="list-style-type: none"> <li>● The level of knowledge such as application, principles, basic operation and preventive maintenance matters was greatly improved through this training.</li> <li>● In the practical session, the participants were divided into small groups to learn about trouble identification, spare parts replacement and basic repairs with hands-on.</li> <li>● From the above, it was confirmed that knowledge and maintenance skills on target equipment were improved.</li> </ul>
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### (3) Support Supervisions

<b>Related to activity 4-4</b>	Planned in February-March 2017 and September-October 2017
<b>Details</b>	<ul style="list-style-type: none"> <li>● MOH counterparts and a Japanese expert carried out the support supervision visits. They were conducted on 23rd March 2017 at Mubende RRH and on 24th March 2017 at Hoima WS/RRH and 2 HCIII (Buseruka &amp; Kabale).</li> <li>● Originally, a two weeks' support supervision was scheduled, but the program had been significantly shortened due to two reasons; 1) MOH counterparts were too busy, 2) The schedule was overlapped with other training program that every WS Manager had to attend. Therefore, 2 WSs which had high necessity of support were visited.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● The specific problems/challenges and counter measure actions for each hospital were clarified as shown in Attachment II-2.</li> </ul>

### (4) Analysis of Medical Equipment Inventory

<b>Related to activity 4-5</b>	Planned in January–December 2017
<b>Details</b>	<ul style="list-style-type: none"> <li>● The medical equipment inventories from all RRHs were analyzed in February to April 2017. The results of inventory data based on equipment status A-F was shown in Table 2 (refer to Attachment III). [Definition of Equipment Status A, B, C, D, E and F]</li> </ul> <p>A: Good and in use                      D: In use but needs replacement</p>

	<p>B: Good but not in use                      E: Out of order but repairable  C: In use but needs repair                  F: Out of order and should be replaced</p>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● According to the analysis of inventory data, large gaps of equipment status A-F among the RRHs were identified especially the status A, C and F. The situation of each RRH was different, but the data was very useful for planning and monitoring purposes.</li> <li>● According to the analysis of Fig. 1 (refer to Attachment III), the average percentage of status A (Good and in use) had increased gradually across the years. Considerable positive factors were as follows: - <ul style="list-style-type: none"> <li>• Improving the capacity of WS staff.</li> <li>• Increasing medical equipment maintenance budget.</li> <li>• Increasing and improving the capacity of medical equipment User Trainers.</li> <li>• Disseminating 5S-CQI activities at RRHs and WSs.</li> <li>• Comprehensive support by JICA (Hospital construction and supply of medical equipment, JICA volunteers, and technical cooperation).</li> <li>• Support by other partners: SUSTAIN, IDI and AIHA.</li> <li>• High managerial skills of counterparts, HID.</li> </ul> </li> <li>● The percentage of status B-F except C had generally decreased year by year. However, status C (In use but needs repair) which was a key issue of maintenance works, was still high at 17.9% in 2016. Considerable negative factors were as follows: <ul style="list-style-type: none"> <li>• Not enough managerial and technical skills of WS managers and core staff.</li> <li>• Not enough medical equipment maintenance budget.</li> <li>• Difficulty of spare parts procurement (government rule of procurement system, supply procedure, budget, distributor, part identification skills etc.)</li> <li>• Still big gaps of knowledge and technical skills among WS technicians.</li> </ul> </li> <li>● Inadequate awareness about duties, productivity, positive mind, and time management.</li> </ul>

### 1-3. Achievement of Output

#### 1-3-1 Output 1

- The Japanese experts were considering the indicators, baseline figures and means of verification for Output 1 with the PDM modification.

Current Indicators	Achievement
1-1 PDCA cycle of supporting and supervising RRHs is completed once a year or more.	PDCA cycle of supporting and supervising RRHs was not conducted.
1-2 The number of supervision conducted by steering committee becomes more than XX times.	Steering committee didn't conduct any supervision.
1-3 Number of training organized by Technical Working Group (TWG) becomes more than XX times.	Refresher Training of National 5S-CQI-TQM Facilitators was conducted.
1-4 Number of certified national CQI facilitators from MOH becomes more than XX.	Ten (10) facilitators, three (3) from MOH, one (1) from District Health Team and six (6) from health facilities, were trained.

(Other achievement)

- Motivated WS members with award of a trophy before all Hospital Directors, Administrators and WS Managers.
- The concept notes for CQI Guidelines and 5S-CQI-TQM Facilitators Guidebook were developed and shared. The development of Guidelines and Guidebook will proceed based on them.

### 1-3-2 Output 2 and Output 3

- The Japanese experts were considering the indicators, baseline figures and means of verification for Output 2 and Output 3 with the PDM modification.
- Output 2

Current Indicators	Achievement
2-1 Number of the phase 1 target hospitals	The Project team didn't identify the CQI

which started CQI activities becomes more than XX.	activities in target hospitals.
2-2 Number of the phase 1 target hospitals which completed CQI process at least with one unit becomes more than XX.	The Project team didn't identify the CQI process at any units in target hospitals.
2-3 Number of UT conducted by regional trainers is more than XX times.	User Training activities were conducted but not regularly.
2-4 Number of functioning WITs in target hospitals reaches the level of 10 under the 5S-CQI-TQM implementation becomes more than XX.	The Project team didn't identify the functioning WIT that reached the level ten (10).

● Output 3

Current Indicators	Achievement
3-1 All the phase 2 target hospitals implement Quality Improvement Team (QIT) activities including 5S-CQI-TQM.	The Project team didn't identify the CQI activities in target hospitals.
3-2 Average of comprehension rate of trainees after User Training becomes higher than XX%.	The results of test for the Project User Trainers were twenty-six (26) points for pre-test, fifty-six (56) points for post-test on average (100% for full score).
3-3 More than 1 regional 5S facilitators at each phase 2 target hospitals are trained.	In total twenty-five (25) staff members, five (5) staff members from each of the five (5) hospitals; Fort Portal, Gulu, Mbarara, Naguru and Soroti, participated were trained.
3-4 More than 2 regional user trainers at each phase 2 target hospital are trained.	Fourteen (14) trainees from the Project target hospitals were trained.

(Other achievement)

- Sufficient knowledge and skills were acquired to perform as User Trainers and National 5S-CQI-TQM Facilitators who will conduct Support Supervisions to health facilities through refresher training.
- After the KAIZEN Training of Trainers in Tanzania 2017, one of the participants conducted Quality Improvement training in Kabale RRH.

### 1-3-3 Output 4

- According to the medical equipment inventory data, Japanese experts were considering setting the baseline figures as below.
- Since the current percentages of status E were small, large percentages of decrement could not be expected. It was recommended to review whether they were suitable as indicators of Output 4-2.

Current Indicators	Achievement
4-1 Trained staff of all the workshops improve their knowledge by XX % after ME maintenance training.	Increased 31% 46% → 77%
4-2 Percentages of ME in status E lowered by XX%.	4.2% (average) Use for baseline

(Other achievement)

- The specific problems, challenges and counter-measure actions for Mubende WS and Hoima WS were clarified through the support supervision visits.

### 1-4 Achievement of the Project Purpose

- The Japanese experts were considering the indicators, baseline figures and Means of Verification for Project purpose with the PDM modification.

Current Indicators	Achievement
Score sheet of 5S-CQI-TQM on target hospitals become more than XX%.	5S-CQI-TQM Assessment was not conducted.
The number of CQI practices becomes more than XX (number).	The Project team didn't identify the CQI activities in target hospitals.
Supervisions on 5S, UT and ME which is integrated into the system of MOH in a	5S supervision to show case unit of four (4) hospitals by two (2) National 5S-



consolidated way was implemented more than XX times.	CQI-TQM Facilitators was conducted. The objective of support supervision will be to strengthen the QIT in each facility. CQI activities such as User Training and Medical Equipment Maintenance will be included during supervision of the target hospitals.
Percentages of status A of ME becomes higher than XX%.	65.1% (average)

- Setting baseline data of medical equipment inventory as quantitative indicators through analysis of medical equipment Inventory.

### 1-5 Changes of Risks and Actions for Mitigation

#### (1) Necessary funds for project activities

Two (2) activities i.e. User Trainer Refresher training and Refresher training for National 5S-CQI-TQM Facilitators were postponed due to lack of allowances for trainees. MOH had issued a request letter to JICA concerning additional funds for the Project for the fiscal year 2016/2017 and JICA approved provision of necessary funds for the activities.

#### (2) Difficulty of Implementation Team on Medical Equipment Maintenance

The Implementation Team on Medical Equipment Maintenance consisted of a total of four (4) people, including two (2) engineers of HID, one (1) Central WS Manager and one (1) Japanese expert. However, it was difficult to hold regular meetings and smooth communication in this period because of excessive workload of Medical Equipment Maintenance counterparts such as budget planning, several other meetings, coordination of partners' project, tender evaluation etc. In addition, the Central WS Manager retired and the new Manager had not been appointed since January 2017. It will be necessary to review the Medical Equipment Maintenance Implementation Team structure.

### 1-6 Progress of Actions undertaken by JICA

#### (1) Necessary funds for project activities

JICA approved additional funds for the project activities until the end of fiscal year 2016/2017.

### 1-7 Progress of Actions undertaken by Government of Uganda

#### (1) Necessary funds for project activities

MOH issued a letter concerning the request of additional funds for the project activities for the

fiscal year 2016/2017 to JICA since its budget had already been allocated and could not accommodate the necessary funds (staff allowance, etc.) for the activities. MOH committed to provide adequate funds for the fiscal year 2017/2018 up to the end of the Project.

**1-8 Progress of Environmental and Social Considerations (if applicable)**

**1-9 Progress of Considerations on Gender/Peace Building/Poverty Reduction (if applicable)**

**1-10 Other remarkable/considerable issues related/affect to the Project (such as other JICA's projects, activities of counterparts, other donors, private sectors, NGOs etc.)**

- (1) The preparatory survey for the grant aid project by the Japanese government for improvement of northern Uganda hospitals (Arua, Gulu and Lira RRH) started in November 2016. The target facilities of the grant aid project were part of the Project sites. The project component will be construction of hospital facility and procurement of medical equipment. It is expected to have a positive influence for health service delivery in the hospitals and motivation of hospital staff to improve the workplace environment. The second survey of the project was conducted in March 2017.
- (2) SUSTAIN, supported by USAID, supports MOH to strengthen comprehensive HIV/AIDS care, prevention, laboratory and tuberculosis services at selected RRHs and one (1) Health Center. SUSTAIN's Quality Improvement work were being done in collaboration with Quality Assurance Department (QAD) of MOH and Applying Science to Strengthen and Improvement System (ASSIST). The National 5S-CQI-TQM Facilitators who were trained through phase 1 were being utilized as Quality Improvement trainers of the SUSTAIN and ASSIST projects. SUSTAIN supports CQI activities in 14 Hospitals including RRHs.
- (3) ASSIST, supported by USAID, was providing direct support for improving HIV and family health services to sites in northern Uganda. It was also supporting the institutionalization of Quality Improvement into the health sector through providing direct technical support to the QAD in overseeing and coordinating Quality Improvement activities. It was expected to co-work in support supervision in target facilities of the Project.
- (4) The Institutional Capacity Building Project in Planning Leadership and Management in the Uganda Health Sector Phase2 (ICB2 project) supported by Belgian Technical Cooperation was to strengthen the planning, leadership and management capacities of public health staff, specifically at the decentralized local government level. The target of the ICB2 project was West Nile and Rwenzori including RRH. The ICB2 project was also supporting the rolling out of User Training activities in West Nile and Rwenzori.

## **2 Delay of Work Schedule and/or Problems (if any)**

### **2-1 Details, causes:**

- (1) Finalizing of modification for PDM v.0 was not completed due to delay of confirmation of modified items between MOH, JICA and the Japanese experts.
- (2) Steering Committee meetings were not conducted regularly due to difficulty of arrangement of three Implementing teams.
- (3) Updating of manuals, handbooks and monitoring tools was not completed. QAD planned to update materials in 3rd quarter of 2016/2017 or later so that updating of project material will be followed.

### **2-2 Action to be taken, roles of responsible persons/organization**

- (1) Contents of modification for PDM v.0 were mutually agreed upon between MOH and Japanese experts, and the 2nd JCC meeting will be held to approve the PDM v.1 early June 2017.
- (2) Steering Committee meeting will be held early June 2017 while all Japanese experts will be implementing project activities.
- (3) Updating of Quality Improvement materials will start from the 3<sup>rd</sup> quarter of 2016/2017 or later.

## **3 Modification of the Project Implementation Plan**

### **3-1 Revision of the Project Design Matrix (PDM) and Plan of operation (PO)**

The Project team will discuss the modification of PDM v.0 according to the results of situation analysis. The proposal of the modification items in PDM v.0 will be discussed in the 2nd JCC meeting early in June 2017.

## **II. Project Monitoring Sheet I & II**     *as Attached*

Attachment:

- I. Project Monitoring Sheet I & II
- II. Results for the Follow-up Visit to the Poor-performed Hospitals (Mbarara RRH, Fort Portal RRH, Gulu RRH and Soroti RRH) and the specific problems/challenges and countermeasure actions in Mubende WS and Hoima WS
- III. Tables and Figures

END

## Project Monitoring Sheet I (Revision of Project Design Matrix)

Project Title: Project on Improvement of Health Service through Health Infrastructure Management (II)

Implementing agency: Department of Quality Assurance, Ministry of Health (MOH) (5S-CQI-TQM)

Integrated Curative Services Division, Department of Clinical Services, MOH (Utilization of Medical Equipment)

Health Infrastructure Division, Department of Clinical Services, MOH (Maintenance of Medical Equipment)

Target Group: (1) Phase 1 targeted hospitals: Mbale Regional Referral hospital (RRH), Masaka RRH, Entebbe General Hospital (GH), Hoima RRH, Kabale RRH, Arua RRH, Lira RRH, Moroto RRH, Mukuju HC IV, Tororo GH

(2) Phase 2 targeted hospitals: Soroti RRH, Jinja RRH, Gulu RRH, Fort Portal RRH, Mbarara RRH, Mubende RRH, Naguru Referral Hospital


Period of Project: July 2016- July 2020

Project Site: Republic of Uganda

Version 2 (20th December 2016 – 30th April 2017)

Dated 1st August 2017

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
<p>Overall Goal</p> <p>Quality of health care services at all the RRHs in Uganda is improved.</p>	<ul style="list-style-type: none"> <li>Clients' satisfaction level is improved to the target level. (XX)</li> <li>Clients' waiting time of patients for consultation, testing, clinical examination, and prescription of drugs are reduced XX%</li> <li>Maintenance cost regarding medical equipment is decreased in XX%.</li> </ul>	<ul style="list-style-type: none"> <li>Health Management Information System (HMIS)</li> <li>Annual Health Sector Performance Report (AHSPR)</li> <li>Periodical monitoring reports by QITs at target hospitals</li> <li>Supervision reports made by the steering committee for the project</li> <li>Baseline and end-line data</li> <li>Quarterly regional workshop maintenance report</li> </ul>			
<p>Project Purpose</p> <p>Health infrastructure management at all the RRHs in Uganda is strengthened with the initiatives of MOH.</p>	<ul style="list-style-type: none"> <li>Score sheet of 5S-CQI-TQM on targeted hospitals become more than XX%.</li> <li>The number of CQI practices becomes more than XX (number).</li> <li>Supervisions on 5S, UT, and ME which is integrated into the system of MOH in a consolidated way are implemented more than XX times.</li> <li>Percentages of status A of ME becomes higher than XX%</li> </ul>	<ul style="list-style-type: none"> <li>Minutes of steering committee meetings</li> <li>Reports of steering committee</li> <li>Reports from 5S trainers</li> <li>Score sheets of 5S-CQI-TQM at targeted hospitals.</li> </ul>	<ul style="list-style-type: none"> <li>Government budget for the RRHs will not be decreased significantly.</li> <li>Government budget for the workshops will not be decreased significantly.</li> <li>Political situation in Uganda remains stable.</li> </ul>	<ul style="list-style-type: none"> <li>5S-CQI-TQM Assessment was not conducted.</li> <li>The Project team didn't identify the CQI activities in target hospitals.</li> <li>5S supervision to show case unit of four (4) hospitals by two (2) National 5S-CQI-TQM Facilitators was conducted. The objective of support supervision will be to strengthen the QIT in each facility. CQI activities such as User Training and Medical Equipment Maintenance will be included during supervision of the target hospitals.</li> <li>Percentages of status A of ME becomes 65.1% (average).</li> </ul>	
<p>Output</p> <p>1. Supporting/supervising system for health infrastructure management of all the RRHs is strengthened in the MOH</p>	<ul style="list-style-type: none"> <li>1-1 PDCA cycle of supporting and supervising RRHs is completed once a year or more.</li> <li>1-2 The number of supervision conducted by steering committee becomes more than XX times.</li> <li>1-3 Number of training organized by Technical Working Group (TWG) becomes more than XX times.</li> <li>1-4 Number of certified national CQI facilitators from MOH become more than XX.</li> </ul>	<ul style="list-style-type: none"> <li>Plans and periodic reports made by steering committee</li> <li>Activity records made by steering committee of MOH</li> <li>Records and results of supervision conducted by steering committee</li> <li>Test results and certification issued for CQI trainers at MOH</li> </ul>	<ul style="list-style-type: none"> <li>Personnel of counterparts do not leave the job and are not transferred considerably.</li> <li>Policy related to health infrastructure management will not be changed as a result of the presidential election.</li> </ul>	<ul style="list-style-type: none"> <li>PDCA cycle of supporting and supervising RRHs was not conducted.</li> <li>Steering committee didn't conduct any supervision.</li> <li>Refresher Training of National 5S-CQI-TQM Facilitators was conducted.</li> <li>Ten (10) facilitators, three (3) from MOH, one (1) from District Health Team and six (6) from health facilities, were trained.</li> </ul>	
<p>2. Implementation mechanism of the phase 1 targeted hospitals aimed at CQI level for resource management and quality improvement is established to function as leading cases based on the outcomes of the phase 1.</p>	<ul style="list-style-type: none"> <li>2-1 Number of the phase 1 targeted hospitals which started CQI activities becomes more than XX.</li> <li>2-2 Number of the phase 1 targeted hospitals which completed CQI process at least with one unit becomes more than XX.</li> <li>2-3 Number of UT conducted by regional trainers is more than XX times.</li> <li>2-4 Number of functioning WITs in target hospitals reaches the level of 10 under the 5S-CQI-TQM implementation becomes more than XX.</li> </ul>	<ul style="list-style-type: none"> <li>Activity records of QITs</li> <li>Activity records of WITs</li> <li>Training records on UT conducted by user trainers</li> <li>Score sheets of 5S-CQI-TQM</li> <li>Project report about CQI activities</li> <li>Supervision reports made by TWG</li> </ul>		<ul style="list-style-type: none"> <li>The Project team didn't identify the CQI activities in target hospitals.</li> <li>The Project team didn't identify the CQI process at any units in target hospitals.</li> <li>User Training activities were conducted but not regularly.</li> <li>The functioning WIT that reached the level ten (10) were not identified.</li> </ul>	
<p>3. Foundation for implementation mechanism of the phase 2 targeted hospitals for resource management and quality improvement is introduced and established.</p>	<ul style="list-style-type: none"> <li>3-1 All the phase 2 targeted hospitals implement QIT activities including 5S-CQI-TQM.</li> <li>3-2 Average of comprehension rate of trainees after user training becomes higher than XX%.</li> <li>3-3 More than 1 regional 5S facilitators at each phase 2 targeted hospitals are trained.</li> <li>3-4 More than 2 regional user trainers at each phase 2 targeted hospitals are trained.</li> </ul>	<ul style="list-style-type: none"> <li>Number of QITs and their activity records</li> <li>Monitoring and meeting minutes of QITs related to 5S-CQI-TQM</li> <li>Supervision report made by TWG</li> <li>Results of pre and post tests for trainees of UT Training records on TOT for 5S-CQI-TQM</li> <li>Training records on TOT for UT</li> </ul>		<ul style="list-style-type: none"> <li>The Project team didn't identify the CQI activities in target hospitals.</li> <li>The results of test for the Project User Trainers were twenty-six (26) points for pre-test, fifty-six (56) points for post-test on average (100% for full score).</li> <li>In total twenty-five (25) staff members, five (5) staff members from each of the five (5) hospitals; Fort Portal, Gulu, Mbarara, Naguru and Soroti, participated were trained.</li> <li>Fourteen (14) trainees from the Project target hospitals were trained.</li> </ul>	
<p>4. ME maintenance and management capacity of workshops (WS) are strengthened.</p>	<ul style="list-style-type: none"> <li>4-1 Trained staff of all the workshops improve their knowledge by XX% after ME maintenance training.</li> <li>4-2 Percentages of ME in status E lowered by XX%.</li> </ul>	<ul style="list-style-type: none"> <li>Training records related to ME maintenance</li> <li>Results of pre and post tests for trainees of ME maintenance</li> <li>Inventory lists of each workshop</li> </ul>		<ul style="list-style-type: none"> <li>Trained staff of all the workshops improve their knowledge by 31% after Medical Equipment Maintenance training.</li> <li>Percentages of medical equipment in status E is 4.2%.</li> </ul>	

Activities	Inputs		Important Assumption
	The Japanese Side	The Uganda Side	
<p><b>1-1 Establishment of foundation for the project and implementation</b></p> <p>1-1-1 [MOH] Establish TWG for the phase 2 project</p> <p>1-1-2 [MOH] Select focal persons for 5S, user training (UT), and medical equipment (ME) maintenance</p> <p>1-1-3 [TWG] Develop TORs for members of TWG and action plans for implementing the project</p> <p>1-1-4 [TWG] Conduct baseline survey</p> <p>1-1-5 [TWG] Update and/or create manuals, handbooks, guidelines, and monitoring tools for dissemination</p> <p>1-1-6 [TWG] Define criteria for national show case and review a national show case(s)</p> <p>1-1-7 [TWG] Review existing supervision system of MOH.</p> <p>1-1-8 [TWG] Integrate components of 5S-CQI-TQM, UT, and ME maintenance to the supervision system</p> <p><b>1-2 Training and knowledge sharing</b></p> <p>1-2-1 [TWG] Conduct refresher training for national 5S facilitators*</p> <p>1-2-2 [TWG] Conduct training of trainers for 5S-CQI-TQM especially customized for CQI</p> <p>1-2-3 [TWG] Organize opportunities to share good practices and lessons learned such as study tours and QI competition</p> <p><b>1-3 Implementation of activities, and monitoring and evaluation, and reflections</b></p> <p>1-3-1 [TWG] Implement an action plan based on PDCA cycle.</p> <p>1-3-2 [TWG] Conduct supervision which is integrated into the existing system</p> <p>1-3-3 [TWG] Hold meetings at least bi-monthly with the project team</p> <p>1-3-4 [TWG] Conduct a review meeting on established system in MOH</p> <p>1-3-5 [TWG] Make use of review of activity 1-3-4 for institutionalization of the system and methodologies, and reflection to the health sector policy/plan</p> <p>1-3-6 [TWG] Conduct an end-line survey</p>	<p>1. Dispatch of Experts</p> <p>1) Chief advisor / QI Management System</p> <p>2) 5S-CQI-TQM</p> <p>3) Utilization of Medical Equipment</p> <p>4) Maintenance of Medical Equipment</p> <p>5) Project Coordinator/ Training Management</p> <p>2. Machinery and equipment</p> <p>1) Necessary supplies for 5S-CQI-TQM to target hospitals and MOH headquarters</p> <p>2) Testing and calibration tools and equipment etc.</p> <p>3. Allocation of operational costs for project activities</p> <p>4. Training in Japan and/or third countries</p>	<p>1. Assignment of Counterparts</p> <p>2. Facilities</p> <p>1) Office space for Japanese experts</p> <p>3. Administrative cost and other expense such as training and supervision</p> <p>4. Personnel cost for counterparts and other running expenses (daily allowance and transportation expense)</p>	
<p><b>2-1 System development and implementation</b></p> <p>2-1-1 [Phase 1 target hospitals] Revitalize and/or strengthen function of quality improvement team (QIT) and work improvement team (WIT)</p> <p>2-1-2 [Phase 1 target hospitals] develop action plans of WITs at each phase 1 target hospital</p> <p>2-1-3 [Phase 1 target hospitals] Hold periodic meetings of QIT</p> <p>2-1-4 [Phase 1 target hospitals] Implement activities aiming at CQI with proper usage and maintenance of ME in collaboration with UT and ME maintenance activities</p> <p><b>2-2 Training</b></p> <p>2-2-1 [TWG] Conduct leadership and management training for management staff of targeted hospitals</p> <p>2-2-2 [TWG] Conduct refresher training for regional 5S facilitators of targeted hospitals</p> <p>2-2-3 [TWG] Conduct 5S CQI training to hospitals with high level practices of 5S-CQI-TQM</p> <p>2-2-4 [TWG] Conduct refresher training for regional user trainers</p> <p>2-2-5 [User trainers] Train staff of their hospitals on how to use ME on the job training basis</p> <p><b>3-1 System development and implementation</b></p> <p>3-1-1 [TWG] Support target hospitals to establish and/or strengthen quality improvement team (QIT)</p> <p>3-1-2 [TWG] Support target hospitals establish and/or strengthen work improvement team (WIT)</p> <p>3-1-3 [TWG] Support target hospitals to hold QIT periodic meetings</p> <p>3-1-4 [Phase 2 target hospitals] Implement 5S activities with proper usage and maintenance of ME by collaboration with UT and ME maintenance activities</p> <p><b>3-2 Training</b></p> <p>3-2-1 [TWG] Conduct leadership and management training for management staff of target RRHs</p> <p>3-2-2 [National 5S facilitators] Conduct training of trainers (TOT) on 5S-CQI-TQM for regional 5S facilitators of phase 2 targeted hospitals</p> <p>3-2-3 [Regional 5S facilitator] Conduct 5S-CQI-TQM training for staff of phase 2 targeted hospitals</p> <p>3-2-4 [Regional user trainers trained phase 1 project] Conduct TOT regarding UT for the phase 2 targeted hospitals</p> <p>3-2-5 [User trainers] Conduct UT on ME</p> <p>3-2-6 [User trainers] Train other staff of RRHs on how to use ME on the job training basis</p> <p>4-1 [TWG] Conduct leadership and management training for workshop managers including inventory data analysis</p> <p>4-2 [TWG] Conduct training for Workshop (WSs) staff on ME maintenance</p> <p>4-3 [TWG] Conduct training for core staff of the WSs on basics about specialized ME</p> <p>4-4 [TWG] Strengthen support system of the CWS for other RWSs</p> <p>4-5 [TWG] Support WSs to develop a management system for accumulating knowledge and skills</p>			<p>Pre-Conditions</p> <div style="text-align: center;">  </div> <p style="background-color: yellow; text-align: center;"><b>&lt;Issues and countermeasures&gt;</b></p> <ul style="list-style-type: none"> <li>•Modification of PDM v.0, related indicators and means of verification →PDM v.1 shall be approved in the 2nd JCC.</li> <li>•Necessary funds for project activities →JICA approved necessary funds for the fiscal year 2016/2017. MOH committed to provide funds for the fiscal year 2017/2018 up to the end of the project. →Two activities i.e. Use Trainer Refresher training and Refresher training for National 5S-CQI-TQM Facilitators that had been postponed last year were conducted.</li> <li>•Conducting Steering Committee meeting →Chair person of Steering Committee will organize the Steering Committee meeting after the 2nd JCC.</li> <li>•Lack of participation of counterpart to the project activities →To organize regular meeting with Project Implementation Team.</li> <li>•Updating of QI materials by QAD was not completed on schedule →Updating of the materials will start from 3rd quarter of fiscal year 2016/2017 or later so that updating of project material will be followed the schedule.</li> </ul>

\*Training on 5S for 5S national facilitators and training on CQI for CQI national facilitators are categorized as activities for the output 1 because the majorities of the national 5S facilitators are MOH staff. Other training for regional 5S trainers and regional user trainers are categorized as activities for the output 2 or 3 because both types of regional trainers are staff of the target hospitals.

**Project Monitoring Sheet II (Revision of Plan of Operation)**

Version 2 (20th December 2016 – 30th April 2017)  
Dated 1st August 2017

**Project Title: MOH/JICA Health System Strengthening Project**

Inputs	2016				2017				Monitoring	Solution	
	Plan	Actual	I	II	III	IV	I	II			III
<b>Expert</b>											
Chief Advisor/QI Management System	Plan	Actual									
Assist Chief Advisor/QI Management System	Plan	Actual									
5S-CQI-TQM ①	Plan	Actual									
5S-CQI-TQM ②	Plan	Actual									
Utilization of Medical Equipment	Plan	Actual									
Maintenance of Medical Equipment	Plan	Actual									
Project Coordinator/Training Management	Plan	Actual									
<b>Equipment</b>											
Project vehicles and equipment/materials necessary for project administration	Plan	Actual									
<b>Training in Japan</b>											
<b>In-country/Third country Training</b>											
Tanzania KAIZEN TOT	Plan	Actual									
<b>Activities</b>											
<b>Sub-Activities</b>											
<b>1. Supporting/supervising system for health infrastructure management of all the RRHs is strengthened in the MOH</b>											
1-1 Establishment of foundation for the project and implementation											
1-1-1 [MOH] Establish TWG for the phase 2 project	Plan	Actual									
1-1-2 [MOH] Select focal persons for 5S, user training (UT), and medical equipment (ME) maintenance	Plan	Actual									
1-1-3 [TWG] Develop TORs for members of TWG and action plans for implementing the project	Plan	Actual									
1-1-4 [TWG] Conduct baseline survey	Plan	Actual									
1-1-5 [TWG] Update and/or create manuals, handbooks, guidelines, and monitoring tools for dissemination	Plan	Actual									
1-1-6 [TWG] Define criteria for national show case and review a national show case(s)	Plan	Actual									
1-1-7 [TWG] Review existing supervision system of MOH.	Plan	Actual									
1-1-8 [TWG] Integrate components of 5S-CQI-TQM, UT, and ME maintenance to the supervision system	Plan	Actual									
<b>1-2 Training and knowledge sharing</b>											
1-2-1 [TWG] Conduct refresher training for national 5S facilitators*	Plan	Actual									
1-2-2 [TWG] Conduct training of trainers for 5S-CQI-TQM especially customized for CQI	Plan	Actual									
1-2-3 [TWG] Organize opportunities to share good practices and lessons learned such as study tours and QI competition	Plan	Actual									
<b>1-3 Implementation of activities, and monitoring and evaluation, and reflections</b>											
1-3-1 [TWG] Implement an action plan based on PDCA cycle.	Plan	Actual									
1-3-2 [TWG] Conduct supervision which is integrated into the existing system	Plan	Actual									
1-3-3 [TWG] Hold meetings at least bi-monthly with the project team	Plan	Actual									
1-3-4 [TWG] Conduct a review meeting on established system in MOH	Plan	Actual									
1-3-5 [TWG] Make use of review of activity 1-3-4 for institutionalization of the system and methodologies, and reflection to the health sector policy/plan	Plan	Actual									
1-3-6 [TWG] Conduct an end-line survey	Plan	Actual									
<b>Issue</b>											
<b>Achievements</b>											
<b>Issue &amp; Countermeasures</b>											

Conducted the kick-off meeting of the project to establish the project implementation structure and the Project Steering Committee

Established three (3) Implementation Teams. (5S-CQI-TQM, UT and ME maintenance)

Developed Work Plans based on the situation analysis

Conducted situation analysis for all of the targeted hospitals and workshops

Developed concept note of CQI Guidelines and 5S-CQI-TQM Facilitators Guidebook

Since definition of national show case should follow QI framework, it is necessary to discuss with QAD in consideration of HFQAP

Supervision system will be discussed QAD in consideration of HFQAP

Conducted Refresher Training of 5S National Facilitators

Awarded a trophy to Fort Portal WS in 17th Medical Equipment Maintenance WS Performance Review Meeting

Conducted Refresher Training of 5S National Facilitators

CQI training is planned in May 2017

Steering Committee meeting was not conducted regularly due to difficulty of arrangement

Project Monitoring Sheet II (Revision of Plan of Operation)

Version 2 (20th December 2016 – 30th April 2017)  
Dated 1st August 2017

Project Title: MOH/JICA Health System Strengthening Project

Activities	Sub-Activities	2016				2017				Achievements	Issue & Countermeasures				
		Plan	Actual	I	II	III	IV	I	II			III	IV		
<b>2. Implementation mechanism of the phase 1 targeted hospitals aimed at CQI level for resource management and quality improvement is established to function as leading cases based on the outcomes of the phase 1.</b>															
2-1 System development and implementation															
2-1-1	[Phase 1 target hospitals] Revitalize and/or strengthen function of quality improvement team (QIT) and work improvement team (WIT)	○	○	○	○									Supported Quality Improvement Training in Kabale RRH for strengthening QIT/WIT activities	
2-1-2	[Phase 1 target hospitals] develop action plans of WITs at each phase 1 target hospital	○	○	○	○										
2-1-3	[Phase 1 target hospitals] Hold periodic meetings of QIT	○	○	○	○										
2-1-4	[Phase 1 target hospitals] Implement activities aiming at CQI with proper usage and maintenance of ME in collaboration with UT and ME maintenance activities	○	○	○	○										
2-2 Training															
2-2-1	[TWG] Conduct leadership and management training for management staff of targeted hospitals	○	○	○	○									Conducted the Leadership Improvement Seminar	
2-2-2	[TWG] Conduct refresher training for regional 5S facilitators of targeted hospitals	○	○	○	○										
2-2-3	[TWG] Conduct 5S CQI training to hospitals with high level practices of 5S-CQI-TQM	○	○	○	○										
2-2-4	[TWG] Conduct refresher training for regional user trainers	○	○	○	○									Conducted Refresher and Management Training for P1 User Trainer	
2-2-5	[User trainers] Train staff of their hospitals on how to use ME on the job training basis	○	○	○	○										
<b>3. Foundation for implementation mechanism of the phase 2 targeted hospitals for resource management and quality improvement is introduced and established.</b>															
3-1 System development and implementation															
3-1-1	[TWG] Support target hospitals to establish and/or strengthen quality improvement team (QIT)	○	○	○	○										
3-1-2	[TWG] Support target hospitals establish and/or strengthen work improvement team (WIT)	○	○	○	○									Conducted following up visit to the Poor-performed Hospitals	
3-1-3	[TWG] Support target hospitals to hold QIT periodic meetings	○	○	○	○										
3-1-4	[Phase 2 target hospitals] Implement 5S activities with proper usage and maintenance of ME by collaboration with UT and ME maintenance activities	○	○	○	○										
3-2 Training															
3-2-1	[TWG] Conduct leadership and management training for management staff of target RRHs	○	○	○	○									Conducted the Leadership Improvement Seminar	
3-2-2	[National 5S facilitators] Conduct training of trainers (TOT) on 5S-CQI-TQM for regional 5S facilitators of phase 2 targeted hospitals	○	○	○	○									Conducted 5S training for poor-performed hospital	
3-2-3	[Regional 5S facilitator] Conduct 5S-CQI-TQM training for staff of phase 2 targeted hospitals	○	○	○	○									Conducted TOT for Project User Trainers	
3-2-4	[Regional user trainers trained phase 1 project] Conduct TOT regarding UT for the phase 2 targeted hospitals	○	○	○	○										
3-2-5	[User trainers] Conduct UT on ME	○	○	○	○										
3-2-6	[User trainers] Train other staff of RRHs on how to use ME on the job training basis	○	○	○	○										
<b>4. ME maintenance and management capacity of workshops (WS) are strengthened.</b>															
4-1	[TWG] Conduct leadership and management training for workshop managers including inventory data analysis	○	○	○	○									Conducted the 1st Leadership and Management Training for Workshop Managers and Senior Technicians of Regional Medical Equipment Maintenance Workshops	
4-2	[TWG] Conduct training for Workshop (WSs) staff on ME maintenance	○	○	○	○									Conducted Maintenance Training on Basic Medical Equipment	
4-3	[TWG] Conduct training for core staff of the WSs on basics about specialized ME	○	○	○	○										
4-4	[TWG] Strengthen support system of the CWS for other RWSS	○	○	○	○									Conducted support supervision to RWS	
4-5	[TWG] Support WSs to develop a management system for accumulating knowledge and skills	○	○	○	○									Participated in the 17th WS Performance Review Meeting and analyzed medical equipment inventories	
<b>Duration / Phasing</b>															
<b>Monitoring Plan</b>		Plan	Actual	I	II	III	IV	I	II	III	IV	<b>Issue</b>		Solution	
<b>Monitoring</b>		Plan	Actual												
Joint Coordinating Committee		Plan	Actual												
Set-up the Work Plan of Operation		Plan	Actual											Japanese experts will discuss the plan with JICA HQ	
Submission of Monitoring Sheet		Plan	Actual												
Monitoring Mission from Japan		Plan	Actual												
Joint Monitoring		Plan	Actual												
Post Monitoring		Plan	Actual												
<b>Reports/Documents</b>															
Progress report		Plan	Actual												
Project Completion Report		Plan	Actual												
<b>Public Relations</b>															
		Plan	Actual												
		Plan	Actual												
		Plan	Actual												



To CR of JICA Uganda Office

## Project Monitoring Report Sheet

**Project Title: Improvement of Health Services through Health Infrastructure Management II****Version of the sheet: 3 (Term:1st May, 2017 – 23rd October, 2017)****Name: Dr. Olaro Charles****Title: Project Director****Name: Hiroshi Tasei****Title: Chief Advisor****Submission Date: 17th November 2017****I. Summary****1 Progress and Achievements of the Project****1-1 Progress of Inputs****[The Japanese side]****1-1-1. Dispatch of Project Expert Team**

Japanese experts were dispatched on schedule. The list of the dispatched Japanese experts is shown in the table below.

Name								Total (days)
	5	6	7	8	9	10	11	
Hiroshi Tasei Chief Advisor/QI Management System 1	8			57	14	36		115
Shizu Takahashi Vice Chief Advisor/QI Management System 2		21		48		24		93
Naoki Take 5S-CQI-TQM①				90	8	26		124
Yujiro Handa 5S-CQI-TQM②	15	16		29		24		84
Yasuhiro Hiruma Utilization of Medical Equipment				79		57		136
Naoki Mimuro Maintenance of Medical Equipment			60			58		118
Emi Onosaka Project Coordinator/Training Management	20				14	15		49

**1-1-2. Producing of the 5S tool kit**

The Japanese experts produced a 5S tool kit. The contents of the tool kit include: a carrying bag with several types of stationary such as marker pens, scissors, tapes, etc. The tool kit will be delivered to all Work Improvement Teams (WITs) in target facilities. Jinja Reginal Referral Hospital (RRH), Mubende RRH and Entebbe General Hospital (GH) received the tool kits in the Project term 1 and rest of the kits will be delivered in the Project term 2.



### **1-1-3. 4th National Healthcare Quality Improvement Conference**

The Project on the Improvement of Health Services through Health Infrastructure Management II (the Project / P2) supported the organization of the 4th National Healthcare Quality Improvement Conference (QI Conference). The details are shown in 1-2-1 (3).

### **1-1-4. Holding the 2nd Joint Coordination Committee (JCC) meeting**

The 2nd JCC meeting of the Project was held on 20th October 2017, and chaired by Director of Clinical Services, Dr. Olaro Charles.

#### (1) Attendants

- JCC members:
  - Director Health Services/Clinical Services
  - Commissioner Clinical Services
  - Chief Representative of the JICA Uganda Office
  - Chief Advisor of the Project
- Other members
  - Commissioner Quality Assurance & Inspection
  - Commissioner Nursing
  - One (1) member from Central Workshop (WS)
  - Three (3) from the JICA Uganda Office
  - One (1) from Embassy of Japan

#### (2) Main agenda and discussion points.

- Reviewing of record of the 1st JCC meeting
- The progress of the Project term 1 was shared among all members
- Approval for Project Design Matrix (PDM) ver.1
- All members discussed the prospect of funding by the Ministry of Health (MOH) for the Project activities. The Chairperson confirmed that the funding for FY 2017/2018 will be discussed in Technical Working Group (TWG) of budget.

### **[The Uganda side]**

#### **1-1-5. Assignment of Counterparts**

- (1) Nineteen (19) National 5S-CQI-TQM Facilitators implemented the 1st 5S Monitoring and Evaluation (M&E) in all RRHs.
- (2) One (1) National 5S-CQI-TQM Facilitator conducted the 1st 5S-CQI training.
- (3) Four (4) former project (P1) User trainers conducted Training of Trainers (ToT) for the P2 User trainers.
- (4) P1 User trainers conducted supervision with a Japanese expert (UT: Mr. Hiruma) as per the schedule to seven (7) P2 targeted hospitals.

**1-1-6. Personnel Cost for Counterparts and Other Running Expenses (daily allowance)**

MOH allocated the per diem for participants for 5S-CQI training for Ws (Activity 4-5) conducted at Mubende RRH on 27th – 29th September 2017. A total of twenty-eight (28) participants, including technicians and engineers, took part in the training.

**1-2 Progress of the Activities****1-2-1. Activities of the Output 1****(1) Development of 5S-CQI-TQM Guidelines and 5S-CQI-TQM Facilitators Guidebook**

<b>Related to activity 1-1-5</b>	Planned in October-December 2016
<b>Details</b>	<ul style="list-style-type: none"> <li>● 5S-CQI-TQM Team is revising the current 5S Guidelines by adding information on CQI and clarifying the description of supervision and M&amp;E of 5S-CQI-TQM.</li> <li>● 5S-CQI-TQM Team is developing the 5S-CQI-TQM Guidebook for reference in collaboration with National 5S-CQI-TQM Facilitators.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● The Guidelines and Guidebook were drafted by the end of October 2017.</li> </ul>

**(2) Training of New National 5S-CQI-TQM Facilitators**

<b>Related to activity 1-2-2 (also 2-2-2/3-2-2)</b>	Planned in October 2016 and January-February 2017
<b>Details</b>	<ul style="list-style-type: none"> <li>● 5S-CQI-TQM Team implemented a training session to develop the capacity of thirteen (13) new National 5S-CQI-TQM Facilitators including two (2) from Private Not for Profit (PNFP) organizations on 20th and 21st June 2017, in Kampala. The training focused on building capacity to train health facilities on 5S-CQI-TQM activities.</li> <li>● On 26th and 27th July, another opportunity for training was provided for seventeen (17) National 5S-CQI-TQM Facilitators in Entebbe GH to standardise skills to monitor and evaluate 5S through the use of the modified M&amp;E tools.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● As a result of the training session in June, the number of National 5S-CQI-TQM Facilitators increased to twenty-one (21).</li> <li>● Seventeen (17) National 5S-CQI-TQM Facilitators obtained the skills of M&amp;E of 5S and implemented the 1st M&amp;E in all RRHs in August 2017.</li> </ul>

<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● Budget (per diem) for supervision of National 5S-CQI-TQM Facilitators shall be allocated properly by MOH.</li> </ul>
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**(3) 4th National Healthcare Quality Improvement Conference**

<b>Related to activity 1-2-3</b>	Planned in December 2016, May 2017, September 2017, October 2017 and December 2017
<b>Details</b>	<ul style="list-style-type: none"> <li>● 5S-CQI-TQM Team helped MOH organise the QI Conference in August 2017 in Kampala integrating the elements of the 5S Conference held in P1.</li> <li>● 5S-CQI-TQM Team was involved in a series of organizing committee meetings and arranged the invitation of Dr. Eleuter Roki Samky, the former Director of Mbeya Zonal Referral Hospital, Tanzania, as a keynote speaker.</li> <li>● 5S-CQI-TQM Team helped RRHs make presentations for the QI Conference and facilitated participants from RRHs.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● A keynote speech by Dr. Samky was made at the QI Conference.</li> <li>● In the keynote speech titled “Innovations in Quality Improvement with Focus on 5S Methodology”, Dr. Samky showed how Mbeya Hospital has moved forward 5S-CQI-TQM since August 2007 and what it has achieved, e.g. revenue increase, reduction of waiting time at OPD and costs for waste management. Dr. Samky also emphasized importance of leadership through involvement of doctors and highly learned staff and realization of visible growth of 5S-CQI-TQM such as establishment of “5S showcase”.</li> <li>● A participant of QI Conference commented “Dr. Samky made me understand why I was getting stuck at one point in progressing with 5S”.</li> </ul>




- Entebbe GH and Kabale RRH made poster presentations. Entebbe showed how they applied 5S strategy to strengthening of staff performance at OPD, while Kabale exemplified improvement of waste management through 5S.





## Strengthening Staff Performance in OPD Services of Entebbe General Hospital

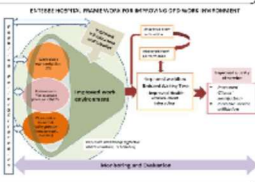
**5S-CQI-TQM**  
HEALTH INFRASTRUCTURE MANAGEMENT



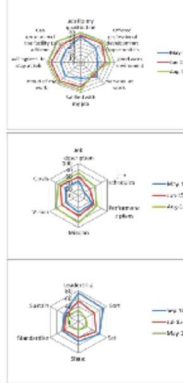
Mwanga Moses<sup>1</sup>, Muzonyi Roselyn<sup>1</sup>, Okescho Vincent<sup>2</sup>, Lule Haruna<sup>2</sup>, Nabweima Elizabeth<sup>3</sup>, Toshobya Christine<sup>3</sup>, Tasei Hiroshi<sup>4</sup>, Take Naoki<sup>4</sup>  
<sup>1</sup> Entebbe General Hospital Community Regions, <sup>2</sup> Medical Faculty, <sup>3</sup> Zipline Health, <sup>4</sup> Makerere University School of Public Health  
 4 MCH-401&4 Based on Innovation of Health Services through Health Infrastructure Management

**Introduction** Makerere University School of Public Health started a health system fellowship programme to improve the management and leadership skills of top and mid managers in the districts and lower health facilities. At Entebbe General Hospital was used as a case study to strengthen staff performance in OPD Services using 5S principle as a foundation for quality improvement.

**Method** A two-year action research model emphasizing the participation of staff in identifying areas that need improvement was used. Interventions to address poor and disorganized work environment at the OPD included scale up of the "5S strategy" (Sort, Set, Shine, Standardize and Sustain) to this department. To improve poor communication, staff was trained in communication skills and customer care, and a public address system with CTV cameras plus loud speakers was installed at various location including OPD. To address weak human resource management, orientation of staff on performance management, clearly stipulating their job descriptions, training in planning, monitoring and evaluation were conducted.




**Results**




The strategies resulted in improved work flow, reduced waiting time and improved health worker-client interactions from 30% to 60%. The performance of staff and their motivation improved the ones nervous at work decreased from 55% to 40%. Those satisfied with their work increased from 42% to 70% and ones Proud of their work increased from 52% to 75%. The ones with willingness to stay at job increased from 47% to 75% and consequently resulted into better quality of service with increased clients' satisfaction where those who would recommend a friend to the facility increased 52% to 75% and service utilization raised. Those with Job Fit as per their qualification from 68% to 78%. A staff attendance improved where late coming dropped from 42% to 22% after stipulated time.

The staff appreciated their job description increased from 45% to 70%, job schedules 20% to 56% and ones who had individual performance ones increased 48% to 64%.



SS of Notice Board

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The leadership in the department improved from 30% to 74%. Sorting in unit improved from 20% to 70%, Set (25% to 60%), Shine (20% to 50%), Standardize (25% to 45%) and Sustain (30% to 40%) the staff were actively involved in Sort, Set, Shine and Standardize.

**Conclusion** Combined appropriate strategies of improved human resource management, improved effective communication within the workforce and improved work place environment using the 5S principles as the foundation of resulted into decreased waiting time, improved communication to patients, increased service utilization, and improved clients' and staff satisfaction. This essentially strengthened staff performance.

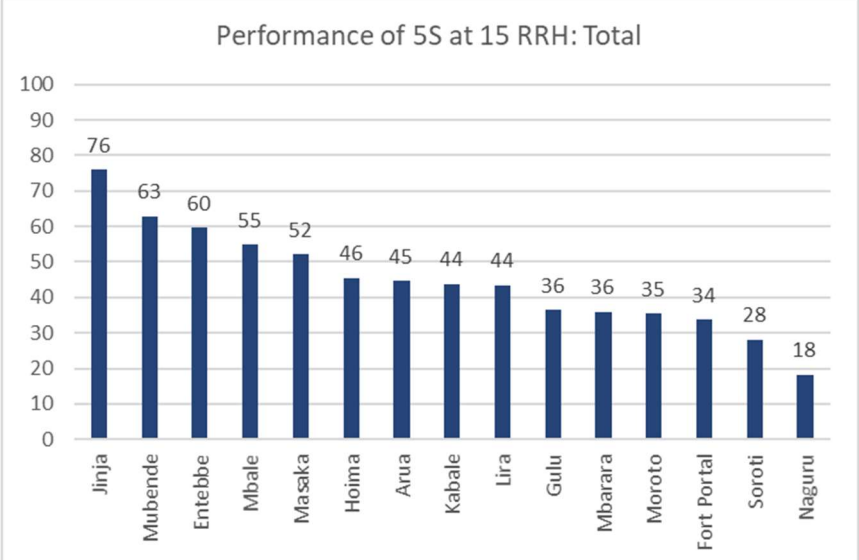
	<div> <p><b>IMPROVING HEALTH CARE WASTE DISPOSAL USING 5S CONCEPT AT KABALE REGIONAL REFERRAL HOSPITAL</b></p> <p>Kamugisha Pidon<sup>1</sup>, Akurut Christine Susan<sup>1</sup>, Sato Miki<sup>2</sup>, Take Naoki<sup>3</sup>  <sup>1</sup> Kabale Regional Referral Hospital, <sup>2</sup> Japan Overseas Cooperation Volunteer, <sup>3</sup> MOH/JICA Project on Improvement of Health Services through Health Infrastructure Management, II</p> <p><b>INTRODUCTION</b></p> <p>Waste disposal is one of the key components in infection control. It involves all staff working in hospital and outpatients. However support staff were not trained in waste management.</p> <p>Kabale RRH provides both general and specialized health services, which inevitably generate waste which if not properly managed can be hazardous. The waste includes: general solid (non-infectious organic food) 30%, infectious waste 12%, hazardous chemical waste 3% all that was mixed up together.</p> <p><b>METHOD</b></p> <p>From November 2016 to July 2017</p> <ul style="list-style-type: none"> <li>Using 5s concept, innovations such as making waste bins, notice boards from boxes and recycling of papers were done.</li> <li>Training of health workers and cleaners in waste management from the point of generation to final disposal was done.</li> <li>Guidelines for waste segregation and disposal were developed and displayed in all the units.</li> <li>Zoning areas for waste bins were done and directional labels were put in place.</li> <li>Regular supervisions and spot checks on cleaning services were done.</li> <li>Waste bins which were found unnecessary in some units were relocated to places that lacked them.</li> </ul> <p><b>RESULTS</b></p> <p>By November 2016 only 1 unit had minimum requirement of three different color coded waste bins. May 2017, at least 10 units had a minimum requirement of three different color-coded waste bins for waste segregation as a result of 5s innovations. The volume of waste was reduced as a result of recycling papers and boxes. Financial costs were also minimized as a result of innovating waste bins from boxes. Accidents related to poor waste management were minimized. Because of the training and the clean working environment the staffs were motivated to do their work as opposed to before.</p> <p><b>DISCUSSION &amp; CONCLUSION</b></p> <p>Proper waste management requires a multi disciplinary effort. Innovations in the implementation of 5s concept is a cost effective approach in waste management, especially in resource limited settings. Innovations and training of staffs including cleaners contribute a significant improvement in waste disposal.</p> </div> <div> <ul style="list-style-type: none"> <li>● 5S-CQI-TQM Team advertised itself in the major Ugandan newspapers.</li> </ul> </div> <div> <p>The image shows a newspaper advertisement for the 5S-CQI-TQM project. The headline reads "Improving Work Environment through 5S Activities" and "For Establishing of Foundation of Quality Assurance in Health Services". The advertisement features the logos of the Ministry of Health, 5S-CQI-TQM, and JICA. It includes several photographs: one showing a person in a white lab coat working in a laboratory, another showing a group of people in a meeting, and a third showing a group of people in orange uniforms standing in a line. There is also a bar chart showing data trends.</p> </div> <div> <p><b>Way Forward/ Challenges</b></p> </div> <div> <ul style="list-style-type: none"> <li>● 5S-CQI-TQM Team shall co-organise the 5th National Healthcare Quality Improvement Conference and share the CQI practices of target facilities.</li> </ul> </div>
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**(4) Field Test of Modified 5S M&E Tool**

<b>Related to activity 1-1-7</b>	Planned in October 2017
<b>Details</b>	<ul style="list-style-type: none"> <li>● The original 5S M&amp;E tool was modified with reducing items of evaluation and deleting an evaluation criterion of “sustain”. Initially the tool was drafted for a field test.</li> <li>● 5S-CQI-TQM Team conducted the field test of the modified 5S M&amp;E tool on 6th and 7th July in Arua and Lira RRHs.</li> <li>● Based on the result of the field test, instructions on how to evaluate the items were added to the tool. It was further elaborated and scrutinised at the training session of National 5S-CQI-TQM Facilitators on 26th and 27th July.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● Following the scrutiny in July, the modified M&amp;E tool was used for the 1st 5S M&amp;E in August 2017.</li> </ul>

**(5) The 1st M&E of 5S**

<b>Related to activity 1-3-2</b>	Planned in January 2017-February 2020
<b>Details</b>	<ul style="list-style-type: none"> <li>● 5S-CQI-TQM Team allocated seventeen (17) National 5S-CQI-TQM Facilitators to all RRHs to implement the 1st 5S M&amp;E in August 2017.</li> <li>● The results of the 1st M&amp;E were shared with National 5S-CQI-TQM Facilitators and RRHs.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● Scores of 5S are illustrated below. And detailed results of M&amp;E for all target hospitals are shown in Attachment III.</li> <li>● 5S-CQI-TQM Team obtained the 5S scores of all RRHs as a baseline.</li> </ul>

	 <table border="1"> <caption>Performance of 5S at 15 RRH: Total</caption> <thead> <tr> <th>Region</th> <th>Score</th> </tr> </thead> <tbody> <tr><td>Jinja</td><td>76</td></tr> <tr><td>Mubende</td><td>63</td></tr> <tr><td>Entebbe</td><td>60</td></tr> <tr><td>Mbale</td><td>55</td></tr> <tr><td>Masaka</td><td>52</td></tr> <tr><td>Hoima</td><td>46</td></tr> <tr><td>Arua</td><td>45</td></tr> <tr><td>Kabale</td><td>44</td></tr> <tr><td>Lira</td><td>44</td></tr> <tr><td>Gulu</td><td>36</td></tr> <tr><td>Mbarara</td><td>36</td></tr> <tr><td>Moroto</td><td>35</td></tr> <tr><td>Fort Portal</td><td>34</td></tr> <tr><td>Soroti</td><td>28</td></tr> <tr><td>Naguru</td><td>18</td></tr> </tbody> </table>	Region	Score	Jinja	76	Mubende	63	Entebbe	60	Mbale	55	Masaka	52	Hoima	46	Arua	45	Kabale	44	Lira	44	Gulu	36	Mbarara	36	Moroto	35	Fort Portal	34	Soroti	28	Naguru	18
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Naguru	18																																
<p><b>Way Forward/ Challenges</b></p>	<ul style="list-style-type: none"> <li>● The 5S-CQI-TQM Team shall conduct M&amp;E regularly.</li> </ul>																																

**(6) TWG meeting (Steering Committee (SC) meeting)**

<p><b>Related to activity 1-3-3</b></p>	<p>Planned in every three (3) months</p>
<p><b>Details</b></p>	<ul style="list-style-type: none"> <li>● Project TWG (SC meeting) was held on 16th October and chaired by Commissioner Clinical Services, Dr. Amone.</li> <li>● Commissioner Quality Assurance &amp; Inspection (5S-CQI-TQM), one (1) member for Clinical Services (UT), One (1) member from Central WS(ME) and three (3) members of Japanese experts attended the meeting.</li> </ul>
<p><b>Achievement</b></p>	<ul style="list-style-type: none"> <li>● The progress of the Project term 1 was shared among all members.</li> <li>● Modification of PDM ver.0 was discussed and confirmed by all members</li> <li>● All members agreed the necessity of counterpart funding for the Project activities. The issue should be discussed at JCC.</li> </ul>
<p><b>Way Forward/ Challenges</b></p>	<ul style="list-style-type: none"> <li>● SC meetings shall be held regularly.</li> </ul>

**1-2-2. Activities of the Output 2 and 3**

**(1) 5S-CQI-TQM**

**1) CQI Training**



<b>Related to activity 2-2-3 and 3-2-3</b>	Planned in May-October 2017
<b>Details</b>	<ul style="list-style-type: none"> <li>● 5S-CQI-TQM Team trained four (4) hospitals (Entebbe GH, Kabale RRH, Mbale RRH and Mubende RRH) in CQI on 15th – 17th May 2017 in Entebbe. A total of sixteen (16) staff members (four (4) from each hospital) participated in the training.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● The participants increased their knowledge on CQI according to a comparison of pre- and post-test results. The average score was seventy-four (74) % on the pre-test and eighty-three (83) % on the post-test.</li> <li>● In this group work of the method of problem solving (small CQI), the participants learned the small CQI in work processes.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● Since theoretical CQI knowledge was focused in this training, the participants are needed to understand CQI processes practically. It will be required the follow-up visits or supervision to complement CQI knowledge by hospitals.</li> </ul>

## 2) 5S Basic Training for Wakiso District and PNFP

<b>Related to activity 3-2-3</b>	Planned in October 2017 and January 2018-May 2020
<b>Details</b>	<ul style="list-style-type: none"> <li>● As an initial intervention for the rollout of 5S-CQI-TQM at the district level and PNFP facilities, 5S-CQI-TQM Team provided a 5S basic training for Wakiso District and PNFPs on 8th and 9th August in Entebbe. In total, twenty-three (23) staff members (fifteen (15) from Wakiso, six (6) from Uganda Catholic Medical Bureau and two (2) from Uganda Muslim Medical Bureau) participated in the training.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● The participants increased their knowledge on CQI after a comparison of pre- and post-test results. The average score was seventy-six (76) % on the pre-test and eighty-four (84) % on the post- test.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● 5S-CQI-TQM Team shall consider whether or not to conduct supervision for Wakiso District and PNFP facilities.</li> </ul>

**(2) Utilization of Medical Equipment (User Training)****1) ToT for P2 User Trainers**

<b>Related to activity 3-2-4</b>	Planned in July 2017
<b>Details</b>	<ul style="list-style-type: none"> <li>● ToT was conducted on 5th – 9th June 2017 at Jinja RRH.</li> <li>● The course content included the usage of nine (9) items of basic medical equipment and teaching the skills of User Training (UT). The trainers also covered the teaching methods for the ten (10) items of basic medical equipment learned at the previous training session (March 2017). They were trained on how to conduct training. The target medical equipment is shown in Attachment IV, Table 1.</li> <li>● It was carried out by one (1) Japanese expert, three (3) JICA volunteers, and four (4) P1 User trainers as shown in Attachment IV, Figure 1. The UT counterpart from MOH could not join in the training due to the busy schedule he had.</li> <li>● The training was attended by fourteen (14) P2 trainers from the seven (7) RRHs.</li> <li>● Pre- and post-test was conducted, as well as the practical test for the trainers.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● All fourteen (14) User trainers selected from the seven (7) target hospitals came and participated in the training.</li> <li>● An increase in knowledge and understanding of ToT was realized as reflected in Attachment IV, Figure1, with the results of pre- and post-test indicating fifty-six (56) % and seventy-seven (77) %, respectively.</li> <li>● The trainers were assessed on the practical test as reflected in Attachment IV, Figure 2. The result was shown that all trainers were over seventy (70) %. Therefore, all trainers can be considered as having acquired basic teaching skills for medical equipment items 1-19.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● Target medical equipment of ToT shall be increased from nineteen (19) items to twenty-six (26) items.</li> <li>● User trainers shall learn a medical equipment inventory system.</li> </ul>

**2) Support Supervision**

<b>Related to activity 3-2-5 and 3-2-6</b>	Planned in June-September 2017
<b>Details</b>	<ul style="list-style-type: none"> <li>● The Japanese expert (UT: Mr. Hiruma) and fourteen (14) P1 User trainers carried out the following support supervision at the respective seven (7) target hospitals (Jinja, Soroti, Gulu, Mubende, Fort Portal, Mbarara, Naguru).             <ol style="list-style-type: none"> <li>1) 19th Jun – 7th July</li> <li>2) 10th – 21st July</li> <li>3) 28th August – 7th September</li> </ol> </li> <li>● The objectives of support supervision were as follows:             <ul style="list-style-type: none"> <li>• Confirmation of the training skill of P2 User trainers.</li> <li>• Advice and guidance to P2 User Trainers.</li> <li>• Confirmation of the target medical equipment condition</li> <li>• Collaboration with WS activities about inventory analysis</li> <li>• Discussion about the key issues and their countermeasures with Hospital Director, Principal Hospital Administrator (PHA), Principal Nursing Officer (PNO) and WS staff.</li> </ul> </li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● Support supervision was conducted three times.</li> <li>● All fourteen (14) P2 User trainers were able to conduct trainings at their respective hospitals as shown in Attachment IV, Tables 2, 3 and 4.</li> <li>● Pre- and post-test were used to assess the degree of understanding of participants for medical equipment as shown in Attachment IV, Figure 3 - 9. The results were shown that most of participants understood appropriate usage of medical equipment.</li> <li>● The participants evaluated P2 User trainers to confirm their training skills as shown in Attachment IV, Figure 10 - 23, which can be considered the majority as having acquired average training skills.</li> <li>● The participants were satisfied with the training skills of the P2 User trainers.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● Budget (per diem) shall be allocated from MOH properly for the regular supervision.</li> </ul>

**1-2-3. Activities of the Output 4****(1) 18th and 19th WS Performance Review Meetings**

<b>Related to activity 4-5</b>	Planned in June (18th meeting) and September (19th meeting) 2017
<b>Details</b>	<ul style="list-style-type: none"> <li>● The two (2) meetings were held on a quarterly basis on 7th and 8th June 2017, at Masaka (18th) and 26th September 2017, at Mubende (19th). RRHs' Directors, Administrators, Health Infrastructure Division (HID), MOH Officials, development partners (i.e., Strengthening Uganda's Systems for Treatment AIDS Nationally (SUSTAIN), Infectious Disease Institute (IDI), American International Health Association (AIHA) and JICA) and all the WS Managers were invited to discuss the key issues and countermeasures of the WSs.</li> <li>● Every WS Manager gave a brief presentation of the previous quarter of the planned work performance.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● These meetings have been the main constant platform for sharing knowledge and skills required by activity 4-5.</li> <li>● In the brief presentation of quarterly reports by each WS Manager, the presentation skills have gradually been improved.</li> <li>● One advantage was that the outcomes, HID strategy and the key issues were shared with the core stakeholders (e.g., RRHs' Top Management, MOH officials and the development partners.)</li> <li>● In the 19th meeting, the Japanese expert (ME: Mr. Mimuro) reported the followings: <ul style="list-style-type: none"> <li>• Findings from the support supervision sessions of WSs.</li> <li>• Awarding the best WSs (Lira WS and Fort Portal WS) and the best increased performance WS from the previous year (Mubende WS) based on the performance scoring analysis.</li> <li>• Introducing the standardised equipment service stickers.</li> </ul> </li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● Information of implementation partners' activities shall be shared regularly by the meeting.</li> </ul>

**(2) Two Training Sessions on First Line Maintenance of Specialized Medical Equipment**

<b>Related to activity 4-3</b>	Planned in June (the 1st batch) and July (the 2nd batch) 2017												
<b>Details</b>	<ul style="list-style-type: none"> <li>● The 1st training session was conducted for five (5) days at Jinja RRH on 12th – 16th June 2017, and twenty-three (23) technicians participated from eleven (11) WSs and one (1) RRH. Two (2) service engineers from the GE Healthcare local agent and one (1) experienced anesthesiologist have been taken on as facilitators.</li> <li>● The 2nd training session was slightly different from the 1st training session and took place at Kyambogo University on 3rd – 7th July 2017. A total of twenty-three (23) trainees including twelve (12) technicians, nine (9) User trainers and two (2) JICA volunteers participated from the targeted WSs and RRHs. Two (2) biomedical engineers from the university and one (1) experienced anesthesiologist have been taken as facilitators.</li> <li>● For both training sessions, the target equipment was: 1) Anesthesia Machine, 2) Ventilator, 3) Electrocardiogram (ECG), 4) Patient monitor and 5) Medical gas system.</li> </ul>												
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● According to the test results, the average scores in comparison with the pre-test and post-test registered improvement as follows:</li> </ul> <table border="1"> <thead> <tr> <th>Training</th> <th>Pre-test (Full score 100)</th> <th>Post-test (Full score 100)</th> <th>Balance Post – Pre</th> </tr> </thead> <tbody> <tr> <td>1st</td> <td>42.0</td> <td>78.2</td> <td>36.2</td> </tr> <tr> <td>2nd</td> <td>40.4</td> <td>78.4</td> <td>38.0</td> </tr> </tbody> </table> <p>In relation to the above results, the level of knowledge was greatly improved through this training.</p> <ul style="list-style-type: none"> <li>● Regarding the 1st training session at Jinja, approximately eighty (80) % of the total expenses were financed by the HID budget as one example of MOH initiatives.</li> <li>● The 2nd training session had a unique concept that involved User trainers, as well as WS technicians, to improve both knowledge and working relationships. On the last day of training, a standard request form for UT was developed under the group work.</li> </ul>	Training	Pre-test (Full score 100)	Post-test (Full score 100)	Balance Post – Pre	1st	42.0	78.2	36.2	2nd	40.4	78.4	38.0
Training	Pre-test (Full score 100)	Post-test (Full score 100)	Balance Post – Pre										
1st	42.0	78.2	36.2										
2nd	40.4	78.4	38.0										
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● Senior level technicians shall be included to the training.</li> <li>● Target equipment of intensive care, neonatal care, emergency care and/or operation theater shall be added.</li> </ul>												

**(3) 5S-CQI Training for WSs**

<b>Related to activity 4-5</b>	Planned in September 2017
<b>Details</b>	<ul style="list-style-type: none"> <li>● Training was conducted for three (3) days at Mubende on 27th – 29th September 2017, to improve the skills of 5S-CQI implementation for WS technicians.</li> <li>● Twenty-eight (28) technicians and engineers participated. Three (3) Japanese experts and one (1) National 5S-CQI-TQM Facilitator from Mubende RRH carried out the facilitation.</li> <li>● The program included outline of the 5S-CQI-TQM framework, work process analysis, problem analysis and small CQI practice.</li> <li>● The participants were given an assignment to implement at least a small CQI activity before the end of December 2017 and report to the Japanese experts and HID senior engineers. Some good cases of small CQI will be reported at the next WS Performance Review Meeting.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● According to the test results, the average score was 74.9 points on the pre-test and 82.7 points on the post-test, registering a slight improvement.</li> <li>● In the group work practical sessions, the participants learned the method of problem solving on work processes, which was the main goal of the training.</li> <li>● The small CQI cases of WSs will stimulate hospital CQI activities.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● Small CQI activities shall be reported by the participants before the end of December 2017.</li> </ul>



**(4) Support Supervision**

<b>Related to activity 4-4</b>	Planned in August-September 2017
<b>Details</b>	<ul style="list-style-type: none"> <li>● MOH counterparts and the Japanese expert (ME: Mr. Mimuro) carried out the following support supervision for ten (10) WSs. 27th – 31st August: Kabale, Fort Portal, Mubende, Hoima 5th – 8th September: Lira, Soroti, Mbale, Jinja 18th – 19th September: Arua, Gulu</li> <li>● The objectives of support supervision were as follows: <ul style="list-style-type: none"> <li>· Confirm and advise on the availability of the Annual Work Plan.</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>• Collect data on staffing, released budget, process for routine maintenance, spare parts purchase, inventory update, etc., for reviewing the WSs' performances.</li> <li>• Emphasise UT activities.</li> <li>• Standardise format of equipment service stickers.</li> <li>• Monitor 5S implementation in WSs.</li> <li>• Discuss the key issues and their countermeasures with respective Hospital Directors, Administrators and WS Managers.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● Based on the analysis of collected data, the WSs' performances were generally improved as shown in Attachment V.</li> <li>● High performing WSs in 5S activities: Fort Portal, Arua and Lira WSs.</li> <li>● The good collaboration between WS technicians and User trainers was identified in most WSs compared to the previous performance review assessment of September-October 2016.</li> <li>● Although the format was still not standardised, most WSs created an annual work plan as compared with the past few years.</li> <li>● The specific findings were shared with the respective hospital top management.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● Supervision shall be conducted regularly.</li> <li>● All WSs shall be identified the good collaboration with User trainers.</li> <li>● The format for an annual work plan shall be standardised and all WSs shall create their annual work plans.</li> </ul>

**(5) Development of New Equipment Service Stickers**

<b>Related to activity 4-5</b>	Planned in July-September 2017
<b>Details</b>	<ul style="list-style-type: none"> <li>● Most WSs had started using the equipment service stickers to improve the quality of planned preventive and corrective maintenance services. However, the sticker format had not been uniform for all WSs.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● The sticker format was standardised through summarising various opinions suggested by WS staff (e.g., the contents on the sticker were simplified and some check items were added).</li> </ul>

	Old format (Central & Mubende WS )	New standard format
	 	<ul style="list-style-type: none"> <li>● The 1st trial stickers with respective WS names were printed using JICA funds and distributed to each WS on September 2017. Additional stickers will be printed on individual workshop budgets after the stock is used.</li> <li>● The new sticker can also be used by User trainers.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● The system of the equipment service stickers shall be established in all WSs.</li> <li>● Budget of re-printing of stickers shall be allocated by MOH.</li> </ul>	

### 1-3 Achievement of Output

#### 1-3-1. Output 1

- The Japanese experts, in consultation with the counterparts, reviewed the indicators, baseline figures and means of verification for Output 1 while proposing the PDM modification.

Output 1 Supporting/supervising system for health infrastructure management of all the RRHs is strengthened in the MOH	
Current Indicators	Achievement
1-1 PDCA cycle of supporting and supervising RRHs is completed once a year or more.	PDCA cycle of supporting and supervising RRHs was not conducted.
1-2 The number of supervision sessions conducted by SC becomes more than XX times.	The 2nd SC was conducted 16th October. 2017.
1-3	[5S-CQI-TQM]



<p>Number of training organised by TWG becomes more than XX times.</p>	<ul style="list-style-type: none"> <li>- Leader ship training (1)</li> <li>- Facilitator refresher training (3)</li> <li>- 5S training (3)</li> <li>- CQI training (1)</li> </ul> <p>[UT]</p> <ul style="list-style-type: none"> <li>- Refresher training (1)</li> <li>- ToT (2)</li> </ul> <p>[ME]</p> <ul style="list-style-type: none"> <li>- Leadership training (1)</li> <li>- Maintenance training on basic medical equipment (1)</li> <li>-Maintenance training on specialized medical equipment (2)</li> <li>-5S-CQI Training for WSs (1)</li> </ul>
<p>1-4 Number of certified National CQI Facilitators from MOH becomes more than XX.</p>	<p>MOH: three (3) facilitators District Health Team: one (1) facilitator RRH/RH: six (6) facilitators</p>

(Other achievements)

- Lira RWS was motivated with presentation of a trophy before all Hospital Directors, Administrators and WS Managers.
- The concept notes for the CQI Guidelines and 5S-CQI-TQM Facilitators Guidebook were developed and shared. The development of the Guidelines and Guidebook will proceed based on the draft version.
- The members of SC emphasized SC meetings shall be held regularly and Chairperson of SC meeting committed to hold the SC meeting regularly in the Project term 2.

**1-3-2. Output 2 and Output 3**

- The Japanese experts, in consultation with the counterparts, reviewed the indicators, baseline figures and means of verification for Output 2 and Output 3 while proposing the PDM modification.

Output 2  
Implementation mechanism of the phase 1 targeted hospitals aimed at CQI level for resource management and quality improvement is established to function as leading cases based on the outcomes of the phase 1.

Current Indicators	Achievement
2-1 Number of the Phase 1 target hospitals which started CQI activities becomes more than XX.	The Project team didn't identify the CQI activities in target hospitals.
2-2 Number of the Phase 1 target hospitals which completed CQI process at least with one unit becomes more than XX.	The Project team didn't identify the CQI process at any units in target hospitals.
2-3 Number of UT conducted by regional trainers is more than XX times.	Refer to below table of number of UT conducted in facility
2-4 Number of functioning WITs in target hospitals reaches the level of ten (10) under the 5S-CQI-TQM implementation becomes more than XX.	The Project team didn't identify the functioning WITs that reached level ten (10).

Number of UT in facilities

Hospital Name	Arua	Lira	Mbale	Kabale	Hoima	Masaka	Entebbe	Moroto
No. of UT conducted (Jun.–Sep. 2017)	4	4	2	1	1	4	2	3
Hospital Name	Jinja	Soroti	Gulu	Mubende	Fort Portal	Mbarara	Naguru	
No. of UT conducted (Jun.–Sep. 2017)	0	0	0	0	0	0	0	

Output 3 Foundation for implementation mechanism of the phase 2 targeted hospitals for resource management and quality improvement is introduced and established.	
Current Indicators	Achievement
3-1 All the Phase 2 target hospitals implement Quality Improvement Team (QIT) activities including 5S-CQI-TQM.	As the results of M&E for all target hospitals in Attachment III, 5S activities were identified in all target hospitals (Arua, Lira, Mbale, Kabale, Hoima, Masaka, Moroto, Jinja, Soroti, Gulu Mubende, Fort Portal, Mbarara and

	Naguru).
3-2 Average of comprehension rate of trainees after UT becomes higher than XX%.	The result of test was fifty-six (56) % for pre-test and seventy-seven (77) % for post-test on average.
3-3 More than one (1) regional 5S facilitators at each Phase 2 target hospitals are trained.	A total of twenty-five (25) staff members – five (5) staff members from each of the five (5) hospitals (Fort Portal, Gulu, Mbarara, Naguru and Soroti) – were trained.
3-4 More than two (2) regional User trainers at each Phase 2 target hospital are trained.	Fourteen (14) trainees from the P2 target hospitals were trained. (Basic medical equipment only)

(Other achievements)

- The 1st 5S M&E was conducted. And the result will be adopted as a baseline.
- Sufficient knowledge and skills were acquired to perform as User trainers and National 5S-CQI-TQM Facilitators who will conduct the support supervision of health facilities through refresher training.

### 1-3-3. Output 4

- According to the medical equipment inventory data, Japanese experts, in consultation with the counterparts, reviewed the indicators, baseline figures and means of verification for Output 4 while proposing the PDM modification.

Output 4 ME maintenance and management capacity of workshops (WS) are strengthened.	
Current Indicators	Achievement
4-1 The knowledge of trained staff is improved by a minimum of fifteen (15) % compared to the average scores of pre-test and post-test.	Increased average score 29.8% 1st training session (Management) 36.2% 2nd training session (Basic medical equipment) 31.0% 3rd training session (Advanced medical equipment) 36.1% 4th training session (Advanced medical

	equipment) 37.8% 5th training session (5S-CQI) 7.8%
4-2 Total average percentage of medical equipment in status C and status E is not higher than 15%.	Baseline in October 2016: 22.1% (C 17.9% + E 4.2%)

(Other achievements)

- Most WSs are gradually improving on reporting, documentation, procurement and maintenance work.
- The new medical equipment service sticker was developed and new stickers can be used by User trainers.
- 5S activities have been implemented in most WSs.

#### 1-4 Achievement of the Project Purpose

- The Japanese experts, in consultation with the counterparts, reviewed the indicators, baseline figures and means of verification for the project purpose while proposing the PDM modification.

Current Indicators	Achievement
Score sheet of 5S-CQI-TQM on target hospitals become more than XX%.	Results are shown in Attachment III 5S baseline scores.
The number of CQI practices becomes more than XX (number).	The Project team didn't identify the CQI activities in target hospitals.
Supervision on 5S, UT and ME which are integrated into the MOH system in a consolidated way are implemented more than XX times.	[UT supervision] -19th June-7th July -10th-21st July -28th August-7th September [ME supervision] -27th-31st August: Kabale, Fort Portal, Mubende, Hoima -5th-8th September: Lira, Soroti, Mbale, Jinja -18th-19th September: Arua, Gulu
Percentages of status A of medical equipment becomes higher than XX%.	Baseline in October 2016: 65.1% (average)

- Setting baseline data of medical equipment inventory as quantitative indicators through

analysis of medical equipment inventory.

### **1-5 Changes of Risks and Actions for Mitigation**

#### **(1) Necessary Funds for Project Activities**

MOH's budgetary allocation for the 1st quarter (July – September) was not enough. The P1 User trainers could not carry out the support supervision in June and July due to a lack of allowance for User trainers. The Japanese expert conducted the said supervision. Under this situation, MOH decided to squeeze necessary budget for 5S-CQI training for WSS conducted in September. The budget of the 5S-CQI training for WSS was implemented according to the operating procedure mentioned 1-6 (1). The same procedure will be adopted for future plans.

#### **(2) Difficulty in Cooperation with Implementation Team**

It was difficult to hold regular meetings and smooth collaboration activities with the Implementation Team, 5S-CQI-TQM, User trainer and ME. Each counterpart has an excessive workload, several other meetings, and handles the coordination of partners' projects. In addition, the project SC meeting could not be held regularly. It will be necessary to review the rolls of the Project Implementation Teams.

### **1-6 Progress of Actions Undertaken by JICA**

#### **(1) Necessary Funds for Project Activities**

JICA approved additional funds for the Project activities until the end of fiscal 2016/2017. Entering FY 2017/2018, the MOH's budgetary allocation for the 1st quarter (July, August, September) was a mere 4% (about 2.24 million shillings) of MOH's total budget, which made it clear that covering the Project activities would be unrealistic. Since suspending activity in July and August would have major repercussions on future activities and outcomes, an agreement was entered that expenses will be covered by the Japan side until the budget execution by the MOH become possible.

Based on discussion between JICA Uganda and MOH, MOH Permanent Secretary (PS) agreed to cover per diems for MOH staff engaged in the Project activities and acknowledged the following operating procedures:

- ① The Project side will present the training summary and applicable staff, and either the Project manager or executing team manager will issue a Request of Funds, Internal Memo to the PS.
- ② PS will determine items assignable as expenditures within the MOH budget and direct the MOH financial department accordingly.

\*Each department has a Vote Book which is a record to manage activity expenses, and the PS determines which Vote Book to pay project expenses from.

- ③ The MOH Account Department will apply to the Ministry of Finance to obtain approval.
- ④ On the 1st day of training, the attendant list, contact detail, and expenditure amounts shall be finalised and a request sent to the MOH of Health Finance Department.

The Ministry of Finance shall transfer the per diem/accommodation expenses of all participants to the proposer's bank account.

### 1-7 Progress of Actions Undertaken by the Government of Uganda

#### (1) Funds Allocated for Support Supervision of UT

The following supervision sessions were funded by the hospitals in collaboration with the JICA Project fund.

RRH	Date	Hospital Fund	JICA Project Fund
Jinja	19th Jun	Nil	- Facilitator fee
	10th July	Nil	- Refreshment fee
	30th August	- Refreshment fee	- Facilitator fee
Soroti	20th June	- Cash (Refreshment) - Stationary	- Facilitator fee
	11th July	- Cash (Refreshment)	
	29th August	- Cash (Refreshment)	
Gulu	20th Jun	- Refreshment fee	- Facilitator fee
	12th July		- Stationary
	28th August		
Mubende	27th June	- Refreshment fee	- Facilitator fee
	18th July		
Fort Portal	28th June	- Refreshment fee	- Facilitator fee
	19th July		
Mbarara	29th June	- Refreshment fee	- Facilitator fee
	20th July		
Naguru	21st Jul	- Refreshment fee - Stationary	- Facilitator fee
	31st August	- Refreshment fee	

#### (2) Funds Allocated for the Training for WSs Technicians

The following training sessions were funded by MOH in collaboration with the JICA Project

fund.

Description	MOH Fund	JICA Project Fund
Training on advanced medical equipment (five (5) days, at Jinja, June 2017)	- Allowances - Transport costs - Part of refreshment fee	- Facilitator fee - Refreshment fee - Stationary
5S-CQI Training for WSs (Three (3) days, at Mubende, September 2017)	- Allowances	- Transport costs - Refreshment fee - Venue fee - Stationary

### 1-8 Progress of Environmental and Social Considerations (if applicable)

### 1-9 Progress of Considerations on Gender/Peace Building/Poverty Reduction (if applicable)

### 1-10 Other Remarkable/considerable Issues Related/affect to the Project (such as other JICA's Projects, Activities of Counterparts, Other Donors, Private Sectors, NGOs, etc.)

- (1) The preparatory survey for the grant aid project by the Japanese government for the improvement of northern Uganda hospitals (Arua, Gulu and Lira RRH) started in November 2016. The target facilities of the grant aid project were included in the Project sites. The project component will include the construction of the hospital facility and the procurement of medical equipment. It is expected to have a positive influence on health service delivery in the hospitals and the motivation of hospital staff to improve the workplace environment. The execution of the project will start in 2018.
- (2) Applying Science to Strengthen and Improvement System (ASSIST), supported by USAID, was providing direct support for improving HIV and family health services to sites in northern Uganda. It was also supporting the institutionalisation of Quality Improvement into the health sector by providing direct technical support to the Quality Assurance & Inspection in overseeing and coordinating Quality Improvement activities. It was expected to cooperate in support supervision in target facilities of the Project.
- (3) The Institutional Capacity Building Project in Planning Leadership and Management in the Uganda Health Sector Phase 2 (ICB2 project) supported by Belgian Technical Cooperation (BTC) was to strengthen the planning, leadership and management capacities of public health staff, specifically at the decentralised local government level. The target of the ICB2 project was West Nile and Rwenzori including RRH. The ICB2 project was also supporting the rolling out of UT activities in West Nile and Rwenzori.

## 2 Delay of Work Schedule and/or Problems (if any)

**2-1 Details, Causes:**

- (1) Finalising of modification for PDM v.0 was not completed due to the delay of confirmation of modified items between MOH, JICA and the Japanese experts.
- (2) SC meetings were not conducted regularly due to difficulty of arrangement of three (3) Implementation Teams.
- (3) Updating of manuals, handbooks and monitoring tools was not completed. The Guidelines and Guidebook were drafted by the end of October 2017. QAID planned to update materials in the 3rd quarter of 2016/2017 or later so that the updating of project materials will follow.

**2-2 Action to be Taken, Roles of Responsible Persons/organization**

- (1) The plan of operation for the Project term 2 will be developed according to PDM v.1.
- (2) The SC meeting was held on 16th October 2017. All members agreed the SC meeting will be held every three (3) months in the Project term 2.
- (3) Updating of Quality Improvement materials will be finalised the Project term 2.

**3 Modification of the Project Implementation Plan**

**3-1 Revision of the PDM and Plan of Operation**

The Project team discussed the modification of PDM v.0 according to the results of situation analysis. The proposal of the modification items in PDM v.1 was confirmed in the 2nd JCC meeting on 20th October, 2017.

