Federal Ministry of Health
The Republic of Sudan

The Republic of Sudan
Primary Health Care Expansion Project
Project Completion Report

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Japan International Cooperation Agency(JICA)

Koei Research & Consulting Inc.

Japanese Organization for International
Cooperation in Family Planning (JOICFP)

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JR
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Foreign exchange rates

USD 1 = JPY 109.49

SDG 1 = JPY 2.43

(JICA's monthly exchange rates in December 2019)

USD 1 = SDG 45.0

List of Pictures

JCC

The 1st JCC Minutes signature ceremony. Revised PDM approved.	Kick-off meeting in Gezira State. Approximately 50 people participated.
Presentation by the counterpart (Vice Director Ondurman Hospital) at the 2nd JCC.	The third JCC. The counterpart, JICA focal person, reported on the results of the project.

Training in Japan

The 1st Training in Japan / Okinawa Session (February 2017). As part of maternal and child health promotion activities, participants tried a baby care using a kit.	The 1st Training in Japan / Okinawa Session (February 2017). Participants made presentations at JICA headquarters.
The second training in Japan. Observed the practice of Tokyo Medical and Dental University as a 5S-KAIZEN-TQM model.	

Output 1: Capacity building of locality and Health Area Management Team (HAMT)

The first working group meeting was held to confirm the members, TOR, and future schedule.	The second working group meeting. The contents of the training program were discussed.
Training for strengthening administrative capacity for SMOH / locality staff. Lecture on organization management.	Training for strengthening administrative capacity for SMOH / locality staff. Group work on CMAM service improvement.
M & E system review meeting.	Participant in the M & E system review meeting (HAMT leader).
At the AU leader meeting. Participants confirmed the activity results of each AU for March 2019.	Commemorative photo with the "2019 AU Activity Plan" created at the AU Leader Meeting in February.

Output 2: Capacity building of health service providers

TOT at CMW in-service training (INSET). Exercising kangaroo care using an apron.	At the INSET TOT, participants are training in handling antibiotics (penicillin G).
INSET (Gezira). Instructed on hand washing methods through ANC practical training (Ruffa CMW School).	INSET (Gezira). Instructed on how to use a stethoscope in ANC practical training (Managil CMW School).
INSET (Gezira). A trainee checks the condition of the placenta during practical training for assisting delivery (Managil CMW School).	After the completion of the 5th batch of INSET, interviews were conducted with Medani CMW school teachers to improve the training content. The center is the RH coordinator of Gezira State.
INSET (Kassala). Exercises for measuring uterine floor length (Kassala Midwifery School).	Exercises are divided into 4 groups (6 people / group), exercises by themselves + 5 observations increase learning effect (Kassala Midwifery School).

Output 3: Health promotion at selected communities

Orientation workshop was held in Gezira target localities.	At community health activity planning workshop. The wall is a community health activity plan created by participants (Ebood / Gezira State).
Monitoring of CHC activities (Wad El Heleu / Kassala State).	A CHC member teaching health education to mothers with under 5 children using flipcharts (Kamil Nomak / Gezira State).
Explaining malnutrition to mother while showing flip chart to mother (Girba / Kassala State).	Vehicles that collect garbage in the community (Gabodja / Gezira State).
By the instruction of the CHC, households have been able to dump their garbage in designated places once a week (Surhan / Gezira State).	Making 2019 Health Activity Plan (Um Gamees / Kassala State).

Output 4: Introduction of 5S-KAIZEN at hospitals

5S-KAIZEN Orientation Workshop was held at Ondurman Maternity Hospital.	Instruction on labeling to improve by 5S expert at Ondurman Maternity Hospital.
Presentation to QIT and WIT at Ondurman Maternity Hospital.	Kickoff meeting at Umbada Hospital.
Participants in the 5S-KAIZEN workshop hosted by Khartoum State. About 100 participants attended.	5S workshop at Gezira Cardiovascular Center. About 50 participants attended.
New trash can and awareness poster at Tamboul Hospital.	Operating room after 5S introduction at Wadrawa hospital. Disinfected surgical gown is tidy.

Output 5: Impact evaluation

Interview with mother who has child under 2 years by house-to-house survey in End-line survey.	Mothers were generally very supportive of the survey. Interview was completed successfully.

Study tour

At the opening ceremony, the Projcet was introduced by the Director General of Gezira SMOH.	The results and lessons learned from the project activities were shared with the representatives from other states.

5S-KAIZEN Dissemination Workshop

Group discussion.	Questions and opinions were exchanged about 5S.
Participants presenting about the 5S activities using posters created by themselves.	Four hospitals were awarded as excellent examples of 5S activities.

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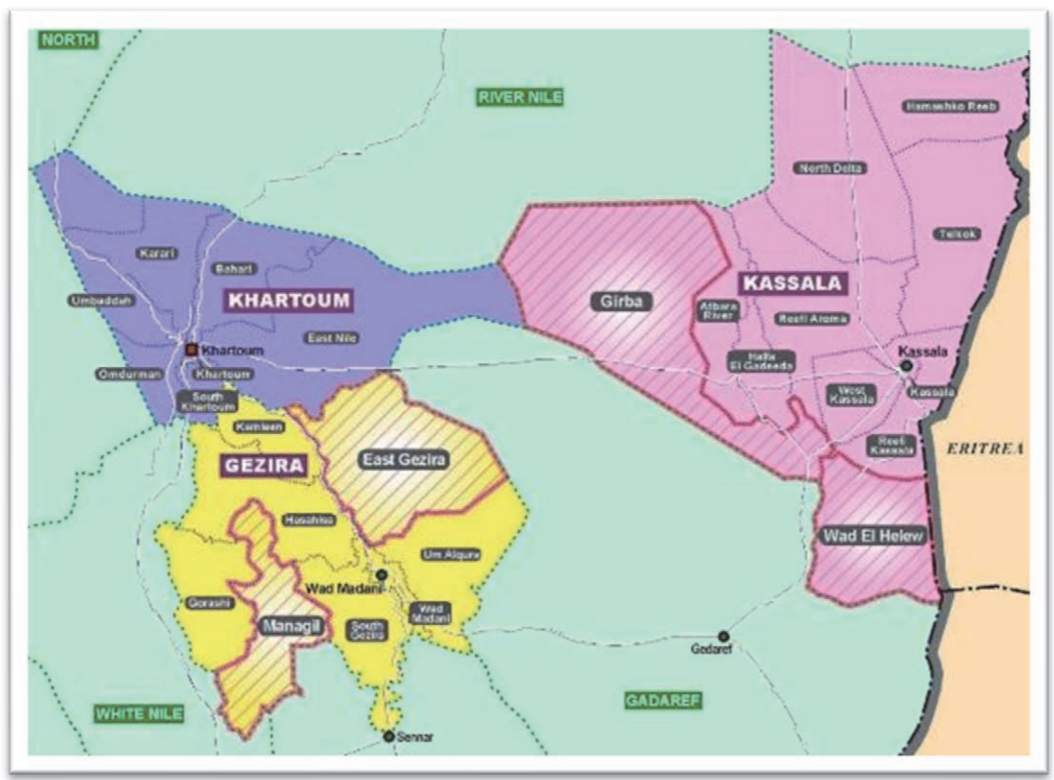
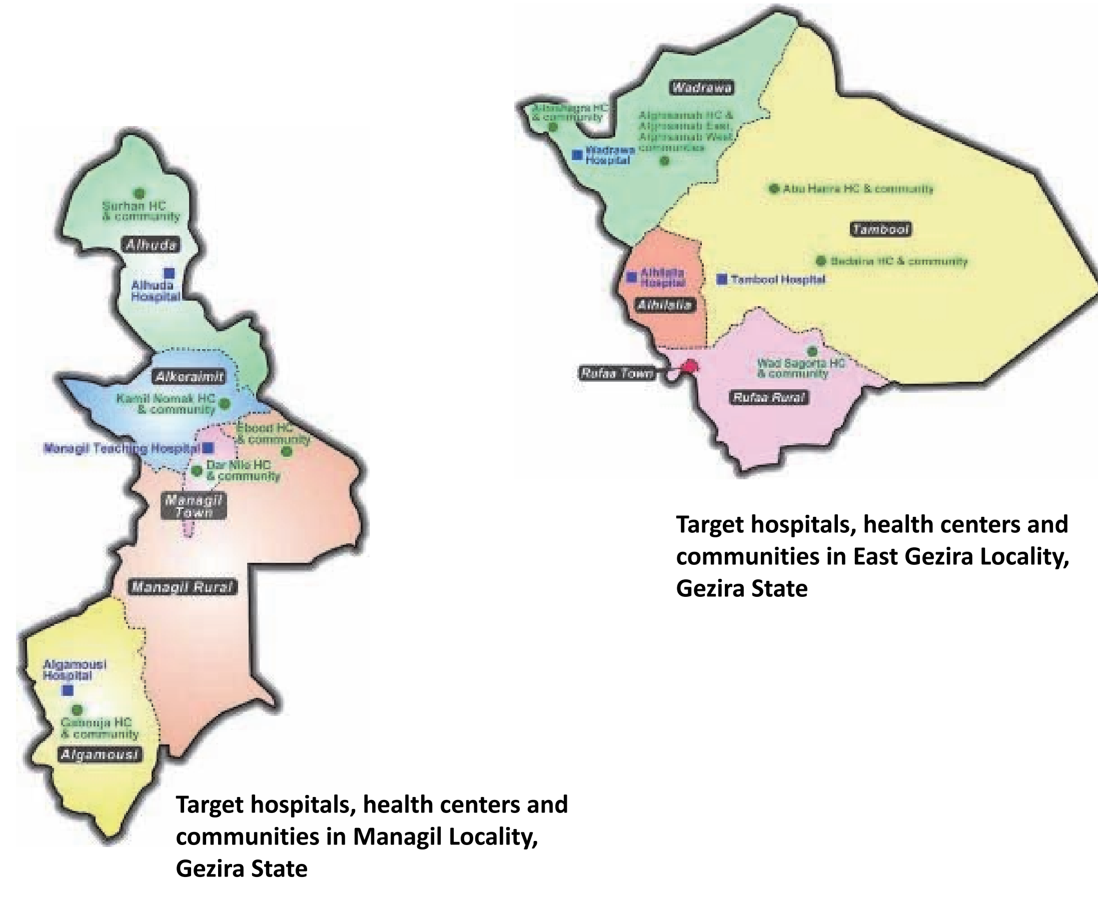
Abbreviations

ANC	Antenatal Care
AU	Administrative Unit
CBI	Community-Based Development Initiatives
CC	Community Committee
CHC	Community Health Committee
CHP	Community Health Promoter
CHW	Community Health Worker
CMAM	Community-based Management of Acute Malnutrition
CMW	Community Midwife
CPD	Continuous Professions Department
EBF	Exclusive breastfeeding
EPI	Expanded Program on Immunization
ETAT	Emergency Triage Assessment and Treatment
EmONC	Emergency Obstetric and Newborn Care
FGD	Focus Group Discussion
FGM	Female Genital Mutilation
FHC	Family Health Center
FHU	Family Health Unit
FMOH	Federal Ministry of Health
HAMT	Health Area Management Team
HC	Health Center
HIS	Health Information System
HV	Health Visitor
HW	Health Worker
ICT	Information and Communication Technology
IEC	Information, Education and Communication
IMCI	Integrated Management of Childhood Illness
IMR	Infant Mortality Rate
IPC	Infection Prevention and Control
IUD	Intrauterine Device
JCC	Joint Coordinating Committee
JICA	Japan International Cooperation Agency
JOICFP	Japanese Organization for International Cooperation in Family Planning
M&E	Monitoring and Evaluation
MA	Medical Assistant
MAM	Management of Moderate Acute Malnutrition
MCH	Maternal and Child Health
MICS	Multiple Indicator Cluster Survey
MMR	Maternal Mortality Ratio
MOE	Ministry of Education
MOH	Ministry of Health
NGO	Non-Governmental Organization
OBGY	Obstetrics and Gynecology
ORS	Oral Rehydration Solution
ORT	Oral Rehydration Therapy
PDM	Project Design Matrix
PHC	Primary Health Care

PNC	Postnatal Care
PTA	Parent-Teacher Association
QIT	Quality Improvement Team
RD	Record of Discussion
RH	Reproductive Health
RUTF	Ready to USE Therapeutic Food
SAM	Severe Acute Malnutrition
SHHS	Sudan Household Health Survey
SMOH	State Ministry of Health
SNS	Social Networking Service
TBA	Traditional Birth Attendant
TOR	Terms of Reference
TOT	Training of Trainers
U5MR	Under-Five Mortality Rate
UNICEF	United Nations Children's Fund
WES	Water, Environment and Sanitation
WIT	Work Improvement Team



Project target states



Target hospitals, health centers and communities in Managil Locality, Gezira State

Target hospitals, health centers and communities in East Gezira Locality, Gezira State

Summary

This is the final report on the JICA Technical Cooperation Project, "Primary Health Care (PHC) Expansion Project" (hereinafter referred to as "the Project"), It was implemented for three years and six months between June 2016 and December 2019.

The Project was implemented in Gezira, Kassala and Khartoum States jointly by the counterpart organizations (the Federal Ministry of Health (FMOH) and the State Ministries of Health (SMOHs) of the three states) and Japanese experts.

Table 1 shows the project purpose, expected outputs of the Project and main activities for each output. For realization of the project purpose, "Improved PHC services are provided at selected states in Sudan," activities for the achievement of Outputs 1 – 5 were implemented. Project activities for all five outputs, activities for Outputs 2, 3 and 4 and only activities for Output 4 were implemented in Gezira, Kassala and Khartoum States, respectively.

Table 1 Project overview

Project Purpose: "Improved PHC services are provided at selected states in Sudan."

Output	Activities
Output 1: Locality staff and Health Area Management Team (HAMT) improve their capacity to plan, support and evaluate PHC services.	・ Review and clarify roles of locality and HAMT ・ Review existing training package of capacity building in planning, M&E and supportive supervision of health administrators ・ Provide training of capacity building to locality staff and HAMT ・ Review, adjust and implement health plan prepared by locality and HAMT ・ Review and adjust existing M&E system used by locality and HAMT ・ Collect monthly data and provide supportive supervision
Output 2: The number of health workers which can provide quality PHC service is increased.	・ Conduct in-service training of Community Midwives (CMWs) and provide kit ・ Conduct monthly meeting of CMWs for follow-up of in-service training of CMWs ・ Conduct training for rural hospital package (EmONC+IPC, ETAT, SAM) at selected 6 hospitals ・ Conduct training for Community-based Management of Acute Malnutrition (CMAM) and Integrated Management of Infant Illness (IMCI) for staff of health center ・ Strengthen capacity of distribution and stock management of commodities for CMAM service ・ Conduct follow-up of target hospitals and HCs
Output 3: The number of communities which are empowered to conduct community health activities is increased	・ Strengthening existing CHC ・ Plan and organize community health activities ・ Produce education material for health promotion and conduct training ・ Conduct health promotion activities at selected localities ・ Share good health promotion activities ・ Conduct school health activities
Output 4: Quality improvement and resource management are strengthened with introduction of 5S-KAIZEN at selected hospitals.	・ Strengthen of 5S-KAIZEN at Omdurman maternity hospital as a model ・ Introduction of 5S-KAIZEN at selected 9 hospitals ・ Conduct a dissemination workshop to share experiences of 5S-KAIZEN for national rollout plan
Output 5: Impact evaluation is conducted on time.	・ Conduct baseline survey ・ Conduct end line survey ・ Conduct impact evaluation

The commencement of the project activities was delayed by approx. seven months due to the revision of Record of Discussion (RD). Some of the planned activities were cancelled or modified because of the fuel shortage and frequent demonstrations since 2018. Despite these problems, all the planned training and the collection of end-line data were completed by April 2019 owing to the hard work of the stakeholders in the Project. After the coup d'état in the same month, the Japanese experts left Sudan and many project activities were suspended because of the political instability. The experts returned to Sudan in November 2019. However, because the FMOH and Gezira SMOH counterparts who had played a major role in the Project had been transferred and replaced by new personnel after the coup, the experts had to spend time making the necessary arrangements with the new counterparts to wrap up the activities.

Due to the suspension of the Project after the coup, the project period was extended by six months. All the project activities were completed by December 2019 with the holding of workshops in Gezira State and the capital, Khartoum.

A comparison between the end-line and baseline data revealed improvement in many indicators. The training for primary health care (PHC) providers and assistance for community health activities and 5S activities in hospitals have changed the behavior of health care providers and community members and strengthened the capacity of the administration in the planning and monitoring of such activities. There have been many reports of good practices created by the activities. The project activities are considered to have produced the expected outputs as a whole because PHC services in the target states were improved through the capacity building of health administration staff and CMW, promotion of community health activities and implementation of 5S-KAIZEN in hospitals.

For Output 1, assistance for capacity building of the staff of the localities and Health Area Management Teams (HAMT) were provided in two target localities in Gezira State (East Gezira and Managil). The objective of Output 1 is to improve the capacity of the administration to the level required for effective planning and monitoring of the activities for Outputs 2 – 4 to be implemented in the target localities. The activities for Output 1 included training for management capacity building of the locality and HAMT staff. In addition, assistance was provided for the preparation of health plans and improvement of the Monitoring and Evaluation (M&E) system to improve planning and monitoring capacity.