**II. Project Monitoring Sheet I & II** *as Attached*

Attachment:

- I. Project Monitoring Sheet I & II
- II. PDM ver.1
- III. 5S baseline scores
- IV. Tables and figures UT activities
- V. Performance review Assessment of Regional Workshops Aug. – Sept. 2017
- VI. Performance in target facilities

End



Attachment I

Project Monitoring Sheet I (Revision of Project Design Matrix)

Project Title: Project on Improvement of Health Service through Health Infrastructure Management (II)

Implementing agency: Department of Quality Assurance, Ministry of Health (MOH) (5S-CQI-TQM)

Integrated Curative Services Division, Department of Clinical Services, MOH (Utilization of Medical Equipment)

Health Infrastructure Division, Department of Clinical Services, MOH (Maintenance of Medical Equipment)

Target Group: (1) Phase 1 targeted hospitals: Mbale Regional Referral hospital (RRH), Masaka RRH, Entebbe General Hospital (GH), Hoima RRH, Kabale RRH, Arua RRH, Lira RRH, Moroto RRH, Mukuju HC IV, Tororo GH

(2) Phase 2 targeted hospitals: Soroti RRH, Jinja RRH, Gulu RRH, Fort Portal RRH, Mbarara RRH, Mubende RRH, Naguru Referral Hospital


Period of Project: July 2016- July 2020

Project Site: Republic of Uganda

Version 3 (1st May 2017 - 23rd October )

Dated 17th November 2017

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
<p>Overall Goal</p> <p>Quality of health care services at all the RRHs in Uganda is improved.</p>	<ul style="list-style-type: none"> <li>Clients' satisfaction level is improved to the target level. (XX)</li> <li>Clients' waiting time of patients for consultation, testing, clinical examination, and prescription of drugs are reduced XX%</li> <li>Maintenance cost regarding medical equipment is decreased in XX%.</li> </ul>	<ul style="list-style-type: none"> <li>Health Management Information System (HMIS)</li> <li>Annual Health Sector Performance Report (AHSPR)</li> <li>Periodical monitoring reports by QITs at target hospitals</li> <li>Supervision reports made by the steering committee for the project</li> <li>Baseline and end-line data</li> <li>Quarterly regional workshop maintenance report</li> </ul>			
<p>Project Purpose</p> <p>Health infrastructure management at all the RRHs in Uganda is strengthened with the initiatives of MOH.</p>	<ul style="list-style-type: none"> <li>Score sheet of 5S-CQI-TQM on targeted hospitals become more than XX%.</li> <li>The number of CQI practices becomes more than XX (number).</li> <li>Supervisions on 5S, UT, and ME which is integrated into the system of MOH in a consolidated way are implemented more than XX times.</li> <li>Percentages of status A of ME becomes higher than XX%</li> </ul>	<ul style="list-style-type: none"> <li>Minutes of steering committee meetings</li> <li>Reports of steering committee</li> <li>Reports from 5S trainers</li> <li>Score sheets of 5S-GQI-TQM at targeted hospitals.</li> </ul>	<ul style="list-style-type: none"> <li>Government budget for the RRHs will not be decreased significantly.</li> <li>Government budget for the workshops will not be decreased significantly.</li> <li>Political situation in Uganda remains stable.</li> </ul>	<ul style="list-style-type: none"> <li>Results are shown in Attachment III 5S baseline scores.</li> <li>The Project team didn't identify the CQI activities in target hospitals.</li> <li>Three (3) times of UT supervision and three (3) times of ME supervision were conducted</li> <li>Percentages of status A of ME becomes 65.1% (average).</li> </ul>	
<p>Output</p>					
<p>1. Supporting/supervising system for health infrastructure management of all the RRHs is strengthened in the MOH</p>	<ul style="list-style-type: none"> <li>1-1 PDCA cycle of supporting and supervising RRHs is completed once a year or more.</li> <li>1-2 The number of supervision conducted by steering committee becomes more than XX times.</li> <li>1-3 Number of training organized by Technical Working Group (TWG) becomes more than XX times.</li> <li>1-4 Number of certified national CQI facilitators from MOH become more than XX.</li> </ul>	<ul style="list-style-type: none"> <li>Plans and periodic reports made by steering committee</li> <li>Activity records made by steering committee of MOH</li> <li>Records and results of supervision conducted by steering committee</li> <li>Test results and certification issued for CQI trainers at MOH</li> </ul>	<ul style="list-style-type: none"> <li>Personnel of counterparts do not leave the job and are not transferred considerably.</li> <li>Policy related to health infrastructure management will not be changed as a result of the presidential election.</li> </ul>	<ul style="list-style-type: none"> <li>PDCA cycle of supporting and supervising RRHs was not conducted.</li> <li>The 2nd Steering committee was conducted 16th October 2017.</li> <li>Training [5S-CQI-TQM]                             <ul style="list-style-type: none"> <li>Leader ship training (1)</li> <li>Facilitator refresher training (3)</li> </ul> </li> <li>5S training (3)</li> <li>CQI training (1)</li> <li>[UT]                             <ul style="list-style-type: none"> <li>Refresher training (1)</li> <li>ToT (2)</li> </ul> </li> <li>[ME]                             <ul style="list-style-type: none"> <li>Leadership training (1)</li> <li>Maintenance training on basic medical equipment (1)</li> <li>Maintenance training on specialized medical equipment (2)</li> <li>5S-CQI Training for WSS (1)</li> </ul> </li> <li>Certified facilitator MOH: three (3) facilitators District Health Team: one (1) facilitator RRH/PHL: six (6) facilitators</li> </ul>	
<p>2. Implementation mechanism of the phase 1 targeted hospitals aimed at CQI level for resource management and quality improvement is established to function as leading cases based on the outcomes of the phase 1.</p>	<ul style="list-style-type: none"> <li>2-1 Number of the phase 1 targeted hospitals which started CQI activities becomes more than XX.</li> <li>2-2 Number of the phase 1 targeted hospitals which completed CQI process at least with one unit becomes more than XX.</li> <li>2-3 Number of UT conducted by regional trainers is more than XX times.</li> <li>2-4 Number of functioning WITs in target hospitals reaches the level of 10 under the 5S-CQI-TQM implementation becomes more than XX.</li> </ul>	<ul style="list-style-type: none"> <li>Activity records of QITs</li> <li>Activity records of WITs</li> <li>Training records on UT conducted by user trainers</li> <li>Score sheets of 5S-CQI-TQM</li> <li>Project report about CQI activities</li> <li>Supervision reports made by TWG</li> </ul>		<ul style="list-style-type: none"> <li>The Project team didn't identify the CQI activities in target hospitals.</li> <li>The Project team didn't identify the CQI process at any units in target hospitals.</li> <li>Number of UT conducted Arua; 4, Lira; 4, Mbale; 2, Kabale; 1, Hoima; 1, Masaka; 4, Entebbe; 2, Moroto; 3 Jinja, Soroti, Gulu, Mubende, Fort Portal, Mbarara, Naguru; 0</li> <li>The functioning WIT that reached the level ten (10) were not identified.</li> </ul>	
<p>3. Foundation for implementation mechanism of the phase 2 targeted hospitals for resource management and quality improvement is introduced and established.</p>	<ul style="list-style-type: none"> <li>3-1 All the phase 2 targeted hospitals implement QIT activities including 5S-CQI-TQM.</li> <li>3-2 Average of comprehension rate of trainees after user training becomes higher than XX%.</li> <li>3-3 More than 1 regional 5S facilitators at each phase 2 targeted hospitals are trained.</li> <li>3-4 More than 2 regional user trainers at each phase 2 targeted hospitals are trained.</li> </ul>	<ul style="list-style-type: none"> <li>Number of QITs and their activity records</li> <li>Monitoring and meeting minutes of QITs related to 5S-CQI-TQM</li> <li>Supervision report made by TWG</li> <li>Results of pre and post tests for trainees of UT Training records on TOT for 5S-CQI-TQM</li> <li>Training records on TOT for UT</li> </ul>		<ul style="list-style-type: none"> <li>As the results of M&amp;E for all target hospitals in Attachment III, 5S activities were identified in all target hospitals (Arua, Lira, Mbale, Kabale, Hoima, Masaka, Moroto, Jinja, Soroti, Gulu Mubende, Fort Portal, Mbarara and Naguru).</li> <li>The result of testing was 56% for pre-testing and 77% for post-testing on average.</li> <li>A total of 25 staff members – five (5) staff members from each of the five (5) hospitals (Fort Portal, Gulu, Mbarara, Naguru and Soroti) – were trained.</li> <li>Fourteen (14) trainees from the P2 target hospitals were trained. (Basic medical equipment only)</li> </ul>	
<p>4. ME maintenance and management capacity of workshops (WS) are strengthened.</p>	<ul style="list-style-type: none"> <li>4-1 Trained staff of all the workshops improve their knowledge by XX% after ME maintenance training.</li> <li>4-2 Percentages of ME in status E lowered by XX%.</li> </ul>	<ul style="list-style-type: none"> <li>Training records related to ME maintenance</li> <li>Results of pre and post tests for trainees of ME maintenance</li> <li>Inventory lists of each workshop</li> </ul>		<ul style="list-style-type: none"> <li>Increased average score 29.8%</li> <li>First Training Session (Management) 36.2%</li> <li>Second Training Session (Basic ME) 31.0%</li> <li>Third Training Session (Advanced ME) 36.1%</li> <li>Fourth Training Session (Advanced ME) 37.8%</li> <li>Fifth Training Session (5S-CQI) 7.8%</li> <li>Percentages of medical equipment in status C and E is 22.1%.(C; 17.9%, E; 4.2%)</li> </ul>	

Activities	Inputs		Important Assumption
	The Japanese Side	The Uganda Side	
<p><b>1-1 Establishment of foundation for the project and implementation</b></p> <p>1-1-1 [MOH] Establish TWG for the phase 2 project</p> <p>1-1-2 [MOH] Select focal persons for 5S, user training (UT), and medical equipment (ME) maintenance</p> <p>1-1-3 [TWG] Develop TORs for members of TWG and action plans for implementing the project</p> <p>1-1-4 [TWG] Conduct baseline survey</p> <p>1-1-5 [TWG] Update and/or create manuals, handbooks, guidelines, and monitoring tools for dissemination</p> <p>1-1-6 [TWG] Define criteria for national show case and review a national show case(s)</p> <p>1-1-7 [TWG] Review existing supervision system of MOH.</p> <p>1-1-8 [TWG] Integrate components of 5S-CQI-TQM, UT, and ME maintenance to the supervision system</p> <p><b>1-2 Training and knowledge sharing</b></p> <p>1-2-1 [TWG] Conduct refresher training for national 5S facilitators*</p> <p>1-2-2 [TWG] Conduct training of trainers for 5S-CQI-TQM especially customized for CQI</p> <p>1-2-3 [TWG] Organize opportunities to share good practices and lessons learned such as study tours and QI competition</p> <p><b>1-3 Implementation of activities, and monitoring and evaluation, and reflections</b></p> <p>1-3-1 [TWG] Implement an action plan based on PDCA cycle.</p> <p>1-3-2 [TWG] Conduct supervision which is integrated into the existing system</p> <p>1-3-3 [TWG] Hold meetings at least bi-monthly with the project team</p> <p>1-3-4 [TWG] Conduct a review meeting on established system in MOH</p> <p>1-3-5 [TWG] Make use of review of activity 1-3-4 for institutionalization of the system and methodologies, and reflection to the health sector policy/plan</p> <p>1-3-6 [TWG] Conduct an end-line survey</p>	<p>1. Dispatch of Experts</p> <p>1) Chief advisor / QI Management System</p> <p>2) 5S-CQI-TQM</p> <p>3) Utilization of Medical Equipment</p> <p>4) Maintenance of Medical Equipment</p> <p>5) Project Coordinator/ Training Management</p> <p>2. Machinery and equipment</p> <p>1) Necessary supplies for 5S-CQI-TQM to target hospitals and MOH headquarters</p> <p>2) Testing and calibration tools and equipment etc.</p> <p>3. Allocation of operational costs for project activities</p> <p>4. Training in Japan and/or third countries</p>	<p>1. Assignment of Counterparts</p> <p>2. Facilities</p> <p>1) Office space for Japanese experts</p> <p>3. Administrative cost and other expense such as training and supervision</p> <p>4. Personnel cost for counterparts and other running expenses (daily allowance and transportation expense)</p>	
<p><b>2-1 System development and implementation</b></p> <p>2-1-1 [Phase 1 target hospitals] Revitalize and/or strengthen function of quality improvement team (QIT) and work improvement team (WIT)</p> <p>2-1-2 [Phase 1 target hospitals] develop action plans of WITs at each phase 1 target hospital</p> <p>2-1-3 [Phase 1 target hospitals] Hold periodic meetings of QIT</p> <p>2-1-4 [Phase 1 target hospitals] Implement activities aiming at CQI with proper usage and maintenance of ME in collaboration with UT and ME maintenance activities</p> <p><b>2-2 Training</b></p> <p>2-2-1 [TWG] Conduct leadership and management training for management staff of targeted hospitals</p> <p>2-2-2 [TWG] Conduct refresher training for regional 5S facilitators of targeted hospitals</p> <p>2-2-3 [TWG] Conduct 5S CQI training to hospitals with high level practices of 5S-CQI-TQM</p> <p>2-2-4 [TWG] Conduct refresher training for regional user trainers</p> <p>2-2-5 [User trainers] Train staff of their hospitals on how to use ME on the job training basis</p> <p><b>3-1 System development and implementation</b></p> <p>3-1-1 [TWG] Support target hospitals to establish and/or strengthen quality improvement team (QIT)</p> <p>3-1-2 [TWG] Support target hospitals establish and/or strengthen work improvement team (WIT)</p> <p>3-1-3 [TWG] Support target hospitals to hold QIT periodic meetings</p> <p>3-1-4 [Phase 2 target hospitals] Implement 5S activities with proper usage and maintenance of ME by collaboration with UT and ME maintenance activities</p> <p><b>3-2 Training</b></p> <p>3-2-1 [TWG] Conduct leadership and management training for management staff of target RRHs</p> <p>3-2-2 [National 5S facilitators] Conduct training of trainers (TOT) on 5S-CQI-TQM for regional 5S facilitators of phase 2 targeted hospitals</p> <p>3-2-3 [Regional 5S facilitator] Conduct 5S-CQI-TQM training for staff of phase 2 targeted hospitals</p> <p>3-2-4 [Regional user trainers trained phase 1 project] Conduct TOT regarding UT for the phase 2 targeted hospitals</p> <p>3-2-5 [User trainers] Conduct UT on ME</p> <p>3-2-6 [User trainers] Train other staff of RRHs on how to use ME on the job training basis</p> <p>4-1 [TWG] Conduct leadership and management training for workshop managers including inventory data analysis</p> <p>4-2 [TWG] Conduct training for Workshop (WSs) staff on ME maintenance</p> <p>4-3 [TWG] Conduct training for core staff of the WSs on basics about specialized ME</p> <p>4-4 [TWG] Strengthen support system of the CWS for other RWSs</p> <p>4-5 [TWG] Support WSs to develop a management system for accumulating knowledge and skills</p>			<p>Pre-Conditions</p> <p style="text-align: center;"></p> <p style="text-align: center; background-color: yellow;"><b>&lt;Issues and countermeasures&gt;</b></p> <p>•Modification of PDM v.0, related indicators and means of verification →Modification of PDM v.0 approved in the 2nd JCC and shall be agreed between JICA and MOH. →The Plan of Operation for the second year of the Project will be developed according to PDM ver.1</p> <p>•Necessary funds for project activities →MOH committed to provide funds for the fiscal year 2017/2018 in the 2nd JCC. →JICA Uganda will issue a letter to MOH for confirmation of budget allocation to the Project.</p> <p>•Supervision system →Supervision system will be discussed with QAID in consideration of HFQAP.</p> <p>•Conducting Steering Committee meeting →The Steering Committee meeting was held on 16th October, 2017. All member agreed the Steering Committee meeting will be held every three months in the second year of the Project. →Results of Project Steering Committee will be discussed in Top Management meeting of MOH</p> <p>•Updating of QI materials by QAD was not completed on schedule →Draft of CQI Guidelines and 5S-CQI-TQM Facilitators Guidebook will be finalized in the term 2 of the Project.</p>

\*Training on 5S for 5S national facilitators and training on CQI for CQI national facilitators are categorized as activities for the output 1 because the majorities of the national 5S facilitators are MOH staff. Other training for regional 5S trainers and regional user trainers are categorized as activities for the output 2 or 3 because both types of regional trainers are staff of the target hospitals.

**Project Monitoring Sheet II (Revision of Plan of Operation)**

Version 3 (1st May 2017 - )  
Dated 17th November 2017

**Project Title: MOH/JICA Health System Strengthening Project**

Inputs Expert	2016								2017				Monitoring Issue	Solution	
	Plan		Actual		I		II		III		IV				
	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual			
Chief Advisor/QI Management System															
Assist Chief Advisor/QI Management System															
5S-CQI-TQM ①															
5S-CQI-TQM ②															
Utilization of Medical Equipment															
Maintenance of Medical Equipment															
Project Coordinator/Training Management															
<b>Equipment</b>															
Project vehicles and equipment/materials necessary for project administration															
<b>Training in Japan</b>															
<b>In-country/Third country Training</b>															
Tanzania KAIZEN TOT															
<b>Activities</b>															
<b>Sub-Activities</b>															
<b>1. Supporting/supervising system for health infrastructure management of all the RRHs is strengthened in the MOH</b>															
<b>1-1 Establishment of foundation for the project and implementation</b>															
1-1-1 [MOH] Establish TWG for the phase 2 project															
1-1-2 [MOH] Select focal persons for 5S, user training (UT), and medical equipment (ME) maintenance															
1-1-3 [TWG] Develop TORs for members of TWG and action plans for implementing the project															
1-1-4 [TWG] Conduct baseline survey															
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1-1-8 [TWG] Integrate components of 5S-CQI-TQM, UT, and ME maintenance to the supervision system															
<b>1-2 Training and knowledge sharing</b>															
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1-3-1 [TWG] Implement an action plan based on PDCA cycle.															
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1-3-5 [TWG] Make use of review of activity 1-3-4 for institutionalization of the system and methodologies, and reflection to the health sector policy/plan															
1-3-6 [TWG] Conduct an end-line survey															

The kick-off meeting of the project was conducted and the project implementation structure and the Project Steering Committee were established.

The Project Implementation Teams (5S-CQI-TQM, UT and ME maintenance) were established.

Work Plans based on the situation analysis were developed.

Situation analysis for all of the targeted hospitals and workshops was conducted.

Concept note of CQI Guidelines and 5S-CQI-TQM Facilitators Guidebook were developed.

Since definition of national show case should follow QI framework, it is necessary to discuss within QAID in consideration of HFQAP.

Supervision system will be discussed within QAID in consideration of HFQAP.

Field test of Modified 5S M&E tool was conducted.

Field test of Modified 5S M&E tool was conducted.

Refresher Training of 5S National Facilitators was conducted.

Training of New national 5S-CQI-TQM facilitators was conducted.

Fort Portal WS was awarded as best WS 17th WS Performance Review Meeting. And Lira and For Portal WS were awarded as best WS in 19th WS Performance Review Meeting.

\*Two poster concerning 5S presented in 4th National Quality Improvement Conference.

5S M&E was conducted.

Project Steering Committee meeting was conducted in October.

Steering Committee meeting was not conducted regularly due to difficulty of arrangement.

Results of Project Steering Committee will be discussed in Top Management meeting of MOH.

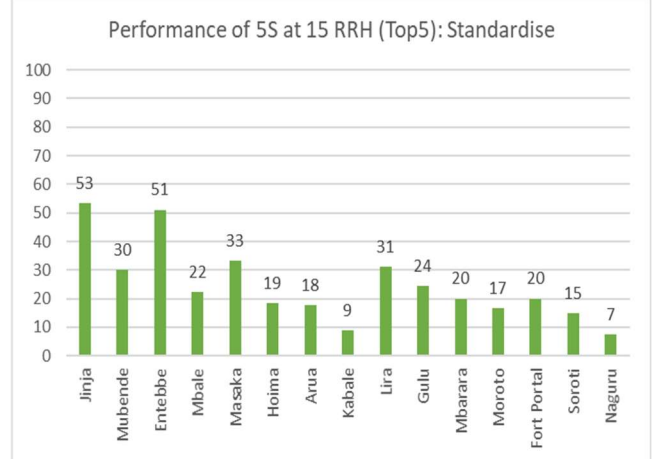
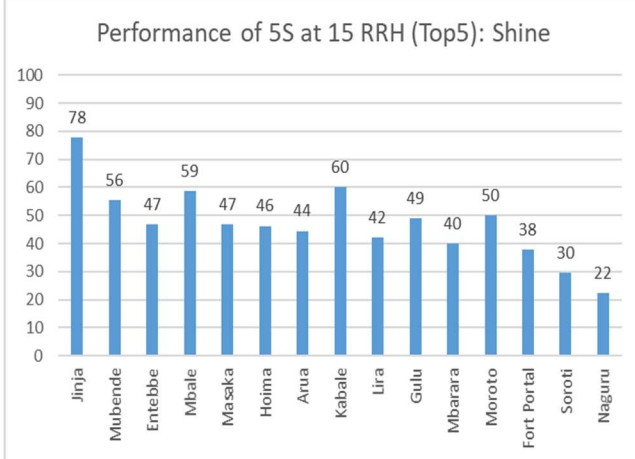
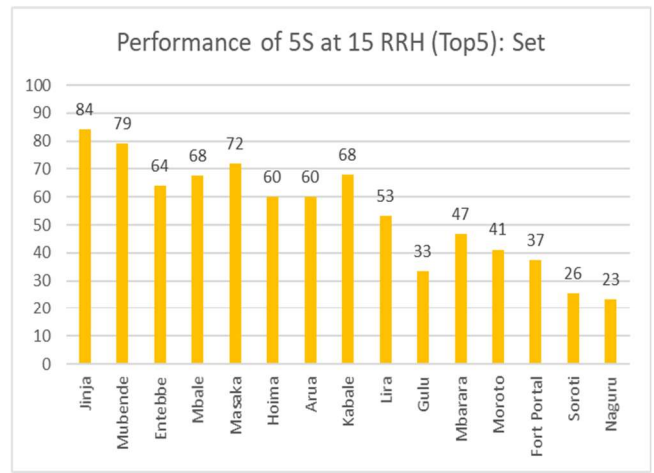
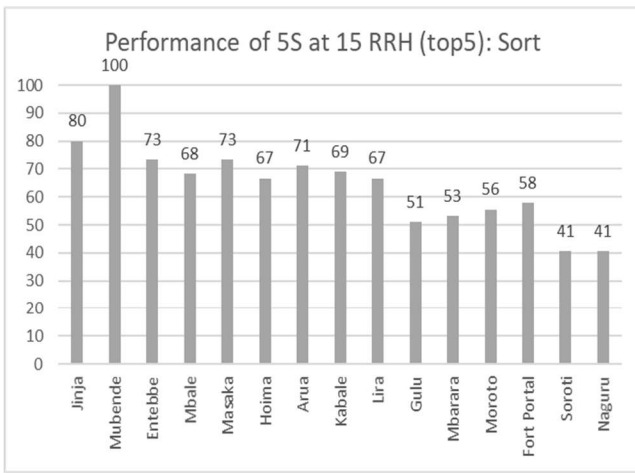
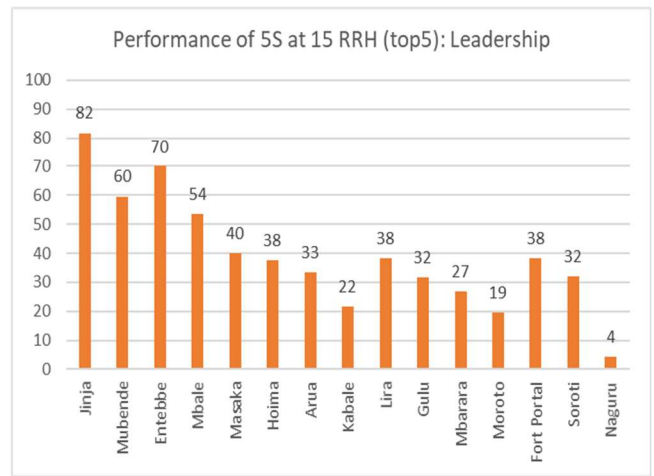
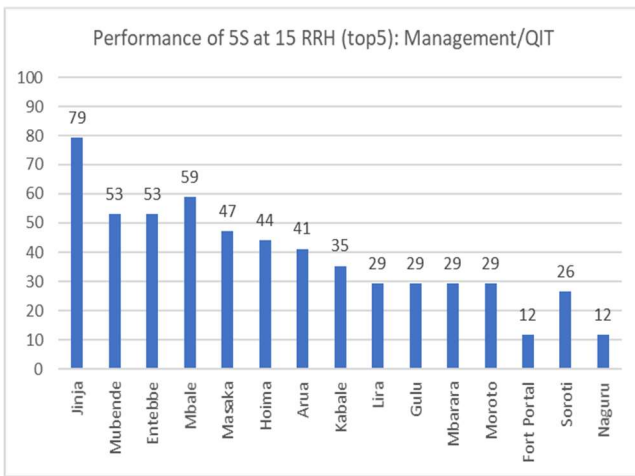
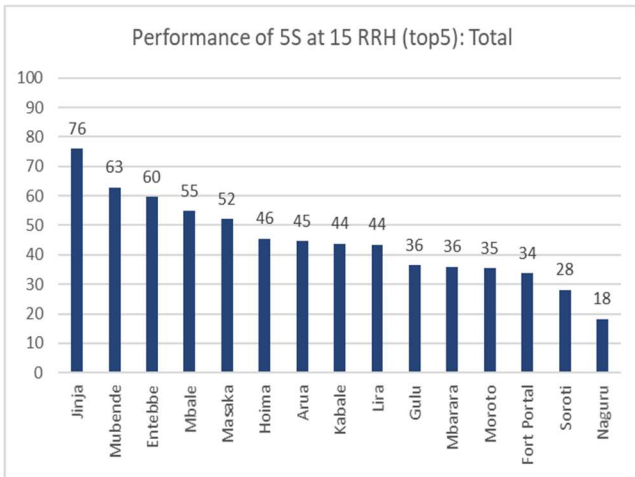
**Achievements**

**Issue & Countermeasures**





Attachment III 5S baseline scores



Attachment IV Tables and figures User training activities

Table 1: Target Medical Equipment

First ToT Target Equipment		Second ToT Target Equipment		Next Phase Target Equipment	
No.	Name of Equipment	No.	Name of Equipment	No.	Name of Equipment
1	Autoclave	11	Weight scale	20	Fetal Doppler
2	Boiler	12	Resuscitator	21	Vertical Autoclave
3	Table top autoclave	13	Recovery bed	22	Diathermy
4	O2 Cylinder set	14	Pulse Oximeter	23	Glucometer
5	Oxygen concentrator	15	MVA	24	Patient monitor
6	Vacuum Extractor	16	Infant warmer	25	Defibrillator
7	Operating Table	17	Infant Incubator	26	Ultrasonography
8	Nebulizer	18	Hot Air Oven		
9	Suction machine	19	ECG		
10	Blood Pressure machine				

Figure 1: Results of Pre- and Post-test for P2 User Trainer ToT-2

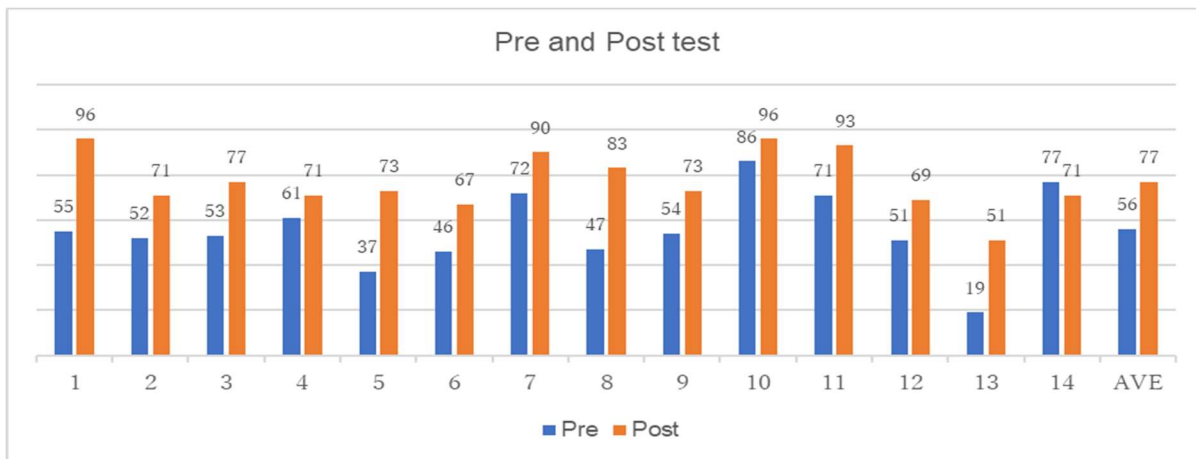


Figure 2: Results of practical test for P2 User Trainer TOT-2

Trainer	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Hospital Name	Gulu	Gulu	Fort Portal	Fort Portal	Jinja	Jinja	Naguru	Naguru	Mubende	Mubende	Mbarara	Mbarara	Soroti	Soroti
Score	84%	87%	88%	87%	86%	86%	87%	74%	90%	92%	89%	87%	82%	92%

**Table 2: First Support Supervision**

Date	Hospital	Japanese expert, P1 User Trainer (Trainer)	Name of User Trainer (Trainee)	Target Equipment	Participant (WS staff)	Items supported by the hospital and/or WS
6/19	Jinja	Hiruma	Nakalembe Molly Agwang Joyce	Pulse Oximeter, Boiler, O2 Cylinder set, Suction machine	20 (0)	-Nil
6/20	Soroti	Hiruma	Epeduno Gabriel Akongo Agnes	O2 Cylinder set, Table top autoclave, Oxygen concentrate, Boiler	25 (3)	-Refreshment (WS) -Stationery (hospital)
6/21	Gulu	Hiruma	Acayo Agnes Lilian Atim Esther Stella	Oxygen concentrate, Suction machine, Nebulizer, Autoclave	22 (6)	-Refreshment (hospital)
6/27	Mubende	Hiruma	Halima Adam Mirembe Violet	Suction machine, Table top autoclave, Autoclave, Infant warmer	19 (0)	-Refreshment (hospital)
6/28	Fort Portal	Hiruma	Atugonza Rita Maureen Najjiugo Lydia	Nebulizer, Infant warmer, Suction machine, O2 Cylinder set	39 (0)	-Refreshment (hospital)
6/29	Mbarara	Hiruma	Aryeija Justus Tumugumye Rhoda	Weight scale, Recovery bed, MVA set, BP machine	22 (2)	-Refreshment (hospital)
7/7	Naguru	Hiruma	Basemera Kevin Mulwany Fredrick	Autoclave, Oxygen concentrator, O2 Cylinder set, Weight scale,	22 (2)	-Refreshment and stationery (hospital)

**Table 3: Second Support Supervision**

Date	Hospital	Japanese expert, P1 User Trainer (Trainer)	Name of User Trainer (Trainee)	Target Equipment	Participant (WS staff)	Items supported by the hospital and/or WS
7/10	Jinja	Hiruma	Nakalembe Molly Agwang Joyce	Recovery bed, Infant warmer ECG, Oxygen concentrators	15 (0)	-Nil
7/11	Soroti	Hiruma	Epeduno Gabriel Akongo Agnes	Pulse Oximeter, Nebulizer BP machine, Resuscitator	20 (3)	-Refreshment (cash)(WS)
7/12	Gulu	Hiruma	Acayo Agnes Lilian Atim Esther Stella	Infant Incubator, Resuscitator Pulse Oximeter, O2 Cylinder set	18 (5)	-Refreshment (hospital)
7/18	Mubende	Hiruma	Halima Adam Mirembe Violet	Oxygen concentrators, Nebulizer MVA, ECG	22 (1)	-Refreshment (WS)
7/19	Fort Portal	Hiruma	Atugonza Rita Maureen Najjiugo Lydia	Hot Air Oven, Pulse Oximeter Autoclave, Operating Table	29 (3)	-Refreshment (hospital)
7/20	Mbarara	Hiruma	Aryeija Justus Tumugumye Rhoda	Recovery bed, Autoclave Nebulizer, Oxygen concentrators	13 (1)	-Refreshment (hospital)
7/21	Naguru	Hiruma	Basemera Kevin Mulwany Fredrick	ECG, MVA Suction machine, Infant Incubator	34 (4)	-Refreshment and stationery (hospital)

Table 4: The 3rd Support Supervision

Date	Hospital	Japanese expert, P1 User Trainer (Trainer)	Name of User Trainer (Trainee)	Target Equipment	Participant (WS staff)	Items supported by the hospital and/or WS
8/28	Gulu	Hiruma, Sr.Alezuyo Janet Agoma, Mr. Adriko Innocent	Acayo Agnes Lilian Atim Esther Stella	Adult weighing scale, Infant warmer, MVA, BP Machine,	17 (6)	-Refreshment (hospital)
8/29	Soroti	Hiruma, Sr.Lukia Kabitanya , Sr.Aciro Julia	Epeduno Gabriel Akongo Agnes	MVA, Weighing scale Infant Incubator, Infant warmer	19 (2)	-Refreshment (cash)(WS)
8/30	Jinja	Hiruma, Sr. Akello Christine Okeng. Mr. Okwir John Van	Nakalembe Molly Agwang Joyce	Nebulizer, Infant Incubator, Autoclave, Resuscitator,	19 (1)	-Refreshment (hospital)
8/31	Naguru	Hiruma, Sr. Anyeko Okono Evelyn Sr. Mujalasa Christine Reita	Basemera Kevin Mulwany Fredrick	BP machine, Pulse Oximeter, Nebulizer, Recovery bed,	27 (2)	-Refreshment (hospital)
9/5	Mubende	Hiruma, Sr. Kabajuni Sarah, Sr. Katusiime Constance	Halima Adam Mirembe Violet	Recovery bed, Resuscitator O2 Cylinder set, Pulse Oximeter	21 (0)	-Refreshment (hospital)
9/6	Fort Potal	Hiruma, Sr. Byarugaba Alison, Sr. Tushemereirwe Justine A nne	Atugonza Rita Maureen Najjiugo Lydia	MVA set, Resuscitator Patient Monitor, BP machine	43 (3)	-Refreshment (hospital)
9/7	Mbarara	Hiruma, Sr. Namuddu Joanita, Sr. Musoke Prossy	Aryeija Justus Tumugumye Rhoda	O2 Cylinder set, Resuscitator Vacuum Extractor, Pulse Oximeter	29 (1)	-Refreshment (hospital)



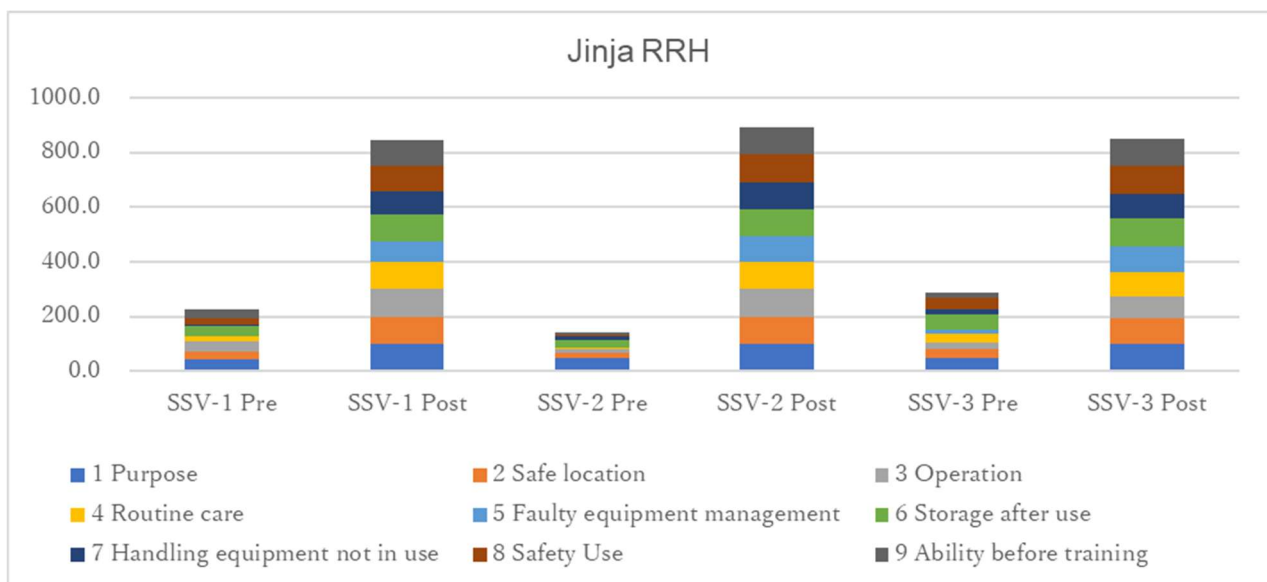
Figure 3 - 9: Evaluation results for training and after Support Supervision 1 to 3.  
 (There was improvement in knowledge of using of equipment)

Questions

1. Do you understand the purpose of use of medical equipment: Purpose
2. Do you know the safekeeping (location) place of the medical equipment: Safe location
3. Can you operate the medical equipment: Operation.
4. Can you do routine care of medical equipment: Routine care
5. Do you understand a method of how to manage faulty medical equipment: Faulty equipment
6. Do you know where to keep medical equipment after use: Storage
7. Do you understand how to handle medical equipment when it is not working: Mismanaged equipment
8. Do you know how to safely use medical equipment: Safety Usage
9. Can you use the medical equipment before today's training with no doubt: Training ability

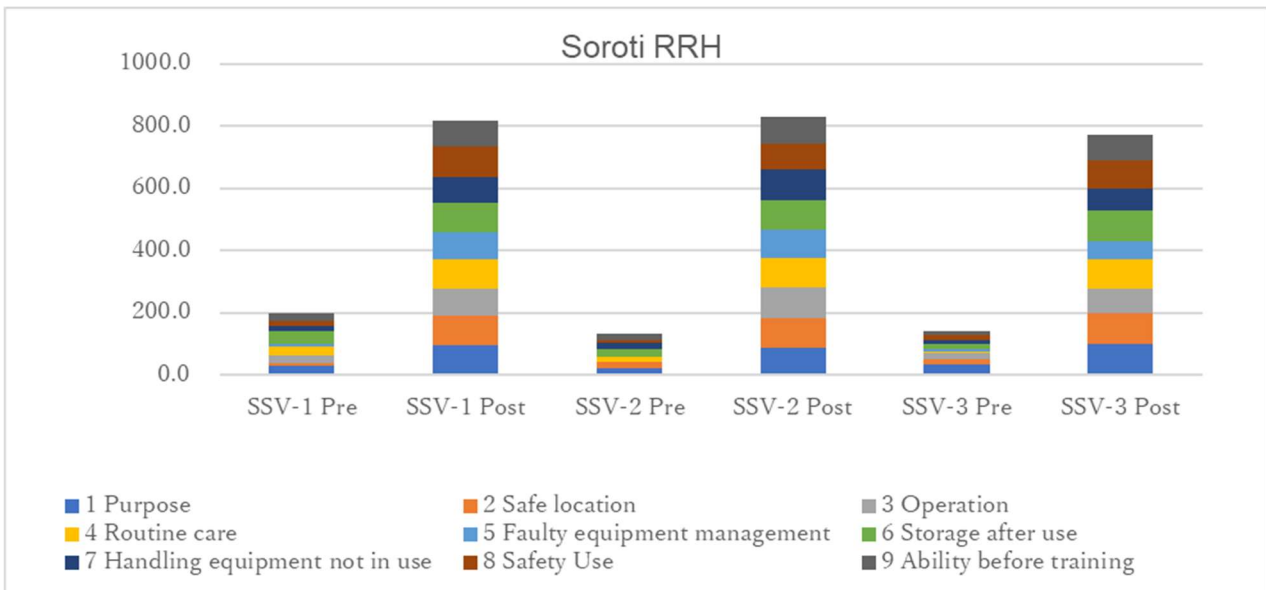
All answer is yes-no question

Figure 3



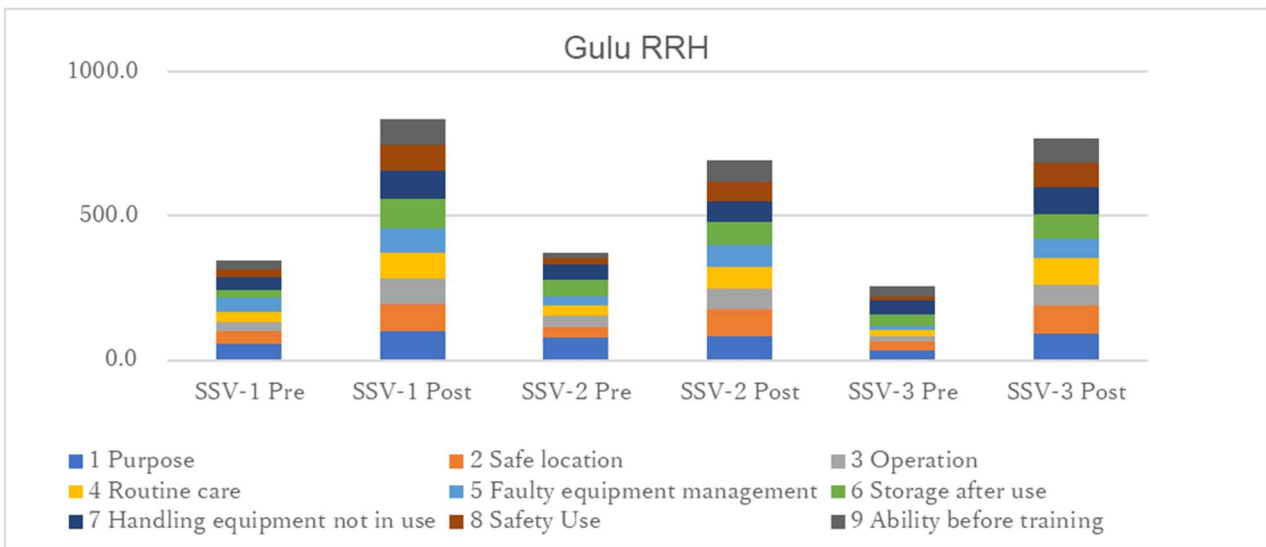
-Jinja RRH performance indicates that before pre-test done, performance was low, but after training it improved when post-test was done.

Figure 4



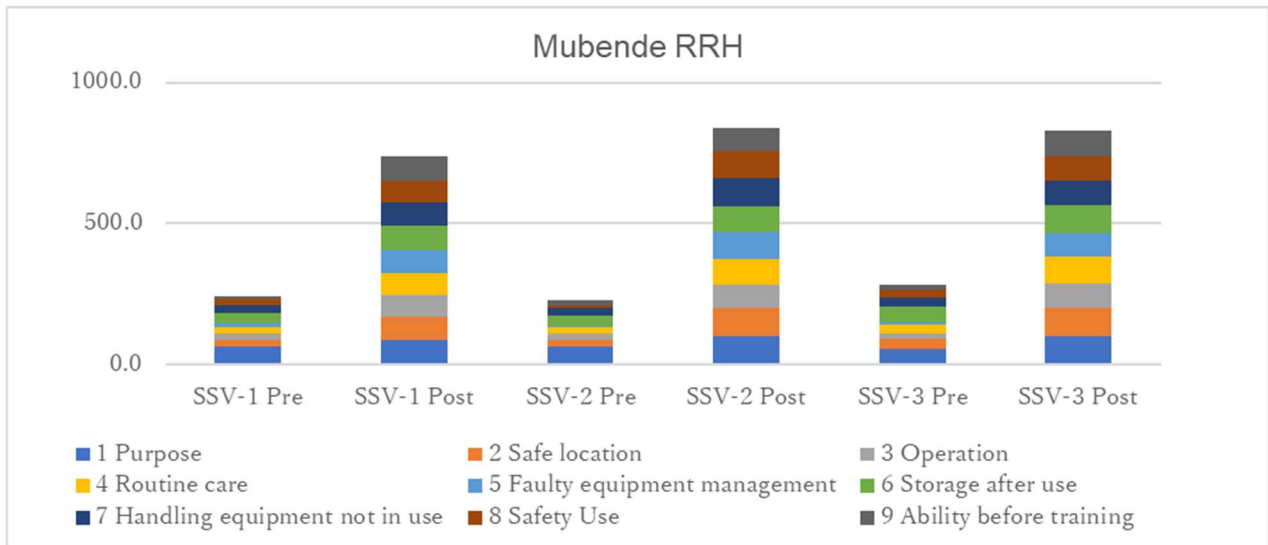
-Soroti RRH performance of pre- and post-test for the three support supervisions indicate low performance in pre-test and improvement in post-test except for the item of Faulty equipment which was not well performed in the 3rd SSV post-test.

Figure 5



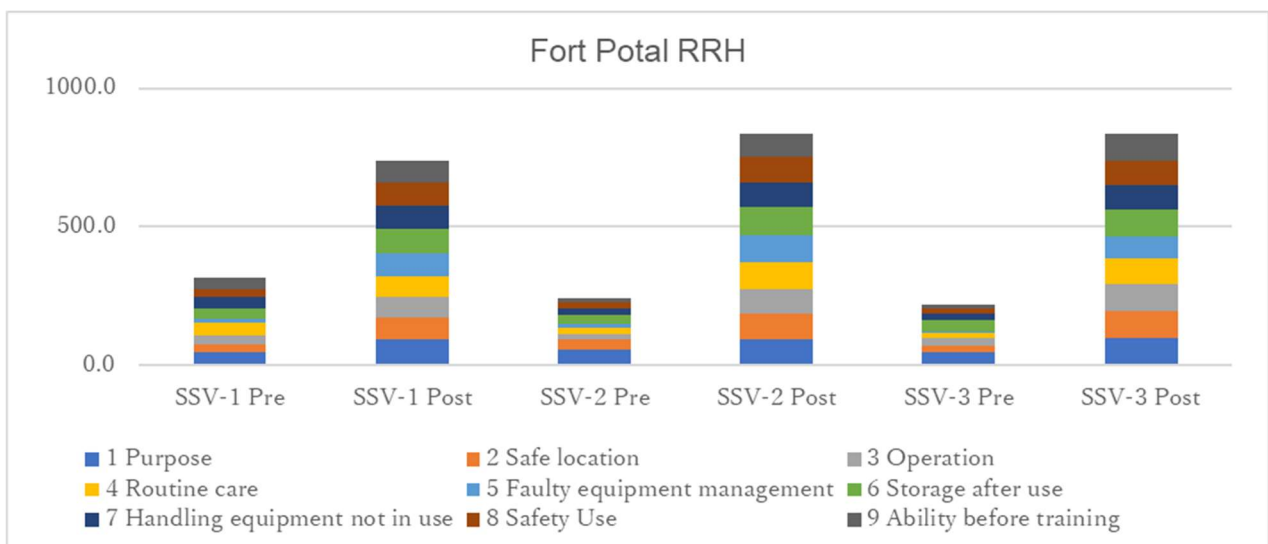
- Gulu RRH indicated that performance was constantly good for both pre- and post-test.

Figure 6



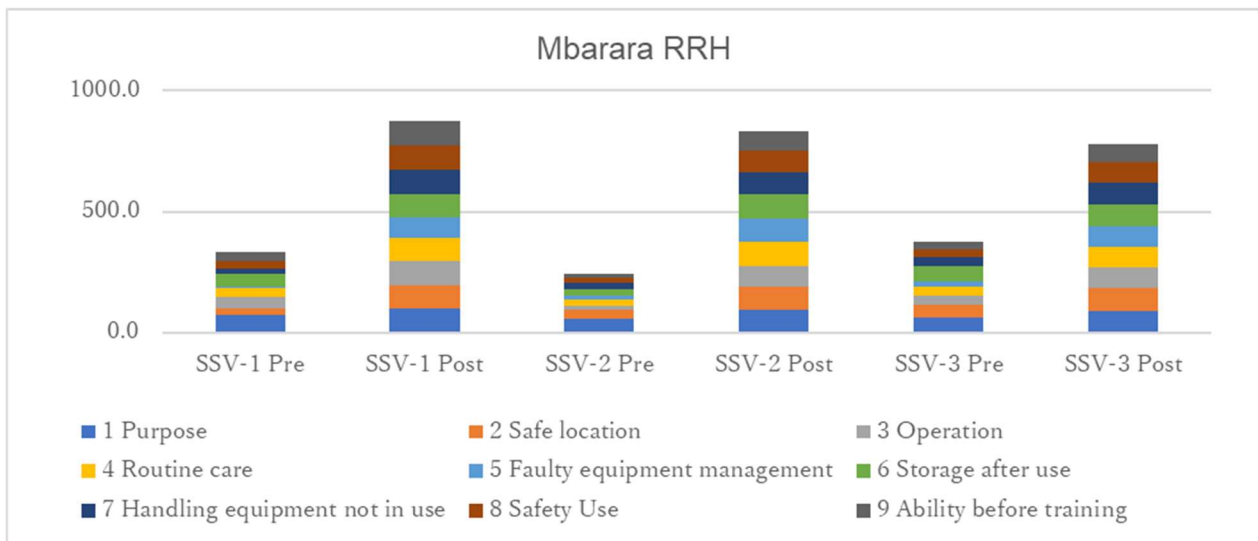
- Mubende RRH performance indicated good performance in post-test.

Figure 7



-Fort portal RRH training indicates that good performance was exhibited in pre-test and post-test.

Figure 8



-Mbarara RRH training indicates good performance during pre-test and post-test for participants.

Figure 9

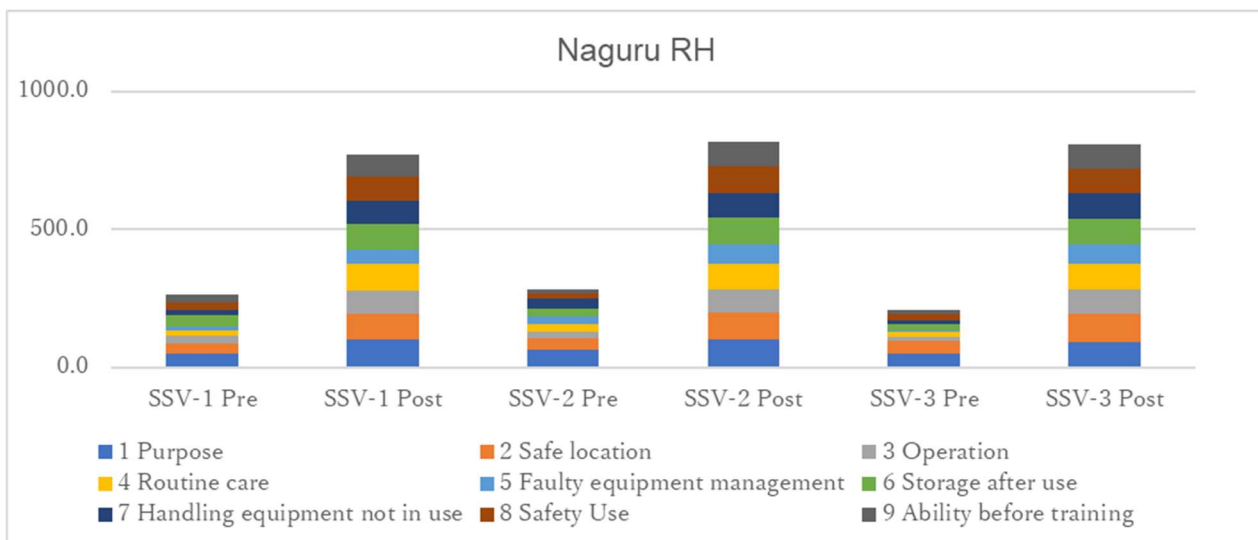


Figure 10 - 23: User trainer Evaluation by a participant

Questions:

1. Attitude of the trainer: Attitude
2. The volume of voice of the trainer: Audibility
3. The teaching materials used by the trainer: Teaching materials
4. Trainer's content explanation: Training explanation.
5. Trainer's equipment explanation (what equipment, type, parts and model): Equipment description
6. Trainer's pre-operation explanation (how equipment was): Equipment preparation
7. Trainer's explanation on maintenance (immediate and routine care): Maintenance
8. Please assess the training carried out by the trainer: Assessment
9. What have you benefited from the training: Training Benefit

Figure 10

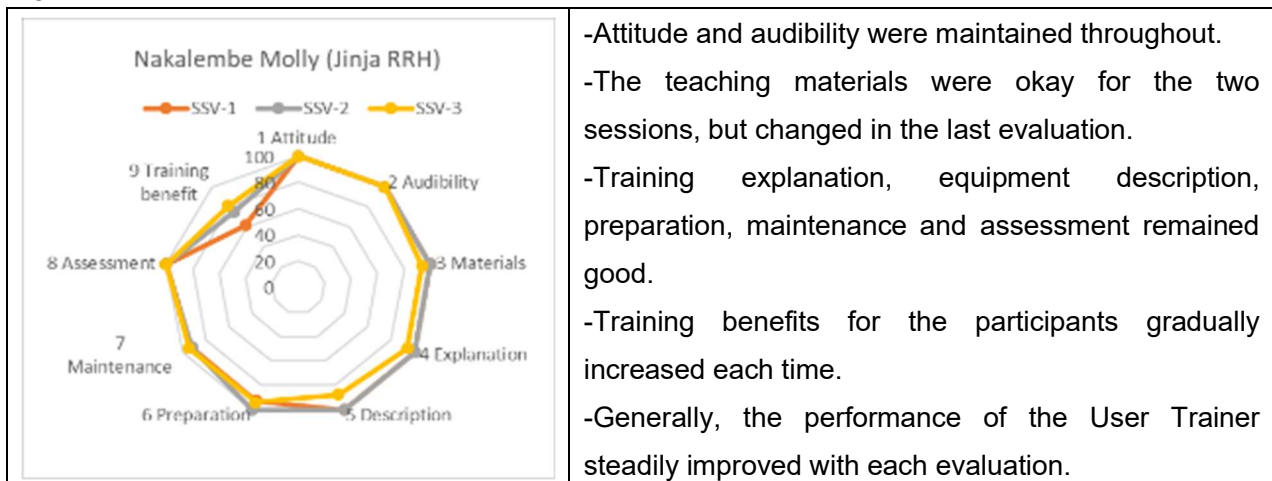


Figure 11

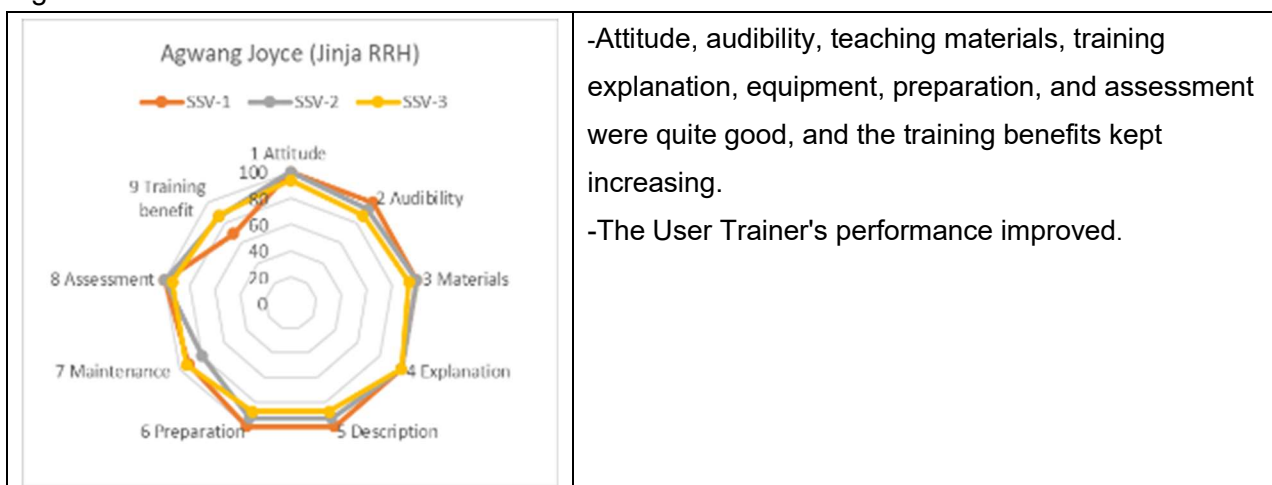


Figure 12

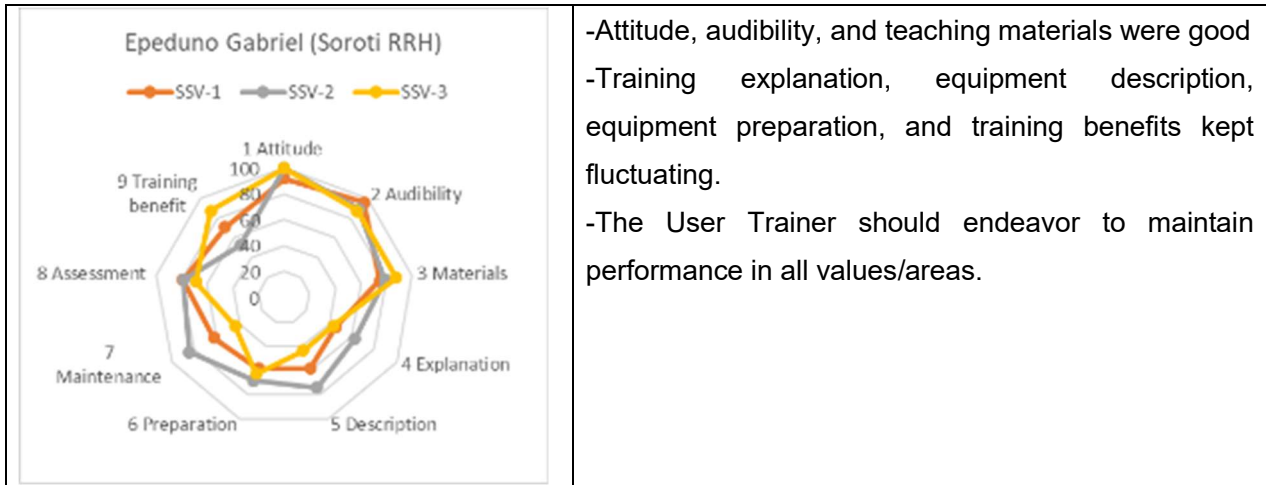


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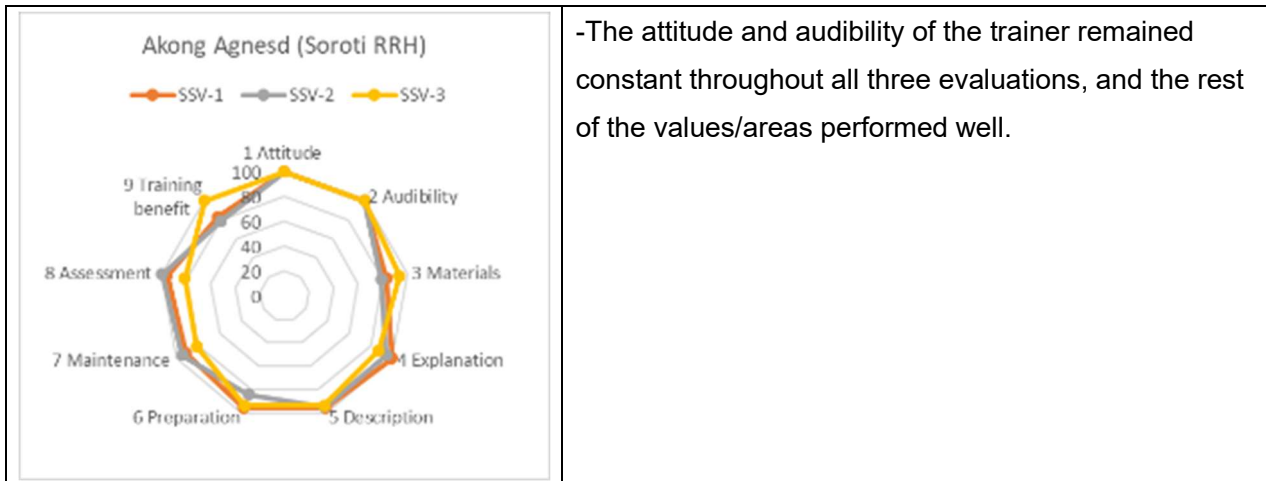


Figure 14

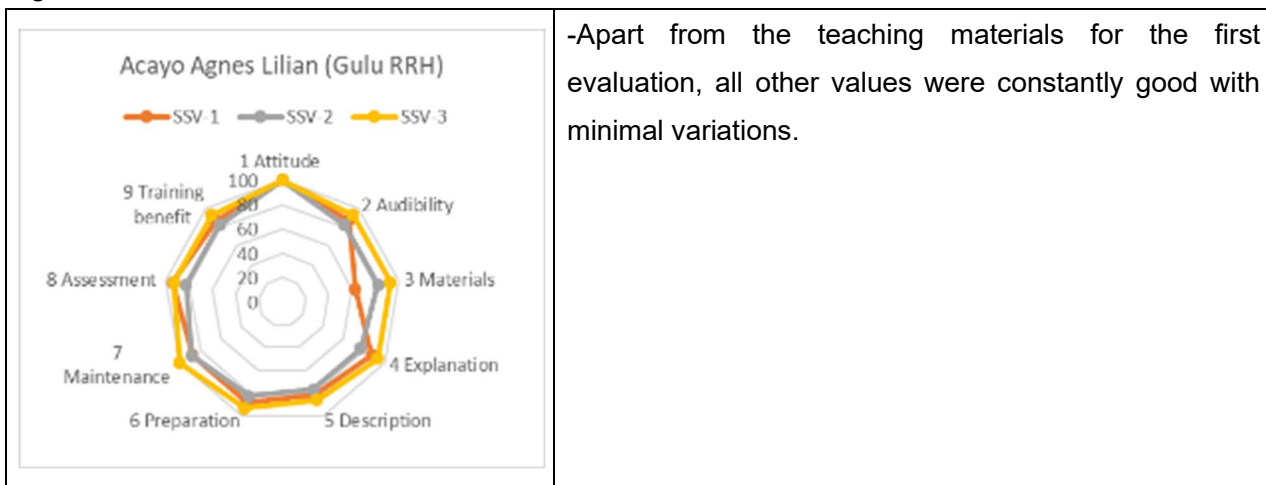


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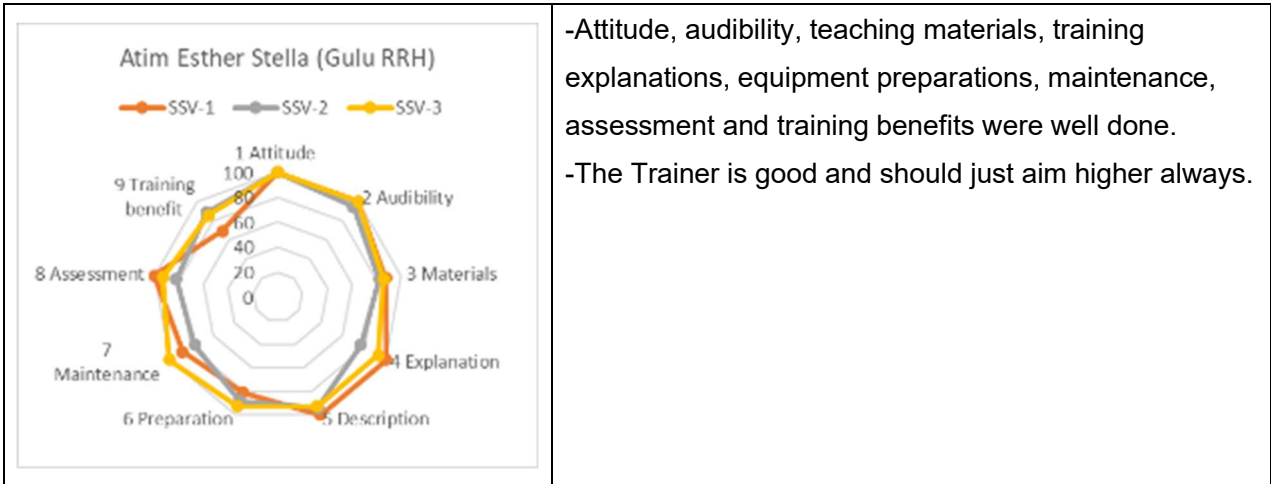


Figure 16

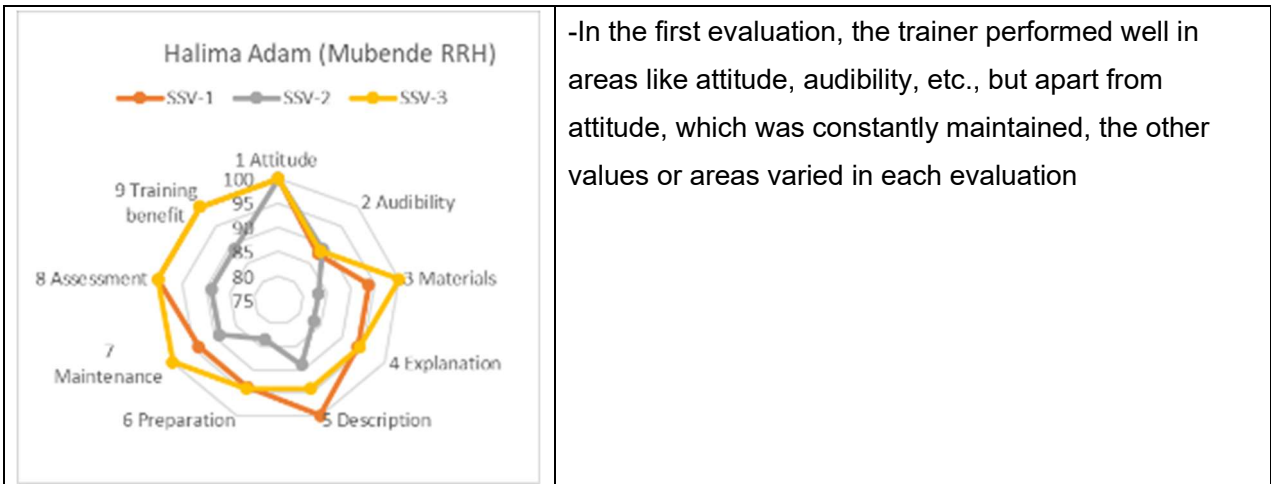


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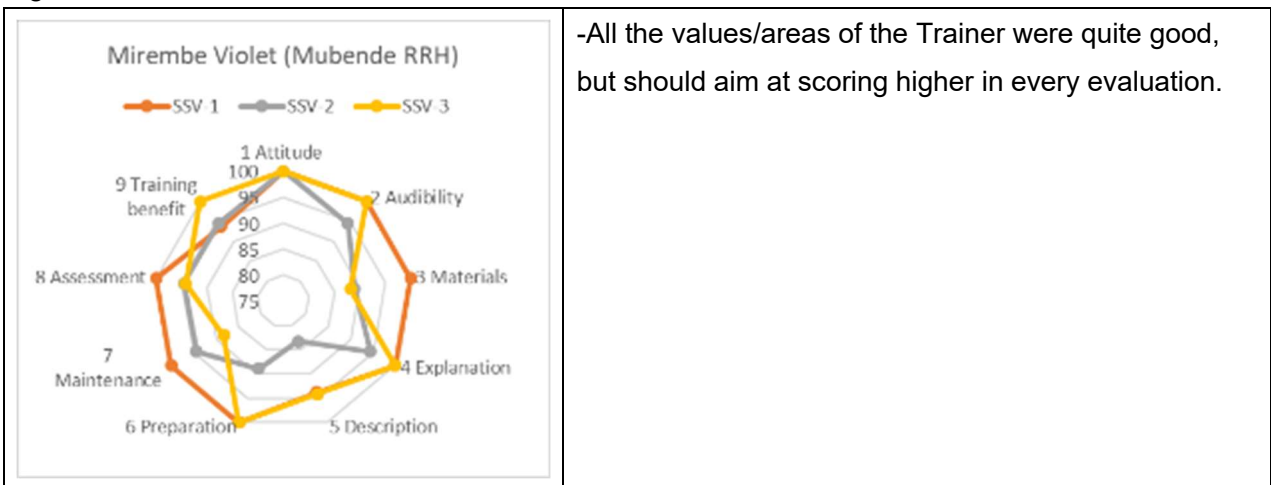


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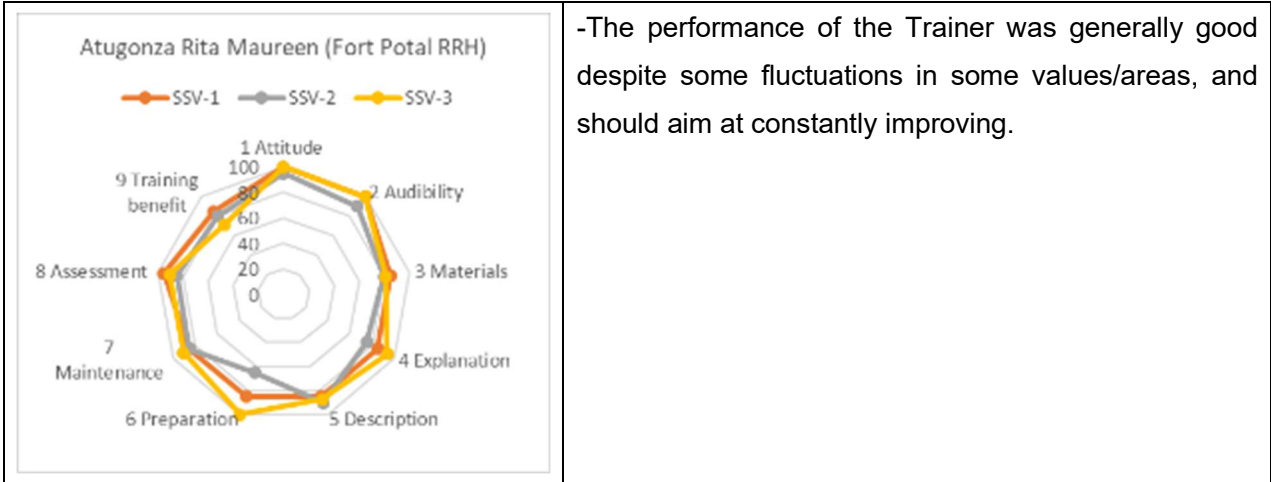


Figure 19

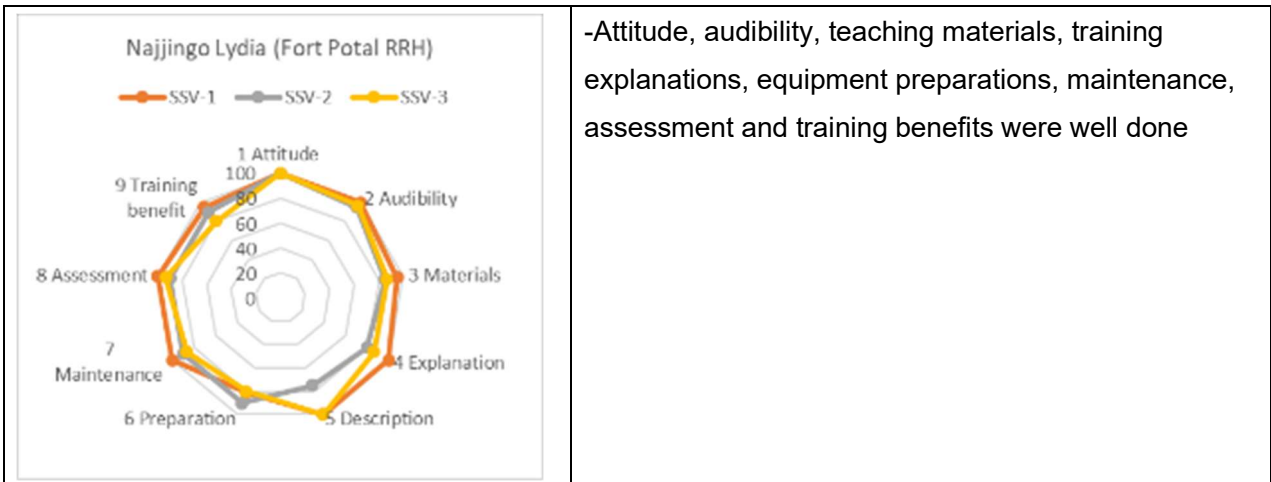


Figure 20

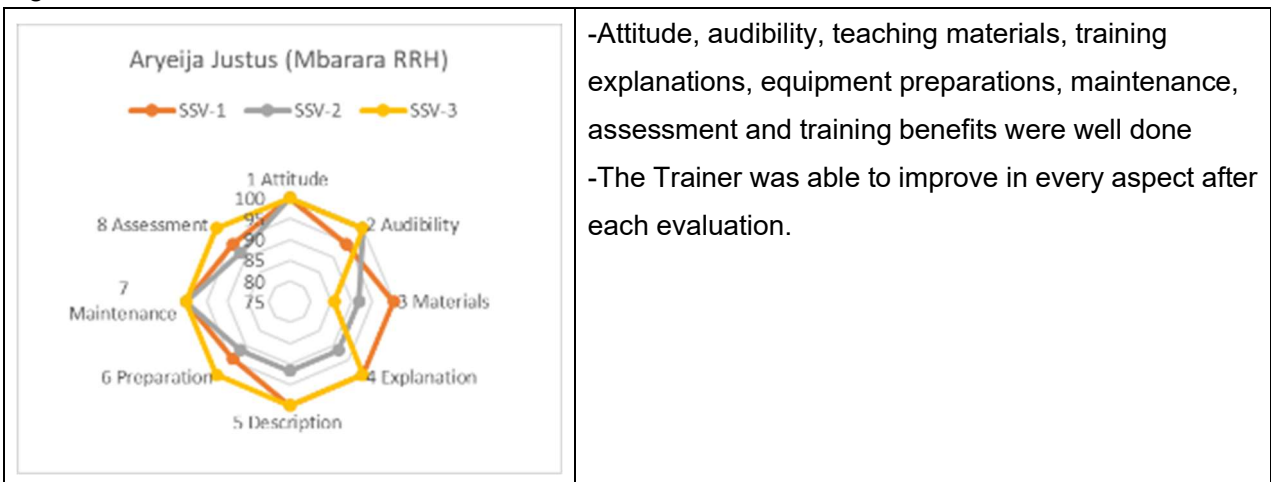




Figure 21

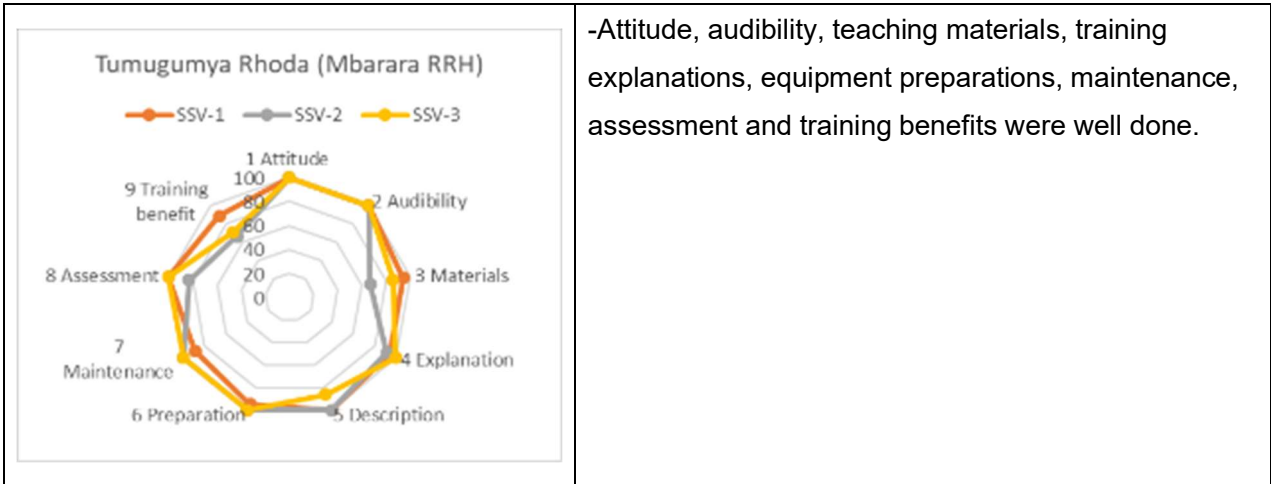


Figure 22

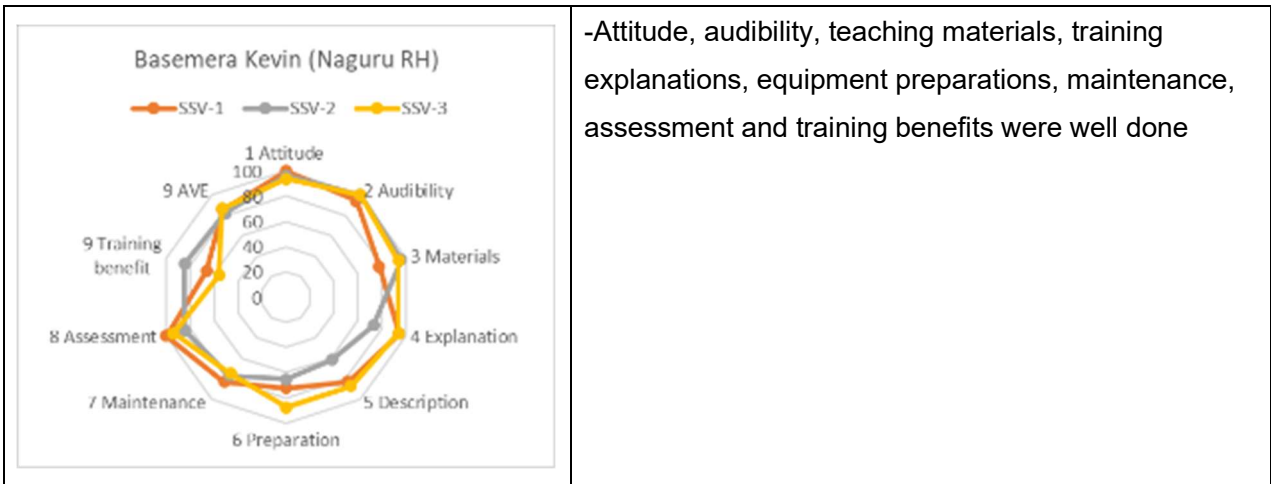
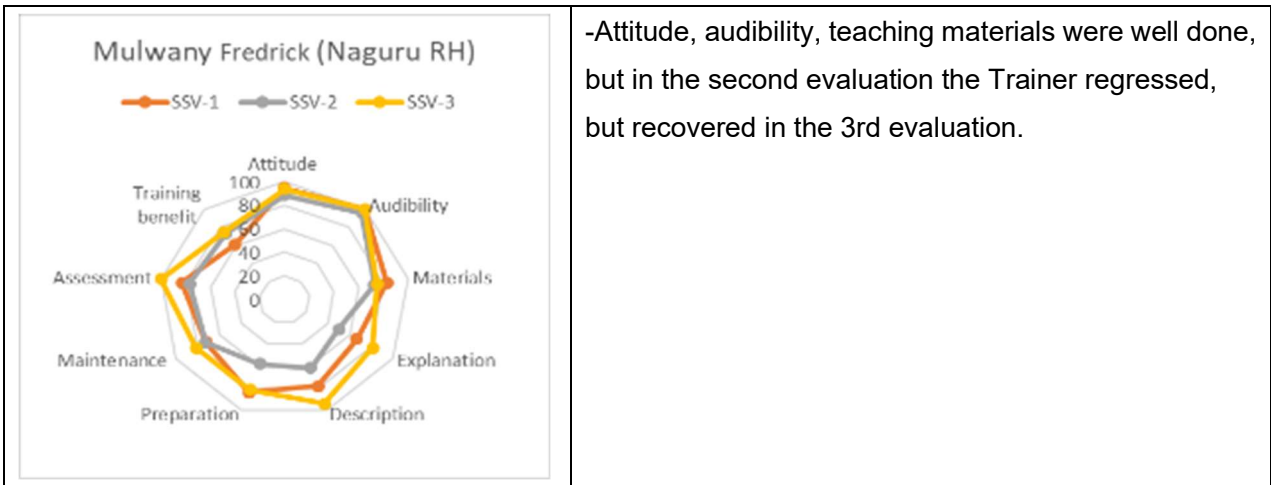


Figure 23



## Attachment V

### Performance Review Assessment of Regional Workshops Aug. – Sept. 2017

#### Performance Review Assessment of Regional Workshops, Aug.-Sep. 2017

Scoring Criteria: 3: Good performance, 2: Fair, 1: Poor/low performance



No	PERFORMANCE INDICATORS	Central	Mbale	Soroti	Lira	Gulu	Arua	Hoima	Fort Portal	Kabale	Mubende	Moroto	Jinja	Average score
A)	Staffing level in WSs	3	1	3	3	2	2	3	3	3	3	2	2	2.5
B)	Is Workshop Budget well released?	2	1	3	3	1	3	2	2	3	1	No data	No data	2.1
C)-1	Are Job cards and Complaint forms properly used?	2	2	2	3	2	2	1	3	3	2	2	1	2.1
C)-2	Is "Framework Contract" used for purchasing spare parts?	3	3	3	2	1	3	2	3	2	3	1	1	2.3
C)-3	Is Planned Preventive Maintenance conducted?	2	2	1	3	1	1	2	3	2	2	2	1	1.9
D)-1	Periodical update of equipment inventories	3	2	2	3	2	1	2	3	3	3	1	1	2.2
D)-2	Is inventory data used for planning purposes?	2	2	2	2	1	2	2	2	2	2	1	1	1.8
E)-1	Making Work Plans properly	2	2	3	3	2	2	1	2	2	3	2	1	2.1
E)-2	Frequency of routine maintenance visits	3	2	3	3	2	3	2	3	3	3	2	1	2.5
F)	Timely submission of Quarterly Reports	3	2	3	3	2	3	2	3	3	3	2	1	2.5
G)	Is a Regional Workshop well equipped? (PC, printer, vehicle and tools)	3	2	1	3	3	3	3	3	3	2	2	1	2.4
H)	Progress of 5S implementation in WSs	1	2	2	2	2	3	2	3	2	1	1	1	1.8
TOTAL (Full-mark:36)		29	23	28	33	21	28	24	33	31	28	18	12	26.9
TOTAL % (score/36 x 100)		81%	64%	78%	92%	58%	78%	67%	92%	86%	78%	50%	33%	71%
Previous TOTAL % (score/36 x 100)		72%	42%	50%	81%	56%	53%	53%	83%	69%	44%	47%	-	59%
Increment (%) from previous score		9%	22%	28%	11%	2%	25%	14%	9%	17%	34%	3%	-	15.7%

Attachment VI Performance in Target Facilities

	Mbale RRH/WS	Masaka RRH	Entebbe GH	Hoima RRH/WS	Kabale RRH/WS	Arua RRH/WS	Lira RRH/WS	Moroto RRH/WS	Soroti RRH/WS	Jinja RRH/WS	Gulu RRH/WS	Fort Portal RRH/Mbarara RRH	Mubende RRH/WS	Naguru	Tororo	Central WS	
5S	1. Number of areas/units implementing 5S activities (XX areas out of YY)	15	26	26/28	15	16	24	15	9	11	23	11	10	5	17	7	18
	2. Average score of M&E conducted by NF (%)	55	52	60	46	44	45	44	35	28	76	36	34	36	63	18	46
	3. Number of CQI cases completed	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UT	Number of user trainers	1	2	1	2	2	2	3	2								
	Number of user training	2	4	3	1	2	4	4	1								
	Number of participants attended at user training																
	June 2017	25	42	22	0	0	27	4	0								
	July 2017	43	43	9	20	32	15	6	63								
	August 2017	0	52	6	0	33	24	18	0								
	September 2017	0	14	0	0	0	27	8	0								
October 2017																	
November 2017																	
ME	1. Number of participants attended at leadership and management training including 5S-CQI	3			4	4	4	4	4	4	2	4	4				14
	2. Number of participants attended at maintenance training on basic medical equipment	1			0	1	1	2	1	1	1	1	2				1
	3. Number of participants attended at first-line maintenance training on specialized medical equipment	3			3	3	3	3	3	2	4	2	3				9
	4. Number of support supervision visits including situation survey by HID/Central WS & JICA expert	2			3	2	2	2	1	2	1	2	2				-
	5. % of Workshop performance scores (12 indicators, current score/36 full-mark x 100)	64%			67%	86%	78%	92%	50%	78%	33%	58%	92%				78%

To CR of JICA Uganda Office

## Project Monitoring Report Sheet

**Project Title: Improvement of Health Services through Health Infrastructure Management II****Version of the sheet: 4 (Term : 24th October, 2017 – 30th June, 2018)****Name: Dr. Olaro Charles****Title: Project Director****Name: Hiroshi Tasei****Title: Chief Advisor****Submission Date: 31st July 2018****I. Summary****1 Progress and Achievements of the Project****1-1 Progress of Inputs****[The Japanese side]1-1-1 Dispatch of JICA Experts**

The Japan International Cooperation Agency (JICA) Experts were dispatched on schedule. The list of the Experts is shown in the table below.

Name	2017			2018						Total (days)
	10	11	12	1	2	3	4	5	6	
Hiroshi Tasei Chief Advisor/QI Management System①		21	████				67	████		88
Shizu Takahashi Vice Chief Advisor/QI Management System②							22	████		22
Naoki Take 5S-CQI-TQM①							28	████		28
Yujiro Handa 5S-CQI-TQM②										0
Yasuhiro Hiruma Utilization of Medical Equipment							69	████		69
Naoki Mimuro Maintenance of Medical Equipment							69	████		69
Emi Onosaka Project Coordinator/Training Management							69	████		69

**1-1-2 Delivery of the 5S tool kits**

The JICA Experts delivered 5S tool kits to help implement the 5S activities at the target facilities. The contents of the tool kit include: a carrying bag with several types of stationary such as markers, pens, scissors, tapes, etc. All target hospitals, District Health Offices (DHOs) and Workshops (WSs) received the tool kits except Masaka Regional Referral Hospital (RRH), Moroto RRH and Naguru Referral Hospital (RH).

**[The Uganda side]****1-1-3 Assignment of Counterparts**

- (1) 16 National 5S-CQI-TQM Facilitators implemented the 2nd 5S Monitoring and Evaluation (M&E) in target hospitals.
- (2) Project Manager visited Kabale RRH for supervision.
- (3) Four (4) former Project User Trainers, also called Senior User Trainers, carried out the refresher training for User Trainers.
- (4) A technician of the Central WS (CWS) facilitated the small group training on the equipment inventory database software, called New Order for Managing Anything Data (NOMAD), operation and inventory data analysis.
- (5) Infrastructure Department (HID/MOH) carried out the support supervision for Regional Workshops (RWSs).