Fifty-four health administrators from Gezira State had completed the capacity building training by January 2018. In the State Health Plan Review Meeting held in September 2019, people involved in PHC improved their understanding of the importance of indicators in the monitoring of plan implementation and appropriate setting of target values. After the meeting, the localities and HAMTs resumed the preparation of health plans, which had been suspended before the commencement of the Project, in the latter half of 2018 and finalized the health plans for 2019. Improvement of the M&E system by such measures as revision of the monthly report form and a change in the report submission method (data transmission by smartphone) raised the submission

rate of monthly reports to 100%. In the monthly HAMT Leader Meetings held between January and April 2019 after the revision of the monthly report form, the participants discussed activities to be taken (*e.g.*, preparation of an operating schedule for waste collection vehicles to ensure their effective use and measures to support cleaning campaigns) based on the results of analysis of the data in the monthly reports of the previous month, and some HAMTs observed increases in waste collection and the number of cleaning campaigns in their service areas through the implementation of the activities.

For Output 2, training for capacity building of health service providers was provided for community midwives (CMWs) and the staff of the health centers and hospitals to improve the quality of their services. CMWs from the four localities in Gezira and Kassala States had in-service training (INSET). In Gezira State, two types of training[1] were conducted at the health centers and "Rural Hospital Package Training[2]" was conducted at the hospitals.

A total of 1,010 people completed the training for Output 2, including 753 CMWs from Gezira and Kassala States who completed the INSET. Improvement in the quality of services provided by the trained CMWs, including increased coverage of blood pressure measurement and urine tests, has been observed. Many of the CMWs reported an increase in trust in their services by community members and an increase in the number of participants in the follow-up sessions in the monthly meetings. The Rural Hospital Package Training, however, has not produced the expected impacts because it was difficult to get sufficient numbers of trainees to participate in the training due to the shortage of manpower in the hospitals and the fact that many trained doctors have left the hospitals. The IMCI Training has not produced a satisfactory impact because the participants were old and many of them have left the health centers since the completion of the training (only 17 % still work at the centers two years after completing the training). Although the participants in the CMAM Training scored high points in the post-training test, the number of treated cases did not increase because of the combined effect of the transfer of the CMAM Coordinator of Gezira State, the out-of-stock of RUTF in Managil Locality, etc.

Assistance to facilitate voluntary health activities in the communities was provided to a total of 15 target communities in Gezira and Kassala States for Output 3. The practical assistance activities included capacity building of the existing Community Health Committees (CHCs), assistance in the preparation of community health plans, preparation of educational materials for health education and training in the use of the educational materials for community members and schoolteachers.

The above-mentioned activities have led to an increase in the number of CHC members in almost all the target communities and preparation and steady implementation of annual health plans in

[1] Training in Integrated Management of Childhood Illness (IMCI) and Community-based Management of Acute Malnutrition (CMAM)

[2] Package training consisting of four parts, Emergency Obstetric and Newborn Care (EmONC), Infection Prevention and Control (IPC), Emergency Triage, Assessment and Treatment (ETAT) and Severe Acute Malnutrition (SAM)

the communities under the leadership of the CHC members. The activities have also increased the number of health information contact points two- or three-fold. Many good practices, including the procurement of emergency referral vehicles, repair of health center buildings and construction of school toilets with a community fund established after the training and development of community-based waste collection systems, have been reported. The experience of these good practices was shared by the target communities in the Plan Review Meetings held in 2018 and 2019.

For Output 4, assistance was provided to Omdurman Maternity Hospital in the capital, Khartoum, which had been designated as a "5S-KAIZEN model hospital," to strengthen its functions and assistance to facilitate the introduction of 5S-KAIZEN was provided to nine hospitals in Gezira, Kassala and Khartoum States. The presence of Omdurman Maternity Hospital as a model hospital was enhanced with the development of many good practices, including thorough waste separation and commencement of the collection of data on postoperative infections, under the leadership of the Quality Improvement Team (QIT), and the provision of assistance to other hospitals in Khartoum State for the introduction of 5S. However, because several key persons in the introduction of 5S were transferred from the hospital in the staff reassignment after the coup, QIT was inactive in 2019.

It was confirmed that 5S-KAIZEN was practiced in almost all departments in the nine target hospitals in Gezira, Kassala and Khartoum States with assistance in the establishment of QITs and Work Improvement Teams (WITs) and monitoring of the activities of the teams. Although these hospitals need to make more effort to improve the level of 5S, the objective of introducing 5S in the target hospitals seems to have been achieved as a whole. A major impact of the introduction of 5S is seen in the significant reduction of the average waiting time for patients, with improvement in the cleanliness and orderliness of the hospitals and improved motivation of the hospital staff also realized by 5S introduction.

For Output 5, baseline and end-line surveys were conducted in 2016 and 2019, respectively, and the data collected in the surveys was used for assessment of the impacts of the Project. Quantitative analysis revealed improvement in various indicators in the target localities. In a comparison with the data of the control group, the indicator values of the target localities were generally better than those of the control group localities. Qualitative analysis confirmed the positive impacts of the project activities in the target areas, as many community members made favorable comments about the improved competency of CMWs by INSET, increased trust in the competent CMWs and behavioral changes realized by the community assistance activities.

Assistance in the technical cooperation project will be concluded in December 2019. The impacts created by the project activities should not be temporary. To maintain the activities in future and share the experience with other regions, SMOHs of the target states and FMOH must be involved in the activities. The Project Team recommends and requests SMOHs in the target states to continue providing follow-up assistance to CMWs, communities and the 5S target hospitals to

facilitate the sharing of good practices in each state in the trainings and workshops. The team requests FMOH to provide assistance for the activities of SMOHs in the target states through monitoring of their activities and budget allocation, and to create opportunities for SMOHs in other states in the country to learn from the experience acquired by the target states in the Project.

Chapter 1 PHC Expansion Project

The overview of the Project is described in this chapter.

1 Project Overview

The purpose of the Project was "Provision of improved PHC services" in the three target states. To achieve this purpose, various activities aimed at producing the five outputs were implemented. Table 2 summarizes the project.

Project name:	Primary Health Care Expansion Project (Mother Nile Project)
Duration:	June 2016 – December 2019
Project sites:	Gezira, Kassala and Khartoum States

Table 2 Project overview

Project purpose: Improved PHC services are provided at selected states in Sudan

Output and activities	Target area		
Output 1: Capacity building of locality and Health Area Management Team (HAMT)	Gezira	Kassala	Khartoum
• Review of existing plans by locality and HAMT • Identification of necessary actions for better PHC services • Improvement of existing data format and data collection system • Data collection using improved format and system • Data analysis and revision of existing plans	√		
Output 2: Capacity building of health service providers			
• Implementation of in-service training for Community Midwives (CMWs) • Implementation of supportive supervision of CMWs through monthly meetings	√	√	
• Provision of Rural Hospital Package training • Provision of Community-based Management of Acute Malnutrition (CMAM) training	√		
Output 3: Health promotion at selected communities			
• Formulation of Community Health Committees (CHC) (approx. 15 communities) • Development of Community Health Plan by CHC and CMWs • Review of existing health education materials and identification of insufficient parts • Development of necessary health education materials with CHC, CMWs • Training of Trainers (TOT) on usage of developed health education materials • Implementation of health promotion activities with developed health education materials at communities/ schools etc.	√	√	
Output 4: Introduction of 5S-KAIZEN at hospitals			
• Strengthening of Quality Improvement Team (QIT) and Work Improvement Team (WIT) at Omdurman Maternity Hospital as a model • Development of 5S coordinators • Introduction of 5S-KAIZEN at selected hospitals (9 hospitals) • Provision of regular consultative visit by 5S coordinators	√	√	√
Output 5: Impact evaluation			
• Impact evaluation comparing Baseline and Endline data	√		

2 Recipients of Project Intervention

Table 3 shows the recipients of project intervention. The target facilities (hospitals and health centers) and communities to be assisted were selected based on the results of the baseline survey implemented in 2016. The final decision on the selection was made in the first JCC meeting held in March 2017 by a consensus of the stakeholders.

Table 3 Targets of interventions by the Project

Output	Target states	Targets of intervention
Output 1: Capacity building of locality and HAMT	Gezira	5 HAMT in East Gezira Locality 5 HAMT in Managil Locality
Output 2: Capacity building of health service providers	Gezira, Kassala	
CMW INSET	Gezira	Approximately 610 CMWs in East Gezira Locality, Managil Locality
	Kassala	Approximately 140 CMWs in Girba Locality, Wad El Helew Locality
Rural hospital package training	Gezira	3 Hospitals in East Gezira Locality (Tamboul Hospital, Al-Hilalia Hospital, Wadrawa Hospital) 3 Hospitals in Managil Locality (El Managil Teaching Hospital, Algamousi Hospital, Al-Huda Hospital)
CMAM/ IMCI training	Gezira	5 HCs in East Gezira Locality (Wad Sagorta, Abuharira, Bedaina, Albashagra, Alghisainab) 5 HCs in Managil Locality (Dar Nile, Ebood, Kamil Nomak, Gabouja, Surhan)
Output 3: Health promotion at selected communities	Gezira	6 communities in East Gezira Locality (Wad Sagorta, Abuharira, Bedaina, Albashagra, Alghisainab West/ East) 5 communities in Managil Locality (Dar Nile, Ebood, Kamil Nomak, Gabouja, Surhan)
	Kassala	2 communities in Girba Locality (Um Gamees, Khor Labon) 2 communities in Wad El Helew Locality (Um Ali. Village A)
Output 4: 5S-KAIZEN	Khartoum, Gezira and Kassala	
Strengthening of QIT and WIT at Omdurman Maternity Hospital as a model	Khartoum	Omdurman Maternity Hospital
Introduction of 5S-KAIZEN	Khartoum	1 hospital (Umbaddah Hospital)
	Gezira	6 Hospitals in East Gezira Locality (Tamboul Hospital, Al-Hilalia Hospital, Wad rawa Hospital) 6 Hospitals in Managil Locality (El Managil Teaching Hospital, Algamousi Hospital, Al-Huda Hospital) *same as Rural Hospital Package Training target hospitals
	Kassala	2 hospitals (Kassala Maternity Hospital, Girba Hospital)
Output 5: Impact evaluation	Gezira Kassala Khartoum	

3 Progress of Project Activities

The project activities commenced in April 2017 in accordance with the revised PDM (project design matrix) approved in the first JCC Meeting held in March 2017. Table 4 shows the progress of the project activities for each output.

Due to the coup in April 2019, the project activities were temporarily suspended. By then, all the planned training and data collection in the end-line survey had been completed. However, the 5S Dissemination Workshop scheduled for June 2019 was postponed. After the resumption of activities in Sudan, the 5S Dissemination Workshop was held in December 2019. With the completion of this workshop, the implementation of the project activities was concluded.

Table 4 Progress of project activities

		2017		2018		2019	
		Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec
Output 1: Capacity building of locality and HAMT in planning, M&E and support supervision							
1. Kick-off meeting	Plan						
	Actual						
2. Review and clarify roles of locality and HAMT	Plan						
	Actual						
3. Review existing training package of capacity building	Plan						
	Actual						
4. Provide training of capacity building to locality staff and HAMT	Plan						
	Actual						
5. Review, adjust and implement health plan by locality and HAMT	Plan						
	Actual						
6. Review and adjust existing M&E system used by locality and HAMT	Plan						
	Actual						
7. Collect monthly data with revised M&E system	Plan						
	Actual						
Output 2: Capacity building of health workers							
1. INSET of CMWs	Plan						
	Actual						
2. Conduct monthly meeting of CMW	Plan						
	Actual						
3. Conduct rural hospital package training	Plan						
IPC training	Actual						
ETAT/SAM training	Actual						
EmONC training	Actual						
4. Conduct CMAM/IMCI training	Plan						
	Actual						
5. Strengthen linkage with DPs in procurement of commodities for CMAM service	Plan						
	Actual						
6. Strengthen capacity of distribution/ stock management of commodities for CMAM service	Plan						
	Actual						
7. Conduct follow-up	Plan						
	Actual						

		2017		2018		2019	
		Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec
Output 3: Health promotion at selected communities							
1. Orientation workshop in each locality	Plan						
	Actual						
2. Strengthening existing CHC	Plan						
	Actual						
3. Plan and organize community health activities	Plan						
	Actual						
4. Produce education materials for health promotion	Plan						
	Actual						
5. Conduct health promotion activities	Plan						
	Actual						
6. Conduct annual review and planning workshop	Plan						
	Actual						
7. (Teachers) conduct health activities at selected schools	Plan						
	Actual						
Output 4: 5S-KAIZEN							
1. Orientation workshop in Khartoum	Plan						
	Actual						
2. Strengthen 5S-KAIZEN at Omdurman maternity hospital as a model	Plan						
	Actual						
3. Establish QIT and WIT at selected hospitals	Plan						
	Actual						
4. Conduct TOT	Plan						
	Actual						
5. Support Training at hospitals	Plan						
	Actual						
6. Conduct regular consultation visit	Plan						
	Actual						
7. Conduct a dissemination workshop of 5S-KAIZEN	Plan						
	Actual						
Output 5: Impact evaluation							
1. Conduct Baseline survey	Plan						
	Actual	Conducted in Nov. – Dec. 2016					
2. Conduct Endline survey	Plan						
	Actual						
3. Compile project outcomes (impact evaluation)	Plan						
	Actual						

Plan

Actual

Chapter 2 Activities for Each Output

1 Output 1

The following seven activities were implemented for Output 1, administrative capacity building of localities and HAMTs.

[1-1] Organize kick-off meetings
[1-2] Review and clarify roles of locality and HAMT
[1-3] Review existing training package for administrative capacity building
[1-4] Provide training for capacity building to locality and HAMT staff
[1-5] Review, revise and implement health plans of localities and HAMTs
[1-6] Review and modify M&E system used by localities and HAMTs
[1-7] Collect data and provide supportive supervision by modified M&E system

An outline of each of these activities is described below.

[1-1] Organize Kick-off Meetings

A kick-off meeting for the Project was held in Gezira State on 13 April 2017. About 50 people participated in the meeting. The participants included three staff members of FMOH concerned with the Project, the minister, Director General (DG) and PHC Department staff of Gezira SMOH, the heads of the Health Divisions of the target localities, the leaders of the HAMTs and representatives of the target communities. The kick-off meeting was held in Kassala State on 27 April 2017. About 25 people, including the DG of the PHC Department, the heads of the Health Divisions of the target localities and HVs, participated in the meeting.

[1-2] Review and clarify roles of locality and HAMT

The Gezira State law (enacted in 2006) stipulating the roles of the localities in the PHC and TOR of HAMTs prepared in 2012 were translated into English so that the documents could be used as reference materials in the review.

Preparation for the establishment of a working group (WG) (selection of members, clarification of duties and preparation of the work schedule) to conduct various types of reviews concerning Output 1 (reviews of the training package, health plans and M&E system) was implemented in June and July 2017 and the first WG Meeting was held on 6 August 2017.

The roles of SMOH, localities and HAMTs in health administration (planning, implementation, M&E and acquisition and management of the budget) were clearly defined through discussions with individual WG members and discussion in the second WG Meeting.

[1-3] Review existing training package for health administrators

WG obtained and reviewed the two manuals mentioned below as existing training packages for capacity building in health administration in August 2017.

- JICA's "Governance, Leadership and Management for Health System Strengthening"
- Continuous Professions Department (CPD)'s "Leadership, Management and Administration"

The review revealed the following conceptual difference between the two manuals, both of which covered almost identical subjects: while JICA's manual is more professional and aims at giving a wide range of knowledge to managerial staff, the CPD's manual includes long hours of group work and emphasizes the improvement of participants' problem-solving capacity. In the WG discussions, the members agreed on a general strategy of using JICA's manual in the training for the staff of MOH and localities and CPD's manual in the training for the staff of HAMTs. They made the following changes to the manuals to enhance the impact of the training.

- Training for SMOH and locality staff: All ten modules in JICA's manual were used in the training. After completing each module, the participants had time for discussion to improve their understanding of the module contents. This training was expected to serve as TOT for training HAMT staff. Therefore, a session on facilitation skills was added to the training.
- Training for HAMT staff: Training in all subjects in CPD's manual, except financing, was conducted.
- The five-day training program for SMOH and locality staff included lectures and practical exercises in introduction to the health system, leadership and management, team building, monitoring and evaluation and measures against infectious diseases. The three-day training program for HAMT staff consisted of introduction to the health system, PHC basic health package, leadership, team building, motivation of staff, problem solving, preparation of health plans, monitoring and evaluation and a case study. The JICA Focal Person and the Director General of the PHC Bureau of Gezira SMOH approved the training timetables prepared by WG in a meeting held on 21 October.

[1-4] Provide training for capacity building to locality and HAMT staff

The training for capacity building with the training packages prepared in activity [1-3] was implemented as follows:

- Training for SMOH and locality staff: 17 – 21 December 2017 (five days)

Twenty-seven people (19 staff members of Gezira SMOH, five staff members of East Gezira Locality and three staff members of Managil Locality) participated in the training. The training was conducted by five lecturers, including the DG, staff of PHC Department and trainers of CPD, Gezira SMOH. The comparison of the average scores in the pre- and post-training tests showed improvement in the average score from 20.1 to 24.2.

- Training for HAMT staff: 29 – 31 January 2018 (three days)

Twenty-seven HAMT staff (10 from East Gezira Locality and 17 from Managil Locality) participated in the training. Four facilitators selected from among the people who had completed the above-mentioned "Training for SMOH and Locality Staff" gave lectures during the training. Time was set aside for a case study on the third day. The participants were divided in two locality-based groups and practiced group work on improvement of CMAM services. Suggestions, including the use of community vehicles for the transport of RUTF and the screening of malnourished children by EPI Mobile Teams during their visits to communities, were presented in the presentations of the group work results. Pre and post tests were not given in this training.

[1-5] Review, revise and implement health plans of localities and HAMTs

The review of health plans was planned to commence in October 2017. By then, the WG which was to be established was expected to have almost completed activities [1-2] and [1-3]. However, the Director of the Planning Department of Gezira SMOH, a key person in the activity, was transferred and it took time for a replacement to be appointed. In addition, the new director appointed in 2018 requested postponement of the review until conclusion of the revision of the State Health Plan 2018 prepared by his predecessor and the correction of the many discrepancies. For these reasons, the commencement of this activity was delayed significantly.