**1-2 Progress of the Activities****1-2-1 Activities of the Output 1****(1) Kickoff meeting for Project Implementation members**

<b>Related to activity</b> 1-2-1/1-2-2	Planned in May 2018
<b>Details</b>	<ul style="list-style-type: none"> <li>● Date and Venue: 8th May 2018, third level board room at Ministry of Health, Uganda (MOH)</li> <li>● Participants: Six (6) from MOH, seven (7) from JICA Project and three (3) from JICA Uganda Office</li> <li>● Chaired by: Commissioner, Quality Assurance and Inspection Department (QAID)</li> <li>● Objectives:             <ol style="list-style-type: none"> <li>(1) Explanation of delay to start Project Term 2</li> <li>(2) Discussion on Project priority activities (Attachment-III)</li> <li>(3) Presentation of Work Plan and reporting format (Attachment-IV) for Steering Committee meeting</li> <li>(4) Discussion of necessary funds for Project activities</li> </ol> </li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● All participants understood the causes of delay of Project Term 2.</li> <li>● All members discussed and agreed to the prioritized activities for smooth implementation of the Project.</li> <li>● All members understood the detail of necessary funds for activities of all Project components.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● The Project Implementation Team (PIT) shall submit necessary reports to Project Manager before Steering Committee meeting</li> </ul>

	<ul style="list-style-type: none"> <li>● All members agree it is necessary to hold Steering Committee meeting at the end of June 2018 to confirm the Ministry budget plan for the next financial year.</li> </ul>
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**(2) Steering Committee Meeting**

<b>Related to activity</b> 1-3-1/1-3-2	Planned in May 2018
<b>Details</b>	<ul style="list-style-type: none"> <li>● Date and Venue: 29th May 2018 at the office of the Commissioner Clinical Services Department</li> <li>● Participants: Six (6) from MOH, three (3) from JICA Project and one (1) from JICA Uganda Office</li> <li>● Objectives:             <ol style="list-style-type: none"> <li>(1) Approval of Work Plan and reporting format for Steering Committee meetings</li> <li>(2) Confirmation of necessary funds for Project activities and regulation of requisition of activity funds in MOH</li> </ol> </li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● The PIT leaders were advised to study and understand the Work Plan and budget for activities and report to Project Manager.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● Work Plan and reporting format for Steering Committee meeting are approved.</li> <li>● The Project budget for the next quarter shall be discussed at the beginning of each quarter.</li> <li>● The PIT shall apply for funds for Project activities whether or not implemented.</li> </ul>

**1-2-2 Activities of the Output 2****(1) Development of 5S-CQI-TQM guidelines**

<b>Related to activity</b> 2-1/2-2/2-3	Planned in May - December 2018
<b>Details</b>	<ul style="list-style-type: none"> <li>● The draft guidelines were developed by JICA Experts and shared with QAID in May 2018.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● In the draft, the criteria of the national showcase of 5S-CQI-TQM (Activity 2-2) were clearly defined, and the qualifications, roles and responsibilities of National 5S-CQI-TQM Facilitators at all levels (Activity 2-3) were clearly defined.</li> </ul>
<b>Way Forward/</b>	<ul style="list-style-type: none"> <li>● The review process is yet to commence for finalization and</li> </ul>

<b>Challenges</b>	<p>approval of the document from MOH.</p> <ul style="list-style-type: none"> <li>● QAID proposed to scrutinize the draft of guidelines at “the infection prevention and control workshop” in July 2018. Holding of this workshop will depend on funding from World Health Organization. The Project will prepare for submission of the document for scrutiny.</li> </ul>
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**(2) National 5S-CQI-TQM Facilitators meeting on 5S M&E**

<b>Related to activity</b> 2-2/2-5	Planned in December 2017
<b>Details</b>	<ul style="list-style-type: none"> <li>● Date and Venue: 8th December 2017 at Kampala</li> <li>● Participants: 17 National 5S-CQI-TQM Facilitators</li> <li>● Objectives:             <ol style="list-style-type: none"> <li>(1) To share the results of the 1st M&amp;E</li> <li>(2) To review the methodology of M&amp;E</li> </ol> </li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● Gaps on how to score the section on waste segregation, posters and notices on the wall and others were identified by the facilitators.</li> <li>● An issue was raised on scoring 5S performance for the same units and departments across all the hospitals to ensure fairness in comparison.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● Participants agreed it was necessary to hold another meeting before the 2nd M&amp;E.</li> </ul>

**(3) Kickoff meeting for National 5S-CQI-TQM Facilitators on M&E and supervision of 5S-CQI-TQM**

<b>Related to activity</b> 2-2/2-5/2-6/2-8	Planned in May 2018
<b>Details</b>	<ul style="list-style-type: none"> <li>● Date and Venue: 17th May 2018 at Kampala</li> <li>● Participants: 15 National 5S-CQI-TQM Facilitators, three (3) from QAID and three (3) from Entebbe General Hospital (GH)</li> <li>● Objectives:             <ol style="list-style-type: none"> <li>(1) To review the scoring criteria of 5S performance</li> <li>(2) To share the criteria on how to supervise 5S-CQI-TQM</li> <li>(3) To explain logistic procedures of M&amp;E and supervision</li> </ol> </li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● Facilitators agreed to extend the period of M&amp;E, which was initially</li> </ul>

	<p>planned to complete by 24th May 2018, to complete by 15th June 2018.</p> <ul style="list-style-type: none"> <li>● Facilitators reviewed the evaluation criteria for scoring the 5S performance, the procedure and tools of supervision of 5S-CQI-TQM.</li> <li>● Facilitators agreed to assess five (5) departments for fair comparison of the score of 5S performance: 1) operation theater, 2) maternity, 3) laboratory, 4) general store and 5) medical records.</li> <li>● Facilitators understood the logistic procedures of M&amp;E and supervision of 5S-CQI-TQM.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● Facilitators are to complete the M&amp;E exercise by 15th June 2018.</li> <li>● Facilitators are to submit the followings data to the Project after M&amp;E: 1) Excel sheets compiling results of M&amp;E for the hospital management team/quality improvement team and work environment teams and 2) PowerPoint presentation for feedback session, including photos.</li> </ul>



**(4) 2nd M&E on performance of 5S**

<b>Related to activity 2-2</b>	Twice a year: every May and November
<b>Details</b>	<ul style="list-style-type: none"> <li>● National 5S-CQI-TQM Facilitators evaluated performance of 5S at the 14 RRHs and two (2) GHs in May – June 2018.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● Submission of data to the Project is on-going.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● Data will be analyzed, and feedback will be given by JICA Experts, a local consultant and 5S-CQI-TQM implementation team followed by the supervision with focus on challenges identified at the 2nd M&amp;E.</li> </ul>

**(5) Supervision of 5S-CQI-TQM by Experts**

<b>Related to activity 2-6/2-8</b>	Started from June 2018
<b>Details</b>	<ul style="list-style-type: none"> <li>● Apart from supervision by National 5S-CQI-TQM Facilitators, the JICA Experts (i.e. Chief Advisor and Assistant Chief Advisor) and a local consultant visited 11 target hospitals in May - June 2018.</li> <li>● The Project Manager, Chief Advisor and Senior Representative of JICA Uganda Office visited Kabale RRH on 21st June 2018.</li> </ul>



<b>Achievement</b>	<ul style="list-style-type: none"> <li>● Gaps were identified among hospitals on progress of 5S-CQI-TQM, but emerging CQI activities (even small ones) were observed.</li> <li>● The current situation on 5S-CQI at the field was shared with the JICA Experts and JICA Uganda Office.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● There is still a challenge of proper understanding of the 5S-CQI among staff.</li> <li>● It is necessary to closely communicate with National 5S-CQI-TQM Facilitators on sharing views of the progress for them to commence their supervision.</li> <li>● Depending on financing by MOH, facilitators will supervise target hospitals by sharing the results of M&amp;E of 5S performance.</li> </ul>
	
Fish-bone explanation in Kabale RRH	Small CQI board in Kabale RRH

**1-2-3 Activities of the Output 3**

**(1) Development of User Training (UT) Manual/Guidelines**

<b>Related to Activity 3-1</b>	Planned in June 2018 - March 2019
<b>Details</b>	<ul style="list-style-type: none"> <li>● Date and Venue: 21st - 22nd June 2018 at Hoima RRH</li> <li>● Participants: one (1) JICA Expert, four (4) Senior User Trainers and 16 Phase 1 User Trainers</li> <li>● Objectives:             <ol style="list-style-type: none"> <li>(1) To revise and modify the UT manual in accordance with the revised standards on sterilization</li> <li>(2) To coordinate information exchange for manual revision</li> <li>(3) To discuss formulation of trainer's guidelines</li> </ol> </li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● All participants agreed on revising the current manual and amendments were made.</li> <li>● All participants agreed on the following contents for developing the</li> </ul>

	<p>guidelines.</p> <p>(1) Draft guidelines will be completed by the middle of the second quarter of fiscal year (FY) 2018/2019.</p> <p>(2) Draft guidelines will be authorized by Clinical Services Department, HID/MOH and Nursing Department.</p>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● Discussions of contents of UT guidelines with Clinical Services Department, HID/MOH and Nursing Department are needed.</li> </ul>

**(2) Refresher Training for User Trainer**

<b>Related to activity 3-2</b>	Planned in June 2018.
<b>Details</b>	<ul style="list-style-type: none"> <li>● Date and Venue: 18th - 22nd June 2018 at Hoima RRH</li> <li>● Facilitators: Two (2) from MOH, one (1) from JICA Project, three (3) JICA volunteers and four (4) Senior User Trainers</li> <li>● Participants: 16 Phase 1 User Trainers from the seven (7) RRHs and one (1) GH</li> <li>● Objectives: <ol style="list-style-type: none"> <li>(1) To enable Phase 1 User Trainers to review and plan for UT activities of the 26 medical equipment (For the list of target medical equipment see Attachment-V)</li> <li>(2) To gain the required training skills and teaching methods for the target medical equipment</li> <li>(3) To discuss and draft teaching materials for new target equipment (Infusion Pump and Syringe Pump)</li> <li>(4) To discuss implementation, reporting and utilization of the budget from WS for UT activities</li> <li>(5) To learn how to use the inventory data for UT activities</li> </ol> </li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● The results of written test were 66% for pre-test and 88% for post-test on average. The average improvement was 22% compared with the pre-test, hence confirming the positive outcome of the training.</li> <li>● The trainers were assessed on the practical test as reflected in the result which was 4.31(5.00 for full score) on average.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● It is necessary for User Trainers to learn on their own.</li> <li>● User Trainers should strengthen collaboration with RWS.</li> </ul>

	
ECG demonstration at a site	Demonstration of Infusion pump

**(3) Support Supervision**

<b>Related to activity 3-4</b>	Planned in September 2018 - May 2020.
<b>Details</b>	<ul style="list-style-type: none"> <li>● The JICA Expert and Secretary carried out the following support supervisions for four (4) RRHs.             <ol style="list-style-type: none"> <li>(1) 18th May 2018 at Entebbe GH</li> <li>(2) 31st May 2018 at Masaka RRH</li> <li>(3) 4th June 2018 at Hoima RRH</li> <li>(4) 5th June 2018 at Lira RRH</li> </ol> </li> <li>● Objectives:             <ol style="list-style-type: none"> <li>(1) To interview on the training activity</li> <li>(2) To interview on the work plan for UT</li> <li>(3) To interview on the activity budget</li> <li>(4) To interview on relation and collaboration with WS activities</li> </ol> </li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● The capacity of User Trainers to formulate work plan, budget plans and reports was developed.</li> <li>● Good collaboration among User Trainers, the Hospital Directors and the WS Managers was acknowledged.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● A standardized format for work plan, budget, and report writing is needed to improve efficiency in document preparation.</li> </ul>

**1-2-4 Activities of the Output 4****(1) Update and develop WS operation manuals, guidelines and monitoring tools (4-1)**

<b>Related to activity 4-1</b>	Planned in May 2018 - December 2018
<b>Details</b>	<ul style="list-style-type: none"> <li>● Existing WS Operation Manual published in December 2013 was revised in June 2018.</li> </ul>

	<ul style="list-style-type: none"> <li>● The supervision tools (templates of Support Supervision Report and CQI Action Plan) were developed in May 2018 and revised in June 2018. (For the draft templates see Attachment-VI)</li> <li>● The quick-reference users guide for the basic operation of NOMAD and inventory data analysis was drafted in June 2018.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● The first process of the WS Operation Manual update was started. Some sections were identified to be updated, such as organization structure, management of maintenance work, supervision policy and annexes.</li> <li>● The supervision tools have already been used in the support supervision of May - June 2018.</li> <li>● The quick-reference users guide for NOMAD has already been used for the small group training and this guide will become a supplementary material of the existing WS Operation Manual.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● These manuals and templates are updated as necessary for easy reference.</li> </ul>

## (2) Small group Training on NOMAD operation and inventory data analysis

<b>Related to activity 4-2</b>	Leadership and Management Training: Planned in March - April 2019
<b>Details</b>	<ul style="list-style-type: none"> <li>● Date and Venue: 17th June 2018 at JICA Project Wabigalo office</li> <li>● Facilitators: A JICA Expert and one (1) technician of CWS</li> <li>● Participants: Five (5) technicians from Mbale WS and Jinja WS</li> <li>● Objective: <ul style="list-style-type: none"> <li>(1) To improve the skills of NOMAD operation and inventory data analysis as part of management training in Activity 4-2.</li> </ul> </li> <li>● The program included basic operation of NOMAD system such as the system login, inventory data entry, data search, export inventory data in Excel, data analysis and insert pie chart.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● This training was organized in response to the participants' request, and the allowance and transport costs were paid by each participant. It is a good example of proactive mind of technicians.</li> <li>● The assessment test was not carried out, but the skills of each participant have improved, judging from the practical sessions.</li> <li>● The draft quick-reference users guide was used in this training. This guide is also supportive for technicians to learn the basic skills</li> </ul>

	of the mentioned topics.
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● Simultaneous login to NOMAD system is difficult due to poor Internet speed and different settings in each personal computer. For this reason, some exercises are demonstrated to a few participants, and the other participants will practice by themselves after returning to their stations, referring to the quick-reference users guide.</li> </ul>




### (3) Training in Maintenance of Basic and Specialized Medical Equipment

<b>Related to activity 4-3 &amp; 4-4</b>	<p>Basic Medical Equipment: Planned in October - November 2018</p> <p>Specialized Medical Equipment: Planned in September - October 2018</p>
<b>Details</b>	<ul style="list-style-type: none"> <li>● Due to interruption of the Project activities for a long time (October 2017 - April 2018), the survey of medical equipment requirement for the training was conducted in all the WSs in May 2018 and analyzed data in June 2018.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● 53 names of equipment to be prioritized in training were collected from the 11 WSs.</li> <li>● Prioritized equipment for the training was Ultrasound machine, Patient monitor, Anesthesia machine, Ventilator, Infusion/Syringe pump and so on. (For more information see Attachment-VII)</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● Targeted equipment of the above-mentioned trainings will be determined based on the survey results and long-term strategy of HID/MOH.</li> <li>● The training expenses for both basic and specialized medical equipment shall be funded using the MOH budget secured for "JICA Project" in the Clinical Service Department and the HID/MOH individual budget. The details will be determined at the Steering Committee meeting among the members concerned.</li> </ul>

### (4) Support Supervision including preliminary questionnaire survey



<b>Related to activity 4-5 &amp; 4-6</b>	Twice a year as planned. (Year-round activity.)
<b>Details</b>	<ul style="list-style-type: none"> <li>● The MOH counterpart and the JICA Expert carried out the following support supervisions for 13 WSs including two (2) RRHs (Masaka RRH and Mbarara RRH), which had no functional RWSs</li> </ul>

	<p>to maintain medical equipment of lower health facilities in the catchment area.</p> <p>(1) 20th May - 2nd June 2018 at Jinja, Mbale, Soroti, Lira, Gulu, Arua and Hoima</p> <p>(2) 11th - 16th June 2018 at Kabale, Fort Portal, Mubende, Masaka, and Mbarara</p> <p>(3) 28th June 2018 at CWS</p> <ul style="list-style-type: none"> <li>● Objectives: <ul style="list-style-type: none"> <li>(1) Receive brief report on from WS Manager</li> <li>(2) Review the WS performance and issues</li> <li>(3) Team discussion of the priority areas</li> <li>(4) CQI exercise (identify controllable issues to be solved by the WS members, create CQI action plan of selected issues and agree with all members to implement the action plan)</li> <li>(5) Report the results to the Hospital Director/Administrator</li> </ul> </li> <li>● A preliminary questionnaire survey was conducted in May 2018 by e-mail to improve efficiency of the supervision. It was a total of 20 questions including human resources, budget, planning, process of routine maintenance, inventory update, UT, 5S-CQI and so on.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● The supervision using CQI approach was newly introduced as planned. Each WS created one (1) or two (2) small CQI action plan(s) and began working on problem solving by CQI approach. (See Attachment-VIII for the list of the implemented small CQI topics in each WS)</li> <li>● The results of the survey were utilized for supervision, which helped to save time. (See Attachment-IX for details)</li> <li>● It is confirmed that the maintenance service sticker has been used effectively and the sticker system has been standardized in most WSs.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● The CQI Action Plan is implemented appropriately and new CQI actions plan will be developed at the next supervision.</li> <li>● Eng. Edward Kataaha; Principle Electrical Engineer will be transferred back to the Engineering Department of Mulago Hospital and the capacity of the PIT on Medical Equipment Maintenance (ME) component will be affected.</li> </ul>

		
Improvement of 5S activity in Store, Kabale WS	CQI exercise by MOH counterpart, Hoima WS	CQI action plan sheet with agreed signs, Soroti WS

**(5) 20th WS Performance Review Meeting**

<b>Related to activity 4-5</b>	Plan to hold the meeting at least twice a year. Year-round activity.
<b>Details</b>	<ul style="list-style-type: none"> <li>● Date and Venue: 8th June 2018 at Lira RRH</li> <li>● Participants: Approximately 35 people including Hospital Directors, WS Managers, HID/MOH officials, development partners (Infectious Disease Institute (IDI), Regional Health Integration to Enhance Services (RHITES) and JICA Project)</li> <li>● Objectives:             <ol style="list-style-type: none"> <li>(1) To give a brief presentation on WS performances, budgeting and planning by WS managers</li> <li>(2) To discuss the key issues and way forwards</li> <li>(3) To congratulate Lira WS receiving the Best Workshop Award Trophy for 2017</li> </ol> </li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● This meeting has been the main yardstick platform for strengthening capacity of the CWS and HID/MOH as required by activity 4-5 as well as sharing knowledge and skills among the WSs required in activity 4-6.</li> <li>● Facilitation for fuel and allowances for participants was funded from the respective budget of the WSs. This is a good case showing the ownership of MOH.</li> <li>● Since the Hospital Directors have attended the meetings from February 2017, they were more likely to pay attention to medical equipment management. Through these meetings, the allocation of each WS budget has improved than before.</li> <li>● The managerial skills such as reporting, budgeting, work planning and team building of WS Managers have gradually improved.</li> </ul>
<b>Way Forward/</b>	<ul style="list-style-type: none"> <li>● The Hospital Directors shall be taught about NOMAD system.</li> </ul>

<p><b>Challenges</b></p>	<ul style="list-style-type: none"> <li>● Targeted areas of each implementing partner will be clarified and harmonized.</li> <li>● The equipment inventory update must be carried out to be used for performance-based financing.</li> <li>● CQI activity shall be continued in each WS</li> <li>● The next meeting shall be hosted in Hoima RRH in October 2018.</li> </ul>
	
<p>WS Performance Review Meeting, Lira RRH board room</p>	<p>Handover trophy of the best WS award 2017 to Lira WS</p>

**(6) Collaboration of a development partner “IDI” functionalizing equipment inventory update system**

<p><b>Related to activity 4-6</b></p>	<p>Year-round activity.</p>
<p><b>Details</b></p>	<p>(1) Meeting on reactivating the equipment inventory database software “NOMAD” system</p> <ul style="list-style-type: none"> <li>● Date and Venue: 18th May 2018 at CWS, Wabigalo</li> </ul> <p>(2) Training of the basic operation of NOMAD system</p> <ul style="list-style-type: none"> <li>● Date and Venue: 21st June 2018 at CWS, Wabigalo</li> <li>● Participant: one (1) JICA Expert</li> </ul>
<p><b>Achievement</b></p>	<ul style="list-style-type: none"> <li>● A JICA Expert learned NOMAD operation to teach WS technicians.</li> <li>● A JICA Expert drafted a quick-reference user guide for NOMAD basic operation and inventory analysis to be used for training sessions and mentoring the WS technicians under the supervision.</li> </ul>
<p><b>Way Forward/ Challenges</b></p>	<ul style="list-style-type: none"> <li>● In order to activate NOMAD system, the HID/MOH, IDI and JICA Expert will coordinate the training and/or mentoring session for the WSs.</li> </ul>



	<ul style="list-style-type: none"> <li>● HID/MOH and IDI will discuss the challenges and resolutions of the NOMAD operation before starting the mentorship visit.</li> <li>● The new web-based NOMAD system will be started soon after the end of the trial.</li> </ul>
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(Other activities)

- The Project helped the counterpart select the appropriate candidate for JICA Knowledge Co-Creation Program "Medical Equipment Maintenance and Management" and supported the application process for the selected candidate in June 2018.

### 1-3 Achievement of Output

#### 1-3-1 Output 1

[Project Steering Committee] Supporting/supervising system for health infrastructure management of all the RRHs is strengthened in the MOH.	
Current Indicators	Achievement
(1) The Project Steering Committee meeting is conducted every three months.	(1) The Steering Committee meeting was conducted in May 2018.
(2) The results of integrated support supervision conducted by PITs and the next quarter action plan developed from these results are shared and approved at every Project Steering Committee meeting.	(2) Not achieved yet
(3) The roadmap for incorporating the Project activities into the policy and systems of MOH is established and implemented by the Project Steering Committee.	(3) Not achieved yet.
(4) The Project activities are successfully incorporated into the Ministerial Policy Statement of MOH.	(4) Not achieved yet.

#### 1-3-2 Output 2

[PIT: 5S-CQI-TQM] Resource management and quality improvement activities are strengthened through CQI
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approach in all RRHs.	
Current Indicators	Achievement
(1) Score of module 1 (Leadership) and 6 (Health Infrastructure) Health Facility Quality of Care Assessment program (HFQAP) Facility Assessment Tool - All RRHs mark (i) 5 points out of 8 as full mark for module 1 and (ii) 6 points out of 10 as full mark for module 6.	(1) Data was not available yet.
(2) Score of modified 5S M&E Sheet in 5S-CQI-TQM Guidelines - All RRHs mark 33 points out of 54 as full mark at least two consecutive years.	(2) 2nd M&E was still in progress.

**1-3-3 Output 3**

[PIT: User Training] Proper utilization of medical equipment through UT is improved in all RRHs.	
Current Indicators	Achievement
(1) There are at least two regional User Trainers at all RRHs.	(1) There were two (2) regional User Trainers at 13 RRHs. (There was no User Trainer at Moroto RRH and one (1) User Trainer at Entebbe GH.)
(2) The number of UT conducted by regional User Trainers is more than three as per year in every region.	(2) The number of UT conducted in 2018 is not available as of 30th June 2018, because the definition of UT and User Trainers' scope of work have not been clarified yet. These are to be standardized in UT guidelines. The number of UT is planned to be collected in the third quarter of 2018/2019 after the guidelines are launched.
(3) The average of percentage of medical equipment in status B at all RRHs is not higher than 4%.	(3) Baseline in October 2016: 5.1% The latest medical equipment inventory data was planned to be collected and analyzed in September - November 2018.

**1-3-4 Output 4**

[PIT: ME maintenance] ME maintenance and management capacity of WS are strengthened.	
Current Indicators	Achievement
(1) The average increase of scores between the pre-test and post-test is at least 15%.	(1) 29.8% (average score of 5 past trainings) There were no related activities in this period.
(2) The average of percentage of medical equipment in status C and status E at all RRHs is not higher than 15%.	(2) Baseline: 22.1% (C 17.9%+E4.2%) The latest data is planned to be collected and analyzed in September - November 2018.

**1-4 Achievement of the Project Purpose**

[Project Purpose] Health infrastructure management at all the RRHs in Uganda is strengthened with the initiatives of MOH.	
Current Indicators	Achievement
(1) CQI Process or QC Story -The number of cases of CQI Process or QC Story amounts to more than three.	(1) CQI Process was not identified in target hospitals.
(2) Good practice of small CQI -All RRHs have at least one good practice of small CQI.	(2) Small CQI was not identified in target hospitals.
(3) The average of percentage of medical equipment in status A at all RRHs is higher than 70%.	(3) Base line in October 2016: 65.1% (average)
(4) Supervisions on 5S, UT, and ME which is integrated into the system of MOH in a consolidated way are implemented more than XX times.	(4) Supervisions of WSs were conducted.

**1-5 Changes of Risks and Actions for Mitigation**

The Ugandan side did not allocate a budget for night allowances for the FY 2016/2017 (July 2016 - June 2017), thus causing the burden to be borne by the Japanese side. Furthermore, the amount of budget execution for the FY 2017/2018 was also small and this still meant the Japanese side had to cover the allowances for the activities for the support supervision

activities to prevent stalling. However, regarding the CQI training on medical equipment maintenance that took place in September 2017, the costs for the training were borne by the Ugandan side enabling the activity to take place as scheduled.

At the beginning of Project Term 2 in April 2018, in the fourth quarter of the same financial year, the MOH budget had already been allocated for the activities within MOH, which made it difficult to secure a budget for the project activities at the beginning of the Term 2.

In order to prevent delays in the progress of the project activities, MOH requested the Japanese side to bear the costs of the night allowances until the end of the fourth quarter (June 2018) as an emergency measure. Therefore, from the FY 2018/2019, the allowances for the project activities will be borne by the Ugandan. The Ugandan side clarified the availability of the MOH budget contribution quarterly at the Ministry budget meeting and the project Steering Committee meeting.

## 1-6 Progress of Actions Undertaken by JICA

### 1-6-1 Necessary Funds for Project Activities

JICA provided additional funds as an emergency measure for the Project activities in May and June 2018.

Activities	Date	Target	Description
Kickoff meeting for National 5S-CQI-TQM Facilitators on M&E and supervision of 5S-CQI-TQM	17th May 2018	21 Participants	Night allowance Safari allowance
2nd M&E on performance of 5S	24th May - 15th June 2018	16 National 5S-CQI-TQM Facilitators	Night allowance
Supervision for ME WSs	20th May - 2nd June and 11th - 16th June 2018	PIT (ME)	Night allowance
User Trainer Refresher Training	18th - 22th June 2018	22 Participants	Night allowance

## 1-7 Progress of Actions Undertaken by the Government of Uganda

- (1) The Permanent Secretary of MOH earlier promised to secure funds for the Project activities. There was need to establish a budget line for each component to estimate the total amount to be secured, and also discuss this issue of establishing security of funds in the Steering Committee meeting. Unless co-financing from MOH is materialized, the implementation plan should be reviewed.

- (2) A new staff was assigned as a member of the PIT (UT)

### **1-8 Progress of Environmental and Social Considerations (if applicable)**

### **1-9 Progress of Considerations on Gender/Peace Building/Poverty Reduction (if applicable)**

### **1-10 Other Remarkable/considerable Issues Related/affect to the Project (such as other JICA's Projects, Activities of Counterparts, Other Donors, Private Sectors, NGOs, etc.)**

- (1) The project for the Improvement of Regional Referral Hospitals in Northern Uganda is a grant aid by the Japanese government. This project aims to strengthen hospital functionality by constructing facilities and providing medical equipment to northern Uganda hospitals (Arua, Gulu and Lira RRHs); and improve the quality and access to health services. JICA signed a grant agreement with Government of Uganda to provide grant aid of up to 2.86 billion yen for this project on 26th April 2018. The target facilities of the grant aid project include RRHs in this Project. It is expected to have a positive influence on health service delivery in the hospitals and the motivation of hospital staff to improve the workplace environment.
- (2) RHITES is a 5-year-project that has been operating since 2017, funded by United States Agency for International Development (USAID). RHITES supports the Government of Uganda and key stakeholders to increase availability and utilization of high quality health services. The purpose of this project is to secure services to support the design and implementation of comprehensive, integrated investment in regional health, HIV/AIDS, and nutrition assistance in the whole of Uganda.
- (3) Korea Foundation for International Healthcare (KOFIH) is a public affiliated organization of the Ministry of Health and Welfare, by the Republic of Korea. KOFIH has been active in Uganda since 2017 and implementing various project including establishing emergency medical service system and community health system with MOH. KOFIH targets Bukomansinbi district and Masaka region.

## **2 Delay of Work Schedule and/or Problems**

### **2-1 Details, Cause**

- (1) Allocation of budget for project activities  
MOH did not allocate night allowance for participants of the training and meeting organized by the Project in May and June in the fourth quarter of FY 2017/2018. The Japanese side supported the activities for the period of May and June 2018 as an emergency measure.

Activities from the new FY 2018/2019 will be funded by MOH but if not properly provided, delay or cancellation of activities should be expected.

(2) Communication between counterpart and JICA Expert team

It was difficult to communicate with Project Manager and PITs (5S-CQI-TQM, UT and ME) during Project Term 1. This is because the project counterparts have an excessive workload and handle implementation of another partners' project.

**2-2 Action to be taken**

(1) A budget meeting should be held immediately among Steering Committee members after the budget allocation for the new fiscal year is decided. The Project cost management plan should be reviewed and formulated at the Steering Committee meeting.

(2) The reporting format of Project activities for Steering Committee meetings was developed. It includes the Project indicators, achievement of activities and challenges in all target facilities. The format shall be submitted to Project Manager before Steering Committee meetings. In order to understand progress of the target facilities, supervision was conducted with Project Manager. As a result, it was useful to grasp the actual situation of the Project activities at the facilities and to increase the motivation of the facility staff.

**3 Modification of the Project Implementation Plan**

Modification of Project Design Matrix (PDM) v.0 was agreed between MOH and Japanese side and the Minutes of Meeting was signed on 31st January 2018.

**II. Project Monitoring Sheet I & II**     *as Attached*

Attachment:

- I. Project Monitoring Sheet I
- II. Project Monitoring Sheet II
- III. Priorities in Project Term-2
- IV. Reporting format for Steering Committee
- V. Table for Targeted medical equipment for User Training
- VI. The draft templates of Support Supervision Report and CQI Action Plan
- VII. Survey of Medical Equipment Requiring for The Training
- VIII. List of the implemented Small CQI Topics in each WS
- IX. Results of Questionnaire Survey

End

# Attachment-I: Project Monitoring Sheet I

Project Title: Project on Improvement of Health Service through Health Infrastructure Management (II)

Implementing agency: Quality Assurance & Inspection Department, Directorate of Planning & Policy, Ministry of Health (MOH) (5S-CQI-TQM)  
 Integrated Curative Services Department, Directorate of Clinical Services, MOH (Utilization of Medical Equipment)  
 Infrastructure Department, Directorate of Clinical Services, MOH (Maintenance of Medical Equipment)

Target Group: (1) Phase 1 targeted hospitals: Mbale Regional Referral hospital (RRH), Masaka RRH, Entebbe General Hospital (GH), Hoima RRH, Kabale RRH, Arua RRH, Lira RRH, Moroto RRH, Mukuju HC IV, Tororo GH  
 (2) Phase 2 targeted hospitals: Soroti RRH, Jinja RRH, Gulu RRH, Fort Portal RRH, Mbarara RRH, Mubende RRH, Naguru Referral Hospital

Period of Project: July 2016- July 2020

Target Site: Republic of Uganda

**Version. 4**  
**Dated 31st July 2018**

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
Quality of health care services at all the RRHs in Uganda is improved.	<ul style="list-style-type: none"> <li>•Clients' satisfaction level is improved to the target level. (XX)</li> <li>•Clients' waiting time of patients for consultation, testing, clinical examination, and prescription of drugs are reduced XX%</li> <li>•Maintenance cost regarding medical equipment is decreased in XX%.</li> </ul>	<ul style="list-style-type: none"> <li>•Health Management Information System (HMIS)</li> <li>•Annual Health Sector Performance Report (AHSPR)</li> <li>•Periodical monitoring reports by QITs at target hospitals</li> <li>•Supervision reports made by the steering committee for the project</li> <li>•Baseline and end-line data</li> <li>•Quarterly regional workshop maintenance report</li> </ul>			
<b>Project Purpose</b>					
Health infrastructure management at all the RRHs in Uganda is strengthened with the initiatives of MOH.	<ul style="list-style-type: none"> <li>(1) CQI Process or QC Story</li> <li>-The number of cases of CQI Process or QC Story amounts to more than three.</li> <li>(2) Good practice of small CQI</li> <li>-All RRHs have at least one good practice of small CQI.</li> <li>(3) The average of percentage of medical equipment in status A at all RRHs is higher than 70%.</li> <li>(4) Supervisions on 5S, UT, and ME which is integrated into the system of MOH in a consolidated way are implemented more than XX times.</li> </ul>	<ul style="list-style-type: none"> <li>(1)Report of CQI Process (e.g. Documentation Journal as an example of the format)</li> <li>(2)Report of small CQI or CQI support supervision tool</li> <li>(3) Medical equipment inventory</li> <li>(4) Minutes of steering committee meetings</li> <li>(5) Reports of steering committee</li> </ul>	<ul style="list-style-type: none"> <li>•Government budget for the RRHs will not be decreased significantly.</li> <li>•Government budget for the workshops will not be decreased significantly.</li> <li>•Political situation in Uganda remains stable.</li> </ul>	<ul style="list-style-type: none"> <li>(1) CQI Process was not identified in target hospitals.</li> <li>(2) Small CQI was not identified in target hospitals.</li> <li>(3) Base line in October 2016: 65.1 % (average)</li> <li>(4) Supervision of WSs were conducted.</li> </ul>	<ul style="list-style-type: none"> <li>(1),(2) Assessment of CQI activities is planned to start from January 2019.</li> <li>(3) The latest medical equipment inventory data is planned to be collected and analyzed in Sep. - Nov. 2018.</li> </ul>
<b>Output 1</b>					
1.[Project Steering Committee] Supporting/supervising system for health infrastructure management of all the RRHs is strengthened in the MOH.	<ul style="list-style-type: none"> <li>(1) The Project Steering committee meeting is conducted every three months.</li> <li>(2) The results of integrated support supervision conducted by Project Implementation Teams and the next quarter action plan developed from these results are shared and approved at every Project Steering Committee meeting.</li> <li>(3) The roadmap for incorporating the Project activities into the policy and systems of MOH is established and implemented by the Project Steering Committee.</li> <li>(4) The Project activities are successfully incorporated into the Ministerial Policy Statement of Ministry of Health.</li> </ul>	<ul style="list-style-type: none"> <li>(1) Minutes of meeting of Project Steering Committee</li> <li>(2) Ministerial Policy Statement</li> </ul>	<ul style="list-style-type: none"> <li>•Personnel of counterparts do not leave the job and are not transferred considerably.</li> <li>•Policy related to health infrastructure management will not be changed as a result of the presidential election.</li> </ul>	<ul style="list-style-type: none"> <li>(1) Steering Committee meeting was conducted in May 2018.</li> <li>(2) Not achieved yet.</li> <li>(3) Not achieved yet.</li> <li>(4) Not achieved yet.</li> </ul>	<ul style="list-style-type: none"> <li>(1) Next Steering Committee shall be conducted in July 2018.</li> <li>(2), (3), (4) Result of Supervision shall be reviewed next in Steering Committee meeting.</li> </ul>
<b>Output 2</b>					
2.[Project Implementation Team: 5S-CQI-TQM] Resource management and quality improvement activities are strengthened through CQI approach in all RRHs.	<ul style="list-style-type: none"> <li>(1)Score of module 1 (Leadership) and 6 (Health Infrastructure) HFQAP Facility Assessment Tool</li> <li>- All RRHs mark (i) 5 points out of 8 as full mark for module 1 and (ii) 6 points out of 10 as full mark for module 6.</li> <li>(2)Score of modified 5S M&amp;E Sheet in 5S-CQI-TQM Guidelines</li> <li>- All RRHs mark 33 points out of 54 as full mark at least two consecutive years.</li> </ul>	<ul style="list-style-type: none"> <li>(1)HFQAP Facility Assessment Tool</li> <li>(2)5S M&amp;E Sheet in 5S-CQI-TQM Guidelines</li> </ul>		<ul style="list-style-type: none"> <li>(1) Data was not available yet.</li> <li>(2) 2nd M&amp;E was still in progress.</li> </ul>	
<b>Output 3</b>					
3.[Project Implementation Team: User Training] Proper utilization of medical equipment through UT is improved in all RRHs.	<ul style="list-style-type: none"> <li>(1) There are at least two regional user trainers at all RRHs.</li> <li>(2) The number of UT conducted by regional User Trainers is more than three as per year in every region.</li> <li>(3) The average of percentage of medical equipment in status B at all RRHs is not higher than 4%.</li> </ul>	<ul style="list-style-type: none"> <li>(1) Records on training of regional user trainers</li> <li>(2) Training records on user training conducted by user trainers</li> <li>(3) Medical equipment inventory</li> </ul>		<ul style="list-style-type: none"> <li>(1) There were 2 regional User Trainers at 13 RRHs.</li> <li>(2) The number of UT was planned to be collected in the third quarter of 2018/2019.</li> <li>(3) Baseline in Oct. 2016: 5.1%</li> </ul>	<ul style="list-style-type: none"> <li>(3) The latest medical equipment inventory data is planned to be collected and analyzed in Sep. - Nov. 2018.</li> </ul>
<b>Output 4</b>					
4.[Project Implementation Team: ME maintenance] ME maintenance and management capacity of workshops (WS) are strengthened.	<ul style="list-style-type: none"> <li>(1) The average increase of scores between the pre-test and post-test is at least 15%.</li> <li>(2) The average of percentage of medical equipment in status C and status E at all RRHs is not higher than 15%.</li> </ul>	<ul style="list-style-type: none"> <li>(1) Results of pre and post tests for trainees of medical equipment maintenance</li> <li>(2) Medical equipment inventory</li> </ul>		<ul style="list-style-type: none"> <li>(1) 29.8% (average of 5 times of trainings)</li> <li>(2) Baseline: 22.1% (C 17.9%+E4.2%)</li> </ul>	<ul style="list-style-type: none"> <li>(2) The latest medical equipment inventory data is planned to be collected and analyzed in Sep. - Nov. 2018.</li> </ul>

Activities	Input		Pre-Conditions
	The Japanese side	The Uganda side	
<b>1-1 Establishment of foundation for the Project and implementation</b>			
1-1-1 Establish Project Steering Committee	1. Dispatch of Experts	1. Assignment of Counterparts	
1-1-2 Establish Project Implementation Teams for 5S-CQI-TQM, UT and ME	1) Chief advisor / QI Management System	2. Facilities	
1-1-3 Develop Terms of Reference (TOR) for Project Steering Committee and Project Implementation Teams and action plans for implementation of the Project	2) 5S-CQI-TQM 3) Utilization of Medical Equipment 4) Maintenance of Medical Equipment 5) Project Coordinator/ Training Management	1) Office space for Japanese experts	
1-1-4 Conduct baseline survey	2. Machinery and equipment	3. Administrative cost and other expense such as training and supervision	
<b>1-2 Support Supervision on health infrastructure management</b>	1) Necessary supplies for 5S-CQI-TQM to target hospitals and MOH headquarters	4. Personnel cost for counterparts and other running expenses (daily allowance and transportation expense)	
1-2-1 Review and revise existing supervision system and tools through enrichment of checklists of HFQAP(Health Facility Quality of Care Assessment Program) and allocation of 5S-CQI-TQM facilitators at national and regional levels	2) Testing and calibration tools and equipment etc.		
1-2-2 Direct integrated support supervision, mentoring and coaching on health infrastructure management as CQI practice integrating 5S, UT and ME	3. Allocation of operational costs for project activities		
<b>1-3 Project implementation, monitoring and evaluation and institutionalization</b>	4. Training in Japan and/or third countries		
1-3-1 Organize meetings for Project Steering Committee every three months and review whether action plan is being implemented based on PDCA cycle			
1-3-2 Conduct a meeting to review the established system in MOH			
1-3-3 Make use of review of activity 1-3-2 for institutionalization of support supervision systems and methodologies developed through the Project, and make reflections to the Ministerial Policy Statement			
1-3-4 Organize study tours and QI Conference to share good practice and lessons learned on health infrastructure management compiling 5S, UT and ME			
1-3-5 Conduct an end-line survey on health infrastructure management, including 5S-CQI-TQM, UT and ME			
<b>2.[Project Implementation Team: 5S-CQI-TQM]</b>			
2-1 Develop and/or update guidelines, manuals, handbooks, monitoring and supervision tools, and facilitators guide			
2-2 Define criteria for national show case of 5S-CQI-TQM and review national show case(s)			
2-3 Clarify qualification, role and responsibility of 5S-CQI-TQM facilitators at national and regional levels			
2-4 Conduct leadership and management training based on the results of the baseline survey for management staff of targeted facilities, etc.			
2-5 Conduct facilitators' training for 5S-CQI-TQM facilitators at national and regional levels with a focus on CQI			
2-6 Strengthen function of quality improvement team (QIT) and work improvement team (WIT) in the target facilities			
2-7 Conduct 5S-CQI-TQM training to target facilities based on the results of the baseline survey, with a focus on CQI			
2-8 Conduct support supervision, mentoring and coaching on WIT/QIT function, development of action plans by WITs, periodic meetings by QIT, implementation of 5S-CQI-TQM activities with proper usage and ME in collaboration with UT and ME activities under the direction of Project Steering Committee Activity 1-2-2			
<b>3.[Project Implementation Team: User Training]</b>			
3-1 Update and develop manuals, handbooks, guidelines, and monitoring tools for dissemination as necessary			
3-2 Conduct refresher training of user trainers in the previous Project phase.			
3-3 Conduct Training of Trainers (TOT) for user trainers of the phase 2 target hospitals			
3-4 Conduct support supervision, mentoring and coaching on UT for proper usage and ME in collaboration with 5S-CQI-TQM and ME activities aiming at CQI under the direction of Project Steering Committee Activity 1-2-2			
<b>4.[Project Implementation Team: Maintenance]</b>			
4-1 Update and develop manuals, handbooks, guidelines, and monitoring tools for dissemination as necessary			
4-2 Conduct leadership and management training for workshop managers including inventory data analysis			
4-3 Conduct training for workshop staffs on maintenance of basic medical equipment			
4-4 Conduct training for core staff of workshops in first line maintenance of specialized medical equipment			
4-5 Strengthen capacity of Central Workshop and Infrastructure Department to support Regional Workshops			
4-6 Support Workshops to develop a system for sharing knowledge and skills			
			<b>&lt;Issues and countermeasures&gt;</b>
			<ul style="list-style-type: none"> <li>• MOH counterparts were too busy to conduct Steering Committee and to collaborate the Project activities.</li> <li>-The Steering Committee meeting was held on 29th May 2018. All member agreed the Steering Committee meeting will be held in July 2018 to discuss necessary funds for the Project activities.</li> <li>-Results of Project Steering Committee will be discussed in Top Management meeting of MOH.</li> <li>• MOH could not allocate necessary funds for the Project activities.</li> <li>-Steering Committee members shall discuss detailed budget allocation plan for each Project Implementation Team.</li> <li>• Updating of Quality Improvement materials by QAID was not completed on schedule.</li> <li>-5S-CQI-TQM guidelines were drafted in May 2018. Draft guidelines will be scrutinized at the infection prevention and control workshop in July 2018, which will be held by WHO.</li> </ul>





Attachment-II: Project Monitoring Sheet II (Revision of Plan of Operation)

Version. 4  
Dated 31st July 2018

Project Title: Project on Improvement of Health Services through Health Infrastructure Management (II)

Activities Sub-Activities	2016				2017				2018				2019				2020				Responsible Organization		Achievements	Issue & Countermeasures			
	Plan	Actual	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV			Japan	Uganda	
Output 2 [Project Implementation Team: 5S-CQI-TQM] Resource management and quality improvement activities are strengthened through CQI approach in all RRHs																											
2-1 Develop and/or update guidelines, manuals, handbooks, monitoring and supervision tools, and facilitators guide	○ ○ ○ ○ ○ ○	Plan																						Expert(s)	Implementation Team	5S-CQI-TQM guidelines were drafted.	It is a concern if a consultative workshop can be held on the guidelines. It relies on MOH.
		Actual																									
2-2 Define criteria for national show case of 5S-CQI-TQM and review national show case(s)	○ ○ ○ ○ ○ ○	Plan																						Expert(s)	Steering Committee	National 5S-CQI-TQM Facilitators meeting was conducted in December 2017. National showcase was clearly defined in draft 5S-CQI-TQM guidelines. 2nd M&E on 5S is being done in May and June 2018.	It is a concern if a consultative workshop can be held on the guidelines. It relies on MOH.
		Actual																									
2-3 Clarify qualification, role and responsibility of 5S-CQI-TQM facilitators at national and regional levels	○ ○ ○ ○ ○ ○	Plan																						Expert(s)	Steering Committee	Qualification, role and responsibility was clarified in draft 5S-CQI-TQM guidelines.	It is a concern if a consultative workshop can be held on the guidelines. It relies on MOH.
		Actual																									
2-4 Conduct leadership and management training based on the results of the baseline survey for management staff of targeted facilities, etc.	○ ○ ○ ○ ○ ○	Plan																						Expert(s)	Implementation Team	The Leadership Improvement Seminar was conducted.	None.
		Actual																									
2-5 Conduct facilitators' training for 5S-CQI-TQM facilitators at national and regional levels with a focus on CQI	○ ○ ○ ○ ○ ○	Plan																						Expert(s)	Implementation Team	National 5S-CQI-TQM Facilitators meeting is conducted in December 2017. National 5S-CQI-TQM facilitators revisited how to evaluate 5S at the kickoff meeting in May 2018.	None.
		Actual																									
2-6 Strengthen function of quality improvement team (QIT) and work improvement team (WIT) in the target facilities	○ ○ ○ ○ ○ ○	Plan																						Expert(s)	Implementation Team	Experts and a local consultant supervised selected RRH in May and June 2018.	None.
		Actual																									
2-7 Conduct 5S-CQI-TQM training to target facilities based on the results of the baseline survey, with a focus on CQI	○ ○ ○ ○ ○ ○	Plan																						Expert(s)	Implementation Team	Training of new national 5S-CQI-TQM facilitators and CQI training were conducted.	None.
		Actual																									
2-8 Conduct support supervision, mentoring and coaching on WIT/QIT function, development of action plans by WITs, periodic meetings by QIT, implementation of 5S-CQI-TQM activities with proper usage and maintenance of ME in collaboration with UT and ME maintenance activities, etc. as mentioned in 1-2-2	○ ○ ○ ○ ○ ○	Plan																						Expert(s)	Implementation Team	Experts and a local consultant supervised selected RRH in May and June 2018.	None.
		Actual																									
Output 3 [Project Implementation Team: User Training] Proper utilization of medical equipment through UT is improved in all RRH																											
3-1 Develop and/or update guidelines, manuals, handbooks, monitoring and supervision tools, and facilitators guide	○ ○ ○ ○ ○ ○	Plan																						Expert(s)	Implementation Team	Revision of a manual and a draft of guidelines were made.	None.
		Actual																									
3-2 Conduct refresher training of user trainers in the previous phase of the Project	○ ○ ○ ○ ○ ○	Plan																						Expert(s)	Implementation Team	The refresher training was conducted on 18th – 22nd June 2018 at Hoima RRH	None.
		Actual																									
3-3 Conduct Training of Trainees regarding UT for the phase 2 targeted hospitals	○ ○ ○ ○ ○ ○	Plan																						Expert(s)	Implementation Team	Training of Trainers for P2 User Trainers were conducted.	None.
		Actual																									
3-4 Conduct support supervision on user training for proper usage and maintenance of medical equipment under the direction of Project Steering Committee in Activity 1-2-2	○ ○ ○ ○ ○ ○	Plan																						Expert(s)	Implementation Team	Support supervision was conducted.	None.
		Actual																									
Output 4 [Project Implementation Team: ME maintenance] ME maintenance and management capacity of workshops (WS) are strengthened																											
4-1 Update and develop manuals, handbooks, guidelines, and monitoring tools for dissemination as necessary	○ ○ ○ ○ ○ ○	Plan																						Expert(s)	Implementation Team	The existing WS Operation Manual was reviewed. Supervision tools were developed. Quick-Reference User Guide for inventory data analysis and NOMAD operation was drafted.	None.
		Actual																									
4-2 Conduct leadership and management training for workshop managers including inventory data analysis	○ ○ ○ ○ ○ ○	Plan																						Expert(s)	Implementation Team	Small group training on inventory data analysis was conducted.	None.
		Actual																									
4-3 Conduct training for workshop staffs on maintenance of basic medical equipment	○ ○ ○ ○ ○ ○	Plan																						Expert(s)	Implementation Team	Needs survey for training was conducted.	None.
		Actual																									
4-4 Conduct training for core staff of workshops in first line maintenance of specialized medical equipment	○ ○ ○ ○ ○ ○	Plan																						Expert(s)	Implementation Team	Needs survey for training was conducted.	None.
		Actual																									
4-5 Strengthen capacity of Central Workshop and Infrastructure Department to support Regional Workshops	○ ○ ○ ○ ○ ○	Plan																						Expert(s)	Implementation Team	Supervisions and WS Performance Review Meeting were carried out.	None.
		Actual																									
4-6 Support Workshops to develop a system for sharing knowledge and skills	○ ○ ○ ○ ○ ○	Plan																						Expert(s)	Implementation Team, all WS managers	Small CQI activities were started at most WSS. Supervision tools and service sticker have been used effectively. Some activities have been collaborated with IDI.	None.
		Actual																									

**Attachment-II: Project Monitoring Sheet II (Revision of Plan of Operation)**

Version. 4  
Dated 31st July 2018

**Project Title: Project on Improvement of Health Services through Health Infrastructure Management (II)**

<b>Duration / Phasing</b>		Plan																	Remarks	Issue	Solution				
		Actual	2016				2017				2018				2019							2020			
<b>Monitoring Plan</b>		Plan	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	Remarks	Issue	Solution
<b>Monitoring</b>		Plan																							
Joint Coordinating Committee		Actual																						None.	None.
Set-up the Work Plan of Operation		Plan																						None.	None.
		Actual																						None.	None.
Submission of Monitoring Sheet		Plan																						None.	None.
		Actual																						None.	None.
Monitoring Mission from Japan		Plan																						None.	None.
		Actual																						None.	None.
Joint Monitoring		Plan																						None.	None.
		Actual																						None.	None.
Post Monitoring		Plan																						None.	None.
		Actual																						None.	None.
<b>Reports/Documents</b>		Plan																							
Progress report		Actual																						None.	None.
		Plan																						None.	None.
Project Completion Report		Actual																						None.	None.
		Plan																						None.	None.
<b>Public Relations</b>		Plan																							
		Actual																						None.	None.

## Attachment-III: Priorities in Project Term-2

Items	Action		
	In charge	Detailed Action	Schedule
<b>1. Strengthening the operational system of the Project under the MOH's Stewardship</b>			
1-1. To make Health Infrastructure Management implementation sustainable by MOH: Communication improvement			
1-1-1. The reporting format for sharing the progress of the Project activities is developed	Japanese Experts Project Implementation Teams (PITs)	Draft the format Finalize the format together with QAID	May 2018 June 2018
1-1-2. Project activities are shared among Steering Committee(SC) members and PIT members regularly	PITs	Email to SC members and PIT members	Every three months before SC meeting
	Project Manager -CHS(CS)/ Japanese Experts(Chief advisor)	Circulate the report among SC members and PIT members	Every three months before SC meeting
1-1-3. The issues and countermeasures are discussed in SC meeting regularly	Project Manager -CHS(CS)	Organize the SC meeting	Every three months
1-1-4. The progress of the activities is presented in Senior Management Committee (SMC) meeting	Project Manager -CHS(CS)	Propose the agenda to SMC meeting secretary	After SC meeting
1-1-5. Minutes of SC meeting are shared among SC members and PIT members	Project Manager -CHS(CS)/ Japanese Experts(Chief advisor)	Email the minutes to SC members and PIT members	After SC meeting
1-1-6. The countermeasures discussed in SC meeting are reflected in the next activities	PIT	Conduct SC meeting	After SC meeting
1-2. Budget planning			
1-2-1. The expenses of activities in FY2018/2019 and 2019/2020 are discussed in each PIT	PIT	Conduct PIT meeting	Starting from October 2018 and October 2019
1-2-2. Every PIT applies the budgetary plans to Project Manager	PIT	Conduct PIT meeting	Starting from October 2018 and October 2019
1-2-3. SC meeting is organized to discuss budget allocation of the Project activities among departments	Project Manager -CHS(CS)	Conduct SC meeting	Beginning of July
1-2-4. Project Manager secures the budget for the Project activities	Project Manager -CHS(CS)	Conduct Budget meeting in MoH	Beginning of July
1-3. Requisition of MOH funding for the Project activities			
1-3-1. Every PIT requests the budget for the Project activities to Project Manager	PIT	Requisition of activities fund	Before 2months of Activities
1-3-2. Project Manager requests the budget for the Project activities to PS	Project Manager -CHS(CS)	Requisition of activities fund	Before 2months of Activities
1-3-3. Project Manager and PITs follow up on the requisition progress in MOH	Project Manager - CHS(CS)/PITs		Until the budget is released
<b>2. Improving effectiveness of supervision of the Project</b>			
2-1. Set the specific PIT intermediate goal	Japanese Experts PIT	Draft the goal Finalize the goal	Every three months Every three months
2-2. The supervision tools to be used in PDCA cycle (CQI process) are developed	Japanese Experts PIT	Draft the tools Finalize the tools	May 2018
2-3. All PIT members' CQI skills are strengthened in order to use the supervision tools	Japanese Experts	Orient on the tools to the PIT members	May 2018
2-4. Supervision tools are used in supervisions	PIT		Every Supervision
2-5. The records of supervision are discussed and filed	PIT, Target facilities and MOH	File the record of supervision	Every Supervision
2-6. The records of supervision are used for next supervision	PIT		
<b>3. Accreditation and management of National 5S-CQI-TQM Facilitators</b>			
3-1. Consultation and discussion with MOH for accreditation of Facilitators	PIT(5S-CQI-TQM)	Development of Guidelines	Until December 2018
3-2. MOH defines National 5S-CQI-TQM Facilitators' requirement and criteria and develops the system for certification	MOH	Development of Guidelines	December 2018
3-3. MOH issues certificates to National 5S-CQI-TQM Facilitators	MOH	Development of Guidelines	From January 2018
3-4. MOH makes policy direction for the Facilitators	MOH		
<b>4. Rolling out the CQI activities to all departments in target facilities</b>			
4-1. To provide guidance and mandate for the Hospital Directors in order to	Project Manager -CHS(CS)	Guide the Hospital Director	
4-2. Strengthen the functionality of QIT and work improvement team (WIT) in the target facilities	PIT(5S-CQI-TQM)	Increase the frequency of supervision visit all target facilities at least 4 times a year by National 5S-CQI-TQM Facilitators	
	PIT(UT)	Increase the frequency of supervision 2 times a year for each target facility with User Trainers	
	PIT(ME)	Increase the frequency of supervision 2 times a year for each Ws	Starting from May 2018
	PITs	Schedule the supervision	Starting from May 2018
	PITs/National Facilitators	Train the National 5S-CQI-TQM Facilitators(2 times)	August 2018 and May 2019
	PITs	Train the QITs and WITs in CQI	Every Supervision
	PITs	Support the CQI activities conducted by QITs and WITs	Every Supervision
4-3. Organize QI conference and Study Tours	QAID	Organize QI conference	
	Japanese Experts	Support/develop the presentation for QI conference	August 2018 and 2019
	Japanese Experts/PITs	Support the Study Tours conducted by target facilities	
4-4. CQI activities are shared in JRM and Performance Review Meeting	MOH	Organize JRM	September 2018 and September 2019
	MOH	Organize the Performance Review Meeting	
	Japanese Expert (Chief advisor)	Request Project Manager to share CQI activities supported by the Project	
	Japanese Experts	Support/develop the documents for JRM and Performance Review Meeting	
<b>5. Criteria for National Showcase hospital is defined in 5S-CQI-TQM guidelines</b>			
	MOH		December 2018

## Attachment-IV: Reporting format for Steering Committee

Progress of the Project Indicators		Progress (May 2018 - May 2020)											
		FY2017/18				FY2018/19				FY2019/20			
Indicators		Goal	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
<b>Output 1: Supporting/supervising system for health infrastructure management of all the RRHs is strengthened in the MOH.</b>													
(1) The Project Steering Committee meeting conducts	Every 3 months												
(2) The results of integrated support supervision conducted	By Project Implementation Teams												
(2) The next quarter action plan developed from these results are shared & approved	At every Project Steering Committee meeting												
(3) Roadmap for incorporating the Project activities into the policy and systems of MOH has been established and implemented	By the Project Steering Committee.												
(4) The project activities are successfully incorporated	Into the Ministerial Policy Statement of MOH												
<b>Output 2: 2[PIT: 5S-CQI-TQM] Resource management and quality improvement activities are strengthened through CQI approach in all RRHs.</b>													
(1) Score of module 1 (Leadership) and 6 (Health Infrastructure) HFQAP Facility Assessment Tool	Module 1: All RRHs mark 5 points out of 8 Module 6: 6 points out of 10												
(2) Score of modified 5S M&E Sheet in 5S-CQI-TQM Guidelines	All RRHs mark 33 points out of 54												
<b>Output 3: 3[PIT: User Training] Proper utilization of medical equipment through UT is improved in all RRHs.</b>													
(1) All RRHs obtain regional user trainers	At least 2												
(2) Number of UT conducted by regional user trainers	More than 3 times as per year												
(3) Average percentage of medical equipment in status B	Not higher than 4%												
<b>Output 4: 4[PIT: ME maintenance] ME maintenance and management capacity of workshops (WS) are strengthened.</b>													
(1) The knowledge of trained staff is increased	15% compared to the average scores of all pre-test and post-test.												
(2) Total average percentage of medical equipment in status C and status E	Not higher than 15%												
<b>Project Purpose: Health Infrastructure management at all the RRHs in Uganda is strengthened with the initiatives of MOH.</b>													
(1) CQI Process or QC Story - The number of cases of CQI Process or QC Story	More than 3 cases												
(2) Good practice of small CQI	All RRHs have at least one												
(3) Average percentage of medical equipment in status A	Higher than 70%												
4) Supervisions on 5S, UT, and ME	Integrated into the system of MOH Implemented more than XX times.												
<b>Overall Goal: Quality of health care services at all the RRHs in Uganda is improved.</b>													
(1) Clients' satisfaction level is improved	xx												
(2) Clients' waiting time for consultation, testing, clinical examination, and prescription of drugs are reduced	xxx%												
(3) Maintenance cost regarding medical equipment is decreased	xx%												

**Attachment-IV: Reporting format for Steering Committee**

**Progress of Activities: 5S-CQI-TQM**

Activities	FY2017/2018	FY2017/18	
	Q4	Q4	
	Planned	Actual	Challenges/Difficulties
2-1 5S-CQI-TQM Guidelines and Facilitators Guidebook; 2-2 Definition of national show cases (in the Guidelines); 2-3 Qualification, role and responsibility of 5S-CQI-TQM facilitators (in the Guidelines)	<ol style="list-style-type: none"> <li>1. Draft of the documents by expert team</li> <li>2. Submission of the draft documents to QAID</li> <li>3. Elaboration of the documents based on QAID's suggestions</li> </ol>		
2-4 Leadership training	No activities in the second term.		
2-5 Facilitators' training	<ol style="list-style-type: none"> <li>1. Preparation of training (in August)</li> </ol>		
2-7 CQI training at target health facilities	No activities in the quarter		

**Attachment-IV Reporting format for Steering Committee**

**Summary of Supervision: 5S-CQI-TQM**

Target Facilities			FY	FY		
			Q	Q		
			Date of SV	Action to deal with major problems	Challenges/Difficulties	Homework for next supervision
1	Arua	RRH				
2	Fort Portal	RRH				
3	Gulu	RRH				
4	Hoima	RRH				
5	Jinja	RRH				
6	Kabale	RRH				
7	Lira	RRH				
8	Masaka	RRH				
9	Mbale	RRH				
10	Mbarara	RRH				
11	Moroto	RRH				
12	Mubende	RRH				
13	Naguru	RH				
14	Soroti	RRH				
15	Entebbe	GH				
16	Tororo	GH				

**Attachment-IV: Reporting format for Steering Committee**

**Progress of Activities: User Training**

Activities	FY2017/2018	FY2017/18	
	Q4	Q4	
	Planned	Actual	Challenges/Difficulties
3-1 Update and develop manuals, guidelines, and monitoring tools	<ol style="list-style-type: none"> <li>1. Draft of the documents by expert team</li> <li>2. Submission of the draft documents to related department.</li> <li>3. Elaboration of the documents based on related department suggestions.</li> </ol>		
3-2 Refresher training of user trainers in the previous Project phase	<ol style="list-style-type: none"> <li>1. Review and Improvement of teaching skill.</li> <li>2. Cooperation with RWS and utilization of inventory data.</li> <li>3. Training for new target equipment's</li> <li>4. 16 User Trainer. 5days</li> </ol>		
3-3 Training of Trainers (TOT) for user trainers of the P2 and P1 Successor	No activities in the quarter.		



**Attachment-IV: Reporting format for Steering Committee**

**Summary of Supervision: User Training**

Target Facilities			FY	FY		
			Q	Q		
			Date	Challenges/Difficulties	Action to deal with major problems	Homework for next supervision
1	Arua	RRH				
2	Fort Portal	RRH				
3	Gulu	RRH				
4	Hoima	RRH				
5	Jinja	RRH				
6	Kabale	RRH				
7	Lira	RRH				
8	Masaka	RRH				
9	Mbale	RRH				
10	Mbarara	RRH				
11	Moroto	RRH				
12	Mubende	RRH				
13	Naguru	RH				
14	Soroti	RRH				
15	Entebbe	GH				

## Attachment-IV: Reporting format for Steering Committee

### Progress of Activities: ME (Maintenance)

Activities	FY2017/2018	FY2017/18	
	Q4	Q4	
	Planned	Actual	Challenges/Difficulties
4-1 Update WS operation manual, guideline and supervision tools as necessary	1. Review and update the existing WS Operation Manual 2. Develop and finalize supervision tools by PIT on ME component.		
4-2 Training on Leadership and Management for WS managers	No activities in the quarter.		
4-3 Training in Maintenance of Basic Medical Equipment	No activities in the quarter.		
4-4 Training in First-Line Maintenance of Specialized Medical Equipment	Prepare the training in the 2nd Quarter of FY2018/19		
4-5 Strengthen capacity of Central WS and HID to support Regional WSs 4-6 Support WSs to develop a system for sharing knowledge and skills	1. Conduct supervision visits for the WSs 2. Organize and attend the 20th WS Performance Review Meeting 3. Sensitize the CQI approach for the WSs 4. Use standardized supervision tools		
Others	1. Develop a Work Plan of ME component activities 2. Conduct questionnaire survey for all the WSs 3. Support the application process for Japan's Training "Medical Equipment Maintenance and Management"		

**Attachment-V: Table for Targeted Medical Equipment for User Training**

No.	Name of Equipment	No.	Name of Equipment	No.	Name of Equipment
1	Autoclave	11	Weighing Scale	21	Vertical Autoclave
2	Boiler	12	Resuscitator	22	Diathermy (Electric Surgical unit)
3	Table Top Autoclave	13	Recovery Bed	23	Glucometer
4	Oxygen Cylinder	14	Pulse Oximeter	24	Patient monitor
5	Oxygen Concentrators	15	MVA Set	25	Defibrillator
6	Vacuum Extractor	16	Infant Warmer	26	Ultrasonography
7	Operating Table	17	Infant Incubator	27	Infusion Pump (New)
8	Nebulizer	18	Hot Air Oven	28	Syringe Pump (New)
9	Suction Machine	19	Electrocardiogram		
10	Blood Pressure Machine	20	Fetal Doppler		

Table for Targeted Medical Equipment for User Training

**Attachment-VI: The draft templates of Support Supervision Report and CQI Action Plan**

**1) Support Supervision Report, 2 pages for hand writing use)**

**Support Supervision Report**

Name of WS: \_\_\_\_\_ Date: \_\_\_\_ / \_\_\_\_ / 20\_\_\_\_ Time: \_\_\_\_ : \_\_\_\_ - \_\_\_\_ : \_\_\_\_

- Courtesy call to \_\_\_\_\_
- Communication from the Chair \_\_\_\_\_
- Brief report about the WS from WS manager \_\_\_\_\_

The points to be discussed	[Tick one]			
	Good	Fair	Not Good	N/A
<b>1 Timely submission of the Quarterly Report</b>				
<b>Timely submission of the Annual Work Plan</b>				
Note: Including Budgeting, Operational Plan, Work schedule				
Reason for good achievement or root causes for not achieving good score:				
_____				
_____				

<b>2 Disbursement of approved WS budget</b>				
<b>Proper budget allocation</b>				
_____				
_____				

<b>3 Regular update of ME Inventory for RRRH, GHs, HC-IVs</b>				
Note: Enter Excel sheet, data cleaning, analysis, NOMAD				
_____				
_____				

<b>4 Holding user trainings together with qualified user trainer</b>				
Note: How many times a quarter [ _____ ], where [ _____ ]				
_____				
_____				

<b>5 Functioning preventive maintenance &amp; quality control</b>				
Note: Use of Service Sticker, Electrical safety analyzer, Oxygen analyzer etc.				
_____				
_____				

<b>6 Follow-up of the conducted trainings</b>				
Note: Feedback session, sharing handouts, on the job training (OJT) etc.				
_____				
_____				

	Good	Fair	NG	N/A
<b>7 Smooth procurement of spare parts</b>				
Note: Framework contract				
_____				
_____				

<b>8 Progress of 5S activities in the Workshop</b>				
<b>Progress of CQI activities in the Workshop</b>				
_____				
_____				

<b>9 Leadership and Team-building</b>				
_____				
_____				

<b>10</b>				
_____				
_____				

<b>11 Way Forward / Priority issues to be solved</b>				
_____				
_____				
_____				
_____				
_____				
_____				
_____				
_____				
_____				

**12 Attendance List** is:  attached  not attached

Reported by WS Manager, \_\_\_\_\_ Supervisor, \_\_\_\_\_ Supervisor \_\_\_\_\_

Name \_\_\_\_\_

Signature \_\_\_\_\_

**2) CQI Action Plan, 1 page, for hand writing use**

<b>ACTION PLAN FOR CQI/KAIZEN ACTIVITY</b>	Date: ____ / ____ / ____
CQI topic: _____	Place: _____
	Implementer(s): _____

No.	Actions to be taken	From: / / to: / /			Responsible person(s)	Resources	Tick when completed
		1M	2M	3M			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							

## Attachment-VII: Survey of Medical Equipment Requiring for The Training

No	WS	Name of priority equipment				
		1	2	3	4	5
1	Arua	Gene Xpert/ CD4 analyzer	Haematology analyzer	Anaesthesia machine	Power backup system	
2	Fort Portal	Patient monitor	Ventilator	Infusion pump	Anaesthesia machine	Ultrasound machine
3	Gulu	Ventilator	Infusion pump	Patient monitor	Ultrasound machine	Anaesthesia machine
4	Hoima	Oxygen concentrator	Refrigerator	Pulse oximeter, BP machine	Infant warmer	Infant incubator
5	Jinja	Patient monitor	Ultrasound machine	ECG machine	Fridge	Autoclave
6	Kabale	Infusion/ Syringe Pump	Ventilator	Defibrillator	Chemistry Analyzer	Anesthesia Machine
7	Lira	ECG machine	Patient monitor	Ventilator	Anaesthesia machine	Infant warmer
8	Mbale	Oxygen concentrator	Ultrasound machine	Suction machine	Autoclave	
9	Moroto	CD4 counter	Hematology analyzer	Ventilator	Slit lamp microscope for eye	Incubator
10	Mubende	Ultrasound machine	Patient monitor	Ventilator	X-ray machine	Infusion/syrin ge pump
11	Soroti	Anaesthesia machine	Diathermy/EI ectro-surgical machine	Slit lamp microscope for eye	Patient monitor	Ultrasound machine
12	Central	Un-answered				

RESULTS 53 points in Total

6 Points: Ultrasound machine, Patient monitor, Anesthesia machine, ventilator

4 Points: Infusion/Syringe pumps

2 Points: Oxygen concentrator, Autoclave, Infant warmer, ECG machine, Refrigerator, Incubator, GeneX-pert/CD4 counter, Haematology analyzer, Slit lamp microscope

1 Point: X-ray machine, Chemistry analyzer, Defibrillator, Suction unit, Diathermy, Pulse oximeter/BP machine, Power backup system

**Attachment-VIII: List of the implemented Small CQI Topics in each WS**

WS	No.	CQI Topics	No. of Actions	Period	Date of Start	Date of Completion	Tick
Arua	1	Update equipment inventory of Arua RRH	10	3 Months	4/6/18	3/9/18	
	2	Introduce new stock management system for spare parts	7	3 Months	4/6/18	3/9/18	
Fort Portal	3	Develop and execute user training plan	10	3 Months	1/7/18	30/9/18	
	4	Regular collection and update of equipment inventory for RRH and GHS	13	5 Months	2/7/18	30/11/18	
Gulu	5	Complaint form system to be put in use	8	2 Months	29/5/18	28/7/18	
	6	Service sticker to be put in use and job cards to be properly filed	7	2 Months	29/5/18	28/7/18	
Hoima	7	Make an Annual Workplan for FY2018/19 by cooperating all members	8	1 Month	1/6/18	30/6/18	
	8	Update equipment inventory of Hoima RRH	11	2 Months	11/6/18	10/8/18	
Jinja	9	Equipment inventory of Jinja RRH to be regularly updated	11	1.5 Month	22/5/18	30/6/18	
	10	Procuring a printer for using inventory exercise and others	9	1.5 Month	22/5/18	30/6/18	
Kabale	11	Improving spare parts stock management (using stock cards and ledger)	9	3 Months	18/6/18	17/9/18	
Lira	12	Making bigger work shop space and protect equipment from dusts	8	1 Month	4/6/18	3/7/18	
Mbale	13	Setting up filling system in the Workshop	8	1.5 Month	23/5/18	30/6/18	
	14	Increasing number of issued Job cards and filling Job cards properly	14	1.5 Month	23/5/18	30/6/18	
Mubende	15	Secure Personal Protection Equipment (PPE) for Technicians	8	3 Months	2/7/18	30/9/18	
	16	Collection and updating medical equipment inventory in RRH and 2 GHS carried out regularly	14	3 Months	2/7/18	30/9/18	
Soroti	17	All lease one technician to attend morning meeting regularly	8	1 Month	25/5/18	24/6/18	
	18	Number of Job cards to be increased	7	3 Months	25/5/18	24/8/18	
CWS	19	Conducting regular internal meetings	10	3 Months	2/7/18	1/10/18	
	20	Implement Planned Preventive Maintenance (PPM)	14	3 Months	16/7/18	15/10/18	

Attachment-IX: Results of Questionnaire Survey

**Medical Equipment Maintenance Workshop Information Sheet**  
**(Including Masaka & Mbarara Workshops in RRHs)**

1. Staffing in each WS including volunteers

	WSs	Number of staff by specialty							No. of engineer	No. of Government payroll	No. of staff who Handle medical equipment
		Bio-Medical	Electrical	Mechanical	Plumber	Carpenter	Others	Total			
1	Arua	1	2	1	1	1	3	9		5	4
2	Fort Portal	1	3	1	2	1	1	9	1	8	6
3	Gulu	1	3	2	1	1	1	9	2	7	4
4	Hoima	0	5	1	2	0	1	9		9	2
5	Jinja	2	1	0	2	0	2	7		7	3
6	Kabale	1	3	1	1	1	2	9		8	6
7	Lira	2	2	1	1	0	0	6		5	5
8	Mbale	1	3	0	1	1	3	9		5	5
9	Moroto	1	2	0	1	1	2	7	2	6	5
10	Mubende	0	3	1	1	1	1	7		6	4
11	Soroti	1	2	1	1	1	0	6		6	3
12	Central	2	3	4	0	0	0	9	2	7	9
13	Masaka RRH	1	2	0	2	1	0	6		5	3
14	Mbarara RRH	2	2	0	1	1	0	6	2	4	4

2 Regional WSs Annual Budget

*UShs Thousand*

WSs	No of Facilities in the catchment area				Annual Budget for WS (2017/18)	
	RRH	GH	HC4	Total	Approved (confirmed)	Released as of May 2018
Arua	1	7	8	16	232,000	227,513
Fort Portal	1	3	13	17	194,704	Not collected
Gulu	1	2	8	11	168,000	167,779
Hoima	1	3	8	12	100,729	Almost 100%
Jinja	1	4	22	27	90,000	Almost 100%
Kabale	2	5	38	45	375,000	354,669
Lira	1	1	9	11	128,000	100%
Mbale	1	10	26	37	361,000	281,000 <sup>1</sup>
Moroto	1	2	5	8	125,000	
Mubende	1	2	7	10	82,000	95%
Soroti	1	5	10	16	141,000	100,000
Central	2	8	40	50	680,000	480,000
Masaka	1	-	-	1	0 (No budget)	By request
Mbarara	1	-	-	1	0 (No budget)	By request

<sup>1</sup>Un-released budget 80 mil. Ushs (361 mil. -281 mil.) is used for hospital electricity bills.

### 3. Procedures for Equipment Repair and Spare Parts Purchasing

3-1 Is the Complaint Form in use on daily basis?

3-2 Is the Job Card in use on daily basis?

3-3 How many Job Cards did the WS issue for 1<sup>st</sup> Quarter to 3<sup>rd</sup> Quarter of FY 2017/18?

3-4 Is the Framework Contract introduced for purchasing spare parts in use now?

3-5 Do you have the store management system such as stock card etc.?

3-6 Do you carry out any quality /safety testing for preventive maintenance?

Question	3-1	3-2	3-3 2017/18 (Q1-Q3)	3-4	3-5	3-6
Arua	Yes	Yes	-	Yes	Yes	Yes
Fort Portal	Yes	Yes	481	Yes	Yes	Yes
Gulu	Partial	Yes	-	No	Yes (Introduced in April)	Yes (Introduced in April)
Hoima	Yes	Yes	-	No	No	Partial
Jinja	Yes	No	-	Yes	Partial	No
Kabale	Partial	Yes	855	No (RFQ)	Partial	Yes
Lira	Yes	Yes	553	Yes	Yes	Yes
Mbale	Partial	Yes	188	Yes	Partial	Partial
Moroto	Yes	Yes	-	Yes (RFQ)	Yes	No
Mubende	Partial	Yes	459	No	Partial	Partial
Soroti	Yes	Yes	260	Yes	Yes	No
CWS	No	Yes	602	Yes	Yes	No
Masaka	No	Yes (original format)	-	No (RFQ)	No	No
Mbarara	Partial (no format)	No	0	No (RFQ)	No	Partial (O2 concentrator, suction)

### 4 Updating medical equipment inventory

4-1 Do you update medical equipment inventory annually for RRH, GHs and HC-IVs?

4-2 Do you use service sticker system, whenever use for maintenance?

4-3 Is NOMAD software functioning?

Question	4-1			4-2	4-3
	RRHs	GHs	HC-IVs		
Arua	Yes	No	No	Yes	No
Fort Portal	Yes	Yes	Yes	Yes	No, Web page is not opening
Gulu	Partial	No	No	No	No
Hoima	Partial	Partial	No	Yes	No
Jinja	No	No	No	Yes	No
Kabale	Yes	Yes	Partial	Yes	No, login blocked
Lira	Yes	Yes	Yes	Yes	Interrupted
Mbale	Yes	Yes	No	Yes	No



Moroto	Yes	Yes	Yes	Yes	No
Mubende	Partial	Partial	Partial	Yes	No
Soroti	Yes	Yes	Yes	Yes, started	Interrupted
Central	Partial	Partial	Partial	Yes	Partial
Masaka	Yes	No	No	No (distributed stickers)	No
Mbarara	Yes (RRH)	-	-	No (distributed stickers)	No

## 5. Work Plan preparation, maintenance work and user training

5-1 Did you prepare an annual Work Plan 2018/19 including operational plan, budget and quarterly schedule, etc.?

5-2 Did you prepare a Quarterly Workplan?

5-3 How often do you carry out routine maintenance visits to the GHs and the HC-IVs?

5-4 How often do you hold “Regional WS Management Committee Meeting” FY2017/18?

5-5 How many times have you carried out User Training in FY2017/18 with qualified user trainers?

Table 6 Routine maintenance

WS	5-1 Annual Work Plan (contents)			5-2 Quarterly Work plan	5-3 maintenance visit per year		5-4 RW/MC/M	5-5 UT
	Operational plan	Budget	Quarter schedule		GHs	HC-IVs		
Arua	Yes	Yes	Yes	Yes	4	3	1	Yes
Fort Portal	Yes	Yes	No	Yes	4	4	0	Yes
Gulu	No	No	No	Yes	4	4	0	No
Hoima	No	No	No	No	4	4	0	Partial
Jinja	No	No	No	No	No	No	1	No
Kabale	Yes	yes	Yes	Yes	4	2-3	1	Yes
Lira	Yes	Yes	Yes	Yes	4	4 + emergency	2	Yes
Mbale	Yes	Yes	Yes	Yes	2	1	1	1
Moroto	Yes	Yes	Yes	Yes	4	4	1	yes
Mubende	Yes	Yes	Yes	Yes	2-4	2-4	0	4 Times
Soroti	Yes	Yes	Yes	Yes	4	4	1	Yes
CWS	No	Yes	No	Yes	4	4	0	1
Masaka	No	No	No	No	-	-	-	No
Mbarara	No	No	No	Yes	-	-	-	No

## Abbreviations

CQI	Continuous Quality Improvement
CWS	Central Workshop
DHO	District Health Office
GH	General Hospital
HFQAP	Health Facility Quality of Care Assessment Program
HID/MOH	Infrastructure Department, Ministry of Health
IDI	Infectious Disease Institute
JICA	Japan International Cooperation Agency
KOFIH	Korea Foundation for International Healthcare
ME	Medical Equipment Maintenance
M&E	Monitoring and Evaluation
MOH	Ministry of Health, Uganda
NOMAD	New Order for Managing Anything Data
PDM	Project Design Matrix
PIT	Project Implementation Team
Phase 1	The Project on Improvement of Health Services through Health Infrastructure Management
QAID	Quality Assurance and Inspection Department, Ministry of Health, Uganda
QIT	Quality Improvement Team
QC	Quality Control
QI	Quality Improvement
RH	Referral Hospital
RHITES	Regional Health Integration to Enhance Services
RRH	Regional Referral Hospital
RWS	Regional Workshop
TQM	Total Quality Management
USAID	United States Agency for International Development
WIT	Work Improvement Team
UT	User Training
WS	Workshop

To CR of JICA Uganda Office

**Project Monitoring Report Sheet****Project Title: Improvement of Health Services through Health Infrastructure Management II****Version of the sheet: 5 (Term: 1st July 2018 – 31st December 2018)****Name: Dr. Olaro Charles****Title: Project Director****Name: Hiroshi Tasei****Title: Chief Advisor****Submission Date: 25th February 2019****I. Summary****1 Progress and Achievements of Project****1-1 Progress of Inputs****[The Japanese side] 1-1-1 Dispatch of JICA Experts**

The Japan International Cooperation Agency (JICA) Experts were dispatched on schedule. The list of the experts is shown in the table below.

Name	2018						Total (days)				
	7	8	9	10	11	12					
Hiroshi Tasei Chief Advisor/QI Management System①	████████████████████			87	██████████		26	113			
Shizu Takahashi Vice Chief Advisor/QI Management System②					██████████		28	28			
Naoki Take 5S-CQI-TQM①			████████████████████			██████████		92	92		
Yujiro Handa 5S-CQI-TQM②		██████████		35		██████████		25	60		
Yasuhiro Hiruma Utilization of Medical Equipment	██████████		20		████████████████████			65	85		
Naoki Mimuro Maintenance of Medical Equipment	██████████		11	████████████████████			██████████		80	91	
Emi Onosaka Project Coordinator/Training Management	██████████		11		████████████████████			██████████		59	70

**1-1-2 Delivery of 5S tool kits**

The JICA Experts delivered 5S tool kits to help the implementation of the 5S activities at Masaka Regional Referral Hospital (RRH), Moroto RRH and Naguru Referral Hospital (RH). The contents of the tool kits included: a carrying bag with several types of stationary such as

markers, pens, scissors, tapes, etc.

### [The Ugandan side]

#### 1-1-3 Assignment of Counterparts

- (1) Two (2) National 5S-CQI-TQM facilitators carried out the 5S Facilitators' Training.
- (2) Four (4) former project User Trainers, also called Senior User Trainers, carried out the Training of Trainers for User Trainers.
- (3) Infrastructure Department, Ministry of Health (HID/MOH) carried out the support supervision for Regional Workshops (RWSs).

#### 1-2 Progress of Activities

##### 1-2-1 Activities of Output 1




##### (1) Steering Committee Meeting


<b>Related to activity</b> 1-3-1/1-3-2	Planned in August, December 2018
<b>Details</b>	<p>Steering Committee Meeting (1)</p> <ul style="list-style-type: none"> <li>● Date and Venue: 17th August 2018 at the 3rd Floor Board Room in Ministry of Health (MOH)</li> <li>● Participants: Six (6) from MOH, six (6) from Project and three (3) from JICA Uganda Office</li> <li>● Objectives:               <ol style="list-style-type: none"> <li>(1) To present a report on the progress of the 1st Quarter of 2018/2019 (July - September 2018)</li> <li>(2) To discuss the 2nd Quarter of 2018/2019 (October - December 2018) budget for project activities</li> </ol> </li> </ul> <p>Steering Committee Meeting (2)</p> <ul style="list-style-type: none"> <li>● Date and Venue: 27th November 2018 at the 3rd Floor Board Room in MOH</li> <li>● Participants: Six (6) from MOH, six (6) from Project and four (4) from JICA Uganda Office</li> <li>● Objectives:               <ol style="list-style-type: none"> <li>(1) To report on the progress of the 2nd Quarter of 2018/2019</li> <li>(2) To discuss the 3rd Quarter of 2018/2019 (January - March 2019) budget for project activities</li> </ol> </li> </ul>
<b>Achievement</b>	<p>Steering Committee Meeting (1)</p> <ul style="list-style-type: none"> <li>● All members shared project activities through the reporting format which was approved at the last Steering Committee meeting.</li> </ul>

	<ul style="list-style-type: none"> <li>● The results of the 2nd Monitoring and Evaluation (M&amp;E) 5S-CQI-TQM conducted in August 2018 were shared to all members.</li> <li>● Steering Committee members were informed that disbursement of the MOH budget in the 1st Quarter of 2018/2019 was 10% of the planned budget.</li> <li>● Steering Committee members agreed that expenses of all activities especially allowances of counterparts shall be covered by the departmental budget.</li> <li>● The 3rd Training of Trainers of User Trainers shall be postponed to September due to a disbursement delay of the budget.</li> </ul> <p>Steering Committee Meeting (2)</p> <ul style="list-style-type: none"> <li>● Project Manager appreciated the fact that project activities are being implemented smoothly.</li> <li>● Allowances for participants of specialized medical equipment training, Training of Trainers of User Trainer and 5S Facilitator training shall be paid from the MOH budget.</li> <li>● The Project requested support for funds for Workshop Leadership training from the JICA side; however, the request was not approved.</li> </ul>
<p><b>Way Forward/ Challenges</b></p>	<ul style="list-style-type: none"> <li>● MOH shall organize study tours to high scoring facilities, targeting low scoring facilities to foster leadership. As of January 2019, it has not been realized, yet each hospital has been considering the possibility of visit.</li> <li>● The Project budget for the next quarter shall be discussed at the beginning of each quarter.</li> <li>● The Project Implementation Team (PIT) shall apply for funds for Project activities whether or not implemented.</li> </ul>

**(2) 5th National Healthcare Quality Improvement Conference**

<p><b>Related to activity 1-3-4</b></p>	<p>Planned in August 2018</p>
<p><b>Details</b></p>	<p>The 5th National Healthcare Quality Improvement Conference (QI Conference) was held on 4th - 6th December 2018 at Hotel Africana, Kampala. The Project supported the secretariat of QI conference:</p> <ul style="list-style-type: none"> <li>● Arrangement of the keynote speech by Prof. Yujiro Handa (JICA Expert 5S-CQI-TQM). The theme of the speech was</li> </ul>

	<p>“Strengthening Leadership and Governance Capacity and Support for QI throughout the Health Sector”</p> <ul style="list-style-type: none"> <li>● Technical support to the project target hospitals to prepare abstracts and design presentations.</li> <li>● Writing of an article on the Project entitled “Seeking Quality Improvement through Better Working Environment: Promotion of 5S-CQI (KAIZEN) -TQM Practice in Health Services”</li> </ul>
<p><b>Achievement</b></p>	<ul style="list-style-type: none"> <li>● With a unique arrangement, the keynote speech by Prof. Handa was successfully carried out. The one-hour speech was divided into three (3) parts: Prof. Handa spoke about the conceptual framework of 5S-CQI-TQM in line with leadership, management and governance, followed by the current status of 5S performance by Mr. Naoki Take (JICA Expert 5S-CQI-TQM). In addition, Dr. Sophie Namasopo, Director of Kabale RRH talked about a case of successful functionalization of the 5S-CQI-TQM implementation structure. This type of arrangement enlightened conference participants on a success story of 5S-CQI-TQM in practical terms.</li> </ul> <div style="display: flex; justify-content: space-around;">  </div> <p>Key note speech; Prof. Handa, Mr. Take and Dr. Sophie</p> <ul style="list-style-type: none"> <li>● In total, seven (7) abstracts were approved from the target hospitals: Five (5) from Kabale RRH, one (1) from Entebbe General Hospital (GH) and one (1) from Jinja RRH. Three (3) abstracts (two (2) from Kabale and one (1) from Entebbe) were oral presentations and four (4) were posters (three (3) from Kabale and one (1) from Jinja).</li> </ul> <div style="display: flex; justify-content: space-around;">   </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <p>Poster: Kabale RRH</p> <p>Oral presentation: Entebbe</p> </div>

	<ul style="list-style-type: none"> <li>● The article on the Project was placed in two (2) major newspapers: Daily Monitor and New Vision.</li> </ul>	
<p><b>Way Forward/ Challenges</b></p>	<ul style="list-style-type: none"> <li>● It is expected that the 5S-CQI good practice will be spread to all health facilities and among health service providers in Uganda.</li> <li>● The Project will support the next conference in 2019.</li> </ul>	

**(3) KAIZEN Training of Trainers in Tanzania 2018**

<p><b>Related to activity 1-2-3</b></p>	<p>Planned in November 2018</p>	
<p><b>Details</b></p>	<ul style="list-style-type: none"> <li>● Date and Venue: 12th -16th November at Mbeya Zonal Referral Hospital, Mbeya, Tanzania</li> <li>● Participants: Ms. Beatrice Amuge, Assistant Commissioner, Nursing Service, Mulago National Referral Hospital and Ms. Lilian Bako, Nursing Officer, Kabale RRH</li> <li>● Objectives: The purpose of the training was to build participants' capability in terms of skills and knowledge on the KAIZEN approach for strengthening resource management and improving the quality of health services.</li> </ul>	
<p><b>Achievement</b></p>	<ul style="list-style-type: none"> <li>● Both participants attended the whole program and returned to Uganda safely. They both submitted their reports and action plans to the training secretariat. The participant from Kabale RRH has already conducted feedback training to her hospital staff. Reports of both participants are as per Attachment III.</li> </ul>	
<p><b>Way Forward/ Challenges</b></p>	<ul style="list-style-type: none"> <li>● The JICA Experts will follow-up these trainees during supervision, and analyze the outcomes and impacts of the training. Their progress reports are supposed to submit to JICA Uganda office by May 2019.</li> </ul>	

**1-2-2 Activities of Output 2**

**(1) Second M&E of 5S Performance**

<p><b>Related to activity 2-2</b></p>	<p>Twice a year: every May and November</p>	
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<b>Details</b>	<ul style="list-style-type: none"> <li>● The JICA Expert analyzed data collected by National 5S-CQI-TQM and shared the results with all target hospitals.</li> <li>● The JICA Experts presented the results at MOH, i.e., Supervision, Monitoring, Evaluation and Research Technical Working Group meeting in September 2018 and Senior Management Committee meeting in October 2018. (See Attachment IV)</li> <li>● The results were also shared at the 5th QI Conference.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● All target hospitals received information on their current status of 5S. Some of them made efforts to improve the status, even before supervision by JICA Experts.</li> <li>● Results of M&amp;E are shown in Attachment V.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● The 3rd M&amp;E of 5S performance will be carried out in March and April 2019. Quality Assurance and Inspection Department, Ministry of Health (QAID) is expected to finance this exercise. However, in case emergency issues (e.g. Ebola prevention and control) happened in another quarter, it might be difficult to conduct this exercise in the current budget amount.</li> </ul>

**(2) Supervision of 5S-CQI-TQM**

<b>Related to activity 2-6/2-8</b>	Started from June 2018
<b>Details</b>	<p>JICA Experts supervised 5S-CQI-TQM activities at the following 14 hospitals. Supervisory visits were made to the selected units or departments; the JICA Experts spent 1-2 days sharing the details of results of the 2nd M&amp;E and giving a short lecture on a specific topic, e.g., introduction of CQI tools.</p> <ul style="list-style-type: none"> <li>● August: Entebbe GH, Gulu RRH, Lira RRH, Soroti RRH</li> <li>● September: Fort Portal RRH, Kabale RRH, Mbarara RRH</li> <li>● October: Arua RRH, Hoima RRH, Mubende RRH, Naguru RH</li> <li>● November: Entebbe GH, Jinja RRH, Kabale RRH, Mbale RRH, Mbarara RRH, Tororo GH</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● The 14 hospitals got an opportunity to commence CQI even on a small scale. They also received detailed information on the strengths and weaknesses in terms of 5S implementation, and tips for improvement.</li> <li>● In most hospitals, many units and departments had started efforts</li> </ul>



	to improve the status of 5S, prior to the supervision.
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● Supervision of 5S-CQI-TQM is supposed to be done quarterly, based on the findings at each opportunity of supervision and status of progress of countermeasures. QAID and JICA Experts will jointly conduct supervision according to their feasibility.</li> <li>● QAID could not ensure the budget for supervision of 5S-CQI-TQM in the 1st Quarter of 2018/2019 because of the very small allocation. As it prioritized the training of 5S and 5S-CQI-TQM facilitators in the 2nd Quarter of 2018/2019, the budget was not allocated for the supervision. Consequently, JICA Experts supervised the target hospitals without mobilizing counterparts of MOH and could not manage to supervise two (2) hospitals (Masaka RRH and Moroto RRH).</li> </ul>

**(3) Training of 5S and 5S-CQI-TQM Facilitators**

<b>Related to activity 2-5/2-7</b>	November 2018
<b>Details</b>	<ul style="list-style-type: none"> <li>● Date: 28th - 30th November 2018</li> <li>● Venue: Ridar Hotel, Mukono District</li> <li>● Facilitators: Three JICA Experts and two (2) National 5S-CQI-TQM facilitators</li> <li>● Participants: 10 candidates of National 5S-CQI-TQM facilitators from 10 target hospitals (Entebbe, Fort Portal, Gulu, Jinja, Hoima, Lira, Masaka, Moroto, Mubende and Naguru); 25 participants from five (5) hospitals other than the Project target hospitals (Mulago National Referral Hospital, Women's and Neonatal Hospital, Butabika National Referral Hospital, Kawempe Referral Hospital and Kiruddu Referral Hospital)</li> <li>● Contents of training: Lectures on leadership, management, team building, 5S principles, 5S tools and M&amp;E; exercises on 5S and supervision.</li> <li>● Funding: <ul style="list-style-type: none"> <li>(1) Ugandan side: 22,200,000UGX for allowances and transport costs, 67.5% of total training expenses.</li> <li>(2) Japanese side: 5,765,000UGX for refreshment costs, 32.5% of total training expenses.</li> </ul> </li> </ul>

<b>Achievement</b>	<ul style="list-style-type: none"> <li>● 10 new facilitators received basic skills training for facilitation of 5S-CQI-TQM at health facilities.</li> <li>● 25 health workers received basic skills training for implementation of 5S activities at five (5) hospitals other than the Project target hospitals.</li> <li>● Implementation of this training was made possible by the strong leadership and commitment of the Commissioner QAID; allowances and transportation of the participants were covered by the department.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● Originally, they were supposed to be two (2) separate training sessions (training of facilitators (Activity 2-5) and 5S-CQI-TQM training (Activity 2-7)), but they were merged into one to save costs.</li> <li>● Above mentioned five (5) hospitals (Mulago, Specialized Women's and Neonatal, Butabika, Kawempe and Kiruddu) are not project target hospitals. JICA experts are going to technically support QAID to realize their ownership through taking initiative to implement supervision in these hospitals.</li> </ul>

### 1-2-3 Activities of Output 3



#### (1) Development of User Training (UT) Manual/Guidelines

<b>Related to Activity 3-1</b>	Planned in June 2018 - March 2019
<b>Details</b>	<ul style="list-style-type: none"> <li>● Date and Venue: 4th October - 31st December 2018 at MOH Project office</li> <li>● Participants: One (1) JICA Expert, two (2) MOH Officials and one (1) Secretary</li> <li>● Objectives: <ul style="list-style-type: none"> <li>(1) The contents of UT manual were revised and confirmed by the User Trainers.</li> <li>(2) UT guidelines were drafted by the JICA Experts, and revised and confirmed by Clinical Service and Nursing Department.</li> </ul> </li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● The UT manual was proofread and corrected.</li> <li>● The draft UT guideline was developed by the JICA Expert and checked by C/P.</li> </ul>
<b>Way Forward/</b>	<ul style="list-style-type: none"> <li>● It is necessary to confirm the procedure for the official document guidelines.</li> </ul>

<b>Challenges</b>	<ul style="list-style-type: none"> <li>● The contents of the guidelines need to be approved by the members of top management in MOH.</li> </ul>
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**(2) 3rd Training of User Trainer**

<b>Related to activity 3-3</b>	Planned in July 2018.
<b>Details</b>	<ul style="list-style-type: none"> <li>● Date and Venue: 26th - 30th November 2018 at Fort Portal RRH and St. Joseph Inn Virika.</li> <li>● Facilitators: Two (2) from Clinical Service and Nursing Department, one (1) from JICA Project, and four (4) Senior User Trainers</li> <li>● Participants: 12 User Trainers and five (5) User Trainer Candidates from the 10 RRHs and one (1) GH</li> <li>● Objectives:             <ol style="list-style-type: none"> <li>(1) The 12 User Trainers and the five (5) User Trainer candidates to review the guidelines of the 28 pieces of medical equipment.</li> <li>(2) To gain the required training skills and teaching methods for the target medical equipment.</li> <li>(3) To learn the, reporting skills and utilization of the budget from Medical Equipment Maintenance Workshop (WS) for UT activities</li> </ol> </li> <li>● Funding:             <ol style="list-style-type: none"> <li>(1) Ugandan side: 14,155,000UGX for allowances, 70% of total training expenses.</li> <li>(2) Japanese side: 5,645,000UGX for transport costs and refreshment costs, 30% of total training expenses.</li> </ol> </li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● The results of the written test were 56% for the pre-test and 78% for the post-test on average. The average improvement was 22% compared with the pre-test, hence confirming the positive outcome of the training.</li> <li>● The trainers were assessed on the practical test as reflected in the result which was 4.04 (5.00 for full score) on average.</li> <li>● Teaching skills of 17 User Trainers were improved.</li> <li>● Planning and reporting skills of 17 User Trainers were improved.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● Some of the User Trainer skills were below average, thus individual guidance and mentorship are expected to be done during support supervision and TOT.</li> <li>● Implementation of the 3rd training of User Trainer was behind</li> </ul>

	schedule because the budget disbursement from the Ministry of Finance was delayed.	
		