Gezira SMOH abandoned the revision of the State Health Plan 2018 in August 2018. The SMOH suggested to use the "Strategic Health Plan 2017-2020" and "Health Plan for the First Half of 2018" as a replacement for the review of the health plan.

A Health Plan Review Meeting was held on 12 September 2018. Thirteen staff members of the Planning and PHC Departments of Gezira SMOH participated in the meeting. In the meeting, the Deputy Director of the Planning Department first gave a brief explanation of the two plans and the staff of the relevant divisions in the PHC Department discussed ways to confirm the level of achievement of the plans and problems in their implementation. The discussion uncovered three problems: 1) Data and information required for the planning and review had not been reported or calculated correctly. 2) Target values had been set without reference to the results of the review of the data from the previous year. 3) The Planning Department and the project implementing divisions had not conducted sufficient information exchange and discussions. The participants agreed to hold a review meeting every quarter to solve these problems.

[1-6] Review and modify M&E system used by localities and HAMTs

The review of the existing M&E system by the Project Team and Gezira SMOH revealed that HAMTs were not involved in the collection of data on PHC (RH, CMAM and health promotion). The review also confirmed that there was no need to revise the form because the form was used in PHC data collection throughout the country and included all the necessary indicators. HAMTs

were only involved in the collection of data included in the “Environment and Sanitation Monthly Reports[3].” Analysis of the data in the reports for 2017 revealed many points that needed to be improved in the data collection. The results of the review of the data from 2017 were disseminated at a meeting held on 14 September 2018. Staff of the Planning Department of Gezira SMOH and localities and the leaders of HAMTs participated in the meeting. The total number of participants was 12. The data review revealed three problems: 1) Current practices were not reflected in the report form. For example, reports on services that had been contracted out were included in the monthly reports. 2) As the report forms were in short supply, the data was reported over the telephone. Therefore, there were omissions in the required data and mishearing occurred. 3) All the required data were reported in the monthly reports, regardless of type of data. However, it is appropriate to use different intervals for submission of reports on different types of data: reports on activities should be submitted every month, while reports on human resources and equipment should be submitted every quarter.

An improved form to deal with the above-mentioned problems was submitted to the Planning Department of Gezira SHOM and its contents were finalized with the consent of the department.

[1-7] Collect data and provide supportive supervision by modified M&E system

The Project team tried to set a date for a meeting to explain the contents of the improved form in November and December 2018. However, it was difficult to assemble the persons involved in the Project for the meeting because SMOH was implementing several major events, including a malaria campaign, at the time. Therefore, the Project Team met the Directors of the Health Departments of East Gezira and Managil Localities individually. In the meetings, the team explained how to fill out the improved “Environment and Sanitation Monthly Report” form and asked them to explain it to the HAMT leaders.

The use of the improved form began in December 2018 and data collection by the Planning Department of Gezira SMOH began in early January 2019. As many omissions were found in the December monthly reports, the Project Team invited HAMT leaders and persons in charge of the locality reports to a meeting for data feedback on 29 January 2019. In the meeting, the Project Team again explained to the participants how to fill out the form and reported changes in the submission rate and entry rate before and after the improvement. A feedback meeting was held every month from February to April 2018. In these meetings, the participants compared the data, such as the amount of collected waste and the number of cleaning campaigns, from the current month and the corresponding data from the previous month and discussed problems in the activities based on the results of the comparison. The persons in charge of the Project in SMOH and the localities also participated in the meeting. They used it as an opportunity to supervise the

[3] The survey subjects are human resources, equipment, number of water resource and water quality surveys, number of food sanitation inspections, weight of disposed waste and percentage of facilities with toilets by type of facility.

activities of HAMTs with the provision of guidance based on the records of monthly report.

In the follow-up meeting in January, it was revealed that it was difficult to collect the monthly reports on paper from the localities because they did not have printers or photocopiers and, therefore, photographs of the reports taken with a smartphone were used for the data transmission and collection. Because many of the MAMT leaders use smartphones, a Microsoft Excel file of the monthly report form was created. Training in data entry into the Excel file was provided for the HAMT leaders in the feedback meeting in March 2019 and the data for March and April were collected through the transmission of copies of the report forms as Excel files. The use of the electronic form significantly reduced data entry work at the localities and SMOH.

2 Output 2

The following seven activities were implemented for Output 2, capacity building of health service providers.

[2-1] Provide INSET and midwifery kits to CMWs
[2-2] Follow-up CMWs' activities in monthly meetings
[2-3] Conduct rural hospital package training
[2-4] Conduct CMAM/IMCI training
[2-5] Strengthen linkage with DPs in procurement of commodities for CMAM service
[2-6] Strengthen capacity in distribution/stock management of commodities for CMAM service
[2-7] Follow-up target hospitals and HCs

An outline of each of these activities is described below.

[2-1] Provide INSET and midwifery kits to CMWs

FMOH completed the revision of the curriculum of the in-service training (INSET) for CMWs in July 2017. The revision extended the duration of INSET from 12 days to 15 days with the addition of the three-day-long IMCI (Integrated Management of Child Illness) training. TOT for the training of facilitators was conducted in October and November 2017. Twenty-five health visitors from Gezira State (including two assistant health visitors) completed TOT. Twelve of them were certified as INSET lecturers.

It was confirmed that a total of 754 CMWs in the target localities (611 in East Gezira and Managil Localities in Gezira State and 143 in Kassala State) were eligible for INSET as of May 2017. Although each INSET batch was designed for 24 trainees, it was decided to begin the training with 21 trainees per batch in order to reduce the practical workload of the trainers. The total number of training batches in Gezira State was estimated at 29. As the end-line survey was scheduled for January 2019, INSET had to be completed by December 2018, or in ten months. The schedule for INSET was prepared on the assumption that it was to be conducted at three venues (CMW schools in Medani, Rufaa and Managil).

The procurement of training equipment in accordance with the revised curriculum and the procurement of midwifery kits began in August 2017. By March 2019, the required equipment had been procured and distributed to the three training venues.

The first INSET batch was conducted at Medani CMW School from 28 April to 15 May 2018. The training at Rufaa and Managil CMW Schools began in late June 2018, after Eid al-Fitr, which marked the end of Ramadan. The results of the pre- and post-training tests of the trainees in the first to fifth batches (implemented up to 28 July) were used for the interim review of INSET. The review revealed the following two problems: 1) The test score for RH was lower than the scores for the other parts (ENC: essential newborn care and HBB: helping babies breathe). 2) The post-training test score at Medani CMW School was lower than the scores at the other schools. Moreover, an interview survey of the facilitators and the trainees who had completed INSET

revealed disparity in the capacity of the facilitators and the need to improve the teaching methods. The Project Team held discussions based on the above-mentioned observations and took corrective measures, *i.e.*, revision of the timetable for RH, review of the grading method and dispatch of a supervisor to Medani CMW School. These measures significantly improved the test score in RH at Medani CMW School.

All 29 INSET batches in Gezira State were completed by 19 January 2019, about a month behind schedule. As planned, 611 CMWs completed the training. A total of six INSET batches were conducted at two venues (Kassala CMW School and RH Hall) in Kassala State from 9 February to 13 April 2019. A total of 142 CMWs completed INSET in Kassala State.

[2-2] Follow-up CMWs' activities in monthly meetings

The first follow-up monthly meeting for the participants of the first batch was held in August 2018. The same meetings were held later for the participants of later batches. The follow-up meeting for the participants of the last batch was concluded on 17 April 2019. A total of 498 trained CMWs, or 81.5 %, participated in the follow-up meetings. In the meetings, all the participants discussed the changes before and after the training and problems in their activities after the Locality Supervisors checked the record of activities of each CMW. With regard to the changes before and after the training, many participants commented that they were able to provide services with confidence using the new knowledge and techniques they had learned in the training and that their reputation in the communities had improved and they had more clients than before. However, with regard to the problems, many participants commented on the difficulty of obtaining the consumables required for their activities due to the economic slump in 2018 and 2019 and pointed out that the movement of CMWs and antenatal and postnatal referrals were limited because of the sharp increase in transport costs.

Table 5 shows the changes in the service contents before and after INSET. Although the number of ANC clients decreased slightly, the numbers of assisted deliveries and PNC clients increased. The percentages of clients who received blood pressure measurement and urine tests in ANC increased from 31 % to 78 % and from 27 % to 75 %, respectively. The average number of antenatal referrals per CMW increased from 1.01 to 1.60 because the trained CMWs were able to detect high blood pressure and diabetes. The average number of intrapartum referrals per CMW decreased from 0.60 to 0.06 because the CMWs could screen clients for high-risk deliveries.

Table 5 Progress of project activities

Date in previous month	Before training (n=610)	After training (n=498)
Total number of women who received ANC	5.76	5.70
Total number of deliveries	3.81	4.06
Total number of women who received PNC	3.74	5.05
Number of referrals (during pregnancy)	1.01	1.60
Number of referrals (during delivery)	0.60	0.06
Checking rate of blood pressure at ANC	31%	78%
Testing rate of urine at ANC	27%	75%

Source: Project material (Record of monthly meeting)

[2-3] Conduct rural hospital package training

The Rural Hospital Package Training comprised four parts: 1) Emergency Obstetric and Newborn Care (EmONC), 2) Infection Prevention and Control (IPC), 3) Emergency Triage, Assessment and Treatment (ETAT) and 4) Severe Acute Malnutrition (SAM). Taking into consideration the schedule for revision of the manual by FHOM, training in IPC, ETAT/SAM and EmONC was conducted in this order (in February, May and October 2018, respectively). The training was conducted at six hospitals, three each in East Gezira and Managil Localities. The participants in the training were described below:

- IPC Training was conducted at two venues, one each in East Gezira and Managil Localities, in February 2018. Thirty participants, including doctors, nurses and clinical technologists, completed the training.
- ETAT/SAM Training was held at Medani CPD in April and May 2018. Twelve doctors completed the training.
- EmONC Training was conducted in Gezira in October 2018. The old unrevised manual was used in the training. Thirteen doctors completed the training.

[2-4] Conduct CMAM/IMCI training

Two types of CMAM training were conducted in the Project, five-day CMAM training for the staff of health centers providing health care services to outpatients (including nutritionists, MAs and nurses) and three-day community training for health volunteers. Two five-day training batches were conducted in Gezira and Managil Localities simultaneously in May 2017. The total number of participants in the two batches was 28. The community training was conducted at 11 sites in July and August 2017. A total of 123 people participated in this training. Scales and MUAC tapes were provided to health centers after the training.

Three-day IMCI Training was provided as a refresher course for staff (medical assistants) who had completed the 11-day IMCI Training. A total of 23 people participated in the training held in the two localities.

[2-5] Strengthen linkage with DPs in procurement of commodities for CMAM service

Interview surveys conducted at WFP, UNICEF and the Nutrition Division of the Maternal and Child Health Department of FMOH in April and May 2017 revealed that the two development partners did not supply RUTF to Gezira State and the Government of Sudan distributed the RUFT that it had procured to the state capital, Medani.

Although a warehouse in the state capital had a stock of RUTF, it was not regularly distributed from the warehouse to the localities or from the localities to the health centers. Therefore, RUTF was out of stock at some health centers.

The project stakeholders implemented Activity [2-6] on the understanding that the non-availability of RUFT in Gezira State was caused by problems not in the procurement of the commodities but in the distribution and management within the state.

[2-6] Strengthen capacity in distribution/stock management of commodities for CMAM service

To establish a system for the distribution and management of RUTF, the Project Team began discussions on a system with the CMAM Coordinators of the state and localities in May 2017. The team visited South Gezira Locality, recommended by the coordinators as a good practice site, and conducted an interview survey on the availability of clean, large-capacity warehouses and distribution of RUFT using the spare space in drug distribution vehicles. The team presented this good practice to the participants in the training for HAMT staff conducted in January 2018 and the participants did group work on the improvement of CMAM service based on this example of good practice. In the presentations of the results of the group work, plans, such as transporting RUTF in community vehicles and screening malnourished children by the EPI Mobile Teams during their visits to the communities, were presented. HAMT leaders reported that they had implemented these activity plans at the HAMT Leader Meetings held from January to April 2019.

Because of the limited storage capacities of the warehouses of the Locality Health Departments of East Gezira and Managil Localities, these localities did not have a sufficient stock of RUTF. In response to a request from the project stakeholders, the construction of warehouses was included in the State Health Plan 2019.

[2-7] Follow-up target hospitals and HCs

All four parts of the Rural Hospital Package Training had been completed by October 2018. While FMOH and SMOHs were expected to begin conducting follow-up of the training participants jointly in December 2018, a restriction was imposed on the entry of FMOH vehicles into Gezira State for security reasons as demonstrations began to occur frequently in the same month. Because the Treatment Department of Gezira SMOH, which supervised the hospitals in the state, was

preoccupied with handling the frequent strikes by doctors, which also began in December 2018, it was not possible to schedule the follow-up. Therefore, SMOH staff had not conducted the follow-up. During the end-line survey (between February and April 2019), the survey team visited hospitals and learned what percentage of doctors who had completed the training still worked there.

The follow-up of the participants of the CMAM training was conducted as part of the monitoring of CHC activities in October and November 2017 and November and December 2018. In the follow-up, inspection was conducted and guidance was provided on data entry into the logbooks and on RUTF stock management. Out-of-stock of RUFT was observed at some health centers in the monitoring in 2018. A study on the causes of the out-of-stock revealed the following: Because the post of CMAM Coordinator of Gezira SMOH had been vacant since July 2018, SMOH had not received any stock information from the localities. Therefore, RUTF had not been distributed to the localities. SMOH immediately appointed a CMAM Coordinator and conducted supplementary RUTF distribution. Because of this out-of-stock, the target of one of the indicators of the project purpose, “Number of malnourished children who received treatment at the target HCs” has not been achieved.

3 Output 3

The following seven activities were implemented for Output 3, facilitation of voluntary activities in communities.

[3-1] Hold orientation workshops for target communities
[3-2] Strengthen existing CHCs
[3-3] Plan and organize community health activities
[3-4] Produce educational materials for health promotion and provide guidance on their use
[3-5] Conduct health promotion activities by target communities
[3-6] Conduct health plan review and preparation workshops
[3-7] Conduct school health activities

[3-1] Hold orientation workshops for target communities

The orientation workshops of the Project were held in East Gezira and Managil Localities, Gezira State, on 18 and 19 April 2018, respectively. About 60 and 30 people, including representatives of the localities, HAMTs and target communities, participated in the workshops in East Gezira and Managil, respectively.

[3-2] Strengthen existing CHCs

The Project Team held one-day workshops on the preparation of health activity plans in East Gezira Locality (a total of six target communities) and two localities in Kassala State (a total of four target communities) jointly with SMOHs and the localities. Community leaders, staff of HCs, CMWs and about 25 representatives of the communities participated in the workshops and developed a mechanism to address health problems through a multi-sectoral approach. Because Algisnab West and Algisnab East Communities in East Gezira Locality jointly operated an HC, the two communities jointly established a CHC and prepared a health activity plan.

"Health Activity Plans (CAPs)" and "Communication Strategies" prepared by the 15 communities (14 CHCs) in April and May 2017 were printed on large flags and the flags were distributed to the CHCs in June. The Project Team monitored the activities in the 15 communities (by 14 CHCs) between 9 October and 2 November 2017 in cooperation with SMOHs and the localities.

In March and April 2018, the Project Team provided guidance on activity monitoring methods and data entry into the report form to CHCs. In the same period, SMOHs, the localities and the Project Team conducted joint quarterly monitoring of the health promotion activities by the CHCs. They highly rated the health promotion activities conducted by six CHCs in the monitoring and commended them.

In August and September 2018, the Project Team conducted joint quarterly monitoring with SMOHs and the localities, analyzed the activities in the target communities and provided advice

on community activities in future. Increases in the numbers of CHC members and health volunteers were observed in many target communities. Many CHCs were observed to have strengthened linkage with other organizations (including volunteer organizations). For example, Gaboja CHC in Managil Locality, Gezira State, conducted house visits of community members to recruit volunteers. The visits increased the number of volunteers to 37 and HC staff trained the new volunteers. These activities enabled assignment of two or more volunteers to each district and expansion of the service coverage area. The said CHC held negotiations with the locality on a waste collection system and introduced a regular waste collection system in the community, in which the community paid the fuel cost and the locality dispatched waste collection vehicles. In addition, several cases in which CHCs collected contributions for the promotion of community health promotion activities, repair of health facilities and construction of school toilets in cooperation with charities and youth committees were reported in the monitoring

[3-3] Plan and organize community health activities

In the workshops mentioned above in [3-2], members of all the target communities in East Gezira and Managil Localities, Gezira State, and Girba and Wad El Helew Localities, Kassala State prepared health plans (May 2017 – April 2018) for their communities. Progresses of the community health plans were confirmed by the quarterly monitoring. In October 2017, the first Joint monitoring was conducted as mid-term review to discuss about strengthening community health activities.

Consequently, the second health plan preparation workshop and joint monitoring was conducted during February to March 2019. Implementation rates of community health plan were increased from 78% to 85% in Gezira State, 58% to 97% in Kassala State, in comparison with the time of the mid-term review in 2017. It was confirmed that the activities of many CHCs had increased. Specifically, the following cases were reported: A CHC organized a five-day training course on first aid for 85 community members by a lecturer from the Red Crescent Society. Members of mothers' groups and youth were mobilized as new volunteers in the activities of CHC. School toilets were constructed. A house for visiting CMW was prepared so that the CMW could stay in the community. CHCs implemented these activities with contributions from community members or in cooperation with community committees and NGOs.

[3-4] Produce educational materials for health promotion and provide guidance on their use

The Project Team collected 206 existing educational materials on PHC from the relevant offices of FMOH and UNICEF and reviewed them based on 20 categories, such as content, type and use, in 2016. The team conducted a study of candidate educational materials in Gezira and Kassala States in May 2017. The staff of FMOH involved in the Project identified and selected candidate materials based on the study result. Then, they identified existing educational materials that

covered the key messages of the Project. The contents of the education materials were finalized in July and August 2017. After confirming the results of the pre-training test conducted in early October, printing of the materials began. A total of 23 types of educational materials were produced. Five posters, five brochures, a flipchart and a leaflet were produced for the communities. Five posters, a brochure and a training manual were produced for school health. Promotional goods were also produced.[4]

After the contents of the education materials for school health were finalized, three three-day training batches on their use were conducted. A total of 74 teachers in charge of school health participated in the training: 27 teachers from Managil Locality, Gezira State, 28 teachers from East Gezira Locality, Gezira State, and 19 teachers from Girba and Wad El Helew Localities, Kassala State, participated in the training conducted in late August, late October and early November, respectively.

Two-day TOT on use of the educational materials for the communities was conducted in Gezira State in early January and in Kassala State in late January 2018. A total of 49 staff members of the State Health Bureau and leaders of the target communities participated in the training. Four-day training for community members (mainly CHC members) was conducted in 14 communities (at 13 CHCs) in March and April 2018. Persons who had completed the TOT acted as lecturers in the training. Abu Harira Community did not send representatives to TOT because it was under reorganization at the time of the training. Therefore, additional training for this community was conducted in early November 2018. All training concerning Output 3 was completed with the conclusion of the additional training.

[3-5] Conduct health promotion activities by target communities

Activities to disseminate the 12 messages set in the Project to community members were conducted during house visits and at times and places where many people gather, *e.g.*, HCs, Friday prayers at mosques, morning assembly at schools and wedding ceremonies, under the leadership of CHC members. Some target communities began health promotion activities such as introduction of a regular waste collection system and purchase of water tanks. There have been reports of cleaning campaigns co-organized by CHCs and schools and installation of toilets and water supply equipment at schools with the community fund. These observations indicate the strengthening of cooperation between communities and schools in health promotion.

[3-6] Conduct health plan review and preparation workshops

The target communities in Kassala State jointly reviewed the health plan and communication strategy and prepared the health plan 2018 in the workshop held in February 2018. The communities in Managil and East Gezira Localities, Gezira State, did the same in the workshops

[4] See Attachment 8 for reference.

held in March 2018. CHCs of the target communities also exchanged their experiences in health promotion and good practices in the workshops. The second Plan Review and Preparation Workshop was held in February 2019.

[3-7] Conduct school health activities

Teachers participated in the training for teachers in charge of school health and the training in the use of educational materials for CHCs and took the lead in health education activities at schools. The posters produced and distributed in the Project were posted at schools and students received the brochures.

After completing the training for teachers in charge of school health (implemented between August and November 2018), the teachers who participated in the training began sanitation and hygiene activities for students at their schools and the schools began putting up the posters and commenced sanitation and hygiene education for students using the brochures. These activities spread the practice of washing hands before meals among students and increased the number of schools with soap at the water taps. In addition, cases in which students were actively implementing health promotion activities (or spreading messages on hygiene and health through plays and songs) were reported.

4 Output 4

The following seven activities were implemented for Output 4, strengthening and introduction of 5S-KAIZEN in the target hospitals.

[4-1] Conduct 5S-KAIZEN orientation workshop
[4-2] Strengthen QIT and WIT of Omdurman Maternity Hospital
[4-3] Establish QITs and WITs in other target hospitals
[4-4] Conduct TOT at target hospitals
[4-5] Support 5S-KAIZEN training at target hospitals
[4-6] Conduct regular consultation visits
[4-7] Conduct dissemination workshop

An outline of each of these activities is described below.

[4-1] Conduct 5S-KAIZEN orientation workshop

The Project Team conducted an orientation workshop at the model hospital, Omdurman Maternity Hospital, in May 2017. Twenty-seven staff members of FMOH and Omdurman Hospital participated in the workshop.

In response to a request from the Ministry of Health, the team conducted a seminar on 5S-KAIZEN at FMOH (in July 2019) and Gezira SMOH (in August 2019) for the staff of the respective ministries.

[4-2] Strengthen QIT and WIT of Omdurman Maternity Hospital

Since June 2017, the Project Team has had more than 10 meetings with QIT and WIT. The team received reports on the progress of the activities and provided guidance on improvement of the activities in these meetings. The biweekly activity reports of QIT were used in the activity monitoring. The number of departments practicing 5S-KAIZEN increased from three before the commencement of the Project to 24 (out of a total of 50 departments). The introduction of 5S-KAIZEN is at stage S1-S3. Waste separation using plastic buckets in three different colors had become a regular practice in the entire hospital by June 2018. Data on postoperative infection was collected between April and October 2018 for the prevention of nosocomial infection in the operation rooms.[5]

During the project implementation period, Omdurman Maternity Hospital supported the introduction of 5S-KAIZEN at six hospitals in Khartoum State in response to requests from the hospitals. (A Japanese expert from the Project gave lectures at two of the six hospitals.) This assistance enhanced the presence of the hospital as a 5S model hospital.

[5] A series of staff reassignments took place at Omdurman Maternity Hospital after the demonstrations for democratization began in December 2018. Because the reassignments made it difficult for QIT to continue implementing activities, data collection was suspended.

[4-3] Establish QITs and WITs at target hospitals

Girba and Wad El Helew Hospitals were selected as the 5S target hospitals in Kassala State. However, a change in the target hospitals was discussed at the Kick-off Meeting held in April 2019. Because the relocation of personnel had reduced the number of users of Wad El Helew Hospital, the stakeholders agreed to replace it with Kassala Maternity Hospital (popularly called the Saudi Hospital).

The Project Team began to hold 5S-KAIZEN kick-off meetings with senior hospital staff at each of the target hospitals in the three target states (a total of nine hospitals) in July 2017. Later, the team confirmed the establishment of Quality Improvement Teams in all nine hospitals between July and September. All the target hospitals completed the establishment of WITs in the model departments by September 2017.

[4-4] Conduct TOT at target hospitals

TOT for QIT members was conducted at each of the nine target hospitals between August and November 2017. In April and May 2018, a two-day supplementary session was conducted at the six hospitals in Gezira State taking into consideration the results of the monitoring visits conducted in March.

[4-5] Support 5S-KAIZEN training at target hospitals

Training by QITs for WITs at all the target hospitals began in December 2017. WITs were organized under all QITs at two of the nine target hospitals and the QITs of the two hospitals completed the first training for WITs. At the other hospitals, half of the QITs organized WITs, on average, and provided training to the WITs.

In response to requests from the target hospitals, about 20 copies of the 5S training textbooks (in Arabic) were distributed to each hospital for use in the in-house training. The distribution to each target hospital was completed in September 2018.

[4-6] Conduct regular consultation visits

The Project Team began discussions on a strategy for consultation visits with the Treatment Department of SMOH and locality health departments of each state in December 2017. The three parties agreed that a team of three, consisting of a staff member of SMOH, a staff member of the locality health department and a Japanese expert or national staff member from the Project, would conduct the consultation visits, in principle, and the team would conduct monitoring of the 5S activities at the hospital over the phone in the months when there was no consultation visit to the hospital. However, the fuel shortage made it difficult to plan the consultation visits. Therefore, only three consultation visits were conducted in Gezira State (in February, July and September

2018), two in Kassala State (in February and September 2018) and two at Umbaddah Hospital (in February and July 2018). During the visits, the consultation team inspected the records of the activities of QITs and WITs and inspected and gave advice to the departments in which 5S had been introduced. The team conducted appropriate monitoring of the 5S activities in the target hospital over the phone in the months when there was no consultation visit to the hospital and asked hospitals with slow progress in 5S introduction the reason for the slow progress. The consultation team informed FMOH and SMOHs of the monitoring results.

[4-7] Conduct dissemination workshop

A two-day 5S Dissemination Workshop was held in Khartoum on 17 and 18 December 2019. The purposes of the workshop were: 1) to share Project experience of 5S introduction at hospitals, 2) to assist development of 5S introductory action plan by states through orientation of 5S to support FMOH's efforts to facilitate the introduction of 5S in the target states.

Nine states (Khartoum, Gadaref, White Nile, North Kordofan, West Kordofan, North Darfur, West Darfur, South Darfur and East Darfur States), those were priority states of 5S introduction by FMOH, were invited to the workshop. Three persons per state, who were representatives of 5S related departments (Quality Department, Curative Medicine Department and PHC Department), participated in the workshop. Total number of participants was 60, including participants from 9 states, FMOH and the relevant persons at target hospitals of 5S-KAIZEN activities by Project.

Outlines of workshop program is shown in Table 6. Quality Directorate, FMOH was in-charge of the facilitation of the workshop. On the first day, after the introduction of Project activities and lectures on 5S-KAIZEN, hospitals which conducted 5S-KAIZEN activities made presentations on their achievements.

Table 6 Outlines of 5S Dissemination Workshop

Day	Program
Day 1	Opening ceremony
	Introduction of 5S-KAIZEN activities by the Project
	Orientation on 5S-KAIZEN ・ Basic concept of 5S ・ 5S tools ・ Roles of QIT
	Sharing experience of 5S-KAIZEN activities at hospitals ・ Omdurman Maternity Hospital ・ Tambool Hospital ・ Kassala Maternity Hospital ・ Gadaref Teaching Hospital[6]
	Q&A
Day 2	Explanation on 5S introductory plan by Quality Directorate, FMOH
	Group work: Development of 5S Action plan for 2020
	Presentation by states
	Closing and Awarding Ceremony

Source : Project Document

On the second day, the facilitator from Quality Directorate, FMOH explained about outlines of 5S introductory plan and the methods of group work. An assignment of group work was "to develop an action plan to introduce 5S-KAIZEN at one priority department of one selected hospital in a year of 2020". After one hour of group work by states, a representative of each state made presentation on its plan. The outlines of action plans by states were shown in Table 7.

About monitoring of action plans by states, the facilitator explained the strategy of FMOH. She requested cooperation to the states for preparation of quarterly monitoring report because FMOH would assign a focal person per state to supervise the progress of its action plan.

In the end of the workshop, awarding ceremony was held for Omdurman Maternity Hospital, Tambool Hospital, Kassala Maternity Hospital and Gadarif Teaching Hospital to recognize their good performances in 5S-KAIZEN.

[6] Gadarif Teaching Hospital, which was not the target hospitals by Project, had assistance by Japan Overseas Cooperation Volunteer on 5S-KAIZEN. In February 2019, 5S related personnel from Gedarif Teaching Hospital was invited to Gezira state to hold joint workshop for sharing 5S-KAIZEN experiences.

Table 7 Outlines of 5S action plan by state

State	Outlines of 5S Action Plan for 2020
Khartoum	QIT will be established at Khartoum Hospital in January 2020. Introduction of 5S will be applied to the storage of the hospital. 5S will be introduced to the PHC department of SMOH.
Gadaref	5S activities at Gadarif Teaching Hospital will be expanded to the emergency department and laboratory. A workshop to assist introduction of 5S-KAIZEN to HC will be held by the QIT of Gadarif Teaching Hospital.
White Nile	5S will be introduced in the office of Quality Department, SMOH in January 2020. After the evaluation, 5S will be expanded to the Operation room at Kosti Hospital in February. After the second evaluation, expansion of 5S to HC will be considered.
North Kordofan	5S training will be held to 40 staff at Obeid Hospital. Trained 40 Staff will be divided in 5 teams to assist introduction of 5S at 5 departments such as laboratory, etc.
West Kordofan	5S will be introduced to Emergency department, pharmacy of Fulah Hospital.
North Darfur	5S Orientation Workshop at Alfashir Hospital will be held. Consequently, 5S training will be conducted.
West Darfur	5S training will be held after establishment of QIT, at Geneina hospital.
South Darfur	An orientation workshop will be held at Emergency Hospital in December 2019. After the establishment of QIT, 5S training will be held in January 2020.
East Darfur	5S Orientation workshop will be held in January 2020 at Daein Hospital. QIT will be established after the workshop.

Source：Project Document

5 Output 5

The following three activities were implemented for Output 5, project impact evaluation.

[5-1] Conduct baseline survey
[5-2] Conduct end-line survey
[5-3] Prepare a report on impact evaluation

An outline of each of these activities is described below.

[5-1] Conduct baseline survey

The Project Team conducted a baseline survey concerning the project activities, excluding those for Output 4 (introduction of 5S-KAIZEN), in Gezira State and compiled the survey results between October and December 2016. PDM of the Project was revised in March 2017 based on the baseline survey results. The team conducted a baseline survey concerning the activities for Output 4 in October 2017 and compiled the analysis results in December 2018.

[5-2] Conduct end-line survey

The Project Team conducted an end-line survey in Gezira State between February and April 2019 and prepared a report in May 2019. Although the implementation period of the project activities was shortened due to the delay in commencement of the Project, the target values of the indicators of the activities were generally achieved.

The findings of the end-line survey are summarized as follows.

- All the planned input was made and the target values of the indicators of most of the project activities were achieved. Only three of the eight indicators for the project purpose reached the target values partly because the coverage of the fourth ANC did not increase as expected.
- Concerning Output 1 (administrative capacity building), the survey confirmed that HAMTs had prepared annual plans and conducted data-based monitoring of their implementation.
- Concerning Output 2 (capacity building of health service providers), the survey revealed that, while INSET had improved the quality of the service of CMWs, the rural hospital package training and IMCI/CMAM training had not produced satisfactory outputs.
- Concerning Output 3 (assistance to communities), the survey confirmed that the activities of CHCs had increased in almost all the target communities and the activities had produced many good practices.
- Concerning Output 4 (5S-KAIZEN), the hospital survey confirmed an increase in the practice of 5S-KAIZEN in almost all departments in the target hospitals. This finding proves that the project activities for 5S introduction have produced a satisfactory output level. The streamlining of work reduced the waiting time of patients significantly and improved the level of satisfaction of most medical staff and patients.
- Concerning Output 5 (Impact evaluation), the survey confirmed that, while the coverage of

ANC did not increase as planned, the coverage of PNC and completion rate of exclusive breastfeeding increased significantly. The qualitative survey also confirmed improvement in the competency of CMWs and increase in the trust of community members in CHWs.

[5-3] Prepare a report on impact evaluation

The Project Team conducted impact evaluation in May and June 2019 using the baseline and end-line data and prepared an impact evaluation report in July 2019. The quantitative data used in the impact evaluation are described below. The qualitative information collected in interview surveys was also used in the analysis for the evaluation.

- House-to-house survey: an interview survey of women who had given birth within two years of the day of the survey (960 samples)
- Survey at hospitals: an interview survey of patients (568 samples), a survey on the waiting time of patients (370 samples), an interview survey of hospital staff (232 samples), a survey on the time doctors spend on consultations (370 samples) and a survey of working time in laboratories (197 samples)
- Results of the pre- and post-training tests of CMWs (611 samples)
- Follow-up survey of CMWs (489 samples)

Table 8 shows the impacts created by project intervention. The impacts include improvement of administrative capacity, improvement in the quality of health care services and an increase in the opportunities for health education in the communities.

Table 8 Impacts by project activities (outputs)

Category	Contents	Results
Capacity building of administration	HAMTs had set targets and began to conduct activities	Garbage collection rate: 18%→44% No. of cleaning campaigns *: 2.8→4.2
	improved data collection rate from HAMT	Monthly report submission rate: 82%→100% Monthly data entry rate: 46%→92%
Improvement of quality of health services	CMWs knowledge and skills are improved by INSET	Knowledge test: 86% of trainees passed Skill test: 87% of trainees passed
	Increased number of CMWs' clients	No. of delivery assistance* : 3.8→4.1 No. of PNC clients* : 3.7→5.0
	Improved CMWs' service quality	Number of referrals before delivery*: 1.0→1.6
		Blood pressure measurement implementation rate at PNC*: 27%→81% Urine test implementation rate at PNC*: 12%→60%
	Departments introduced 5S-KAIZEN improved assessment results	Average score (out of 50): 27.3→37.3
	Reduced waiting time for patients from reception to exit	Average waiting time: 138 minutes→75 minutes
Expansion of health education opportunities	The number of voluntary CHCs has increased.	All CHCs in 11 target communities became to work according to annual plans
	Community residents have increased access to health information	Percentage of people who have heard about exclusive breastfeeding: 85%→95%
		Composition of people diagnosed with malnutrition in their children: 5%→12%
	The number of people who use educational materials has increased	The rate of using educational materials by health information providers: 4%→40%

*per month

Source：Project Document

The changes in the behavior of health administrators and health care service providers and in the communities had an impact on the improvement of health indicators. Table 9 compares the baseline and end-line data of the indicators for the project purpose. Of the four indicators for which target values at the time of the end-line survey had been set, the coverage of PNC (within 48 hours of childbirth) greatly exceeded the target. However, the target values of the other three indicators have not been achieved.

Table 9　Impacts by project activities (outcomes)

Project target indicators	Baseline	Endline	Target of Endline
Coverage of ANC (1st)	98%	97%	-
Coverage of ANC (4th)	69%	70%	80%
Coverage of PNC (1 or more)	73%	87%	
Coverage of PNC (within 48hours)	52%	81%	70%
Coverage of PNC (within 6 days)	-	83%	-
Completion of exclusive breastfeeding in the first 6 months after delivery	28%	53%	60%
Number of malnourished children who took treatment at the target HCs 1)	1082	268	2400

Source: House to house survey by Project team in 2016 and 2019, 1) Gezira State CMAM data

1) In this report, “malnutrition” means undernutrition only. It does not include over nutrition.