Demonstration of defibrillator on-site	Demonstration of ultrasound scanning machine	

**(3) Support Supervision**

<b>Related to activity 3-4</b>	Planned in September 2018 - May 2020.
<b>Details</b>	<ul style="list-style-type: none"> <li>● The JICA Expert and Secretary carried out the following support supervision for seven (7) RRHs. <ol style="list-style-type: none"> <li>(1) 29th October 2018 at Jinja RRH</li> <li>(2) 30th October 2018 at Soroti RRH</li> <li>(3) 31st October 2018 at Gulu RRH</li> <li>(4) 2nd November 2018 at Mubende RRH</li> <li>(5) 5th November 2018 at Naguru RH</li> <li>(6) 6th November 2018 at Fort Portal RRH</li> <li>(7) 7th November 2018 at Mbarara RRH</li> </ol> </li> <li>● Objectives: <ol style="list-style-type: none"> <li>(1) Ensure the availability of UT Work Plans in the hospitals and lower-level health facilities.</li> <li>(2) Provide technical guidance of the UT</li> <li>(3) Confirmation and guidance on collaboration with WS and WS staff</li> </ol> </li> <li>● Funding: <ol style="list-style-type: none"> <li>(1) Ugandan side: 720,000UGX for allowances, 46% of total expenses</li> <li>(2) Japanese side: 850,000UGX for transport costs and refreshment costs, 54% of total expenses</li> </ol> </li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● The User Trainers understood the work plan and how to write reports.</li> </ul>

	<ul style="list-style-type: none"> <li>● The User Trainers gained knowledge and skill on how to train other medical equipment users.</li> <li>● The User Trainers conducted UT in conjunction with the WS staff.</li> <li>● The User Trainers had selected the target medical equipment based on the inventory data that WS staff had collected.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● To enhance UT activities, it is important to encourage hospital managers to realize the importance of the activities and secure the budget for them. This can be done by holding continuous dialogue with the WS managers and directors.</li> </ul>

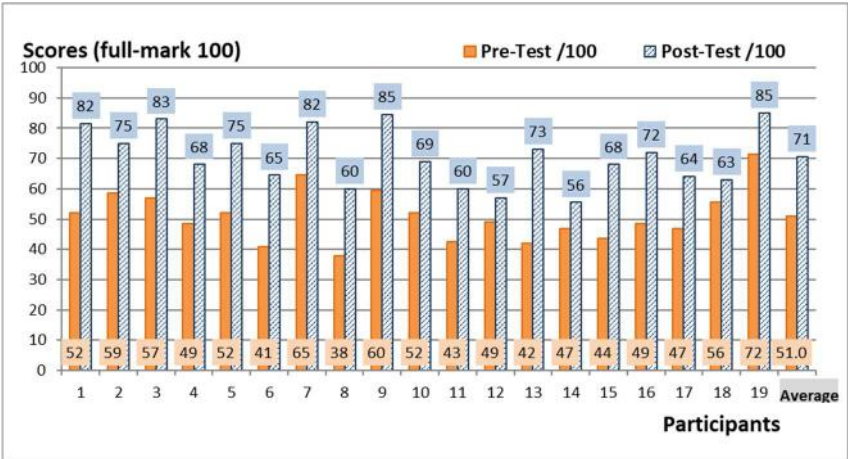
#### 1-2-4 Activities of Output 4



##### (1) Update and develop WS operation manuals, guidelines and monitoring tools (4-1)

<b>Related to activity 4-1</b>	Planned in May - December 2018
<b>Details</b>	<ul style="list-style-type: none"> <li>● The quick-reference user's guide to the basic operation of the New Order for Managing Anything Data (NOMAD) system and inventory data analysis, which was considered urgently needed, was revised in July 2018.</li> <li>● The existing WS Operation Manual published in December 2013 was not updated in time due to prioritizing the other activities such as training, support supervision and the work related to the equipment inventory management.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● The quick-reference user's guide has been updated and disseminated at the WSs through support supervision.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● Although the WS Operation Manual is useful, the majority of WS staff do not read books/manuals due to a poor reading culture. Therefore, it is a challenge to standardize the Manual at each WS.</li> <li>● Based on discussions between MOH counterparts and the JICA Experts, the Project intends to rather prioritize the other important activities than the revision of WS Operation Manual.</li> </ul>

##### (2) Training in Maintenance of Basic Medical Equipment

<b>Related to activity 4-3</b>	Planned in October - November 2018.
<b>Details</b>	<ul style="list-style-type: none"> <li>● Date and Venue: 2nd - 5th October 2018 at Gulu RRH</li> <li>● Targeted equipment: Five (5) items (Infant Incubator, Infant</li> </ul>

	<p>Warmer, Operating Table, Anesthesia Machine and Ventilator)</p> <ul style="list-style-type: none"> <li>● Participants: 19 engineers and technicians of all the WSS</li> <li>● Facilitators: One (1) lecturer from Makerere University and one (1) service engineer from local distributor of target equipment.</li> <li>● Objectives: To understand basic operation, common mistakes, essential maintenance and trouble-shooting of targeted equipment through lectures and hands-on practice.</li> <li>● Funding:             <ul style="list-style-type: none"> <li>(1) Ugandan side: 11,951,000UGX for allowances, transport costs and part of facilitators' fee, 67.4% of total training expenses</li> <li>(2) Japanese side: 5,780,000UGX for facilitators' fee and refreshment costs, 32.6% of total training expenses</li> </ul> </li> </ul>																																																															
<p><b>Achievement</b></p>	<ul style="list-style-type: none"> <li>● The results of the written test were 51% for the pre-test and 71% for the post-test on average. The average score rose by 20%, and improvement of knowledge was confirmed.</li> </ul>  <table border="1"> <caption>Scores (full-mark 100)</caption> <thead> <tr> <th>Participant</th> <th>Pre-Test /100</th> <th>Post-Test /100</th> </tr> </thead> <tbody> <tr><td>1</td><td>52</td><td>82</td></tr> <tr><td>2</td><td>59</td><td>75</td></tr> <tr><td>3</td><td>57</td><td>83</td></tr> <tr><td>4</td><td>49</td><td>68</td></tr> <tr><td>5</td><td>52</td><td>75</td></tr> <tr><td>6</td><td>41</td><td>65</td></tr> <tr><td>7</td><td>65</td><td>82</td></tr> <tr><td>8</td><td>38</td><td>60</td></tr> <tr><td>9</td><td>60</td><td>85</td></tr> <tr><td>10</td><td>52</td><td>69</td></tr> <tr><td>11</td><td>43</td><td>60</td></tr> <tr><td>12</td><td>49</td><td>57</td></tr> <tr><td>13</td><td>42</td><td>73</td></tr> <tr><td>14</td><td>47</td><td>56</td></tr> <tr><td>15</td><td>44</td><td>68</td></tr> <tr><td>16</td><td>49</td><td>72</td></tr> <tr><td>17</td><td>47</td><td>64</td></tr> <tr><td>18</td><td>56</td><td>63</td></tr> <tr><td>19</td><td>72</td><td>85</td></tr> <tr><td>Average</td><td>51.0</td><td>71</td></tr> </tbody> </table>	Participant	Pre-Test /100	Post-Test /100	1	52	82	2	59	75	3	57	83	4	49	68	5	52	75	6	41	65	7	65	82	8	38	60	9	60	85	10	52	69	11	43	60	12	49	57	13	42	73	14	47	56	15	44	68	16	49	72	17	47	64	18	56	63	19	72	85	Average	51.0	71
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<p><b>Way Forward/ Challenges</b></p>	<ul style="list-style-type: none"> <li>● The training results were generally good. However, the basic knowledge on respiratory management (especially the anesthesia machine and ventilator) was particularly low, and the training time was not sufficient.</li> <li>● As a good example of a hands-on session, the trainees were able to disassemble the obsolete operating table and learn technical skills.</li> </ul>																																																															

	
<p>Disassembling of operating table</p>	<p>Basic operation of ventilator</p>

**(3) Training in Maintenance of Specialized Medical Equipment**

<p><b>Related to activity 4-3</b></p>	<p>Planned in September - October 2018.</p>
<p><b>Details</b></p>	<ul style="list-style-type: none"> <li>● Date and Venue: 19th - 23rd November 2018 at Gulu RRH</li> <li>● Targeted equipment: Four (4) items (Ultrasound Machine, GeneXpert Machine, Infusion Pump and Syringe Pump)</li> <li>● Participants: 24 engineers and technicians of the WSs</li> <li>● Facilitators: One (1) lecturer from Makerere University and three (3) service engineers from local distributor of target equipment.</li> <li>● Objectives: To understand basic operation, common mistakes, first-line maintenance and trouble-shooting of targeted equipment through lectures and hands-on practice.</li> <li>● Funding:             <ol style="list-style-type: none"> <li>(1) Ugandan side: 14,512,000UGX for allowances, transport costs and part of facilitators' fee, 68.6% of total training expenses.</li> <li>(2) Japanese side: 6,630,000UGX for facilitators' fee and refreshment costs, 31.4% of total training expenses.</li> </ol> </li> </ul>

<p><b>Achievement</b></p>	<ul style="list-style-type: none"> <li>● The results of the written test were 54% for the pre-test and 82% for the post-test on average. The average score rose by 28%, and improvement of knowledge was remarkable.</li> </ul> <div> <table border="1"> <caption>Scores (%)</caption> <thead> <tr> <th>Participant</th> <th>Pre-Test (%)</th> <th>Post-Test (%)</th> </tr> </thead> <tbody> <tr><td>1</td><td>47</td><td>80</td></tr> <tr><td>2</td><td>56</td><td>86</td></tr> <tr><td>3</td><td>67</td><td>90</td></tr> <tr><td>4</td><td>54</td><td>79</td></tr> <tr><td>5</td><td>58</td><td>91</td></tr> <tr><td>6</td><td>65</td><td>85</td></tr> <tr><td>7</td><td>63</td><td>92</td></tr> <tr><td>8</td><td>54</td><td>82</td></tr> <tr><td>9</td><td>63</td><td>91</td></tr> <tr><td>10</td><td>66</td><td>91</td></tr> <tr><td>11</td><td>52</td><td>89</td></tr> <tr><td>12</td><td>34</td><td>90</td></tr> <tr><td>13</td><td>51</td><td>86</td></tr> <tr><td>14</td><td>76</td><td>89</td></tr> <tr><td>15</td><td>48</td><td>73</td></tr> <tr><td>16</td><td>57</td><td>80</td></tr> <tr><td>17</td><td>57</td><td>87</td></tr> <tr><td>18</td><td>54</td><td>79</td></tr> <tr><td>19</td><td>41</td><td>72</td></tr> <tr><td>20</td><td>47</td><td>65</td></tr> <tr><td>21</td><td>30</td><td>56</td></tr> <tr><td>22</td><td>46</td><td>65</td></tr> <tr><td>23</td><td>57</td><td>90</td></tr> <tr><td>24</td><td>47</td><td>79</td></tr> <tr><td>Average</td><td>54</td><td>82</td></tr> </tbody> </table> </div> <ul style="list-style-type: none"> <li>● Hiring the qualified facilitators was a key factor to the success of this training course.</li> </ul>	Participant	Pre-Test (%)	Post-Test (%)	1	47	80	2	56	86	3	67	90	4	54	79	5	58	91	6	65	85	7	63	92	8	54	82	9	63	91	10	66	91	11	52	89	12	34	90	13	51	86	14	76	89	15	48	73	16	57	80	17	57	87	18	54	79	19	41	72	20	47	65	21	30	56	22	46	65	23	57	90	24	47	79	Average	54	82
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<p><b>Way Forward/ Challenges</b></p>	<ul style="list-style-type: none"> <li>● To avoid overlapping with the other partner’s activities, the training schedule was changed from October to November, but there was no delay.</li> <li>● To improve the efficiency of the training, a hands-on session was held at two (2) locations simultaneously at Gulu RRH and a neighbor’s Private-Not-for-Profit (PNFP) Hospital “St. Mary’s Lacor”.</li> <li>● To improve the training outcomes, all the trainees were requested to submit training reports and organize feedback sessions in their workstations as a new system to be newly introduced.</li> </ul>
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Basic maintenance of GeneXpert





Basic operation of infusion pump

**(4) Support Supervision**

<p><b>Related to</b></p>	<p>Twice a year as planned (Year-round activity)</p>
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<b>activities 4-5 and 4-6</b>	
<b>Details</b>	<ul style="list-style-type: none"> <li>● The MOH counterpart and the JICA Expert carried out the following support supervision for 10 WSs including two (2) RRHs (Masaka and Mbarara). <ul style="list-style-type: none"> <li>(1) 22nd - 26th October 2018 at Lira, Gulu, Arua, Hoima and Jinja.</li> <li>(2) 5th - 9th November 2018 at Masaka, Kabale, Mbarara, Fort Portal and Mubende. In Fort Portal, the supervision was carried out at the hotel near the RRH due to the outbreak of Crimean Congo Hemorrhagic Fever.</li> </ul> </li> <li>● Objectives: <ul style="list-style-type: none"> <li>(1) Brief report from WS Manager and team discussions; <ul style="list-style-type: none"> <li>- Progress of ongoing CQI exercises</li> <li>- Review of maintenance job cards and reports</li> <li>- Inventory update and data entry in NOMAD system</li> </ul> </li> <li>(2) Planning new CQI topic, if time is available</li> <li>(3) Way forward</li> <li>(4) Courtesy call to the Hospital Director/Administrator</li> </ul> </li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● The supervision on the CQI approach was smoothly implemented because both supervisors and the WS staff have been accustomed to the method through past activities.</li> <li>● Progress of CQI being implemented in the WSs: Four (4) topics were developed, three (3) topics were partially implemented, and six (6) topics were not implemented. While implementing about half of the topics, CQI has been gradually adopted in all the WSs. CQI implementation will be continuously accelerated through this supervision.</li> <li>● The reporting system is largely functioning well. However, there are some points that need to be improved, such as incompleteness of filled-in Job Cards and improper storage of triplicated Job Cards.</li> <li>● Inventory update and data entry in NOMAD were delayed and cannot be achieved due to various issues such as excessive workload of the WS Manager, delay of funds, lack of staff skills, PC failure, miscommunication and the habit of postponing work.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● In the 1st supervision, an MOH counterpart paid his per diem by himself due to unsecured MOH funds. In the latter supervision, the fund deficiency was not resolved, and he was unable to participate.</li> </ul>

	<p>It is necessary to request MOH funds earlier (recommended before two (2) months) and to fix the schedule of the project activities before requesting MOH funds.</p> <ul style="list-style-type: none"> <li>● Regarding the delayed inventory update, the following actions are to be considered: <ul style="list-style-type: none"> <li>- The next support supervisions will be focused on inventory management including the NOMAD system.</li> <li>- Collaboration among the MOH counterpart and the development partners will be strengthened through the WS Performance Review Meetings.</li> <li>- In order to ensure active support from the RRH top management, the mentorship training for the RRH directors and administrators will be organized.</li> </ul> </li> </ul>
	
<p>Joint meeting of UT and ME teams, Mbarara RRH</p>	<p>Small training session for inventory data entry in NOMAD system, Jinja WS</p>

**(5) 21st WS Performance Review Meeting**

<p><b>Related to activity 4-5</b></p>	<p>Plan to hold the meeting at least twice a year (Year-round activity)</p>
<p><b>Details</b></p>	<ul style="list-style-type: none"> <li>● Date and Venue: 12th October 2018 at Hoima RRH</li> <li>● Participants: Approximately 40 people such as Hospital Directors, WS Managers, HID/MOH officials and implementing partners (Infections Disease Institute (IDI), four (4) area representatives of Regional Health Integration to Enhance Services (RHITES), American International Health Alliance (AIHA), Baylor Uganda and Project)</li> <li>● Objectives: <ol style="list-style-type: none"> <li>(1) Brief reports from the implementing partners</li> <li>(2) Review of minutes of previous meeting and matters arising</li> </ol> </li> </ul>

	<p>(3) Presentation of performance reports for 1st and 2nd Quarter of 2018/19 by each WS Manager</p> <p>(4) Key resolution/Recommendation</p>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● This meeting has been progressing well as the main platform for discussing key issues of the entire WSs as indicated in activities 4-5 and 4-6.</li> <li>● It was the memorable meeting, as the directors of Masaka and Mbarara RRHs attended this meeting for the first time and the in-house WS Managers of both RRHs made presentations on their work performances in the same way as the other WS Managers.</li> <li>● It was also the first meeting, as all implementing Partners who directly supported the WSs were able to participate.</li> <li>● The managerial skills such as reporting, budgeting, work planning and team building of WS Managers have gradually improved.</li> <li>● The allowances and fuel costs of the participants were paid by the respective WS budget. This is a good case showing sustainability.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● The WSs of Masaka and Mbarara will be upgraded to Regional WSs next fiscal year.</li> <li>● The inventory update and data entry of NOMAD in all the WSs are going to be strengthened through mentorship of WS staff by initiative of HID/MOH.</li> <li>● A training session on the NOMAD system for the hospital directors and administrators will be implemented in the next quarter organized by HID/MOH in collaboration with IDI.</li> <li>● It is expected that the coaching skills of Central Workshop and HID/MOH will be strengthened by the above-mentioned activities.</li> <li>● The next meeting shall be hosted in Arua RRH in January 2019.</li> </ul>

**(6) Collaboration of development partner “IDI” functionalizing equipment inventory management system**

<b>Related to activity 4-6</b>	Year-round activity
<b>Details</b>	<p>Meeting with a systems engineer of IDI on making the equipment inventory management system more user-friendly.</p> <ul style="list-style-type: none"> <li>● Date and Venue: 30th October and 1st November 2018 at Central Workshop (CWS), Wabigalo</li> </ul>

<b>Achievement</b>	<ul style="list-style-type: none"> <li>● The existing NOMAD software in CWS was updated.</li> <li>● The design of the NOMAD system was partially revised to make it easier to use by the users, and some system bugs were resolved.</li> <li>● NOMAD software was installed on a laptop PC of a JICA Expert and it was effectively utilized for on-site mentorship training at the WSs through support supervision visits.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● To standardize the NOMAD system, the HID/MOH in collaboration with IDI will organize the training and mentoring session not only for the WS staff but also for the RRH directors and administrators. The support supervision visits to all WSs will be carried out by HID/MOH with JICA Project.</li> </ul>

### 1-3 Achievement of Output

#### Summary of Achievements

Output1: MOH can capture the situation of the work environment and health infrastructure (medical equipment) in all RRHs through periodical Steering Committee meetings. The project activities play a critical role in effective management of health infrastructure in general. In terms of finance, while the MOH budget was not sufficient or available, the counterpart contributed towards the expenses for the activities of higher priority thus preventing delay. However, it is a challenge to transfer the content shared by the current Steering Committee to the official meeting body within MOH. The project will hold the Joint Coordination Committee as soon as possible to share the results of the activities and discuss allocation of the budget related to the project activities.

Output 2: Three (3) out of 16 target hospitals achieved the target as of June 2018, while six hospitals are expected to reach the target.

Output 3: The capacity of the User Trainers has been improved through the trainings and supervisions, and they were able to conduct trainings in the target hospitals as well as lower health facilities. Reduction of category status B equipment is still a challenge. The JICA Expert will select the status B equipment of each hospital on the previous inventory list, and provide guidance to the trainers.

Output 4: The capacity of medical equipment maintenance especially technical knowledge is improved through the past seven (7) times of the training on medical equipment maintenance, 5S-CQI and management. However, due to delays in medical equipment inventory updates, quantitative analysis at the midterm has not been completed. The management capacities of

the WS managers and senior technicians such as report writing, work planning and leadership have been improved through the biannual support supervisions, the quarterly WS Performance Review Meetings as well as great ownership of HID/MOH in securing funds and carrying out the activities as scheduled.

Due to a lack of contributions and delay of budget from MOH, some activities were rescheduled as well as changing the contents. Despite the challenges, the trainings were effectively and efficiently carried out.

### 1-3-1 Output 1

Output 1 Supporting/supervising system for health infrastructure management of all the RRHs is strengthened in the MOH	
Current Indicators	Achievement
1-1 The Project Steering Committee meeting is conducted every three months.	The Steering Committee meeting was conducted on: 1) 29th May 2018 2) 17th September 2018 3) 27th November 2018
1-2 The results of integrated support supervision conducted by Project Implementation Teams and the next quarter action plan developed from these results are shared and approved at every Project Steering Committee meeting.	The results of supervision were shared at the Steering Committee meeting.
1-3 The roadmap for incorporating the Project activities into the policy and systems of MOH is established and implemented by the Project Steering Committee.	Not achieved. The members of the Steering Committee will share the project achievements at the official meeting in the Ministry of the new fiscal year.
1-4 The Project activities are successfully incorporated into the Ministerial Policy Statement of Ministry of Health.	Not achieved. Some funds related Project activities are expected to be allocated from departments in MOH from the new fiscal year.

### 1-3-2 Output 2

[PIT: 5S-CQI-TQM] Resource management and quality improvement activities are strengthened through CQI approach in all RRHs.																																																				
Current Indicators	Achievement																																																			
(1) Score of Module 1 (Leadership) and 6 (Health Infrastructure) Health Facility Quality of Care Assessment program (HFQAP) Facility Assessment Tool - All RRHs mark (i) 5 points out of 8 as full mark for module 1 and (ii) 6 points out of 10 as full mark for module 6.	(1) Data was not available yet.																																																			
(2) Score of modified 5S M&E Sheet in 5S-CQI-TQM Guidelines - All RRHs mark 33 points out of 54 as full mark at least two consecutive years.	(2) According to 2nd M&E of 5S performance, nine (9) out of 16 target hospitals were above the target.																																																			
Results of 1st and 2nd M&E																																																				
<table border="1"> <caption>Data for Results of 1st and 2nd M&amp;E</caption> <thead> <tr> <th>Hospital</th> <th>1st (Aug 17)</th> <th>2nd (Jun 18)</th> </tr> </thead> <tbody> <tr><td>Kabale</td><td>44</td><td>82</td></tr> <tr><td>Mbarara</td><td>36</td><td>78</td></tr> <tr><td>Entebbe</td><td>60</td><td>73</td></tr> <tr><td>Mbale</td><td>51</td><td>71</td></tr> <tr><td>Arua</td><td>45</td><td>69</td></tr> <tr><td>Tororo</td><td>51</td><td>65</td></tr> <tr><td>Moroto</td><td>35</td><td>63.4</td></tr> <tr><td>Jinja</td><td>76</td><td>62.8</td></tr> <tr><td>Mubende</td><td>63</td><td>61</td></tr> <tr><td>Gulu</td><td>36</td><td>55</td></tr> <tr><td>Hoima</td><td>46</td><td>54.3</td></tr> <tr><td>Masaka</td><td>51</td><td>54.3</td></tr> <tr><td>Lira</td><td>44</td><td>48</td></tr> <tr><td>Soroti</td><td>28</td><td>39</td></tr> <tr><td>Naguru</td><td>18</td><td>30</td></tr> <tr><td>Fort Portal</td><td>34</td><td>28</td></tr> </tbody> </table>		Hospital	1st (Aug 17)	2nd (Jun 18)	Kabale	44	82	Mbarara	36	78	Entebbe	60	73	Mbale	51	71	Arua	45	69	Tororo	51	65	Moroto	35	63.4	Jinja	76	62.8	Mubende	63	61	Gulu	36	55	Hoima	46	54.3	Masaka	51	54.3	Lira	44	48	Soroti	28	39	Naguru	18	30	Fort Portal	34	28
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Hoima	46	54.3																																																		
Masaka	51	54.3																																																		
Lira	44	48																																																		
Soroti	28	39																																																		
Naguru	18	30																																																		
Fort Portal	34	28																																																		

**1-3-3 Output 3**

[PIT: User Training] Proper utilization of medical equipment through UT is improved in all RRHs.	
Current Indicators	Achievement
(1) There are at least two regional User Trainers at all RRHs.	(1) There were 35 regional User Trainers at 14 RRHs and one (1) GH.

(2) The number of UT conducted by regional User Trainers is more than three as per year in every region.	(2) The standard format for counting the number of trainings conducted is not yet in place, however this will be formulated in the 3rd quarter.
(3) The average percentage of medical equipment in status B at all RRHs is not higher than 4%.	(3) Baseline in October 2016: 5.1% The inventory data is currently being collected. Collection and analysis will be completed by May 2019.

**1-3-4 Output 4**

[PIT: ME maintenance] ME maintenance and management capacity of WS are strengthened.	
Current Indicators	Achievement
(1) The average increase of scores between the pre-test and post-test is at least 15%.	(1) 28.2% (average score of seven (7) past trainings) The scores of the two (2) trainings conducted during this period are as mentioned below. ● Basic medical equipment: 20% ● Specialized medical equipment: 28%
(2) The average of percentage of medical equipment in status C and status E at all RRHs is not higher than 15%.	(2) Baseline: 22.1% (C 17.9% + E4.2%) The inventory data is currently being collected. Collection and analysis will be completed by May 2019.

**1-4 Achievement of the Project Purpose**

Current Indicators	Achievement
(1) CQI Process or Quality Control (QC) Story -The number of cases of CQI Process or QC Story amounts to more than three.	(1) Two (2) cases on the CQI theme were implemented.
(2) Good practice of small CQI -All RRHs have at least one good practice of small CQI.	(2) One (1) case in Entebbe GH, Arua RRH, and Hoima RRH, Seven (7) cases in Kabale RRH

(3) The average of percentage of medical equipment in status A at all RRHs is higher than 70%.	(3) Base line in October 2016: 65.1% (average) The inventory data is currently being collected. Collection and analysis will be completed by May 2019.
(4) Supervisions on 5S, UT, and ME which is integrated into the system of MOH in a consolidated way are implemented more than XX times.	(4) Joint supervision of UT and ME were conducted once in November 2018.

In relation to the Indicator 3 for the Project Purpose, it is worth mentioning that the design of the NOMAD system was partially revised to make it user-friendly and the work will be expected to be completed soon. Since the inventory taking is an important task in medical equipment, the reform of NOMAD system will contribute to further effective management at all RRHs.

The Project side has provided opportunities to share work environment improvement through 5S and CQI activities in health facilities with health workers nationwide. It has created a big impact not only in target facilities but also other QI Implementing Partners.

### 1-5 Changes of Risks and Actions for Mitigation

The MOH budget release of the 1st Quarter of 2018/2019 was only 10% of the total quarterly budget. It was difficult to execute all project activities in the 1st Quarter as scheduled. MOH and the project team agreed to postpone the implementation of the 3rd Training of User Trainers, 5S Facilitator Training and 5S-CQI-TQM training to the 2nd Quarter of 2018/2019. The 5S Facilitators' Training and 5S-CQI-TQM Training were merged to save costs. However, concerning the Basic Medical Equipment Training that took place in October 2018 as scheduled, part of the costs for the training were covered by the Ugandan side.

### 1-6 Progress of Actions Undertaken by JICA

#### 1-7 Progress of Actions Undertaken by the Government of Uganda

##### - The burden of activities funds between the Ministry of Health and Japan

MOH covered 12% (17,330,000UGX) in 2016/2017 and 10% (10,902,000UGX) in 2017/2018 for all the activities.

The expenses covered by MOH and Japan for the activities for the 2nd Quarter of 2018/2019 are shown below: MOH covered 63% (62,938,000UGX) for all the activities. Allowances and the part of transportation for the participants were covered by MOH, and the transportation, venues and refreshments were covered by the Japan side.



Due to the contribution of the Project such as the early application of the budget, and public relations of the Project outcomes, the coverage rate of MOH has been increased compared to the past period. Increased funding from MOH can be interpreted as arising ownership which leads to the sustainable finding even after the completion of the Project.

UGX

	Date	MOH Dept.	Activities	Trainees	Venue	MoH		Japan side		Total	
						Allowance /Others	%	Allowance /Others	%		
1	2018	Oct	HID	Bacic ME Training	19	Gulu	11,951,000	67.5%	5,765,000	32.5%	17,716,000
2	2018	Nov	CS	UT Supervision			720,000	45.9%	850,000	54.1%	1,570,000
3	2018	Nov	QAID	5S Facilitator Training	40	Mukono	22,200,000	72.3%	8,524,000	27.7%	30,724,000
4	2018	Nov	HID	Specialized ME Training	26	Gulu	14,512,000	64.9%	7,846,000	35.1%	22,358,000
5	2018	Nov	CS	UT 3rd TOT	21	Fort Portal	13,545,000	59.8%	9,114,000	40.2%	22,659,000
6	2018	Dec	QAID	5th QI Conference	7	Kampala			5,250,000	100.0%	5,250,000
Total, %							62,928,000	63%	37,349,000	37%	100,277,000

### 1-8 Progress of Environmental and Social Considerations (if applicable)

### 1-9 Progress of Considerations on Gender/Peace Building/Poverty Reduction (if applicable)

None.

### 1-10 Other Remarkable/considerable Issues Related/affect to the Project (such as other JICA's Projects, Activities of Counterparts, Other Donors, Private Sectors, NGOs, etc.)

- (1) The project for the Improvement of Regional Referral Hospitals in Northern Uganda is a grant aid project run by the Japanese government. This project aims to strengthen hospital functionality by constructing facilities and providing medical equipment to northern Uganda hospitals (Arua, Gulu and Lira RRHs), and improving the quality and access to health services. JICA signed a grant agreement with the Government of Uganda to provide grant aid of up to 2.86 billion yen for this project on 26th of April 2018. The target facilities of the grant aid project include RRHs in this Project. It is expected to create a positive influence on health service delivery in the hospitals and the motivation of hospital staff to improve the workplace environment.
- (2) RHITES is a 5-year project that has been operating since 2017, funded by the United States Agency for International Development (USAID). RHITES supports the Government of Uganda and key stakeholders to increase the availability and utilization of high-quality health services. The purpose of this project is to secure services to support the design and implementation of comprehensive, integrated investment in health especially at regional level, HIV/AIDS, and nutrition assistance in the whole area of Uganda. In terms of Quality Improvement, achievement of outcomes in the Project target facilities will be accelerated through human resource development done by the RHITES.
- (3) Korea Foundation for International Healthcare (KOFIH) is a public affiliated organization of

the Ministry of Health and Welfare of the Republic of Korea. KOFIH has been active in Uganda since 2017 implementing various projects including establishing an emergency medical service system and community health system with MOH. KOFIH targets Bukomansinbi district and Masaka region. In the target area of KOFIH, the equipment and technology provided will contribute to improving the skills of the staff in the Project target facilities.

## **2 Delay of Work Schedule and/or Problems**

### **2-1 Details, Cause**

(1) Allocation of budget for project activities

MOH did not allocate night allowances for participants of the training and meeting organized by the Project in the 2017/2018. The Japanese side supported the activities for the last fiscal year as an emergency measure. The funds for allowance of participants from the new 2018/2019 were funded by MOH and covered about 60% of total costs. However, significant improvement in spending for the next quarter cannot be anticipated.

(2) The inventory input work is delayed due to the limited skills and shortage of manpower.

### **2-2 Action to Be Taken**

(1) The project implementation team meeting should be held immediately to discuss the content and timing of all activities commensurate with the size of the budget.

(2) Steering Committee members are going to apply to the MOH budget technical working group to incorporate the project activity expenses into the new fiscal year budget.

(3) The project team is going to cooperate with IDI in charge of the inventory system and train WS staff to improve input skills of inventory data.

## **3 Modification of Project Implementation Plan**

### **II. Project Monitoring Sheet I & II** *as Attached*

Attachment:

- I. Project Monitoring Sheet I
- II. Project Monitoring Sheet II
- III. Tanzania TOT Report
- IV. M&E results presented in Senior Management Committee on Oct 18<sup>th</sup>
- V. Progress of 5S Score at Target Hospitals
- VI. Abbreviations

End

## Project Monitoring Sheet I

Attachment I

Project Title: Project on Improvement of Health Service through Health Infrastructure Management (II)  
 Implementing agency: Quality Assurance & Inspection Department, Directorate of Planning & Policy, Ministry of Health (MOH) (5S-CQI-TQM)  
 Integrated Curative Services Department, Directorate of Clinical Services, MOH (Utilization of Medical Equipment)  
 Infrastructure Department, Directorate of Clinical Services, MOH (Maintenance of Medical Equipment)  
 Target Group: (1) Phase 1 targeted hospitals: Mbale Regional Referral hospital (RRH), Masaka RRH, Entebbe General Hospital (GH), Hoima RRH, Kabale RRH, Arua RRH, Lira RRH, Moroto RRH, Mukuju HC IV, Tororo GH  
 (2) Phase 2 targeted hospitals: Soroti RRH, Jinja RRH, Gulu RRH, Fort Portal RRH, Mbarara RRH, Mubende RRH, Naguru Referral Hospital  
 Period of Project: July 2016- July 2020  
 Target Site: Republic of Uganda

Version 5  
 Dated 25th February 2019

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
Quality of health care services at all the RRHs in Uganda is improved.	<ul style="list-style-type: none"> <li>• Clients' satisfaction level is improved to the target level. (XX)</li> <li>• Clients' waiting time of patients for consultation, testing, clinical examination, and prescription of drugs are reduced XX%</li> <li>• Maintenance cost regarding medical equipment is decreased in XX%.</li> </ul>	<ul style="list-style-type: none"> <li>• Health Management Information System (HMIS)</li> <li>• Annual Health Sector Performance Report (AHSPR)</li> <li>• Periodical monitoring reports by QITs at target hospitals</li> <li>• Supervision reports made by the steering committee for the project</li> <li>• Baseline and end-line data</li> <li>• Quarterly regional workshop maintenance report</li> </ul>			
Project Purpose					
Health infrastructure management at all the RRHs in Uganda is strengthened with the initiatives of MOH.	<ul style="list-style-type: none"> <li>(1) CQI Process or QC Story</li> <li>-The number of cases of CQI Process or QC Story amounts to more than three.</li> <li>(2) Good practice of small CQI</li> <li>-All RRHs have at least one good practice of small CQI.</li> <li>(3) The average of percentage of medical equipment in status A at all RRHs is higher than 70%.</li> <li>(4) Supervisions on 5S, UT, and ME which is integrated into the system of MOH in a consolidated way are implemented more than XX times.</li> </ul>	<ul style="list-style-type: none"> <li>(1) Report of CQI Process (e.g. Documentation Journal as an example of the format)</li> <li>(2) Report of small CQI or CQI support supervision tool</li> <li>(3) Medical equipment inventory</li> <li>(4) Minutes of steering committee meetings</li> <li>(5) Reports of steering committee</li> </ul>	<ul style="list-style-type: none"> <li>• Government budget for the RRHs will not be decreased significantly.</li> <li>• Government budget for the workshops will not be decreased significantly.</li> <li>• Political situation in Uganda remains stable.</li> </ul>	<ul style="list-style-type: none"> <li>(1) Two(2)CQI theme were selected and implementing in Kabale RRH.</li> <li>(2) One(1) small CQI in Entebbe GH, seven(7) small CQI in Kabale RRH, one(1) small CQI in Arua RRH and one(1) small CQI in Hoima RRH are implementing.</li> <li>(3) Base line in October 2016: 65.1% (average)</li> <li>The inventory data is currently being collected. Collection and analysis will be completed by May 2019.</li> <li>(4) Joint supervisions of UT and ME were conducted once in November 2019.</li> </ul>	
Output 1					
1. [Project Steering Committee] Supporting/supervising system for health infrastructure management of all the RRHs is strengthened in the MOH.	<ul style="list-style-type: none"> <li>(1) The Project Steering committee meeting is conducted every three months.</li> <li>(2) The results of integrated support supervision conducted by Project Implementation Teams and the next quarter action plan developed from these results are shared and approved at every Project Steering Committee meeting.</li> <li>(3) The roadmap for incorporating the Project activities into the policy and systems of MOH is established and implemented by the Project Steering Committee.</li> <li>(4) The Project activities are successfully incorporated into the Ministerial Policy Statement of Ministry of Health.</li> </ul>	<ul style="list-style-type: none"> <li>(1) Minutes of meeting of Project Steering Committee</li> <li>(2) Ministerial Policy Statement</li> </ul>	<ul style="list-style-type: none"> <li>• Personnel of counterparts do not leave the job and are not transferred considerably.</li> <li>• Policy related to health infrastructure management will not be changed as a result of the presidential election.</li> </ul>	<ul style="list-style-type: none"> <li>(1) Steering Committee meeting were conducted in May, September and November 2018.</li> <li>(2) The results of Supervision was shared at the Steering Committee meeting.</li> <li>(3) Not achieved</li> <li>(4) Not achieved</li> </ul>	
Output 2					
2. [Project Implementation Team: 5S-CQI-TQM] Resource management and quality improvement activities are strengthened through CQI approach in all RRHs.	<ul style="list-style-type: none"> <li>(1) Score of module 1 (Leadership) and 6 (Health Infrastructure) HFQAP Facility Assessment Tool</li> <li>- All RRHs mark (i) 5 points out of 8 as full mark for module 1 and (ii) 6 points out of 10 as full mark for module 6.</li> <li>(2) Score of modified 5S M&amp;E Sheet in 5S-CQI-TQM Guidelines</li> <li>- All RRHs mark 33 points out of 54 as full mark at least two consecutive years.</li> </ul>	<ul style="list-style-type: none"> <li>(1) HFQAP Facility Assessment Tool</li> <li>(2) 5S M&amp;E Sheet in 5S-CQI-TQM Guidelines</li> </ul>		<ul style="list-style-type: none"> <li>(1) Data was not available yet.</li> <li>(2) According to 2nd M&amp;E of 5S performance, 9 out of 16 target hospitals were above the target.</li> </ul>	
Output 3					
3. [Project Implementation Team: User Training] Proper utilization of medical equipment through UT is improved in all RRHs.	<ul style="list-style-type: none"> <li>(1) There are at least two regional user trainers at all RRHs.</li> <li>(2) The number of UT conducted by regional user trainers is more than three as per year in every region.</li> <li>(3) The average of percentage of medical equipment in status B at all RRHs is not higher than 4%.</li> </ul>	<ul style="list-style-type: none"> <li>(1) Records on training of regional user trainers</li> <li>(2) Training records on user training conducted by user trainers</li> <li>(3) Medical equipment inventory</li> </ul>		<ul style="list-style-type: none"> <li>(1) There were 35 regional User Trainers at 14 RRHs and one (1) GH.</li> <li>(2) Definition of UT and User Trainers' scope of work was clarified in 2nd Quarter of 2018/2019.</li> <li>The number of UT will be collected in 3rd Quarter of 2018/2019.</li> <li>(3) Baseline in October 2016: 5.1%.</li> <li>The inventory data is currently being collected. Collection and analysis will be completed by May 2019.</li> </ul>	
Output 4					
4. [Project Implementation Team: ME maintenance] ME maintenance and management capacity of workshops (WS) are strengthened.	<ul style="list-style-type: none"> <li>(1) The average increase of cores between the pre-test and post-test is at least 15%.</li> <li>(2) The average of percentage of medical equipment in status C and status E at all RRHs is not higher than 15%.</li> </ul>	<ul style="list-style-type: none"> <li>(1) Results of pre and post tests for trainees of medical equipment maintenance</li> <li>(2) Medical equipment inventory</li> </ul>		<ul style="list-style-type: none"> <li>(1) 28.2% (average score of 7 past trainings)</li> <li>The scores of the two (2) trainings conducted during this period are as mentioned below.</li> <li>Basic medical equipment: 20%</li> <li>Specialized medical equipment: 28%</li> <li>(2) The inventory data is currently being collected. Collection and analysis will be completed by May 2019.</li> </ul>	

Activities	Input		Pre-Conditions
	The Japanese side	The Uganda side	
<b>1-1 Establishment of foundation for the Project and implementation</b>			
1-1-1 Establish Project Steering Committee	1. Dispatch of Experts	1. Assignment of Counterparts	
1-1-2 Establish Project Implementation Teams for 5S-CQI-TQM, UT and ME	1) Chief advisor / QI Management System	2. Facilities	
1-1-3 Develop Terms of Reference (TOR) for Project Steering Committee and Project Implementation Teams and action plans for implementation of the Project	2) 5S-CQI-TQM	1) Office space for Japanese experts	
1-1-4 Conduct baseline survey	3) Utilization of Medical Equipment	3. Administrative cost and other expense such as training and supervision	
1-1-4 Conduct baseline survey	4) Maintenance of Medical Equipment		
1-1-4 Conduct baseline survey	5) Project Coordinator/ Training Management		
<b>1-2 Support Supervision on health infrastructure management</b>	2. Machinery and equipment	4. Personnel cost for counterparts and other running expenses (daily allowance and transportation expense)	
1-2-1 Review and revise existing supervision system and tools through enrichment of checklists of HFQAP(Health Facility Quality of Care Assessment Program) and allocation of 5S-CQI-TQM facilitators at national and regional levels	1) Necessary supplies for 5S-CQI-TQM to target hospitals and MOH headquarters		
1-2-2 Direct integrated support supervision, mentoring and coaching on health infrastructure management as CQI practice integrating 5S, UT and ME	2) Testing and calibration tools and equipment etc.		
<b>1-3 Project implementation, monitoring and evaluation and institutionalization</b>	3. Allocation of operational costs for project activities		
1-3-1 Organize meetings for Project Steering Committee every three months and review whether action plan is being implemented based on PDCA cycle	4. Training in Japan and/or third countries		
1-3-2 Conduct a meeting to review the established system in MOH			
1-3-3 Make use of review of activity 1-3-2 for institutionalization of support supervision systems and methodologies developed through the Project, and make reflections to the Ministerial Policy Statement			
1-3-4 Organize study tours and QI Conference to share good practice and lessons learned on health infrastructure management compiling 5S, UT and ME			
1-3-5 Conduct an end-line survey on health infrastructure management, including 5S-CQI-TQM, UT and ME			
<b>2.[Project Implementation Team: 5S-CQI-TQM]</b>			
2-1 Develop and/or update guidelines, manuals, handbooks, monitoring and supervision tools, and facilitators guide			
2-2 Define criteria for national show case of 5S-CQI-TQM and review national show case(s)			
2-3 Clarify qualification, role and responsibility of 5S-CQI-TQM facilitators at national and regional levels			
2-4 Conduct leadership and management training based on the results of the baseline survey for management staff of targeted facilities, etc.			
2-5 Conduct facilitators' training for 5S-CQI-TQM facilitators at national and regional levels with a focus on CQI			
2-6 Strengthen function of quality improvement team (QIT) and work improvement team (WIT) in the target facilities			
2-7 Conduct 5S-CQI-TQM training to target facilities based on the results of the baseline survey, with a focus on CQI			
2-8 Conduct support supervision, mentoring and coaching on WIT/QIT function, development of action plans by WITs, periodic meetings by QIT, implementation of 5S-CQI-TQM activities with proper usage and ME in collaboration with UT and ME activities under the direction of Project Steering Committee Activity 1-2-2			
<b>3.[Project Implementation Team: User Training]</b>			
3-1 Update and develop manuals, handbooks, guidelines, and monitoring tools for dissemination as necessary			
3-2 Conduct refresher training of user trainers in the previous Project phase.			
3-3 Conduct Training of Trainers (TOT) for user trainers of the phase 2 target hospitals			
3-4 Conduct support supervision, mentoring and coaching on UT for proper usage and ME in collaboration with 5S-CQI-TQM and ME activities aiming at CQI under the direction of Project Steering Committee Activity 1-2-2			
<b>4.[Project Implementation Team: Maintenance]</b>			
4-1 Update and develop manuals, handbooks, guidelines, and monitoring tools for dissemination as necessary			
4-2 Conduct leadership and management training for workshop managers including inventory data analysis			
4-3 Conduct training for workshop staffs on maintenance of basic medical equipment			
4-4 Conduct training for core staff of workshops in first line maintenance of specialized medical equipment			
4-5 Strengthen capacity of Central Workshop and Infrastructure Department to support Regional Workshops			
4-6 Support Workshops to develop a system for sharing knowledge and skills			

<Issues and countermeasures>

- MOH contributed 24% of expenses of activities since the Project was started.
- The Steering Committee meeting was held on 17th September and 27th November 2018. All members shared situation of fund contribution from MOH and Japanese side.
- Two(2) CQI theme were developed in Kabale RRH.
- CQI verification in target RRH will start in March 2019.
- Inventory input and analysis will be started in February 2019.

**Project Monitoring Sheet II (Revision of Plan of Operation)**

**Project Title: Project on Improvement of Health Services through Health Infrastructure Management (II)**

Inputs	Plan	2016				2017				2018				2019				2020				Remarks	Monitoring				
		Actual	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III		IV	Issue	Solution		
<b>Expert</b>																											
Chief Advisor/QI Management System	Plan																								None.	None.	
Assist Chief Advisor/QI Management System	Plan																								None.	None.	
5S-CQI-TQM ①	Plan																								None.	None.	
5S-CQI-TQM ②	Plan																								None.	None.	
Utilization of Medical Equipment	Plan																								None.	None.	
Maintenance of Medical Equipment	Plan																								None.	None.	
Project Coordinator/Training Management	Plan																								None.	None.	
	Actual																										
<b>Equipment</b>																											
Project vehicles and equipment/materials necessary for the Project administration	Plan																								None.	None.	
	Actual																										
<b>Training in Japan</b>																											
	Plan																								None.	None.	
	Actual																										
<b>In-country/Third country Training</b>																											
Tanzania KAIZEN TOT	Plan																								None.	None.	
	Actual																										
<b>Activities</b>																											
<b>Sub-Activities</b>																											
<b>Output 1 [Project Steering Committee] Supporting/supervising system for health infrastructure management of all the RRHs is strengthened in the MOH</b>																											
<b>1-1 Establishment of foundation for the Project and implementation</b>																											
1-1-1	Establish Project Steering Committee	Plan																						Expert(s)	All concerned Department members of MOH	Project Steering Committee were established.	None.
		Actual																									
1-1-2	Establish Project Implementation Teams for 5S-CQI-TQM, UT and ME	Plan																						Expert(s)	All concerned Department members of MOH	Project Implementation Teams were established.	None.
		Actual																									
1-1-3	Develop terms of reference (TOR) for Project Steering Committee and Project Implementation Teams and action plans for implementation of the Project	Plan																						Expert(s)	Steering Committee	Work Plan was approved by Project Steering Committee.	None.
		Actual																									
1-1-4	Conduct baseline survey	Plan																						Expert(s)	Implementation Team	Situation analysis for all of the targeted hospitals and workshops was conducted.	None.
		Actual																									
<b>1-2 Support Supervision on health infrastructure management</b>																											
1-2-1	Review and revise existing supervision system and tools through enrichment of checklists of HFQAP(Health Facility Quality of Care Assessment Program) and allocation of 5S-CQI-TQM facilitators at national and regional levels	Plan																						Expert(s)	Steering Committee	Progress of all activities were shared in Steering Committee meeting. And 10 additional National 5S-CQI-TQM facilitators were trained.	Supervision system will be discussed within QAID in consideration of HFQAP.
		Actual																									
1-2-2	Direct integrated support supervision, mentoring and coaching on health infrastructure management as CQI practice integrating 5S, user training and maintenance	Plan																						Expert(s)	Steering Committee	CQI practices in RRH as well as Regional Workshop were implementing.	None.
		Actual																									
<b>1-3 Project implementation, monitoring and evaluation and institutionalization</b>																											
1-3-1	Organize meetings of Project Steering Committee every three months and review whether action plan is being implemented based on PDCA cycle	Plan																						Expert(s)	Steering Committee	Project Steering Committee meeting was conducted in May, September and November.	None.
		Actual																									
1-3-2	Conduct a meeting to review the established system in MOH	Plan																						Expert(s)	Steering Committee	Project Steering Committee meeting was conducted in May, September and November 2018.	None.
		Actual																									
1-3-3	Make use of review of activity 1-3-2 for institutionalization of support supervision systems and methodologies developed through the Project, and make reflections if necessary to the Ministerial Policy Statement	Plan																						Expert(s)	Steering Committee	Progress of Project activities were shared with Top Management Committee.	None.
		Actual																									
1-3-4	Organize study tours and QI Conference to share good practice and lessons learned on health infrastructure management compiling 5S, UT and ME	Plan																						Expert(s)	Implementation Team	Progress of 5S-CQI activities in target hospital was presented in Key note speech of 5th Quality Improvement Conference. And three(3) oral presentations and four(4) poster presentations were conducted in the conference.	None.
		Actual																									
1-3-5	Conduct an end-line survey on health infrastructure management, including 5S-CQI-TQM, UT and ME	Plan																						Expert(s)	Implementation Team		
		Actual																									



Output 4 [Project Implementation Team: ME maintenance] ME maintenance and management capacity of workshops (WS) are strengthened																									
4-1	Update and develop manuals, handbooks, guidelines, and monitoring tools for dissemination as necessary	Plan																			Expert(s)	Implementation Team	Quick-reference users guide of NOMAD system was revised. WS Operation Manual was not updated in time due to prioritizing the other activities.	Manual update will be postponed and the other important activities will be prioritized.	
		Actual																							
4-2	Conduct leadership and management training for workshop managers including inventory data analysis	Plan																			Expert(s)	Implementation Team	No activity in this period	None.	
		Actual																							
4-3	Conduct training for workshop staff on maintenance of basic medical equipment	Plan																			Expert(s)	Implementation Team	Training was conducted as planned.	None.	
		Actual																							
4-4	Conduct training for core staff of workshops in first line maintenance of specialized medical equipment	Plan																			Expert(s)	Implementation Team	Training was conducted as planned.	None.	
		Actual																							
4-5	Strengthen capacity of Central Workshop and Infrastructure Department to support Regional Workshops	Plan																			Expert(s)	Implementation Team	Supervisions and WS Performance Review Meeting were carried out.	None.	
		Actual																							
4-6	Support Workshops to develop a system for sharing knowledge and skills	Plan																			Expert(s)	Implementation Team, all WS managers	Half of small CQI being implemented in WSs were achieved. Joint supervision with UT was carried out. Service sticker system were standardized. Collaboration with other development partners was strengthened.	None.	
		Actual																							
<b>Duration / Phasing</b>		Plan																							
		Actual																							
<b>Monitoring Plan</b>		Plan	2016				2017				2018				2019				2020				Remarks	Issue	Solution
		Actual	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV			
<b>Monitoring</b>		Plan																							
Joint Coordinating Committee		Actual																					The 3rd JCC postponed to February 2019.		
Set-up the Work Plan of Operation		Plan																							
		Actual																							
Submission of Monitoring Sheet		Plan																							
		Actual																							
Monitoring Mission from Japan		Plan																							
		Actual																							
Joint Monitoring		Plan																							
		Actual																							
Post Monitoring		Plan																							
		Actual																							
<b>Reports/Documents</b>		Plan																							
Progress report		Actual																							
		Plan																							
Project Completion Report		Actual																							
<b>Public Relations</b>		Plan																							
		Actual																							
		Plan																							
		Actual																							



THE REPUBLIC OF UGANDA  
MINISTRY OF HEALTH

**REPORT ON KAIZEN Training of Trainers for improving Hospital  
Management and healthcare Service, held in Assistant Medical Officer  
School, Mbeya - Tanzania**

**by**

**Beatrice Amuge  
Assistant Commissioner Nursing Service – Mulago NRH**



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## LIST OF ABBREVIATIONS

NRH	-	National Referral Hospital
QAID	-	Quality Assurance and Inspection Department
Ag SPNO	-	Acting Senior Principal Nursing Officer
JICA	-	Japan International Cooperation Agency
TQM	-	Total Quality Management
RRHs	-	Regional Referral Hospitals
MOH	-	Ministry of Health
QC	-	Quality Control
WIT	-	Work Improvement Teams
QIT	-	Quality Improvement Teams
HMT	-	Health Management Teams
CSD	-	Central Sterilization Department

## **ACKNOWLEDGEMENT**

- The Ministry of Health through the Quality Assurance and Inspection Department (QAID) for having identified me for this important workshop
- The JICA – Uganda for sponsoring us for this wonderful TOT
- The JICA – Uganda, project coordinator for ensuring that we had a comfortable stay in Tanzania and traveled safely to and fro Uganda
- The facilitators of the TOT for taking us through the training with good understanding and a cordial atmosphere
- The Executive Director and Deputy Executive Director Mulago National Referral Hospital for having allowed me to attend this training
- Our fellow participants for a good interpersonal relationship and free sharing of experiences and ideas.
- The Ag SPNO and all the nurses of Mulago National Referral Hospital for the delivery of nursing services while I was away.

## **INTRODUCTION**

The 5S-KAIZEN-TQM Approach is aiming at improving health care services at RRHs through strengthening managerial capacity of RRHs. One of the Project's expected output is to improve resource management and quality improvement in health care services of RRHs through KAIZEN Approach. In Tanzania 21 RRHs are practicing total 87 KAIZEN cases and Mbeya Zonal Referral Hospital is one of them. MoH - Tanzania is committed to enhance cooperation in terms of disseminating and strengthening 5S-KAIZEN-TQM Approach, and therefore, invites trainees from other countries which have already been implementing 5S-KAIZEN activities to KAIZEN Training of Trainers for Improving Hospital Management and Healthcare Services in their own organizations/countries. This invitation is extended to Uganda and this year 2018 two nurses were sent to participate in this very important training. One nurse is from Mulago National Referral hospital and the other from Kabale Regional Referral Hospital.

## **OUTLINE OF THE TRAINING**

- The training was for five (5) days from November 12 to 16, 2018. Starting at 8.30 and ending at 5.00pm each day. Participants from Uganda traveled on 10<sup>th</sup>/11/2018 and returned on 18<sup>th</sup>/11/2018
- Training was done in Assistant Medical Officer School, Mbeya adjacent to Mbeya Zonal Referral Hospital

## **METHOD OF TRAINING**

- Modified- Interactive Lecture
- Guidance
- Question and answer
- Classroom practical sessions
- Field visit
- Participants conducting recaps and wrap ups of the presentations at the beginning and at the end of each day.

**Photograph 1: Participants being guided through the seven steps of KAIZEN**



**Participants from Uganda with the facilitator**

**Photograph 2: Participants on a classroom practical on 5S and use of tools**



**Sorting step**

**Labeling after sorting**

## **PARTICIPATING COUNTRIES**

1. MoH and Regional Referral Hospitals in Tanzania
2. Uganda
3. Kenya

4. Burundi
5. Zimbabwe
6. Malawi

There were participants drawn from the MoH and three from each of participating Regional Referral Hospital in Tanzania. There were two participants from each of the four visiting countries.

## **TRAINING SESSIONS**

### **DAY 1: SESSIONS 1, 2, 3, 4, 5 and 6**

#### **Session one:**

##### **Registration and introductions**

Day one started with registration of participants and self-introduction by both the facilitators and participants.

##### **Opening remarks**

The workshop was opened by the representative of MOH of Tanzania. He welcomed participants to the workshop especially, those from neighboring countries of Uganda, Kenya, Burundi and Zimbabwe. He thanked the management of Assistant Medical Officer School for hosting the training and Mbeya Zonal Referral Hospital for being one of the model hospitals in Tanzania, being used for training purposes of 5S-KAIZEN-TQM. He requested the participants to pay attention to the details during training to be able to do good implementation of 5S-KAIZEN-TQM in their respective hospital. He declared the five day training opened

##### **Purpose of the training**

The purpose is to equip the health professionals with positive attitudes and basic knowledge and practical skills on KAIZEN approach for improving:

1. Quality of health care provision
2. Hospital management (especially resource management)

### **Specific objectives**

1. Recognize 5S-KAIZEN-TQM Approach as a tool for improving quality of health care services and hospital management
2. Identify current challenges in QI and hospital management
3. Describe what is KAIZEN mind
4. Describe implementation process of KAIZEN (Quick KAIZEN and KAIZEN with Quality Control (QC) story described properly)
5. Become an in-house trainer of 5S-KAIZEN at respective hospitals/organization

### **Pre-course Assessment**

Day one had a pre-course assessment which was to check participants' knowledge on the 5S-KAIZEN-TQM in order to be able to assess effect of the training.

### **Brainstorming exercise**

The participants were asked to brainstorm on what they need to improve quality of health care service provision in their hospitals. The aim was to check on the participants understanding of the concept quality and the responses which were given by the participants were used as a basis of discussions: The following were the responses:

1. Define internal and external customer needs
2. Constant availability of necessary equipment and supplies for quality services
3. Be punctual and responsible to the schedules of the activities
4. To provide proper knowledge and skills on the concept and implementation of KAIZEN to WIT and QIT
5. Set standards through involving hospital management and clients using the existing resources
6. Change the mind set of health care workers in order for them to be able to implement 5S-KAIZEN-TQM
7. Hospital teams should be working together from top to bottom for improvement of the working environment
8. Maximum utilization of the available resources
9. Proper use of data for evidence practice



### **Session Two and Three:**

These sessions were on Total Quality management (TQM), Quality and safety. TQM is a multi-disciplinary and participatory process by all categories of staff for realizing high quality services and organizational optimization. TQM should be part of the institutional managerial frame work that looks at good service delivery and creates the value for patients. In TQM, the seven wastes should be prevented i.e. Overproduction, Inventory, Transportation, Motion, Rework, Over processing and waiting time.

Quality and safety is empathized because the type of the services delivered should meet the standards/specifications. The services should also meet or exceed customer expectations and prevent harm during the process of health care.

### **Session Four, Five and Six:**

These sessions were on the concept of 5S, the tools used and roles/responsibilities of the Health Management Team (HMT) - Top Management, Quality Improvement teams (QIT) and Work Improvement Teams (WIT). The concept of 5S was introduced after the participants had appreciated the TQM, Quality and safety concepts. Quality Improvement starts from 5S for its successful implementation. 5S is a way of organizing and managing workspace and workflow (work environment improvement) with the intent to improve efficiency by eliminating waste to improving quality, productivity, safety, satisfaction and mistake proofing. It is a process of developing a system where the Sort-Set-Shine is done in a particular standard which is maintained through commitment and empowerment. Useful tools for effective 5S activity and how to improve safety, productivity, cost and Mistake proofing were emphasized. The roles and responsibilities of HMT, QIT and WIT on Quality Improvement were discussed.

### **DAY 2, 3 AND 4: Introduction to KAIZEN and the first 5 steps.**

KAIZEN was introduced to the participant as a **“problem solving process”** with continual improvement of working practices and management for departmental optimization, towards Total Quality Managed Organization/Hospital. The come challenges encountered during implementation is negative attitude. KAIZEN is a Japanese word meaning **KAI** - “Change” and **ZEIN** - “Improvement” (It means **“Change for the better”**). KAIZEN has two types (Quick KAIZEN and KAIZEN process with QC



- Step 6 - Checking of the effectiveness of the countermeasures for standardization
- Step 7 - Standardization, this is declaring the effective and implementable countermeasures to be the standard practice or SOPs. The aim is to avoid the reoccurrence of the same problem

**DAY 5: Practical session for step 6-7 and a visit to Mbeya Zonal Referral Hospital**

Participants continued with class room practical session for KAIZEN process with QC story step 6 and 7. There was a visit to the four areas in Mbeya Zonal Referral Hospital to share experiences on the implementation of 5S-KAIZEN and also understand how to address some of the challenges encountered. The wards and units visited were: Ward 9 (Medical female ward), Central Sterilization Department, Radiology unit and the Disposal Unit for sorted Items

**WARD 9 (MEDICAL FEMALE WARD)**

**Photograph 3: Emergency trolley in ward 9 and the use of 5S tools**



**Well labeled trolleys increasing proper space utilization, productivity, safety and avoid time wasting**

**Trolley check list**

**Photograph 4: Showing infection control methods using 5S tools**



**Hospital staff uniforms**

**Floor cleaning equipment labeled for specific areas and suspended off floor to avoid cross infection**



**Photograph 5:**

**X-Y axis on notice board in ward 9. Related information is put together and removal instructions indicated**

## **CENTRAL STERILIZATION DEPARTMENT**

**Photograph 6a: Central Sterilization Department (CSD) at the entrance**



**Controlled entrance for none staff for safety, mistake proofing and infection control**

**Photograph 6b: Central Sterilization Department – showing labeling and zoning**



**This increases productivity, safety and reduces time wasting**

**Photograph 6c: Central Sterilization Department, the equipment packing area**



**Checklist for packing equipment before autoclaving for efficiency, productivity, reducing cost and time wasting**



**Photograph 6d: Central Sterilization Department – sterile equipment with labeling and color visual tools**



**Visual control to avoid stocks out**

**Labeled with the nature of the set, unit/ward number and expiry date for efficiency**

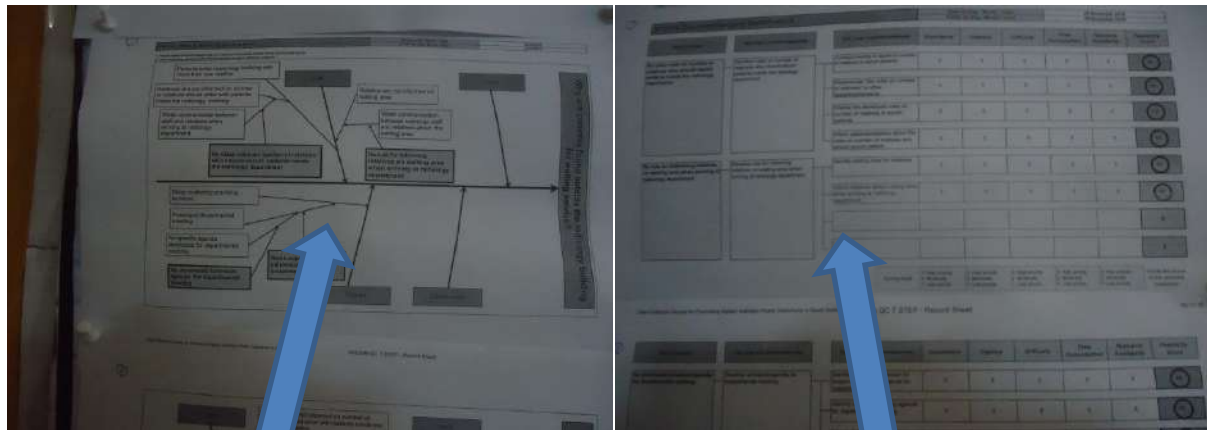
**Photograph 6e: stock cage in CSD**



**CSD stock from the hospital store with labels in a designated cage**

# RADIOTHERAPY UNIT

Photograph 7a: Implementing KAIZEN process with QC story



KAIZEN Step 3: Root cause analysis

Step 4: Identification of countermeasures and checking their feasibility

Photograph 7b: Standardized procedure table

KAIZEN QC 7 STEP - Record Sheet

Implementation plan of the feasible countermeasures							Progress monitoring of impl	
All feasible countermeasures	WHO	WHAT	WHERE	(by) WHEN	WHY	HOW	When to Check (Date / Month / Year)	Responsible person for monitoring
Identify responsible person for preparing schedule/agenda for departmental meeting	Nakatwanga	Schedule /agenda on departmental meeting	At department	14/11/2018	To identify specific topic for departmental meeting	Discussing on meeting		HOD
Identify day of submitting agenda for departmental meeting	Nakatwanga	Agenda	At department	14/11/2018	To identify specific topic for departmental meeting	Discussing on meeting		HOD
Identify time keeper during meeting	Tanganyika	Managing time during meeting	At department	14/11/2018	To have a specific time frame for our departmental meeting	Discussing on meeting		HOD
Identify departmental routine	Ri HOD	Departmental routine	At department	28/11/2018	To put in order all departmental routine	Discussing on meeting		Ri HOD
Develop tool for monitoring adherence to departmental routine	Ri HOD	Tool for monitoring routine	At department	28/11/2018	To monitor adherence on departmental routine	Discussing on meeting		Ri HOD

KAIZEN QC 7 STEP - Record Sheet

Step 7: Standardization of effective countermeasures after checking their effectiveness

## THE DISPOSAL UNIT

**Photograph 8: Sorted items from the wards and other Units/areas in the hospital**



**Resorting done here to identify the items which can be reused, repaired or written off for disposal**

### **Common challenges shared and how to address**

1. Poor attitude and lack of KAIZEN mind to some peoples – Addressed by team building and getting everybody get involved at every stage, having weekly meetings for the WIT with a proper book for minutes and distributing of responsibilities.
2. Lack of knowledge and skills on 5S-KAIZEN –TQM - Addressed by continues updates of old staff, training of new staff on the wards/units and orientation of the students who come for practicum.

### **Day 5: A post- course assessment**

After the visit to Mbeya Zonal Referral Hospital participants were given a post-course assessment which was to check the effect of the training on the participants' knowledge. There was tremendous increase in number of participants who got 80% and above marks.



## **Day 5: Training closing ceremony**

Training closing ceremony was preceded by the representative of the Director of Disease Control in the Ministry of Health – Tanzania. The facilitators nominated two participants to give remarks on behalf of the others participants. The following people were the speakers during the closing ceremony.

- A participant from Mbeya Zonal Referral hospital who represented participants from Tanzania
- A participant from Uganda (Beatrice Amuge) who represented the four visiting countries of Uganda, Burundi, Kenya, Malawi and Zimbabwe.
- The representative of JICA. He informed participant that the end of the training was the beginning of the long story Quality Improvement in our institution/hospitals.
- The workshop coordinator who after his remarks, invited the guest of honor to give her closing remarks
- The closed remarks were delivered by the representative of the Director of Disease Control in the Ministry of Health – Tanzania. She wished the visiting countries to come up and become among the countries to conduct Trainer of Trainer course on 5S-KAIZEN-TQM.

## **LESSONS LEARNT**

1. 5S is the initial step towards establishing and successfully implement Total Quality Management (TQM).
2. There is no conflict in the implementation of 5S activities with other quality improvement approaches the organization/hospital is implementing. The 5S supports all quality improvement approaches to move forward.
3. Established Quality Improvement Unit is essential implementation and proper coordination of 5S-KAIZEN-TQM activities.
4. The WIT is very important in the implementation of 5S-KAIZEN. It is the backbone behind it. All the process of 5S- KAIZEN should be done by WIT using locally available resources

5. The ownership of the program by the institution/hospital management is very vital for formulation of shared policies and providing the needed resources especially for staff training.
6. 5S-KAIZEN-TQM concept, Monitoring and Evaluation methods should be implemented in rollout manner. It should start with few pilot units which will out as bench marking points for other units.
7. To have continues provision of technical support to the 5S-KAIZEN-TQM implementing units is very essential for sustainability.
8. The staff should have 5S-KAIZEN mind in order to eliminate negative Attitudes, use locally available resources and foster teamwork relationship.
9. Useful concepts in implementing 5S - “3E” (Easy to see, Easy to take and Easy to return) , “3F” (Fixed place, Fixed number and fixed items)
10. KAIZEN is spiral, continues and starts small then widens as the problems became complicated. The small problems are solved first and the resources are saved for complex and bigger issues to achieve Total Quality Management
11. Quick KAIZEN is for solving small problems, it should be implemented immediately and KAIZEN process with QC story is for solving complicated problems which should be supported with valid data/evidence. The complicated problems need the use of seven steps of problem-solving and QC tools for standardization.
12. In root cause analysis, the pointing of figure or tagging the root causes to particular people or individuals is not needed.
13. Quality Control is a story with connected or interrelated steps. (One step leads to the other and are implemented in a stepwise manner).

## **EXPECTED COURSE OUTPUT FROM THE PARTICIPANTS**

Participants from Tanzania were given a different assignment. Each participant from Uganda, Burundi, Kenya and Zimbabwe is required to:

Submit a progress report on **5S-KAIZEN-TQM Approach** in the respective hospital. The title and the submission date was given.

- Title **“Progress Report on 5S-KAIZEN-TQM Approach**
- Period of submission: between 1<sup>st</sup> to 15<sup>th</sup> May 2019

## **APPENDICES**

### **Appendix 1: Implementation plan for Mulago National Referral hospital**

## **KAIZEN TOT REPORT**

This training was held at Mbeya Zonal Referral Hospital from 12<sup>th</sup> to 16<sup>th</sup> November 2018. It was well organized and attended by various countries.

### **FACILITATORS**

They were friendly, caring and well organized in a way that none of them left the training venue until the official closure of the training and could guide the different groups during practical sessions making the sessions easy to understand. They were committed and never left any participant behind making the training enjoyable. I am very grateful to the organizers of this training, it was really wonderful.

### **VENUE:**

It was very big enough to accommodate all the participants and the facilitators and well organized.

### **REFRESHMENTS:**

Refreshments were very good, a good break tea, lunch buffet and drinking water during the sessions.

### **TRAINING CONTENT:**

It was very relevant and helpful to our institution; this was symbolized by the presentation made by our organization/Hospital during the national annual quality improvement conference. Very many participants were embraced by the presentations.

### **LOGISTICS:**

Thanks goes to M/s Onosoka Emi for being such a wonderful organizer; transportation was good and drivers were easy to identify as they bear our names at each airport and they were friendly and caring. We did not miss any flight and the journey was efficient and enjoyable.

The accommodation at both Dar es Salam and Mbeya were good, secure and the workers at both venues were hospitable and friendly. The per diem and transport facilitation within Mbeya was enough.

### **CHALLENGES:**

There was some confusion with foreign currency leading to unnecessary calls and creating doubts.

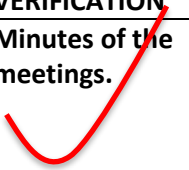

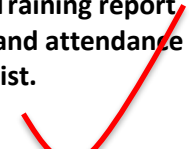
### **RECOMMENDATION:**

In subsequent journeys, each individual should be given their own transport separately, this will help reduce confusions.

### **APPRECIATION:**

I thank the JICA international agency for organizing and funding this training, and the ministry of health of the Republic of Tanzania for accepting to host us and ministry of health Uganda for granting us the permission. The organizers on both sides that is JICA Uganda and Tanzania. Thanks to my Hospital Director, Dr. Sophie Namasopo for choosing me for this wonderful and important trip and the SPNO Sr. Akurut Christine for releasing and choosing a member to cover my duties.

## ACTION PLAN:

ACTIVITY	RESPONSIBLE PERSON	TIME FRAME	WHY	HOW	MEANS OF VERIFICATION
Submission/ sharing the TOT report: to the MOH/ JICA Office; top management; QIT and senior managers.	BAKO LILIAN	23/11/2018	To create harmony in implementation process of KAIZEN and have KAIZEN mind.	Through meetings/ mails	Minutes of the meetings. 
In house training for QIT	BAKO LILIAN/DR. SOP	27-29/11/2018	They will help us in the subsequent in house trainings to the WIT and middle managers	Lecture/discussions	Training report and attendance list. 
In house training for the middle managers	The QIT	04-06/12/2018	They are the managers of various departments in the institution and will help to promote the KAIZEN activities.	Lecture/discussions	Training report and attendance list. 
In house training for the WIT leaders	The QIT	11-13/12/2018	They are implementers of the KAIZEN Activities	Lecture/discussions	Training report and attendance list.
Training for other staff with 'KAIZEN Mind'.	The QIT	JAN, FEB, AND MARCH 2019.	They will help support implementation of KAIZEN activities.	Lecture/discussions	Training report and attendance list.
Implementation of KAIZEN Activities	QIT, WIT, and middle managers.	From 30 <sup>th</sup> November 2018 and continuous	To improve quality of services and achieve client satisfaction (both external and internal client).	By following the seven steps of KAIZEN.	Documentation sheet.
Monitoring and evaluation/feedback	QIT	From 30 <sup>th</sup> November 2018 and continuous	To keep activities on schedule and up to date	By use of M&E tools	Results of M&E in a designated file.
Report submission to JICA/MOH offices.	Quality improvement focal person	Monthly	Improves relationship and Bridges the gap between MOH/IMPLEMENTING partners and the institution	By use of mails and/or hard copies when the possibility allows.	File copies.
Report submission to Tanzania team.	Quality improvement focal person	After 6 months	Motivational feedback and analysis of how the training is helping various institutions.	By use of mails	File copies

KEY:

Means; achieved.

# CURRENT 5S PERFORMANCE

Naoki TAKE, Advisor 5S-CQI-TQM  
MOH/JICA Project on Improvement of Health Services through Health Infrastructure Management II  
18 October 2018  
Senior Management Committee Meeting, MOH

1

## 1. Introduction

- MOH/JICA Project on Improvement of Health Services through Health Infrastructure Management II regularly monitors and evaluates performance of 5S activities at the target hospitals.
- This presentation outlines results of 2nd evaluation.

2

## 2. Methodology

- 16 target hospitals: 14 RRH, 2 GH (Entebbe and Tororo)
- 2 M&E tools: (1) Management/QJT: 18 questions  
(2) Unit or department: 18 questions
- Data collection by 16 5S-CQI-TQM facilitators in May-June 2018
- 6 evaluation criteria: (1) Management/QJT, (2) Leadership (WIT), (3) Sort, (4) Set, (5) Shine, and (6) Standardise
- Scores converted into 100 points as perfect.
- Target score: 60 points out of 100

3

## 3. Results

4

### 1) Kabale RRH (Record, Gynae, Mat, Store, OT)

[1st Evaluation] Score: 44, Rank: 9th  
[2nd Evaluation] Score: **82**, Rank: 1st

5

### 2) Mbarara RRH (Surgical, PaedSurg, Mat, Medical, ICU)

[1st Evaluation] Score: 36, Rank: 11th  
[2nd Evaluation] Score: **78**, Rank: 2nd

6

### 3) Entebbe GH (OT, Lab, PrvMat, MCH, Casualty)

[1st Evaluation] Score: 60, Rank: 3rd  
[2nd Evaluation] Score: 73, Rank: 3rd

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### 4) Mbale RRH (Endoscopy, Lab, Nutrition, Masaba, Surgical)

[1st Evaluation] Score: 55, Rank: 4th  
[2nd Evaluation] Score: 71, Rank: 4th

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### 5) Arua RRH (Adm, OT, Gynae, Mat, Dental)

[1st Evaluation] Score: 45, Rank: 8th  
[2nd Evaluation] Score: 69, Rank: 5th

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### 6) Tororo GH (Pharm, OT, Mat, Private, Casualty)

[1st Evaluation] Score: 51, Rank: 6th  
[2nd Evaluation] Score: 66, Rank: 6th

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### 7) Moroto RRH (Surgical, Mat, Casualty, Lab, OT)

[1st Evaluation] Score: 35, Rank: 13th  
[2nd Evaluation] Score: 63, Rank: 7th

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### 8) Mubende RRH (Surgical, Lab, Mat, Dental, Ortho)

[1st Evaluation] Score: 63, Rank: 2nd  
[2nd Evaluation] Score: 61, Rank: 8th

12

**9) Jinja RRH**  
(Surgical, Lab, Eye, OPD, ICU)

[1st Evaluation] Score: 76, Rank: 1st  
[2nd Evaluation] Score: 61, Rank: 9th

13

**10) Gulu RRH**  
(ME workshop, Eye, Lab, ART, TB)

[1st Evaluation] Score: 36, Rank: 11th  
[2nd Evaluation] Score: 55, Rank: 10th

14

**11) Hoima RRH**  
(Eye, Mental, Mat, Neonatal, OT)

[1st Evaluation] Score: 46, Rank: 7th  
[2nd Evaluation] Score: 54, Rank: 11th

15

**12) Masaka RRH**  
(AE, OT, ENT, Mat, Store)

[1st Evaluation] Score: 52, Rank: 5th  
[2nd Evaluation] Score: 54, Rank: 12th

16

**13) Lira RRH**  
(Emergency, SurgM, SurgF, OT, ICU)

[1st Evaluation] Score: 44, Rank: 9th  
[2nd Evaluation] Score: 48, Rank: 13th

17

**14) Soroti RRH**  
(Mat, Store, Lab, ANC, Gynae)

[1st Evaluation] Score: 28, Rank: 15th  
[2nd Evaluation] Score: 39, Rank: 14th

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### 15) CUFH Naguru (Store, Record, Radio, Mat, Paed)

[1st Evaluation] Score: 18, Rank: 16th  
[2nd Evaluation] Score: 30, Rank: 15th

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### 16) Fort Portal RRH (Lab, ME workshop, Store, OT, Paed)

[1st Evaluation] Score: 34, Rank: 14th  
[2nd Evaluation] Score: 28, Rank: 16th

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## 4. Advantages of Good Performers

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### (1) Good Performance of Management/QIT, Leadership of WIT and Standardise

Hospital	Management/QIT	Leadership of WIT	Standardise	Total
Kabale	89	88	69	77
Entebbe	81	68	76	70
Mbale	47	50	56	59
Arua	79	48	40	58
Mbarara	53	32	49	54

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### (2) 10+ Well-performed 5S Areas

Hospital	No. of areas implementing 5S	No. of areas scored >=60
Kabale	All areas	11
Entebbe	All areas	11
Mbale	All areas	16
Arua	All areas	3
Mbarara	23 areas/31	6

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### (3) Well-performed "Backyard"

Hospital	5S Score Medical Record	5S Score Main Store
Kabale	87	78
Entebbe	63	63
Mbale	63	39
Arua	39	43
Mbarara	28	46

24

## 5. Next Steps

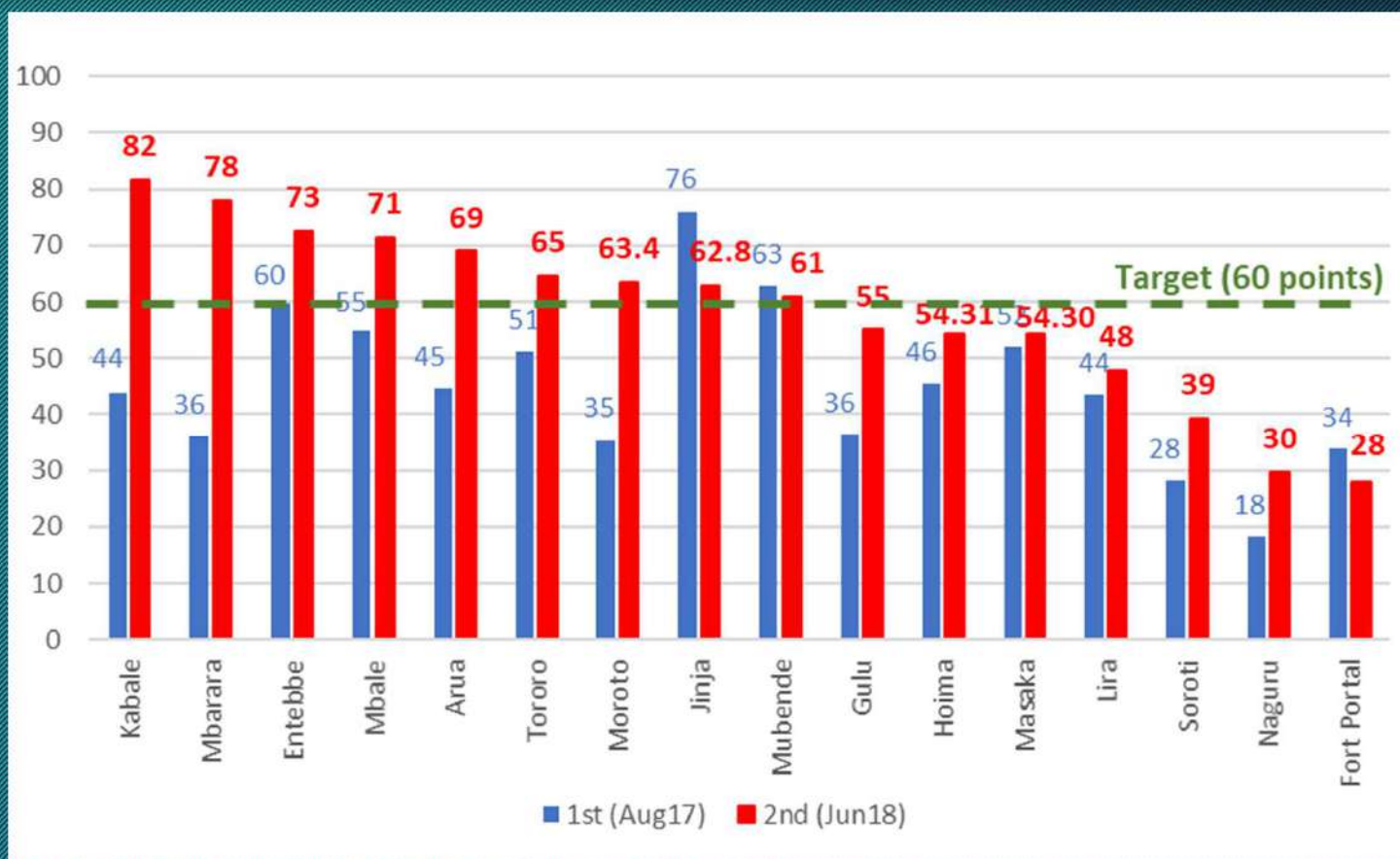
- Further extension of excellent performers of 5S, including backyard like medical record and store
- Support hospitals to overcome their weakness
- Reinforcement of 3 items: management/QIT (realisation of commitment), function of WIT and Standardise (esp. use of S1-S3 checklist)
- Efforts to sustain excellent performance
- Keep CQI (KAIZEN) in mind for further movement

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THANK YOU FOR YOUR ATTENTION

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# Progress of 5S Score at Target Hospitals



## Abbreviations

AIHA	American International Health Alliance
CQI	Continuous Quality Improvement
CWS	Central Workshop
GH	General Hospital
HFQAP	Health Facility Quality of Care Assessment Program
HID/MOH	Infrastructure Department, Ministry of Health
IDI	Infectious Disease Institute
JICA	Japan International Cooperation Agency
KOFIH	Korea Foundation for International Healthcare
M&E	Monitoring and Evaluation
MOH	Ministry of Health, Uganda
NOMAD	New Order for Managing Anything Data
PDM	Project Design Matrix
PIT	Project Implementation Team
PNFP	Private-Not-for-Profit
QAID	Quality Assurance and Inspection Department, Ministry of Health, Uganda
QC	Quality Control
QI	Quality Improvement
RH	Referral Hospital
RHITES	Regional Health Integration to Enhance Services
RRH	Regional Referral Hospital
RWS	Regional Workshop
TQM	Total Quality Management
USAID	United States Agency for International Development
UT	User Training
WS	Medical Equipment Maintenance Workshop

To CR of JICA Uganda Office

**Project Monitoring Report Sheet****Project Title: Improvement of Health Services through Health Infrastructure Management II****Version of the sheet: 6 (Term: 1st January 2019 – 31st May 2019)****Name: Dr. Olaro Charles****Title: Project Director****Name: Hiroshi Tasei****Title: Chief Advisor****Submission Date: 29th July 2019****I. Summary****1 Progress and Achievements of Project****1-1 Progress of Inputs****[The Japanese side]****1-1-1 Dispatch of JICA Experts**

The Japan International Cooperation Agency (JICA) Experts were dispatched on schedule. The list of experts is shown in the table below.

Name	2019					Total (days)
	1	2	3	4	5	
Hiroshi Tasei Chief Advisor/QI Management System①	95					95
Shizu Takahashi Vice Chief Advisor/QI Management System②				34		34
Naoki Take 5S-CQI-TQM①	61					61
Yujiro Handa 5S-CQI-TQM②			39			39
Yasuhiro Hiruma Utilization of Medical Equipment	108					108
Naoki Mimuro Maintenance of Medical Equipment	83					83
Emi Onosaka Project Coordinator/Training Management	91					91

**1-1-2 3rd Joint Coordination Committee (JCC) meeting**

The 3rd JCC meeting of the Project was held on 16th April, chaired by Ag Director General

Health Services, Dr. Henry Mwebesa. 7 Officials from Ministry of Health (MOH), 2 members from JICA Headquarters, 6 members from JICA Uganda Office, 1 member from Embassy of Japan, 14 top management members of target facilities and 2 members from Kawempe Referral Hospital (RH) were invited to the JCC meeting. The agenda was as follows: 1) overview of the Project operation budget, 2) presentation of the progress report from each pillar, and 3) discussion of countermeasures to be taken in the remaining period. Participants mainly discussed and shared: 1) appreciated the cost covered by MOH which approximately 50% of activities costs in the 3rd and 4th quarter of Financial Year (FY) 2018/2019 as shown 1-7, 2) the necessity of commitment for budgetary support for planned activities of FY 2019/2020 3) the necessity of MOH's involvement in the Project activities for sustainability purposes, 4) the necessity of more training on 5S with emphasis on Continuous Quality Improvement (CQI) for the hospitals, 5) the necessity of scaling out 5S-CQI and User Training (UT) activities to the lower-leveled facilities, and 6) the necessity of human resources for 5S-CQI-Total Quality Management (TQM) and UT.

### **1-1-3 Monitoring Mission for the Project from JICA Headquarters**

The Monitoring Mission for the Project headed by Mr. Aoki Tsunenori, Director of Health team1 in JICA Headquarters, conducted monitoring of Project progress from 8th to 19th April 2019. The mission visited Fort portal Regional Referral Hospital (RRH), Mbarara RRH, Masaka RRH and Entebbe General Hospital (GH) as the target facilities to inspect the current situation of the Project activities.

#### **[The Ugandan side]**

### **1-1-4 Assignment of Counterparts**

- (1) 4 MOH Officials (Clinical Services, Nursing Department and Infrastructure Department, (HID/MOH)) carried out support supervision for Moroto RRH and Regional Workshops (RWS).
- (2) 18 National 5S-CQI-TQM facilitators were mobilized for the 3rd Monitoring and Evaluation (M&E) of 5S performance.
- (3) 2 National 5S-CQI-TQM facilitators took part in the 5S-CQI training for 4 hospitals in Kampala.
- (4) 2 MOH Officials participated in the meeting for UT Manual/Guidelines.
- (5) 2 User Trainers facilitated the final exam for additional User Trainers.
- (6) 1 MOH Official from Nursing Department and 4 User Trainers facilitated the 4th Training of Trainers (TOT) for User Trainers.
- (7) 1 MOH Official carried out support supervision for User Trainers.
- (8) HID/MOH carried out support supervision for RWSs.