Source：Project Document

Chapter 3 Problems, New Approaches and Lessons Learned in Project Implementation

In this chapter, the problems identified in the implementation and management of the Project, the approaches used to deal with the problems and lessons learned from the use of such approaches are summarized.

1 Responses to Problems in Implementation of INSET

[Problem] Difference in test scores at training venues

Delay in the commencement of project activities by about seven months practically shortened the implementation period of the activities and necessitated comprehensive revision of the project implementation schedule. For example, to shorten the implementation schedule of INSET, which had a training period of 15 days and in which more than 600 CHWs from Gezira State were expected to participate, the number of INSET venues in Gezira State had to be increased from two to three.

The increase in the number of training venues to three necessitated the use of lecturers who had just obtained their lecturer's qualification in TOT conducted in the Project in 2017, in addition to experienced lecturers, in the training. The use of newly qualified lecturers led to differences in the capabilities of the lecturers between training venues.

The Project Team compared the scores of the pre-training and post-training tests at the three venues, when the first training batch at the three venues had been completed, and found that the average score at one venue was significantly lower than at the other venues. Thus, a need to reduce this difference was recognized.

[New approaches] Re-training of newly qualified lecturers, mutual learning by lecturers, review meetings, etc.

The interim review conducted by stakeholders at the completion of the fifth training batch revealed problems including differences in the teaching methods used by experienced and newly qualified lecturers and differences in grading standards. To counter these problems, the following four approaches were adopted.

- **Re-training by national facilitators**

To improve the teaching methods of the newly qualified lecturers, FMOH dispatched national facilitators to the training venues. The facilitators observed the lectures by the newly qualified lecturers, pointed out the points to be improved in the lectures and provided individual training.

The facilitators also explained the grading standards to the lecturers using model answers. Since some of the new lecturers did not have a full understanding of the grading of essays and made errors in the grading of the test on RH, the facilitators provided an explanation of the keywords

and allocation of scores to the questions specifically to such lecturers.

- **Creation of opportunities for inter-locality personnel exchange and mutual learning**

As the same lecturers have worked for a long time at each of the three CMW schools where the training was conducted, they have had few opportunities to learn teaching methods used by lecturers at other schools. Therefore, experienced lecturers from one locality were dispatched to training venues in other localities to create an opportunity for mutual learning among lecturers from different localities. This personnel exchange also created an opportunity for newly qualified lecturers to learn class management methods used by experienced lecturers from other localities and for the dispatched experienced lecturers to learn approaches to the training of other lecturers as reference to brush up their teaching skills.

- **Daily review meeting and evaluation meeting after the conclusion of training**

At one training venue, the lecturers voluntarily organized a daily review meeting and used it for evaluation and exchange of comments on lecture contents and teaching methods. This system was extended to all three training venues and used as a means of utilizing findings in daily work for the improvement of training quality.

The lecturers held an evaluation meeting after each training batch had been concluded and discussed issues to be addressed for the preparation of the next training batch. A Japanese expert and the RH Coordinator of the state participated in the evaluation meetings whenever they could and collected recommendations that could lead to improvement of training quality. They informed FMOH of some of the recommendations (*e.g.*, recommendations on coordination of the INSET timetable and use of drugs) discussed in the meetings and FMOH used such recommendations for improvement of the INSET program.

- **Psychological care of the participants**

INSET participants had to stay in a dormitory at the training venue (CMW School) with other participants for the 15-day duration of INSET. For Sudanese women, who are rarely separated from family or close friends, living in a dormitory with others in a new environment can be very stressful. In fact, many participants became homesick during the training. Therefore, the lecturers had to provide not only knowledge and technical guidance but also psychological care to the participants. Experienced lecturers had excellent skills in counselling participants and played an important role as “big sisters” during life in the dormitory. At the training evaluation meeting, newly qualified lecturers acknowledged that they had learned a lot about the psychological care of the training participants from the experienced lecturers.

After the above-mentioned approaches had been adopted, the national facilitators re-evaluated the performance of the newly qualified lecturers and confirmed that all of them had passed the required standards. The difference in the scores of the pre- and post-training tests among the venues has been reduced and the difference in the quality of training among the venues has almost

disappeared.

[Lesson learned] Sharing of empirical knowledge by lecturers through personnel exchange

After all 29 INSET batches in Gezira State had been completed, INSET in Kassala State began. For the purpose of improving the quality of the training by sharing the experiences gained by the lecturers in Gezira State, two experienced INSET lecturers from Gezira State were dispatched to Kassala State for the implementation period of the six INSET batches there. These lecturers organized a training review meeting with the lecturers from Kassala State every day during the training. In the meeting, the lecturers discussed points to be improved in the time allocation of the lectures, teaching methods, etc., in an effort to improve subsequent training batches, and shared approaches to the psychological care of participants, including greeting and cheering. This inter-state dispatch of lecturers is considered to have contributed to the training of newly qualified lecturers in Kassala State through the creation of opportunities for mutual learning from experienced lecturers.

2 Responses to staff reassignment

[Problem] Suspension of project activities due to transfer of doctors

In the Project, the training for 5S introduction and rural hospital package training were conducted at the six hospitals in Gezira State selected as the training venues and the health care services in these hospitals after the training were monitored. In Sudan, transfer of doctors occurs frequently and many doctors seeking better working conditions leave the country. In fact, there was a case in which an activity that had been implemented smoothly after the training was suspended because the doctor who had played a key role in the activity left the hospital.

[New approach] Establishment of a system in which paramedics act as key persons

The Project Team held a series of discussions with Gezira SMOH on the frequent personnel reassignment. After coming to the conclusion that it would be difficult to change the current personnel assignment system, the team adopted a new strategy of establishing a system in which paramedics, who would not be transferred, instead of doctors, who would inevitably be transferred, played a key role in 5S introduction.

A system in which the hospital administrator and a statistics officer were assigned as the leaders of QITs was established at Wad Rawa and Tmboul Hospitals, respectively, in East Gezira Locality and the extension of 5S activities was observed at the two hospitals. Meanwhile, at the other hospitals that preferred a system with a doctor as the leader of QIT, the implementation of 5S activities was frequently suspended as the leading doctors successively left the hospitals.

Because the rural hospital package training mostly consisted of training only for doctors, it was not possible to replace doctors with paramedics in this training. Therefore, the training did not

produce sufficient impact.

[Lesson learned] Use of permanently assigned human resources

Due to the shortage of doctors throughout the country, reassignment of doctors occurs every one or two years in rural areas of Sudan. On the other hand, reassignment of paramedics rarely occurs and they tend to work at the same hospital for many years because most of them are locals. The Project Team strongly recommended the appointment of such permanently assigned workers to QIT to facilitate the 5S activities in the Project. When training participants are selected and the team composition is decided after the training, the possibility of reassignment of the participants/team members should be considered for the sake of continuation of the project impact.

3 Responses to shortage of resources including consumables

[Problem] Shortage of resources in localities and HMATs

When the Project Team sent an electronic copy of the improved monthly report form, which was to be submitted by HAMTs to the localities, to the locality health offices, the team found that the form could not be printed at the offices because of the shortages of toner and paper.

In recent years, HAMTs have not received any blank monthly report forms and those HAMTs that have run out of blank forms have spent a long time creating a handwritten form similar to the monthly report form whenever they submit a report.

The monthly reports were submitted and received in the form of photographs of the reports taken with a smartphone and a mechanism for collecting the monthly reports on paper by mail or vehicle was not established.

[New approach] Use of smartphone for transmission and reception of monthly report data

It was considered inappropriate to distribute the improved monthly report forms in paper form to the localities and HAMT and collect the completed forms from them because of the shortage of resources such as stationery and vehicles. On the other hand, as many of the personnel in charge of reporting at HAMTs use smartphones, it was decided to create a spreadsheet file of the improved monthly report form, into which data could be entered with a smartphone, and use it for electronic data submission and reception.

The use of smartphones for the electronic submission and reception of monthly reports has reduced labor at both HAMTs and the localities by eliminating the need for the preparation of handwritten forms at HAMTs and data entry at the localities.

[Lesson learned] Use of available tools

The Government of Sudan does not allocate sufficient budget to administration offices at the

lowest tier. Therefore, if such offices have equipment such as printers and vehicles, a situation in which they cannot use them because of the lack of financial resources to purchase consumables often continues for some time. Organizations involved in PHC other than HAMTs reportedly suspend reporting because the forms have not been supplied to them. The lack of resources is an obstacle to data collection. If the shortage of resources is expected to continue, it is worth studying the adoption of a new approach using tools that are readily available, including smartphones and mobile phones, for data collection.

Chapter 4 Level of Achievement of Project Purpose

Tables 10 and 11 show the levels of achievement of the target values of the indicators for the Project Purpose and for the outputs mentioned in the PDM, respectively. The target values for Project Purpose was partially achieved because outcomes by the Project activities were not fully shown at the timing of Endline survey data collection due to the 7 months delay in start of Project activities. TOT for INSET was delayed by additional 6 months due to the revision of INSET manual. Data collection for Endline survey started in 3 months after completion of INSET and it was not sufficient to achieve certain indicators which need 4 to 6 months for follow-up, such as "ANC more than 4 times", "completion of exclusive breast feeding for the first 6 month".

Table 10 Comparison of Project achievements for target indicators by locality

Project target indicators	Localities	Baseline	Endline	Targets of Endline	Note
Coverage of 1st ANC	East Gezira	98%	97%	-	Targets were not set because baseline data was almost 100%
	Managil	98%	97%	-	
Coverage of 4th ANC	East Gezira	69%	68%	80%	Behavior change was not realized due to the limited time of follow-up
	Managil	69%	75%	80%	
Coverage of PNC within 48hours	East Gezira	53%	75%	70%	Targets were achieved through health education by CMW and community.
	Managil	50%	89%	70%	
Coverage of PNC (within 6 days)	East Gezira	No data	76%	-	Targets were not set because this indicator was added after collecting baseline data
	Managil	ditto	91%	-	
Completion of exclusive breastfeeding in the first 6 months after delivery	East Gezira	37%	60%	60%	Behavior change was not realized due to the limited time of follow-up
	Managil	34%	44%	60%	
Number of malnourished children who took treatment at the target HCs 1)	East Gezira	164	54	900	In 2017, data collection was limited due to the delay in start of project activities. In 2018, data collection was suspended because of the transfer of state CMAM coordinator.
	Managil	918	214	1500	

Source: House to house survey by Project team in 2016 and 2019, 1) Gezira State CMAM data

1) In this report, "malnutrition" means undernutrition only. It does not include over nutrition.

Source：Project Document

Table 11 Comparison of Project achievements for output indicators

Indicators	Baseline	Endline	Note
Output 1			
Number of locality and HAMT personnel who took training for capacity building	0	54	Planned trainings were conducted.
Number of Community Health Worker (CHWs), Community Health Promoters (CHPs) and health volunteers who took training for data collection	0	222	Planned training were conducted as a part of training on health education material.
Monthly reporting rate by CHWs, CHPs and health volunteers is improved	Data is not available	No data	Monthly data collection system from health volunteers was not established due to the shortage of HAMT members.
(Alternative indicator) Submission rate of monthly report by HAMT is improved.	82% (2018)	100%	After the revision of monthly report format, submission rate was improved to 100%.

Number of actions taken based on the analysis of data which is collected by CHWs, CHPs and health volunteers	0	No data	Monthly data collection system from health volunteers was not established due to the shortage of HAMT members.
(Alternative indicator) Number of actions based on data analysis of monthly report in HAMT	0	80	After the introduction of revised monthly report format (Dec. 2018), follow-up meeting was held every month. Necessary actions were developed and implemented at the meeting.
Output 2			
Number of trained health personnel (CMW, health staff working for a target hospital of rural hospital training package, health staff and volunteers working for a target HC of CMAM training and IMCI training)	0	1010	Planned trainings were conducted.
Number of deliveries assisted by trained CMWs with JICA's in-service training	0	2021	Number of deliveries reported to the monthly meeting.
Output 3			
Number of communities with functioning* Community Health Committee (CHC)	0	10/10 (Gezira) 4/4 (Kassala)	CHC's function was strengthened through the Project activities.
Number of communities with written community health activities plan	0	10/10 (Gezira) 4/4 (Kassala)	All CHC developed community health activities plan in a given format.
Percentage of community health activities conducted according to the plan	0	84.6%(Gezira) 97.1% (Kassala)	Implementation rate of community health activities were quite high. Regarding the activities which were not carried out, CHC reconsidered the schedule and inputs.
Output 4			
75% of clients agreed quality of service is improved.	–	73%	The target (75%) was not achieved but 73% of patients admitted improvement of hospital service.
75% of hospital staff agreed work efficiency and quality of service is improved.	–	work efficiency:82% quality of service:72%	Regarding the efficiency, 82% of hospital staff admitted improvement of work efficiency. Regarding the quality of service, the target (75%) was not achieved but 72% of hospital staff admitted improvement of it.
Output 5			
Baseline survey is conducted within 3 months from the commencement of the Project	–	Baseline survey was conducted	Delayed by 2 months to obtain FMOH's consent for baseline study plan.
Endline survey is conducted before the six month ahead of the end of the project.	–	Endline survey was conducted	Delayed by one month to obtain an approval from the ethical committee.

*Definition of "Functioning CHC": CHC (1) whose members have a common understanding of annual activities, (2) that holds regular meetings (at least quarterly), and (3) involves community leader(s) and representatives of community groups other than HC staff)

Source : Project Document

Chapter 5 Recommendations for Achievement of Overall Goal

1 Evaluation results from five evaluation criteria

Evaluation results from the perspective of the five OECD/DAC* evaluation criteria[7] as of the end of Project (Dec. 2019) were shown below.

Relevance: Health policy documents of Sudan, namely National Health Policy 2017-2030 and Health Sector Strategic Plan 2017-2020, set improvement of PHC service to achieve Universal Health Coverage (UHC) as one of the priority strategies. Activities of the Project are well accorded with the policy of FMOH because they were designed to be a part of "PHC Expansion Project", which is one of the priority project of FMOH.

Effectiveness: Project purpose (Improved PHC services are provided at selected states in Sudan) was partly achieved in Gezira State because some beneficial changes were recognized: quality of service provided by CMW was improved and patients' waiting time was reduced at 5S target hospitals. Meanwhile, expected outcome was not achieved by the rural hospital package training due to the shortage of medical doctors in the rural area.

Efficiency: Training packages and educational materials used by the Project were developed based on the modification of existing ones, in accordance with the policy of FMOH. It contributed to the reduction of development cost to the minimum. Also, training facilitators were selected from FMOH/SMOH staff as much as possible. It contributed to capacity building of FMOH/SMOH staff as well as reduction of training cost. Implementation of `Project activities is closely linked with capacity building of locality/ HAMT staff and PHC service providers, also with improvement of health service at hospitals. Number of communities which conduct health promotion activities were increasing. Based on those changes, it is considered that inputs were efficiently utilized.

Impact: In the future, it is highly possible that the overall goal (the Maternal and child morbidity and mortality are reduced at selected states in Sudan through the expansion of improved PHC services) will be achieved if each state would expand the Project activities such as capacity building of administrative staff, INSET, community health promotion activities and hospital 5S to the other localities in the state.

Sustainability: Activities of the Project, including implementation and follow-up of training, are mainly conducted by counterparts and other staff of FMOH/SMOH. Human resources of Sudan side already acquired required skills to continue Project activities. Gezira SMOH had developed 2019 State Health Plan to follow-up the Project activities, such as conducting monthly meeting with CMWs, monitoring of CMAM centers, supporting CHC activities. After the coup occurred

[7] The Five Evaluation Criteria (relevance, efficiency, effectiveness, impact and sustainability) for evaluation of development assistance defined by Organization for Economic Co-operation and Development/ Development Assistance Committee (OECD-DAC).

in April 2019, follow-up was not conducted because activities of PHC department were stagnated due to the transfer of DG, PHC director of SMOH. Since 2020, it will be expected that follow-up activities would be vitalized because former Project vehicles were supposed to be provided to Gezira SMOH.

2 To achieve overall goal

The overall goal of the Project is "Maternal and child morbidity and mortality are reduced in selected states in Sudan through the expansion of improved Primary Health Care (PHC) services." The reduction in maternity and child morbidity and mortality will require not only continuation of the activities implemented in the Project, such as INSET, community health activities and strengthening of follow-up of CMW, but also improvement in the rate of assisted deliveries and improvement and expansion of emergency obstetric care in the long run. The stakeholders are expected to make more effort under the leadership of FMOH and SMOHs in the target states to fulfill the above-mentioned requirements.

The Project Team makes the following four recommendations for the achievement of the overall goal.

- **Continuation of the project activities in Gezira State and expansion of the activities to other localities**

Assistance to HAMTs in the preparation of annual activity plans and monitoring of the progress of their implementation for Output 1 has established the collection of activity records from each HAMT and simplified the comparison of monthly records. The number of HAMTs that have developed a new method of using resources for achievement of the goal in accordance with the activity plans has increased. To make such outputs permanent in the target localities, the Project Team requests that Gezira SMOH support the continuation of follow-up services by the localities to HAMTs and expand the activities to other localities. As practical measures, the team recommends expansion of the preparation of annual activity plans and use of the improved monthly reports by HAMTs to other localities and assistance for the implementation of monitoring by HAMTs through data collection and analysis. It will also be necessary to strengthen cooperation between HAMT leaders and localities by holding regular follow-up meetings attended by the personnel in charge of HAMTs in the localities.

INSET, an activity for Output 2, has improved the quality of CMWs' service. The Project Team requests that Gezira SMOH continue follow-up activities in the monthly meetings and provide guidance and collect data on their activities. It will be necessary to facilitate the participation of CMWs in the monthly meetings by taking budgetary measures such as provision of consumables and transport costs.