**1-2 Progress of Activities****1-2-1 Activities of Output 1****(1) Steering Committee Meeting**

<b>Related to activity</b> 1-3-1/1-3-2	Planned in February and April 2019
<b>Details</b>	<ul style="list-style-type: none"> <li>● The Steering Committee meeting was held at MOH on 12th February. 5 MOH Officials, 5 Project members and 2 members from JICA Uganda Office participated in this meeting.</li> <li>● The main objectives were: 1) to review the minutes of the discussions of the previous Steering Committee meeting and 2) to discuss the 3rd quarter of FY 2018/2019 budget for the Project activities.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● The minutes of the discussions of previous Steering Committee were confirmed.</li> <li>● Members were informed that the disbursement of the MOH budget in the 2nd quarter of FY 2018/2019 was 60% of the planned budget.</li> <li>● All members agreed to conduct joint supervision for the 3 components (5S-CQI-TQM, UT and Medical Equipment Maintenance (ME)) for Moroto RRH and RWS, and to hold the 3rd JCC meeting in April instead of Steering Committee meeting.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● It is necessary to organize the next Steering Committee meeting for review activities of the 4th quarter in FY 2018/2019 by the end of this financial year.</li> <li>● The Project budget for each quarter shall be discussed at the beginning of each quarter and apply for the necessary funds for activities. The Project Implementation Teams shall monitor disbursement of funds for activities to avoid cancellation of activities.</li> </ul>

**(2) Joint supervision for Moroto RRH and RWS**

<b>Related to activity</b> 1-2-2	Planned in Any time
<b>Details</b>	<ul style="list-style-type: none"> <li>● The joint supervision for Moroto RRH and RWS was carried out for the first time on 18th February 2019. 4 MOH Officials and 7 Project members participated in this supervision.</li> </ul>

	<ul style="list-style-type: none"> <li>● The objective of this supervision was to observe the current situation of the 3 components (5S-CQI-TQM, UT and ME) and consider the plan for further implementation.</li> </ul>
<p><b>Achievement</b></p>	<ul style="list-style-type: none"> <li>● All staff members in Moroto RRH and RWS appreciated the detailed Project activities through joint supervision and feedback meetings among all members.</li> </ul> 
<p><b>Way Forward/ Challenges</b></p>	<ul style="list-style-type: none"> <li>● 5S activities had been rolled out in all units in Moroto RRH and RWS. However, their performance stagnated based on the results of 3rd M&amp;E. It is necessary to supervise them to promote training within the hospital and to implement the benchmarking visit (study tour) to Entebbe or Kabale.</li> <li>● UT activities are ongoing in Moroto RRH by User Trainers. As the number of User Trainers has been increased to 3, it is expected that UT activities at lower facilities will be implemented much more than before.</li> <li>● In ME component, medical equipment inventory updates and data entry in NOMAD for Moroto RRH and 3 lower health facilities need to be done by the end of June 2019. Also, it is necessary to develop an annual workplan for Moroto RWS involving the User Trainers and the implementing partners.</li> <li>● Each Project Implementation Team shall carry out regular support supervision.</li> </ul>

**(3) TQM at Kabale RRH**

<p><b>Related to Activity: 1-3-5</b></p>	<p>January 2019</p>
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<b>Details</b>	<ul style="list-style-type: none"> <li>● Implementation of TQM commenced in March 2019 to improve the usage of medical equipment, following the proposal from the Project. JICA Experts carried out supervision in April and May.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● Kabale RRH started the update of equipment lists per department including the status of equipment functionalization.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● It is necessary to provide continuous technical support from experts, since it is the first exposure to TQM in Uganda.</li> </ul>

## 1-2-2 Activities of Output 2

### (1) 3rd M&E of 5S Performance

<b>Related to Activity: 2-2</b>	March-April 2019
<b>Details</b>	<ul style="list-style-type: none"> <li>● The Project allocated National 5S-CQI-TQM facilitators to 16 target hospitals to collect the data on 5S performance in March 2019.</li> <li>● The JICA Expert analyzed the data and shared the results with these target hospitals, the facilitators and MOH.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● The target hospitals, 5S-CQI-TQM facilitators and MOH obtained the information on the current performance of 5S.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● The inputs of the Project facilitated the completion of the 3rd M&amp;E exercise as planned. It is necessary to address challenges such as the attitudes of some facilitators for the next M&amp;E in 2020.</li> </ul>

### (2) 5S-CQI Training for 4 hospitals in Kampala

<b>Related to Activity: 2-7</b>	Unplanned, since originally these hospitals are not covered by the Project.
<b>Details</b>	<ul style="list-style-type: none"> <li>● In response to a request from Quality Assurance and Inspection Department of MOH (QAID) and Mulago National Referral Hospital, the Project trained 4 hospitals (Mulago, Women's and Neonatal Hospital, Kawempe and Kiruddu) in 5S and the introduction of CQI (KAIZEN) in May 2019.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● In total, 40 participants completed the training successfully.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● The inputs of the Project and the enthusiasm of the participants resulted in the successful completion of the training. It is noteworthy that 69% of the budget for training was covered by MOH.</li> <li>● The Project will continue to support the initiative of QAID with continuous supervision of these 4 hospitals.</li> </ul>



**(3) Supervision of 5S-CQI-TQM**

<b>Related to Activity: 2-6/2-8</b>	Started from June 2018.
<b>Details</b>	<ul style="list-style-type: none"> <li>● The following hospitals were supervised in Feb-May 2019: Moroto RRH (18th Feb.), Soroti RRH (19th Feb.), Lira RRH (20th Feb.), Gulu RRH (21st Feb.), Arua RRH (25th Feb.), Kabale RRH (18th Mar., 25th Apr. and 8th May), Mbarara RRH (19th Mar. and 7th May), Masaka RRH (20th Mar.) and Entebbe GH (22th and 29th May)</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● Moroto, Soroti, Lira, Gulu, Arua, Mbarara and Masaka: The Project provided advice for the improvement of 5S performance, especially in terms of leadership and standardization.</li> <li>● Entebbe: The Project carried out coaching on situation analysis and tools for quality control. In addition, a format was proposed to record the practices of CQI (KAIZEN).</li> <li>● Kabale: The Project provided technical advice on the effective implementation of CQI (KAIZEN) and TQM.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● The results of the 3rd M&amp;E should be utilized for the supervision of the target hospitals, especially for the improvement of 5S at poor-performing hospitals.</li> </ul>

**1-2-3 Activities of Output 3****(1) Development of UT Manual/Guidelines**



<b>Related to activity 3-1</b>	Planned in June 2018-March 2019
<b>Details</b>	<ul style="list-style-type: none"> <li>● The interactive meetings were held several times at MOH on 5th February to 31st May 2019. 2 MOH Officials, a JICA Expert and a Secretary participated in the meetings.</li> <li>● The main objectives were reviewing and editing the UT manual and guidelines based on the User Trainer's comments.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● The draft UT manual was completed.</li> <li>● The UT guidelines were still under development.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● By the end of the 4th quarter of FY 2018/2019, both UT guidelines and manual are going to be completed.</li> </ul>

**(2) Final Exams for Additional User Trainer (Refresher Training)**

<b>Related to activity 3-2</b>	Planned in April 2019
<b>Details</b>	<ul style="list-style-type: none"> <li>● A final written and practical exam for 5 additional User Trainers was conducted at Entebbe on 16th and 17th May 2019. A JICA Expert and 2 User Trainers facilitated the exams.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● 5 User Trainers passed the written exam.</li> <li>● 5 User Trainers did the practical exams. All 5 additional User Trainers were qualified.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● The 5 User Trainers need to have further practical experience as User Trainers.</li> </ul>
	
Written exam	Practical exam

**(3) 4th TOT for User Trainers**

<b>Related to activity 3-3</b>	Planned in February 2019
<b>Details</b>	<p>(1) The training of User Trainer Candidates was carried out at Gulu RRH on 1st to 5th April 2019. The MOH Official from Nursing Department and the JICA Expert and 4 User Trainers facilitated the training. 5 User Trainer Candidates from 3 RRHs and 1 GH participated in this training.</p> <p>The objective of this training was to review the teaching skills of User Trainers on the target medical equipment.</p> <p>(2) The User Trainers' final exams (written and practical) were conducted on 3rd to 5th April 2019 and were facilitated by the same members as the above training. 13 User Trainers from the 7 target RRHs took the exams.</p>
<b>Achievement</b>	(1) Training of User Trainer Candidates

	<p>- The results of the written test were 83.4% for the pre-test and 88.4% for the post-test on average. The average improvement was 5% compared with the pre-test, hence confirming the positive outcome of the training.</p> <p>- The trainers were also assessed on the practical test as reflected in the result which was 4.09 (5.00 for full score) on average. The teaching skills of 5 User Trainers were improved.</p> <p>(2) User Trainer Final Exams</p> <p>- 11 out of 13 User Trainers passed the exams. Although 2 User Trainers failed the exams, they sat the exams again and passed.</p> <p>- All 13 User Trainers passed the practical exams conducted.</p>
<p><b>Way Forward/ Challenges</b></p>	<ul style="list-style-type: none"> <li>● The 13 User Trainers are inexperienced and there is a need for continuous training through support supervisions.</li> </ul>
	
<p>Written exam</p>	<p>Practical exam</p>

**(4) Support Supervision**

<p><b>Related to activity 3-4</b></p>	<p>Planned in September 2018- May 2020.</p>
<p><b>Details</b></p>	<ul style="list-style-type: none"> <li>● The following hospitals were supervised in February - May 2019: Moroto RRH (18th Feb.), Arua RRH (4th Mar.), Lira RRH (5th Mar.), Mbale RRH (6th Mar.), Entebbe GH (7th Mar.), Kabale RRH (18th Mar.), Masaka RRH (20th Mar.), Mbarara RRH (29th Mar.), Fort Portal RRH (30th Apr.), Gulu RRH (6th May), Soroti RRH (7th May), Jinja RRH (8th May), Naguru RH (9th May), Mubende RRH (10th May).</li> <li>● The main objectives were: 1) to check the implementation status of UT and the progress of the action plan, 2) to advise on the improvement of the utilization rate of the medical equipment, and</li> </ul>

	3) to check the work status of User Trainers' collaboration with the Medical Equipment Maintenance Workshop (WS).
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● The User Trainers conducted UT at the target hospitals and the lower health facilities.</li> <li>● As a result of UT, the utilization rate of medical equipment has improved.</li> <li>● Instructions and advice on the use of unused equipment were developed by User Trainers.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● To seek the good collaboration between the Administration of the RRH and WS, the Project Implementation Team (UT) will raise the agenda at WS Performance Review Meeting, and discuss it at the hospitals</li> <li>● The Supervision team found that Fort Portal RRH and Mubende RRH did not provide financial support to User Trainers' activities properly. The Supervision team discussed with the Hospital administration the UT activity plan, necessary expenses for UT activities during supervision. The Project Implementation Team raised the issues to Clinical Services meeting and to discuss solution.</li> </ul>

#### 1-2-4 Activities of Output 4



##### (1) 22nd and 23rd WS Performance Review Meetings

<b>Related to activity 4-5</b>	At least twice a year (Year-round activity)
<b>Details</b>	<ul style="list-style-type: none"> <li>● 2 WS Performance Review Meetings were held at Arua on 24th January 2019 (22nd Meeting) and at Mbarara on 2nd May 2019 (23rd Meeting), and the attendance numbers of participants and stakeholders were 50 and 55, respectively.</li> <li>● The main objectives were 1) communication from HID/MOH, 2) quarterly performance reports from each WS, 3) brief remarks from the implementing partners, and 4) discussions, recommendations and meeting resolutions. For the 23rd meeting, the following 3 topics were added; 5) proposed Quarterly Report, Job Card and Complaint Form revisions, 6) preliminary results of RRHs' inventory analysis and 7) awarding the high-performing WSs based on the</li> </ul>

	assessment.
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● The meetings have been put in place as the main platform for discussing key issues among the WSs and the RRHs' top management as related to activities 1-3-2, 4-5 and 4-6.</li> <li>● Although the meetings are required to be held twice a year, the meetings are held quarterly as scheduled.</li> <li>● The 22nd meeting was the first meeting where all 14 RRHs including Naguru RH attended. At the 23rd meeting, it was also the first time a User Trainer from Hoima RRH participated.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● The allowances and transportation expenses were covered by each WS budget. This is a good case showing sustainability even after the Project completion.</li> <li>● Although the inventory updates and data entry in New Order for Managing Anything Data (NOMAD) are progressing well, RRHs' top management agreed that the remaining issues of collecting data and updating in NOMAD will be addressed.</li> <li>● The next meeting will be hosted by Mbale RRH in August 2019.</li> </ul>

**(2) Support Supervision for WSs**



<b>Related to activities 4-5 and 4-6</b>	Twice a year (Year-round activity)
<b>Details</b>	<ul style="list-style-type: none"> <li>● All 15 WSs were supervised in February to March 2019; Arua (11th Feb.), Gulu (13th Feb.), Lira (14th Feb.), Soroti (15th Feb.), Moroto (18th-19th Feb.), Mbale (20th Feb.), Jinja (21st Feb.), Naguru (28th Feb.), Hoima (11th Mar.), Mubende (13th Mar.), Fort Portal (14th Mar.), Mbarara (15th Mar.), Kabale (17th Mar.), Masaka (20th Mar.) and Central (25th Mar.).</li> <li>● The agenda focused on 4 areas; 1) accelerating inventory management including NOMAD database, 2) status of workplan, reports and templates, 3) follow-up on ongoing CQI activities and 4) implementation of UT.</li> <li>● In Naguru, the first visit involving the joint supervision of 3 RHs (Naguru, Kawempe and Kiruddu) was carried out to discuss the current situation, because the 3 hospitals had newly established in-house workshops under the Central WS area.</li> </ul>

<p><b>Achievement</b></p>	<ul style="list-style-type: none"> <li>● The Project and HID/MOH supervised all WSs as planned, although the HID/MOH budget was limited.</li> <li>● The above agenda items 1), 3) and 4) progressed in most WSs.</li> <li>● Progress of CQI being implemented in the WSs: 8 topics were achieved, 2 topics are ongoing, and 2 topics have not progressed.</li> <li>● Integration of 3 activities (5S-CQI-TQM, UT and ME) was strengthened because User Trainers and 5S manager attend WS supervision. In addition, the TQM focusing on “To Improve Usage of Medical Equipment” commenced in Kabale RRH and WS, as a good showcase related to activity 2-8.</li> </ul>
<p><b>Way Forward/ Challenges</b></p>	<ul style="list-style-type: none"> <li>● It takes 3 weeks to travel over 3,500 km for all WS visits. Sometimes it is difficult to adjust the counterpart’s schedule.</li> <li>● It is recommended that the Central WS manager joins the supervision program in order to strengthen the capacity of the Central WS indicated in activity 4-5.</li> </ul>
	
<p>5S-CQI-TQM, UT and ME integrated supervision, Jinja</p>	<p>CQI exercise, Moroto</p>

**(3) Assessment of the WSs (4-1, 4-5, 4-6)**

<p><b>Related to activity 4-1, 4-5 and 4-6</b></p>	<p>Unplanned, however it has been done once a year since October 2016.</p>
<p><b>Details</b></p>	<ul style="list-style-type: none"> <li>● HID/MOH and the Project revised WS assessment sheet from the previous one and assessed 14 WSs in February to March 2019 while carrying out support supervision. The results were shared with stakeholders at the 23rd WS Performance Review Meeting.</li> <li>● The high-performing WSs were awarded using the criteria of 12 identified areas including productivity, timely release of the budget, UT and CQI, in consideration with the Project goals.</li> </ul>



<b>Achievement</b>	<ul style="list-style-type: none"> <li>● Based on the results (Refer to Attachment III), the 3 WSs were awarded as titled the “Best WS” for Fort Portal, “Sustaining Good Performance and Teamwork” for Lira and the “Most Improved WS” for Jinja.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● This award system helps to maintain the willingness and motivation of the WS engineers/technicians.</li> <li>● This system is being implemented once a year and is expected to be done in February - March 2020, before the end of the Project.</li> <li>● The assessment sheet is one of the monitoring tools under activity 4-1, and it is related to enhancing the capacity of the Central WS and HID/MOH in activity 4-5. This mechanism helps to share performance and issues, as requested for activity 4-6.</li> </ul>
	
The Best WS Award, Fort Portal Team	The Most Improved WS Award, Jinja Team

**(4) Medical Equipment Inventory Update and Analysis**

<b>Related to activity 4-2</b>	Planned in February – April 2019
<b>Details</b>	<ul style="list-style-type: none"> <li>● The Project, HID/MOH, and Infectious Disease Institute (IDI) IT team are constantly supporting the following: <ul style="list-style-type: none"> <li>-Coaching the WS staff members and troubleshooting NOMAD malfunctions during supervision.</li> <li>-A letter was issued from the MOH top management to RRH directors to complete the task by June 2019.</li> <li>-Solving defects, activating the auto-analysis function and updating the format in web-based NOMAD.</li> <li>-Installing NOMAD software in Masaka and Mbarara WSs.</li> <li>-Held mentorship training for the RRH Directors and Administrators in response to requests.</li> <li>-Analysis of the latest inventory data for all RRHs.</li> </ul> </li> </ul>



<b>Achievement</b>	<ul style="list-style-type: none"> <li>● Data entry in NOMAD was completed in most WSs except Moroto, Soroti and Arua whose PCs were defected.</li> <li>● The inventory analysis report is as follows. The average of Condition A was increased (65.1% to 74.8%) in order to reduce Conditions B, C, D, and F from the baseline data, Year 2016. For the Project indicators, the Condition “A” and “B” were achieved in respective goals, but Condition “C+E” is not yet achieved. From another point of view, the gap between WSs is still large.</li> <li>● The web-based NOMAD design was improved and the auto-analysis function was activated to make it easier for users to use, and some system bugs were resolved.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● The status of inventory management has improved significantly over time. However, a few WSs still require the strengthening of capacity and the replacement of PCs to solve the core issues.</li> <li>● In the near future, it is recommended that the data needs to be available for easy viewing and analysis on the website by the MOH Officials and RRHs’ top management.</li> </ul>

Table 1: Medical Equipment Inventory Analysis Report of RRHs, April 2019

No	Name of RRH	Equipment Condition (%)						TOTAL	C+E (<15%)
		A (>70%)	B (<4%)	C	D	E	F		
1	Arua								
2	Gulu	91.1%	1.3%	3.5%	0.6%	2.5%	0.9%	100%	6.1%
3	Lira	81.7%	8.3%	3.0%	1.9%	3.1%	2.0%	100%	6.0%
4	Soroti								
5	Moroto								
6	Hoima	63.0%	4.2%	19.3%	3.4%	3.9%	6.2%	100%	23.2%
7	Fort Portal	95.7%	0.6%	2.8%	0.2%	0.7%	0.0%	100%	3.5%
8	Kabale	85.5%	4.8%	1.7%	1.9%	3.6%	2.4%	100%	5.3%
9	Mubende	83.9%	2.3%	6.6%	0.7%	4.1%	2.4%	100%	10.7%
10	Masaka	74.0%	1.7%	12.8%	5.7%	4.7%	1.1%	100%	17.5%
11	Jinja	60.4%	5.5%	17.7%	9.2%	4.9%	2.4%	100%	22.6%
12	Naguru	71.9%	8.2%	12.2%	0.4%	6.3%	1.1%	100%	18.5%
13	Mbale	61.6%	1.3%	30.4%	2.1%	2.5%	2.1%	100%	32.9%
14	Mbarara	66.9%	6.9%	6.9%	0.3%	15.7%	3.4%	100%	22.5%
Average (11 out of 14)		<b>74.8%</b>	<b>3.8%</b>	<b>12.3%</b>	<b>2.7%</b>	<b>4.3%</b>	<b>2.2%</b>	<b>100%</b>	<b>16.6%</b>
Baseline (2016)		<b>65.1%</b>	<b>5.1%</b>	<b>17.9%</b>	<b>3.5%</b>	<b>4.2%</b>	<b>4.3%</b>	<b>100%</b>	<b>22.1%</b>

Note: Conditions A, B and C+E are used as performance indicators of the Project. Colored cells mean that the goals of each indicator have yet to be achieved.

**(5) Update and develop WS operation manuals, guidelines and monitoring tools (4-1)**

<b>Related to activity 4-1</b>	Planned in May - December 2018
<b>Details</b>	<ul style="list-style-type: none"> <li>● Some articles and annexes of the WS Operation Manual were revised from the existing Manual published in December 2013.</li> </ul>
<b>Achievement</b>	<ul style="list-style-type: none"> <li>● The following documents were revised and/or newly developed; <ul style="list-style-type: none"> <li>● Performance report and templates (Job card and requisition form)</li> <li>-Consolidated annual work plan including partner's activities</li> <li>-Assessment sheet for the WSs</li> <li>-Equipment maintenance service sticker</li> <li>-Users' guide on NOMAD usage</li> </ul> </li> <li>● Other texts were not yet updated due to the busy schedule of the MOH counterpart and prioritizing other activities such as support supervision and inventory management.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● Although solving the above issues is not easy, the Project will continue to work on Manual revision in the remaining period. The Project intends to prioritize other important activities rather than Manual revision, based on discussions between HID/MOH and the Project.</li> </ul>

**1-3 Achievement of Output****1-3-1 Summary of Achievements**

**Output 1:** The Steering Committee members have discussed the efficient utilization of the budget. As the result of the discussion, MOH was able to contribute 60% of the total cost of the Project activities in the 2nd quarter of FY 2018/2019, compared with 8% in FY 2017/2018 and 12% in FY 2016/2017. Through the Steering Committee meeting, mutual understanding among the members was deepened, and improvement in the efficiency of activities for health infrastructure management such as progression of 5S-CQI activities in WS, cooperation between User Trainers and WS were accomplished.-The continuation of the meeting enables the formulation of an efficient action plan.

The Administration of all target facilities were invited to the 3rd JCC, in addition to JCC members, chaired by Director General Health Services. The progress of the activities, the contents of future activities in terms of leadership and continuity of activities by MOH, and the issues to be solved were shared among all the concerned persons.

Since the travel restrictions for the Moroto area were relaxed, the JICA Experts were allowed to travel there, together with Project Manager, and the Project Implementation Team members

from MOH. The Project Manager presented the Project history, the outline of the Project, and the policy of MOH towards the Project and appreciated importance and effectiveness of joint supervision. In addition, the Project manager pledged continuous support from MOH for the development of human resources for strengthening infrastructure management. All Japanese experts and joint supervision team met hospital staff members and were able to discuss their progress and issues, and encouraged Moroto RRH staff members to implement the Project activities.

**Output 2:** As described below, 7 out of 16 target hospitals reached the target and 2 hospitals have prospects to achieve it. The situation of the work environment in these hospitals is better year by year through the 5S practice, although the target of Output 2 is not achieved perfectly. It is necessary to continue supervision to keep momentum of the improvement. It can be said that the current performance is attributable to the activities under the Output. The supervision of 5S-CQI-TQM is a leading contributor of current performance. It provides opportunity for each hospital staff to reaffirm the problems specific to the section and offer the feasible solutions. The training of 5S-CQI-TQM Facilitators also played a role in their gaining of skills to supervise within their hospitals. The leadership training raised understanding of the top management on 5S-CQI-TQM, leading to better circumstances for the implementation.

**Output 3:** 14 out of 15 target hospitals reached the number of User Trainers, and the hospital have prospects to achieve it by the end of 2nd quarter of FY 2019/2020. 10 out of 15 target hospitals reached the number of UT implemented per a year and the remaining 5 hospitals are expected to be achieved by the end of the 4th quarter of FY 2018/2019. Although the average % of equipment Condition “B” (3.8%) has not been achieved, 6 out of 11 hospitals properly improved from the baseline (5.1%). According to this positive result, support supervision has greatly contributed to the development of trainers’ knowledge and skills for the proper utilization of medical equipment and proper communication with the hospital management and collaboration with the WSs. Although the achievement of the outcomes is slightly behind the plans especially in inventory data, the Project Implementation Team (UT) will continue to support supervision and training to improve User Trainers’ knowledge and skills, and develop the guideline for sustainability.

**Output 4:** Activities on the ME component were implemented as planned except for the manual revision. The leadership training scheduled in this period was canceled due to the HID/MOH budget shortage, but it was in line with the initial plan of FY 2018/19. Although the average % of equipment Condition “C+E” (16.6%) has not been achieved, it was properly improved from the baseline (22.1%). According to this positive result, the implemented activities have sufficiently

helped in the improvement of WS maintenance and management capacities. In addition, the work environment of most WSs was greatly improved by the 5S-CQI activities compared with the beginning of the Project. Support supervision was effective in solving the issues of individual WSs, and the WS Performance Review Meeting became the main platform for sharing information and discussing key issues. These activities can be sustained by the initiative of HID/MOH even after the Project ends. The above-mentioned activities are mostly harmonized and lead to the goals of Output 4 as planned. In addition, one of the indicators that has not been achieved will be accomplished with high probability by the end of the project through continuation of the Project activities.

### 1-3-2 Output 1

Output 1 Supporting/supervising system for health infrastructure management of all the RRHs is strengthened in the MOH	
Current Indicators	Achievement
1-1 The Project Steering Committee meeting is conducted every three months.	The Steering Committee meetings were conducted on: 1) 29th May 2018 2) 17th September 2018 3) 27th November 2018 4) 2nd February 2019
1-2 The results of integrated support supervision conducted by Project Implementation Teams and the next quarter action plan developed from these results are shared and approved at every Project Steering Committee meeting.	All Steering Committee members shared the cost burden amount for each activity in the 2nd and 3rd quarter of FY 2018/2019. And the activity plan for FY2019/2020 was developed and agreed among the members.
1-3 The roadmap for incorporating the Project activities into the policy and systems of MOH is established and implemented by the Project Steering Committee.	The counterpart worked to incorporate the Project activities into the budget of the next financial year (2019/2020) at the Technical Working Group meeting in early April.
1-4 The Project activities are successfully	The 3rd JCC was held on 16th April and shared

incorporated into the Ministerial Policy Statement of Ministry of Health.	the burden ratio of Uganda and Japan on the Project activity cost in FY 2018/2019. Although MOH will bear some part of the cost from operational budget of each department, it has not been clearly mentioned into the FY 2019/2020 budget.
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**1-3-3 Output 2**

[Project Implementation Team: 5S-CQI-TQM] Resource management and quality improvement activities are strengthened through CQI approach in all RRHs.	
Current Indicators	Achievement
<p>2-1</p> <p>Score of Module 1 (Leadership) and 6 (Health Infrastructure) Health Facility Quality of Care Assessment program (HFQAP) Facility Assessment Tool</p> <p>- All RRHs mark (i) 5 points out of 8 as full mark for module 1 and (ii) 6 points out of 10 as full mark for module 6.</p>	<p>MOH collected data from 10 target hospitals, and the score will be shared with the Japanese Expert soon after their analysis.</p>
<p>2-2</p> <p>Score of modified 5S M&amp;E Sheet in 5S-CQI-TQM Guidelines</p> <p>- All RRHs mark 33 points out of 54 as full mark at least two consecutive years.</p>	<p>7 out of 16 target hospitals reached the target (60%): Arua, Entebbe, Jinja, Kabale, Mbale, Mbarara and Mubende.</p> <p>2 hospitals have prospects to achieve the target at the 4th M&amp;E: Masaka and Naguru.</p> <p>(See Figure 1)</p>

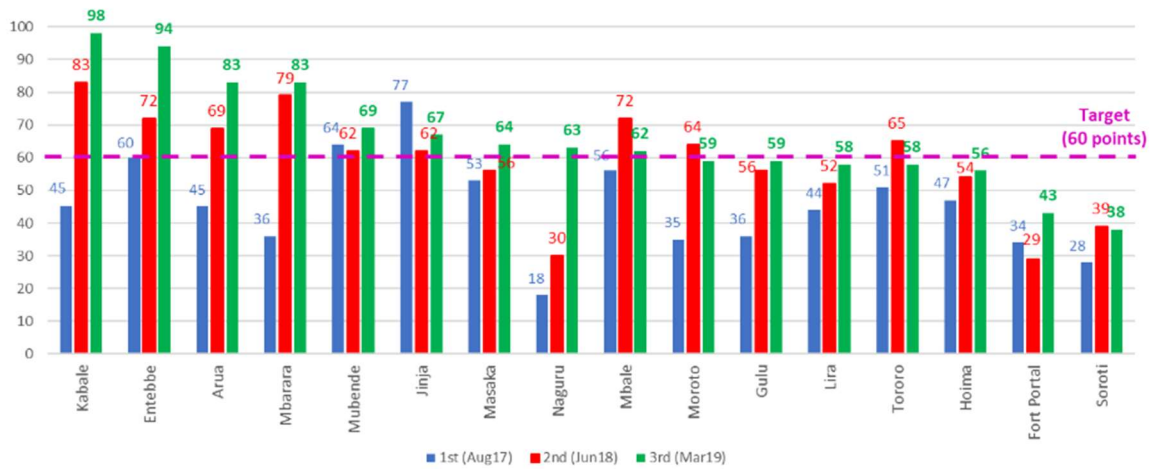


Figure 1: The results of 5S M&E by hospitals

1-3-4 Output 3

[Project Implementation Team: UT]																																																							
Proper utilization of medical equipment through UT is improved in all RRHs.																																																							
Current Indicators	Achievement																																																						
3-1 There are at least two regional User Trainers at all RRHs.	Number of User Trainers are shown below: -																																																						
	<table border="1"> <thead> <tr> <th rowspan="2">Hospital Name</th> <th colspan="2">No. of User Trainers</th> </tr> <tr> <th>Qualified</th> <th>Not yet qualified</th> </tr> </thead> <tbody> <tr><td>Arua</td><td>3</td><td></td></tr> <tr><td>Fort Portal</td><td>2</td><td></td></tr> <tr><td>Gulu</td><td>2</td><td></td></tr> <tr><td>Hoima</td><td>2</td><td></td></tr> <tr><td>Jinja</td><td>2</td><td></td></tr> <tr><td>Kabale</td><td>2</td><td></td></tr> <tr><td>Lira</td><td>3</td><td></td></tr> <tr><td>Maska</td><td>3</td><td></td></tr> <tr><td>Mbale</td><td>2</td><td></td></tr> <tr><td>Mbarara</td><td>1</td><td>1</td></tr> <tr><td>Moroto</td><td>3</td><td></td></tr> <tr><td>Mubende</td><td>2</td><td></td></tr> <tr><td>Naguru</td><td>2</td><td></td></tr> <tr><td>Soroti</td><td>2</td><td></td></tr> <tr><td>Entebbe</td><td>3</td><td></td></tr> <tr><td>Total</td><td>34</td><td>1</td></tr> </tbody> </table>		Hospital Name	No. of User Trainers		Qualified	Not yet qualified	Arua	3		Fort Portal	2		Gulu	2		Hoima	2		Jinja	2		Kabale	2		Lira	3		Maska	3		Mbale	2		Mbarara	1	1	Moroto	3		Mubende	2		Naguru	2		Soroti	2		Entebbe	3		Total	34	1
Hospital Name	No. of User Trainers																																																						
	Qualified	Not yet qualified																																																					
Arua	3																																																						
Fort Portal	2																																																						
Gulu	2																																																						
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Lira	3																																																						
Maska	3																																																						
Mbale	2																																																						
Mbarara	1	1																																																					
Moroto	3																																																						
Mubende	2																																																						
Naguru	2																																																						
Soroti	2																																																						
Entebbe	3																																																						
Total	34	1																																																					
3-2																																																							

The number of UT conducted by regional User Trainers is more than three per year in every region.	Number of UT are shown below:-			
	Hospital name	No.	Hospital name	No.
	Arua	2	Mbale	4
	Fort Portal	3	Mbarara	3
	Gulu	3	Moroto	3
	Hoima	1	Mubende	2
	Jinja	3	Naguru	4
	Kabale	5	Soroti	4
	Lira	1	Entebbe	4
	Masaka	1		
	*As of 31st May 2019			
	The ways of counting the number of UT;			
	-Group training (about 20 people, 4-6 types of equipment) is counted as one training session.			
	-In the case of a small training session, it is counted as one when the total number of participants or pieces of equipment is equal to group training.			
3-3	Baseline: 5.1%			
The average percentage of medical equipment in status B at all RRHs is not higher than 4%.	Current data: 3.8%			
	(The details are shown in Table 1.)			

#### 1-3-5 Output 4

[Project Implementation Team: ME]	
ME and management capacity of WS are strengthened.	
Current Indicators	Achievement
(1) The average increase of scores between the pre-test and post-test is at least 15%.	28.2%: Target was achieved. (Average score of 7 past training sessions)
(2) The average of percentage of medical equipment in status C and status E at all RRHs is not higher than 15%.	Baseline: 22.1% (C17.9% + E4.2%) Current data: 16.6% (C12.3% + E4.3%) The current data is the average of only 11 RRHs out of 14 RRHs for reference. 3 RRHs such as Moroto, Soroti and Arua has not been completed yet. (The details are shown in Table 1.)

#### 1-4 Achievement of the Project Purpose

The activities of each output greatly contributed to human resource development and work process improvement related to health services provision in each target facility even budget

constraints. As shown in the figure of the indicators, CQI cases according to the procedure were implemented, and the Small CQI for daily work process improvement was practiced not only in the hospitals, but also in the WSs. These cases were carried out in a standardized manner to ensure continuity, and the establishment of 5S activities was evident in the target facilities. In terms of health infrastructure management, the improvement of equipment inventory records came as a result of the close cooperation between WS and UT. In addition, activities called support supervision by the 3 Project Implementation Teams have been conducting and greatly contributed to the achievement of the Project purpose. The sustainability of health infrastructure management under MOH at the target facilities is going to be achieved. However, the budget execution to MOH from the Ministry of Finance, Planning and Economic Development is not on time. It hinders timely budget execution to each department in MOH. Delayed provision of budget is one of the challenges to conduct scheduled activities under the Outputs. To diminish the effects, each PIT requires to share the work plan and conduct some activities together.

Current Indicators	Achievement
(1) CQI Process or Quality Control (QC) Story -The number of cases of CQI Process or QC Story amounts to more than three.	17 cases of CQI Process are being implemented and 2 were completed at Kabale RRH. 3 cases of CQI Process are being carried out at Entebbe GH.
(2) Good practice of small CQI -All RRHs have at least one good practice of small CQI.	At least one case of small CQI was practiced at 12 out of 16 target hospitals: Entebbe GH, Gulu RRH, Jinja RRH, Kabale RRH, Masaka RRH, Mbale RRH, Mbarara RRH, Moroto RRH, Mubende RRH, CUFH-Naguru, Soroti RRH and Tororo GH.
(3) The average of percentage of medical equipment in status A at all RRHs is higher than 70%.	Base line in October 2016: 65.1% (average) Current data: 74.8% (The details are shown in Table 1.)
(4) Supervisions on 5S, UT, and ME which is integrated into the system of MOH in a consolidated way are implemented more than XX	Joint supervision of 3 components concerning health infrastructure management was conducted 6 times in November 2018 (1), February 2019, March 2019 (2), April 2019 (1) and May 2019 (2).



times.
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### 1-5 Changes of Risks and Actions for Mitigation

The budget execution of MOH has not been stable. Leadership/Management Training and the 3rd User Trainer Refresher Training have been postponed due to a lack of budget.

### 1-6 Progress of Actions Undertaken by JICA

JICA Headquarters dispatched the Monitoring Mission team for the Project headed by Mr. Aoki Tsunenori, Director, Health Team 1 in Human Development Department to conduct monitoring of the Project activities. The team discussed matters with Project Manager and related persons concerning the progress of the Project activities, and visited the target facilities to observe the situation. Under the situation of budget execution of MOH, JICA agreed that Japanese side would bear some part of the expenses according to the future activity expense plans, as long as MOH's financial sustainability would be secured.

### 1-7 Progress of Actions Undertaken by the Government of Uganda

The expenses covered by MOH and Japan for the activities in the 3rd and 4th quarter of FY 2018/2019 are shown below: MOH covered 55% (53,525,000UGX) for all the activities.

Although disbursement of the budget was delayed and some activities were postponed, the planned activities were generally implemented.

The increase in funding from MOH for the project activities showed that the outcome of the Project activities has been appreciated by MOH, which will lead to sustainable implementation.

2018/2019	MOH Dept.	Activities	Trainees/ Participants	Venue	MoH		Japan side		Total	
					Allowance /Others		Transportation /others			
Q3	Jan	HID	The 22nd WS Performance Meeting	55	Arua	18,775,000	100%	0	0%	18,775,000
	Feb/Mar	HID	ME-Supervision	1		660,000	20%	2,560,000	80%	3,220,000
	Feb	QAID	5S-CQI-TQM Supervision	1		0	0%	1,155,000	100%	1,155,000
	Mar	CS	UT-Supervision	1		840,000	100%	0	0%	840,000
	Mar	QAID	3rd M&E	13		0	0%	16,996,000	100%	16,996,000
Q4	Apr	CS	The 4th TOT	22	Gulu	2,497,000	14%	15,559,000	86%	18,056,000
	Apr	CS	UT-Supervision	1		0	0%	1,120,000	100%	1,120,000
	May	HID	The 23rd WS Performance Meeting	59	Mbarara	18,200,000	90%	2,100,000	10%	20,300,000
	May	CS	Final Exam	5	Entebbe	350,000	10%	3,160,000	90%	3,510,000
	May	QAID	5S Training for Mulago+3RHs	40	Mukono	24,400,000	69%	10,875,000	31%	35,275,000
						<b>65,722,000</b>	<b>55%</b>	<b>53,525,000</b>	<b>45%</b>	<b>119,247,000</b>

### 1-8 Progress of Environmental and Social Considerations (if applicable)

### 1-9 Progress of Considerations on Gender/Peace Building/Poverty Reduction (if applicable)

None.

### **1-10 Other Remarkable/considerable Issues Related/affect to the Project (such as other JICA's Projects, Activities of Counterparts, Other Donors, Private Sectors, NGOs, etc.)**

- (1) The project for the Improvement of Regional Referral Hospitals in Northern Uganda is a grant aid project run by the Japanese government. This project aims to strengthen hospital functionality by constructing facilities and providing medical equipment to northern Uganda hospitals (Arua, Gulu and Lira RRHs), and improving the quality and access to health services. JICA signed a grant agreement with the Government of Uganda to provide grant aid of up to 2.86 billion yen for this project on 26th April 2018. The target facilities of the grant aid project include RRHs. It is expected to create a positive influence on health service delivery in the hospitals and the motivation of hospital staff members to improve the workplace environment. The project implementation starts from June 2019.
- (2) Regional Health Integration to Enhance Services (RHITES) is a 5-year project that has been operating since 2017, funded by the United States Agency for International Development (USAID). RHITES supports the Government of Uganda and key stakeholders to increase the availability and utilization of high-quality health services. The purpose of this project is to secure services to support the design and implementation of comprehensive, integrated investment in health especially at the regional level, HIV/AIDS, and nutrition assistance in the entirety of Uganda. In terms of Quality Improvement, the achievement of outcomes in the project target facilities will be accelerated through human resource development done by RHITES.
- (3) Korea Foundation for International Healthcare (KOFIH) is a public affiliated organization of the Ministry of Health and Welfare of the Republic of Korea. KOFIH has been active in Uganda since 2017, implementing various projects including establishing an emergency medical service system and community health system with MOH. KOFIH targets the Bukomansinbi district and Masaka region. In the target area of KOFIH, the equipment and technology provided will contribute to improving the skills of the staff members in the project target facilities.

## **2 Delay of Work Schedule and/or Problems**

### **2-1 Details, Cause**

- (1) Postponement of activity

The following activities were postponed due to a lack of budget:

- 1) Leadership and Management Training (Output 4)
- 2) The 3rd User Trainer Refresher Training (Output 3)

The budget has been partially implemented, but cannot be covered by MOH. From the perspective of the effective usage of the budget, priority was given to support supervision.

- (2) Inventory of Medical equipment

The inventory updates are still delayed due to the limited skills, poor internet connections and PC defects. The analysis of the inventory data was completed for 11 out of 14 facilities.

(3) Guidelines 5S-CQI-TQM and User Trainer

1) Although the draft of the 5S-CQI-TQM guidelines has been completed, the confirmation work within the ministry has not been completed. A retreat for the final draft will be held in June.

2) UT Guidelines are being written by stakeholders.

(4) HFQAP data

MOH conducted HFQAP assessment for 1,989 health facilities from 74 /127 districts (58.3%) and including 10 target hospitals.

## 2-2 Action to Be Taken

(1) Each Project Implementation Team will continue their meetings. And MOH and the JICA Experts regularly hold Steering Committee meetings to share progress activities. At the same time, regularly check MOH's budget execution.

(2) The Project team is going to cooperate with the IDI person in charge of the inventory system and train WS staff members to improve input skills of inventory data.

(3) Draft of the guidelines will be submitted to Senior Management Committee meeting in July 2019, and are going to be finalized.

(4) The Project team will discuss with QAID on the timing of future assessments of target hospitals yet conducted the HFQAP assessment, and arranged their assessment data as the project indicators.

## 3 Modification of Project Implementation Plan

### II. Project Monitoring Sheet I & II *as Attached*

Attachment:

- I. Project Monitoring Sheet I
- II. Project Monitoring Sheet II
- III. Results of the WS Assessment.
- IV. Abbreviations

End

# Project Monitoring Sheet I

Project Title: Project on Improvement of Health Service through Health Infrastructure Management (II)

Implementing agency: Quality Assurance & Inspection Department, Directorate of Planning & Policy, Ministry of Health (MOH) (5S-CQI-TQM)  
 Integrated Curative Services Department, Directorate of Clinical Services, MOH (Utilization of Medical Equipment)  
 Infrastructure Department, Directorate of Clinical Services, MOH (Maintenance of Medical Equipment)

Target Group: (1) Phase 1 targeted hospitals: Mbale Regional Referral hospital (RRH), Masaka RRH, Entebbe General Hospital (GH), Hoima RRH, Kabale RRH, Arua RRH, Lira RRH, Moroto RRH, Mukuju HC IV, Tororo GH  
 (2) Phase 2 targeted hospitals: Soroti RRH, Jinja RRH, Gulu RRH, Fort Portal RRH, Mbarara RRH, Mubende RRH, Naguru Referral Hospital

Period of Project: July 2016- July 2020

Target Site: Republic of Uganda

Version. 6

Dated 29th July 2019

Narrative Summary	Objectively Verifiable Indicators	Achievement	Remarks
Quality of health care services at all the RRHs in Uganda is improved.	<ul style="list-style-type: none"> <li>• Clients' satisfaction level is improved to the target level. (XX)</li> <li>• Clients' waiting time of patients for consultation, testing, clinical examination, and prescription of drugs are reduced XX%</li> <li>• Maintenance cost regarding medical equipment is decreased in XX%.</li> </ul>		
<b>Project Purpose</b>			
Health infrastructure management at all the RRHs in Uganda is strengthened with the initiatives of MOH.	(1) CQI Process or QC Story -The number of cases of CQI Process or QC Story amounts to more than three. (2) Good practice of small CQI -All RRHs have at least one good practice of small CQI. (3) The average of percentage of medical equipment in status A at all RRHs is higher than 70%. (4) Supervisions on 5S, UT, and ME which is integrated into the system of MOH in a consolidated way are implemented more than XX times.	(1) 17 cases of CQI Proces are being implemented and 2 were completed at Kabale RRH. 3 cases of CQI Process are being carried out at Entebbe GH. (2) At least one case of small CQI was practiced at 12 out of 16 target hospitals. (3) 74.8% (average of 11 RRHs out of 14 RRHs) (4) Joint supervision of 3 components concerning health infrastructure management was conducted 6 times.	
<b>Output 1</b>			
1. [Project Steering Committee] Supporting/supervising system for health infrastructure management of all the RRHs is strengthened in the MOH.	(1) The Project Steering committee meeting is conducted every three months. (2) The results of integrated support supervision conducted by Project Implementation Teams and the next quarter action plan developed from these results are shared and approved at every Project Steering Committee meeting. (3) The roadmap for incorporating the Project activities into the policy and systems of MOH is established and implemented by the Project Steering Committee. (4) The Project activities are successfully incorporated into the Ministerial Policy Statement of Ministry of Health.	(1) The Steering Committee meetings were conducted 4 times during May 2019 to February 2019. (2) All Steering Committee members shared the cost burden amount for each activities in the 2nd and 3rd quarter of FY 2018/2019. And the activity plan for FY2019/2020 was developed and agreed among the members. (3) The counterpart worked to incorporate the Project activities into the budget of next FY at the Technical Working Group meeting in early April. (4) The 3rd JCC was held on 16th April and shared the burden ratio of Uganda and Japan on the Project activity cost in FY 2018/2019. Although MOH will bear some part of the cost from operational budget of each department, it has not been clearly mentioned into the FY 2019/2020 budget.	

<b>Output 2</b>			
<p>2.[Project Implementation Team: 5S-CQI-TQM] Resource management and quality improvement activities are strengthened through CQI approach in all RRHs.</p>	<p>(1)Score of module 1 (Leadership) and 6 (Health Infrastructure) HFQAP Facility Assessment Tool - All RRHs mark (i) 5 points out of 8 as full mark for module 1 and (ii) 6 points out of 10 as full mark for module 6. (2)Score of modified 5S M&amp;E Sheet in 5S-CQI-TQM Guidelines - All RRHs mark 33 points out of 54 as full mark at least two consecutive years.</p>	<p>(1) MOH collected data from 10 target hospitals, and the score will be given to the Japanese side soon. (2) According to 3rd M&amp;E of 5S performance, 7 out of 16 target hospitals reached the target (60%): Arua, Entebbe, Jinja, Kabale, Mbale, Mbarara and Mubende. 2 hospitals have prospects to achieve the target at the 4th M&amp;E: Masaka and Naguru.</p>	
<b>Output 3</b>			
<p>3.[Project Implementation Team: User Training] Proper utilization of medical equipment through UT is improved in all RRHs.</p>	<p>(1) There are at least two regional user trainers at all RRHs. (2) The number of UT conducted by regional User Trainers is more than three as per year in every region. (3) The average of percentage of medical equipment in status B at all RRHs is not higher than 4%.</p>	<p>(1) There were 35 regional User Trainers at 14 RRHs and a GH. (2) 2.73 times (average number of training at 14 RRHs and a GH). (3) 3.8% (average of 11 RRHs out of 14 RRHs).</p>	
<b>Output 4</b>			
<p>4.[Project Implementation Team: ME maintenance] ME maintenance and management capacity of workshops (WS) are strengthened.</p>	<p>(1) The average increase of scores between the pre-test and post-test is at least 15%. (2) The average of percentage of medical equipment in status C and status E at all RRHs is not higher than 15%.</p>	<p>(1) 28.2% (average of 7 past training). (2) 16.6% (average of 11 RRHs out of 14 RRHs).</p>	<p>Regarding (2), the inventories of 3 RRHs such as Moroto, Soroti and Arua have not been uploaded in NOMAD databases yet.</p>

Activities	Input
<b>1-1 Establishment of foundation for the Project and implementation</b>	<b>The Japanese side</b>
1-1-1 Establish Project Steering Committee	1. Dispatch of Experts 1) Chief advisor / QI Management System 2) 5S-CQI-TQM 3) Utilization of Medical Equipment 4) Maintenance of Medical Equipment 5) Project Coordinator/ Training Management
1-1-2 Establish Project Implementation Teams for 5S-CQI-TQM, UT and ME	
1-1-3 Develop Terms of Reference (TOR) for Project Steering Committee and Project Implementation Teams and action plans for implementation of the Project	
1-1-4 Conduct baseline survey	
<b>1-2 Support Supervision on health infrastructure management</b>	2. Machinery and equipment 1) Necessary supplies for 5S-CQI-TQM to target hospitals and MOH headquarters 2) Testing and calibration tools and equipment etc.
1-2-1 Review and revise existing supervision system and tools through enrichment of checklists of HFQAP(Health Facility Quality of Care Assessment Program) and allocation of 5S-CQI-TQM facilitators at national and regional levels	
1-2-2 Direct integrated support supervision, mentoring and coaching on health infrastructure management as CQI practice integrating 5S, UT and ME	3. Allocation of operational costs for project activities  4. Training in Japan and/or third countries
<b>1-3 Project implementation, monitoring and evaluation and institutionalization</b>	
1-3-1 Organize meetings for Project Steering Committee every three months and review whether action plan is being implemented based on PDCA cycle	
1-3-2 Conduct a meeting to review the established system in MOH	
1-3-3 Make use of review of activity 1-3-2 for institutionalization of support supervision systems and methodologies developed through the Project, and make reflections to the Ministerial Policy Statement	
1-3-4 Organize study tours and QI Conference to share good practice and lessons learned on health infrastructure management compiling 5S, UT and ME	
1-3-5 Conduct an end-line survey on health infrastructure management, including 5S-CQI-TQM, UT and ME	
<b>2.[Project Implementation Team: 5S-CQI-TQM]</b>	
2-1 Develop and/or update guidelines, manuals, handbooks, monitoring and supervision tools, and facilitators guide	
2-2 Define criteria for national show case of 5S-CQI-TQM and review national show case(s)	
2-3 Clarify qualification, role and responsibility of 5S-CQI-TQM facilitators at national and regional levels	
2-4 Conduct leadership and management training based on the results of the baseline survey for management staff of targeted facilities, etc.	
2-5 Conduct facilitators' training for 5S-CQI-TQM facilitators at national and regional levels with a focus on CQI	
2-6 Strengthen function of quality improvement team (QIT) and work improvement team (WIT) in the target facilities	
2-7 Conduct 5S-CQI-TQM training to target facilities based on the results of the baseline survey, with a focus on CQI	
2-8 Conduct support supervision, mentoring and coaching on WIT/QIT function, development of action plans by WITs, periodic meetings by QIT, implementation of 5S-CQI-TQM activities with proper usage and ME in collaboration with UT and ME activities under the direction of Project Steering Committee Activity 1-2-2	
<b>3.[Project Implementation Team: User Training]</b>	
3-1 Update and develop manuals, handbooks, guidelines, and monitoring tools for dissemination as necessary	
3-2 Conduct refresher training of user trainers in the previous Project phase.	

3-3 Conduct Training of Trainers (TOT) for user trainers of the phase 2 target hospitals	
3-4 Conduct support supervision, mentoring and coaching on UT for proper usage and ME in collaboration with 5S-CQI-TQM and ME activities aiming at CQI under the direction of Project Steering Committee Activity 1-2-2	
<b>4.[Project Implementation Team: Maintenance]</b>	
4-1 Update and develop manuals, handbooks, guidelines, and monitoring tools for dissemination as necessary	
4-2 Conduct leadership and management training for workshop managers including inventory data analysis	
4-3 Conduct training for workshop staffs on maintenance of basic medical equipment	
4-4 Conduct training for core staff of workshops in first line maintenance of specialized medical equipment	
4-5 Strengthen capacity of Central Workshop and Infrastructure Department to support Regional Workshops	
4-6 Support Workshops to develop a system for sharing knowledge and skills	

Project Monitoring Sheet II (Revision of Plan of Operation)

Project Title: Project on Improvement of Health Services through Health Infrastructure Management (II)

Inputs	Plan	2016				2017				2018				2019				2020				Remarks	Monitoring	
		Actual	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	Issue	Solution				
<b>Expert</b>																								
Chief Advisor/QI Management System	Plan																							
Assist Chief Advisor/QI Management System	Plan																							
5S-CQI-TQM ①	Plan																							
5S-CQI-TQM ②	Plan																							
Utilization of Medical Equipment	Plan																							
Maintenance of Medical Equipment	Plan																							
Project Coordinator/Training Management	Plan																							
Project Coordinator/Training Management	Actual																							
<b>Equipment</b>																								
Project vehicles and equipment/materials necessary for the Project administration	Plan																							
Project vehicles and equipment/materials necessary for the Project administration	Actual																							
<b>Training in Japan</b>																								
	Plan																							
	Actual																							
<b>In-country/Third country Training</b>																								
Tanzania KAIZEN TOT	Plan																							
Tanzania KAIZEN TOT	Actual																							
<b>Activities</b>																								
<b>Sub-Activities</b>																								
<b>Output 1 [Project Steering Committee] Supporting/supervising system for health infrastructure management of all the RRHs is strengthened in the MOH</b>																								
<b>Responsible Organization</b>																								
<b>Japan</b>																								
<b>Uganda</b>																								
<b>Achievements</b>																								
<b>Issue &amp; Countermeasures</b>																								
<b>1-1 Establishment of foundation for the Project and implementation</b>																								
1-1-1	Establish Project Steering Committee	○	○	○	○	○															Expert(s)	All concerned Department members of MOH	Project Steering Committee was established.	None.
		Plan																						
		Actual																						
1-1-2	Establish Project Implementation Teams for 5S-CQI-TQM, UT and ME	○	○	○	○	○															Expert(s)	All concerned Department members of MOH	Project Implementation Teams were established.	None.
		Plan																						
		Actual																						
1-1-3	Develop terms of reference (TOR) for Project Steering Committee and Project Implementation Teams and action plans for implementation of the Project	○	○	○	○	○															Expert(s)	Steering Committee	Work Plan was approved by Project Steering Committee.	None.
		Plan																						
		Actual																						
1-1-4	Conduct baseline survey	○	○	○	○	○															Expert(s)	Implementation Team	Situation analysis for all of the target hospitals and workshops was conducted.	None.
		Plan																						
		Actual																						
<b>1-2 Support Supervision on health infrastructure management</b>																								
1-2-1	Review and revise existing supervision system and tools through enrichment of checklists of HFQAP(Health Facility Quality of Care Assessment Program) and allocation of 5S-CQI-TQM facilitators at national and regional levels	○	○	○	○	○															Expert(s)	Steering Committee	Progress of all activities were shared in Steering Committee meeting. 10 target facilities were assessed by checklist of	The Project team will discuss with QAID on how to cover the target hospitals outstanding under the HFQAP.
		Plan																						
		Actual																						
1-2-2	Direct integrated support supervision, mentoring and coaching on health infrastructure management as CQI practice integrating 5S, user training and maintenance	○	○	○	○	○															Expert(s)	Steering Committee	Joint supervision of 3 components was conducted in February, March, April and May 2019. CQI practices in RRH as well as RWS were implemented.	None.
		Plan																						
		Actual																						
<b>1-3 Project implementation, monitoring and evaluation and institutionalization</b>																								
1-3-1	Organize meetings of Project Steering Committee every three months and review whether action plan is being implemented based on PDCA cycle	○	○	○	○	○															Expert(s)	Steering Committee	Project Steering Committee meeting was conducted in February 2019.	None.
		Plan																						
		Actual																						
1-3-2	Conduct a meeting to review the established system in MOH	○	○	○	○	○															Expert(s)	Steering Committee	Project Steering Committee meeting was conducted in February 2019.	None.
		Plan																						
		Actual																						
1-3-3	Make use of review of activity 1-3-2 for institutionalization of support supervision systems and methodologies developed through the Project, and make reflections if necessary to the Ministerial Policy Statement	○	○	○	○	○															Expert(s)	Steering Committee	Joint supervision of 3 components was conducted in February, March, April and May 2019. MOH Officials participated in supervision and shared methodology of supervision.	None.
		Plan																						
		Actual																						
1-3-4	Organize study tours and QI Conference to share good practice and lessons learned on health infrastructure management compiling 5S, UT and ME	○	○	○	○	○															Expert(s)	Implementation Team	No relevant activity.	None.
		Plan																						
		Actual																						
1-3-5	Conduct an end-line survey on health infrastructure management, including 5S-CQI-TQM, UT and ME	○	○	○	○	○															Expert(s)	Implementation Team	No relevant activity.	None.
		Plan																						
		Actual																						



Activities	Sub-Activities	Plan	2016				2017				2018				2019				2020				Responsible Organization		Achievements	Issue & Countermeasures
			Actual	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	Japan		
<b>Output 2 [Project Implementation Team: 5S-CQI-TQM] Resource management and quality improvement activities are strengthened through CQI approach in all RRHs</b>																										
2-1	Develop and/or update guidelines, manuals, handbooks, monitoring and supervision tools, and facilitators guide	○ ○ ○ ○ ○ ○ ○ ○	Plan																				Expert(s)	Implementation Team	5S-CQI-TQM guidelines drafted.	The retreat to review the draft guidelines will be held in June.
			Actual																							
2-2	Define criteria for national show case of 5S-CQI-TQM and review national show case(s)	○ ○ ○ ○ ○ ○ ○ ○	Plan																				Expert(s)	Steering Committee	National showcase was clearly defined in draft 5S-CQI-TQM guidelines. 2nd M&E on 5S was done in May-June 2018, and 3rd M&E was in March-April 2019. The results were	The definition of national showcase will be reviewed at the above-mentioned retreat.
			Actual																							
2-3	Clarify qualification, role and responsibility of 5S-CQI-TQM facilitators at national and regional levels	○ ○ ○ ○ ○ ○ ○ ○	Plan																				Expert(s)	Steering Committee	Qualification, role and responsibility was clarified in draft 5S-CQI-TQM guidelines	The draft will be reviewed at the retreat.
			Actual																							
2-4	Conduct leadership and management training based on the results of the baseline survey for management staff of targeted facilities, etc.	○ ○ ○ ○ ○ ○ ○ ○	Plan																				Expert(s)	Implementation Team	The Leadership Improvement Seminar was conducted in Project term 1.	None.
			Actual																							
2-5	Conduct facilitators' training for 5S-CQI-TQM facilitators at national and regional levels with a focus on CQI	○ ○ ○ ○ ○ ○ ○ ○	Plan																				Expert(s)	Implementation Team	National 5S-CQI-TQM facilitators revisited how to evaluate 5S at the kickoff meeting in May 2018.	In order to upgrade facilitators' skills, an intensive training will be planned for selected ones.
			Actual																							
2-6	Strengthen function of quality improvement team (QIT) and work improvement team (WIT) in the target facilities	○ ○ ○ ○ ○ ○ ○ ○	Plan																				Expert(s)	Implementation Team	Experts and a local consultant have supervised target hospitals.	None.
			Actual																							
2-7	Conduct 5S-CQI-TQM training to target facilities based on the results of the baseline survey, with a focus on CQI	○ ○ ○ ○ ○ ○ ○ ○	Plan																				Expert(s)	Implementation Team	Training of new national 5S-CQI-TQM facilitators and 5S training were conducted in November 2018. In reply to initiative of MOH, 5S training was done for 4 hospitals in Kampala in May	None.
			Actual																							
2-8	Conduct support supervision, mentoring and coaching on WIT/QIT function, development of action plans by WITs, periodic meetings by QIT, implementation of 5S-CQI-TQM activities with proper usage and maintenance of ME in collaboration with UT and ME maintenance activities, etc. as mentioned in 1-2-2	○ ○ ○ ○ ○ ○ ○ ○	Plan																				Expert(s)	Implementation Team	Same as 2-6	None.
			Actual																							
<b>Output 3 [Project Implementation Team: User Training] Proper utilization of medical equipment through UT is improved in all RRH</b>																										
3-1	Update and develop manuals, handbooks, guidelines, and monitoring tools for dissemination as necessary	○ ○ ○ ○ ○ ○ ○ ○	Plan																				Expert(s)	Implementation Team	The draft UT manual was composed. The draft UT guidelines are still being prepared.	None.
			Actual																							
3-2	Conduct refresher training of user trainers in the previous Project phase	○ ○ ○ ○ ○ ○ ○ ○	Plan																				Expert(s)	Implementation Team	The training was postponed due to shortage of MOH budget.	The contents of this training will be integrated with User Trainers' training in October.
			Actual																							
3-3	Conduct Training of Trainers (TOT) for user trainers of the phase 2 target hospitals	○ ○ ○ ○ ○ ○ ○ ○	Plan																				Expert(s)	Implementation Team	The 4th TOT was conducted on 1st - 5th April 2019 at Gulu RRH.	None.
			Actual																							
3-4	Conduct support supervision, mentoring and coaching on UT for proper usage and ME in collaboration with 5S-CQI-TQM and ME activities aiming at CQI under the direction of Project Steering Committee Activity 1-2-2	○ ○ ○ ○ ○ ○ ○ ○	Plan																				Expert(s)	Implementation Team	Support supervision was conducted.	None.
			Actual																							
<b>Output 4 [Project Implementation Team: ME maintenance] ME maintenance and management capacity of workshops (WS) are strengthened</b>																										
4-1	Update and develop manuals, handbooks, guidelines, and monitoring tools for dissemination as necessary	○ ○ ○ ○ ○ ○ ○ ○	Plan																				Expert(s)	Implementation Team	Quarterly Report, Job Card, Complaint Form, Annual Work Plan, assessment sheet and NOMAD user guide were revised and/or developed.	Other texts of the WS Operation Manual are not yet updated. However, the Project and HID/MOH intend to rather prioritize the other important activities than the Manual revision.
			Actual																							
4-2	Conduct leadership and management training for workshop managers including inventory data analysis	○ ○ ○ ○ ○ ○ ○ ○	Plan																				Expert(s)	Implementation Team	No relevant activity	Training was cancelled due to MOH budget shortage, but it was in line with the initial plan of FY 2018/19.
			Actual																							
4-3	Conduct training for workshop staff on maintenance of basic medical equipment	○ ○ ○ ○ ○ ○ ○ ○	Plan																				Expert(s)	Implementation Team	No relevant activity	None.
			Actual																							
4-4	Conduct training for core staff of workshops in first line maintenance of specialized medical equipment	○ ○ ○ ○ ○ ○ ○ ○	Plan																				Expert(s)	Implementation Team	No relevant activity	None.
			Actual																							
4-5	Strengthen capacity of Central Workshop and Infrastructure Department to support Regional Workshops	○ ○ ○ ○ ○ ○ ○ ○	Plan																				Expert(s)	Implementation Team	Capacities for supporting the Regional WSs were strengthened through executing the supervisions and WS Performance Review Meetings	None.
			Actual																							
4-6	Support Workshops to develop a system for sharing knowledge and skills	○ ○ ○ ○ ○ ○ ○ ○	Plan																				Expert(s)	Implementation Team, all WS managers	Two WS Performance Review Meetings were held. NOMAD was improved significantly. Report on WS assessment was shared and the high performing WSs were awarded. These mechanism helps to share performance and issues.	None.
			Actual																							

Duration / Phasing		Plan																									
		Actual																									
Monitoring Plan		Plan		2016				2017				2018				2019				2020				Remarks	Issue	Solution	
		Actual		I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV				
<b>Monitoring</b>		Plan																									
Joint Coordinating Committee		Actual																									
Set-up the Work Plan of Operation		Plan																									
		Actual																									
Submission of Monitoring Sheet		Plan																									
		Actual																									
Monitoring Mission from Japan		Plan																									
		Actual																									
Joint Monitoring		Plan																									
		Actual																									
Post Monitoring		Plan																									
		Actual																									
<b>Reports/Documents</b>		Plan																									
Progress report		Actual																									
Project Completion Report		Plan																									
		Actual																									
<b>Public Relations</b>		Plan																									
		Actual																									
		Plan																									
		Actual																									



### Report on Assessment of Regional Workshops, Feb.-Mar. 2019

Scoring Criteria: 3: Good, 2: Fair, 1: Poor/low, 0: Not Performed

No	PERFORMANCE INDICATORS	Central	Mbale	Soroti	Lira	Gulu	Arua	Hoima	Fort Portal	Kabale	Mubende	Moroto	Jinja	Masaka	Mbarara	Average score
1	Available WS staff for ME maintenance	3	2	2	3	3	3	3	3	2	3	3	2	3	1 <sup>(a)</sup>	2.6
2	Timely release of WS budget to WS team and allocative efficiency	2	2	2	3	3	2	3	1 <sup>(b,c)</sup>	1.5	2	2	1 <sup>(d)</sup>	1 <sup>(a)</sup>	2	2.0
3	ME inventory properly updated and data entered in NOMAD * <b>double score</b> (full mark: 6)	3	0 <sup>(f)</sup>	4	6	3	3	6	6	2	6	2	5	2	2	3.6
4	Job cards and Complaint forms properly prepared and used	2	3	3	2	3	3	3	3	3	2	3	2.5	2	3	2.7
5	Productivity: No. of job cards raised / No. staff involved per quarter >=50	3	2	3	2	2	1 <sup>(b,g)</sup>	2	2	3	0 <sup>(b,g,i)</sup>	0 <sup>(b,g)</sup>	3	2	3	2.0
6	Adequate spare parts purchased in timely manner	86.9	45.7	62.0	35.5	32.8	23.2	33.8	49.2	62.5	6.4	8.2	51.3	41.5	50	2.1
7	Planned Preventive Maintenance periodically carried out for Lab. equipment and other selected equip	2	2	1 <sup>(h)</sup>	2	2	3	3	3	2	2	2	2	2	2	2.3
8	Routine maintenance carried out at least once a quarter for all hospitals and HCIVs	3	1.5	3	3	1 <sup>(e)</sup>	2	2	3	2	2	2	3	2	3	2.3
9	User training planned for and conducted using WS budget	2	2	2	3	3	3	2	3	2	2	2	2	2	2	2.3
10	Availability of integrated Workplan and budget developed by WS staff and RRH management	3	3	2	3	2	2	2	2	3	1 <sup>(b,k)</sup>	3	1 <sup>(i)</sup>	3	2	2.3
11	Timely submission of Quarterly WS progress Reports	3	3	3	3	3	2	3	3	3	1 <sup>(e)</sup>	2	2	3	3	2.6
12	Teamwork and continuous implementation of CQI activities in the WS	1 <sup>(e,i)</sup>	2	3	3	3	1 <sup>(e,i)</sup>	2	3	3	2	3	2	2	2	2.3
TOTAL (Full-mark:39)		30	24	31	35	30	26	33	35	29.5	25	26	27.5	27	27	29.5
TOTAL % (score/39 x 100)		77%	62%	79%	90%	77%	67%	85%	90%	76%	64%	67%	71%	69%	69%	74%
Previous TOTAL %		81%	64%	78%	92%	58%	78%	67%	92%	86%	78%	50%	33%	-	-	71%
Increment (%) from previous score		-4%	-2%	2%	-2%	19%	-11%	18%	-2%	-10%	-14%	17%	37%	-	-	3.9%

[NOTE] (a) WS has not been elevated to regional WS yet. (b) GOU budget comes late. (c) Discrepancy of budget allocation in relation to HID recommendation. (d) Low accountability. (e) Low awareness. (f) Waiting stickers "A-F" before start collecting inventory. (g) Lack of spare parts. (h) No Framework Contract. (i) Poor communication/ teamwork. (k) Budget is too small.

## Abbreviations

CQI	Continuous Quality Improvement
FY	Financial Year
GH	General Hospital
HFQAP	Health Facility Quality of Care Assessment Program
HID/MOH	Infrastructure Department, Ministry of Health
IDI	Infectious Disease Institute
JCC	Joint Coordination Committee
JICA	Japan International Cooperation Agency
KOFIH	Korea Foundation for International Healthcare
ME	Medical Equipment Maintenance
M&E	Monitoring and Evaluation
MOH	Ministry of Health, Uganda
NOMAD	New Order for Managing Anything Data
QAID	Quality Assurance and Inspection Department, Ministry of Health
QC	Quality Control
RH	Referral Hospital
RHITES	Regional Health Integration to Enhance Services
RRH	Regional Referral Hospital
RWS	Regional Workshop
TOT	Training of Trainers
TQM	Total Quality Management
USAID	United States Agency for International Development
UT	User Training
WS	Medical Equipment Maintenance Workshop

To the CR of JICA Uganda Office

**Project Monitoring Report Sheet****Project Title: Improvement of Health Services through Health Infrastructure Management II****Version of the sheet: 7 (Term: 1st June 2019 – 31st December 2019)****Name: Dr. Olaro Charles****Title: Project Director****Name: Hiroshi Tasei****Title: Chief Advisor****Submission Date: 26th February 2020****I. Summary****1 Progress and Achievements of Project****1-1 Progress of Inputs****[The Japanese side]****1-1-1 Dispatch of JICA Experts**

Name	2019							Total (days)
	6	7	8	9	10	11	12	
Hiroshi Tasei Chief Advisor/QI Management System①				73			72	145
Shizu Takahashi Vice Chief Advisor/QI Management System②							31	31
Naoki Take 5S-CQI-TQM①			58				74	132
Yujiro Handa 5S-CQI-TQM②							24	24
Yasuhiro Hiruma Utilization of Medical Equipment							118	118
Naoki Mimuro Maintenance of Medical Equipment							89	89
Emi Onosaka Project Coordinator/Training Management				82			68	150

**1-1-2 Procurement of Desktop Computers for Regional Medical Equipment Maintenance Workshops**

Seven sets of desktop computers were procured by Japanese side for Moroto Regional Workshop (RWS), Soroti RWS, Arua RWS, Mubende RWS, Masaka RWS, Mbarara RWS and Central Workshop.

These computers are exclusively used for data entry for the New Order for Managing Anything Data (NOMAD) inventory system.

**[The Ugandan side]****1-1-3 Assignment of Counterparts**


- (1) Three officials from Uganda's Ministry of Health (MOH) (Director of Health Services, Curative Services; Director of Health Services, Health Governance Regulation; and Commissioner of Clinical Services) participated in a Benchmarking Visit to Kabale RRH in November 2019.
- (2) Two MOH Officials (Commissioner of Clinical Services and Senior Nursing Officer) participated in the Validation Meeting for User Training Guidelines in November 2019.
- (3) One MOH Official (Senior Nursing Officer, Nursing Department) carried out support supervision for User Trainers in September and November 2019.
- (4) One MOH Official (Senior Nursing Officer, Nursing Department) facilitated a User Trainer workshop in October 2019.
- (5) One MOH Official (Senior Engineer, Infrastructure Department (HID)) carried out support supervision for RWSs in October and November 2019.

**1-2 Progress of Activities****1-2-1 Activities of Output 1****(1) Steering Committee Meeting**





<b>Related activities</b> 1-3-1/1-3-2	Every 3 months
<b>Details</b>	<ul style="list-style-type: none"> <li>● The Steering Committee meeting was held at the MOH on July 22, 2019. Four MOH Officials, 7 Project members and 4 members from the JICA Uganda Office participated in this meeting.</li> <li>● The main objectives were: 1) to review the minutes of the discussions of the previous Steering Committee meeting and 2) to discuss the 3rd and 4th quarters of the FY2018/2019 budget for the Project activities.</li> </ul>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>● The minutes of the discussions of the previous Steering Committee meeting were confirmed.</li> <li>● Members were informed that the disbursement of the MOH budget in the 3rd and 4th quarters of FY2018/2019 was 49% and 46% of the planned budget, respectively.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● The MOH will introduce a system in which the all management members in MOH can browse the budget execution status on their own PC. This system will be enabled the efficient planning of activity plans.</li> <li>● The Project budget for each quarter will be discussed at the</li> </ul>

	<p>beginning of each quarter and the necessary funds for activities will be applied for financial section in MOH. The Project Implementation Teams (PIT) will monitor the disbursement of funds for activities to avoid cancellation of activities.</p> <ul style="list-style-type: none"> <li>● Due to the delayed budget execution by Ministry of Finance, Planning and Economic Development, the Project activities by PIT were concentrated in November 2019. Therefore the 6th Steering Committee meeting was rescheduled for February 2020, when the JICA Experts return to Uganda. In place of the 6th Steering Committee meeting, the Project Manager and the Chief Advisor conducted several face-to-face meetings to share the progress of the Project activities.</li> </ul>
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## (2) 6th Annual National Healthcare Quality Improvement Conference

<b>Related activity</b> 1-3-4	Planned in August 2019
<b>Details</b>	<ul style="list-style-type: none"> <li>● The 6th Annual National Healthcare Quality Improvement Conference (QI Conference) was held from December 3-5, 2019.</li> <li>● The Project arranged the keynote speech by Prof. Yujiro Handa on the theme “Bridging the gap of 5S implementation in the improvement of health services at all levels of care”.</li> <li>● The Project supported target hospitals and the MOH in writing abstracts and designing presentations.</li> <li>● The Project supported the meeting to review the abstracts.</li> <li>● The Project facilitated the media coordination for public relations for the Conference.</li> </ul>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>● The 5S-CQI(KAIZEN)-TQM Guidelines were officially launched at the Conference, and 250 copies were delivered to the participants.</li> </ul> <div>  </div> <p style="text-align: center;">Ceremony of Launching 5S-CQI(KAIZEN)-TQM Guidelines</p> <ul style="list-style-type: none"> <li>● At the keynote speech of Prof. Handa, the Project provided Kabale RRH with an opportunity to present how they are moving towards CQI(KAIZEN) and TQM as an example of actualizing the</li> </ul>






	<p>improvement of health services through 5S implementation.</p> <p>The topics of the presentations were:</p> <ol style="list-style-type: none"> <li>① “Beyond 5S-CQI(KAIZEN)” in Upward Spiral of Hospital Management (Prof. Handa)</li> <li>② 5S-CQI(KAIZEN)-TQM in Kabale RRH--An Overview (Dr. Sophie, Director, Kabale RRH)</li> <li>③ Functionalization of Medical Equipment through TQM (Sr. Lilian Bako, Kabale RRH)</li> <li>④ Reducing Wastage of Medicines and Health Supplies in Kabale RRH (Mr. Sam Kyatuka, Kabale RRH)</li> </ol> <p>The audience paid more attention to the keynote speeches by this unique arrangement. The audience seemed to gain a sense of the effectiveness of CQI(KAIZEN) and TQM at health facilities in Uganda.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>①</p>  </div> <div style="text-align: center;"> <p>②</p>  </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <p>③</p>  </div> <div style="text-align: center;"> <p>④</p>  </div> </div> <ul style="list-style-type: none"> <li>● In total, 11 abstracts were accepted from the target hospitals and the MOH: 4 oral and 2 poster presentations from Kabale RRH, 2 oral presentations from Mubende RRH, and 1 oral presentation each from Naguru Referral Hospital (RH), Gulu RRH and MOH.</li> <li>● Conference participants seemed to recognize Kabale RRH as a “Center of Excellence” for quality improvement. MOH officials, especially those who visited the hospital in November (including MOH) repeatedly emphasized how excellent it is.</li> </ul>
<p><b>Way Forward/ Challenges</b></p>	<ul style="list-style-type: none"> <li>● The Project will support Kabale RRH for further steps towards “Centre of Excellence”. Patient safety will be a next theme, while it is necessary to continue improvement of medical equipment</li> </ul>



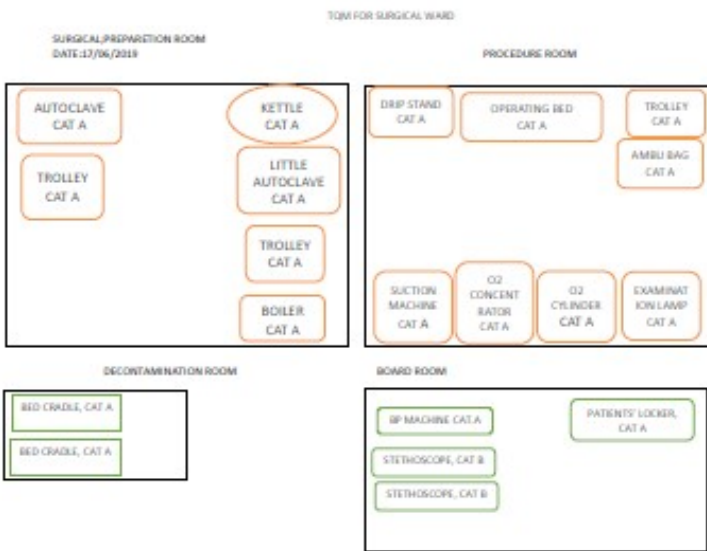
	<p>management. Also, TQM on medical equipment will be extended to several hospitals other than target facilities.</p> <ul style="list-style-type: none"> <li>● MOH will take the lead in sharing good practices at Kabale RRH not only with target facilities but also with health facilities nationwide.</li> </ul>
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### (3) Benchmarking Tour to Kabale RRH

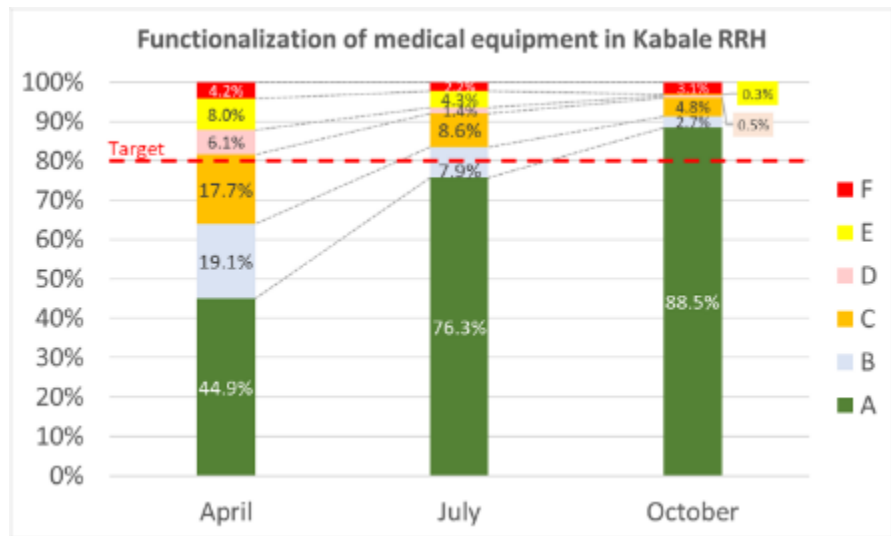
<b>Related activity</b> 1-3-4	Planned in November 2019
<b>Details</b>	<ul style="list-style-type: none"> <li>● Date: 28th November 2019</li> <li>● Venue: Kabale RRH</li> <li>● Participants: 5 target hospitals with poor performance of 5S (Fort Portal RRH, Hoima RRH, Moroto RRH, Soroti RRH and Tororo General Hospital (GH), 3 National Referral Hospitals as entrants of 5S (Mulago, Kawempe and Kiruddu). Three MOH counterparts (Director of Curative Services, Commissioner of Clinical Services, and Commissioner of Standards, Compliance, Accreditation and Patient Protection).</li> <li>● Total number of participants: 24</li> <li>● Objectives:             <ol style="list-style-type: none"> <li>① To provide an opportunity to learn about 5S-CQI(KAIZEN)-TQM practices from other hospitals.</li> <li>② To share Kabale RRH's experience of 5S-CQI(KAIZEN)-TQM implementation.</li> </ol> </li> </ul>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>● The tour was conducted successfully and most of the participants actively took part in all the activities. The participants, especially the top management, asked questions such as how to secure the budget for 5S-CQI(KAIZEN), how to conduct Quality Improvement (QI) trainings and how to involve contract staff and interns in 5S-CQI(KAIZEN). In addition, the Director of Kabale RRH shared her experiences. The practical information and advice given will help the participants to improve their 5S-CQI(KAIZEN) activities.</li> <li>● The tour also provided a good opportunity for Kabale RRH staff to host a group of people who wished to learn about 5S-CQI(KAIZEN)-TQM. All activities were mainly led by members of Kabale RRH's Quality Improvement Team (QIT), with support</li> </ul>

	<p>from the National 5S-CQI(KAIZEN)-TQM facilitators and Working Improvement Teams (WIT), who were well prepared for the observations.</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Presentation by Hospital Director</p> </div> <div style="text-align: center;">  <p>At QI Office with QI Focal Person</p> </div> <div style="text-align: center;">  <p>At Inpatient Pharmacy</p> </div> </div> <ul style="list-style-type: none"> <li>● Allowances and transportation were covered by the MOH.</li> </ul>
<p><b>Way Forward/ Challenges</b></p>	<ul style="list-style-type: none"> <li>● MOH is going to evaluate the results of the benchmarking tour through supervision.</li> </ul>

**(4) TQM at Kabale RRH**

<p><b>Related Activity</b> 1-3-5</p>	<p>Planned from January 2019</p>
<p><b>Details</b></p>	<ul style="list-style-type: none"> <li>● Theme of TQM: Functionalization and usage of medical equipment in all departments.</li> <li>● Target: At least 80% of medical equipment is in good condition and in use.</li> <li>● The following activities have been implemented since the commencement in March 2019:             <ol style="list-style-type: none"> <li>① April: Conducted baseline survey</li> <li>② July-October: Updated status of equipment in each department</li> <li>③ July: Introduced Simple (manual) Geographic Mapping Information System (SGMIS) for equipment</li> <li>④ July: Provided feedback on equipment status in each department</li> <li>⑤ July: Each department identified and implemented countermeasures to improve the status of equipment</li> <li>⑥ August: Conducted a QIT-led analysis of root causes of the status of unwanted medical equipment and implemented countermeasures</li> </ol> </li> </ul> <div style="text-align: center;">  <p style="text-align: center;">A sample of SGMIS (at Surgical Dept)</p> </div> <ul style="list-style-type: none"> <li>● JICA Experts carried out monthly supervision.</li> </ul>
<p><b>Achievements</b></p>	<ul style="list-style-type: none"> <li>● In October, 88.5% of medical equipment at Kabale RRH was in</li> </ul>

good condition and in use. This surpassed the target.



**Way Forward/  
Challenges**

- It is noteworthy that Kabale RRH is mindful of utilizing information such as the status of medical equipment for better management. Once the staff's data analysis skills are upgraded, Kabale RRH can move forward to TQM.
- Kabale RRH is expected to take further steps for quality improvement of their services. Patient safety will be a candidate of the next them.
- MOH is expected to continue supervision to Kabale RRH for TQM with JICA Experts. It will be also a great opportunity for MOH themselves to learn practical methodology of TQM further. MOH will also play a role of spreading information on the achievement of Kabale RRH.