An activity for Output 3, assistance for community activities, has stimulated the activities of CHCs and led to the creation of many good practices. To expand these activities to other localities, the Project Team requests that Gezira SMOH hold regular meetings at state level for the dissemination of good practices.

Implementation of the activities for Output 4 has facilitated the introduction of 5S activities in almost all departments of the target hospitals and reduced the average waiting time of patients.

More than 70 % of hospital staff and patients are satisfied with the working conditions and services at the hospitals. To assist continuation and expansion of 5S activities in the target hospitals, the Project Team requests that Gezira SMOH continue regular supervision of the hospitals. The team also recommends the use of human resources from the 5S target hospitals in TOT for the expansion of 5S activities to other localities.

- **Strengthening of follow-up of CMW through monthly meeting**

A system of follow-up of CMW through monthly meeting was introduced by the Mother Nile Project Phase 1 in Sinnar State in 2009. Since then, it was spread all over the country. In Gezira State, monthly meetings were held at a CMW school where the Locality Supervisor was assigned (in many cases, Locality Supervisor serves as a dean of CMW school also). In the meeting, the Locality Supervisor and CMWs discussed about patient cases on referral, problems in their activities, etc.

In Gezira state, 57%[8] of CMW who completed INSET answered that they were employed by the government. Those who were employed by the government, attendance to the monthly meeting was one of their obligations. Those who did not have employment statuses with the government, it was left to their will. Daily allowance or transportation fees were not paid to the participants. There were many CMWs who did not participate in monthly meetings because they cannot afford transportation cost.

Although the participation rate of monthly meeting after INSET was 82%[9], it was afraid to start declining gradually if the participation was left to voluntary. It was important to continue follow-up of CMW through monthly meeting in order to update knowledge of CMW and to strengthen communication between supervisor and CMWs. The Project recommends SMOH to start necessary arrangement to achieve full employment of all CMWs by the government to realize obligatory attendance to the monthly meetings as human resource of the government. As an immediate measure until full employment is achieved, it is recommended that SMOH would provide consumable goods or transportation fee to the participants of monthly meeting.

- **Long-term human resource development**

In the Project, training was provided to both the SMOH staff of the target states (staff of the ministry headquarters, localities, HAMTs, hospitals and health centers) and people in the communities (CMWs and community members). The retention rate of the training participants (the percentage of participants who continued to work in the positions that they had held before the training) in Gezira State, one of the target states, was calculated in the end-line survey and the calculated rates were used as reference data for evaluation of the training impact. The calculation

[8] Out of 611 CMWs who completed INSET, 347 persons answered that they were employed by the government. 2 persons did no answer about her employment status.

[9] Out of 611 CMWs who completed INSET, 498 persons attended to the monthly meeting more than once

revealed that 50 % of HAMT leaders completed the training for HAMT staff and 50 % of the doctors who had completed the EmONC training had been transferred within a year of the completion of the training and, because of the transfer, the opportunity for the training to produce sufficient impact was lost.

The counterparts from Gezira SMOH in the localities were replaced frequently. Many counterparts who participated in the training in Japan were transferred to positions not related with the Project after the training. The transfer of the trained staff impeded effective project operation significantly.

Frequent staff reassignment may impede the career development of staff. Therefore, the Project Team requests that Gezira SMOH prepare personnel assignment and training plans from a long-term perspective.

- **Assistance by FMOH for SMOHs**

FMOH is responsible for the allocation of a training budget to SMOHs and supervision of SMOHs. It also plays the role of coordinator to facilitate inter-state information exchange.

The Project Team requests that FMOH allocate a budget to SMOHs for the expansion of INSET in Gezira State and the other target states. The team also recommends the commendation of excellent facilitators in each state and their dispatch to other states to facilitate inter-state personnel exchange and create an opportunity for mutual learning.

FMOH also has to supervise SMOHs regularly and collect good practices to support continuation and expansion of community activities. The Project Team recommends the implementation of study tours to Gezira State and a national conference of representatives from all the states for expansion of the good practices developed in Gezira State to other states.

Attachments

Attachment 1 PDM

Project Title: Primary Health Care Expansion Project

Implementing Agency: Federal Ministry of Health (FMOH), State Ministry of Health (SMOH) in Gezira, Kassala and Khartoum

Target Group: (Direct) FMOH, SMOH and selected localities in Khartoum, Gezira and Kassala (Indirect) Population in selected localities in Khartoum, Gezira and Kassala

Period of Project: 2016 to 2019

Project Site: Gezira State: East Gezira locality, Managil locality, Kassala State: Girba locality, Wad El Helew locality Khartoum State: Omdurman Maternity Hospital, Umbaddah Hospital

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption
Overall Goal			
Maternal and child morbidity and mortality are reduced at selected states in Sudan through the expansion of improved Primary Health Care (PHC) services	Maternal Mortality Ratio (In 2010, 178 in Gezira, 147 in Kassala, 175 in Khartoum) Under 5 Mortality Rate (In 2010, 53 in Gezira, 87 in Kassala, 67 in Khartoum) Infant Mortality Rate (In 2010, 39 in Gezira, 62 in Kassala, 55 in Khartoum) Exclusive Breastfeeding (38% in Khartoum, 45% in Gezira, 47.1% in Kassala) Under 5 under wieght (19.9% in Khartoum, 23.5% in Gezira, 38.5% in Kassala)	Sudan Household Health Survey (SHHS) SHHS SHHS SHHS SHHS	Public health crisis does not occur. Food security does not get worse.
Project Purpose			
Quality PHC services are provided at selected states in Sudan	The number of PHC facilities which provide PHC essential package is incerased at selected states (Gezira XX%, Kassala YY%, Khartoum ZZ%) The number of communities with improved community health services is increased at selected states (Gezira XX%, Kassala YY%, Khartoum ZZ%)*	Health Map	Commitment of FMOH and SMOHs to Sudan PHC Expansion Project continues after 2016
Outputs			
Output 1: Locality staff and Health Area Management Team (HAMT) improve their capacity to plan, support and evaluate PHC services.	Number of health plans which are reviewed and adjusted Reporting rate and quality of data are improved Number of actions taken as the result of data analysis	Project record Health Information System Project record	-Trained staff do not leave from FMOH and SMOH -Budget for FMOH and SMOH are not drastically reduced. -Resettlement of community does not occur.
Output 2: The number of health workers which can provide quality PHC service is increased.	Number of trained health personnel Number of malnourished children who took treatment Number of deliveries assisted by trained CMWs with JICA's in-service training	Project record Health map / Project record Record of health facilties	

Output 3: The number of communities which are empowered to conduct community health activities is increased	Number of communities which report good practice of community health activities	Project record	
Output 4: Quality improvement and resource management are strengthened with introduction of 5S-KAIZEN at selected hospitals.	75% of clients agreed quality of service is improved. 75% of hospital staff agreed work efficiency and quality of service is improved.	Internal Survey Internal Survey	
Output 5: Impact evaluation is conducted on time.	Baseline survey is conducted within 3months from the commencement of the Project. Endline survey is conducted before six month ahead of the end of the Project.	Baseline survey report Endline Survey Report	
Activities	**Inputs**		**Pre-conditions**
	Japan Side	**Sudan Side**	
1-1 (Locality and HAMT) Review existing health plan prepared by locality and HAMT [Gz] 1-2 (Locality and HAMT) Adjust health plan with available resources and manpower [Gz] 1-3 (State and locality) Support implementation of the adjusted plan [Gz] 1-4 (State and locality) Review reporting system prepared by (used) by locality and HAMT [Gz] 1-5 (State and locality) Review reporting format and reporting system [Gz] 1-6 (State, locality and HAMT) Conduct monthly data collection visit for Health Workers (HWs) using revised reporting format and provide coaching [Gz] 1-7 (State, locality and HAMT) Strengthen capacity of data analysis at locality and HAMT [Gz] 1-8 (State, locality and HAMT) Take action based upon the results of data analysis [Gz] 2-1 (Contineous Professions Department (CPD) and Reproductive Health (RH)) Conduct in-service training of Community Midwives (CMWs) and provide kit upon necessity (n=900) (South Gezira, East Gezira, Managil, Wad El Helew, Girba and others) [Gz, Ks] 2-2 (State and locality) Conduct supportive supervision (SSV) of CMWs through monthly meeting [Gz, Ks]	Dispatch of Experts 1. Chief Adviser 2. Project Coordinator/Training Management 3. 5S-KAIZEN 4. Health Promotion/Behavior Change Communication 5.Impact Evaluation Equipment and Material 1. Necessary equipment and materials for the project activities Trainings 1. Necessary trainings	Counterparts 1. Project Director 2. Project Manager 3. Other personnel mutually agreed upon as needed. Facilities, equipment and materials 1. Office space for the Project 2. Necessary equipment and materials for the project activities Local Costs Operational costs for implementing activities	Security situations in Sudan are not drastically changed.

2-3 (CPD and RH) Conduct training for rural hospital package (EmONC+IPC, ETAT, SAM) and provide necessary equipment according to the National Standard at selected hospitals in East Gezira Locality and Managil Locality (2 hospitals in each locality) [Gz] 2-4 (CPD and RH) Conduct training for Community-based Management of Acute Malnutrition (CMAM) for CHWs and provide necessary equipment for CMAM training package at selected health centers in East Gezira Locality and Managil Locality (Approximately 5 health centers in each locality) [Gz]			
3-1 Formulate Village Health Committee (VHC) or strengthening existing Community-based Organizations (CBO) (at least 14 communities in Gezira, 4 communities in Kassala) [Gz, KS] 3-2 (VHS and CMWs) Plan and organize community health activities (eg. Community emergency transportation system) (at least 14 communities in Gezira, 4 communities in Kassala) [Gz, Ks] 3-4 (State, RH, Nutrition, Health Promotion) Produce a flipchart for health promotion and conduct training to CMWs, Community Health Workers (CHWs) and school teachers for utilizing it [Gz, Ks] 3-5 (Teachers) Conduct health activities at selected schools [Gz, Ks]			**<Issues and countermeasures>**
4-1 (Curative Medicine in FMOH and SMOH) Strengthen 5S-KAIZEN at Omdurman maternity hospital as a model [Kh] 4-2 (Curative Medicine in SMOH) Conduct workshop for hospital directors (government hospitals) [Kh] 4-3 (Hospital) Establish Quality Improvement Team (QIT) and Work Improvement Team (WIT) at selected hospitals in Umbaddah, East Gezira, Managil, Wad El Helew and Girba. [Gz, Ks, Kh] 4-4 (Curative Medicine in FMOH and SMOH) Conduct TOT [Gz, Ks, Kh] 4-5 (State and locality) Support Training at hospitals [Gz, Ks, Kh] 4-6 (State and locality) Conduct regular consultation visit [Gz, Ks, Kh] 5-1 (FMOH and SMOH) Conduct baseline survey [Gz] 5-2 (FMOH and SMOH) Conduct end line survey [Gz] 5-3 (FMOH and SMOH) Compile project outcomes (impact evaluation) [Gz]			

Note: *[ ] at the end of the activities indicates the target state(s) for each activity. Gz stands for Gezira, Ks for Kassala, and Kh for Khartoum.

* Indicators of the project purpose will be set based on the result of baseline survey (5-1), which is supposed to be conducted within three month from the project commencement

Project Title: Primary Health Care Expansion Project

Implementing Agency: Federal Ministry of Health (FMOH), State Ministry of Health (SMOH) in Gezira, Kassala and Khartoum

Target Group: (Direct) FMOH, SMOH and selected localities in Khartoum, Gezira and Kassala (Indirect) Population in selected localities in Khartoum, Gezira and Kassala

Period of Project: 2016 to 2019

Project Site: Gezira State: East Gezira locality, Managil locality, Kassala State: Girba locality, Wad El Helew locality Khartoum State: Omdurman Maternity Hospital, Umbaddah Hospital

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption
Overall Goal			
Maternal and child morbidity and mortality are reduced at selected states in Sudan through the expansion of improved Primary Health Care (PHC) services	Reported Number of Maternal Deaths by MDSR* (in 2015, 81 in Gezira, 73 in Kassala, 177 in Khartoum) Coverage of PNC within 48 hours (in 2014, 27.6% in Gezira, 24.9% in Kassala, 56.1% in Khartoum) Under 5 Mortality Rate (in 2014, 53.5 in Gezira, 80.5 in Kassala, 49.8 in Khartoum) Infant Mortality Rate (in 2014, 41.4 in Gezira, 62.1 in Kassala, 45.1 in Khartoum) Under 5 under weight (in 2014, 32.4% in Gezira, 42.0 in Kassala, 23.2% in Khartoum)	Maternal Death Surveillance and Responses 2015, 2022 MICS 2014, MICS 2022 MICS 2014, MICS 2022 MICS 2014, MICS 2022 MICS 2014, MICS 2022	Public health crisis does not occur. Food security does not get worse.
Project Purpose			
Improved PHC services are provided at selected states in Sudan	Coverage of 1st and 4th ANC (1st ANC: 98% in East Gezira Locality, 98% in Managil Locality, 4th ANC 69% to 80% in East Gezira Locality, 69% to 80% in Managil Locality) Coverage of PNC within 48 hours and 6 days (within 48 hours: 53 % to 70% in East Gezira Locality, 50% to 70% in Managil Locality. within 6 days: no baseline data) Completion rate of Exclusive breastfeeding for the first six month (37% to 60% in East Gezira Locality, 34% to 60% in Managil Locality) Number of malnourished children* who took treatment at the target HCs (164 to 900 in East Gezira Locality, 918 to 1500 in Managil Locality) (*Number of malnourished children is the summation of the number of children who took treatment with SAM and MAM)	House to house survey by the Project (2016 & 2018) House to house survey by the Project (2016 & 2018) House to house survey by the Project (2016 & 2018) Record of the HC (2016&2018)	Commitment of FMOH and SMOHs to Sudan PHC Expansion Project continues after 2016
Outputs			
Output 1: Locality staff and Health Area Management Team (HAMT) improve their capacity in planning, Monitoring and Evaluation (M&E)and supportive supervision for better PHC services.	Number of locality and HAMT personnel who took training for capacity building Number of Community Health Worker (CHWs), Community Health Promoters (CHPs) and health volunteers who took training for data collection Monthly reporting rate by CHWs, CHPs and health volunteers is improved Number of actions taken based on the analysis of data which is collected by CHWs, CHPs and health volunteers	Project record Project record Project record Project record	-Trained staff do not leave from FMOH and SMOH -Budget for FMOH and SMOH are not drastically reduced. -Resettlement of community does not occur.

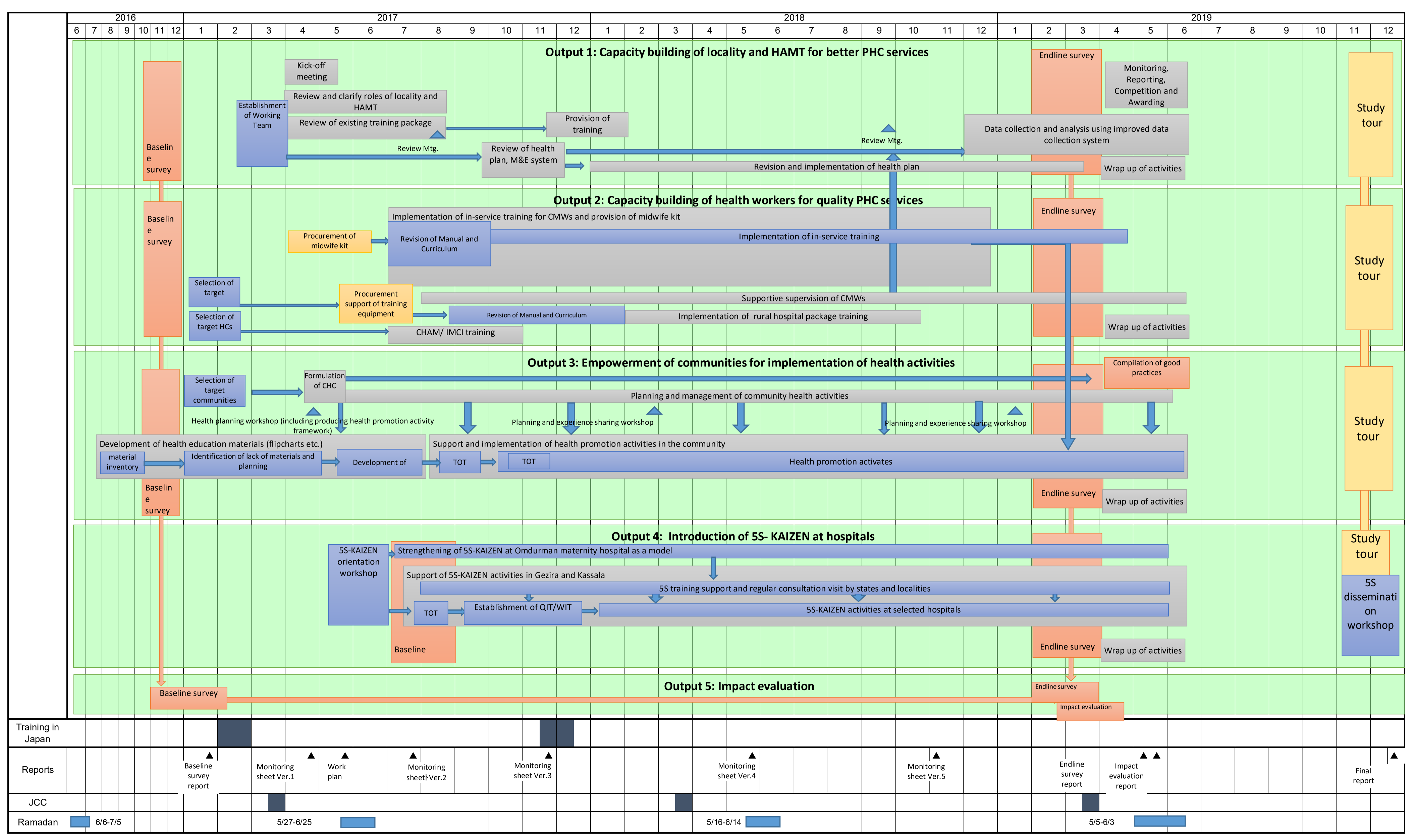
Output 2: The number of health workers which can provide improved PHC service is increased.	Number of trained health personnel (CMW, health staff working for a target hospital of rural hospital training package, health staff and volunteers working for a target HC of CMAM training and IMCI training) Number of deliveries assisted by trained CMWs with JICA's in-service training	Project record Project record	
Output 3: The number of communities which are empowered to conduct community health activities is increased	Number of communities with functioning* Community Health Committee (CHC) Number of communities with written community health activities plan Percentage of community health activities conducted according to the plan * Definition of "Functioning CHC": CHC which (1) shares overview of annual activities among members, (2) has regular meetings (at least quarterly), and (3) involves community leader(s) and representatives of community groups other than HC staff	Project record Project record Project record	
Output 4: 5S-KAIZEN is introduced at selected hospitals for improvement of quality of service and resource management	75% of clients agreed quality of service is improved. 75% of hospital staff agreed work efficiency and quality of service is improved.	Survey by the Project Survey by the Project	
Output 5: Impact evaluation is conducted on time.	Baseline survey is conducted within 3months from the commencement of the Project. Endline survey is conducted before six month ahead of the end of the Project.	Baseline survey report Endline Survey Report	

Activities	Inputs		Pre-conditions
	Japan Side	Sudan Side	
1-1 (State, Locality and HAMT) Organize kick-off meeting with stakeholders and keypersons of locality and HAMT for orientation of the project activities [Gz] 1-2 (State, Locality and HAMT) Review and clarify roles of locality and HAMT to provide improved health services based on the analysis of data collected by CHWs [Gz] 1-3 (State, locality and HAMT) Review existing training package of capacity building in planning, M&E and supportive supervision of health administrators [Gz] 1-4 (State, locality and HAMT) Provide training of capacity building to locality staff and HAMT [Gz] 1-5 (Locality and HAMT) Review, adjust and implement health plan prepared by locality and HAMT [Gz] 1-6 (State and locality) Review and adjust existing M&E system used by locality and HAMT [Gz] 1-7 (State, locality and HAMT) Collect monthly data from CHWs, CHPs and health volunteers using revised M&E system and provide supportive supervision [Gz]	Dispatch of Experts 1. Chief Adviser 2. Project Coordinator/Training Management 3. 5S-KAIZEN 4. Health Promotion/Behavior Change Communication 5.Impact Evaluation Equipment and Material 1. Necessary equipment and materials for the project activities according to the specifications of FMOH 2. Developing and printing cost of education materials Trainings 1. Necessary trainings in country, trainings in Japan Local Costs 1. Transportation and TADA for participants of CMW in-service training which is held outside of their working place 2. Honorarium for lecturers dispatched from organizations except for FMOH/SMOH 3. Rental fee of hall and refreshments for workshops	Counterparts 1. Project Director 2. Project Manager 3. Other personnel mutually agreed upon as needed. Facilities, equipment and materials 1. Office space for the Project 2. Necessary equipment and materials for the project activities Local Costs 1. Salary, transportation cost, TADA, incentives for FMOH/ SMOH staff related to activities of JICA Project 2. Transportation cost, TADA of participants, honorarium of lectures and facilitators other than JICA experts for 5S Kaizen workshop	Security situations in Sudan are not drastically changed. ↓
2-1 (Contineous Professions Department (CPD) and Reproductive Health (RH)) Conduct in-service training of Community Midwives (CMWs) and provide kit upon necessity (n=900) (South Gezira, East Gezira, Managil, Wad El Helew, Girba and others) [Gz, Ks] 2-2 (State and locality) Conduct monthly meeting of CMWs for follow-up of in-service training of CMWs [Gz, Ks] 2-3 (Maternal and Child Health (MCH)) Conduct training for rural hospital package (EmONC+IPC, ETAT, SAM) and provide necessary equipment according to the National Standard at selected hospitals in East Gezira Locality and Managil Locality (3 hospitals in each locality) [Gz] 2-4 (National Nutrition Program) Conduct training for Community-based Management of Acute Malnutrition (CMAM) and Integrated Management of Infant Illness (IMCI) for staff of health center and CMW/CHWs/CHP/health volunteers and provide necessary equipment for CMAM training package at selected health centers in East Gezira Locality and Managil Locality (5 HCs in East Gezira, 7HCs in Managil) [Gz]* 2-5 (FMOH and State) Strengthen linkage with development partners for procurement of commodities for CMAM service [Gz] 2-6 (FMOH, State and locality) Strengthen capacity of distribution and stock management of commodities for CMAM service.[Gz] 2-7 (State and locality) Conduct follow-up of target hospitals of rural hospital training package and HCs for CMAM training. [Gz]			**<Issues and countermeasures>** ・Until the finalization of rural hospital package training and CMW in-service training curriculum, the Project cannot start training, If start of training will be delayed, it is necessary to manage simultaneous training batches to complete required numbers of training batches.
3-1 Conduct an orientation workshop in each locality for key persons of target communities to share project overview and good practices based on their experience) [Gz] 3-2 Strengthening existing CHC (11 communities in Gezira, 4 communities in Kassala) [Gz, Ks] 3-3 (CHC and CMWs) Plan and organize community health activities (e.g. community emergency transportation system) [Gz, Ks]			

3-4 (State, RH, Nutrition, Health Promotion) Produce education material (e.g. flipchart) for health promotion and conduct training to CMWs, CHWs, CHP, health volunteers and school teachers for utilizing it [Gz, Ks] 3-5 (Locality, HAMT and CHWs) Conduct health promotion activities at selected localities [Gz, Ks] 3-6 Conduct annual review and planning workshop and share good health promotion activities [Gz] 3-7 (Teachers) Conduct health activities at selected schools [Gz, Ks]			
4-1 (FMOH and SMOH) Conduct an orientation workshop for stakeholders and top management (leaders at FMOH, SMOH and locality) [Gz, Ks, Kh] 4-2 (FMOH and SMOH) Strengthen of Quality Improvement Team (QIT) and Work Improvement Team (WIT) for 5S-KAIZEN at Omdurman maternity hospital as a model [Kh] 4-3 (Hospital) Establish QIT and WIT at selected hospitals in Umbaddah, East Gezira, Managil, Wad El Helew and Girba. [Gz, Ks, Kh] 4-4 (FMOH and SMOH) Conduct TOT [Gz, Ks, Kh] 4-5 (State and locality) Support Training at hospitals [Gz, Ks, Kh] 4-6 (State and locality) Conduct regular consultation visit [Gz, Ks, Kh] 4-7 (FMOH) Conduct a dissemination workshop to share experiences of 5S-KAIZEN for national rollout plan [Gz, Ks, Kh] 5-1 (FMOH and SMOH) Conduct baseline survey [Gz] 5-2 (FMOH and SMOH) Conduct end line survey [Gz] 5-3 (FMOH and SMOH) Compile project outcomes (impact evaluation) [Gz]			

Note: *[ ] at the end of the activities indicates the target state(s) for each activity. Gz stands for Gezira, Ks for Kassala, and Kh for Khartoum.
*MDRS: Maternal Death Surveillance and Responses
* IMCI training is additionally conducted for Medical Assistance (N=24, for 3 days)

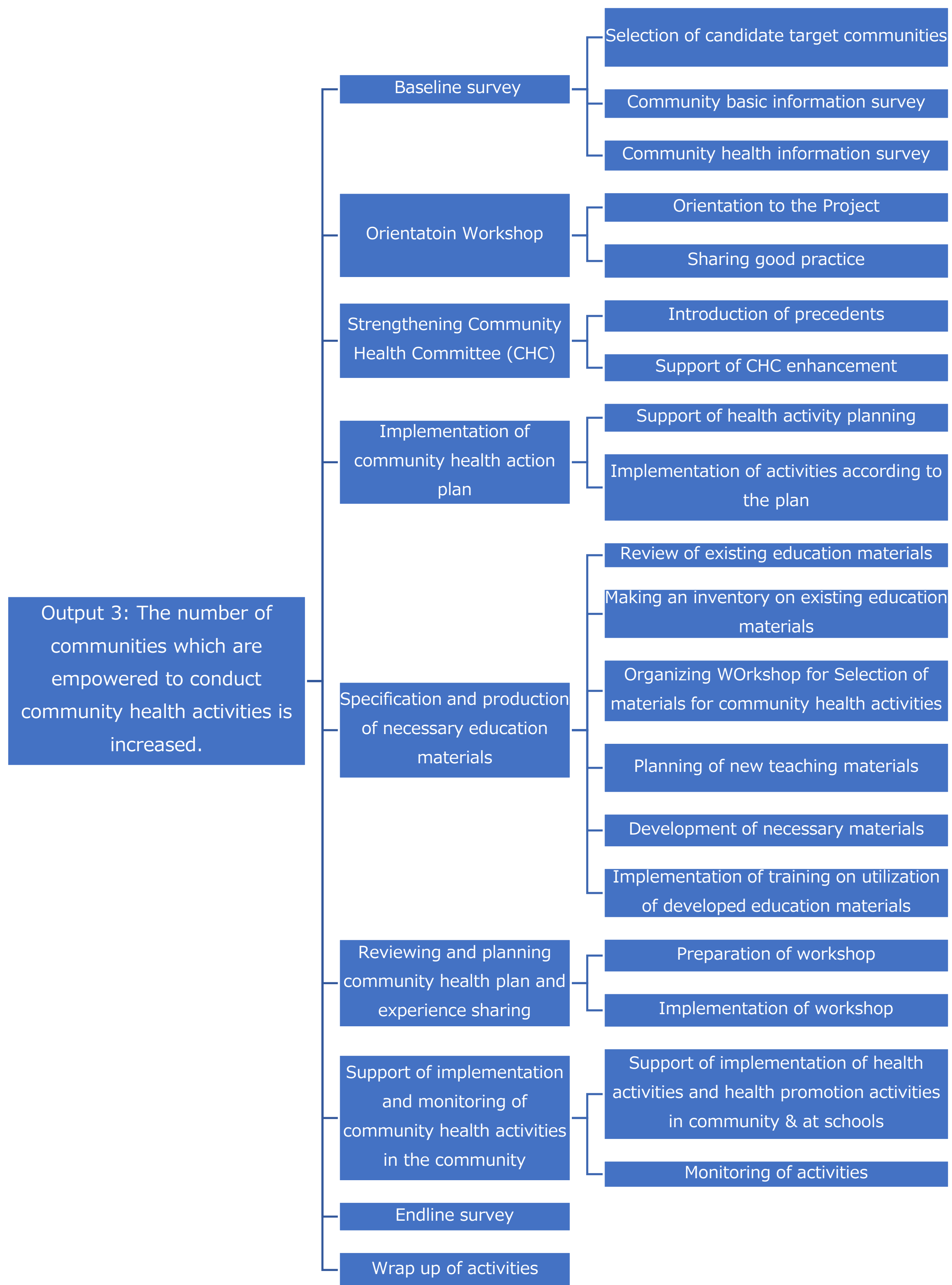
Attachment 2 Workflow Chart



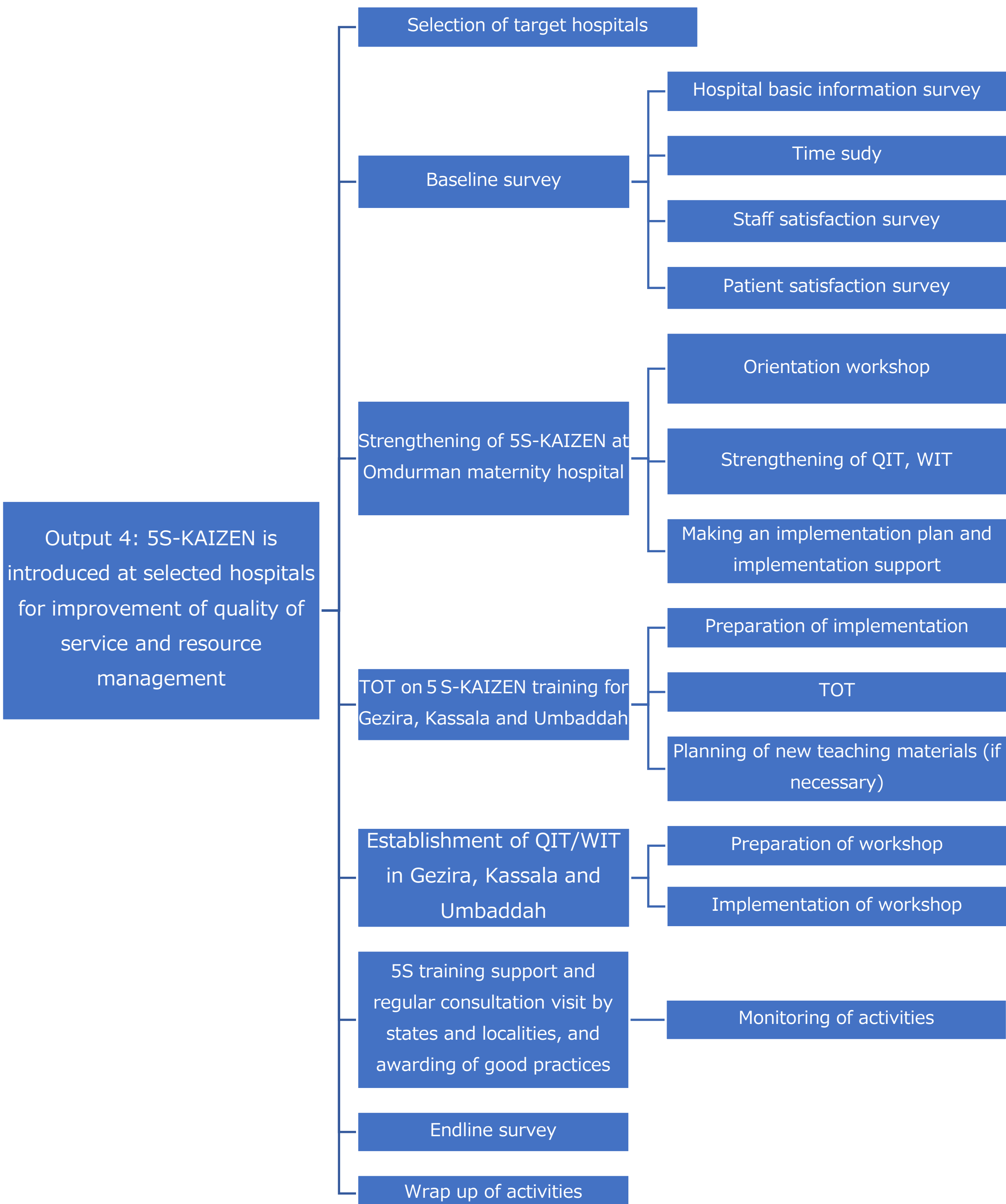
Attachment 3 Detailed Plan of Operation

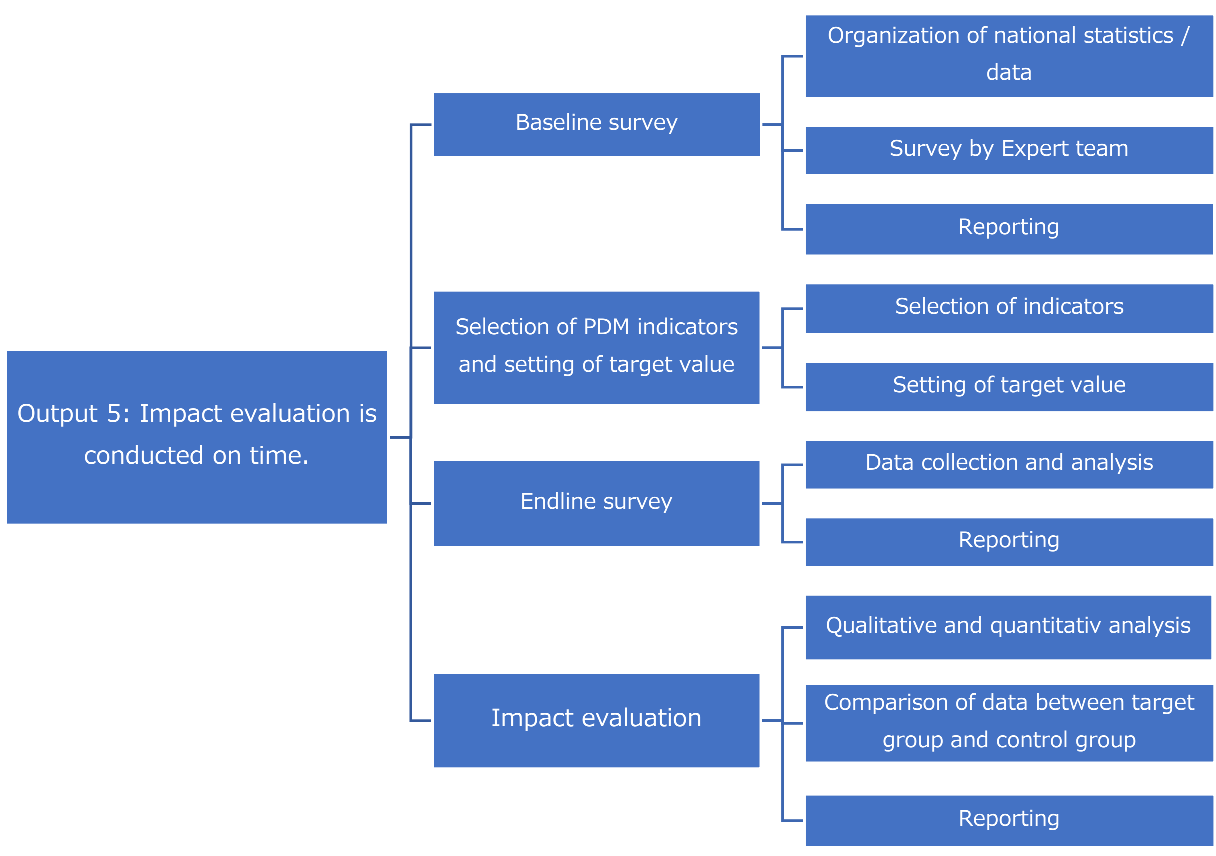
The detailed action plan at each activity component is shown below.