**1-2-2 Activities of Output 2****(1) Development of 5S-CQI(KAIZEN)-TQM Guidelines**

<b>Related Activity</b> 2-1/2-2/2-3	Planned in May-December 2018
<b>Details</b>	<ul style="list-style-type: none"> <li>● The following steps were taken to finalize the guidelines:             <ol style="list-style-type: none"> <li>1) May 2019: JICA Experts prepared the draft guidelines.</li> <li>2) June: Held a workshop to review the draft guidelines. There were 19 participants from the MOH, Kabale RRH, Entebbe RRH, Implementing Partners and a Private Non for Profit organization.</li> <li>3) July: Presented the guidelines at the MOH's Supervision, Monitoring, Evaluation and Research Technical Working Group (SMEAR TWG) after making modifications based on suggestions from the workshop.</li> <li>4) September: Endorsed the guidelines at a MOH Senior Management Committee (SMC) Meeting.</li> </ol> </li> </ul>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>● 5S-CQI(KAIZEN)-TQM Guidelines were officially launched at the 6th QI Conference.</li> <li>● 500 copies of the guidelines were printed; 250 were delivered.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● 5S-CQI(KAIZEN)-TQM Guidelines will be uploaded to the Ministry of Health's Knowledge Management Portal. (<a href="http://library.health.go.ug/">http://library.health.go.ug/</a>)</li> </ul>

**(2) Development of 5S-CQI(KAIZEN)-TQM Facilitators' Guidebook**

<b>Related Activity</b> 2-1	Planned in April-December 2018
<b>Details</b>	<ul style="list-style-type: none"> <li>● After the review by users of the guidebook (MOH and national 5S-CQI(KAIZEN)-TQM facilitators), the following tasks were done:             <ol style="list-style-type: none"> <li>1) The guidebook was proofread by a professional proofreader.</li> <li>2) Photos were added to the guidebook.</li> <li>3) An illustrator was hired to draw illustrations for the guidebook.</li> </ol> </li> </ul>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>● The document was proofread and most of illustrations were completed.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● The guidebook will be finalized in February 2020.</li> </ul>

**(3) Presentation of 5S Performance - 3rd Monitoring and Evaluation (M&E)**




<b>Related Activities</b> 2-2	Anytime as necessary
<b>Details</b>	<ul style="list-style-type: none"> <li>Presented the results of the 3rd M&amp;E of 5S performance at the SMEAR TWG in July, the SMC in September, and the 6<sup>th</sup> QI Conference in December.</li> </ul>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>The MOH and the participants of the 6th QI Conference obtained information on the current performance of 5S.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>None</li> </ul>

**(4) Preparation of 4th M&E of 5S Performance**

<b>Related Activity</b> 2-2	Planned in March 2020
<b>Details</b>	<ul style="list-style-type: none"> <li>Decided to conduct the 4th M&amp;E of 5S performance in January-February 2020.</li> <li>Communicated with target hospitals and national 5S-CQI(KAIZEN)-TQM facilitators to schedule the data collection.</li> </ul>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>A detailed schedule of data collection was fixed.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>Data will be collected in January-February 2020.</li> <li>Data will be analyzed in late February 2020 and the results will be shared in the following months.</li> </ul>

**(5) Advanced 5S-CQI(KAIZEN)-TQM Facilitators' Training**

<b>Related Activity</b> 2-5	Planned in October 2019
<b>Details</b>	<ul style="list-style-type: none"> <li>The purpose of this face-to-face training was to enable facilitators to lead the instruction of 5S-CQI(KAIZEN)-TQM accurately and effectively after the end of the Project.</li> <li>Date and Venue: 20-22nd November 2019, in Kampala.</li> <li>Facilitators: 4 participants were chosen from selected hospitals (Entebbe, Hoima, Kabale and Mubende) with consideration their mobility to go any health facilities whenever and wherever they are asked to train and supervise 5S-CQI(KAIZEN)-TQM, sufficient experiences as facilitators in and outside the hospital they are working in, and adequate computer skills.</li> </ul>

	<ul style="list-style-type: none"> <li>● Facilitators of the training: Prof. Yujiro Handa and Ms. Shizu Takahashi.</li> <li>● Objectives of the training:             <ol style="list-style-type: none"> <li>1) To enable participants to perfectly understand and explain the “pyramid of management” and “5S principles”.</li> <li>2) To learn how to make a presentation using cards.</li> <li>3) To prepare effective PowerPoint presentations by oneself.</li> <li>4) To acquire basic skills in Microsoft Excel, such as the use of formulas and functions, and the proper selection of graphs.</li> </ol> </li> </ul> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Participants developing presentation with cards</p> </div> <div style="text-align: center;">  <p>Participants doing an exercise during the presentation</p> </div> </div>
<p><b>Achievements</b></p>	<ul style="list-style-type: none"> <li>● Generally, all participants acquired most of the skills and were certified as “advanced 5S-CQI(KAIZEN)-TQM facilitators”. They can develop their own presentations on the “pyramid of management” and “5S principles”. Participants need to improve their Excel skills through continuous use.</li> <li>● Four advanced facilitators utilized the presentations developed in this training at the Benchmarking Tour to Kabale RRH on 28th November 2019. They all performed well. Participants of the tour appreciated their instruction, especially the presentation using cards.</li> </ul> <div style="text-align: right;">  <p>An advanced facilitator making a presentation with cards</p> </div>
<p><b>Way Forward/ Challenges</b></p>	<ul style="list-style-type: none"> <li>● The MOH is expected to utilize these 4 advanced facilitators to roll out 5S-CQI(KAIZEN)-TQM nationwide by mobilizing them for other 5S projects implemented by other IPs.</li> </ul>

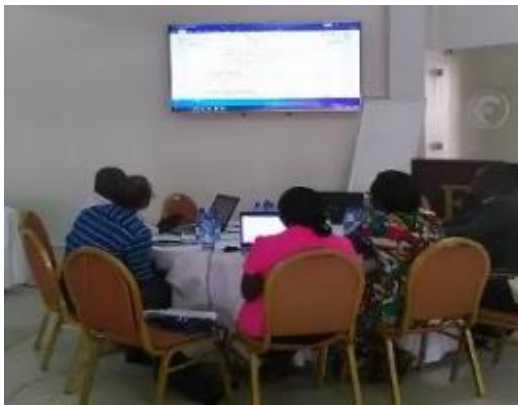

**(6) Supervision of 5S-CQI(KAIZEN)-TQM**

<b>Related Activity</b> 2-6/2-8	Started from June 2018
<b>Details</b>	<ul style="list-style-type: none"> <li>• The following hospitals have been supervised from June 2019 to date: Moroto RRH (24th Jun.), Soroti RRH (25-26th Jun.), Mbale RRH (26-27th Jun. and 17th Oct.), Tororo GH (27-28th Jun. and 18th Oct.), Lira RRH (2-3rd Jul.), Gulu RRH (3-4th Jul.), Fort Portal RRH (8th Jul.), Mubende RRH (9-10th Jul.), Entebbe RRH (12th Jul.), Hoima RRH (25th Jul.), Masaka RRH (29th Jul.), Mbarara RRH (22nd Aug.), Naguru RH (28th Aug.), Jinja RRH (16th Oct.) and Arua RRH (24th Oct.).</li> <li>• Three National Referral Hospitals (Mulago, Kawempe and Kiruddu) were also supervised in August and September 2019.</li> </ul>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>• Target hospitals except Entebbe and Naguru, the Project provided advice for the improvement of 5S performance, especially in terms of leadership and standardization.</li> <li>• Entebbe: The Project advised usage of a CQI(KAIZEN) board for the implementation of small CQI(KAIZEN).</li> <li>• Naguru: The Project advised the start-up of CQI(KAIZEN), including staff training.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>• All hospitals are expected to use advice from the Project to improve their performance of 5S and CQI(KAIZEN).</li> </ul>

**1-2-3 Activities of Output 3****(1) Development of User Training (UT) Guidelines**


<b>Related to activity 3-1</b>	Planned in June 2018-March 2019
<b>Details</b>	<ul style="list-style-type: none"> <li>• The following steps were taken to finalize the guidelines: <ol style="list-style-type: none"> <li>1) September 2019: MOH staff and JICA Experts prepared a draft of the guidelines.</li> <li>2) November 2019: A workshop was held to verify the guidelines. Participants were: 2 MOH staff members, 6 RRH hospital directors, 8 User Trainers, 1 HID staff member, JICA Experts, and secretaries.</li> <li>3) December 2019: Clinical Care and Infrastructure TWG pointed out necessity of the responsible department of the User</li> </ol> </li> </ul>



	<p>Training activities in MOH, and did not approve the draft as an official MOH document. Participants were: 5 MOH staff members, 2 RRH hospital directors, 1 HID staff member, JICA Experts and secretaries.</p>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>• The UT guidelines were verified in the workshop and the draft was in place.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>• Approval at the Clinical Care and Infrastructure TWG meeting, Senior Management Committee Meeting (SMC) and Top Management Meeting (TMM) is required for finalization of the guidelines.</li> <li>• The MOH is going to determine responsible department of UT by February.</li> <li>• After approval of the guidelines and manuals, it is necessary to prepare for printing.</li> </ul>
	
Guideline verification workshop	Clinical Care and Infrastructure TWG review

**(2) User Training Workshop (The 4th User Trainer Refresher Training and the 5th Training of Trainers (TOT))**

<b>Related to activity 3-2, 3-3</b>	<p>Planned in April 2019 Planned in October 2019</p>
<b>Details</b>	<ul style="list-style-type: none"> <li>• A UT workshop was held at the Entebbe RRH meeting room from 28-31st October 2019. Participants included a MOH official, 35 User Trainers, JICA Experts and a secretary.</li> <li>• The UT workshop conducted the following activities:             <ol style="list-style-type: none"> <li>1) Editing and review of User Training Guidelines</li> <li>2) Experience-sharing with other trainers</li> <li>3) Methods for improving users' attitudes on training session</li> </ol> </li> </ul>

	4) Discussion on maintaining sustainability after project completion
<b>Achievements</b>	<ul style="list-style-type: none"> <li>● All User Trainers reviewed and edited the guidelines.</li> <li>● User Trainers learned examples of activities, such as SGMIS at Kabale RRH and training of assistant trainers at Fort Portal RRH.</li> <li>● User Trainers learned effective teaching methods.</li> <li>● The following was decided on regarding the sustainability of activities:             <ol style="list-style-type: none"> <li>1) Secure the budget for activities.</li> <li>2) Submit work plans and reports at the right time.</li> <li>3) Strengthen relationships with other IPs.</li> <li>4) Strengthen relationships with the Director, Principal Health Administrator and Medical Equipment Maintenance Workshop (WS) Manager.</li> </ol> </li> </ul> 
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● User Trainers are needed to constantly raise awareness and develop activities.</li> <li>● Utilize Social Network Systems (SNS) and other means of communication to strengthen the relationship among User Trainers.</li> <li>● Periodical meeting among hospital management members, user trainers and WS staff is necessary to find medical equipment condition in each facility and to discuss efficient plan for user training.</li> <li>● Both User Trainers and WS staff are required to monitor medical equipment for proper management.</li> <li>● Funding for user training activities in hospitals and lower health facilities is required.</li> </ul>

**(3) Support Supervision**

<b>Related to activity 3-4</b>	Planned from September 2018-May 2020.
<b>Details</b>	<ul style="list-style-type: none"> <li>● The following hospitals were supervised from September to November 2019: Kabale RRH (9th Sep.), Fort Portal RRH (10th Sep.), Mubende RRH (11th Sep.), Entebbe RRH (13th Sep.), Lira RRH (16th Sep.), Hoima RRH (17th Sep.) Naguru RH (18th Sep.), Arua RRH (25th Nov.), Gulu RRH (26th Nov.), Soroti RRH (27th Nov.), Moroto RRH (28th Nov.), Mbale RRH (29th Nov.), Jinja RRH (4th Dec.),</li> </ul>

	<p>Masaka RRH (5th Dec.), Mbarara RRH (6th Dec.).</p> <ul style="list-style-type: none"> <li>● The main objectives were as follows: <ol style="list-style-type: none"> <li>1) Confirm and provide guidance on UT implementation status and action plan progress.</li> <li>2) Provide advice on improving the utilization rate of medical equipment.</li> <li>3) Check the status of the collaboration between the User Trainers and the WS.</li> <li>4) Explain SGMIS.</li> <li>5) Share the results on the sustainability of the activities discussed at the UT workshop.</li> <li>6) Explain the equipment status and response, based on the results of the inventory data analysis.</li> </ol> </li> </ul>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>● User Trainers continued to conduct UT at target hospitals and lower health facilities.</li> <li>● Necessity of UT on category B medical equipment were shared among User Trainers.</li> <li>● As a result of UT, the utilization rate of medical equipment at Arua, RRH, Kabale RRH, Masaka RRH, Jinja RRH, and Mubende RRH has improved.</li> <li>● Good practices found in Fort Portal RRH and Mubende RRH: The necessary costs for UT activities were discussed and determined between User Trainers and the Director at Fort Portal; At Mubende, the manager cooperated with the User Trainers' activities.</li> <li>● At Kabale RRH, the 5S, UT and ME teams have jointly created a simple (manual) geographic mapping information system for equipment.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● Operational status of medical equipments have been improved due to the work of ME. On the other, the management level of Arua, Masaka and Lira has not yet understood the necessity of in-hospital UT and adequate budget allocation. Therefore it is necessary for MOH to inform each facility on the importance of UT for improving the infrastructure management of the facility.</li> </ul>



Results report and consultation






Simulated training by trainer

1-2-4 Activities of Output 4

(1) Training on Maintenance of Basic Medical Equipment




<p><b>Related activity 4-3</b></p>	<p>Planned from November-December 2019.</p>																																																																											
<p><b>Details</b></p>	<ul style="list-style-type: none"> <li>● Date and Venue: 4-8th November 2019 at Jinja RRH, including hands-on practice at Lganga GH from 15:00 to 18:00 on 7th November.</li> <li>● Targeted equipment: 5 items (microscope, centrifuge, hot air oven, table-top autoclave and horizontal large autoclave)</li> <li>● Participants: 23 technicians from the WSS and general hospitals</li> <li>● Facilitators: 3 in total: 1 lecturer and 1 assistant lecturer from Makerere University and 1 service engineer from the local distributor of Tuttnauer autoclaves</li> <li>● Objectives: To learn the basic operation and functions of the targeted equipment, as well as common mistakes, basic maintenance and trouble-shooting techniques, through lectures and hands-on practice</li> </ul>																																																																											
<p><b>Achievements</b></p>	<ul style="list-style-type: none"> <li>● The average test results were 46% for the pre-test and 79% for the post-test. The average score rose by 33%, and knowledge and skills were greatly improved.</li> </ul> <div> <table border="1"> <caption>Scores (%) for 23 Participants</caption> <thead> <tr> <th>Participant</th> <th>Pre-Test (%) A</th> <th>Post-Test (%) B</th> </tr> </thead> <tbody> <tr><td>1</td><td>46.6</td><td>79</td></tr> <tr><td>2</td><td>47.9</td><td>85</td></tr> <tr><td>3</td><td>43.8</td><td>78</td></tr> <tr><td>4</td><td>37.7</td><td>64</td></tr> <tr><td>5</td><td>38.4</td><td>77</td></tr> <tr><td>6</td><td>43.2</td><td>73</td></tr> <tr><td>7</td><td>35.6</td><td>84</td></tr> <tr><td>8</td><td>51.4</td><td>82</td></tr> <tr><td>9</td><td>43.2</td><td>74</td></tr> <tr><td>10</td><td>49.3</td><td>79</td></tr> <tr><td>11</td><td>52.1</td><td>79</td></tr> <tr><td>12</td><td>47.9</td><td>88</td></tr> <tr><td>13</td><td>34.9</td><td>71</td></tr> <tr><td>14</td><td>35.6</td><td>71</td></tr> <tr><td>15</td><td>60.3</td><td>82</td></tr> <tr><td>16</td><td>53.4</td><td>88</td></tr> <tr><td>17</td><td>29.5</td><td>60</td></tr> <tr><td>18</td><td>55.5</td><td>86</td></tr> <tr><td>19</td><td>58.2</td><td>91</td></tr> <tr><td>20</td><td>37.7</td><td>68</td></tr> <tr><td>21</td><td>41.8</td><td>79</td></tr> <tr><td>22</td><td>63.0</td><td>90</td></tr> <tr><td>23</td><td>51.4</td><td>84</td></tr> <tr><td>Average</td><td>46.6</td><td>79</td></tr> </tbody> </table> </div> <ul style="list-style-type: none"> <li>● The trainees learned about the mechanism of the demo equipment and acquired skills by disassembling and assembling the equipment (hands-on practice). Notably, during the practice at Iganga Hospital, trainees repaired a non-functional autoclave using their newfound knowledge.</li> </ul>	Participant	Pre-Test (%) A	Post-Test (%) B	1	46.6	79	2	47.9	85	3	43.8	78	4	37.7	64	5	38.4	77	6	43.2	73	7	35.6	84	8	51.4	82	9	43.2	74	10	49.3	79	11	52.1	79	12	47.9	88	13	34.9	71	14	35.6	71	15	60.3	82	16	53.4	88	17	29.5	60	18	55.5	86	19	58.2	91	20	37.7	68	21	41.8	79	22	63.0	90	23	51.4	84	Average	46.6	79
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<p><b>Way Forward/</b></p>	<ul style="list-style-type: none"> <li>● Funding from the Uganda side was released without delay</li> </ul>																																																																											

<p><b>Challenges</b></p>	<p>and accounted for 61.8% of the total cost. The amount released from the Uganda side was substantially (30-40%) more than expected, due to the stable ownership of the HID and Central WS.</p> <ul style="list-style-type: none"> <li>● After the training, each trainee was assigned the following activities in order to put their newfound knowledge into practice:             <ol style="list-style-type: none"> <li>1) Submit a training report to the Director, with a copy to the HID.</li> <li>2) Conduct a feedback session to share the training materials and acquired knowledge with other technicians.</li> <li>3) Carry out basic maintenance (at least 3 units of each targeted piece of equipment) within 3 months.</li> </ol> </li> </ul>		
			
<p>Lecture (Microscope)</p>	<p>Testing function (Centrifuge)</p>	<p>Troubleshooting (Autoclave)</p>	

**(2) Training on Testing and Calibration of Medical Equipment (Advanced Course)**

<p><b>Related activity 4-4</b></p>	<p>Planned from July-August 2019.</p>
<p><b>Details</b></p>	<ul style="list-style-type: none"> <li>● Title: Training on Testing and Calibration of Medical Equipment</li> <li>● Date and Venue: 21-25th October 2019 at Jinja RRH</li> <li>● Targeted Areas: The science of calibration; principles of ISO 17025 (the standard for testing and calibration laboratories); safety considerations; use of an electrical safety analyzer; and calibration for temperature, mass, pressure and rotation.</li> <li>● Participants: 27 engineers and technicians from the WSs</li> <li>● Facilitators: 2 experienced engineers who formerly worked at the Uganda National Bureau of Standards (UNBS).</li> <li>● Objectives: To learn the science of measurement and calibration, principles of the ISO 17025 standard, and how to use testing and calibration devices (the electrical safety analyzer, tachometer, thermometer, etc.) through lectures and hands-on practice.</li> </ul>



<p><b>Achievements</b></p>	<ul style="list-style-type: none"> <li>● The average scores from pre-test and post-test improved as follows: <table border="1"> <thead> <tr> <th>Pre-Test</th> <th>Post-Test</th> <th>Change</th> </tr> </thead> <tbody> <tr> <td>44.5%</td> <td>78.8%</td> <td>34.3% UP</td> </tr> </tbody> </table> </li> <li>● As shown in the above results, the level of knowledge was greatly improved through this training.</li> <li>● The hiring of qualified facilitators was a key factor in the success of the training.</li> <li>● This was the first training on electrical safety and the functions of common medical equipment, as a first step in popularizing preventive maintenance.</li> <li>●</li> </ul>	Pre-Test	Post-Test	Change	44.5%	78.8%	34.3% UP
Pre-Test	Post-Test	Change					
44.5%	78.8%	34.3% UP					
<p><b>Way Forward/ Challenges</b></p>	<ul style="list-style-type: none"> <li>● The training was held in October, two months behind schedule, due to budget delays in the 1st quarter of FY2019/20. However, there was no negative impact on the activities.</li> <li>● Funds from the Uganda side were released smoothly, accounting for 57.3% of the total cost.</li> </ul>						
							
<p>Electrical safety (Monitor)</p>	<p>Pressure test (Scale)</p>	<p>Rotation test (Centrifuge)</p>					

**(3) 24th and 25th WS Performance Review Meetings**



<p><b>Related activity 4-5</b></p>	<p>At least twice a year (Year-round activity)</p>
<p><b>Details</b></p>	<ul style="list-style-type: none"> <li>● Two quarterly WS Performance Review Meetings were held: at Mbale on 30th August 2019 (24th Meeting) and at Soroti on 22nd November 2019 (25th Meeting). The number of participants and stakeholders at each meeting was 65 and 62, respectively.</li> <li>● The main objectives were: 1) communication from the HID, 2) quarterly performance reports from each WS, 3) activity reports from User Trainers, and 4) discussions, recommendations and meeting resolutions. For the 25th meeting, the following 2 items were added to the agenda: 5) A brief presentation from the Atomic Energy Council on managing radiology equipment, and 6) A brief presentation from the distributor of Tuttnauer autoclaves, Nairobi</li> </ul>

	Enterprises (Ug) Ltd.
<b>Achievements</b>	<ul style="list-style-type: none"> <li>● These meetings were recognized as a platform for sharing budget performances, WS productivity and issues related to activities 1-3-2, 4-5 and 4-6.</li> <li>● The quality of the WS's report and presentation skills has been improving with repeated experiences of preparation.</li> <li>● The participants voiced their appreciation for JICA's continuing support, including the provision of 7 computers.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● The allowance and transportation expenses were covered by each WS budget.</li> <li>● The maintenance contract for the RRHs' Oxygen Production Plants, which was concluded 2 years ago, was found to be expired soon. For sustainable oxygen supply, the contract is needed to be extended. The RRH directors are highly recommended to take the lead in securing funding for this.</li> <li>● Inventory management has stagnated in some WSs due to PC failure. As 7 computers have been donated by the Project, it is expected that these issues will be resolved in the near future.</li> <li>● The next meeting will be hosted by Moroto RRH in Mar./Apr. 2020.</li> </ul>



**(4) Support Supervision for WSs**

<b>Related activities 4-5 and 4-6</b>	Twice a year (Year-round activity)																
<b>Details</b>	<ul style="list-style-type: none"> <li>● Two rounds of support supervision were carried out according to the following schedule: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">1st Round (June-July 2019) for 13 WSs</td> </tr> <tr> <td>10-14th Jun.</td> <td>Mubende, Fort Portal, Kabale, Mbarara, Masaka</td> </tr> <tr> <td>24-26th Jun.</td> <td>Moroto, Soroti, Mbale, Jinja</td> </tr> <tr> <td>8-12th Jul.</td> <td>Lira, Gulu, Arua, Hoima</td> </tr> <tr> <td colspan="2">2nd Round (October-December 2019) for 14 WSs</td> </tr> <tr> <td>7-16th Oct.</td> <td>Lira, Gulu, Arua, Hoima, Naguru</td> </tr> <tr> <td>18-21st Nov.</td> <td>Jinja, Mbale, Moroto*, Soroti*</td> </tr> <tr> <td>2-6th Dec.</td> <td>Masaka*, Mbarara*, Kabale, Fort Portal, Mubende</td> </tr> </table> </li> <li>* The Project provided the above 4 WSs with dedicated computers for inventory management.</li> <li>● The agenda mainly covered 5 areas: 1) inventory management using the NOMAD database; 2) proper preparation of annual work plans, quarterly performance reports and budgets 3) reduction of the equipment status “B”, “C” and “E”; 4) user training implementation; and 5) 5S-CQI (KAIZEN) follow-up.</li> </ul>	1st Round (June-July 2019) for 13 WSs		10-14th Jun.	Mubende, Fort Portal, Kabale, Mbarara, Masaka	24-26th Jun.	Moroto, Soroti, Mbale, Jinja	8-12th Jul.	Lira, Gulu, Arua, Hoima	2nd Round (October-December 2019) for 14 WSs		7-16th Oct.	Lira, Gulu, Arua, Hoima, Naguru	18-21st Nov.	Jinja, Mbale, Moroto*, Soroti*	2-6th Dec.	Masaka*, Mbarara*, Kabale, Fort Portal, Mubende
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<b>Achievements</b>	<ul style="list-style-type: none"> <li>● The HID &amp; JICA Experts were able to visit all Regional WSs two times. This includes Matoro WS in Karamoja Region, which was not initially planned to visit due to the security reasons.</li> <li>● Agenda items 1) to 4) (above) have been progressing in most WSs.</li> <li>● During the supervisions, the User Trainers reported their achievements and key challenges. Through these collaborations, integrated supervision for Output 1 is being promoted.</li> </ul>																
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● The Central WS manager and senior technician have participated in this activity as supervisors in connection with Activity 4-5, strengthening the capacities of the Central WS.</li> <li>● Many WSs have maintained 5S activities, but they are still confusing the meaning of 5S and CQI (KAIZEN). Refresher training by the WS team is required to develop proper CQI(KAIZEN) action plans.</li> <li>● The managerial capacity of new WSs, such as Masaka, Mbarara, Jinja and Moroto, is not enough compared with the other WSs.</li> </ul>																

Further support for these WSs is required.	
	
Discussion with WS team, Moroto	5S in tools storage, Mbarara

#### (5) Enhancement of Medical Equipment Inventory Update and Analysis

<b>Related activity 4-2</b>	Year-round activity
<b>Details</b>	<ul style="list-style-type: none"> <li>● The Project provided computers to WSs whose inventory management had stagnated due to computer problems.</li> <li>● The Project, HID, and Infectious Disease Institute (IDI) IT team have constantly provided coaching to WSs on the use of NOMAD software and data analysis through support supervisions.</li> <li>● The RRHs' inventories were analyzed, as mentioned below.</li> </ul>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>● Seven dedicated computers for inventory management were procured, installed and handed over to the WSs (Arua, Soroti, Moroto, Masaka, Mbarara, Mubende and Central).</li> <li>● The computer procurement was a success because of the collaboration between related parties. JICA procured the computers, UPSs and anti-virus software, and IDI provided and installed Microsoft Windows, Office and NOMAD software. After receiving the computers, the WSs are taking responsibility for computer maintenance and anti-virus updates.</li> <li>● The NOMAD national database is regularly updated. As of December 2019, more than 45,000 items and 74,000 pieces of equipment have been registered nationwide.</li> <li>● Based on the analysis, the average percentages of conditions "A", "B" and "C+E" as Project indicators have gradually improved from the baseline data. In particular, conditions "A" and "B" have achieved their respective goals.</li> <li>● The stagnation of inventory updating, and analysis has been resolved through computer procurement.</li> </ul>

<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● Condition “C+E”, the indicator of Output 4, has not yet been achieved due to the various constraints, as mentioned below chapter 1-5. It is important to address the reduction of these constraints.</li> <li>● A quarterly reporting system of equipment inventory analysis was started by each WS following the new quarterly report format in July 2019. Evidence-based planning and budgeting using these inventory data is expected.</li> </ul>
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Table 1: Medical Equipment Inventory Analysis Report of RRHs, December 2019

No	Name of RRH	Equipment Condition (%)						TOTAL	C+E (<15%)
		A (>70%)	B (<4%)	C	D	E	F		
1	Arua	92.4%	0.4%	2.3%	1.0%	2.3%	1.7%	100%	4.6%
2	Gulu	91.1%	1.3%	3.5%	0.6%	2.5%	0.9%	100%	6.1%
3	Lira	82.1%	8.2%	2.9%	1.8%	3.2%	1.9%	100%	6.0%
4	Soroti	(Not yet uploaded to NOMAD)							
5	Moroto	64.1%	5.8%	6.8%	2.8%	17.8%	2.7%	100%	24.6%
6	Hoima	67.3%	4.2%	15.4%	3.4%	4.0%	5.7%	100%	19.3%
7	Fort Portal	93.6%	0.8%	4.7%	0.2%	0.5%	0.2%	100%	5.2%
8	Kabale	86.6%	3.7%	1.8%	1.8%	3.5%	2.6%	100%	5.4%
9	Mubende	89.7%	0.5%	4.0%	0.7%	2.1%	3.1%	100%	6.1%
10	Masaka	74.2%	1.6%	12.8%	5.7%	4.7%	1.1%	100%	17.5%
11	Jinja	59.5%	6.1%	17.6%	9.1%	5.3%	2.4%	100%	22.8%
12	Naguru	71.9%	8.2%	12.2%	0.4%	6.3%	1.1%	100%	18.5%
13	Mbale	61.5%	1.3%	30.5%	2.2%	2.4%	2.1%	100%	32.9%
14	Mbarara	66.9%	6.9%	6.9%	0.3%	15.7%	3.4%	100%	22.5%
Average (13 out of 14)		<b>76.6%</b>	<b>3.5%</b>	<b>10.7%</b>	<b>2.6%</b>	<b>4.5%</b>	<b>2.2%</b>	<b>100%</b>	<b>15.2%</b>
Mid (Apr. 2019)		<b>76.2%</b>	<b>3.5%</b>	<b>11.5%</b>	<b>2.6%</b>	<b>4.1%</b>	<b>2.2%</b>	<b>100%</b>	<b>15.6%</b>
Baseline (2016)		<b>65.1%</b>	<b>5.1%</b>	<b>17.9%</b>	<b>3.5%</b>	<b>4.2%</b>	<b>4.3%</b>	<b>100%</b>	<b>22.1%</b>

A: In good and in use

C: In use but needs repaired

E: Out of order but repairable

B: Good but not in use

D: In use but needs replacement

F: Out of order should be replaced

**(6) Update and Develop WS Operation Manuals, Guidelines and Monitoring Tools**

<b>Related activity 4-1</b>	Planned from May-December 2018
<b>Details</b>	<ul style="list-style-type: none"> <li>● The WS Operation Manual has not yet been fully revised because the trainings and support supervisions were prioritized.</li> <li>● However, documents that are widely used in routine work were developed, as a part of the Manual.</li> </ul>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>● The following templates were revised and/or newly developed: <ul style="list-style-type: none"> <li>- Quarterly Performance Report</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>- Quarterly PowerPoint Presentation</li> <li>- Job Card</li> <li>- Maintenance Requisition Form (former Complaint Form)</li> <li>- Consolidated Annual Work Plan, including partners' activities</li> <li>● Currently, the Standard Operating Procedures (SOP) for planned preventive maintenance are being prepared.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● The new WS Operation Manual is going to be published within the Project period through the following procedure: <ul style="list-style-type: none"> <li>- Twenty-nine SOPs for commonly maintained equipment will be prepared by all WS teams by December 2019.</li> <li>- The chapters that need to be updated will be revised by the HID and the Project by February 2020.</li> <li>- The above SOPs and the chapters will be finalized through the next management training by March 2020.</li> <li>- The new Manual will be published by April 2020.</li> </ul> </li> </ul>

## (Other activities)

- [ME] The Project has given proactive support for two in-house WSs in Masaka and Mbarara to be upgraded from in-house level to the regional level.
- [ME] The JICA Expert supported the selection of candidates for the JICA training “Medical Equipment Management and Maintenance”, which will be held in Japan early next year. Although there was originally only one slot for Uganda, in the end two technicians were selected.
- [ME] The JICA Expert and a local Project staff member assisted at the “Workshop to Update Medical Equipment Policy (Equipment Specifications) for Equipment at Health Center (HC) III and IV”, hosted by the Uganda Reproductive Maternal and Child Health Services Improvement Program under the World Bank.

**1-3 Achievement of Output****1-3-1 Summary of Achievements**

**Output 1:** In July 2019, the Steering Committee members discussed the efficient utilization of the budget and agreed on the budget allocation rates for both the Ministry of Health and the Japanese side. The 6th Steering Committee meeting was rescheduled to February 2020, when JICA Experts return to Uganda, because of tight schedules in PITs. To ensure full communication, the Project Manager and Chief Advisor conducted several face-to-face meetings.

Through the Steering Committee meeting and face-to-face meetings, mutual understanding on

project progress among the members was deepened, and improvements were made in the efficiency of activities for health infrastructure management, such as the progression of 5S-CQI (KAIZEN) activities in WS, and cooperation between User Trainers and WS. The continuation of these meetings will enable the formulation of an efficient action plan.

The MOH was able to contribute 46% of the total cost of the Project activities from July to December 2019. The MOH's budget execution at the beginning of the fiscal year is likely to be delayed, but the Department in charge has prioritized the budget allocation for the Project activities to prevent delays in activities.

<b>Output 1</b>	
<b>Supporting/supervising system for health infrastructure management of all the RRHs is strengthened in the MOH.</b>	
<b>Current Indicators</b>	<b>Achievements</b>
<p><b>1-1</b></p> <p><b>The Project Steering Committee meeting is conducted every three months.</b></p>	<p>The Steering Committee meetings were conducted on nearly every three months. Detailed dates are as follows</p> <ol style="list-style-type: none"> <li>1) 29th May 2018</li> <li>2) 17th September 2018</li> <li>3) 27th November 2018</li> <li>4) 2nd February 2019</li> <li>5) 22nd July 2019</li> </ol> <p>The 6th Steering Committee meeting was rescheduled for February 2020, when the JICA Experts return to Uganda. In place of the 6th Steering Committee meeting, the Project Manager and the Chief Advisor conducted several face-to-face meetings to share the progress of the Project activities.</p>
<p><b>1-2</b></p> <p><b>The results of integrated support supervision conducted by Project Implementation Teams, and the next quarter action plan developed from these results, are shared and approved at every Project Steering Committee meeting.</b></p>	<p>The work plan and activity budget for the new fiscal year were approved at the Steering Committee meeting held on 22nd July 2019.</p>

<p><b>1-3</b> The roadmap for incorporating the Project activities into the policy and systems of MOH is established and implemented by the Project Steering Committee.</p>	<p>The budget for FY2019/2020 was executed. However, the activity budget for each department in the 1st quarter of 2019/2020 was not enough.</p>
<p><b>1-4</b> The Project activities are successfully incorporated into the Ministerial Policy Statement of Ministry of Health.</p>	<p>Based on discussions of the 3rd Joint Coordination Committee (JCC) in 2018, the MOH promised to bear some part of the cost for each department's FY2019/2020 operational budget. Forty-five per cent of the total Project activity cost was covered by the MOH under the operational budget.</p>

**Output 2:** As described below, 7 out of 17 target hospitals reached target set in Indicator 2-2 and 2 hospitals have good prospects to achieve it. The work environment in these hospitals is improving year by year through the 5S practice, although the target of Output 2 has not been achieved perfectly. It is necessary to continue supervision to keep the momentum going. The supervision of 5S-CQI (KAIZEN)-TQM is a leading contributor of current performance. It provides an opportunity for each hospital staff member to reaffirm the problems specific to their section and offer feasible solutions. The training of 5S-CQI (KAIZEN)-TQM facilitators also played an important role, as they improved their supervisory skills within their hospitals. 7 hospitals with scores below the target are needed to improve the score of top management and QIT (formulation of action plan, implementation of internal supervision and M&E, etc.), leadership at unit/department level (e.g. formulation of action plan, implementation of internal training, etc.) and standardize (development of checklist and SOP).

<p><b>Output 2 [Project Implementation Team: 5S-CQI-TQM]</b> Resource management and quality improvement activities are strengthened through CQI approach in all RRHs.</p>	
<p><b>Current Indicators</b></p>	<p><b>Achievements</b></p>
<p><b>2-1</b> Score of Module 1 (Leadership) and 6 (Health Infrastructure) Health Facility</p>	<p>The MOH collected data from 10 target hospitals. The scores will be shared with the</p>

<p><b>Quality of Care Assessment program (HFQAP) Facility Assessment Tool</b></p> <p>- All RRHs mark (i) 5 points out of 8 as full marks for module 1 and (ii) 6 points out of 10 as full marks for module 6.</p>	<p>JICA Expert soon after their analysis.</p>
<p><b>2-2</b></p> <p><b>Score of modified 5S M&amp;E Sheet in 5S-CQI-TQM Guidelines</b></p> <p>- All RRHs mark 33 points out of 54 as full marks for at least two consecutive years.</p>	<p>Seven out of 17 hospitals reached the target (60%): Arua, Entebbe, Jinja, Kabale, Mbale, Mbarara and Mubende.</p> <p>Two hospitals, Masaka and Naguru, have good prospects to achieve the target at the 4th M&amp;E. (See Figure 1)</p>

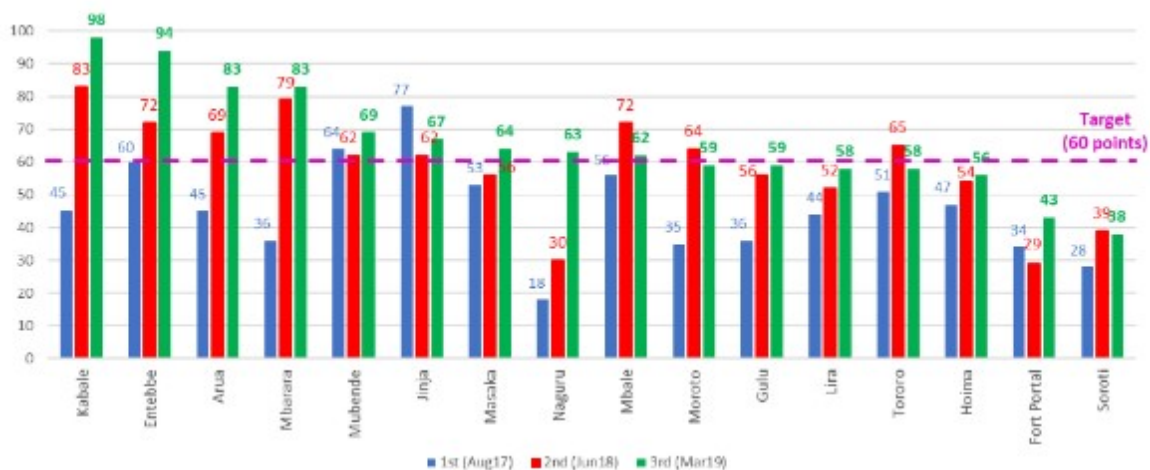


Figure 1: The results of 5S M&E by hospital

**Output 3:** The number of regional User Trainers reached targets in 13 out of 15 hospitals, but was not achieved in Hoima and Mbarara RRH. The regional trainers at the 2 hospitals will conduct TOTs by the end of the 3rd quarter of 2019/2020.

The average percentage of equipment status “B” (3.5%) has been achieved, and 7 out of 13 hospitals improved more than the baseline (5.1%).

JICA Experts and MOH provided guidance on the medical equipment inventory data analysis at the supervision. As a result, the status of medical equipment in the facility were obtained, and User Trainers in the facility provided UT to the hospital staffs according to the analysis of medical equipment inventory.

<b>[Project Implementation Team: UT]</b>																																																								
<b>Proper utilization of medical equipment through UT is improved in all RRHs.</b>																																																								
<b>Current Indicators</b>		<b>Achievements</b>																																																						
<b>3-1</b> <b>There are at least two regional User Trainers at all RRHs.</b>		The number of User Trainers is shown below:																																																						
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<b>3-2</b> <b>The number of UT conducted by regional User Trainers is more than three per year in every region.</b>		The number of UTs is shown below:																																																						
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Masaka	2																																																							
		*For the period from July to November 2019																																																						
<b>3-3</b> <b>The average percentage of medical equipment in status B at all RRHs is not higher than 4%.</b>		Baseline: 5.1% Current data: 3.5% (The details are shown in Table 1.)																																																						



**Output 4:** Following the first half of 2019, the activities for the ME component were implemented smoothly despite the tight schedule, including the two trainings, the WS Performance Review Meetings, and the support supervision visits.

In the two trainings, both average scores rose by 33% above more than expected (>15%). In regard to 5S activities, most WSs have continued their 5S activities and maintained a high level of orderliness and cleanness. User Trainings have progressed using the WS budget, and collaboration between the WSs and User Trainers has been strengthened.

Although the average percentage of equipment in status “C+E” (15.2%) was a bit higher than the expected goal (<15%), it decreased substantially from the baseline (22.1%). In addition, the funds from the Uganda side were released without delay, and the amount was higher than planned, indicating strong ownership on the Uganda side.

According to these positive results, it can be said that the Project activities contributed to the improvement of WS maintenance and management capacities, which is the goal of Output 4. These activities such as the training, the WS Performance Review Meeting, the support supervision visits and the equipment inventory management can be sustained by the initiative of the HID even after the Project ends.

<b>Output 4 [Project Implementation Team: ME]</b>	
<b>ME and management capacity of WS are strengthened</b>	
<b>Current Indicators</b>	<b>Achievements</b>
<b>(1) The average increase of scores between the pre-test and post-test is at least 15%.</b>	29.4%: Target was achieved. (Average score of the past 9 training sessions)
<b>(2) The average of percentage of medical equipment in status C and status E at all RRHs is not higher than 15%.</b>	Baseline: 22.1% (C17.9% + E4.2%) Current data: 15.2% (C10.7% + E4.5%) The current data is the average of 13 out of 14 RRHs. (The details are shown in Table 1.)

#### **1-4 Achievement of the Project Purpose**

The activities of each output have greatly contributed to human resource development since the start of the Project. Nineteen cases of CQI(KAIZEN) processes are being implemented according to procedure, and 6 cases have been completed. In addition, at least one case of small CQI(KAIZEN) was practiced at 12 out of the 16 target facilities. These cases were carried out in a standardized manner to ensure continuity, and the establishment of 5S activities was evident at the target facilities.

In terms of health infrastructure management, the percentage of medical equipment inventory

records in status A increased from 65.1% as baseline data to 76.5% in December 2019 as a result of the close cooperation between the WS and User Trainers, as well as work process improvement by the implementation of 5S-CQI(KAIZEN) activities.

In addition, the three Project Implementation Teams have been conducting “support supervision” (supervision for sustainable infrastructure management) in target facilities. This activity contributed to strengthen health infrastructure management by improving the inventory at each facility, and to increase the number of QC cases.

~~This has greatly contributed to the achievement of the Project indicators purpose.~~

However, the budget execution from the Ministry of Finance, Planning and Economic Development to the MOH was not on time. This hindered timely budget execution to each department of the MOH. Even under these circumstances, each department worked on partial budget execution.

In addition, it is noteworthy that Kabale RRH completed a TQM project on functionalization of medical equipment, which is the first case in Uganda. The realization of TQM at a facility in Uganda brought a great impact nationwide and is recognized as a 5S-CQI-TQM model hospital and total quality-controlled facility. Its methodology and practices are expected to spread to the other facilities.

<b>Current Indicators</b>	<b>Achievements</b>
<p><b>(1) CQI Process or Quality Control (QC) Story</b>  <b>-The number of cases of CQI Process or QC Story amounts to more than three.</b></p>	<p>- Nineteen cases of CQI Process were implemented and 6 were completed at Kabale RRH.  - Three cases of CQI Process are being implemented at Entebbe RRH.</p>
<p><b>(2) Good practice of small CQI</b>  <b>-All RRHs have at least one good practice of small CQI.</b></p>	<p>At least one case of small CQI was practiced at 12 out of 17 target hospitals: Entebbe RRH, Gulu RRH, Jinja RRH, Kabale RRH, Masaka RRH, Mbale RRH, Mbarara RRH, Moroto RRH, Mubende RRH, Naguru RH, Soroti RRH and Tororo GH.</p>
<p><b>(3) The average percentage of medical equipment in status A at all RRHs is higher than 70%.</b></p>	<p>Baseline in October 2016: 65.1%  Current data: 76.6%  (The details are shown in Table 1.)</p>
<p><b>(4) Supervisions on 5S, UT, and</b></p>	<p>Integrated supervision of 3 components of health</p>

<p><b>ME, which are integrated into the system of the MOH in a consolidated way, are implemented more than XX times.</b></p>	<p>infrastructure management was conducted 10 times, in November 2018 (1), February 2019, March 2019 (2), April 2019 (1), May 2019 (2), July 2019 (1), August 2019 (1), October (1) and November 2019 (1).</p>
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### **1-5 Changes of Risks and Actions for Mitigation**

The MOH's budget execution has not been stable. The training of Leadership/Management in workshops has been postponed due to budget constraints in 2019/2020.

According to the previous activities and inventory analysis, the constraints surrounding non-functioned equipment in hospital that could not be solved through the Project activities were identified and shared.

- The ICU department was closed and all of the installed equipment were not used due to staff shortage.
- Some laboratory analyzers for testing HIV and TB re no longer used due to policy change.
- Some devices are not used because the reagents/spare parts are no longer available or too expensive in Ugandan market. (e.g. biochemistry analyzer, autoclave, glucometer)
- Specialized doctors have no adequate skills to operate specific medical equipment. (e.g. endoscope, C-arm X ray, ventilator, defibrillator)
- Equipment is stored due to over supplied/duplication. (e.g. BP machine, weighing scale)
- Equipment without accessories and obsolete equipment by donation (e.g. dental unit)

Most of the above equipment are classified in condition B, C or E. Even if the Project activities are effective, it is difficult to solve the above constraints. One solution is to relocate unused equipment to other facilities. And HID/MOH shall start preparing policy/guidelines of equipment management.

Although it is not easy to solve existing issues, it might be possible to reduce these constraints by evidence-based planning using inventory database.

### **1-6 Progress of Actions Undertaken by JICA**

#### **1-7 Progress of Actions Undertaken by the Government of Uganda**

The expenses covered by the MOH and Japan for the activities in the 1st and 2nd quarter of FY 2019/2020 are shown below. The MOH covered 46% (109,078,000UGX) for all activities.

Although disbursement of the budget from Ministry of Finance, Planning and Economic Development and was delayed and some activities were postponed, the planned activities were generally implemented.

The MOH's continued funding of the Project shows that it appreciates the outcome of the Project activities, which will lead to sustainable implementation.

UGX

Date	MOH Dept.	Activities	Participants	Venue	MOH		Japan side		Total
					Allowance /Others		Allowance /Others		
2019 Jun	QAID	Retreat for 5S-CQI-TQM guidelines	20	Mukono		0%	18,736,000	100%	18,736,000
2019 Jun	HID	Supervision			900,000	35%	1,660,000	65%	2,560,000
2019 Aug	HID	The 24th WS Performance Meeting	79	Mbale	18,200,000	87%	2,625,000	13%	20,825,000
2019 Sep	CS	UT-Supervision	24		0	0%	1,120,000	100%	1,120,000
2019 Oct	HID	Specialized ME Training	27	Jinja	16,193,000	57%	12,060,000	43%	28,253,000
2019 Oct	HID	ME-Supervision			1,500,000	35%	2,760,000	65%	4,260,000
2019 Oct	CS	UT-Workshop	35	Entebbe	15,934,000	88%	2,240,000	12%	18,174,000
2019 Nov	CS	UT-Validation meeting for Guidelines	19	Kampala	0	0%	16,954,000	100%	16,954,000
2019 Nov	HID	The 25th WS Performance Meeting	62	Soroti	20,220,000	82%	4,570,000	18%	24,790,000
2019 Nov	HID	Bacic ME Training	27	Jinja	13,041,000	62%	8,056,000	38%	21,097,000
2019 Nov	CS	UT-Supervision			0	0%	3,520,000	100%	3,520,000
2019 Nov	QAID	Advanced Facilitators' Training	4	Kampala	0	0%	4,705,200	100%	4,705,200
2019 Nov	QAID	Benchmarking Visit	24	Kabale	23,090,000	77%	6,793,000	23%	29,883,000
2019 Dec	QAID	6th QI Conference	13	Kampala		0%	40,400,000	100%	40,400,000
					109,078,000	46%	126,199,200	54%	235,277,200

**1-8 Progress of Environmental and Social Considerations (if applicable)****1-9 Progress of Considerations on Gender/Peace Building/Poverty Reduction (if applicable)**

None.

**1-10 Other Remarkable/Considerable Issues Related to/Affecting the Project (such as other JICA Projects, Activities of Counterparts, Other Donors, Private Sectors, NGOs, etc.)**

- (1) The project for the Improvement of Regional Referral Hospitals in Northern Uganda is a grant aid project run by the Japanese government. This project aims to strengthen hospital functionality by constructing facilities and providing medical equipment to northern Uganda hospitals (Arua, Gulu and Lira RRHs), and improving the quality of and access to health services. JICA signed a grant agreement with the Government of Uganda to provide grant aid of up to 2.86 billion yen for this project on 26th April 2018. The target facilities of the grant aid project include RRHs. It is expected to create a positive influence on health service delivery in the hospitals and motivate hospital staff members to improve the workplace environment. The construction work for 3 hospitals starts in June 2019.
- (2) Regional Health Integration to Enhance Services (RHITES) is a 5-year project that has been operating since 2017, funded by the United States Agency for International Development (USAID). RHITES supports the Government of Uganda and key stakeholders to increase the availability and utilization of high-quality health services. The purpose of this project is to secure services to support the design and implementation of comprehensive, integrated investment in health, especially at the regional level, for HIV/AIDS and nutrition assistance in the entirety of Uganda. In terms of Quality Improvement, the achievement of outcomes in the project target facilities will be accelerated through human resource development done by RHITES.

- (3) The Korea Foundation for International Healthcare (KOFIH) is a public affiliated organization of the Ministry of Health and Welfare of the Republic of Korea. KOFIH has been active in Uganda since 2017, implementing various projects, including establishing an emergency medical service system and community health system with the MOH. KOFIH targets the Bukomansinbi district and Masaka region. In the target area of KOFIH, the equipment and technology provided will contribute to improving the skills of the staff members in the project target facilities.

## **2 Delays of Work Schedule and/or Problems**

### **2-1 Details, Cause**

- (1) Postponement of activity  
 The 6th Steering Committee Meeting (Output 1) was postponed due to the difficulty to arrange the schedule of all attendees. And Training of Leadership and Management of Maintenance Workshop (Output 4) was postponed due to lack of funding.
- (2) Delay of updating Inventory data of medical equipment  
 The inventory updates are still delayed due to limited skills and poor internet connections. The analysis of the inventory data was completed for 11 out of 14 facilities.
- (3) Delay of development of User Training Guidelines  
 User Training Guidelines has not been completed due to the delay of inspection by Senior Management Committee in MOH.
- (4) Delay of assessment of target facilities by HFQAP  
 The MOH conducted a HFQAP assessment for 1,989 health facilities from 74 out of 127 districts (58.3%) and including 10 target hospitals out of 16 target facilities.

## **3 Modification of Project Implementation Plan**

None.

## **II. Project Monitoring Sheet I & II**

Attachments:

- I. Project Monitoring Sheet I
- II. Project Monitoring Sheet II
- III. Abbreviations

End

# Project Monitoring Sheet I

Project Title: Project on Improvement of Health Service through Health Infrastructure Management (II)

Implementing agency: Quality Assurance & Inspection Department, Directorate of Planning & Policy, Ministry of Health (MOH) (5S-CQI-TQM)  
 Integrated Curative Services Department, Directorate of Clinical Services, MOH (Utilization of Medical Equipment)  
 Health Infrastructure Department, Directorate of Clinical Services, MOH (Maintenance of Medical Equipment)

Target Group: (1) Phase 1 targeted hospitals: Mbale Regional Referral hospital (RRH), Masaka RRH, Entebbe RRH, Hoima RRH, Kabale RRH, Arua RRH, Lira RRH, Moroto RRH, Mukuju HC IV, Tororo GH  
 (2) Phase 2 targeted hospitals: Soroti RRH, Jinja RRH, Gulu RRH, Fort Portal RRH, Mbarara RRH, Mubende RRH, Naguru Referral Hospital

Period of Project: July 2016- July 2020

Target Site: Republic of Uganda

Version. 7

Dated 26th February 2020

Narrative Summary	Objectively Verifiable Indicators	Achievement	Remarks
Quality of health care services at all the RRHs in Uganda is improved.	<ul style="list-style-type: none"> <li>•Clients' satisfaction level is improved to the target level. (XX)</li> <li>•Clients' waiting time of patients for consultation, testing, clinical examination, and prescription of drugs are reduced XX%</li> <li>•Maintenance cost regarding medical equipment is decreased in XX%.</li> </ul>		
<b>Project Purpose</b>			
Health infrastructure management at all the RRHs in Uganda is strengthened with the initiatives of MOH.	(1) CQI Process or QC Story -The number of cases of CQI Process or QC Story amounts to more than three. (2) Good practice of small CQI -All RRHs have at least one good practice of small CQI. (3) The average of percentage of medical equipment in status A at all RRHs is higher than 70%. (4) Supervisions on 5S, UT, and ME which is integrated into the system of MOH in a consolidated way are implemented more than XX times.	(1) 19 cases of CQI Process are being implemented and 6 were completed at Kabale RRH. 3 cases of CQI Process are being carried out at Entebbe GH. (2) At least one case of small CQI was conducted at 12 out of 17 target hospitals. (3) 76.6% (average of 13 RRHs out of 14 RRHs) (4) Integrated supervision on 5S, UT, and ME concerning health infrastructure management was conducted 10 times.	Regarding Indicator (3), the inventories of Soroti RRH has not been uploaded in NOMAD databases yet.

<b>Output 1</b>			
<p>1. [Project Steering Committee] Supporting/supervising system for health infrastructure management of all the RRHs is strengthened in the MOH.</p>	<p>(1) The Project Steering committee meeting is conducted every three months.</p> <p>(2) The results of integrated support supervision conducted by Project Implementation Teams and the next quarter action plan developed from these results are shared and approved at every Project Steering Committee meeting.</p> <p>(3) The roadmap for incorporating the Project activities into the policy and systems of MOH is established and implemented by the Project Steering Committee.</p> <p>(4) The Project activities are successfully incorporated into the Ministerial Policy Statement of Ministry of Health.</p>	<p>(1) The Steering Committee meetings were conducted nearly every three months. Detailed dates are as follows: 1) 29th May 2018 2) 17th September 2018 3) 27th November 2018 4) 2nd February 2019 5) 22nd July 2019 The 6th Steering Committee meeting was rescheduled for February 2020, when the JICA Experts return to Uganda. In place of the 6th Steering Committee meeting, the Project Manager and the Chief Advisor conducted several face-to-face meetings to share the progress of the Project activities.</p> <p>(2) The Workplan of new fiscal year and activity budget was approved at the Steering Committee meeting held on 22nd July 2019.</p> <p>(3) The budget of FY2019/2020 was executed. However, the activity budget of each department in the 1st quarter 2019/2020 is not enough.</p> <p>(4) Based on discussion of the 3rd JCC in 2018, MOH promised to bear some part of the cost from operational budget of FY2019/2020 of each department. 45% of total project activity cost has cover by MOH under the operational</p>	
<b>Output2</b>			
<p>2.[Project Implementation Team: 5S-CQI-TQM] Resource management and quality improvement activities are strengthened through CQI approach in all RRHs.</p>	<p>(1)Score of module 1 (Leadership) and 6 (Health Infrastructure) HFQAP Facility Assessment Tool - All RRHs mark (i) 5 points out of 8 as full mark for module 1 and (ii) 6 points out of 10 as full mark for module 6. (2)Score of modified 5S M&amp;E Sheet in 5S-CQI-TQM Guidelines - All RRHs mark 33 points out of 54 as full mark at least two consecutive years.</p>	<p>(1) MOH collected data from 10 out of 17 target hospitals , and the score will be given to the Japanese side soon. (2) According to 3rd M&amp;E of 5S performance, 7 out of 17 target hospitals reached the target (60%): Arua, Entebbe, Jinja, Kabale, Mbale, Mbarara and Mubende. 2 hospitals have prospects to achieve the target at the 4th M&amp;E: Masaka and Naguru.</p>	
<b>Output 3</b>			
<p>3.[Project Implementation Team: User Training] Proper utilization of medical equipment through UT is improved in all RRHs.</p>	<p>(1) There are at least two regional user trainers at all RRHs. (2) The number of UT conducted by regional User Trainers is more than three as per year in every region. (3) The average of percentage of medical equipment in status B at all RRHs is not higher than 4%.</p>	<p>(1) There were 31 regional User Trainers at 15 RRHs. (2) 1.87 (average number of training at 14 RRHs and a Referral Hospital). (3) 3.5% (average of 11 RRHs out of 14 RRHs).</p>	<p>Regarding Indicator (3), the inventories of Soroti RRH has not been uploaded in NOMAD databases yet.</p>
<b>Output 4</b>			
<p>4.[Project Implementation Team: ME maintenance] ME maintenance and management capacity of workshops (WS) are strengthened.</p>	<p>(1) The average increase of scores between the pre-test and post-test is at least 15%. (2) The average of percentage of medical equipment in status C and status E at all RRHs is not higher than 15%.</p>	<p>(1) 29.4% (average of 9 past training). (2) 15.2% (average of 13 RRHs out of 14 RRHs).</p>	<p>Regarding Indicator (2), Soroti RRH has not yet been uploaded in NOMAD.</p>



Activities	Input
<b>1-1 Establishment of foundation for the Project and implementation</b>	<b>The Japanese side</b>
1-1-1 Establish Project Steering Committee	1. Dispatch of Experts
1-1-2 Establish Project Implementation Teams for 5S-CQI-TQM, UT and ME	1) Chief advisor / QI Management System
1-1-3 Develop Terms of Reference (TOR) for Project Steering Committee and Project Implementation Teams and action plans for implementation of the Project	2) 5S-CQI-TQM
1-1-4 Conduct baseline survey	3) Utilization of Medical Equipment
<b>1-2 Support Supervision on health infrastructure management</b>	4) Maintenance of Medical Equipment
1-2-1 Review and revise existing supervision system and tools through enrichment of checklists of HFQAP(Health Facility Quality of Care Assessment Program) and allocation of 5S-CQI-TQM facilitators at national and regional levels	5) Project Coordinator/ Training Management
1-2-2 Direct integrated support supervision, mentoring and coaching on health infrastructure management as CQI practice integrating 5S, UT and ME	2. Machinery and equipment
<b>1-3 Project implementation, monitoring and evaluation and institutionalization</b>	1) Necessary supplies for 5S-CQI-TQM to target hospitals and MOH headquarters
1-3-1 Organize meetings for Project Steering Committee every three months and review whether action plan is being implemented based on PDCA cycle	2) Testing and calibration tools and equipment etc.
1-3-2 Conduct a meeting to review the established system in MOH	3) Computers for medical equipment inventory management and data analysis
1-3-3 Make use of review of activity 1-3-2 for institutionalization of support supervision systems and methodologies developed through the Project, and make reflections to the Ministerial Policy Statement	3. Allocation of operational costs for project activities
1-3-4 Organize study tours and QI Conference to share good practice and lessons learned on health infrastructure management compiling 5S, UT and ME	4. Training in Japan and/or third countries
1-3-5 Conduct an end-line survey on health infrastructure management, including 5S-CQI-TQM, UT and ME	
<b>2.[Project Implementation Team: 5S-CQI-TQM]</b>	
2-1 Develop and/or update guidelines, manuals, handbooks, monitoring and supervision tools, and facilitators guide	
2-2 Define criteria for national show case of 5S-CQI-TQM and review national show case(s)	
2-3 Clarify qualification, role and responsibility of 5S-CQI-TQM facilitators at national and regional levels	
2-4 Conduct leadership and management training based on the results of the baseline survey for management staff of targeted facilities, etc.	
2-5 Conduct facilitators' training for 5S-CQI-TQM facilitators at national and regional levels with a focus on CQI	
2-6 Strengthen function of quality improvement team (QIT) and work improvement team (WIT) in the target facilities	
2-7 Conduct 5S-CQI-TQM training to target facilities based on the results of the baseline survey, with a focus on CQI	
2-8 Conduct support supervision, mentoring and coaching on WIT/QIT function, development of action plans by WITs, periodic meetings by QIT, implementation of 5S-CQI-TQM activities with proper usage and ME in collaboration with UT and ME activities under the direction of Project Steering Committee Activity 1-2-2	

<b>3.[Project Implementation Team: User Training]</b>	
3-1 Update and develop manuals, handbooks, guidelines, and monitoring tools for dissemination as necessary	
3-2 Conduct refresher training of user trainers in the previous Project phase.	
3-3 Conduct Training of Trainers (TOT) for user trainers of the phase 2 target hospitals	
3-4 Conduct support supervision, mentoring and coaching on UT for proper usage and ME in collaboration with 5S-CQI-TQM and ME activities aiming at CQI under the direction of Project Steering Committee Activity 1-2-2	
<b>4.[Project Implementation Team: Maintenance]</b>	
4-1 Update and develop manuals, handbooks, guidelines, and monitoring tools for dissemination as necessary	
4-2 Conduct leadership and management training for workshop managers including inventory data analysis	
4-3 Conduct training for workshop staffs on maintenance of basic medical equipment	
4-4 Conduct training for core staff of workshops in first line maintenance of specialized medical equipment	
4-5 Strengthen capacity of Central Workshop and Department of Health Infrastructure to support Regional Workshops	
4-6 Support Workshops to develop a system for sharing knowledge and skills	



1-3 Project implementation, monitoring and evaluation and institutionalization																											
Activities	Sub-Activities	Plan																Actual		Responsible Organization	Achievements	Issue & Countermeasures					
		2016				2017				2018				2019				2020					Japan	Uganda			
		I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV						
1-3-1	Organize meetings of Project Steering Committee every three months and review whether action plan is being implemented based on PDCA cycle																						Expert(s)	Steering Committee	Project Steering Committee meeting was held in July 2019.	None.	
1-3-2	Conduct a meeting to review the established system in MOH																						Expert(s)	Steering Committee	Project Steering Committee meeting was held in July 2019.	None.	
1-3-3	Make use of review of activity 1-3-2 for institutionalization of support supervision systems and methodologies developed through the Project, and make reflections if necessary to the Ministerial Policy Statement																						Expert(s)	Steering Committee	Joint supervision of 3 components on health infrastructure management was conducted 10 times, in November 2018 (1), February 2019, March 2019 (2), April 2019 (1), May 2019 (2), July 2019 (1), August 2019 (1), October (1) and November 2019 (1).	None.	
1-3-4	Organize study tours and QI Conference to share good practice and lessons learned on health infrastructure management compiling 5S, UT and ME																						Expert(s)	Implementation Team	(1) 6th QI Conference was held on 3-5 December 2019 at Munyonyo. A keynote speech was done by 3 presenters of Kabale RRH as well as Prof. Handa. 9 orals and 2 posters were done by MOH and 4 target hospitals (Kabale, Gulu, Mubende and Naguru). (2) Kabale RRH hosted 8 hospitals (Fort Portal RRH, Hoima RRH, Moroto RRH, Soroti RRH, Tororo GH and 3 NRH(Mulago, Kawempe and Kiruddu)) for a benchmarking visit on 28 November. MOH also joined the visit.	None.	
1-3-5	Conduct an end-line survey on health infrastructure management, including 5S-CQI-TQM, UT and ME																						Expert(s)	Implementation Team	Kabale RRH completed a TQM project on functionalization of medical equipment.	None. Beyond expectation of project experts.	
<b>Output 2 [Project Implementation Team: 5S-CQI-TQM] Resource management and quality improvement activities are strengthened through CQI approach in all RRHs</b>																											
2-1	Develop and/or update guidelines, manuals, handbooks, monitoring and supervision tools, and facilitators guide																						Expert(s)	Implementation Team	(1) 5S-CQI-TQM Guidelines were endorsed at MOH in September. They were launched and delivered at 6th QI Conference in December. (2) 5S-CQI-TQM Facilitators' Guidebook are being developed.	None.	
2-2	Define criteria for national show case of 5S-CQI-TQM and review national show case(s)																						Expert(s)	Steering Committee	The criteria were clearly described at the Guidelines.	None.	
2-3	Clarify qualification, role and responsibility of 5S-CQI-TQM facilitators at national and regional levels																						Expert(s)	Steering Committee	Qualification, role and responsibility were clearly stated at the Guidelines.	None.	
2-4	Conduct leadership and management training based on the results of the baseline survey for management staff of targeted facilities, etc.																						Expert(s)	Implementation Team	The Leadership Improvement Seminar was conducted in Project term 1.	None.	
2-5	Conduct facilitators' training for 5S-CQI-TQM facilitators at national and regional levels with a focus on CQI																						Expert(s)	Implementation Team	4 5S-CQI-TQM Facilitators were certified as advanced facilitators, following 3-day advanced training in November.	None.	
2-6	Strengthen function of quality improvement team (QIT) and work improvement team (WIT) in the target facilities																						Expert(s)	Implementation Team	Experts and a local consultant have supervised target hospitals.	None.	
2-7	Conduct 5S-CQI-TQM training to target facilities based on the results of the baseline survey, with a focus on CQI																						Expert(s)	Implementation Team	Training of new national 5S-CQI-TQM facilitators and 5S training were conducted in November 2018. In reply to initiative of MOH, 5S training was done for 4 hospitals in Kampala in May	None.	
2-8	Conduct support supervision, mentoring and coaching on WIT/QIT function, development of action plans by WITs, periodic meetings by QIT, implementation of 5S-CQI-TQM activities with proper usage and maintenance of ME in collaboration with UT and ME maintenance activities, etc. as mentioned in 1-2-2																						Expert(s)	Implementation Team	Same as 2-6	None.	



To the CR of JICA Uganda Office

**Project Monitoring Report Sheet****Project Title: Improvement of Health Services through Health Infrastructure Management II****Version of the sheet: 8 (Term: 1st January 2020 – 30th April 2020)****Name: Dr. Olaro Charles****Title: Project Director****Name: Hiroshi Tasei****Title: Chief Advisor****Submission Date: 25th June 2020****I. Summary****1 Progress and Achievements of Project****1-1 Progress of Inputs****[The Japanese side]****1-1-1 Dispatch of JICA Experts**

Name	2020							Total (days)
	1	2	3	4	5	6	7	
Hiroshi Tasei Chief Advisor/QI Management System①				50				50
Shizu Takahashi Vice Chief Advisor/QI Management System②			31					31
Naoki Take 5S-CQI-TQM①				34				34
Yujiro Handa 5S-CQI-TQM②			20					20
Yasuhiro Hiruma Utilization of Medical Equipment				62				62
Naoki Mimuro Maintenance of Medical Equipment				54				54
Emi Onosaka Project Coordinator/Training Management				48				48

**[The Ugandan side]****1-1-2 Assignment of Counterparts**

- (1) One Ministry of Health (MOH) official (a Senior Nursing Officer, Nursing Department) carried out support supervision for User Trainers in March 2020.
- (2) Two MOH Officials (a Senior Engineer and a Biomedical Engineer, Infrastructure Department, MOH (HID/MOH)) carried out support supervision for Regional Workshops (RWSs) in March 2020.

### **1-1-3 Terminal Evaluation Mission for the Project from JICA Headquarters**

The Terminal Evaluation Mission for the Project, headed by Ms. Okada Miku, Director of Health Team 1 at JICA Headquarters, conducted the Terminal Evaluation of the Project's progress from 25th February to 13th March 2020.

Field reviews and evaluation work were conducted from 27th February to 11th March 2020. Members from JICA Headquarters were not able to travel to Uganda due to the outbreak of the coronavirus (COVID-19). However, they engaged in the Terminal Evaluation work indirectly through the exchange of report documents and participation in teleconferences with Japanese expert, Ugandan counterparts, and the JICA Uganda office.

### **1-1-4 4th Joint Coordination Committee (JCC) meeting**

The Project's 4th JCC meeting was held on 10th March 2020. It was chaired by the Director of Health Services Curative Services, Dr. Olaro Charles. Eight officials from the MOH, six members from the JICA Uganda Office, one member from the Embassy of Japan, and 13 top management members from target facilities were invited to the JCC meeting. The agenda was as follows:

- 1) Overview of the Project operation budget,
- 2) Presentation of the progress reports from each pillar,
- 3) Terminal Evaluation report from Evaluation Team, and
- 4) Reaction and comments from the MOH.

Participants mainly shared and discussed the following:

- 1) Appreciation for the costs covered by the MOH for the 3rd quarter of the 2019/2020 Financial Year (FY): approximately 38% of the costs for 5S-CQI(KAIZEN)-TQM, 55% of the costs for User Training (UT) and 52% of the costs for Medical Equipment Maintenance (ME);
- 2) Sharing of results of the Terminal Evaluation using the five DAC criteria for evaluating the Project: relevance, efficiency, effectiveness, impact and sustainability.
- 3) Based on the evaluation results, the MOH requested one-year extension of the Project with providing financial and human resources by the Ugandan side and technical cooperation by the Japanese experts and implement the following approaches during the period.
  - i) Sharing knowledge of the Center of Excellence (COE)
  - ii) Cultivating a culture of safety to achieve "Patient Safety"

**1-2 Progress of Activities****1-2-1 Activities of Output 1****(1) Terminal Evaluation**

<b>Details</b>	<ul style="list-style-type: none"> <li>● Schedule: 25th February - 13th March 2020</li> <li>● Site survey: 2nd and 3rd March 2020 (Kabale and Masaka Regional Referral Hospitals (RRH))</li> <li>● Interview of counterparts: 4th, 5th and 6th March 2020</li> <li>● Holding of 4th JCC Agenda of JCC: 1) Review of the previous minutes and action points, 2) Overview of the Project operation budget, 3) Progress reports on the Project activities from each pillar, 4) Terminal Evaluation report from the Evaluation Team and 5) Reaction and comments from the MOH</li> </ul>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>● Terminal Evaluation Survey <ul style="list-style-type: none"> <li>➢ Interviews were conducted with Dr. Jackson Amone, Commissioner Clinical Services (Project Manager); Dr. Joseph Okware, Director, Governance and Regulation; Eng. Sitra Mulepo, Senior Engineer, Health Infrastructure Department; and Sr. Harriet Kembabazi, Senior Nursing Officer, Nursing Department.</li> </ul> </li> <li>● The 4th JCC <ul style="list-style-type: none"> <li>➢ Budget costs were shared by all members for each activity. The MOH was able to cover about 50% of the cost of all activities, despite the difficulty of budget allocation. The RRHs requested further support from the MOH due to the tight hospital budget.</li> <li>➢ Participants confirmed the necessity of implementing Supervision for facilities lead by MOH where the progress of 5S activities have been delayed.</li> <li>➢ Terminal evaluation mission members shared the following results of the Terminal Evaluation: <ol style="list-style-type: none"> <li>i) The relevance of the Project was considered high and effectiveness upper-moderate, while the impact showed significant achievements.</li> <li>ii) Further enhancement of 5S activities across all departments is needed in RRHs.</li> <li>iii) Further promotion of CQI activities is necessary.</li> <li>iv) Establishment of a 5S-CQI model hospital is recommended.</li> </ol> </li> </ul> </li> </ul>



<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● The MOH will apply to the Ministry of Finance, Planning and Economic Development (MOFPED) for approval of the extension of the Project.</li> <li>● After approval from the MOFPED, the MOH will officially apply to JICA for an extension and conclude the amendment of the Record of Discussion.</li> <li>● Due to the COVID-19 pandemic, the above extension process between the Ministry of Health and the Ministry of Finance has been delayed.</li> </ul>
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## 1-2-2 Activities of Output 2

### (1) Development of 5S-CQI(KAIZEN)-TQM Facilitators' Guidebook

<b>Related Activity</b> 2-1	Planned from April - December 2018
<b>Details</b>	<ul style="list-style-type: none"> <li>● The draft for <i>5S-CQI(KAIZEN)-TQM Facilitators' Guidebook</i> was shared with the MOH and JICA (Headquarters and the Uganda Office) and was finalized.</li> <li>● An International Standard Book Number (ISBN) was acquired for the guidebook.</li> <li>● The guidebook was printed (1,000 copies) and distributed to participants at the 4th JCC meeting.</li> </ul>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>● The <i>5S-CQI(KAIZEN)-TQM Facilitators' Guidebook</i> was printed and delivered to the Project office. The guidebook was distributed to participants at the 4th JCC Meeting in March 2020.</li> <li>● The guidelines have been uploaded to the MOH website.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● The MOH will take responsibility for stock-taking and delivery of the guidebook.</li> </ul>

### (2) 4th M&E of 5S Performance

<b>Related Activity</b> 2-2	Planned in March 2020
<b>Details</b>	<ul style="list-style-type: none"> <li>● 5S-CQI(KAIZEN)-TQM National Facilitators visited 16 target hospitals to evaluate the performance of 5S in January and February 2020.</li> <li>● In February and March 2020, the Japanese expert analyzed the data to rate the performance of 5S.</li> </ul>

	<ul style="list-style-type: none"> <li>● Important findings and implications were presented at the 4th JCC Meeting.</li> <li>● A M&amp;E report was compiled and emailed to the MOH, all target hospitals and national facilitators.</li> </ul>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>● The latest 5S performance and implications for further actions of 16 target hospitals were disseminated.</li> <li>● The following are the key findings: <ul style="list-style-type: none"> <li>✓ 15 out of 16 target hospitals scored 60% or more on the 4th M&amp;E.</li> <li>✓ 9 out of 16 target hospitals surpassed 60% for at least two years in a row (See 1-3-1, Summary of Achievements).</li> <li>✓ The number of units scoring at least 60% for 5S performance increased tremendously, and all target hospitals had at least one unit beyond the target score.</li> </ul> </li> <li>● The implications of the results of the 4th M&amp;E are as follows: <ul style="list-style-type: none"> <li>✓ Continuation of the steady performance of 5S at the ground level depends critically on the steady performance of top management and the Quality Improvement Team (QIT).</li> <li>✓ The adequacy of the QIT's work matters, as well as the quantity and frequency. The QIT's performance at most target hospitals has quantitatively improved, but it can be said that some QITs are performing the tasks inadequately.</li> </ul> </li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● Target hospitals will take actions to mitigate weaknesses of 5S implementation (e.g. inadequate performance of QIT) and to move forward to CQI (KAIZEN), based on the supervision of MOH.</li> </ul>

**(3) Technical Support of Patient Safety at Kabale RRH**

<b>Related Activity</b> 2-6/2-8	Started from February 2020
<b>Details</b>	<ol style="list-style-type: none"> <li>1) 11th February 2020: Japanese experts introduced the concept of incident reporting and proposed that Kabale RRH commence the practice. Subsequently, 18 members of the QIT, headed by the Hospital Director, were given technical support in formulating a strategy to introduce the concept in the hospital.</li> <li>2) 20th February 2020: Japanese experts trained 35 staff members (the Director, QIT members and medical doctors) in incident reporting. Topics included the relationship between safety and the</li> </ol>




	quality of health services, steps to establish a “safety culture” and the role of incident reporting. The participants also practiced filling out the reporting form and providing feedback.
<b>Achievements</b>	<ul style="list-style-type: none"> <li>● A strategy for incident reporting was formulated. The following departments were initially designated as pilot areas: the Outpatient Department (OPD), Casualty, Theatre, Maternity, Pharmacy and Laboratory. It was also decided that the QIT will collect the reports weekly, analyze them monthly and provide feedback.</li> <li>● Thirty-five staff members were trained in incident reporting.</li> <li>● A reporting form was designed.</li> <li>● At Kabale RRH, the incident report was named “Hospital Safety Report (HSR)” to alleviate the negative image of the word “incident”.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● The QIT will formulate a detailed action plan for introducing the HSR, including training within the hospital.</li> <li>● Continuous technical support will be needed for effective collection and analysis of the reports.</li> </ul>

### 1-2-3 Activities of Output 3

#### (1) Development of UT Guidelines and Manuals

<b>Related to Activity 3-1</b>	Planned from June 2018 - March 2019
<b>Details</b>	<ul style="list-style-type: none"> <li>● Date and Venue: 14th February 2020, 3rd floor board room, MOH.</li> <li>● Participants: 5 MOH staff members, 2 RRH hospital directors, 1 HID/MOH staff member, Japanese experts and secretaries.</li> <li>● Re-approval of the User Training (UT) Guidelines that failed in December 2019.</li> </ul>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>● The UT Guidelines were approved by the Technical Working Group.</li> <li>● The UT Manual was completed and printing is in preparation.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● Finalization of the guidelines requires approval at the Senior Management Committee Meeting (SMC) and Top Management Committee Meeting (TMC).</li> <li>● The MOH is going to determine the department responsible for UT as soon as possible.</li> <li>● After approving the guidelines, it is necessary to prepare for printing.</li> </ul>

**(2) Final Exam for Additional User Trainer**

<b>Related to Activity 3-2</b>	Planned in April 2019		
<b>Details</b>	<ul style="list-style-type: none"> <li>• Date and Venue: 24th February 2020 at Hoima RRH and 17th March 2020 at Mbarara RRH</li> <li>• Facilitators: 1 from the MOH, 1 from the JICA Project, and 2 User Trainers</li> <li>• Participants: 2 User Trainer Candidates from the 2 RRHs</li> <li>• Objective: To conduct a final written and practical examination for 2 User Trainers</li> </ul>		
<b>Achievements</b>	<ul style="list-style-type: none"> <li>• 2 User Trainers passed the written exam.</li> <li>• 2 User Trainers took the practical exam, and both passed.</li> </ul>		
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>• The 2 User Trainers are inexperienced and need to review and learn the training provided by senior User Trainers.</li> <li>• It will be necessary for the senior User Trainers to provide continuous technical support.</li> </ul>		
			
Written exam (Hoima)	Practical exam (Hoima)	Written exam (Mbarara)	Practical exam (Mbarara)

**(3) Support Supervision**

<b>Related to Activity 3-4</b>	Planned from September 2018-May 2020.																		
<b>Details</b>	<ul style="list-style-type: none"> <li>• The following hospitals were supervised from February to March 2020:</li> </ul> <table border="1"> <tr> <td>24th Feb.</td> <td>Hoima RRH</td> </tr> <tr> <td>2nd Mar.</td> <td>Entebbe RRH</td> </tr> <tr> <td>3rd Mar.</td> <td>Naguru RRH</td> </tr> <tr> <td>4th Mar.)</td> <td>Masaka RRH</td> </tr> <tr> <td>16th Mar.</td> <td>Kabale RRH</td> </tr> <tr> <td>17th Mar.</td> <td>Mbarara RRH</td> </tr> <tr> <td>18th Mar.</td> <td>Fort Portal RRH</td> </tr> <tr> <td>19th Mar.</td> <td>Mubende RRH</td> </tr> </table>			24th Feb.	Hoima RRH	2nd Mar.	Entebbe RRH	3rd Mar.	Naguru RRH	4th Mar.)	Masaka RRH	16th Mar.	Kabale RRH	17th Mar.	Mbarara RRH	18th Mar.	Fort Portal RRH	19th Mar.	Mubende RRH
24th Feb.	Hoima RRH																		
2nd Mar.	Entebbe RRH																		
3rd Mar.	Naguru RRH																		
4th Mar.)	Masaka RRH																		
16th Mar.	Kabale RRH																		
17th Mar.	Mbarara RRH																		
18th Mar.	Fort Portal RRH																		
19th Mar.	Mubende RRH																		

	<p>Due to COVID-19, the support supervision for the following facilities (Arua RRH, Gulu RRH, Lira RRH, Soroti RRH, Moroto RRH, Mbale RRH, Jinja RRH) was postponed.</p> <ul style="list-style-type: none"> <li>● The main objectives were as follows: <ol style="list-style-type: none"> <li>1) Confirm and provide guidance on the status of UT implementation and progress on the action plan.</li> <li>2) Provide advice on improving the utilization rate of medical equipment.</li> <li>3) Check the status of the collaboration between the User Trainers and the workshop (WS).</li> <li>4) Explain the equipment status and response, based on the results of the inventory data analysis.</li> <li>5) Introduce activity examples with other Implementing Partner (IP).</li> </ol> </li> </ul>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>● User Trainers continued to conduct UT at target hospitals and lower health facilities.</li> <li>● The necessity of UT for category B medical equipment was shared among User Trainers.</li> <li>● As a result of UT, the utilization rate of medical equipment at Hoima RRH, Kabale RRH, Masaka RRH, Fort Portal RRH and Mubende RRH has improved.</li> <li>● At Fort Portal RRH, the UT and ME teams have jointly created a simple geographic mapping information system for equipment, in five departments.</li> <li>● At Mubende RRH, the UT team has started to create an equipment mapping information system.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● The management at Masaka RRH has not been able to raise enough funds since the last visit. The director was busy with other hospital works, and he is not fully able to support UT's activities.</li> <li>● The MOH needs to re-notify each facility about the importance of UT and direct the Director of Masaka RRH to support UT activities.</li> <li>● In other hospitals besides Masaka RRH, UT activities are being properly conducted. It is important for hospital managers and User Trainers to maintain this state.</li> </ul>

		
Kabale RRH	Mubende RRH	Fort Portal RRH

#### 1-2-4 Activities of Output 4



##### (1) Training on Basic Management Capacity Enhancement

<b>Related to activity 4-1 and 4-2</b>	Planned in March - April 2020.
<b>Details</b>	<ul style="list-style-type: none"> <li>● Date and Venue: 2nd - 6th March 2020 at Hoima RRH</li> <li>● Target Areas:             <ul style="list-style-type: none"> <li>A) Developing Standard Operating Procedures (SOPs) for planned preventive maintenance for 29 equipment</li> <li>B) Conflict management and motivation of the staff</li> <li>C) Final revisions of the WS Operation Manual</li> <li>D) Learning how to implement CQI(KAIZEN) activities</li> </ul> </li> <li>● Participants: 30 engineers and technicians of the WSs</li> <li>● Facilitators: 3 in total             <ul style="list-style-type: none"> <li>A), C) and D): A HID/MOH engineer and a Japanese expert.</li> <li>B): A senior officer from the Human Resources Department, MOH.</li> </ul> </li> <li>● Objectives: The participants should be able to develop the manuals, prepare an appropriate CQI(KAIZEN) action plan and learn basic skills of conflict management.</li> </ul>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>● Although there was no written test, the practical skills of the trainees improved in all target areas through their active participation in group work sessions and discussions.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● Each trainee was assigned the following activities after training in order to apply the obtained knowledge and skills into practice:             <ul style="list-style-type: none"> <li>- Conduct a feedback session to share the training materials and acquired knowledge with other technicians.</li> <li>- Implement at least one small CQI(KAIZEN) action plan.</li> <li>- Commence the use of SOPs for preventive maintenance.</li> </ul> </li> <li>● Since the trainees developed the WS Operation Manual and SOPs</li> </ul>

	for each piece of equipment in accordance with their experiences, it can be expected that these documents will be utilized in their workstation properly.	
		
Developing SOPs by group	Exercise for Conflict Management	Making CQI(KAIZEN) action plan by group

**(2) Support Supervision for WSs**

<b>Related to activities 4-5 and 4-6</b>	Twice a year (Year-round activity)										
<b>Details</b>	<ul style="list-style-type: none"> <li>Support supervisions for 15 WSs were carried out according to the following schedule;</li> </ul> <table border="1"> <tr> <td colspan="2">February - March 2020</td> </tr> <tr> <td>16-20 Feb.</td> <td>Moroto, Soroti, Mbale, Jinja</td> </tr> <tr> <td>24-25 Feb.</td> <td>Central, Naguru</td> </tr> <tr> <td>15-19 Mar.</td> <td>Lira, Gulu, Arua, Hoima</td> </tr> <tr> <td>22-26 Mar. (*)</td> <td>Masaka, Mbarara, Kabale, Fort Portal, Mubende</td> </tr> </table> <p>*The final round in late March was held by the Ugandan counterparts and JICA Project local staff, because the Japanese expert returned to Japan due to the COVID-19 crisis.</p> <ul style="list-style-type: none"> <li>The agenda had five main areas:             <ol style="list-style-type: none"> <li>Inventory management with the NOMAD database</li> <li>Use of analyzed inventory data for maintenance planning &amp; budgeting,</li> <li>Ongoing CQI(KAIZEN) follow-up</li> <li>Equipment status verification tour at selected sections in RRHs</li> <li>Annual assessment of the WSs' performance.</li> </ol> </li> </ul>	February - March 2020		16-20 Feb.	Moroto, Soroti, Mbale, Jinja	24-25 Feb.	Central, Naguru	15-19 Mar.	Lira, Gulu, Arua, Hoima	22-26 Mar. (*)	Masaka, Mbarara, Kabale, Fort Portal, Mubende
February - March 2020											
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15-19 Mar.	Lira, Gulu, Arua, Hoima										
22-26 Mar. (*)	Masaka, Mbarara, Kabale, Fort Portal, Mubende										
<b>Achievements</b>	<ul style="list-style-type: none"> <li>The HID/MOH &amp; JICA team was able to supervise all Regional WSs as planned.</li> <li>Areas 1) to 3) from the above agenda have been gradually improving</li> </ul>										

	<p>and/or maintaining a moderate status in most WSs.</p> <ul style="list-style-type: none"> <li>● Regarding area 4), the equipment status could be updated appropriately at most RRHs. However, at a few RRHs, missing information (serial number, model number and others) were identified in the equipment inventory database.</li> <li>● As a result of the assessment (area 5 in the above agenda), 10 out of the 13 target WSs scored 70% or higher, and the average score was 80%, which indicates a high level of performance. The score sheet is shown in Table 1 in the next section</li> <li>● A newly employed biomedical engineer in HID/MOH and the Central WS senior technicians participated in this activity as supervisors in connection with Activity 4-5, “Strengthening the capacities of the Central WS and HID/MOH.”</li> </ul>
<p><b>Way Forward/ Challenges</b></p>	<ul style="list-style-type: none"> <li>● The number of CQI (KAIZEN) activities being implemented is increasing because of the above-mentioned training on Basic Management Capacity Enhancement, but is still small. It is necessary to provide continuous technical advice through support supervision.</li> </ul>
	
<p>Equipment verification tour at Lab, Naguru</p>	<p>Meeting scene, Jinja</p>

**(3) Assessment of the WSs (4-1, 4-5, 4-6)**

<p><b>Related to Activity 4-1, 4-5 and 4-6</b></p>	<p>Unplanned, but it has been done once a year since October 2016</p>
<p><b>Details</b></p>	<ul style="list-style-type: none"> <li>● The HID/MOH and the Project assessed 13 WSs in February and March 2020 while carrying out support supervision. The assessment was done using 13 performance indicators as described in the table below.</li> <li>● The results were to be shared with stakeholders at the next WS</li> </ul>



	<p>Performance Review Meeting scheduled for April 8th, but the meeting has been postponed due to COVID-19.</p>																				
<p><b>Achievements</b></p>	<ul style="list-style-type: none"> <li>• This assessment system has been routinely implemented 4 times since 2016, initiated by the HID/MOH.</li> <li>• The past assessment dates, average scores and names of the best WSs are summarized below: <table border="1"> <thead> <tr> <th>No</th> <th>Month/Year</th> <th>Average score (%)</th> <th>Name of The Best WS (score %)</th> </tr> </thead> <tbody> <tr> <td>1<sup>st</sup></td> <td>9-10/2016</td> <td>59%</td> <td>Fort Portal (83%)</td> </tr> <tr> <td>2<sup>nd</sup></td> <td>9/2017</td> <td>71%</td> <td>Fort Portal (92%), Lira (92%)</td> </tr> <tr> <td>3<sup>rd</sup></td> <td>2-3/2019</td> <td>74%</td> <td>Fort Portal (90%), Lira (90%)</td> </tr> <tr> <td>4<sup>th</sup></td> <td>2-3/2020</td> <td>80%</td> <td>Fort Portal (96%), Soroti (93%)</td> </tr> </tbody> </table> </li> <li>• The two high-performing WSs, Fort Portal and Soroti, may be presented with an award at the next performance review meeting.</li> </ul>	No	Month/Year	Average score (%)	Name of The Best WS (score %)	1 <sup>st</sup>	9-10/2016	59%	Fort Portal (83%)	2 <sup>nd</sup>	9/2017	71%	Fort Portal (92%), Lira (92%)	3 <sup>rd</sup>	2-3/2019	74%	Fort Portal (90%), Lira (90%)	4 <sup>th</sup>	2-3/2020	80%	Fort Portal (96%), Soroti (93%)
No	Month/Year	Average score (%)	Name of The Best WS (score %)																		
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4 <sup>th</sup>	2-3/2020	80%	Fort Portal (96%), Soroti (93%)																		
<p><b>Way Forward/ Challenges</b></p>	<ul style="list-style-type: none"> <li>• The assessment sheet is a part of the updated WS Operation Manual under Activity 4-1. This mechanism helps to share information on performance and related issues, as requested in Activity 4-6.</li> <li>• Fort Portal WS has maintained the highest score in all past assessments, and can be called a “Center of Excellent Workshop”.</li> </ul>																				

Table 1: Results on the Annual Assessment for the WS Performance, Year 2019/20  
 [Scoring Criteria: 3: Good, 2: Fair, 1: Poor/low, 0: Not Performed]

No	PERFORMANCE INDICATORS	Central	Mbale	Soroti	Lira	Gulu	Arua	Hoima	Fort Portal	Kabale	Mubende	Moroto	Jinja	Masaka	Average score
1	Available WS staff for ME maintenance	3	2	3	3	3	3	3	3	3	3	3	3	1.5	2.8
2	Timely release of WS budget to WS team and allocative efficiency	2	2	2.5	3	3	2.5	3	3	3	2.5	1	1	2	2.3
3	ME inventory properly updated and data entered in NOMAD <i>*double score</i> (full mark: 6)	6	6	6	5	3	3	4	5	4	4	4	4	4	4.5
4	Job cards properly prepared and used	2.5	3	3	2.5	2	3	3	3	3	2	2.5	3	3	2.7
5	Productivity: No. of job cards raised / No. staff involved per quarter >=50	2	3	3	2	2	1	1	2.5	3	2	1	2	2	2.0
		34.1	85.0	69.3	42.8	39.8	24.3	22.8	48.9	72.0	42.3	22.0	38.0	47.3	45.3
6	Adequate spare parts purchased in timely manner	2	2.5	2	3	3	3	3	3	2	3	0	0.5	3	2.3
7	Planned Preventive Maintenance periodically carried out for Lab. equipment and other selected equip	2.5	2.5	3	2.5	2	2.5	3	3	2.5	2	3	1	3	2.5
8	Routine maintenance carried out at least once a quarter for all hospitals and HCIVs	2.5	3	2.5	3	2.5	3	3	3	3	3	2	2	2	2.7
9	User training planned for and conducted using WS budget	3	2.5	3	3	3	3	3	3	2	2.5	2	3	1	2.6
10	Availability of integrated Workplan and budget developed by WS staff and RRH management	3	3	3	3	2	1	3	3	2.5	2	3	3	3	2.7
11	Timely submission and quality of Quarterly WS progress Reports	2.5	3	3	3	3	2	2	3	2	2	1	1	2	2.3
12	Teamwork/ Team building	2.5	3	3	2	3	2	2	3	3	2	3	3	2	2.6
13	Continuous implementation of CQI activities in the WS	1	2	2	0	3	0	2	3	1.5	1	2	1.5	2.5	1.7
TOTAL (Full-mark:42)		34.5	37.5	39.0	35	34.5	29	35	40.5	34.5	31	27.5	28	31	33.6
TOTAL % (score/42 x 100)		82%	89%	93%	83%	82%	69%	83%	96%	82%	74%	65%	67%	74%	80.0%

#### (4) Medical Equipment Inventory Update and Analysis

<b>Related to activity 4-2</b>	Year-round activity
<b>Details</b>	<ul style="list-style-type: none"> <li>The latest equipment inventory data for the RRHs was collected and analyzed as shown in Table 2.</li> </ul>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>The average percentage of equipment in condition “C+E” (in use but needs repaired/out of order but repairable) was 10.1%, achieving the target score of “15% or less”.</li> <li>In addition, conditions “A” (in good and in use) and “B” (good but not in use) have also achieved their respective target goals.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>Although the overall average percentage for “C+E” achieved the target score of 15% or less, individually, four of the 14 RRHs have not yet achieved the target score. At 3 of the WSs (Hoima, Jinja and Mbale) where the percentage of condition “C” is particularly high, the repair of commonly used equipment, including medical furniture, will be prioritized. At the other WS (Mbarara), where the percentage of condition “E” is high, over-supplied equipment will be relocated to other departments, and old, worn-out equipment</li> </ul>

	<p>will be disposed of.</p> <ul style="list-style-type: none"> <li>Inventory management, evidence-based planning and budgeting using inventory data still needs to be improved.</li> </ul>
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Table 2: Medical Equipment Inventory Analysis Report of RRHs, February 2020

No	Name of RRH	Equipment Condition (%)						TOTAL	C+E (<15%)
		A (>70%)	B (<4%)	C	D	E	F		
1	Arua	92.5%	0.3%	2.3%	0.9%	2.2%	1.7%	100%	4.5%
2	Gulu	91.1%	1.3%	3.5%	0.6%	2.5%	0.9%	100%	6.1%
3	Lira	85.3%	5.5%	2.2%	1.8%	3.0%	2.1%	100%	5.2%
4	Soroti	83.2%	1.7%	7.1%	2.7%	2.0%	3.5%	100%	9.0%
5	Moroto	82.1%	3.1%	3.4%	1.4%	8.2%	1.9%	100%	11.6%
6	Hoima	70.0%	4.0%	13.7%	3.4%	3.4%	5.5%	100%	17.1%
7	Fort Portal	93.6%	0.7%	4.7%	0.2%	0.5%	0.2%	100%	5.2%
8	Kabale	89.6%	3.9%	1.2%	1.2%	1.7%	2.4%	100%	2.9%
9	Mubende	89.5%	1.1%	2.9%	0.8%	2.0%	3.7%	100%	4.8%
10	Masaka	88.1%	0.7%	10.0%	0.4%	0.7%	0.2%	100%	10.6%
11	Jinja	72.0%	0.4%	14.2%	6.7%	4.5%	2.2%	100%	18.7%
12	Naguru	87.5%	4.6%	5.2%	0.4%	1.8%	0.6%	100%	7.0%
13	Mbale	72.5%	1.7%	14.2%	5.5%	3.5%	2.7%	100%	17.7%
14	Mbarara	76.1%	2.7%	4.4%	0.3%	12.7%	3.9%	100%	17.1%
<b>Average</b>		<b>83.5%</b>	<b>2.1%</b>	<b>6.9%</b>	<b>2.1%</b>	<b>3.3%</b>	<b>2.2%</b>	<b>100%</b>	<b>10.1%</b>
Mid (Apr 2019)		<b>76.2%</b>	<b>3.5%</b>	<b>11.5%</b>	<b>2.6%</b>	<b>4.1%</b>	<b>2.2%</b>	<b>100%</b>	<b>15.6%</b>
Baseline (2016)		<b>65.1%</b>	<b>5.1%</b>	<b>17.9%</b>	<b>3.5%</b>	<b>4.2%</b>	<b>4.3%</b>	<b>100%</b>	<b>22.1%</b>

A: In good and in use      C: In use but needs repaired      E: Out of order but repairable  
 B: Good but not in use      D: In use but needs replacement      F: Out of order and should be replaced

**(5) Update and develop WS operation manuals, guidelines and monitoring tools (4-1)**

<b>Related to activity 4-1</b>	Planned in May - December 2018
<b>Details</b>	<ul style="list-style-type: none"> <li>Revision of the WS Operation Manual published in December 2013 (1st edition).</li> <li>Development of new SOPs for 29 types of medical equipment for planned preventive maintenance.</li> </ul>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>The WS Operation Manual has been updated and revised. 29 equipment SOPs that are part of the WS Operation Manual were developed and are in the process of being finalized.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>Two activities -- the final approval by MOH stakeholders and the printing of these documents -- were scheduled to be completed by the end of April 2020 but have been postponed.</li> </ul>

	<ul style="list-style-type: none"> <li>• The approval process and printing will be rescheduled by the MOH counterparts after restrictions related to COVID-19 are lifted in Uganda.</li> </ul>
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### 1-3 Achievement of Output

#### 1-3-1 Summary of Achievements

**Output 1:** Steering Committee meetings have not been held as per the expected frequency. However, a face-to-face meeting between the Project Manager and Project Leader allowed for the necessary information-sharing regarding the progress and effectiveness of the Project.

Due to the global outbreak of COVID-19 from February 2020, the activity period of Japanese experts was shortened and the expected activities have not been implemented. Moreover, urgent budget execution for COVID-19 measures reduced the budget for the MOH's regular Project; in February and March, the MOH was only able to cover 2% of the activity expenses. In contrast, the MOH contributed almost half of the activity cost for FY2019/2020. The Project Implementation Team leaders regularly share information with Senior Management Committee on the effectiveness of their activities and strive to deepen their understanding within the MOH.

Output 1 Supporting/supervising system for health infrastructure management of all the RRHs is strengthened in the MOH.	
Current Indicators	Achievements
1-1 The Project Steering Committee meeting is conducted every three months.	The Steering Committee meetings were conducted approximately every three months. Detailed dates are as follows: 1) 29th May 2018 2) 17th September 2018 3) 27th November 2018 4) 2nd February 2019 5) 22nd July 2019 The 6th Steering Committee was not held in February 2020 due to the outbreak of COVID-19.

<p>1-2 The results of integrated support supervision conducted by Project Implementation Teams, and the next quarter action plan developed from these results, are shared and approved at every Project Steering Committee meeting.</p>	<p>The activities have been conducted according to the schedule that was approved at the Steering Committee meeting held on 22nd July 2019. The results of all activities and the way forward has been shared with all participants of the 4th JCC meeting.</p>
<p>1-3 The roadmap for incorporating the Project activities into the policy and systems of MOH is established and implemented by the Project Steering Committee.</p>	<p>The budget for FY2019/2020 was executed. Approximately 50% of the activity budget was borne by the Ugandan side. However, the activity budget for each department is not enough.</p>
<p>1-4 The Project activities are successfully incorporated into the Ministerial Policy Statement of Ministry of Health.</p>	<p>The activity plans of the Project were incorporated into the Ministerial Policy Statements, and annual activity and budget plans were determined.</p>

**Output 2:** Scores of 5S performance (calculated using the 5S M&E sheet in the 5S-CQI(KAIZEN)-TQM Guidelines) surpassed the target of Output 2 (60% for two consecutive years) at nine out of 16 target hospitals. According to the results of the 4th M&E in January and February 2020, 15 out of 16 hospitals scored over 60% as an average of their top five departments and QIT.

The results also showed that 5S has been actively implemented at all target hospitals. The number of units scoring at least 60% for 5S performance increased tremendously, and all target hospitals had at least one unit that scored beyond the target. At Entebbe and Kabale, all units that were evaluated scored 70% or more. More than 10 units surpassed 60% at Jinja, Mbarara and Naguru.

It is inferred that maintaining a steady performance of 5S at the ground level critically depends on the steady performance of the top management and QIT. For example, scores for “top management/QIT” have been above 80% at Kabale since the 2nd M&E and at Entebbe since the 3rd M&E. The top five areas of 5S performance in these two hospitals also scored higher than 80%. Meanwhile, the performance score for “top management/QIT” dropped at Arua from the 3rd M&E and worsened the score of 5S.

As mentioned in Section 1-4: Achievement of the Project Purpose, Kabale and Entebbe are steadily implementing the CQI (KAIZEN) process. Kabale completed a cycle of Total Quality Management (TQM) in all departments on the theme of functionalization and usage of medical equipment. It also took a further step in quality improvement of services through pursuing patient safety. Meanwhile, Naguru commenced CQI (KAIZEN) activities, and the results of the 4th M&E showed that two hospitals (Jinja and Mbarara) are ready to move forward to CQI (KAIZEN).

[Project Implementation Team: 5S-CQI-TQM]	
Resource management and quality improvement activities are strengthened through CQI approach in all RRHs.	
Current Indicators	Achievements
<p>2-1</p> <p>Score of Module 1 (Leadership) and 6 (Health Infrastructure) Health Facility Quality of Care Assessment program (HFQAP) Facility Assessment Tool</p> <p>- All RRHs mark (i) 5 points out of 8 as full mark for module 1 and (ii) 6 points out of 10 as full mark for module 6.</p>	<p>The MOH collected data from 10 target hospitals. The scores will be shared with the Japanese expert soon after their analysis.</p>
<p>2-2</p> <p>Score of modified 5S M&amp;E Sheet in 5S-CQI-TQM Guidelines</p> <p>- All RRHs mark 33 points out of 54 as full mark at least two consecutive years.</p>	<p>Nine out of 16 target hospitals reached the target of 60%: Arua, Entebbe, Jinja, Kabale, Masaka, Mbale, Mbarara, Mubende and Naguru. (See Figure 1)</p>

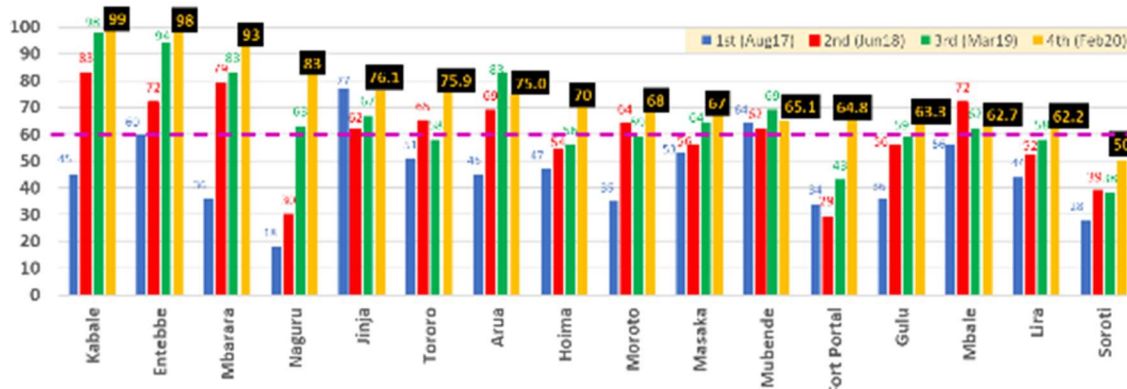


Figure 1: The results of 5S M&E by hospitals

**Output 3:**

- The number of regional User Trainers reached the indicator at all 15 hospitals.
- The number of UTs conducted by regional User Trainers reached the indicator at 14 out of 15 hospitals.
- The average percentage of equipment status “B” (2.05%) has been achieved, and 12 out of 14 hospitals improved more than the baseline of 5.1%.

During the supervision, Japanese experts and the MOH provided guidance on the medical equipment inventory data analysis. The status of medical equipment at the facility was obtained, and User Trainers provided UT to the hospital staff, based on an analysis of the medical equipment inventory. As a result of the UT, the utilization rate of the medical equipment has improved.

The management of the target hospitals now have a deeper understanding of UT activities, and the RWS is cooperative. In addition, financial support from other IPs is being obtained, and the environment for UT activities has improved, and sustainability of activities can be expected.

[Project Implementation Team: UT] Proper utilization of medical equipment through UT is improved in all RRHs.																																					
Current Indicators	Achievements																																				
3-1 There are at least two regional User Trainers at all RRHs.	<p>The number of User Trainers is shown below:</p> <table border="1"> <thead> <tr> <th>Hospital Name</th> <th>No. of User Trainers</th> </tr> </thead> <tbody> <tr><td>Arua</td><td>2</td></tr> <tr><td>Fort Portal</td><td>2</td></tr> <tr><td>Gulu</td><td>2</td></tr> <tr><td>Hoima</td><td>2</td></tr> <tr><td>Jinja</td><td>2</td></tr> <tr><td>Kabale</td><td>2</td></tr> <tr><td>Lira</td><td>3</td></tr> <tr><td>Masaka</td><td>2</td></tr> <tr><td>Mbale</td><td>2</td></tr> <tr><td>Mbarara</td><td>2</td></tr> <tr><td>Moroto</td><td>2</td></tr> <tr><td>Mubende</td><td>2</td></tr> <tr><td>Naguru</td><td>2</td></tr> <tr><td>Soroti</td><td>3</td></tr> <tr><td>Entebbe</td><td>3</td></tr> <tr><td>Total</td><td>33</td></tr> </tbody> </table> <p>*As of the end of April 2020.</p>	Hospital Name	No. of User Trainers	Arua	2	Fort Portal	2	Gulu	2	Hoima	2	Jinja	2	Kabale	2	Lira	3	Masaka	2	Mbale	2	Mbarara	2	Moroto	2	Mubende	2	Naguru	2	Soroti	3	Entebbe	3	Total	33		
Hospital Name	No. of User Trainers																																				
Arua	2																																				
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Mubende	2																																				
Naguru	2																																				
Soroti	3																																				
Entebbe	3																																				
Total	33																																				
3-2 The number of UT conducted by regional User Trainers is more than three per year in every region.	<p>The number of UTs is shown below:</p> <table border="1"> <thead> <tr> <th>Hospital name</th> <th>No.</th> <th>Hospital name</th> <th>No.</th> </tr> </thead> <tbody> <tr><td>Arua</td><td>4</td><td>Mbale</td><td>5</td></tr> <tr><td>Fort Portal</td><td>3</td><td>Mbarara</td><td>2</td></tr> <tr><td>Gulu</td><td>3</td><td>Moroto</td><td>3</td></tr> <tr><td>Hoima</td><td>3</td><td>Mubende</td><td>7</td></tr> <tr><td>Jinja</td><td>4</td><td>Naguru</td><td>3</td></tr> <tr><td>Kabale</td><td>9</td><td>Soroti</td><td>10</td></tr> <tr><td>Lira</td><td>4</td><td>Entebbe</td><td>4</td></tr> <tr><td>Masaka</td><td>5</td><td></td><td></td></tr> </tbody> </table> <p>*For the period from July 2019 to April 2020</p>	Hospital name	No.	Hospital name	No.	Arua	4	Mbale	5	Fort Portal	3	Mbarara	2	Gulu	3	Moroto	3	Hoima	3	Mubende	7	Jinja	4	Naguru	3	Kabale	9	Soroti	10	Lira	4	Entebbe	4	Masaka	5		
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Kabale	9	Soroti	10																																		
Lira	4	Entebbe	4																																		
Masaka	5																																				
3-3 The average percentage of medical equipment in status B at all RRHs is not higher than 4%.	<p>Baseline: 5.1% Current data: 2.05%</p>																																				



**Output 4:** The activities, including training, support supervision, WS assessment, inventory analysis and manual revisions, were implemented as scheduled, with exception of the manual printing and the regular holding of the WS Performance Review Meeting.

In the training that focused on group work sessions, the participants were able to gain more practical knowledge and skills. In particular, the trained area of CQI(KAIZEN) and SOPs are highly effective and sustainable to be used in the workplace promptly.

At the support supervision for all WSs, two HID/MOH engineers and two senior technicians from Central WS were involved as supervisors. In addition to strengthening each WS, the supervision enhanced the coaching capacities of HID/MOH and Central WS personnel.

Based on the results of the past WS assessments, the average performance scores have increased gradually since 2016 (59% at Sep.-Oct. 2016, 71% at Aug-Sep. 2017, 74% at Feb.-Mar. 2019, 80% at Feb.-Mar. 2020). This is a comprehensive performance assessment tool for each WS that evaluates the WS situation in more than 10 areas (staffing level, budget release, equipment inventory update, productivity, spare part procurement, preventive maintenance, equipment user training, teamwork, 5S-CQI etc.). The 2020 score of 80% clearly indicates that the capacity of the WSs has been enhanced.

Regarding the current functional condition of medical equipment in RRHs, the average percentages for equipment condition “A” (83.5%) and “C+E” (10.1%) were beyond the expected goals (>70% and <15%, respectively). It can be said that the harmonization of all activities in Output 4 was relatively high.

According to these achievements, the Project activities corresponded with the improvement of WS maintenance and management capacities, which aligned with the goal of Output 4.

[Project Implementation Team: ME] ME and management capacity of WS are strengthened.	
Current Indicators	Achievement
(1) The average increase of scores between the pre-test and post-test is at least 15%.	29.4%(average score of the past nine training sessions): The target was achieved.
(2) The average of percentage of medical equipment in status C and status E at all RRHs is not higher than 15%.	Base line: 22.1% End line: 10.1% (Achieved)

#### 1-4 Achievement of the Project Purpose

The activities of each output greatly contributed to human resource development and work process improvement related to the health services provision in each target facility, even with budget constraints. As shown in the figure of the indicators, CQI(KAIZEN) cases were implemented according to procedure. The “small CQI” for daily work process improvement was practiced not only in the hospitals, but also in the WSs. In terms of health infrastructure management, the improvement of equipment inventory records came as a result of the close cooperation between the WS and User Trainers. In addition, since it is difficult for the Project Implementation Team to conduct support supervision for all of the activities that are integrated in 5S, UT and ME together, each department in charge of these activities conducted support supervision for developing CQI cases respectively, under the same concept. It can be inferred that this contributed to the achievement of the Project purpose, and the sustainability of health infrastructure management under the MOH at the target facilities will be achieved. However, the budget execution (from the MOFPED to the MOH) is not always on time. This hinders timely budget execution in each department of the MOH. The delayed provision of funds is one of the challenges in conducting the activities scheduled under each output. To cope with this situation, each Project Implementation Team is required to share the work plan and conduct some activities together.

Current Indicators	Achievements
(1) CQI Process or Quality Control (QC) Story -The number of cases of CQI Process or QC Story amounts to more than three.	Nineteen cases of CQI Process are being implemented at Kabale RRH, and six were completed. Three cases of CQI Process are being carried out at Entebbe RRH.
(2) Good practice of small CQI -All RRHs have at least one good practice of small CQI.	At least one case of small CQI was practiced at 12 out of 16 target hospitals: Entebbe RRH, Gulu RRH, Jinja RRH, Kabale RRH, Masaka RRH, Mbale RRH, Mbarara RRH, Moroto RRH, Mubende RRH, Naguru RRH, Soroti RRH and Tororo GH.
(3) The average of percentage of medical equipment in status A at all RRHs is higher than 70%.	Baseline: 65.1% End line: 83.5%
(4) Supervisions on 5S, UT, and	Integrated supervision of three components of health

ME which is integrated into the system of MOH in a consolidated way are implemented more than XX times.	infrastructure management was conducted 10 times, in November 2018 (1), February 2019, March 2019 (2), April 2019 (1), May 2019 (2), July 2019 (1), August 2019 (1), October (1) and November 2019 (1).
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### 1-5 Changes of Risks and Actions for Mitigation

Due to the COVID-19 pandemic, all Japanese experts were urgently required to return to Japan, and the activities that were underway were suspended. These activities include the implementation of supervision and the completion of policy documents, such as guidelines and activity tools. The activities will be implemented once COVID-19 infection rates have been sufficiently reduced.

### 1-6 Progress of Actions Undertaken by JICA

Due to the COVID-19 pandemic, the project extension process within the Ministry of Health has been delayed. JICA Uganda office facilitated the progress of the procedure by presenting the necessary documents and other information to the Ministry of Health.

### 1-7 Progress of Actions Undertaken by the Government of Uganda

(1) The MOH's budget execution has not been stable. The expenses covered by the MOH and Japan for the activities for January to March 2020 are shown below. The MOH covered 2% (1,500,000UGX) of all activities, as the budget for regular activities of the MOH was reduced during this period due to urgent budget execution for COVID-19 measures. However, the MOH contributed about 50% of the activity cost throughout the year.

Date	MOH Dept.	Activities	Venue	MOH		Japan side		Total	
				Allowance /Others		Allowance /Others			
2020	Feb	HID	Leadership/Management Tr	Hoima			27,054,000	100%	27,054,000
	Feb	HID	ME-Supervision		1,500,000	34%	2,900,000	66%	4,400,000
	Feb	CS	UT-Supervision				337,000	100%	337,000
	Mar	CS	UT-Supervision				2,215,500	100%	2,215,500
	Jan-Feb	SCAP	4th 5S M&E				29,153,000	100%	29,153,000
					1,500,000	2%	61,659,500	98%	63,159,500

(2) In the previous Monitoring Sheet (ver. 7), some information was shared on problems with non-functional equipment that could not be solved through the Project activities. Under these circumstances, the HID/MOH and the Project requested that the WSs and top management of RRHs take the following actions:

- Relocation of over-supplied equipment through implementing TQM, focusing on

"improvement of medical equipment management" at Kabale RRH

- Promotion of a framework contract system for the timely procurement of spare parts
- Disposal of obsolete equipment, led by the RRHs' top management
- Proper use of analyzed inventory data for maintenance, planning and budgeting

**1-8 Progress of Environmental and Social Considerations (if applicable)**

**1-9 Progress of Considerations on Gender/Peace Building/Poverty Reduction (if applicable)**

None.

**1-10 Other Remarkable/Considerable Issues Related to/Affecting the Project (such as other JICA Projects, Activities of Counterparts, Other Donors, Private Sectors, NGOs, etc.)**

- (1) The project for the Improvement of Regional Referral Hospitals in Northern Uganda is a grant aid project run by the Japanese government. This project aims to strengthen hospital functionality by constructing facilities and providing medical equipment to hospitals (Arua, Gulu and Lira RRH) in northern Uganda, and to improve the quality of and access to health services. JICA signed a grant agreement with the Government of Uganda to provide grant aid of up to 2.86 billion yen for this project on 26th April 2018. The target facilities of the grant aid project include the RRHs. The project is expected to create a positive influence on health service delivery in the hospitals and motivate hospital staff to improve their workplace environment. Construction work on these three hospitals started in June 2019.
- (2) Regional Health Integration to Enhance Services (RHITES) is a 5-year project that has been operating since 2017, funded by the United States Agency for International Development (USAID). RHITES supports the Government of Uganda and key stakeholders to increase the availability and utilization of high-quality health services. The purpose of this project is to secure services to support the design and implementation of comprehensive, integrated investment in health, especially at the regional level, for HIV/AIDS and nutrition assistance in the entirety of Uganda. In terms of Quality Improvement, the achievement of outcomes in the project target facilities will be accelerated through human resource development done by RHITES.
- (3) The Korea Foundation for International Healthcare (KOFIH) is a public affiliated organization of the MOH and Welfare of the Republic of Korea. KOFIH has been active in Uganda since 2017, implementing various projects, including establishing an emergency medical service system and community health system with the MOH. KOFIH targets the Bukomansinbi district and Masaka region. In the target area of KOFIH, the equipment and technology provided will contribute to improving the skills of the staff members in the projects' target facilities.

## **2 Delays of Work Schedule and/or Problems**

### **2-1 Details of the causes**

- (1) The following activities have been postponed due to the COVID-19 crisis:
  - Approval and printing of User Training guidelines by SMC and TMC
  - Printing of User Training manuals
  - Part of Support Supervision
  - Approval by MOH stakeholders and printing of the updated WS Operation Manual
  - Regular holding of the WS Performance Review Meeting

Under the direction of experts in Japan, counterparts and Project national staff in Uganda will implement the activities that have been delayed as much as possible.

- (2) Delay of assessment of target facilities by Health Facilities Quality Assessment Program (HFQAP)

The MOH conducted a HFQAP assessment for 1,989 health facilities in 74 out of 127 districts (58.3%), including 10 hospitals out of 16 target facilities.

## **3 Modification of Project Implementation Plan**

As a result of the Terminal Evaluation, the MOH decided to request a one-year extension of the Project period. The MOH first applies to the MOFPED for permission to extend the project period. After the approval by the MOFPED, the original R/D will be revised.

## **II. Project Monitoring Sheet I & II**

Attachments:

- I. Project Monitoring Sheet I
- II. Project Monitoring Sheet II

End

# Project Monitoring Sheet I

Project Title: Project on Improvement of Health Service through Health Infrastructure Management (II)

Implementing agency: Standards, Compliance, Accreditation and Patient Protection Department, Directorate of Health Governance and Regulation, Ministry of Health (MOH) (5S-CQI-TQM)  
 Clinical Services Department, Directorate of Curative Services, MOH (Utilization of Medical Equipment)  
 Health Infrastructure Department, Directorate of Strategy, Policy and Development, MOH (Maintenance of Medical Equipment)

Target Group: (1) Phase 1 targeted hospitals: Mbale Regional Referral hospital (RRH), Masaka RRH, Entebbe General Hospital (GH), Hoima RRH, Kabale RRH, Arua RRH, Lira RRH, Moroto RRH, Mukuju HC IV, Tororo GH  
 (2) Phase 2 targeted hospitals: Soroti RRH, Jinja RRH, Gulu RRH, Fort Portal RRH, Mbarara RRH, Mubende RRH, Naguru Referral Hospital

Period of Project: July 2016- July 2020

Target Site: Republic of Uganda

Version. 8

Dated 25th June 2020

Narrative Summary	Objectively Verifiable Indicators	Achievement	Remarks
Quality of health care services at all the RRHs in Uganda is improved.	<ul style="list-style-type: none"> <li>• Clients' satisfaction level is improved to the target level. (XX)</li> <li>• Clients' waiting time of patients for consultation, testing, clinical examination, and prescription of drugs are reduced XX%</li> <li>• Maintenance cost regarding medical equipment is decreased in XX%.</li> </ul>		
<b>Project Purpose</b>			
Health infrastructure management at all the RRHs in Uganda is strengthened with the initiatives of MOH.	<ul style="list-style-type: none"> <li>(1) CQI Process or QC Story -The number of cases of CQI Process or QC Story amounts to more than three.</li> <li>(2) Good practice of small CQI -All RRHs have at least one good practice of small CQI.</li> <li>(3) The average of percentage of medical equipment in status A at all RRHs is higher than 70%.</li> <li>(4) Supervisions on 5S, UT, and ME which is integrated into the system of MOH in a consolidated way are implemented more than XX times.</li> </ul>	<ul style="list-style-type: none"> <li>(1) 19 cases of CQI Process are being implemented and 6 were completed at Kabale RRH. 3 cases of CQI Process are being carried out at Entebbe RRH.</li> <li>(2) At least one case of small CQI was practiced at 12 out of 16 target hospitals.</li> <li>(3) 74.8% (average of 11 RRHs out of 14 RRHs)</li> <li>(4) Joint supervision of 3 components concerning health infrastructure management was conducted 6 times.</li> </ul>	
<b>Output 1</b>			
1. [Project Steering Committee] Supporting/supervising system for health infrastructure management of all the RRHs is strengthened in the MOH.	<ul style="list-style-type: none"> <li>(1) The Project Steering committee meeting is conducted every three months.</li> <li>(2) The results of integrated support supervision conducted by Project Implementation Teams and the next quarter action plan developed from these results are shared and approved at every Project Steering Committee meeting.</li> <li>(3) The roadmap for incorporating the Project activities into the policy and systems of MOH is established and implemented by the Project Steering Committee.</li> <li>(4) The Project activities are successfully incorporated into the Ministerial Policy Statement of Ministry of Health.</li> </ul>	<ul style="list-style-type: none"> <li>(1) The Steering Committee meetings were conducted 4 times during May 2019 to February 2019.</li> <li>(2) The activities have conducted according to the schedule that approved at the Steering Committee meeting held on 22nd July 2019. The result of all active ties and way forward has shared with all participants of the 4th JCC meeting.</li> <li>(3) The budget for FY2019/2020 was executed. Approximately 50% of the activity budget became borne by the Ugandan side. However, the activity budget for each department is not enough.</li> <li>(4) The activity plans of the Project were incorporated into the Ministerial Policy Statements, and annual activity and budget plans were determined.</li> </ul>	

<b>Output 2</b>			
<p>2.[Project Implementation Team: 5S-CQI-TQM] Resource management and quality improvement activities are strengthened through CQI approach in all RRHs.</p>	<p>(1)Score of module 1 (Leadership) and 6 (Health Infrastructure) HFQAP Facility Assessment Tool - All RRHs mark (i) 5 points out of 8 as full mark for module 1 and (ii) 6 points out of 10 as full mark for module 6. (2)Score of modified 5S M&amp;E Sheet in 5S-CQI-TQM Guidelines - All RRHs mark 33 points out of 54 as full mark at least two consecutive years.</p>	<p>(1) MOH collected data from 10 target hospitals, and the score will be given to the Japanese side soon. (2) 4th M&amp;E of 5S performance showed 9 out of 16 target hospitals surpassed the target of Output 2 (60% at least two consecutive years): Arua, Entebbe, Jinja, Kabale, Masaka, Mbale, Mbarara, Mubende and Naguru. 15 out 16 target hospitals scored more than 60% at the 4th M&amp;E.</p>	
<b>Output 3</b>			
<p>3.[Project Implementation Team: User Training] Proper utilization of medical equipment through UT is improved in all RRHs.</p>	<p>(1) There are at least two regional user trainers at all RRHs. (2) The number of UT conducted by regional User Trainers is more than three as per year in every region. (3) The average of percentage of medical equipment in status B at all RRHs is not higher than 4%.</p>	<p>(1) There were 33 regional User Trainers at 15 RRHs. (2) 4.6 times (average number of training at 15RRHs). (3) 2.05% (average of 14 RRHs).</p>	
<b>Output 4</b>			
<p>4.[Project Implementation Team: ME maintenance] ME maintenance and management capacity of workshops (WS) are strengthened.</p>	<p>(1) The average increase of scores between the pre-test and post-test is at least 15%. (2) The average of percentage of medical equipment in status C and status E at all RRHs is not higher than 15%.</p>	<p>(1) 29.4% (average of 9 past trainings) (2) 10.1% (14 RRHs, as of February 2020)</p>	

Activities	Input
<b>1-1 Establishment of foundation for the Project and implementation</b>	<b>The Japanese side</b>
1-1-1 Establish Project Steering Committee	1. Dispatch of Experts 1) Chief advisor / QI Management System 2) 5S-CQI-TQM 3) Utilization of Medical Equipment 4) Maintenance of Medical Equipment 5) Project Coordinator/ Training Management
1-1-2 Establish Project Implementation Teams for 5S-CQI-TQM, UT and ME	
1-1-3 Develop Terms of Reference (TOR) for Project Steering Committee and Project Implementation Teams and action plans for implementation of the Project	
1-1-4 Conduct baseline survey	
<b>1-2 Support Supervision on health infrastructure management</b>	2. Machinery and equipment 1) Necessary supplies for 5S-CQI-TQM to target hospitals and MOH headquarters 2) Testing and calibration tools and equipment etc.  3. Allocation of operational costs for project activities  4. Training in Japan and/or third countries
1-2-1 Review and revise existing supervision system and tools through enrichment of checklists of HFQAP(Health Facility Quality of Care Assessment Program) and allocation of 5S-CQI-TQM facilitators at national and regional levels	
1-2-2 Direct integrated support supervision, mentoring and coaching on health infrastructure management as CQI practice integrating 5S, UT and ME	
<b>1-3 Project implementation, monitoring and evaluation and institutionalization</b>	
1-3-1 Organize meetings for Project Steering Committee every three months and review whether action plan is being implemented based on PDCA cycle	
1-3-2 Conduct a meeting to review the established system in MOH	
1-3-3 Make use of review of activity 1-3-2 for institutionalization of support supervision systems and methodologies developed through the Project, and make reflections to the Ministerial Policy Statement	
1-3-4 Organize study tours and QI Conference to share good practice and lessons learned on health infrastructure management compiling 5S, UT and ME	
1-3-5 Conduct an end-line survey on health infrastructure management, including 5S-CQI-TQM, UT and ME	
<b>2.[Project Implementation Team: 5S-CQI-TQM]</b>	
2-1 Develop and/or update guidelines, manuals, handbooks, monitoring and supervision tools, and facilitators guide	
2-2 Define criteria for national show case of 5S-CQI-TQM and review national show case(s)	
2-3 Clarify qualification, role and responsibility of 5S-CQI-TQM facilitators at national and regional levels	
2-4 Conduct leadership and management training based on the results of the baseline survey for management staff of targeted facilities, etc.	
2-5 Conduct facilitators' training for 5S-CQI-TQM facilitators at national and regional levels with a focus on CQI	
2-6 Strengthen function of quality improvement team (QIT) and work improvement team (WIT) in the target facilities	
2-7 Conduct 5S-CQI-TQM training to target facilities based on the results of the baseline survey, with a focus on CQI	
2-8 Conduct support supervision, mentoring and coaching on WIT/QIT function, development of action plans by WITs, periodic meetings by QIT, implementation of 5S-CQI-TQM activities with proper usage and ME in collaboration with UT and ME activities under the direction of Project Steering Committee Activity 1-2-2	



<b>3.[Project Implementation Team: User Training]</b>
3-1 Update and develop manuals, handbooks, guidelines, and monitoring tools for dissemination as necessary
3-2 Conduct refresher training of user trainers in the previous Project phase.
3-3 Conduct Training of Trainers (TOT) for user trainers of the phase 2 target hospitals
3-4 Conduct support supervision, mentoring and coaching on UT for proper usage and ME in collaboration with 5S-CQI-TQM and ME activities aiming at CQI under the direction of Project Steering Committee Activity 1-2-2
<b>4.[Project Implementation Team: Maintenance]</b>
4-1 Update and develop manuals, handbooks, guidelines, and monitoring tools for dissemination as necessary
4-2 Conduct leadership and management training for workshop managers including inventory data analysis
4-3 Conduct training for workshop staffs on maintenance of basic medical equipment
4-4 Conduct training for core staff of workshops in first line maintenance of specialized medical equipment
4-5 Strengthen capacity of Central Workshop and Infrastructure Department to support Regional Workshops
4-6 Support Workshops to develop a system for sharing knowledge and skills

Project Monitoring Sheet II (Revision of Plan of Operation)

Version. 8  
Dated 25th June 2020

Project Title: Project on Improvement of Health Services through Health Infrastructure Management (II)

Inputs	Plan	2016				2017				2018				2019				2020				Remarks	Monitoring									
		Actual	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III		IV	Issue	Solution							
<b>Expert</b>																																
Chief Advisor/QI Management System	Plan																															
Assist Chief Advisor/QI Management System	Plan																															
5S-CQI-TQM ①	Plan																															
5S-CQI-TQM ②	Plan																															
Utilization of Medical Equipment	Plan																															
M	Plan																															
Project Coordinator/Training Management	Plan																															
<b>Equipment</b>																																
Project vehicles and equipment/materials necessary for the Project administration	Plan																															
<b>Training in Japan</b>																																
	Plan																															
<b>In-country/Third country Training</b>																																
Tanzania KAIZEN TOT	Plan																															
<b>Activities</b>																																
<b>Sub-Activities</b>																																
<b>Output 1 [Project Steering Committee] Supporting/supervising system for health infrastructure management of all the RRHs is strengthened in the MOH</b>																																
																	<b>Japan</b>		<b>Uganda</b>		<b>Achievements</b>		<b>Issue &amp; Countermeasures</b>									
1-1 Establishment of foundation for the Project and implementation																																
1-1-1	Establish Project Steering Committee	○ ○ ○ ○ ○ ○	Plan																										Expert(s)	All concerned Department members of MOH	Project Steering Committee was established.	None.
			Actual																													
1-1-2	Establish Project Implementation Teams for 5S-CQI-TQM, UT and ME	○ ○ ○ ○ ○ ○	Plan																										Expert(s)	All concerned Department members of MOH	Project Implementation Teams were established.	None.
			Actual																													
1-1-3	Develop terms of reference (TOR) for Project Steering Committee and Project Implementation Teams and action plans for implementation of the Project	○ ○ ○ ○ ○ ○	Plan																										Expert(s)	Steering Committee	Work Plan was approved by Project Steering Committee.	None.
			Actual																													
1-1-4	Conduct baseline survey	○ ○ ○ ○ ○ ○	Plan																										Expert(s)	Implementation Team	Situation analysis for all the target hospitals and workshops was conducted.	None.
			Actual																													
1-2 Support Supervision on health infrastructure management																																
1-2-1	Review and revise existing supervision system and tools through enrichment of checklists of HFQAP(Health Facility Quality of Care Assessment Program) and allocation of 5S-CQI-TQM facilitators at national and regional levels	○ ○ ○ ○ ○ ○	Plan																										Expert(s)	Steering Committee	Progress of all activities were shared in the 4th JCC. 10 target facilities were assessed by checklist of HFQAP.	The Project team will discuss with SCAPP on how to cover the target hospitals assessment outstanding under the HFQAP.
			Actual																													
1-2-2	Direct integrated support supervision, mentoring and coaching on health infrastructure management as CQI practice integrating 5S, user training and maintenance	○ ○ ○ ○ ○ ○	Plan																										Expert(s)	Steering Committee	Integrated supervision of 3 components of health infrastructure management was conducted 10 times, in November 2018 (1), February 2019, March 2019 (2), April 2019 (1), May 2019 (2), July 2019 (1), August 2019 (1), October (1) and November 2019 (1). CQI practices in RRH as well as RWS were implemented.	None.
			Actual																													

Activities	Sub-Activities	Plan	2016				2017				2018				2019				2020				Responsible Organization		Achievements	Issue & Countermeasures
			Actual	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	Japan		
<b>Output 1 [Project Steering Committee] Supporting/supervising system for health infrastructure management of all the RRHs is strengthened in the MOH</b>																							<b>Japan</b>	<b>Uganda</b>		
1-3 Project implementation, monitoring and evaluation and institutionalization																										
1-3-1	Organize meetings of Project Steering Committee every three months and review whether action plan is being implemented based on PDCA cycle	○ ○ ○ ○ ○ ○ ○ ○	Plan																				Expert(s)	Steering Committee	Project Steering Committee meeting was conducted in July 2019.	None.
		Actual																								
1-3-2	Conduct a meeting to review the established system in MOH	○ ○ ○ ○ ○ ○ ○ ○	Plan																				Expert(s)	Steering Committee	Project Steering Committee meeting was conducted in July 2019.	None.
		Actual																								
1-3-3	Make use of review of activity 1-3-2 for institutionalization of support supervision systems and methodologies developed through the Project, and make reflections if necessary to the Ministerial Policy Statement	○ ○ ○ ○ ○ ○ ○ ○	Plan																				Expert(s)	Steering Committee	Integrated supervision of 3 components of health infrastructure management was conducted 10 times, in November 2018 (1), February 2019, March 2019 (2), April 2019 (1), May 2019 (2), July 2019 (1), August 2019 (1), October (1) and November 2019 (1) MOH Officials participated in supervision and shared methodology of supervision.	None.
		Actual																								
1-3-4	Organize study tours and QI Conference to share good practice and lessons learned on health infrastructure management compiling 5S, UT and ME	○ ○ ○ ○ ○ ○ ○ ○	Plan																				Expert(s)	Implementation Team	No activity was planned.	None.
		Actual																								
1-3-5	Conduct an end-line survey on health infrastructure management, including 5S-CQI-TQM, UT and ME	○ ○ ○ ○ ○ ○ ○ ○	Plan																				Expert(s)	Implementation Team	The 4th 5S performance assessment was conducted. Medical equipment inventory assessment was also conducted.	None.
		Actual																								
<b>Output 2 [Project Implementation Team: 5S-CQI-TQM] Resource management and quality improvement activities are strengthened through CQI approach in all RRHs</b>																							<b>Japan</b>	<b>Uganda</b>		
2-1	Develop and/or update guidelines, manuals, handbooks, monitoring and supervision tools, and facilitators guide	○ ○ ○ ○ ○ ○ ○ ○	Plan																				Expert(s)	Implementation Team	5S-CQI-TQM Facilitators' Guidebook were printed and distributed to the target hospitals.	None.
		Actual																								
2-2	Define criteria for national show case of 5S-CQI-TQM and review national show case(s)	○ ○ ○ ○ ○ ○ ○ ○	Plan																				Expert(s)	Steering Committee	Data were collected for 4th M&E of 5S performance in February 2020, followed by analysis in March.	None.
		Actual																								
2-3	Clarify qualification, role and responsibility of 5S-CQI-TQM facilitators at national and regional levels	○ ○ ○ ○ ○ ○ ○ ○	Plan																				Expert(s)	Steering Committee	No activity was conducted since qualification, role and responsibility of the facilitators were clarified and described in the 5S-CQI-TQM Guidelines in 2019.	None.
		Actual																								
2-4	Conduct leadership and management training based on the results of the baseline survey for management staff of targeted facilities, etc.	○ ○ ○ ○ ○ ○ ○ ○	Plan																				Expert(s)	Implementation Team	No training was planned.	None.
		Actual																								
2-5	Conduct facilitators' training for 5S-CQI-TQM facilitators at national and regional levels with a focus on CQI	○ ○ ○ ○ ○ ○ ○ ○	Plan																				Expert(s)	Implementation Team	No training was planned.	None.
		Actual																								
2-6	Strengthen function of quality improvement team (QIT) and work improvement team (WIT) in the target facilities	○ ○ ○ ○ ○ ○ ○ ○	Plan																				Expert(s)	Implementation Team	Training in patient safety was done at Kabale RRH under supervision. Support for functionalization of medical equipment as TQM was also continued.	Patient safety is new approach, so it is necessary to continue supervision.
		Actual																								
2-7	Conduct 5S-CQI-TQM training to target facilities based on the results of the baseline survey, with a focus on CQI	○ ○ ○ ○ ○ ○ ○ ○	Plan																				Expert(s)	Implementation Team	No group training was planned.	None.
		Actual																								
2-8	Conduct support supervision, mentoring and coaching on WIT/QIT function, development of action plans by WITs, periodic meetings by QIT, implementation of 5S-CQI-TQM activities with proper usage and maintenance of ME in collaboration with UT and ME maintenance activities, etc. as mentioned in 1-2-2	○ ○ ○ ○ ○ ○ ○ ○	Plan																				Expert(s)	Implementation Team	Same as 2-6	Same as 2-6
		Actual																								

Activities		Plan		2016				2017				2018				2019				2020				Responsible Organization		Achievements	Issue & Countermeasures	
				I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV					
<b>Output3 [Project Implementation Team: User Training] Proper utilization of medical equipment through UT is improved in all RRH</b>																				<b>Japan</b>	<b>Uganda</b>							
3-1	Update and develop manuals, handbooks, guidelines, and monitoring tools for dissemination as necessary	○ ○ ○ ○ ○ ○ ○	Plan																						Expert(s)	Implementation Team	A draft of the UT manual has been created. The draft UT guidelines have passed the TWG review.	Both documents will be approved and printed after restrictions due to COVID19 are lifted.
			Actual																									
3-2	Conduct refresher training of user trainers in the previous Project phase	○ ○ ○ ○ ○ ○ ○	Plan																						Expert(s)	Implementation Team	Two additional user trainer candidates were tested. Both passed and were officially certified as a user trainer.	None.
			Actual																									
3-3	Conduct Training of Trainers (TOT) for user trainers of the phase 2 target hospitals	○ ○ ○ ○ ○ ○ ○	Plan																						Expert(s)	Implementation Team	No relevant activity	None.
			Actual																									
3-4	Conduct support supervision, mentoring and coaching on UT for proper usage and ME in collaboration with 5S-CQI-TQM and ME activities aiming at CQI under the direction of Project Steering Committee Activity 1-2-2	○ ○ ○ ○ ○ ○ ○	Plan																						Expert(s)	Implementation Team	Support supervision was conducted.	None.
			Actual																									
<b>Output 4 [Project Implementation Team: ME maintenance] ME maintenance and management capacity of workshops (WS) are strengthened</b>																												
4-1	Update and develop manuals, handbooks, guidelines, and monitoring tools for dissemination as necessary	○ ○ ○ ○ ○ ○ ○	Plan																						Expert(s)	Implementation Team	The WS Operation Manual has been updated and revised. 29 equipment SOPs were developed, and they are still being finalized	Both documents will be approved and printed after restrictions due to COVID-19 are lifted.
			Actual																									
4-2	Conduct leadership and management training for workshop managers including inventory data analysis	○ ○ ○ ○ ○ ○ ○	Plan																						Expert(s)	Implementation Team	A training was held at Hoima in March 2020, and 30 engineers/technicians participated.	None.
			Actual																									
4-3	Conduct training for workshop staff on maintenance of basic medical equipment	○ ○ ○ ○ ○ ○ ○	Plan																						Expert(s)	Implementation Team	None.	None.
			Actual																									
4-4	Conduct training for core staff of workshops in first line maintenance of specialized medical equipment	○ ○ ○ ○ ○ ○ ○	Plan																						Expert(s)	Implementation Team	None.	None.
			Actual																									
4-5	Strengthen capacity of Central Workshop and Infrastructure Department to support Regional Workshops	○ ○ ○ ○ ○ ○ ○	Plan																						Expert(s)	Implementation Team	Support supervision for all WSs were carried out. Regular holding of the WS Performance Review Meetings were interrupted.	WS Performance Review Meeting will be resumed after the COVID-19 crisis.
			Actual																									
4-6	Support Workshops to develop a system for sharing knowledge and skills	○ ○ ○ ○ ○ ○ ○	Plan																						Expert(s)	Implementation Team, all WS managers	The WS Performance Review Meetings and routine support supervisions were institutionalized as the platform for sharing knowledge and skills.	None.
			Actual																									
<b>Duration / Phasing</b>																												
<b>Monitoring Plan</b>																				Remarks		Issue	Solution					
<b>Monitoring</b>																												
Joint Coordinating Committee			Plan																									
			Actual																									
Set-up the Work Plan of Operation			Plan																									
			Actual																									
Submission of Monitoring Sheet			Plan																									
			Actual																									
Monitoring Mission from Japan			Plan																									
			Actual																									
Joint Monitoring			Plan																									
			Actual																									
Post Monitoring			Plan																									
			Actual																									
<b>Reports/Documents</b>																												
Progress report			Plan																									
			Actual																									
Project Completion Report			Plan																									
			Actual																									
<b>Public Relations</b>																												
			Plan																									
			Actual																									
			Plan																									
			Actual																									

To the CR of JICA Uganda Office

**Project Monitoring Report Sheet****Project Title: Improvement of Health Services through Health Infrastructure Management II****Version of the sheet: 9 (Term: 1st May 2020 – 31st October 2020)****Name: Dr. Olaro Charles****Title: Project Director****Name: Hiroshi Tasei****Title: Chief Advisor****Submission Date: 25th December 2020****I. Summary****1 Progress and Achievements of the Project****1-1 Progress of Inputs****[The Japanese side]****1-1-1 Dispatch of JICA Experts (Initial plan→results)**

Name	2020						Total (days)
	5	6	7	8	9	10	
Hiroshi Tasei Chief Advisor/QI Management System①			■		■		60 → 0
Shizu Takahashi Vice Chief Advisor/QI Management System②			■		■		51 → 0
Naoki Take 5S-CQI-TQM①			■		■		61 → 0
Yujiro Handa 5S-CQI-TQM②			■				15 → 0
Naoki Mimuro Maintenance of Medical Equipment			■				45 → 0
Emi Onosaka Project Coordinator/Training Management			■	■		■	87 → 0

\*The initial plan was to start local activities in July, but due to the COVID-19 pandemic all trips were cancelled, and activities were reallocated within Japan. However, supervisions at target facilities were carried out by Ministry of Health (MOH) officials.

**1-1-2 Procurement of Testing and Calibration equipment as JICA Emergency Assistance to fight against COVID-19**

The following activities were conducted.

- Summarized the HID/MOH requests for procurement of equipment aligned with the Project activities in consultation with the HID/MOH and JICA

- Compiled requests from HID/MOH for procurement of equipment and ensured that they were in line with project activities through consultation with HID/MOH and JICA.
- Collected information and data such as required equipment, quantities, target facilities, key specifications, reference brand & model of equipment, priorities of each equipment and local distributors.
- Requested the quotations of equipments to the local distributors for the purpose of budget planning.

### [The Ugandan side]

#### 1-1-1 Assignment of Counterparts

- (1) One MOH official (Principal Medical Officer, PMO) carried out support supervision for 5S in May 2020.
- (2) One MOH official (a Senior Nursing Officer, Nursing Department) carried out support supervision for User Trainers in May 2020.
- (3) Two MOH Officials (a Senior Engineer and a Biomedical Engineer, Health Infrastructure Department, MOH (HID/MOH)) carried out support supervision for Regional Workshops (RWSs) in July and August 2020.

#### 1-2 Progress of Activities

##### 1-2-1 Activities of Output 1

###### (1) Steering Committee Meeting

<b>Related to Activities 1-3-1/1-3-2</b>	Planned in July 2020
<b>Details</b>	<ul style="list-style-type: none"> <li>● Date and Venue: 7th August 2020, Virtual meeting by Zoom</li> <li>● Participants: 6 from the MOH, 9 from the Project and 4 from JICA</li> <li>● Objectives:               <ol style="list-style-type: none"> <li>(1) Sharing of COVID-19 situation in Uganda as of August 2020</li> <li>(2) To present the Plan of Operation for the extended period of the Project</li> <li>(3) To discuss the MOH's budget plan for the year 2020/2021</li> </ol> </li> </ul>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>● The project manager updated the cumulative number of infected persons as of 6th August 2020 as 1,223 confirmed cases, 5 deaths, 1,264 recoveries.</li> <li>● All members shared information on the Project activities planned for the extension period. Programmed Instructions (PI) using Social Networking Services (SNS) communication and video</li> </ul>

	<p>lectures will be conducted on the following two issues:</p> <ol style="list-style-type: none"> <li>1) CQI(KAIZEN) for Medical Equipment Management</li> <li>2) Introduction of the Hospital Safety Report (Patient Safety)</li> </ol> <ul style="list-style-type: none"> <li>● All members understood that SNS communications and video distribution are aimed at knowledge cultivation. For these activities, JICA Experts, together with Ugandan counterparts, will hold a kick-off meeting to explain the implementation guidelines of PI to the target facilities.</li> <li>● The budget for the new fiscal year was being implemented, but the MOH explained that the budget related to the Project activities is lower than in previous years due to the fight against COVID-19 .</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● Regarding the COVID-19 situation, among the challenges pointed out were few ICU beds with limited oxygen supplies, turnaround time for tested samples, and infection risk of the health workers as a result of hospitalized asymptomatic patients.</li> <li>● For PI, it is important for the participants to understand the messages from the JICA Experts and to implement the issues analyzed in the hospital.</li> </ul>

**(2) Programmed Instructions Kick-off Meeting**

<b>Related to Activity 1-3-2</b>	Started in July 2020
<b>Details</b>	<ul style="list-style-type: none"> <li>● Date and Venue: 30th October 2020, Virtual meeting by Zoom</li> <li>● Participants: 2 from the MOH, 9 from the Project and 2 from JICA, as well as participants from Kabale, Fort Portal, Soroti, Hoima, Naguru and Entebbe Regional Referral Hospital (RRH)</li> <li>● Objectives: <ol style="list-style-type: none"> <li>(1) To present the Plan of Operation for the extended period of the Project</li> <li>(2) To explain PI in detail</li> </ol> </li> </ul>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>● The participants were divided into two groups, CQI(KAIZEN) for Medical Equipment (ME) Management and Patient Safety, in the form of a breakout session. The JICA Expert in charge of each group explained the implementation procedures.</li> </ul> <ol style="list-style-type: none"> <li>1) CQI(KAIZEN) ME Management <ul style="list-style-type: none"> <li>-Target facilities: Fort Portal, Soroti, Hoima RRH (total of 30</li> </ul> </li> </ol>

	<p>members; 10 members from each hospital and the RWs)</p> <p>-Period of PI: 20th October to 17th December 2020</p> <p>-Modules and Modes: Weekly dialogues through SNS, weekly video lectures and exercises to promote understanding of KAIZEN.</p> <p>2) Patient Safety</p> <p>-Target facilities: Kabale, Naguru and Entebbe RRH (total of 30 members; 10 members from each hospital)</p> <p>-Period of PI: 20th October to 17th December 2020</p> <p>-Modules and Modes: Weekly dialogues through SNS and weekly video streaming</p>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● Because this is the first time PI is being done in these hospitals, it is difficult for the management and staff to understand its purpose right away. Therefore, it is necessary to gradually provide additional video streaming and exercise assignments to deepen the understanding of PI.</li> </ul>

## 1-2-2 Activities of Output 2

### (1) Development of Teaching Materials on CQI(KAIZEN)

<b>Related to Activity 2-1</b>	Planned from May-December, 2018
<b>Details</b>	<ul style="list-style-type: none"> <li>● This activity was not planned in the beginning. However, in order to efficiently cascade knowledge on CQI(KAIZEN) in the RRHs and other lower health facilities in Uganda, teaching materials (a picture-story) were developed in August 2020. The concept of the teaching materials was “easy to understand”.</li> </ul>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>● A draft of the front page (illustration) was completed and proofread. The content consisted of: 1) the CQI(KAIZEN) Handbook and case 1, 2) Case 2: Catheter failures at a Pediatric Ward, 3) Case 3: Ultrasound machines at a regional workshop and 4) Appendix: Introduction of charts and columns.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● The draft on the back page (explanation) will be completed and proofread by December 2020. The picture-story will be printed and completed by February 2021.</li> <li>● The material will be printed out and shared with the national 5S-CQI-TQM facilitators and others.</li> </ul>



**(2) Supervision of 5S-CQI-TQM**

<b>Related to Activities 2-6/2-8</b>	Started in June 2018
<b>Details</b>	<ul style="list-style-type: none"> <li>● Support supervisions for 3 RRHs were carried out according to the following schedule: Arua, 25th May; Gulu, 27th May; and Lira, 29th May. These hospitals were selected because of concern over the performance of the Quality Improvement Team (QIT) as a result of 4th M&amp;E.</li> <li>● f</li> <li>● The supervisions were conducted by one Principal Medical Officer (PMO) of Standards, Compliance, Accreditation and Patient Protection Department (SCAPP-D), MOH member.</li> </ul>
<b>Achievements</b>	<p>Following are the findings from the supervision:</p> <ul style="list-style-type: none"> <li>● All 3 hospitals could perform sort, set and shine well.</li> <li>● QIT at Arua: Meetings were held regularly but its action plan and minutes were not updated. Also, the QIT was not sufficiently supported by the top management.</li> <li>● QIT and WIT at Gulu: An action plan was formulated for the first time, but meetings were not held regularly, and minutes and internal supervision records were rarely kept. QIT did not sufficiently communicate with WIT, although some members were more active.</li> <li>● QIT and WIT at Lira: QIT was active, activities were in line with formulated action plan and the top management was supportive. However, records like minutes and supervision records were not properly kept. WIT was not active at most units/departments.</li> <li>●</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● The challenge is that the QIT does not realize its leadership (e.g. QIT cannot formulate, implement and monitor its action plan for quality improvement) partly because of the insufficient support from the top management.</li> </ul>

**(3) Technical Support of Patient Safety at Kabale RRH**

<b>Related to Activities 2-6/2-8</b>	Started in February 2020
<b>Details</b>	<ul style="list-style-type: none"> <li>● At Kabale RRH, the follow-up on the incident report system (called the “Hospital Safety Report” (HSR)) was done through WhatsApp</li> </ul>

	<p>and email.</p> <ul style="list-style-type: none"> <li>● The number of incident reports and actions to take were followed up on, and comments were made by JICA Experts.</li> </ul>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>● 227 incident reports were submitted between February, when the JICA Experts introduced the hospital safety report system, and the end of September.</li> <li>● The largest number of reports was submitted by the Isolation unit, followed in order by Maternity, Pediatric and Casualty.</li> <li>● The content of the reports included infection prevention control (especially the lack of Personal Protective Equipment), needle pricks and other environmental issues.</li> <li>● Although the HSRs were properly filled out, because of the limitations on communication through WhatsApp, it was unclear what countermeasures or actions were taken by the QIT.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● The QIT will formulate a detailed action plan for introducing the HSR, including training within the hospital to promote the use of HSR in other units.</li> <li>● Continuous technical support, such as supervision by the local consultant, will be needed to ensure an effective HSR system.</li> </ul>

**(4) Programmed Instruction on Medical Equipment Management**

<b>Related to Activity 2-7</b>	Started in July 2020
<b>Details</b>	<ul style="list-style-type: none"> <li>● This PI was implemented to provide the opportunity for target hospitals to train in CQI(KAIZEN) for the management of ME, even under the circumstances of the COVID-19 pandemic.</li> <li>● Following the completion of the PI, the participants will be able to (1) obtain knowledge of and skills for the 7 steps of CQI(KAIZEN) and (2) gain awareness on why CQI(KAIZEN) is needed for proper ME management.</li> <li>● 3 RRHs were selected as targets: Fort Portal, Hoima and Soroti. Ten staff members from each hospital participated in the PI. Criteria of target hospitals are as follows: <ul style="list-style-type: none"> <li>-Regional workshop is affiliated with the hospital</li> <li>-Workshop performs excellently with use of score by Health</li> </ul> </li> </ul>

	<p>Infrastructure Department (HID) and the Project</p> <p>-Performance of QIT improved from last year's M&amp;E of 5S performance.</p> <p>-Hospital is not being trained in or starting CQI(KAIZEN)</p> <ul style="list-style-type: none"> <li>● Period of the PI: 20<sup>th</sup> October-17<sup>th</sup> December 2020</li> <li>● Instructors: Mr. Naoki Take and Mr. Naoki Mimuro</li> <li>● The PI consists of 2 approaches:</li> </ul> <p>(1) A weekly dialogue with instructions through WhatsApp, a SNS tool</p> <p>[Schedule]</p> <table border="1"> <thead> <tr> <th>Date</th> <th>Topic</th> </tr> </thead> <tbody> <tr> <td>20/Oct/2020</td> <td>What is KAIZEN?</td> </tr> <tr> <td>27/Oct/2020</td> <td>What is a "problem"?</td> </tr> <tr> <td>3/Nov/2020</td> <td>What is required for successful KAIZEN?</td> </tr> <tr> <td>10/Nov/2020</td> <td>What is a team?</td> </tr> <tr> <td>17/Nov/2020</td> <td>What is teamwork?</td> </tr> <tr> <td>24/Nov/2020</td> <td>What is leadership?</td> </tr> <tr> <td>01/Dec/2020</td> <td>ME management, Patient Safety and service quality</td> </tr> </tbody> </table> <p>(2) Weekly video lectures uploaded to YouTube on the 7 steps of CQI(KAIZEN)</p> <p>[Schedule]</p> <table border="1"> <thead> <tr> <th>Topic</th> <th>Date of uploading</th> <th>Due date of exercise</th> </tr> </thead> <tbody> <tr> <td>KAIZEN introduction</td> <td>22/Oct/2020</td> <td>24/Oct/2020</td> </tr> <tr> <td>Step-1: Selection of KAIZEN theme</td> <td></td> <td></td> </tr> <tr> <td>What is a "problem"?</td> <td>29/Oct/2020</td> <td>31/Oct/2020</td> </tr> <tr> <td>Step-2: Situation analysis</td> <td></td> <td></td> </tr> <tr> <td>Step-2 (continued)</td> <td>05/Nov/2020</td> <td>07/Nov/2020</td> </tr> <tr> <td>Step-3: Root cause analysis</td> <td>12/Nov/2020</td> <td>14/Nov/2020</td> </tr> <tr> <td>Step-3 (continued)</td> <td>19/Nov/2020</td> <td>21/Nov/2020</td> </tr> <tr> <td>Step-4: Identification of countermeasures</td> <td>26/Nov/2020</td> <td>28/Nov/2020</td> </tr> <tr> <td>Step-5: Implementation of the countermeasures</td> <td>03/Nov/2020</td> <td>05/Dec/2020</td> </tr> <tr> <td>Step-6: Assessment of effectiveness of the countermeasures</td> <td>10/Dec/2020</td> <td>12/Dec/2020</td> </tr> <tr> <td>Step-7: Standardization of the effective measures</td> <td>17/Dec/2020</td> <td>19/Dec/2020</td> </tr> </tbody> </table>	Date	Topic	20/Oct/2020	What is KAIZEN?	27/Oct/2020	What is a "problem"?	3/Nov/2020	What is required for successful KAIZEN?	10/Nov/2020	What is a team?	17/Nov/2020	What is teamwork?	24/Nov/2020	What is leadership?	01/Dec/2020	ME management, Patient Safety and service quality	Topic	Date of uploading	Due date of exercise	KAIZEN introduction	22/Oct/2020	24/Oct/2020	Step-1: Selection of KAIZEN theme			What is a "problem"?	29/Oct/2020	31/Oct/2020	Step-2: Situation analysis			Step-2 (continued)	05/Nov/2020	07/Nov/2020	Step-3: Root cause analysis	12/Nov/2020	14/Nov/2020	Step-3 (continued)	19/Nov/2020	21/Nov/2020	Step-4: Identification of countermeasures	26/Nov/2020	28/Nov/2020	Step-5: Implementation of the countermeasures	03/Nov/2020	05/Dec/2020	Step-6: Assessment of effectiveness of the countermeasures	10/Dec/2020	12/Dec/2020	Step-7: Standardization of the effective measures	17/Dec/2020	19/Dec/2020
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	<p>As this PI was conducted in the form of distant learning, and was the first experience for all JICA Experts involved, the preparation (e.g. developing a syllabus, considering the content of dialogues, and shooting the videos) took longer than expected.</p>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>●</li> <li>● Regarding the WhatsApp dialogues, 22 out of 30 participants completed questions in Topic 1: “What is KAIZEN?” (7 participants from Fort Portal, 9 from Hoima and 6 from Soroti) and 11 out of 30 completed Topic 2 “What is a “problem”?” (2 from Fort Portal, 4 from Hoima and 5 from Soroti) by the end of October 2020.</li> <li>● In October 2020, 5 YouTube video lectures were uploaded for KAIZEN Step-1 and -2. Exercises were completed for Step-1 (Theme selection and identification of 3 pilot areas) at Hoima and Soroti, while Fort Portal will do this in early November.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● Continue to share the video lectures with learners</li> <li>● Delay of response is anticipated due to severe daily workload, difficulty of internet connectivity, etc. Since the PI proceeds at the pace of each participant based on their circumstances, progress of learning mainly relies on their willingness to learn CQI(KAIZEN). The Project will remind the participants if their responses lag behind. However, the project expects their willingness to learn (or their lust for knowledge and skills) and will not force them to response.</li> </ul>

**(5) Programmed Instruction on Patient Safety**

<b>Related to Activities 2-7</b>	Started in July 2020
<b>Details</b>	<ul style="list-style-type: none"> <li>● The PI on Patient Safety aims to promote and raise learners’ awareness of Patient Safety through step-by-step learning and mutual communication. Through this PI and further activities on Patient Safety, the Project expects 3 RRHs(Kabale, Entebbe and Naguru) that 1) incident report system is introduced and 2) 2 -3 CQI(KAIZEN) process are implemented using incident report system.</li> <li>● The PI consists of 2 modes, SNS (WhatsApp) dialogues and</li> </ul>

	<p>YouTube video lectures. Since this PI was the first activity to be conducted remotely, the preparation (shooting the videos, making scenarios, considering the content of dialogues, and developing a syllabus) took longer than what the JICA Experts expected. However, this activity kicked off on 20th October 2020, and will end in December. The detailed plan is shown below.</p> <p><b>【Detailed Plan】</b></p> <ol style="list-style-type: none"> <li>1) Start Date: 20th October 2020</li> <li>2) Learners: 31 learners from Kabale, Entebbe and Naguru hospitals</li> <li>3) Facilitators: Prof.. Yujiro Handa, Ms. Shizu Takahashi and Ms. Emi Onosaka</li> <li>4) WhatsApp dialogues: <ul style="list-style-type: none"> <li>Questions on the following topics will be sent. The learners are expected to answer each question.</li> <li>A tentative schedule and contents are shown as below.</li> </ul> <table border="1"> <tr> <td>20/Oct/2020</td> <td>A team for Patient Safety</td> </tr> <tr> <td>26/Oct/2020</td> <td>Unsafe practices</td> </tr> <tr> <td>1/Nov/2020</td> <td>Regulations and rules</td> </tr> <tr> <td>6/Nov/2020</td> <td>Observing regulations and rules</td> </tr> <tr> <td>12/Nov/2020</td> <td>Incident report (Hospital Safety Report)</td> </tr> <tr> <td>17/Nov/2020</td> <td>Reporting unsafe practices</td> </tr> <tr> <td>23/Nov/2020</td> <td>Making good teams toward Patient Safety</td> </tr> <tr> <td>27/Nov/2020</td> <td>Medical records</td> </tr> <tr> <td>3/Dec/2020</td> <td>Medical record system</td> </tr> <tr> <td>8/Dec/2020</td> <td>5S and KAIZEN(CQI) activities in Patient Safety</td> </tr> <tr> <td>14/Dec/2020</td> <td>Challenges and goals of hospital departments</td> </tr> <tr> <td>18/Dec/2020</td> <td>Way forward to implement the incident report system (Hospital Safety Report)</td> </tr> </table> </li> <li>5) YouTube video lectures: <ul style="list-style-type: none"> <li>Approximately 30 videos related to each of the above-mentioned content items will be uploaded to YouTube and shared through SNS (WhatsApp), so that the learners can watch them at their convenience.</li> </ul> </li> </ol>	20/Oct/2020	A team for Patient Safety	26/Oct/2020	Unsafe practices	1/Nov/2020	Regulations and rules	6/Nov/2020	Observing regulations and rules	12/Nov/2020	Incident report (Hospital Safety Report)	17/Nov/2020	Reporting unsafe practices	23/Nov/2020	Making good teams toward Patient Safety	27/Nov/2020	Medical records	3/Dec/2020	Medical record system	8/Dec/2020	5S and KAIZEN(CQI) activities in Patient Safety	14/Dec/2020	Challenges and goals of hospital departments	18/Dec/2020	Way forward to implement the incident report system (Hospital Safety Report)
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<b>Achievements</b>	<ul style="list-style-type: none"> <li>● 13 YouTube video lectures were filmed and uploaded, and 8 lectures were shared among the learners. For shared videos that got more than 60 views, it was considered that all participants had watched the</li> </ul>																								

	<p>lecture at least once. Also, some participants made comments or asked questions about the lectures on how to introduce the incident report through WhatsApp.</p> <ul style="list-style-type: none"> <li>● Learners were asked 2 questions regarding teams for Patient Safety and unsafe practices, and both questions were answered by all learners. The dialogues took into consideration the fact that some learners were already aware of the importance of Patient Safety, while others were not. Even if they were aware of the importance of patient safety, most of them had not taken action as the hospitals and MOH had no clear guiding principles on patient safety (i.e, no forms, no guidelines on the incident report system, and no guidelines on protection from litigation).</li> <li>●</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● Continue to share the video lectures with learners</li> <li>● Follow-up on awareness will be done through the questions and dialogues with JICA Experts.</li> <li>● To take efficient action on Patient Safety, hospitals need supervision and coaching by JICA Experts and local consultants. In addition, policy development on Patient Safety should be considered by MOH.</li> </ul>

### 1-2-3 Activities of Output 3

#### (1) Senior Management Committee (SMC) meeting for approval of User Training (UT) Guidelines and Manuals

<b>Related to Activity 3-1</b>	Planned from June 2018 - March 2019
<b>Details</b>	<ul style="list-style-type: none"> <li>● The Senior Management Committee (SMC) meeting was to be held in March, but it was postponed because the COVID-19 response was prioritized.</li> <li>● Re-approval of the User Training (UT) Guidelines at the SMC meeting</li> </ul>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>● SMC meeting was not held. UT Guidelines were not approved.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● After holding the SMC and Top Management Committee(TMC) meeting, approval of UT Guidelines is an urgent task.</li> </ul>

**(2) Support Supervision**

<b>Related to Activity 3-4</b>	Planned from September 2018-May 2020														
<b>Details</b>	<ul style="list-style-type: none"> <li>● Support supervisions for 7 RRHs were carried out according to the following schedule: <table border="1"> <tr><td>18th May</td><td>Arua RRH</td></tr> <tr><td>19th May</td><td>Gulu RRH</td></tr> <tr><td>20th May</td><td>Lira RRH</td></tr> <tr><td>21st May</td><td>Soroti RRH</td></tr> <tr><td>22nd May</td><td>Moroto RRH</td></tr> <tr><td>25th May</td><td>Mbale RRH</td></tr> <tr><td>26th May</td><td>Jinja RRH</td></tr> </table> </li> <li>● The main objectives of the supervision by MOH were as follows: <ol style="list-style-type: none"> <li>1) Confirm and provide guidance on the status of UT implementation and progress on the action plan.</li> <li>2) Provide advice on improving the utilization rate of medical equipment.</li> <li>3) Check the status of the collaboration between the User Trainers and the workshop (WS).</li> <li>4) Explain the proper use of equipment using the results of inventory data analysis..</li> <li>5) Introduce activity examples with other Implementing Partners (IPs).</li> </ol> </li> </ul>	18th May	Arua RRH	19th May	Gulu RRH	20th May	Lira RRH	21st May	Soroti RRH	22nd May	Moroto RRH	25th May	Mbale RRH	26th May	Jinja RRH
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26th May	Jinja RRH														
<b>Achievements</b>	<ul style="list-style-type: none"> <li>● User Trainers continued to conduct UT at target hospitals and lower health facilities.</li> <li>● As a result of UT, the utilization rate of medical equipment at all RRHs has improved. The rate of unused equipment in all target hospitals improved from 5 percent to 2 percent on average.</li> <li>● Increased the frequency of communication and exchanging information between UT and WS staff on the availability of medical equipment.</li> </ul>														
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● There is a lack of understanding of the equipment management system and how to use the medical equipment inventory.</li> <li>● Expected activities include WS and UT coordination activities in the hospital's QIT activities, for example, joint rounds in the hospital for preventive maintenance.</li> </ul>														

		
Arua RRH	Lira RRH	Soroti RRH

### 1-2-4 Activities of Output 4

#### (1) Support Supervision for WSs

<b>Related to Activities 4-5 and 4-6</b>	Twice a year (Year-round activity)								
<b>Details</b>	<ul style="list-style-type: none"> <li>Support supervisions for 15 WSs were carried out according to the following schedule: <table border="1"> <tr> <td colspan="2">July-August 2020</td> </tr> <tr> <td>6-11 July</td> <td>Jinja, Mbale, Soroti, Moroto, Lira, Gulu, Arua</td> </tr> <tr> <td>20-25 July</td> <td>Masaka, Mbarara, Kabale, Fort Portal, Mubende, Hoima</td> </tr> <tr> <td>4-6 August</td> <td>Central, Naguru</td> </tr> </table> </li> </ul> <p>All rounds of supervisions were conducted by two engineers from the HID/MOH, a senior technician from the Central WS and a JICA Project local staff member.</p> <ul style="list-style-type: none"> <li>The agenda had five main areas: <ol style="list-style-type: none"> <li>Review the FY2020/21 work plan and budget allocations.</li> <li>Ascertain the status of inventory management with the NOMAD database.</li> <li>Continue with the preparation of the 3rd &amp; 4th Quarter reports.</li> <li>Provide guidance on the preparation of the Annual WS Performance Report.</li> <li>Provide ongoing CQI(KAIZEN) follow-up.</li> </ol> </li> </ul>	July-August 2020		6-11 July	Jinja, Mbale, Soroti, Moroto, Lira, Gulu, Arua	20-25 July	Masaka, Mbarara, Kabale, Fort Portal, Mubende, Hoima	4-6 August	Central, Naguru
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4-6 August	Central, Naguru								
<b>Achievements</b>	<ul style="list-style-type: none"> <li>Once the COVID-19 lockdown measures were relaxed, the HID/MOH, Central WS and JICA team were able to supervise all Regional WSs as planned.</li> <li>Compared to the previous supervision in February and March 2020, many of the areas in 1) to 5) from the above agenda improved and/or maintained a moderate status in 11 of the 15 WSs (Mbale,</li> </ul>								



	<p>Soroti, Moroto, Lira, Gulu, Masaka, Kabale, Fort Portal, Hoima, Central and Naguru) due to clarification of the challenges and solutions to be taken through continuous Supervision.</p> <ul style="list-style-type: none"> <li>● In terms of expenses, the Uganda side contributed 59.6% of the total cost of the supervisions, while the Japan side contributed 40.4%. Despite the budgetary constraints caused by the COVID-19 pandemic, the HID/MOH was able to secure about 60% of the cost. This may be due to the Project activities being well-established and playing an important role in the hospital system.</li> </ul>
<p><b>Way Forward/ Challenges</b></p>	<ul style="list-style-type: none"> <li>● Four (4) of the WSs (Jinja, Arua, Mbarara and Mubende) were stagnant or did not show any progress. These stagnated WSs are generally weak in terms of leadership and inter-staff collaboration. The Project will continue to focus its support and advice on these aspects.</li> <li>● As with the previous supervisions, this round of supervision was led by HID/MOH engineers and a Central WS technician. The Project has provided support to strengthen the capacity of these leaders/supervisors. The Project will enhance the referral system for medical equipment maintenance through continued supervision.</li> </ul>



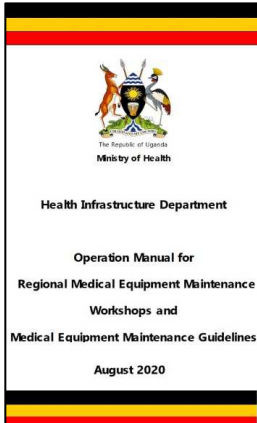

Meeting scene, Mbale WS



Meeting scene, Soroti WS

**(2) Update and develop the WS Operation Manual and SOPs for Planned Preventive Maintenance (PPM)**

<p><b>Related to Activity 4-1</b></p>	<p>Planned from May-December 2018</p>
<p><b>Details</b></p>	<ul style="list-style-type: none"> <li>● This was the final revision of the WS Operation Manual. In addition,</li> </ul>

	<p>new SOPs were developed for Planned Preventive Maintenance (PPM).</p> <ul style="list-style-type: none"> <li>● The approval meeting was held at Mubende in June 2020.</li> <li>● The foreword of both documents were signed by the Director General of the MOH in August.</li> <li>● Copies of both documents were printed in September.</li> <li>● All copies were inspected and delivered to the HID/MOH in September. The copies were distributed to the relevant parties in October.</li> </ul>																		
<p><b>Achievements</b></p>	<ul style="list-style-type: none"> <li>● 400 copies of the WS Operation Manual (158 pages in A5 size) and 200 copies of the SOPs for PPM (144 pages in A4 size) were printed.</li> <li>● The distribution list is as follows.</li> </ul> <table border="1"> <thead> <tr> <th>Sites</th> <th>WS Operation Manual</th> <th>SOPs for PPM</th> </tr> </thead> <tbody> <tr> <td>All 15 WSs (Arua, Gulu, Lira, Soroti, Moroto, Mbale, Jinja, Fort Portal, Hoima, Mubende, Kabale, Mbarara, Masaka, Naguru and Central)</td> <td>15 each (225)</td> <td>2 each (30)</td> </tr> <tr> <td>National Referral Hospital &amp; other Referral Hospitals (Mulago, Entebbe, Kawempe &amp; Kiruddu)</td> <td>15 each (60)</td> <td>2 each (8)</td> </tr> <tr> <td>Uganda Heart Institute and Uganda Cancer Institute</td> <td>15</td> <td>2</td> </tr> <tr> <td>National Advisory Committee on Medical Equipment (NACME)</td> <td>7</td> <td>7</td> </tr> <tr> <td><b>Total Number of Distributions</b></td> <td><b>307 copies</b></td> <td><b>47 copies</b></td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>● The remaining copies, which were not distributed, are in storage at the HID/MOH.</li> </ul> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>The cover of the WS Operation Manual features the Ugandan coat of arms at the top, followed by the text: 'The Republic of Uganda Ministry of Health', 'Health Infrastructure Department', 'Operation Manual for Regional Medical Equipment Maintenance Workshops and Medical Equipment Maintenance Guidelines', and 'August 2020'.</p> </div> <div style="text-align: center;">  <p>The cover of the SOPs for PPM features the Ugandan coat of arms at the top, followed by the text: 'The Republic of Uganda Ministry of Health', 'HEALTH INFRASTRUCTURE DEPARTMENT', 'Operation Manual for Regional Medical Equipment Maintenance Workshops and Medical Equipment Maintenance Guidelines', 'Volume IIa', 'Standard Operating Procedures for carrying Planned Preventive Maintenance on Commonly used Medical Equipment and Hospital Plants in Health Facilities in Uganda', and 'August 2020'.</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <p>WS Operation Manual</p> </div> <div style="text-align: center;"> <p>SOPs for PPM</p> </div> </div>	Sites	WS Operation Manual	SOPs for PPM	All 15 WSs (Arua, Gulu, Lira, Soroti, Moroto, Mbale, Jinja, Fort Portal, Hoima, Mubende, Kabale, Mbarara, Masaka, Naguru and Central)	15 each (225)	2 each (30)	National Referral Hospital & other Referral Hospitals (Mulago, Entebbe, Kawempe & Kiruddu)	15 each (60)	2 each (8)	Uganda Heart Institute and Uganda Cancer Institute	15	2	National Advisory Committee on Medical Equipment (NACME)	7	7	<b>Total Number of Distributions</b>	<b>307 copies</b>	<b>47 copies</b>
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<b>Total Number of Distributions</b>	<b>307 copies</b>	<b>47 copies</b>																	

<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● The SOP book in particular is expected to play a significant role in promoting preventive maintenance.</li> <li>● It will be necessary to monitor the effective use of the distributed books through supervisions.</li> </ul>
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**(3) Preparation for the 26th WS Performance Review Meeting**

<b>Related to Activity 4-5</b>	At least twice a year (Year-round activity)								
<b>Details</b>	<ul style="list-style-type: none"> <li>● A WS Performance Review Meeting was planned and prepared as follows: <table border="1" style="width: 100%; margin-top: 10px;"> <tr> <td style="width: 25%;">Date</td> <td>17th September, 2020</td> </tr> <tr> <td>Venue</td> <td>Hotel Leslona, Moroto</td> </tr> <tr> <td>Organizer</td> <td>HID/MOH and Moroto RRH</td> </tr> <tr> <td>Participants</td> <td>Approx. 60-70 (Hospital directors and administrators of 14 RRHs, all WS managers, biomedical engineers, HID/MOH officials, JICA Project staff, IPs)</td> </tr> </table> </li> <li>● The main objectives were: 1) communication from the HID/MOH, 2) presentation of the Quarter 3 and 4 performance reports by each WS, 3) report on the annual assessment of WS performance and presentation of the Best WS Award, 4) meeting resolutions and recommendations, and 5) setting the date and venue for the next meeting.</li> <li>● Certificates for the Best Performance Awards (1<sup>st</sup> place “Fort Portal WS”, 2<sup>nd</sup> “Soroti WS” and 3<sup>rd</sup> “Mbale WS”) were prepared.</li> </ul>	Date	17th September, 2020	Venue	Hotel Leslona, Moroto	Organizer	HID/MOH and Moroto RRH	Participants	Approx. 60-70 (Hospital directors and administrators of 14 RRHs, all WS managers, biomedical engineers, HID/MOH officials, JICA Project staff, IPs)
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Participants	Approx. 60-70 (Hospital directors and administrators of 14 RRHs, all WS managers, biomedical engineers, HID/MOH officials, JICA Project staff, IPs)								
<b>Achievements</b>	<ul style="list-style-type: none"> <li>● All preparations for the meeting were completed, but it was postponed due to confirmed cases of COVID-19 among Moroto Hospital staff.</li> </ul>								
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● The HID/MOH and the Project aim to hold the meeting by the end of 2020, while being precautious of COVID-19.</li> <li>● As in the past, allowances and transportation expenses will be covered by each WS budget, and the cost of refreshments will be covered by the JICA side.</li> <li>● The documents and awards (for the above-mentioned objectives 1 to 5) that were prepared can be used at the next meeting, which is planned in December.</li> </ul>								

(Other activities)

- [ME] The JICA Expert supported the selection of candidates for the JICA training “Medical Equipment Management and Maintenance”, which will be held early next year with

combination of online home-country training and overseas training in Japan. Originally there was only one slot for Uganda, but two technicians will be nominated for the possibility of two people being selected.

### 1-3 Achievement of Output

#### 1-3-1 Summary of Achievements

**Output 1:** Due to the global COVID-19 pandemic, all JICA Experts returned to Japan in February and have not been able to travel since then. Meanwhile, the initial Project period ended. However, the one-year extension, which had already been agreed upon between JICA and the MOH, started in July 2020. At the 7th SC meeting, it was reported and agreed on that CQI(KAIZEN) ME Management and Patient Safety would be the main activities during the extended period of the Project, and that they would be done remotely from Japan using the "Programmed Instructions" method.

Output 1 The support/supervision system for health infrastructure management of all the RRHs is strengthened in the MOH.	
Current Indicators	Achievements
1-1 The Project Steering Committee meeting is conducted every three months.	The Steering Committee meetings were conducted approximately every three months. Detailed dates are as follows: 1) 29th May 2018 2) 17th September 2018 3) 27th November 2018 4) 2nd February 2019 5) 22nd July 2019 6) 7th August 2020
1-2 The results of integrated support supervision conducted by Project Implementation Teams, and the next quarter action plan developed from these results, are shared and approved at every Project Steering Committee meeting.	From May to August, during the absence of the JICA Experts, supervision was carried out by the MOH staff. The details of implementation were reported at the 6th SC meeting.
1-3 The roadmap for incorporating the Project	As a result of Uganda making COVID-19

<p>activities into the policy and systems of MOH is established and implemented by the Project Steering Committee.</p>	<p>infection control its top priority, not much can be expected in terms of the budget allocation to Project activities. On the other hand, 5S-CQI activities are monitored using the supervision in each department.</p>
<p>1-4 The Project activities are successfully incorporated into the Ministerial Policy Statement of Ministry of Health.</p>	<p>Guidelines for the management of medical equipment and the facility's 5S activities were reported at the Ministry of Health review meetings and incorporated into the Ministry of Health activities policy.</p>

**Output 2:** As the 5S evaluation was originally scheduled to be conducted in February 2021, the indicators for Output 2 will be updated once the evaluation has been executed. However, in the meantime, the implementation of Programmed Instructions is expected to increase awareness of CQI(KAIZEN) and maintain the performance of 5S-CQI at each facility.

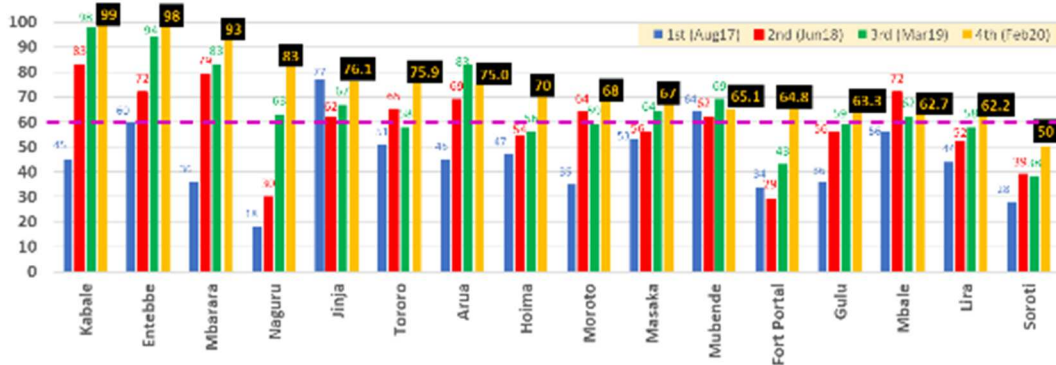
In addition, the Programmed Instruction for strengthening medical equipment management has benefits to enhance knowledge and interest in optimal use of equipment not only of engineering staff, but also of physicians, nurses, and top hospital management. These new approaches, as part of digital transformation, could be one way of taking a big step forward.

In May 2020, the MOH (SCAPP-D), with technical support from a Ugandan expert of the Project, supervised 5S activities at Arua RRH, Gulu RRH and Lira RRH. The Project tried to maintain the level of performance of 5S at the target hospitals, despite the absence of the JICA Experts.

<p>[Project Implementation Team: 5S-CQI-TQM] Resource management and quality improvement activities are strengthened through the CQI approach in all RRHs.</p>	
Current Indicators	Achievements
<p>2-1 Score of Module 1 (Leadership) and 6 (Health Infrastructure), Health Facility Quality of Care Assessment program (HFQAP) Facility Assessment Tool - All RRHs mark (i) 5 points out of 8 as full mark for module 1 and (ii) 6 points out of 10 as full mark for module 6.</p>	<p>The MOH collected data from 10 target hospitals. The scores will be shared with the JICA Expert soon after their analysis.</p>

<p>2-2</p> <p>Score of modified 5S M&amp;E Sheet in 5S-CQI-TQM Guidelines</p> <p>- All RRHs mark 33 points out of 54 as full mark for at least two consecutive years.</p>	<p>Nine out of the 16 target hospitals reached the target: Arua, Entebbe, Jinja, Kabale, Masaka, Mbale, Mbarara, Mubende and Naguru. (See Figure 1)</p>
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Figure 1: The results of 5S M&E by hospital



**Output 3:** Supervision of UT was implemented using the methods that have been taught by JICA Experts in the past. However, due to the COVID-19 pandemic, it has not been carried out in the past three months due to restrictions on travel to rural areas. However, the management of the target hospitals have a deep understanding of UT activities, and the RWS is cooperative. In addition, financial support from other IPs is being obtained, and the environment for UT activities has improved, so sustainability of the activities can be expected. The indicators will not be updated this term.

<p>[Project Implementation Team: UT]</p> <p>Proper utilization of medical equipment through UT is improved in all RRHs.</p>	
<p>Current Indicators</p>	<p>Achievements</p>

<p>3-1 There are at least two regional User Trainers at all RRHs.</p>	<p>The number of User Trainers is shown below:</p> <table border="1"> <thead> <tr> <th>Hospital Name</th> <th>No. of User Trainers</th> </tr> </thead> <tbody> <tr><td>Arua</td><td>2</td></tr> <tr><td>Fort Portal</td><td>2</td></tr> <tr><td>Gulu</td><td>2</td></tr> <tr><td>Hoima</td><td>2</td></tr> <tr><td>Jinja</td><td>2</td></tr> <tr><td>Kabale</td><td>2</td></tr> <tr><td>Lira</td><td>3</td></tr> <tr><td>Masaka</td><td>2</td></tr> <tr><td>Mbale</td><td>2</td></tr> <tr><td>Mbarara</td><td>2</td></tr> <tr><td>Moroto</td><td>2</td></tr> <tr><td>Mubende</td><td>2</td></tr> <tr><td>Naguru</td><td>2</td></tr> <tr><td>Soroti</td><td>3</td></tr> <tr><td>Entebbe</td><td>3</td></tr> <tr><td>Total</td><td>33</td></tr> </tbody> </table> <p>*As of the end of April 2020</p>	Hospital Name	No. of User Trainers	Arua	2	Fort Portal	2	Gulu	2	Hoima	2	Jinja	2	Kabale	2	Lira	3	Masaka	2	Mbale	2	Mbarara	2	Moroto	2	Mubende	2	Naguru	2	Soroti	3	Entebbe	3	Total	33		
Hospital Name	No. of User Trainers																																				
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Total	33																																				
<p>3-2 The number of UT conducted by regional User Trainers is more than three per year in every region.</p>	<p>The number of UTs is shown below:</p> <table border="1"> <thead> <tr> <th>Hospital name</th> <th>No.</th> <th>Hospital name</th> <th>No.</th> </tr> </thead> <tbody> <tr><td>Arua</td><td>4</td><td>Mbale</td><td>5</td></tr> <tr><td>Fort Portal</td><td>3</td><td>Mbarara</td><td>2</td></tr> <tr><td>Gulu</td><td>3</td><td>Moroto</td><td>3</td></tr> <tr><td>Hoima</td><td>3</td><td>Mubende</td><td>7</td></tr> <tr><td>Jinja</td><td>4</td><td>Naguru</td><td>3</td></tr> <tr><td>Kabale</td><td>9</td><td>Soroti</td><td>10</td></tr> <tr><td>Lira</td><td>4</td><td>Entebbe</td><td>4</td></tr> <tr><td>Masaka</td><td>5</td><td></td><td></td></tr> </tbody> </table> <p>*For the period from July 2019 to April 2020</p>	Hospital name	No.	Hospital name	No.	Arua	4	Mbale	5	Fort Portal	3	Mbarara	2	Gulu	3	Moroto	3	Hoima	3	Mubende	7	Jinja	4	Naguru	3	Kabale	9	Soroti	10	Lira	4	Entebbe	4	Masaka	5		
Hospital name	No.	Hospital name	No.																																		
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Kabale	9	Soroti	10																																		
Lira	4	Entebbe	4																																		
Masaka	5																																				
<p>3-3 The average percentage of medical equipment in status B at all RRHs is not higher than 4%.</p>	<p>Baseline: 5.1% Current data: 2.05%</p>																																				

**Output 4:** Despite the unusual situation created by the COVID-19 pandemic, support supervisions for WSs were continuously carried out twice a year.

By means of an almost year-long revision process, two practical manuals, “WS Operation Manual” and “SOPs for PPM,” were published and distributed to all relevant parties. In particular, the “SOPs for PPM” manual was not planned originally, but was newly developed in order to help institutionalize preventive maintenance.

Although the WS Performance Review Meeting was postponed due to COVID-19, all

preparations, including the meeting budget, are completed. The meeting is expected to be held by the end of 2020.

In addition, as mentioned in Output 2, the Programmed Instructions on medical equipment management is expected to raise the awareness not only of engineering staff, but also of physicians, nurses, and top hospital management regarding equipment issues.

Along with these achievements, the Project activities corresponded with the improvement of WS maintenance and management capacities, which aligns with the goal of Output 4.

[Project Implementation Team: ME] ME and management capacity of WSs are strengthened.	
Current Indicators	Achievements
(1) The average increase of scores between the pre-test and post-test is at least 15%.	Average increase of scores of the past nine training sessions: 29.4% (The target was achieved.)
(2) The average of percentage of medical equipment in status C and status E at all RRHs is not higher than 15%.	Baseline: 22.1% End line: 10.1% (Achieved)

#### 1-4 Achievement of the Project Purpose

During the initial Project period (~ June 2020), small CQI and KAIZEN cases were developed at some target facilities. In addition, performance indicators in terms of equipment maintenance were achieved through the maintenance of WS inventory data and the activities of User Trainers. Using the knowledge and skills learned through PI, RRHs (Fort Portal, Hoima and Soroti) are expected to add to the achievement of the Project Purpose through the actual implementation of CQI(KAIZEN) on ME management. Regarding Patient Safety, 3 RRHs (Kabale, Entebbe and Naguru) are expected to utilize the tools of CQI(KAIZEN) and the implementation of small CQI(KAIZEN) to help develop a culture of safety for patients and staff.

Current Indicators	Achievements
(1) CQI Process or Quality Control (QC) Story -The number of cases of CQI Process or QC Story amounts to more than three.	Nineteen cases of CQI Process are being implemented at Kabale RRH, and six were completed. Three cases of CQI Process are being carried out at Entebbe RRH.



(2) Good practice of small CQI -All RRHs have at least one good practice of small CQI.	At least one case of small CQI was practiced at 12 out of the 16 target hospitals: Entebbe RRH, Gulu RRH, Jinja RRH, Kabale RRH, Masaka RRH, Mbale RRH, Mbarara RRH, Moroto RRH, Mubende RRH, Naguru RRH, Soroti RRH and Tororo GH.
(3) The average of percentage of medical equipment in status A at all RRHs is higher than 70%.	Baseline: 65.1% End line: 83.5%
(4) Supervisions on 5S, UT, and ME which is integrated into the system of MOH in a consolidated way are implemented more than XX times.	Integrated supervision of three components of health infrastructure management was conducted. Supervisions were implemented 14 times, in November 2018 (1), February 2019, March 2019 (2), April 2019 (1), May 2019 (2), July 2019 (1), August 2019 (1), October (1) and November 2019 (1), May 2020 (2), June 2020 (1) and July 2020 (1).

### 1-5 Relationship between Project Achievements and COVID-19

The RRHs, the Project targeted sites, have been managing and treating COVID-19 patients and critically ill patients. Their new ICUs are being established and equipped as designated COVID-19 isolation and treatment centers.

The challenges are how to effectively utilize limited resources (for example, healthcare workers, infrastructure, and medical equipment) to achieve maximum outcomes in the fight against COVID-19.

The Project outcomes have comprehensively contributed to tackle the above challenges in the RRHs as follows.

- The component on 5S-CQI(KAIZEN)-TQM gave the skills of RRHs staff members to improve the work environment, optimize work processes and solve small problems/issues. Especially, the 5S ZONING method was introduced in the hospital (Entebbe RRH) to identify the safety space for COVID-19 patients, general patients, and medical personnel to prevent nosocomial infections. It also standardized the handling of COVID-19 patients to protect the safety of non-COVID-19 patients and medical personnel.
- The component on User Training of medical equipment allowed the nurses to operate the equipment properly, reduce mishandling, and revitalize unused equipment.
- The component on medical equipment maintenance contributed to the increase in the ratio of equipment which are being used at the RRHs, through institutionalizing support supervision, performance review meetings, technical trainings, equipment inventory analysis, etc.

### 1-6 Changes of Risk and Actions for Mitigation

After being required to leave Uganda due to the COVID-19 pandemic, none of the JICA Experts have returned as of October 2020. However, the availability of communication tools such as SNS (e.g. WhatsApp), YouTube and Zoom enabled the Project to implement activities such as the PI on ME management and Patient Safety.

### 1-7 Progress of Actions Undertaken by JICA

- (1) After the Terminal Evaluation in March 2020, and following a decision within JICA, the MOH and JICA agreed to an extension of the Project in May 2020, and the Project was extended for one year until July 2021. Based on the recommendations of the Terminal Evaluation, the activities of the Project should include the establishment of the CQI of health infrastructure, the cultivation of a culture of safety that will lead to Patient Safety, supervision, and study tours.
- (2) JICA Uganda provided the following items to the Ministry of Health as part of COVID-19 infection control. Items were Hand sanitizer 20L 650 pieces, Hand sanitizer 500ml 2,000 pieces, Surgical mask(N95) 6,000 pieces, Disposal mask 8,000 pieces, Surgical gloves 3,000 pieces, Disposal gloves 6,000 pieces, Surgical boots 100 sets, Personal Protective Equipment 100 sets, Trash bin 50L and Trash bin liners (red, yellow, black) each 30 pieces. The MOH distributed these items to health facilities that were heavily burdened with COVID-19 infection control.

### 1-8 Progress of Actions Undertaken by the Government of Uganda

- (1) Since February of this year, the MOH has been prioritizing activities related to COVID-19 measures, and it has been difficult for the MOH to support project-related budgets. This priority does not change in the new fiscal year, but as shown in the table below, the Project was able to secure some of the budget for the HID Project.

Date	MOH Dept.	Activities	Venue	MOH		Japan side		Total	
				Allowance/Other		Allowance/Other			
2020	May	SCAPP-D	5S-CQI-TQM supervision	Arua, Gulu, Lira		0%	4,508,000	100%	4,508,000
	May	CS	UT supervision	Arua, Gulu, Lira, Soroti, Moroto, Mbale, Jinja		0%	7,063,300	100%	7,063,300
	Jun	HID	Retreat meeting for Finalizing and approving WS Manual and SOPs	Mubende		0%	5,790,000	100%	5,790,000
	July-Aug	HID	ME supervision	Jinja, Mbale, Soroti, Moroto, Lira, Gulu, Arua, Masaka, Mbarara, Kabale, Fort Portal, Mubende, Hoima, Central, Naguru	6,156,000	60%	4,176,000	40%	10,332,000
				6,156,000	22%	21,537,300	78%	27,693,300	

### 1-9 Progress of Environmental and Social Considerations (if applicable)

None.

**1-10 Progress of Considerations on Gender/Peacebuilding/Poverty Reduction  
(if applicable)**

None.

**1-11 Other Remarkable/Considerable Issues Related to/Affecting the Project (such as other JICA Projects, Activities of Counterparts, Other Donors, Private Sectors, NGOs, etc.)**

- (1) The Project for the Improvement of Regional Referral Hospitals in Northern Uganda is a grant aid Project run by the Japanese government. This Project aims to strengthen hospital functionality by constructing facilities and providing medical equipment to hospitals (Arua, Gulu and Lira RRH) in northern Uganda, and to improve the quality of and access to health services. JICA signed a grant agreement with the Government of Uganda to provide grant aid of up to 2.86 billion yen for this Project on 26th April 2018. The target facilities of the grant aid Project include the RRHs. The Project is expected to create a positive influence on health service delivery in the hospitals and motivate hospital staff to improve their workplace environment. Construction work on these three hospitals started in June 2019. However, the construction work has not been resumed since February of this year due to the emergency return of the contractor to Japan following the outbreak of COVID-19.
- (2) Regional Health Integration to Enhance Services (RHITES) is a 5-year Project that has been operating since 2017, funded by the United States Agency for International Development (USAID). RHITES supports the Government of Uganda and key stakeholders to increase the availability and utilization of high-quality health services. The purpose of this Project is to secure services to support the design and implementation of comprehensive, integrated investment in health, especially at the regional level, for HIV/AIDS and nutrition assistance in the entirety of Uganda. In terms of Quality Improvement, the achievement of outcomes in the Project target facilities will be accelerated through human resource development done by RHITES.
- (3) The Korea Foundation for International Healthcare (KOFIH) is a public affiliated organization of the Ministry of Health and Welfare of the Republic of Korea. KOFIH has been active in Uganda since 2017, implementing various projects, including establishing an emergency medical service system and community health system with the MOH. KOFIH targets the Bukomansinbi district and Masaka region. In the target area of KOFIH, the equipment and technology provided will contribute to improving the skills of the staff members in the

project's target facilities.

## **2 Delays of Work Schedule and/or Problems**

### **2-1 Details of the causes**

- (1) The following activities have been postponed due to the COVID-19 crisis:
  - Approval and printing of the User Training guidelines and manuals by SMC and TMC
  - Regular holding of the WS Performance Review Meeting
  - Support supervision
  - CQI training
  - Incident Report training

The JICA Experts will continue to provide guidance for understanding CQI and cultivating awareness that will lead to Patient Safety using the PI method, so that they can start CQI training and Incident Report training immediately after returning to Uganda.

- (2) Delay of assessment of target facilities by the Health Facilities Quality Assessment Program (HFQAP)

The MOH conducted a HFQAP assessment for 1,989 health facilities in 74 out of 127 districts (58.3%), including 10 hospitals out of 16 target facilities.

## **3 Modification of the Project Implementation Plan**

The Ministry of Health and JICA agreed to extend the Project period for one year from July 2020.

## **II. Project Monitoring Sheet I & II**

Attachments:

- I. Project Monitoring Sheet I
- II. Project Monitoring Sheet II

End

# Project Monitoring Sheet I

Project Title: Project on Improvement of Health Service through Health Infrastructure Management (II)

Implementing agency: Standards, Compliance, Accreditation and Patient Protection Department, Directorate of Health Governance and Regulation, Ministry of Health (MOH) (5S-CQI-TQM)

Clinical Services Department, Directorate of Curative Services, MOH (Utilization of Medical Equipment)

Health Infrastructure Department, Directorate of Strategy, Policy and Development, MOH (Maintenance of Medical Equipment)

Target Group: (1) Phase 1 targeted hospitals: Mbale Regional Referral hospital (RRH), Masaka RRH, Entebbe RRH, Hoima RRH, Kabale RRH, Arua RRH, Lira RRH, Moroto RRH, Mukuju HC IV, Tororo GH

(2) Phase 2 targeted hospitals: Soroti RRH, Jinja RRH, Gulu RRH, Fort Portal RRH, Mbarara RRH, Mubende RRH, Naguru Referral Hospital

Period of Project: July 2016- July 2021

Target Site: Republic of Uganda

**Version. 9**

**Dated 25th December 2020**

Narrative Summary	Objectively Verifiable Indicators	Achievement	Remarks
Quality of health care services at all the RRHs in Uganda is improved.	<ul style="list-style-type: none"> <li>• Clients' satisfaction level is improved to the target level. (XX)</li> <li>• Clients' waiting time of patients for consultation, testing, clinical examination, and prescription of drugs are reduced XX%</li> <li>• Maintenance cost regarding medical equipment is decreased in XX%.</li> </ul>		
<b>Project Purpose</b>			
Health infrastructure management at all the RRHs in Uganda is strengthened with the initiatives of MOH.	<ul style="list-style-type: none"> <li>(1) CQI Process or QC Story               <ul style="list-style-type: none"> <li>-The number of cases of CQI Process or QC Story amounts to more than three.</li> </ul> </li> <li>(2) Good practice of small CQI               <ul style="list-style-type: none"> <li>-All RRHs have at least one good practice of small CQI.</li> </ul> </li> <li>(3) The average of percentage of medical equipment in status A at all RRHs is higher than 70%.</li> <li>(4) Supervisions on 5S, UT, and ME which is integrated into the system of MOH in a consolidated way are implemented more than XX times.</li> </ul>	<ul style="list-style-type: none"> <li>(1) 19 cases of CQI Process are being implemented and 6 were completed at Kabale RRH. 3 cases of CQI Process are being carried out at Entebbe RRH.</li> <li>(2) At least one case of small CQI was practiced at 12 out of 16 target hospitals.</li> <li>(3) 83.5% (average of 14 RRHs)</li> <li>(4) Joint supervision of 3 components concerning health infrastructure management was conducted 6 times.</li> </ul>	
<b>Output 1</b>			
1. [Project Steering Committee] Supporting/supervising system for health infrastructure management of all the RRHs is strengthened in the MOH.	<ul style="list-style-type: none"> <li>(1) The Project Steering committee meeting is conducted every three months.</li> <li>(2) The results of integrated support supervision conducted by Project Implementation Teams and the next quarter action plan developed from these results are shared and approved at every Project Steering Committee meeting.</li> <li>(3) The roadmap for incorporating the Project activities into the policy and systems of MOH is established and implemented by the Project Steering Committee.</li> <li>(4) The Project activities are successfully incorporated into the Ministerial Policy Statement of Ministry of Health.</li> </ul>	<ul style="list-style-type: none"> <li>(1) The Steering Committee meetings were conducted 6 times during May 2019 to August 2020.</li> <li>(2) From May to August, during the absence of the JICA Experts due to the COVID-19 outbreak, supervision was carried out by the MOH staff. The details of implementation were reported at the 6th SC meeting.</li> <li>(3) As a result of Uganda making COVID-19 infection control its top priority, not much can be expected in terms of the budget allocation to Project activities. On the other hand, 5S-CQI activities are monitored using the supervision in each department.</li> <li>(4) Guidelines for the management of medical equipment and the facility's 5S activities were reported at the Ministry of Health review meetings and incorporated into the Ministry of Health activities policy. The activity plans of the Project were incorporated into the Ministerial Policy Statements, and annual activity and budget plans were determined.</li> </ul>	

<b>Output 2</b>			
2.[Project Implementation Team: 5S-CQI-TQM] Resource management and quality improvement activities are strengthened through CQI approach in all RRHs.	(1)Score of module 1 (Leadership) and 6 (Health Infrastructure) HFQAP Facility Assessment Tool - All RRHs mark (i) 5 points out of 8 as full mark for module 1 and (ii) 6 points out of 10 as full mark for module 6. (2)Score of modified 5S M&E Sheet in 5S-CQI-TQM Guidelines - All RRHs mark 33 points out of 54 as full mark at least two consecutive years.	(1) MOH collected data from 10 target hospitals, and the score will be given to the Japanese side soon. (2) Nine out of the 16 target hospitals reached the target: Arua, Entebbe, Jinja, Kabale, Masaka, Mbale, Mbarara, Mubende and Naguru.	
<b>Output 3</b>			
3.[Project Implementation Team: User Training] Proper utilization of medical equipment through UT is improved in all RRHs.	(1) There are at least two regional user trainers at all RRHs. (2) The number of UT conducted by regional User Trainers is more than three as per year in every region. (3) The average of percentage of medical equipment in status B at all RRHs is not higher than 4%.	(1) There are a total of 33 regional User Trainers(at least two regional user trainers per RRH) at 15 RRHs. (2) 4.6 times (average number of training at 15RRHs). (3) 2.05% (average of 14 RRHs).	
<b>Output 4</b>			
4.[Project Implementation Team: ME maintenance] ME maintenance and management capacity of workshops (WS) are strengthened.	(1) The average increase of scores between the pre-test and post-test is at least 15%. (2) The average of percentage of medical equipment in status C and status E at all RRHs is not higher than 15%.	(1) 29.4% (average of 9 past trainings) (2) 10.1% (14 RRHs, as of February 2020)	
<b>Activities</b>		<b>Input</b>	
<b>1-1 Establishment of foundation for the Project and implementation</b>		<b>The Japanese side</b>	
1-1-1 Establish Project Steering Committee	1. Dispatch of Experts 1) Chief advisor / QI Management System 2) 5S-CQI-TQM 3) Utilization of Medical Equipment 4) Maintenance of Medical Equipment 5) Project Coordinator/ Training Management  2. Machinery and equipment 1) Necessary supplies for 5S-CQI-TQM to target hospitals and MOH headquarters 2) Testing and calibration tools and equipment etc.  3. Allocation of operational costs for project activities  4. Training in Japan and/or third countries		
1-1-2 Establish Project Implementation Teams for 5S-CQI-TQM, UT and ME			
1-1-3 Develop Terms of Reference (TOR) for Project Steering Committee and Project Implementation Teams and action plans for implementation of the Project			
1-1-4 Conduct baseline survey			
<b>1-2 Support Supervision on health infrastructure management</b>			
1-2-1 Review and revise existing supervision system and tools through enrichment of checklists of HFQAP(Health Facility Quality of Care Assessment Program) and allocation of 5S-CQI-TQM facilitators at national and regional levels			
1-2-2 Direct integrated support supervision, mentoring and coaching on health infrastructure management as CQI practice integrating 5S, UT and ME			
<b>1-3 Project implementation, monitoring and evaluation and institutionalization</b>			
1-3-1 Organize meetings for Project Steering Committee every three months and review whether action plan is being implemented based on PDCA cycle			
1-3-2 Conduct a meeting to review the established system in MOH			
1-3-3 Make use of review of activity 1-3-2 for institutionalization of support supervision systems and methodologies developed through the Project, and make reflections to the Ministerial Policy Statement			
1-3-4 Organize study tours and QI Conference to share good practice and lessons learned on health infrastructure management compiling 5S, UT and ME			
1-3-5 Conduct an end-line survey on health infrastructure management, including 5S-CQI-TQM, UT and ME			

<b>2.[Project Implementation Team: 5S-CQI-TQM]</b>
2-1 Develop and/or update guidelines, manuals, handbooks, monitoring and supervision tools, and facilitators guide
2-2 Define criteria for national show case of 5S-CQI-TQM and review national show case(s)
2-3 Clarify qualification, role and responsibility of 5S-CQI-TQM facilitators at national and regional levels
2-4 Conduct leadership and management training based on the results of the baseline survey for management staff of targeted facilities, etc.
2-5 Conduct facilitators' training for 5S-CQI-TQM facilitators at national and regional levels with a focus on CQI
2-6 Strengthen function of quality improvement team (QIT) and work improvement team (WIT) in the target facilities
2-7 Conduct 5S-CQI-TQM training to target facilities based on the results of the baseline survey, with a focus on CQI
2-8 Conduct support supervision, mentoring and coaching on WIT/QIT function, development of action plans by WITs, periodic meetings by QIT, implementation of 5S-CQI-TQM activities with proper usage and ME in collaboration with UT and ME activities under the direction of Project Steering Committee Activity 1-2-2
<b>3.[Project Implementation Team: User Training]</b>
3-1 Update and develop manuals, handbooks, guidelines, and monitoring tools for dissemination as necessary
3-2 Conduct refresher training of user trainers in the previous Project phase.
3-3 Conduct Training of Trainers (TOT) for user trainers of the phase 2 target hospitals
3-4 Conduct support supervision, mentoring and coaching on UT for proper usage and ME in collaboration with 5S-CQI-TQM and ME activities aiming at CQI under the direction of Project Steering Committee Activity 1-2-2
<b>4.[Project Implementation Team: Maintenance]</b>
4-1 Update and develop manuals, handbooks, guidelines, and monitoring tools for dissemination as necessary
4-2 Conduct leadership and management training for workshop managers including inventory data analysis
4-3 Conduct training for workshop staffs on maintenance of basic medical equipment
4-4 Conduct training for core staff of workshops in first line maintenance of specialized medical equipment
4-5 Strengthen capacity of Central Workshop and Infrastructure Department to support Regional Workshops
4-6 Support Workshops to develop a system for sharing knowledge and skills

**Project Monitoring Sheet II (Revision of Plan of Operation)**

**Project Title: Project on Improvement of Health Services through Health Infrastructure Management (II)**

Inputs	Plan	2016				2017				2018				2019				2020				2021				Remarks	Monitoring					
		Actual	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	Issue	Solution								
<b>Expert</b>																																
Chief Advisor/QI Management System	Plan																															
	Actual																													None.	None.	
Assist Chief Advisor/QI Management System	Plan																															
	Actual																													None.	None.	
5S-CQI-TQM ①	Plan																															
	Actual																													None.	None.	
5S-CQI-TQM ②	Plan																															
	Actual																													None.	None.	
Utilization of Medical Equipment	Plan																															
	Actual																													None.	None.	
Maintenance of Medical Equipment	Plan																															
	Actual																													None.	None.	
Project Coordinator/Training Management	Plan																															
	Actual																													None.	None.	
<b>Equipment</b>																																
Project vehicles and equipment/materials necessary for the Project administration	Plan																															
	Actual																													None.	None.	
<b>Training in Japan</b>																																
	Plan																															
	Actual																													None.	None.	
<b>In-country/Third country Training</b>																																
Tanzania KAIZEN TOT	Plan																															
	Actual																													None.	None.	
<b>Activities</b>																																
<b>Sub-Activities</b>																																
<b>Output 1 [Project Steering Committee] Supporting/supervising system for health infrastructure management of all the RRHs is strengthened in the MOH</b>																																
<b>1-1 Establishment of foundation for the Project and implementation</b>																																
1-1-1	Establish Project Steering Committee	Plan																											Expert(s)	All concerned Department members of MOH	Project Steering Committee was established.	None.
		Actual																														
1-1-2	Establish Project Implementation Teams for 5S-CQI-TQM, UT and ME	Plan																											Expert(s)	All concerned Department members of MOH	Project Implementation Teams were established.	None.
		Actual																														
1-1-3	Develop terms of reference (TOR) for Project Steering Committee and Project Implementation Teams and action plans for implementation of the Project	Plan																											Expert(s)	Steering Committee	Work Plan was approved by Project Steering Committee.	None.
		Actual																														
1-1-4	Conduct baseline survey	Plan																											Expert(s)	Implementation Team	Situation analysis for all the target hospitals and workshops was conducted.	None.
		Actual																														
<b>1-2 Support Supervision on health infrastructure management</b>																																
1-2-1	Review and revise existing supervision system and tools through enrichment of checklists of HFQAP(Health Facility Quality of Care Assessment Program) and allocation of 5S-CQI-TQM facilitators at national and regional levels	Plan																											Expert(s)	Steering Committee	Progress of all activities were shared in the 4th JCC. 10 target facilities were assessed by checklist of HFQAP.	The project team and SCAPP-D will continue to analyze and monitor the results of the project outcomes and related HFQAP assessment.
		Actual																														
1-2-2	Direct integrated support supervision, mentoring and coaching on health infrastructure management as CQI practice integrating 5S, user training and maintenance	Plan																											Expert(s)	Steering Committee	Integrated supervision of 3 components of health infrastructure management was conducted 10 times, in November 2018 (1), February 2019, March 2019 (2), April 2019 (1), May 2019 (2), July 2019 (1), August 2019 (1), October (1) and November 2019 (1). CQI practices in RRH as well as RWS were implemented.	None.
		Actual																														
<b>1-3 Project implementation, monitoring and evaluation and institutionalization</b>																																
1-3-1	Organize meetings of Project Steering Committee every three months and review whether action plan is being implemented based on PDCA cycle	Plan																											Expert(s)	Steering Committee	Project Steering Committee meeting was conducted in August 2020.	None.
		Actual																														
1-3-2	Conduct a meeting to review the established system in MOH	Plan																											Expert(s)	Steering Committee	Project Steering Committee meeting was conducted in August 2020.	None.
		Actual																														
1-3-3	Make use of review of activity 1-3-2 for institutionalization of support supervision systems and methodologies developed through the Project, and make reflections if necessary to the Ministerial Policy Statement	Plan																											Expert(s)	Steering Committee	Project Steering Committee meeting was conducted in August 2020 and results of supervision were shared.	A large amount of the Ministry of Health's budget is allocated to COVID-19 control, and there is a lack of budget related to project activities.
		Actual																														
1-3-4	Organize study tours and QI Conference to share good practice and lessons learned on health infrastructure management compiling 5S, UT and ME	Plan																											Expert(s)	Implementation Team	No activity was planned.	None.
		Actual																														
1-3-5	Conduct an end-line survey on health infrastructure management, including 5S-CQI-TQM, UT and ME	Plan																											Expert(s)	Implementation Team	The assessment was implemented in April 2020 but has not been carried out since then due to COVID-19.	The project experts will support the implementation of the assessment by the Ministry of Health counterparts.
		Actual																														







To the CR of JICA Uganda Office

**Project Monitoring Report Sheet****Project Title: Improvement of Health Services through Health Infrastructure Management II****Version of the sheet: 9 (Term: 1st November 2020 – 31st March 2021)****Name: Dr. Olaro Charles****Title: Project Director****Name: Hiroshi Tasei****Title: Chief Advisor****Submission Date: 21st May 2021****I. Summary****1 Progress and Achievements of the Project****1-1 Progress of Inputs****[The Japanese side]****1-1-1 Dispatch of JICA Experts (Initial plan→results)**

Name	2020		2021			Total (days)
	11	12	1	2	3	
Hiroshi Tasei Chief Advisor/QI Management System①	■	■		■	■	81 → 0
Shizu Takahashi Vice Chief Advisor/QI Management System②				■		30 → 0
Naoki Take 5S-CQI-TQM①				■	■	42 → 0
Yujiro Handa 5S-CQI-TQM②				■		15 → 0
Naoki Mimuro Maintenance of Medical Equipment				■	■	43 → 0
Emi Onosaka Project Coordinator/Training Management	■			■		72 → 0

\*The initial plan was to start local activities in July 2021, but due to the COVID-19 pandemic all trips were cancelled, and activities were reallocated within Japan. However, Programed Instruction (PI) and supervisions at target facilities were carried out remotely from Japan and by Ministry of Health (MOH) officials.

**1-1-2 Procurement of testing and calibration equipment by JICA to fight COVID-19**

The following activities were conducted:

- Assisting with equipment procurement procedures, such as evaluating the requested equipment, monitoring the shipment status of the equipment, preparing for acceptance, and preparing for the handover ceremony.

**[The Ugandan side]****1-1-3 Assignment of Counterparts**

- (1) One MOH official (Principal Medical Officer, PMO) carried out monitoring and evaluation for 5S in March 2021.
- (2) Two MOH officials (a senior engineer and a biomedical engineer from the Health Infrastructure Department, MOH (HID/MOH)) carried out support supervision for Regional Workshops (RWSs) in November and December, 2020 and March 2021.

**1-2 Progress of Activities****1-2-1 Activities of Output 1****(1) 7th Annual National Healthcare Quality Improvement Conference**

<b>Related to Activity</b> <b>1-3-4</b>	Planned in December 2020
<b>Details</b>	<ul style="list-style-type: none"> <li>• The 7th Annual National Healthcare Quality Improvement Conference (QI Conference) was held in Kampala from 2-4 December 2020 (both in-person and virtually).</li> <li>• The Project arranged a keynote speech by Prof. Yujiro Handa, an expert on 5S-CQI (KAIZEN)-TQM, titled "What we can do for strengthening foundations of safety culture of hospitals".</li> <li>• The Project supported target hospitals in writing abstracts and designing presentations.</li> <li>• The Project supported a meeting to review the abstracts.</li> </ul>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>• Prof. Handa made the keynote speech as planned.</li> <li>• In total, six abstracts were accepted from Kabale Regional Referral Hospital (RRH) as oral presentations, and one from Entebbe RRH as a poster.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>• None.</li> </ul>

## 1-2-2 Activities of Output 2

## (1) Programed Instruction (PI) on KAIZEN for Medical Equipment (ME) Management

<b>Related to Activity 2-7</b>	Started in July 2020	
<b>Details</b>	<ul style="list-style-type: none"> <li>• The Project continued to provide PI for target hospitals to train in CQI (KAIZEN) for management of ME, using dialogues (through WhatsApp) and video lectures (through YouTube).</li> <li>• Three RRHs were selected as targets: Fort Portal, Hoima and Soroti. Ten staff members from each hospital participated in the PI.</li> </ul>	
<b>Achievements</b>	<ul style="list-style-type: none"> <li>• In total, 19 out of 30 participants completed the PI (five from Fort Portal, eight from Hoima and six from Soroti). In spite of problems with Internet connections, many participants actively engaged in the dialogues and exercises.</li> <li>• As planned, lectures were uploaded on YouTube every Thursday for nine weeks, for a total of 13 videos. At the same time, nine types of exercise templates designed to facilitate the smooth implementation of KAIZEN were newly created and used. (See below for details.)</li> <li>• The participants, led by the team leaders and secretaries appointed by the Hospital Directors, performed the exercises well.</li> <li>• Each of the three RRHs has developed and implemented multiple CQI (KAIZEN) action plans for their pilot areas. At the end of March, half of the activities had been achieved, while the remainder were partially accomplished or not yet started.</li> <li>• For the purpose of stimulating KAIZEN activities, the following materials were provided by the Project, based on requests from each hospital team:             <ol style="list-style-type: none"> <li>1) Fort Portal: Notice boards, printer cartridges, dry paint, paint brushes, laminating pouches and stationery (19 items),</li> <li>2) Hoima: Voltage stabilizers, portable Wi-Fi, notice boards, clip boards, flip charts, laminating paper and stationery (23 items),</li> <li>3) Soroti: Flip-chart stand, laminator, notice boards, dry paint, masking tape, brushes, paraffin and stationery (18 items).</li> </ol> </li> </ul>	
<b>Videos Uploaded on YouTube</b>		
<b>Date</b>	<b>Title</b>	<b>YouTube Link</b>
22 Oct.	KAIZEN Introduction (7:38)	<a href="https://youtu.be/2L9sYiBo6F0">https://youtu.be/2L9sYiBo6F0</a>
22 Oct.	KAIZEN Step-1 Theme Selection, Volume-1 (11:58)	<a href="https://youtu.be/IFsUkJQ3XhU">https://youtu.be/IFsUkJQ3XhU</a>
22 Oct.	KAIZEN Step-1 Theme Selection, Volume-2 (13:22)	<a href="https://youtu.be/UuDc-mlr-cY">https://youtu.be/UuDc-mlr-cY</a>
29 Oct.	What is a Problem? (7:20)	<a href="https://youtu.be/l3u--oya6ko">https://youtu.be/l3u--oya6ko</a>

29 Oct.	KAIZEN Step-2, Situation Analysis, Volume-1 (17:49)	<a href="https://youtu.be/0L254y-L5yY">https://youtu.be/0L254y-L5yY</a>
5 Nov.	KAIZEN Step-2, Situation Analysis, Volume-2 (16:16)	<a href="https://youtu.be/18h3QBscytQ">https://youtu.be/18h3QBscytQ</a>
12 Nov.	KAIZEN Step-3, Root Cause Analysis, Volume-1 (18:31)	<a href="https://youtu.be/GrlRIQJA0GU">https://youtu.be/GrlRIQJA0GU</a>
19 Nov.	KAIZEN Step-3, Root Cause Analysis, Volume-2 (14:33)	<a href="https://youtu.be/K8-NGRP_2Ik">https://youtu.be/K8-NGRP_2Ik</a>
26 Nov.	KAIZEN Step-4, Identification of Countermeasures (18:07)	<a href="https://youtu.be/U3poovPsJk4">https://youtu.be/U3poovPsJk4</a>
03 Dec.	KAIZEN Step-5, Implementation of Countermeasures (19:11)	<a href="https://youtu.be/KU06KU6zwcY">https://youtu.be/KU06KU6zwcY</a>
10 Dec.	KAIZEN Step-6, Assessment (16:06)	<a href="https://youtu.be/UXGEouHIMbY">https://youtu.be/UXGEouHIMbY</a>
17 Dec.	KAIZEN Step-7, Standardization and Recap for the Past Steps 1-6 (16:14)	<a href="https://youtu.be/QHmRjwchIOA">https://youtu.be/QHmRjwchIOA</a>
17 Dec.	What is Small KAIZEN? (7:07)	<a href="https://youtu.be/eHLwOL1TkYY">https://youtu.be/eHLwOL1TkYY</a>

**Newly Created Exercise Templates**

Date	Template No.	Name of Template
22 Oct.	1	Reporting Form for Exercise
29 Oct.	2-1	Medical Equipment Inventory Taking Sheet
29 Oct.	2-2	Medical Equipment Location Map Drawing Sheet
4 Nov.	2-3	Medical Equipment Inventory Data Analysis Sheet
11 Nov.	3	Problem Tree Diagram/ Root Cause Analysis Drawing Sheet
25 Nov.	4	Identification of Countermeasures/ Matrix Diagram Sheet
03 Dec.	5	KAIZEN Action Plan Describing Sheet
10 Dec.	6-1	Self-Monitoring Sheet
10 Dec.	6-2	Assessment Sheet

**Video viewing and exercises**

		
Exercises at theatre, Hoima	Inventory data collection, Fort Portal	Video viewing, Soroti

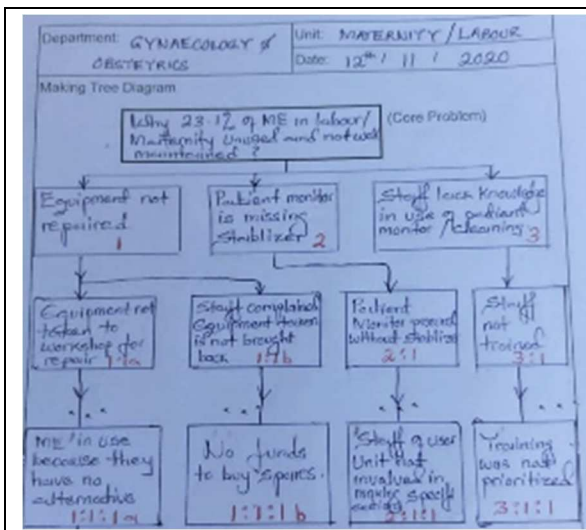
**Good practices for using materials and stationery provided by the Project**

			
Inspection, Soroti	New signboard, Fort Portal	Waste separation label, Hoima	Kaizen notice board, Hoima

<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● The Project will support the RRHs through the review meeting in March (see the next item), followed by in-person supervisions.</li> <li>● It is likely that only half of the participants will be actively engaged in the exercises on KAIZEN Step-1 to Step-5 after watching the above-mentioned YouTube videos due to their busy workdays. The Project will support the continuation of activities in the current format because of the unfeasibility of full participation.</li> </ul>
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**(2) Review Meeting for PI for ME Management**

<b>Related to Activity 2-6/2-8</b>	Held just after completion of the PI
<b>Details</b>	<ul style="list-style-type: none"> <li>● The Project held a virtual review meeting on 4th March 2021 as an opportunity for the hospitals participating in PI (Fort Portal, Hoima and Soroti) to present the progress of KAIZEN activities and exchange their experiences. The meeting was also a proxy for supervision by JICA Experts under the COVID-19 pandemic.</li> <li>● In addition to the three hospitals and the JICA Experts, the Ministry of Health (MOH) and JICA (HQs and Uganda Office) also attended the meeting.</li> </ul>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>● Representatives of the three hospitals presented their progress clearly, utilizing the format prepared by the Project.</li> <li>● The hospitals were able to perform root cause analysis and implement some of the identified countermeasures by themselves. Their progress was beyond the expectations of the JICA Experts.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● The Project will support the hospitals' efforts through in-person supervision, e.g. from the aspect of effective utilization of inventory data to set targets for better ME management.</li> </ul>



A root cause analysis at maternity dept, Hoima


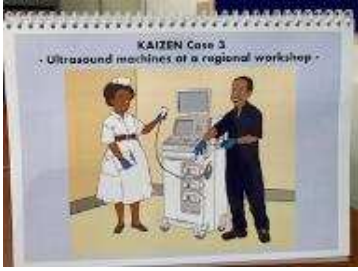
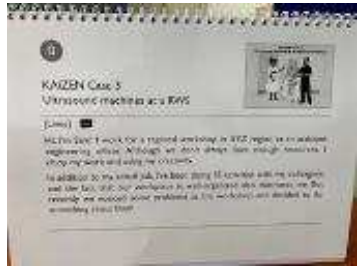
An action plan at operating theatre, Fort Portal

**(3) 5th Monitoring and Evaluation of 5S Performance at the Target Hospitals**

<b>Related to Activity 2-2</b>	March 2021
<b>Details</b>	<ul style="list-style-type: none"> <li>In response to the willingness of the Standards, Compliance, Accreditation and Patient Protection Department (SCAPP-D) of the MOH to evaluate 5S performance, the Project supported the following activities:             <ol style="list-style-type: none"> <li>Allocation of 5S-CQI-TQM facilitators to target hospitals for data collection.</li> <li>Setting a schedule for data collection through discussions between the hospital management and the facilitators.</li> <li>Making administrative arrangements for the evaluation (e.g., distribution of data collection tools).</li> </ol> </li> </ul>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>In February and March 2021, the facilitators collected the data at all hospitals except Entebbe RRH (see below).</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>According to the director of Entebbe RRH, the hospital is not ready to receive the facilitators, as they are completely concentrated on responding to COVID-19 pandemic. The Project will evaluate the 5S performance of Entebbe RRH when they are ready (by the end of April 2021).</li> <li>The data from the other 15 hospitals will be analyzed in April.</li> </ul>



**(4) Development of Teaching Materials for CQI (KAIZEN)**

<b>Related to Activity 2-1</b>	From May-December, 2018	
<b>Details</b>	<ul style="list-style-type: none"> <li>This activity was not planned in the beginning. However, in order to efficiently cascade knowledge on CQI (KAIZEN) to the RRHs and other lower health facilities in Uganda, the Project decided to develop teaching materials (a picture-story).</li> </ul>	
<b>Achievements</b>	<ul style="list-style-type: none"> <li>The drafts of the front page (illustration) and back page (explanation) were completed and proofread in December 2020.</li> <li>The JICA Experts ordered the printing of the picture story from a local company in March 2021. The materials will be ready in April 2021.</li> </ul>	
<b>Way Forward/Challenges</b>	<ul style="list-style-type: none"> <li>The materials will be printed out and shared with the national 5S-CQI-TQM facilitators and others in April/May 2021.</li> </ul>	
		
KAIZEN Handbook (Front)	KAIZEN Case 3 (Front)	Back side

**(5) Programed Instruction on Patient Safety**

<b>Related to Activity 2-7</b>	Started in July 2020
<b>Details</b>	<ul style="list-style-type: none"> <li>The Project continued to provide PI for target hospitals to train in patient safety, using dialogues (through WhatsApp) and video lectures (through YouTube).</li> <li>Three RRHs were selected as targets: Kabale, Naguru and Entebbe. Thirty-one staff members participated in this PI.</li> </ul>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>Learners were asked 10 questions regarding patient safety. However, there were some difficulties in carrying out the dialogues smoothly because of busy workdays and the social media ban during the presidential election (January 2021). As a result, learners were instructed to answer all the questions by 19th February 2021.</li> </ul>

	<ul style="list-style-type: none"> <li>● All leaners who answered the questions through WhatsApp seemed to understand the theories of patient safety, and the relationship between patient safety and CQI (KAIZEN). Some participants requested to share the YouTube videos with other staff.</li> <li>● In total, 17 out of 31 participants completed the PI (8 out of 10 for Kabale, 6 out of 11 for Naguru and 3 out of 10 for Entebbe). In spite of the problems with the Internet connection, and without any financial incentives, more than half of the participants actively addressed the dialogues.</li> <li>● Thirteen YouTube videos were uploaded by JICA Experts from November 2020 to March 2021. (In total, 25 YouTube videos related to patient safety have been uploaded since August 2020(see below)). In addition, 10 YouTube lecture videos on KAIZEN steps made for PI on KAIZEN for Medical Equipment (ME) Management (see above 1-2-2 (1)) were shared as a review. Some of the videos got more than 30 views, but some got less. It appeared that learners were interested in some themes more than others. Busy workdays and the SNS ban, as well as poor Internet connections, also negatively affected the number of views.</li> </ul>
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**Way Forward/  
Challenges**

- Follow-up on patient safety awareness will be done through in-person supervision in April 2021.

**Videos Uploaded to YouTube**

Date	Title	YouTube Link
3 Aug.	【Beyond 5S-KAIZEN(CQI)】Patient Safety 1 (14:19)	<a href="https://youtu.be/GZ0kvsVo_p0">https://youtu.be/GZ0kvsVo_p0</a>
14 Aug.	【Beyond 5S-KAIZEN(CQI)】Patient Safety 2 (6:51)	<a href="https://youtu.be/9ulayrS42CY">https://youtu.be/9ulayrS42CY</a>
14 Aug.	【Beyond 5S-KAIZEN(CQI)】Patient Safety 3 (8:11)	<a href="https://youtu.be/lag-eFlodKw">https://youtu.be/lag-eFlodKw</a>
23 Aug.	【Beyond 5S-KAIZEN(CQI)】Patient Safety 4 (22:03)	<a href="https://youtu.be/3hRDoiNl1eA">https://youtu.be/3hRDoiNl1eA</a>
23 Aug.	【Beyond 5S-KAIZEN(CQI)】Patient Safety 5 (16:55)	<a href="https://youtu.be/K5GoZozk7TA">https://youtu.be/K5GoZozk7TA</a>
20 Sep.	【Beyond 5S-KAIZEN(CQI)】Patient Safety 6 (14:33)	<a href="https://youtu.be/niuokDLzob4">https://youtu.be/niuokDLzob4</a>
20 Sep.	【Beyond 5S-KAIZEN(CQI)】Patient Safety 7 (10:53)	<a href="https://youtu.be/6-f4YMnlzwc">https://youtu.be/6-f4YMnlzwc</a>
20 Sep.	【Beyond 5S-KAIZEN(CQI)】Patient Safety 8 (15:11)	<a href="https://youtu.be/RYSLSpxfyD4">https://youtu.be/RYSLSpxfyD4</a>
20 Sep.	【Beyond 5S-KAIZEN(CQI)】Patient Safety 9 (10:55)	<a href="https://youtu.be/hxcnQmG8XX0">https://youtu.be/hxcnQmG8XX0</a>
19 Oct.	【Beyond 5S-KAIZEN(CQI)】Patient Safety – Introduction (5:00)	<a href="https://youtu.be/T5l8pkmZ34s">https://youtu.be/T5l8pkmZ34s</a>
25 Oct.	【Beyond 5S-KAIZEN(CQI)】Patient Safety 10 (13:45)	<a href="https://youtu.be/9ZhpHqWc2kY">https://youtu.be/9ZhpHqWc2kY</a>
25 Oct.	【Beyond 5S-KAIZEN(CQI)】Patient Safety 11 (16:39)	<a href="https://youtu.be/sT_c1ydoVmk">https://youtu.be/sT_c1ydoVmk</a>
7 Nov.	【Beyond 5S-KAIZEN(CQI)】Patient Safety 12 (23:36)	<a href="https://youtu.be/FNSHsKhFsz4">https://youtu.be/FNSHsKhFsz4</a>
7 Nov.	【Beyond 5S-KAIZEN(CQI)】Patient Safety 13 (20:03)	<a href="https://youtu.be/TXk_KsJEWjQ">https://youtu.be/TXk_KsJEWjQ</a>
20 Dec.	【Beyond 5S-KAIZEN(CQI)】Patient Safety 14 (18:24)	<a href="https://youtu.be/R3lXpCK-fuw">https://youtu.be/R3lXpCK-fuw</a>
23 Dec.	【Beyond 5S-KAIZEN(CQI)】Patient Safety 15 (19:14)	<a href="https://youtu.be/-vZC1hPDnnc">https://youtu.be/-vZC1hPDnnc</a>
20 Dec.	【Beyond 5S-KAIZEN(CQI)】Patient Safety 16 (20:14)	<a href="https://youtu.be/ZSlmFcfXHrg">https://youtu.be/ZSlmFcfXHrg</a>

8 Mar.	【Beyond 5S-KAIZEN (CQI)-TQM】 Patient Safety - How to make use of incident reports with KAIZEN? -	<a href="https://youtu.be/xyxCloUGE9E">https://youtu.be/xyxCloUGE9E</a>
19 Mar.	【Beyond 5S-KAIZEN(CQI)】Patient Safety 17 (23:23)	<a href="https://youtu.be/j40UTALnb1U">https://youtu.be/j40UTALnb1U</a>
19 Mar.	【Beyond 5S-KAIZEN(CQI)】Patient Safety 18 (14:44)	<a href="https://youtu.be/3X-nDQ7t87o">https://youtu.be/3X-nDQ7t87o</a>
20 Mar.	【Beyond 5S-KAIZEN(CQI)】Patient Safety 19 (13:44)	<a href="https://youtu.be/u4EJl7KexyA">https://youtu.be/u4EJl7KexyA</a>
20 Mar.	【Beyond 5S-KAIZEN(CQI)】Patient Safety 20 (11:48)	<a href="https://youtu.be/-cN_g7X3YIM">https://youtu.be/-cN_g7X3YIM</a>
21 Mar.	【Beyond 5S-KAIZEN(CQI)】Patient Safety 21 (19:53)	<a href="https://youtu.be/-evvkjxf9o">https://youtu.be/-evvkjxf9o</a>
21 Mar.	【Beyond 5S-KAIZEN(CQI)】Patient Safety 22 (16:28)	<a href="https://youtu.be/lxPtO0QgskM">https://youtu.be/lxPtO0QgskM</a>
2 Apr.	【Beyond 5S-KAIZEN(CQI)】Patient Safety 23 (19:22)	<a href="https://youtu.be/GXDyCvMDIBI">https://youtu.be/GXDyCvMDIBI</a>

### (6) Support Supervisions for Patient Safety

<b>Related to Activity 2-8</b>	After July 2020
<b>Details</b>	<ul style="list-style-type: none"> <li>● Support supervisions for the 3 RRHs were carried out by a local project consultant and the project secretary, according to the following schedule: Kabale on 15th December, Entebbe on 17th December and Naguru on 18th December 2020.</li> <li>● The main objectives of the supervision were as follows:             <ol style="list-style-type: none"> <li>1) To understand the situation on patient safety in each RRH</li> <li>2) To find out if there was any need for improvement in PI.</li> </ol> </li> </ul>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>● The local consultant and the project secretary found the situation on patient safety at the targeted hospitals as below:             <ol style="list-style-type: none"> <li>1) Two out of three hospitals (Kabale and Naguru) formulated a patient safety team and made an activity plan to conduct training/monitoring and evaluation on patient safety after the PI.</li> <li>2) Kabale and Naguru hospitals decided to review and strengthen the role of liaison nurses at the waiting lounge.</li> <li>3) Submission of the hospital safety report (incident report) was not common at RRHs in Uganda. However, the booklet system or reporting system for reporting incidents was introduced in some departments by donors or partners. Although all incidents were not well-reported, the hospitals had to report deaths or accidents and audit these cases.</li> <li>4) The staff who were not trained on the hospital safety report didn't submit well in Kabale RRH. However, the hospital director showed the plan for training to expand the hospital safety report in Kabale RRH. Naguru and Entebbe hospitals showed the need for training on hospital safety report and technical assistance.</li> </ol> </li> <li>● Targeted hospitals reported that the PI is a useful method to get the</li> </ul>

	idea on patient safety. Also, they requested the Project to share the YouTube video data so that they can share it with other staff.	
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● The Project will conduct follow-up supervisions and supervise the progress on patient safety in April 2021.</li> <li>● The activity plan will be carried out by the targeted hospitals.</li> </ul>	
		
Kabale RRH	Entebbe RRH	Naguru RRH

**(7) Wrap-up Meeting for PI on Patient Safety**

<b>Related to Activity 2-6/2-8</b>	Held just after completion of the PI
<b>Details</b>	<ul style="list-style-type: none"> <li>● The Project held a virtual wrap-up meeting on 12th March 2021 as an opportunity for the hospitals participating in PI (Kabale, Naguru and Entebbe) to present lessons learned and the way forward.</li> <li>● In addition to the three hospitals and the JICA Experts, MOH and JICA (HQs and Uganda Office) also attended the meeting.</li> </ul>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>● All the hospitals made presentations on the lessons learned and the way forward. During the presentations, the hospitals reported the following lessons learned: 1) the importance of rules and regulations, 2) the purpose of hospital safety reports, 3) the importance of 5S-KAIZEN (CQI) activities in patient safety and 4) the importance of maintaining a good medical record system. Hospitals also presented the way forward: 1) Formulating a Patient Safety Team, 2) Training the health workers on patient safety (with an emphasis on the hospital safety report) and 3) Conducting monitoring and evaluation on patient safety.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● The Project will conduct follow-up supervision and supervise progress on patient safety.</li> </ul>

**1-2-3 Activities of Output 3****(1) User Training (UT) Guidelines and Manuals**

<b>Related to Activity 3-1</b>	Planned from June 2018-March 2019
<b>Details</b>	<ul style="list-style-type: none"> <li>The Senior Management Committee (SMC) meeting was to be held in May.–</li> </ul>
<b>Achievements</b>	<ul style="list-style-type: none"> <li>UT Guidelines were not approved.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>A draft version of Guidelines will be submitted to the Project Manager from the Nursing Department.</li> <li>After holding the SMC and Top Management Committee (TMC) meeting, approval of the UT Guidelines is an urgent task.</li> </ul>

**1-2-4 Activities of Output 4****(1) Support Supervision for WSs**

<b>Related to Activity 4-5/4-6</b>	Twice a year (Year-round activity)	
<b>Details</b>	<ul style="list-style-type: none"> <li>Two rounds of support supervision were carried out by two engineers from the Health Infrastructure Department at the Ministry of Health (HID/MOH), according to the following schedule:</li> </ul>	
	1st Round (Nov.-Dec. 2020) for 15 Medical Equipment Maintenance Workshops (WSs)	
	30th Nov.-4th Dec.	Arua, Gulu, Lira, Soroti, Moroto
	6th-11th Dec.	Hoima, Mubende, Fort Portal, Kabale, Mbarara, Masaka
	14th-18th Dec.	Mbale, Jinja, Central, Naguru
	2nd Round (March 2021) for 13 WSs. Remaining two WSs (Central and Naguru) will be visited in early April 2021.	
	9th-12th Mar.	Jinja, Mbale, Soroti, Moroto
	15th-19th Mar.	Masaka, Mbarara, Kabale, Fort Portal, Mubende, Hoima
	29th-30th Mar.	Lira, Gulu, Arua
	<ul style="list-style-type: none"> <li>The agenda mainly covered four areas: 1) follow up on the previously agreed-upon way forward; 2) follow up on the Intensive Care Unit (ICU) equipment that was procured mainly by other donors, for all RRHs for management of COVID-19 patients, 3) preparedness to receive, use and store testing/calibration</li> </ul>	




	equipment donated by JICA, and 4) the way forward.
<b>Achievements</b>	<ul style="list-style-type: none"> <li>● Two rounds of the supervisions were carried out as planned, despite the COVID-19 threat and the absence of JICA Experts. As for cost-sharing, the Ugandan side covered 67% of the total expenses for both rounds.</li> <li>● Regarding agenda item 1) (above), a moderate status has been progressing in 13 of the 15 WSs (except Arua and Jinja) through continuous inputs by supervision visits, the WS Performance Review Meeting and the quarterly reporting system. The performance of Arua and Jinja WSs has stagnated due to ongoing personnel issues and poor communication within the RRH/WS.</li> <li>● Regarding agenda item 2), the ICU equipment has been delivered, and training has been conducted. However, more than half of the ICUs in the RRHs do not function well due to a lack of space, human resources, and skilled equipment users.</li> <li>● Regarding agenda item 3), the team informed each workshop of what they needed to prepare in order to receive, use and store the testing/calibration equipment. The equipment will be picked up by the workshop manager at the HID/MOH and will be handed over after the training is carried out.</li> </ul>
<b>Way Forward/ Challenges</b>	<ul style="list-style-type: none"> <li>● The two workshops that are stagnant (Arua and Jinja) need additional support from the HID/MOH, in collaboration with the RRH top management.</li> <li>● The training on the use of testing and calibration equipment is scheduled for mid-April. The handover to each workshop will take place in late April or early May, once the training is complete.</li> <li>● The project on functionalization of ICU equipment is out of the scope of the Project, but is being led by the HID/MOH. It is possible that the Project will provide advice in the future.</li> </ul>

	
<p>Repair ME, Mbale WS, 14th December 2020</p>	<p>Meeting at Moroto WS, 12th March 2021</p>

**(2) 26th WS Performance Review Meeting (hosted by Moroto RRH)**

<p><b>Related to Activity 4-5</b></p>	<p>At least twice a year (Year-round activity)</p>
<p><b>Details</b></p>	<ul style="list-style-type: none"> <li>● The 26th quarterly WS Performance Review Meeting was held at Moroto on 3rd December 2020, with approximately 65 participants.</li> <li>● The main agenda items were: 1) welcoming remarks by the Hospital Director of Moroto RRH, 2) communication from the HID Commissioner, 3) reading of the previous minutes and matters arising, 4) presentation of the Jul.-Nov. 2020 Performance Reports by each WS, and reactions, 5) dissemination of the results of the WSs' assessments for Financial Year (FY) 2019/2020 and recognition of the best performing workshops, and 6) meeting resolutions and recommendations.</li> </ul>
<p><b>Achievements</b></p>	<ul style="list-style-type: none"> <li>● After being postponed twice due to the COVID-19 pandemic, the meeting was successfully held with the participation of the HID commissioner, RRH directors, and WS managers. In addition, the JICA Uganda office and JICA Experts attended online (via Zoom) for a short time.</li> <li>● Numerous workshops have reported an increasing demand for the production of medical oxygen and maintenance of newly procured equipment for treating COVID-19 and other critically ill patients in RRHs and the lower health facilities.</li> <li>● Certificates for the Best Performance Awards were handed over to the three winning workshops (1st place: Fort Portal WS, 2nd: Soroti WS, 3rd: Mbale WS).</li> <li>● As with past meetings, participants' allowances and transportation costs were paid from each WS budget (89% of total expenses). JICA</li> </ul>



	<p>supported refreshments only (11% of total expenses).</p> <ul style="list-style-type: none"> <li>• The host RRH director and the HID/MOH expressed their gratitude for JICA's continuous support.</li> </ul>	
<p><b>Way Forward/ Challenges</b></p>	<ul style="list-style-type: none"> <li>• The main resolutions and recommendations proposed in this meeting are as follows:             <ol style="list-style-type: none"> <li>1) A short visiting tour to the host RRH will be included in future meeting programs.</li> <li>2) Follow the progress on the renewal of maintenance contracts for the RRHs' oxygen plants.</li> <li>3) Plan to procure the testing and calibration equipment/tools donated by the Project for all WSs.</li> <li>4) Continue lobbying to increase the WS budget.</li> <li>5) Support for securing work space including new construction to the four WSs that lack workspace (Moroto, Mubende, Masaka and Naguru).</li> <li>6) Consider a comprehensive maintenance contract for newly procured ICU equipment in all RRHs.</li> <li>7) The next meeting will be hosted by Kabale RRH in April 2021.</li> </ol> </li> </ul>	
<p>Awards for the best workshops from the HID commissioner</p>		
		
<p>1<sup>st</sup> place, Fort Portal WS</p>	<p>2<sup>nd</sup> place, Soroti WS</p>	<p>3<sup>rd</sup> place, Mbale WS</p>

**(3) Training on Electrical Safety, Patient Safety and Maintenance of Dental & Eye Equipment**

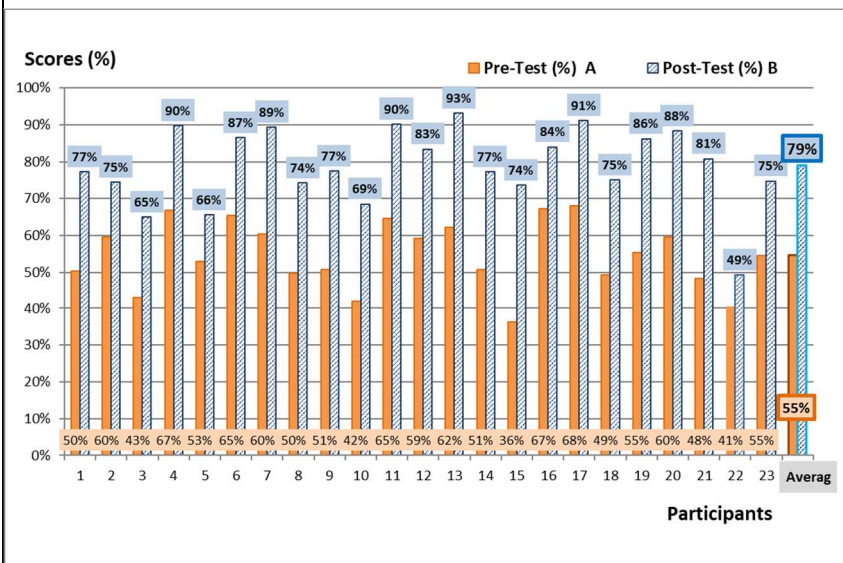
<p><b>Related to Activity 4-2/4-3/4-4</b></p>	<p>Unplanned.</p>
<p><b>Details</b></p>	<ul style="list-style-type: none"> <li>• Date and Venue: 15th - 19th February 2021 at Jinja RRH</li> <li>• A large tent was set up on the hospital grounds and used for the venue in order to ensure better air circulation.</li> <li>• Target Areas:             <ol style="list-style-type: none"> <li>1) Electrical safety and patient safety</li> </ol> </li> </ul>






- 2) Maintenance of the Dental Unit and Dental X-ray Machine
- 3) Electrical and radiation safety testing for dental equipment
- 4) Maintenance of Slit lamps
- 5) Development of KAIZEN action plans on preventive maintenance
- Participants: 23 engineers and technicians of the WSs
- Facilitators: seven in total
  - 1) Lecturer, Faculty of Biomedical Engineering, Makerere University
  - 2) Practitioner and specialist in dental equipment
  - 3) Radiation officer, Atomic Energy Council
  - 4) Eye surgeon, Jinja RRH
  - 5) Retired technician, Central WS
  - 6) 5S Facilitator, Mubende RRH
  - 7) Senior engineer, HID/MOH
- Objectives: To learn basic knowledge and skills on electrical safety, patient safety and trouble-shooting techniques for specific equipment, through lectures, hands-on training and the KAIZEN method.

**Achievements**

- The average test results were 55% for the pre-test and 79% for the post-test. The average score rose by 24%, and the knowledge and skills of the participants were improved.



- The capacity of the HID/MOH, one of the goals of Output 4, was also reinforced. The reason why is that this training was not

	<p>originally planned; however, it was organized by the HID/MOH to raise safety awareness and to address the rising demand for equipment maintenance during the COVID-19 pandemic.</p> <ul style="list-style-type: none"> <li>● Regarding the budget, despite delays in disbursement from the MOH, the Ugandan side was able to cover 71% of the total cost. This is one of the outcomes of strengthening ownership and budget management by the HID/MOH and the Central WS.</li> </ul>	
<p><b>Way Forward/ Challenges</b></p>	<ul style="list-style-type: none"> <li>● After the training, each trainee was assigned the following activities in order to put the obtained knowledge and skills into practice:             <ol style="list-style-type: none"> <li>1) Conduct a feedback session to share the training materials and acquired knowledge with other technicians.</li> <li>2) Choose three pieces of medical equipment and develop the Standard Operating Procedures (SOPs) for them.</li> <li>3) Carry out basic maintenance with newly learned skills</li> </ol> </li> </ul>	
		
<p>Lecture, Dental Unit</p>	<p>Hands-on practice, Slit lamp</p>	<p>Group photo at Jinja WS</p>

(Other activities)

- [ME] The JICA Expert supported the selection of two candidates (one female and one male) for the JICA online training “Medical Equipment Management and Maintenance”, which was held from February to March 2021.
- [ME] Logistical support for supervision and monitoring of ICU equipment installation and training in the RRHs (the MOH covered the entire cost of 6,879,000 UGX; JICA did not pay anything.)

### 1-3 Achievement of Output

#### 1-3-1 Summary of Achievements

**Output 1:** Due to the COVID-19 pandemic, all JICA Experts returned to Japan in February 2020 and have not been able to return to Uganda since. The MOH has stated that one of its important policies is patient safety. In this extension phase, it was understood through PI that 5S-KAIZEN is an important factor in patient safety. It has been decided to place 5S-KAIZEN in

the mainstream of Quality Improvement Framework & Strategic Plan 2021/2025 (QIF&SP) for quality of care.

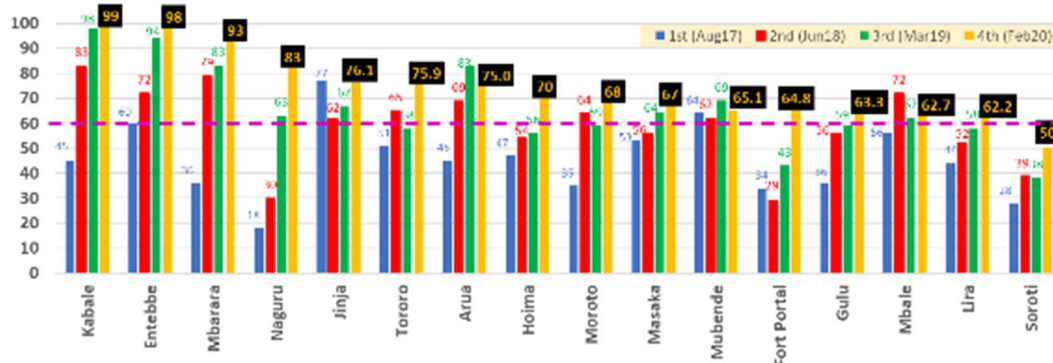
Output 1 The support/supervision system for health infrastructure management of all the RRHs is strengthened in the MOH.	
Current Indicators	Achievements
1-1 The Project Steering Committee meeting is conducted every three months.	The Steering Committee meetings were conducted approximately every three months. Detailed dates are as follows: 1) 29th May 2018 2) 17th September 2018 3) 27th November 2018 4) 2nd February 2019 5) 22nd July 2019 6) 7th August 2020 Due to the spread of COVID-19, the workload of the department in charge of covering medical facilities nationwide increased, and it has been difficult to hold a meeting with the departments related to the project.
1-2 The results of integrated support supervision conducted by Project Implementation Teams, and the next quarter action plan developed from these results, are shared and approved at every Project Steering Committee meeting.	From November to March, during the absence of the JICA Experts, supervision was carried out by the MOH staff.
1-3 The roadmap for incorporating the Project activities into the policy and systems of MOH is established and implemented by the Project Steering Committee.	As a result of Uganda making COVID-19 infection control its top priority, not much can be expected in terms of the budget allocation to Project activities. However, the 5S-CQI approach was incorporated into the new Quality Improvement Framework and Strategic Plan (2021-2025).

<p>1-4 The Project activities are successfully incorporated into the Ministerial Policy Statement of Ministry of Health.</p>	<p>Expenses related to 5S activities were included in each RRH's activity budget.</p>
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**Output 2:** Since the 5S evaluation of RRH has not been conducted as of March 2021, the indicators for Output 2 will be updated after the completion of evaluation.

<p>[Project Implementation Team: 5S-CQI-TQM] Resource management and quality improvement activities are strengthened through CQI approach in all RRHs.</p>	
Current Indicators	Achievements
<p>2-1 Score of Module 1 (Leadership) and 6 (Health Infrastructure) Health Facility Quality of Care Assessment program (HFQAP) Facility Assessment Tool - All RRHs mark (i) 5 points out of 8 as full marks for module 1 and (ii) 6 points out of 10 as full mark for module 6.</p>	<p>The MOH collected data from 10 target hospitals. The scores will be shared with the JICA Expert soon after their analysis.</p>
<p>2-2 Score of modified 5S M&amp;E Sheet in 5S-CQI-TQM Guidelines - All RRHs mark 33 points out of 54 as full mark at least two consecutive years.</p>	<p>Nine out of 16 target hospitals reached the target of 60%: Arua, Entebbe, Jinja, Kabale, Masaka, Mbale, Mbarara, Mubende and Naguru. (See Figure 1)</p>

Figure 1: The results of 5S M&E by hospitals (As of February 2020)



**Output 3:** Due to the COVID-19 pandemic, supervision has not been carried out in the past eight months. However, the management of the target hospitals have a deep understanding of

UT activities, and the RWS is cooperative. Therefore, sustainability of the activities can be expected.

The indicators will not be updated this term.

[Project Implementation Team: User Training (UT)]																																					
Proper utilization of medical equipment through UT is improved in all RRHs.																																					
Current Indicators	Achievements																																				
<p>3-1</p> <p>There are at least two regional User Trainers at all RRHs.</p>	<p>The number of User Trainers is shown below*:</p> <table border="1"> <thead> <tr> <th>Hospital Name</th> <th>No. of User Trainers</th> </tr> </thead> <tbody> <tr><td>Arua</td><td>2</td></tr> <tr><td>Fort Portal</td><td>2</td></tr> <tr><td>Gulu</td><td>2</td></tr> <tr><td>Hoima</td><td>2</td></tr> <tr><td>Jinja</td><td>2</td></tr> <tr><td>Kabale</td><td>2</td></tr> <tr><td>Lira</td><td>3</td></tr> <tr><td>Masaka</td><td>2</td></tr> <tr><td>Mbale</td><td>2</td></tr> <tr><td>Mbarara</td><td>2</td></tr> <tr><td>Moroto</td><td>2</td></tr> <tr><td>Mubende</td><td>2</td></tr> <tr><td>Naguru</td><td>2</td></tr> <tr><td>Soroti</td><td>3</td></tr> <tr><td>Entebbe</td><td>3</td></tr> <tr><td>Total</td><td>33</td></tr> </tbody> </table> <p>*As of the end of April 2020</p>	Hospital Name	No. of User Trainers	Arua	2	Fort Portal	2	Gulu	2	Hoima	2	Jinja	2	Kabale	2	Lira	3	Masaka	2	Mbale	2	Mbarara	2	Moroto	2	Mubende	2	Naguru	2	Soroti	3	Entebbe	3	Total	33		
Hospital Name	No. of User Trainers																																				
Arua	2																																				
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Gulu	2																																				
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Mbarara	2																																				
Moroto	2																																				
Mubende	2																																				
Naguru	2																																				
Soroti	3																																				
Entebbe	3																																				
Total	33																																				
<p>3-2</p> <p>The number of UT conducted by regional User Trainers is more than three per year in every region.</p>	<p>The number of UTs is shown below*:</p> <table border="1"> <thead> <tr> <th>Hospital name</th> <th>No.</th> <th>Hospital name</th> <th>No.</th> </tr> </thead> <tbody> <tr><td>Arua</td><td>4</td><td>Mbale</td><td>5</td></tr> <tr><td>Fort Portal</td><td>3</td><td>Mbarara</td><td>2</td></tr> <tr><td>Gulu</td><td>3</td><td>Moroto</td><td>3</td></tr> <tr><td>Hoima</td><td>3</td><td>Mubende</td><td>7</td></tr> <tr><td>Jinja</td><td>4</td><td>Naguru</td><td>3</td></tr> <tr><td>Kabale</td><td>9</td><td>Soroti</td><td>10</td></tr> <tr><td>Lira</td><td>4</td><td>Entebbe</td><td>4</td></tr> <tr><td>Masaka</td><td>5</td><td></td><td></td></tr> </tbody> </table> <p>*For the period from July 2019 to April 2020</p>	Hospital name	No.	Hospital name	No.	Arua	4	Mbale	5	Fort Portal	3	Mbarara	2	Gulu	3	Moroto	3	Hoima	3	Mubende	7	Jinja	4	Naguru	3	Kabale	9	Soroti	10	Lira	4	Entebbe	4	Masaka	5		
Hospital name	No.	Hospital name	No.																																		
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Lira	4	Entebbe	4																																		
Masaka	5																																				
<p>3-3</p> <p>The average percentage of medical equipment in status B at all RRHs is not higher than 4%.</p>	<p>Baseline: 5.1%</p> <p>Current data: 2.05%</p>																																				

**Output 4:** In this period, various regular activities were carried out (as frequently as before the COVID-19 pandemic) with the strong initiative of HID/MOH counterparts and in close collaboration with the JICA Experts. For example, 1) two rounds of support supervisions for the WSs, 2) one WS Performance Review Meeting at Moroto, and 3) one wide-range training on patient safety, equipment maintenance and KAIZEN practice were carried out. These activities helped to raise awareness and improve the technical and managerial capacity of the engineers/technicians working at the medical facility.

In addition, the most significant activity during this period was the procurement of 15 items of testing/calibration equipment which will be used to ensure the safety of medical equipment, which was delivered within five months from the planning stage. Testing/calibration equipment is used to check the accuracy of a wide range of medical equipment and make any necessary adjustments. This was a particularly timely donation given the increasing demand for maintenance of equipments used for COVID-19 critical care treatment.

Along with the achievements and inputs, the Project activities corresponded with the improvement of WS maintenance and management capacities, which aligns with the goal of Output 4.

The WS Performance review meetings have been put in place as the main platform for discussing key issues of medical equipment management among the HID/MOH, the WSs, the RRHs' top management and the implementing partners as related to activities 4-5 and 4-6. Most of the meeting expenses are paid by each WS, and the host of the meetings is rotated among the WSs/RRHs, thus ensuring a sustainable system even after the JICA project ends.

[Project Implementation Team: ME] ME and management capacity of WSs are strengthened.	
Current Indicators	Achievements
(1) The average increase of scores between the pre-test and post-test is at least 15%.	Average increase of scores of the past ten training sessions: 28.9% (The target was achieved.)
(2) The average of percentage of medical equipment in status C and status E at all RRHs is not higher than 15%.	Baseline: 22.1% End line: 10.1% (Achieved)

#### 1-4 Achievement of the Project Purpose

During the initial Project period (~ June 2020), small CQI and KAIZEN cases were developed at some target facilities. In addition, performance indicators in terms of equipment maintenance were achieved through the maintenance of WS inventory data and the activities of User Trainers. During the extension period, using the knowledge and skills learned through PI, some QC stories

related to health infrastructure management are starting to be implemented based on the results of problem analysis at the RRHs.

Regarding Patient Safety, 3 RRHs (Kabale, Entebbe and Naguru) are expected to utilize the tools of CQI (KAIZEN) and the implementation of small CQI (KAIZEN) to help develop a culture of safety for patients and staff.

Current Indicators	Achievements
(1) CQI Process or Quality Control (QC) Story -The number of cases of CQI Process or QC Story amounts to more than three.	<ul style="list-style-type: none"> <li>• Nineteen cases of CQI process are being implemented at Kabale RRH, and six were completed.</li> <li>• Three cases of CQI Process are being carried out at Entebbe RRH.</li> <li>• Two cases are being implemented at Fort Portal RRH.</li> <li>• Three cases are being implemented at Hoima RRH.</li> <li>• Two cases are being implemented at Soroti RRH.</li> </ul>
(2) Good practice of small CQI -All RRHs have at least one good practice of small CQI.	At least one case of small CQI was practiced at 12 of the 16 target hospitals: Entebbe RRH, Gulu RRH, Jinja RRH, Kabale RRH, Masaka RRH, Mbale RRH, Mbarara RRH, Moroto RRH, Mubende RRH, Naguru RRH, Soroti RRH and Tororo GH.
(3) The average of percentage of medical equipment in status A at all RRHs is higher than 70%.	Baseline: 65.1% End line: 83.5%
(4) Supervisions on 5S, UT, and ME which is integrated into the system of MOH in a consolidated way are implemented more than XX times.	Integrated supervision of three components of health infrastructure management was conducted. Supervisions were implemented 15 times, in November 2018 (1), February 2019, March 2019 (2), April 2019 (1), May 2019 (2), July 2019 (1), August 2019 (1), October (1) and November 2019 (1), May 2020 (2), June 2020 (1), July 2020 (1) and Nov-Dec 2020(1).

### 1-5 Relationship between Project Achievements and COVID-19

The RRHs, which are the Project's targeted sites, have been managing and treating COVID-19 patients and critically ill patients. When the COVID-19 pandemic started, new ICUs were

established and equipped as designated COVID-19 isolation and treatment centers.

The challenge is how to effectively utilize limited resources (for example, healthcare workers, infrastructure, and medical equipment) to achieve maximum outcomes in the fight against COVID-19.

The Project outcomes have comprehensively contributed to tackling the above challenge in the RRHs as follows.

- The component on 5S-CQI (KAIZEN)-TQM (Output 2) gave RRH staff members the skills to improve their work environment, optimize work processes and solve small problems/issues. In particular, the 5S ZONING method was introduced in a hospital (Entebbe RRH) to identify safety spaces for COVID-19 patients, general patients, and medical personnel, in order to prevent nosocomial infections. It also standardized the handling of COVID-19 patients to protect the safety of non-COVID-19 patients and medical personnel.
- The component on User Training of medical equipment (Output 3) allowed nurses to operate the equipment properly, reduce mishandling, and revitalize unused equipment.
- The component on medical equipment maintenance (Output 4) contributed to an increase in the ratio of equipment being used at the RRHs, through institutionalizing support supervision, performance review meetings, technical trainings, equipment inventory analysis, etc.
- Some of the equipment in the ICU and operating rooms need to be strictly controlled for operation and data accuracy. There is a plan to set up the testing and calibration centres in the core WSSs, and the Project carried out the procurement of testing and calibration equipment for this purpose.

#### **1-6 Changes of Risk and Actions for Mitigation**

After being required to leave Uganda due to the COVID-19 pandemic, none of the JICA Experts have returned as of March 2021. However, communication tools such as SNS (e.g., WhatsApp), YouTube and Zoom enabled the Project to implement activities such as the PI on ME management and patient safety.

#### **1-7 Progress of Actions Undertaken by JICA**

- (1) The procurement of 15 items of testing and calibration equipment for 15 WSSs was speedily executed to ensure the safety of medical equipment used to fight COVID-19. The equipment, shown below, can be used for quality control and preventive maintenance of a wide range of medical equipment.
- (2) The JICA Experts supported the following items:



1	Equipment planning (items, quantity, target facilities, application of each piece of equipment, etc.)	Nov. 2020
2	Preparation for draft specifications and pre-quotation for budget planning	Nov. 2020
3	Support for JICA's internal approval	Dec. 2020
4	Evaluation of offers from local distributors of the equipment.	Dec. 2020
5	The contract signing between the JICA Uganda Office and the supplier (Mark Biomedical Ltd.)	24th Dec. 2020
6	Monitoring of the procurement schedule	Jan.-Mar. 2021
7	Preparation for on-site inspection, handover and end user trainings	Feb.-Mar. 2021
8	Remote support for on-site inspections	9th & 22nd Mar. 2021
9	Preparation for handover ceremony and training (scheduled in April)	Mar.-Apr. 2021

- The above items 1) through 5) were completed in about two months, facilitated by the smooth communication among HID/MOH counterparts, JICA Headquarters, the JICA Uganda Office and the JICA Experts. The contract for equipment procurement between JICA Uganda and the supplier was signed on 24th December 2020, and set the time of delivery as before 16th March 2021. The contract price was 1,724,941,200 UGX (approx. 50 million yen).
- Regarding item 8), two accessories were missing in the first inspection. Since those deliveries were scheduled for early April, the deadline was extended by an amendment of the contract.
- Regarding item 9), both the handover ceremony and training are being planned and are expected to be held in April.
- The remaining work (as described below) will be handled and completed by the JICA Experts, who are scheduled to return to Uganda in early April:
  - 1) Confirmation of the receipt of the missing accessories.
  - 2) Planning and coordination of the handover ceremony.
  - 3) Supervision of the training.
  - 4) Equipment handover support to 15 WSs.
  - 5) Promoting the establishment of calibration centres at Kabale, Fort Portal, Mbale, Gulu and Central WSs.

ID	Description	Brand	Model	Total Qty	Regional Workshops/ Regional Referral Hospitals													Central Workshop		
					Arua	Gulu	Lira	Kabale	Homa	Mubende	Moroto	Soroti	Mbale	Masaka	Fort Portal	Jinja	Mbarara		Naguru	
1	Maintenance tool kit, Biomedical	-	-	16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
2	Automated electrical safety analyzer	Fluke Biomedical	ESA615-06-UK, with ANSUR software	6						1	1	1		1					1	1
3	Portable oxygen analyzer	Fluke Biomedical	MaxO2 + AE	2									1							1
4-A	Vital Signs (NIBP, SpO <sub>2</sub> , ECG) simulator with software	Fluke Biomedical	ProSim 8 + ProSim SPOT, with ANSUR software	2																2
4-B	Vital Signs (NIBP, SpO <sub>2</sub> , ECG) simulator without	Fluke Biomedical	ProSim 8 + ProSim SPOT	4		1		1					1		1					
5	Clamp meter with temperature probe	Fluke Industrial	62MAX+/323/1AC Kit	16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
6	Ventilator/Anaesthesia (Gas Flow) analyzer	Fluke Biomedical	VT650/ ACCU LUNG II	6		1		1					1		1					2
7	Battery tester	Fluke Biomedical	BT520	6		1		1					1		1					2
8	Multi-DC regulated power supply, 12/24/48V	B&K Precision	8600	16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
9	Infusion pump analyzer	Fluke Biomedical	IDA-1S	6		1		1					1		1					2
10	DC regulated power supply, DC to DC convertor	B&K Precision	1672	16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
11	Ultrasound transducer leakage tester	Fluke Biomedical	ULT800K-CUST2	2																2
12	Defibrillator Analyzer	Fluke Biomedical	Impulse 6000D-02	6		1		1					1		1					2
13	Megger tester (Insulation Multimeter)	Fluke Industrial	1587 FC	16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
14	3 Phase sequence tester	B&K Precision	302	16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
15	ESU (Electro-surgical unit) analyzer	Fluke Biomedical	QA-ES MK III-02-UK	2																2
TOTAL				138	6	11	6	11	6	7	7	7	12	7	11	6	6	7	7	28

### 1-8 Progress of Actions Undertaken by the Government of Uganda

- (1) Since February 2020, the MOH has been prioritizing activities related to COVID-19 measures. However, despite the spread of COVID-19 infection, the MOH continued local activities and communicated with the Japanese experts even when they were absent. The MOH paid a total of 41% of the activity funds during this time.

Date	MOH	Activities	Venue/Target	MOH		Japan side		Total	
				Allowance/others		Allowance/others			
2020	Oct	HID	Printing the WS Operation Manual (400 copies) and SOPs booklet (200 copies)	Kampala	0	0%	10,920,000	100%	10,920,000
	Nov	SCAPP	7th QI Conference Abstract Review Meeting)	Mukono	0	0%	30,595,410	100%	30,595,410
	Nov	HID	Support Supervision	Workshops	3,900,000	67%	1,884,000	33%	5,784,000
	Dec	SCAPP	7th QI Conference	Kampala	0	0%	4,480,000	100%	4,480,000
	Dec	HID	26th Workshop Performance Review Meeting, September 2020	Moroto	29,050,000	89%	3,595,000	11%	32,645,000
2021	Jan	HID	Supervision and Monitoring of ICU Equipment Installation and User Trainings in RRHs	15 RRHs & 2 Other Hospitals	6,879,800	100%	0	0%	6,879,800
	Jan	HID	Assessment of Functionality of Non-Philips Imaging Equipment in preparation of maintenance contract	27 HFes (6 RRHs, 9 GHs, 8 HCIVs and 4 HCIIIs)	8,279,800	100%	0	0%	8,279,800
	Feb	HID	Training on ME maintenance, safety and KAIZEN practices, 5 days	Jinja RRH	18,235,000	71%	7,359,000	29%	25,594,000
	Mar	HID	Support Supervision	Workshops	3,900,000	67%	1,918,300	33%	5,818,300
	Mar	SCAPP	4th M&E (MOH, JICA, Facilitators)	16 facilities	0	0%	39,597,000	100%	39,597,000
					70,244,600	41%	100,348,710	59%	170,593,310

**(2) 1-9 Progress of Environmental and Social Considerations (if applicable)**

None.

**1-10 Progress of Considerations on Gender/Peacebuilding/Poverty Reduction (if applicable)**

None.

**1-11 Other Remarkable/Considerable Issues Related to/Affecting the Project (such as other JICA Projects, Activities of Counterparts, Other Donors, Private Sectors, NGOs, etc.)**

- (1) The Project for the Improvement of Regional Referral Hospitals in Northern Uganda is a grant aid Project run by the Japanese government. This Project aims to strengthen hospital functionality by constructing facilities and providing medical equipment to hospitals (Arua, Gulu and Lira RRH) in northern Uganda, and to improve the quality of and access to health services. JICA signed a grant agreement with the Government of Uganda to provide grant aid of up to 2.86 billion yen for this Project on 26th April 2018. The target facilities of the grant aid Project include the RRHs. The Project is expected to create a positive influence on health service delivery in the hospitals and motivate hospital staff to improve their workplace environment. Construction work on these three hospitals started in June 2019. The construction work was suspended from March 2020 due to COVID-19, but resumed in March 2021.
- (2) Regional Health Integration to Enhance Services (RHITES) is a 5-year Project that has been operating since 2017, funded by the United States Agency for International Development (USAID). RHITES supports the Government of Uganda and key stakeholders

to increase the availability and utilization of high-quality health services. The purpose of this Project is to secure services to support the design and implementation of comprehensive, integrated investment in health, especially at the regional level, for HIV/AIDS and nutrition assistance in the entirety of Uganda. In terms of Quality Improvement, the achievement of outcomes in the Project target facilities will be accelerated through human resource development done by RHITES.

- (3) The Korea Foundation for International Healthcare (KOFIH) is a public affiliated organization of the Ministry of Health and Welfare of the Republic of Korea. KOFIH has been active in Uganda since 2017, implementing various projects, including establishing an emergency medical service system and community health system with the MOH. KOFIH targets the Bukomansinbi district and Masaka region. In the target area of KOFIH, the equipment and technology provided will contribute to improving the skills of the staff members in the project's target facilities.

## **2 Delays of Work Schedule and/or Problems**

### **2-1 Details of the causes**

- (1) The following activities have been postponed due to the COVID-19 crisis:
- Approval and printing of the User Training guidelines and manuals by SMC and TMC
  - Regular holding of the WS Performance Review Meeting
  - Support supervision
  - CQI training
  - Incident Report training

JICA experts provided guidance for understanding CQI during their absence in Uganda and used the PI method to foster awareness that leads to patient safety, so that they can start CQI training and Incident Report training immediately after returning to Uganda.

- (2) Delay of the assessment of target facilities by the Health Facilities Quality Assessment Program (HFQAP)
- The MOH conducted a HFQAP assessment for 1,989 health facilities in 74 out of 127 districts (58.3%), including 10 hospitals out of 16 target facilities in 2020.

## **3 Modification of the Project Implementation Plan**

The MOH and JICA agreed to extend the Project period for one year from July 2020.

## **II. Project Monitoring Sheet I & II**

Attachments:

- I. Project Monitoring Sheet I
- II. Project Monitoring Sheet II

End

# Project Monitoring Sheet I

Project Title: Project on Improvement of Health Service through Health Infrastructure Management (II)

Implementing agency: Standards, Compliance, Accreditation and Patient Protection Department, Directorate of Health Governance and Regulation, Ministry of Health (MOH) (5S-CQI-TQM)

Clinical Services Department, Directorate of Curative Services, MOH (Utilization of Medical Equipment)

Health Infrastructure Department, Directorate of Strategy, Policy and Development, MOH (Maintenance of Medical Equipment)

Target Group: (1) Phase 1 targeted hospitals: Mbale Regional Referral hospital (RRH), Masaka RRH, Entebbe RRH, Hoima RRH, Kabale RRH, Arua RRH, Lira RRH, Moroto RRH, Mukuju HC IV, Tororo GH

(2) Phase 2 targeted hospitals: Soroti RRH, Jinja RRH, Gulu RRH, Fort Portal RRH, Mbarara RRH, Mubende RRH, Naguru Referral Hospital

Period of Project: July 2016- July 2021

Target Site: Republic of Uganda

**Version. 10**

**Dated 21st May 2021**

Narrative Summary	Objectively Verifiable Indicators	Achievement	Remarks
Quality of health care services at all the RRHs in Uganda is improved.	<ul style="list-style-type: none"> <li>• Clients' satisfaction level is improved to the target level. (XX)</li> <li>• Clients' waiting time of patients for consultation, testing, clinical examination, and prescription of drugs are reduced XX%</li> <li>• Maintenance cost regarding medical equipment is decreased in XX%.</li> </ul>		
<b>Project Purpose</b>			
Health infrastructure management at all the RRHs in Uganda is strengthened with the initiatives of MOH.	<ul style="list-style-type: none"> <li>(1) CQI Process or QC Story               <ul style="list-style-type: none"> <li>-The number of cases of CQI Process or QC Story amounts to more than three.</li> </ul> </li> <li>(2) Good practice of small CQI               <ul style="list-style-type: none"> <li>-All RRHs have at least one good practice of small CQI.</li> </ul> </li> <li>(3) The average of percentage of medical equipment in status A at all RRHs is higher than 70%.</li> <li>(4) Supervisions on 5S, UT, and ME which is integrated into the system of MOH in a consolidated way are implemented more than XX times.</li> </ul>	<ul style="list-style-type: none"> <li>(1) 19 cases of CQI Process are being implemented and 6 were completed at Kabale RRH. 3 cases of CQI Process are being carried out at Entebbe RRH. 2 cases are being implemented at Fort Portal RRH. 3 cases are being implemented at Hoima RRH. 2 cases are being implemented at Soroti RRH.</li> <li>(2) At least one case of small CQI was practiced at 12 out of 16 target hospitals.</li> <li>(3) 83.5% (average of 14 RRHs)</li> <li>(4) Joint supervision of 3 components concerning health infrastructure management was conducted 15 times.</li> </ul>	
<b>Output 1</b>			
1. [Project Steering Committee] Supporting/supervising system for health infrastructure management of all the RRHs is strengthened in the MOH.	<ul style="list-style-type: none"> <li>(1) The Project Steering committee meeting is conducted every three months.</li> <li>(2) The results of integrated support supervision conducted by Project Implementation Teams and the next quarter action plan developed from these results are shared and approved at every Project Steering Committee meeting.</li> <li>(3) The roadmap for incorporating the Project activities into the policy and systems of MOH is established and implemented by the Project Steering Committee.</li> <li>(4) The Project activities are successfully incorporated into the Ministerial Policy Statement of Ministry of Health.</li> </ul>	<ul style="list-style-type: none"> <li>(1) The Steering Committee meetings were conducted 6 times during May 2019 to August 2020.</li> <li>(2) From March 2020 to March 2021, during the absence of the JICA Experts due to the COVID-19 outbreak, supervision was carried out by the MOH staff and local consultant.</li> <li>(3) As a result of Uganda making COVID-19 infection control its top priority, not much can be expected in terms of the budget allocation to Project activities. On the other hand, 5S-CQI activities are monitored using the supervision in each department.</li> <li>(4) Concept of 5S-CQI-TQM were incorporated into the new Quality Improvement Framework and Strategic Plan(2021-2025).</li> </ul>	

<b>Output 2</b>			
2.[Project Implementation Team: 5S-CQI-TQM] Resource management and quality improvement activities are strengthened through CQI approach in all RRHs.	(1)Score of module 1 (Leadership) and 6 (Health Infrastructure) HFQAP Facility Assessment Tool - All RRHs mark (i) 5 points out of 8 as full mark for module 1 and (ii) 6 points out of 10 as full mark for module 6. (2)Score of modified 5S M&E Sheet in 5S-CQI-TQM Guidelines - All RRHs mark 33 points out of 54 as full mark at least two consecutive years.	(1) MOH collected data from 10 target hospitals, and the score will be given to the Japanese side after their analysis. (2) Nine out of the 16 target hospitals reached the target: Arua, Entebbe, Jinja, Kabale, Masaka, Mbale, Mbarara, Mubende and Naguru.	
<b>Output 3</b>			
3.[Project Implementation Team: User Training] Proper utilization of medical equipment through UT is improved in all RRHs.	(1) There are at least two regional user trainers at all RRHs. (2) The number of UT conducted by regional User Trainers is more than three as per year in every region. (3) The average of percentage of medical equipment in status B at all RRHs is not higher than 4%.	(1) There are a total of 33 regional User Trainers(at least two regional user trainers per RRH) at 15 RRHs. (2) 4.6 times (average number of training at 15RRHs). (3) 2.05% (average of 14 RRHs).	
<b>Output 4</b>			
4.[Project Implementation Team: ME maintenance] ME maintenance and management capacity of workshops (WS) are strengthened.	(1) The average increase of scores between the pre-test and post-test is at least 15%. (2) The average of percentage of medical equipment in status C and status E at all RRHs is not higher than 15%.	(1) 28.9% (average of 9 past trainings) (2) 10.1% (14 RRHs, as of February 2020)	
<b>Activities</b>		<b>Input</b>	
<b>1-1 Establishment of foundation for the Project and implementation</b>		<b>The Japanese side</b>	
1-1-1 Establish Project Steering Committee	1. Dispatch of Experts 1) Chief advisor / QI Management System 2) 5S-CQI-TQM 3) Utilization of Medical Equipment 4) Maintenance of Medical Equipment 5) Project Coordinator/ Training Management	2. Machinery and equipment 1) Necessary supplies for 5S-CQI-TQM to target hospitals and MOH headquarters 2) Testing and calibration tools and equipment etc. 3. Allocation of operational costs for project activities 4. Training in Japan and/or third countries	
1-1-2 Establish Project Implementation Teams for 5S-CQI-TQM, UT and ME			
1-1-3 Develop Terms of Reference (TOR) for Project Steering Committee and Project Implementation Teams and action plans for implementation of the Project			
1-1-4 Conduct baseline survey			
<b>1-2 Support Supervision on health infrastructure management</b>			
1-2-1 Review and revise existing supervision system and tools through enrichment of checklists of HFQAP(Health Facility Quality of Care Assessment Program) and allocation of 5S-CQI-TQM facilitators at national and regional levels			
1-2-2 Direct integrated support supervision, mentoring and coaching on health infrastructure management as CQI practice integrating 5S, UT and ME			
<b>1-3 Project implementation, monitoring and evaluation and institutionalization</b>			
1-3-1 Organize meetings for Project Steering Committee every three months and review whether action plan is being implemented based on PDCA cycle			
1-3-2 Conduct a meeting to review the established system in MOH			
1-3-3 Make use of review of activity 1-3-2 for institutionalization of support supervision systems and methodologies developed through the Project, and make reflections to the Ministerial Policy Statement			
1-3-4 Organize study tours and QI Conference to share good practice and lessons learned on health infrastructure management compiling 5S, UT and ME			
1-3-5 Conduct an end-line survey on health infrastructure management, including 5S-CQI-TQM, UT and ME			

<b>2.[Project Implementation Team: 5S-CQI-TQM]</b>
2-1 Develop and/or update guidelines, manuals, handbooks, monitoring and supervision tools, and facilitators guide
2-2 Define criteria for national show case of 5S-CQI-TQM and review national show case(s)
2-3 Clarify qualification, role and responsibility of 5S-CQI-TQM facilitators at national an regional levels
2-4 Conduct leadership and management training based on the results of the baseline survey for management staff of targeted facilities, etc.
2-5 Conduct facilitators' training for 5S-CQI-TQM facilitators at national and regional levels with a focus on CQI
2-6 Strengthen function of quality improvement team (QIT) and work improvement team (WIT) in the target facilities
2-7 Conduct 5S-CQI-TQM training to target facilities based on the results of the baseline survey, with a focus on CQI
2-8 Conduct support supervision, mentoring and coaching on WIT/QIT function, development of action plans by WITs, periodic meetings by QIT, implementation of 5S-CQI-TQM activities with proper usage and ME in collaboration with UT and ME activities under the direction of Project Steering Committee Activity 1-2-2
<b>3.[Project Implementation Team: User Training]</b>
3-1 Update and develop manuals, handbooks, guidelines, and monitoring tools for dissemination as necessary
3-2 Conduct refresher training of user trainers in the previous Project phase.
3-3 Conduct Training of Trainers (TOT) for user trainers of the phase 2 target hospitals
3-4 Conduct support supervision, mentoring and coaching on UT for proper usage and ME in collaboration with 5S-CQI-TQM and ME activities aiming at CQI under the direction of Project Steering Committee Activity 1-2-2
<b>4.[Project Implementation Team: Maintenance]</b>
4-1 Update and develop manuals, handbooks, guidelines, and monitoring tools for dissemination as necessary
4-2 Conduct leadership and management training for workshop managers including inventory data analysis
4-3 Conduct training for workshop staffs on maintenance of basic medical equipment
4-4 Conduct training for core staff of workshops in first line maintenance of specialized medical equipment
4-5 Strengthen capacity of Central Workshop and Infrastructure Department to support Regional Workshops
4-6 Support Workshops to develop a system for sharing knowledge and skills