Output 2: The number of health workers which can provide improved PHC service is increased.
Baseline survey
Preparation of candidate facility list for Rural Hospital Package and CMAM training
Implementation of facility visit survey
Implementation of in-service training for CMWs and provision of Midwife kit
Confirmation of number of trainees
Procurement of Midwifry kit
Plan of training schedule
Implementation of monthly meeting with CMWs
Collection of good practices
Support of conducting monthly meetings
Rural Hospital Training Package
Selection of target hospitals
Procurement of necessary equipment
Implementation of training
CMAM/ IMCI training
Selection of target facilities
Procurement of necessary eqipment
Implementation of CMAM/IMCI training
Strengthening of managerial capacity of commodities for CMAM service
Endline survey
Wrap up of activities

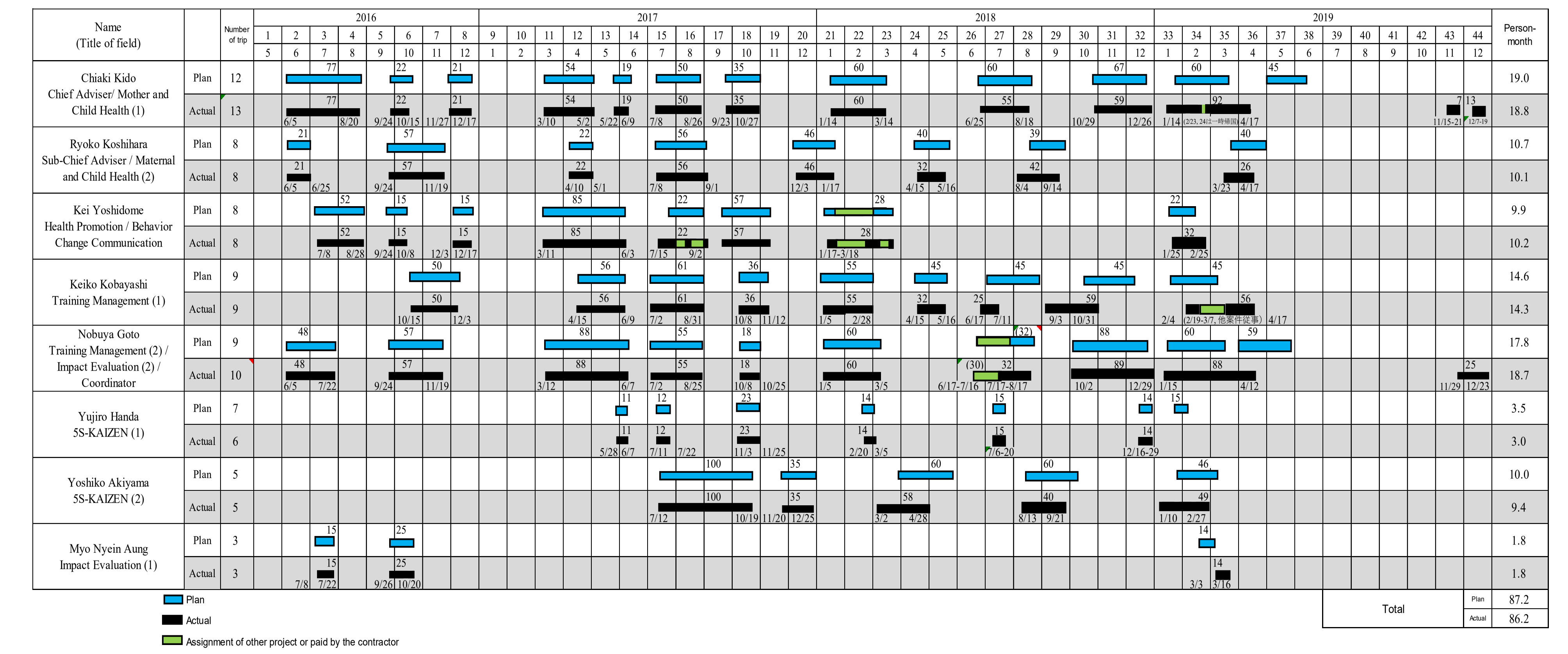


Output 3: The number of communities which are empowered to conduct community health activities is increased.
Baseline survey
Selection of candidate target communities
Community basic information survey
Community health information survey
Orientatoin Workshop
Orientation to the Project
Sharing good practice
Strengthening Community Health Committee (CHC)
Introduction of precedents
Support of CHC enhancement
Implementation of community health action plan
Support of health activity planning
Implementation of activities according to the plan
Specification and production of necessary education materials
Review of existing education materials
Making an inventory on existing education materials
Organizing WOrkshop for Selection of materials for community health activities
Planning of new teaching materials
Development of necessary materials
Implementation of training on utilization of developed education materials
Reviewing and planning community health plan and experience sharing
Preparation of workshop
Implementation of workshop
Support of implementation and monitoring of community health activities in the community
Support of implementation of health activities and health promotion activities in community & at schools
Monitoring of activities
Endline survey
Wrap up of activities


Output 4: 5S-KAIZEN is introduced at selected hospitals for improvement of quality of service and resource management
Selection of target hospitals
Baseline survey
Hospital basic information survey
Time sudy
Staff satisfaction survey
Patient satisfaction survey
Strengthening of 5S-KAIZEN at Omdurman maternity hospital
Orientation workshop
Strengthening of QIT, WIT
Making an implementation plan and implementation support
TOT on 5 S-KAIZEN training for Gezira, Kassala and Umbaddah
Preparation of implementation
TOT
Planning of new teaching materials (if necessary)
Establishment of QIT/WIT in Gezira, Kassala and Umbaddah
Preparation of workshop
Implementation of workshop
5S training support and regular consultation visit by states and localities, and awarding of good practices
Monitoring of activities
Endline survey
Wrap up of activities


Output 5: Impact evaluation is conducted on time.
Baseline survey
Organization of national statistics / data
Survey by Expert team
Reporting
Selection of PDM indicators and setting of target value
Selection of indicators
Setting of target value
Endline survey
Data collection and analysis
Reporting
Impact evaluation
Qualitative and quantitativ analysis
Comparison of data between target group and control group
Reporting

Attachment 4　Inputs of Japanese experts in Sudan



Name (Title of field)		Number of trip	Trips (days, period) 2016–2019	Person-month
Chiaki Kido Chief Adviser/ Mother and Child Health (1)	Plan	12	77, 22, 21, 54, 19, 50, 35, 60, 60, 67, 60, 45	19.0
	Actual	13	77 (6/5–8/20), 22 (9/24–10/15), 21 (11/27–12/17), 54 (3/10–5/2), 19 (5/22–6/9), 50 (7/8–8/26), 35 (9/23–10/27), 60 (1/14–3/14), 55 (6/25–8/18), 59 (10/29–12/26), 92 (1/14–4/17, 2/23, 24は一時帰国), 7 (11/15-21), 13 (12/7-19)	18.8
Ryoko Koshihara Sub-Chief Adviser / Maternal and Child Health (2)	Plan	8	21, 57, 22, 56, 46, 40, 39, 40	10.7
	Actual	8	21 (6/5–6/25), 57 (9/24–11/19), 22 (4/10–5/1), 56 (7/8–9/1), 46 (12/3–1/17), 32 (4/15–5/16), 42 (8/4–9/14), 26 (3/23–4/17)	10.1
Kei Yoshidome Health Promotion / Behavior Change Communication	Plan	8	52, 15, 15, 85, 22, 57, 28, 22	9.9
	Actual	8	52 (7/8–8/28), 15 (9/24–10/8), 15 (12/3–12/17), 85 (3/11–6/3), 22 (7/15–9/2), 57, 28 (1/17-3/18), 32 (1/25–2/25)	10.2
Keiko Kobayashi Training Management (1)	Plan	9	50, 56, 61, 36, 55, 45, 45, 45, 45	14.6
	Actual	9	50 (10/15–12/3), 56 (4/15–6/9), 61 (7/2–8/31), 36 (10/8–11/12), 55 (1/5–2/28), 32 (4/15–5/16), 25 (6/17–7/11), 59 (9/3–10/31), 56 (2/4–4/17, 2/19-3/7, 他案件従事)	14.3
Nobuya Goto Training Management (2) / Impact Evaluation (2) / Coordinator	Plan	9	48, 57, 88, 55, 18, 60, (32), 88, 60, 59	17.8
	Actual	10	48 (6/5–7/22), 57 (9/24–11/19), 88 (3/12–6/7), 55 (7/2–8/25), 18 (10/8–10/25), 60 (1/5–3/5), (30) (6/17-7/16), 32 (7/17-8/17), 89 (10/2–12/29), 88 (1/15–4/12), 25 (11/29–12/23)	18.7
Yujiro Handa 5S-KAIZEN (1)	Plan	7	11, 12, 23, 14, 15, 14, 15	3.5
	Actual	6	11 (5/28–6/7), 12 (7/11–7/22), 23 (11/3–11/25), 14 (2/20–3/5), 15 (7/6-20), 14 (12/16-29)	3.0
Yoshiko Akiyama 5S-KAIZEN (2)	Plan	5	100, 35, 60, 60, 46	10.0
	Actual	5	100 (7/12–10/19), 35 (11/20–12/25), 58 (3/2–4/28), 40 (8/13–9/21), 49 (1/10–2/27)	9.4
Myo Nyein Aung Impact Evaluation (1)	Plan	3	15, 25, 14	1.8
	Actual	3	15 (7/8–7/22), 25 (9/26–10/20), 14 (3/3–3/16)	1.8
Total	Plan			87.2
	Actual			86.2

Plan
Actual
Assignment of other project or paid by the contractor

Attachment 5　Participants of Knowledge Co-Creation Program

Title of training　Country-Focused Training for Sudan "Maternal and Child Health and Health Administration for Primary Healthcare Expansion

Training period　January 25 to February 25, 2017

List of participants

No	Name	M/F	Position	Organization
FMOH-1	Ms. Esmehan Elkheir Babeker Mohammed	F	M&E Focal Person	MCH Department, Federal Ministry of Health (FMOH)
FMOH-2	Ms. Isra Mohamed Ahamed Hussein Mohamed Ahme	F	Head of Quality and Planning	National Reproductive Health Programme, FMOH
FMOH-3	Ms. Rania Mubark Ali Mohmed	F	Head of M&E Unit	Primary Health Care / Expansion in PHC Services, FMOH
FMOH-4	Mr. Adam Mohammed Adam Mohammed	M	Assistance of CMAM Coordinator	National Nutrition Programme, FMOH
FMOH-5	Ms. Leena Hag Eltayeb Hassan Khalfalla	F	M&E Focal Person	EPI (Expanded Program of Immunization) Department, FMOH
FMOH-6	Mr. Elmuz Eltayeb Ahmed Elnaiem	M	Director General	PHC Department, FMOH
Gezila-1	Mr. Elrashid Mohamed Said Ahmed Omer	M	Manager, EPI	Gezira State Ministry of Health
Gezila-2	Mr. Mohamed Abdalla Mohamed Gabarlla	M	Director, Health Affairs	Health Affairs Administration, East Geizra Locality
Gezila-3	Mr. Assad Ibrahem Mohmmed Abdelbagi	M	Director, Health Affairs	Health Affairs Administration, Managil　Locality
Gezila-4	Ms. Mawahib Moddethir Osmen　Taha	F	Routine Immunization Coordinator	EPI Department, Gezira State Ministry of Health
Gezila-5	Mr. Faisal Mohamed Shatta Ahmed	M	IMCI Coordinator	IMCI Department, Gezira State Ministry of Health
Kassala-1	Mr. Abdelgader Abdelwahab Abaker Ebrahim	M	Deputy Reproductive Health	Reproductive Health Programme, Kassala State Ministry of Health
Khartoum-1	Ms. Magda Mohammed Abbas Aiss	F	Safe Motherhood Focal Person	Reproductive Health Programme, Khartoum State Ministry of Health

Title of training　Managerial Capacity Development for PHC Services (2nd Training in Japan)

Training period　November 19 to December 9, 2017

List of participants

No	Name	M/F	Position	Organization
FMOH-1	Ms. Maimona Osman Mohamed Ahamed	F	Community Component Manager	Integrated Management of Child Illness(IMCI) Division, MCH Department, FMOH
FMOH-2	Mr. Omer Adam Brima Hmmad	M	Training Coordinator	Primary Health Care(PHC) Expansion Department, FMOH
FMOH-3	Ms. Hanaa Garelnabi Ahmed Garelnabi	F	National Community Based Management for Acute Malnutrition (CMAM) Coordinator	Nutrition Division, MCH Department, FMOH

Gezila-1	Dr. Hamdi Hamadnaalh Fadlalmula Ahmed	M	Medical Director	Al-gamousi hospital,Gezira SMOH
Gezila-2	Mr. Abumedian Omer Mohammed Ahmed Omer	M	Head	Health Promotion Division, PHC Department, Gezira SMOH
Gezila-3	Ms. Amani Salaheldin Abdalla Mohamed Taha Shigidi	F	IMCI & Community Based Initiative (CBI) Coordinator	IMCI Division, PHC Department,Gezira SMOH
Gezila-4	Mr. Hamedalneel Hassan Kheiralsid Ahmed	M	CMAM Coordinator	Nutrition Division, PHC Department, Gezira SMOH
Gezila-5	Mr. Mohammed Alsiddig Mohammed Ibrahim	M	Head of Nutrition Unit	South Gezira Locality Health Office,Gezira SMOH
Kassala-1	Ms. Sohila Ibrahim Berima Elnemir	F	Director	Girba Locality Health Office, Kassala SMOH
Kassala-2	Mr. Yassen Mohamed Ali Adam Mohamed	M	Health Director	Wad El Helew Health Office, Kassala SMOH
Khartoum-1	Ms. Aya Taha Hadi Ahmed	F	Coordinator of Infection Control	Quality Department, Khartoum SMOH
Khartoum-2	Mr. Osama Gasmelseed Elhussein Taha	M	Director	Umbada Hospital, Khartoum SMOH

Short-visit Nov 27 to Dec 4

Gezira	Ms. Widad Yousif Mohamed Ali	F	Director General	Gezira SMOH

Title of training Improvement of Maternal Health'' (A) 2017 (Related training 1)

Training period May 17 to June 9, 2017

List of participants

No	Name	M/F	Position	Organization
FMOH-1	Ms. Sojoud Mahmoud Mousa Ishag	F	Technical Staff	Technical staff, Reproductive Health, Federal Ministry of Health
FMOH-1	Mr. Ahmed Amin Mohammed Ahmed	M	Scientific Research Director	Obstetrics and Gynecology, Sudan Family Planning Association (SFPA)

Title of training Improvement of Maternal and Child Nutrition, FY2017 (Related training 2)

Training period November 1 to December 22, 2017

List of participants

No	Name	M/F	Position	Organization
FMOH-1	Ms. ZAKARYA Zeinab Hussein Ibrahim	F	Nutrition staff	National CMAM Unit, Federal Ministry of Health

Attachment 6　Equipment Provided and Used in the Project

Equipment items of provision to FMOH/SMOH

Name of Item	Description (Brand / Model No.)	Quantity	Status
Midwifery Practice Model	KOKEN, LM101B (for INSET)	1	Provided
Maternity Model	KOKEN, LM-043N (for INSET)	3	Provided
Suture Practice Kit Pad	KOKEN, LM-094E (for INSET)	15	Provided
Child Birth Simulator	Gaumard, S500 (for INSET)	3	Provided
CMW kits	Midwifery kits (for INSET)	750	Provided
Printer	HP Color LaserJet Pro MFP　M176n	1	Provided
PC (Lap Top)	HP Laptop, corei7pro, 1TBHD, 8GB RAM, 15.6"	3	Provided
PC (Lap Top)	HP Laptop ProBook 450G, corei7, 1TBHD, 8GB DDR4	1	Provided
Printer	Pro200Mfp M276nw	1	Provided
Digital camera		2	Provided
Safe	RIN SHINON FS105K	1	Provided
Book shelves		1	Provided
Water dispenser		1	Provided
Furniture	Table, Chars, etc. (set)	1	Provided
hanging weight scale for children	For CMAM/IMCI, HC	4	Provided
digital weight scales	For CMAM/IMCI, HC	12	Provided
height scale for children	For CMAM/IMCI, HC	2	Provided
digital thermometers	For CMAM/IMCI, HC	3	Provided
pieces of MUAC tape	For CMAM/IMCI, HC	280	Provided
Wall Charts	For IMCI	1	Provided
facilitator's manual	For CMAM	4	Provided
participant's manual	For SAM	40	Provided
CMAM manual for community volunteers		150	Provided
CMW trainer's manual (RH)		35	Provided
CMW trainer's manual (IMCI) I, II		40	Provided
ETAT/SAM training participant manual		30	Provided

ETAT/SAM training facilitator manual		15	Provided
ETAT wall picture	11 pieces	1	Provided
Essential Newborn Care wall picture	For INSET	12	Provided
RH Flip Chart (K-TOP version)	For INSET	12	Provided
EmONC training participant manual		40	Provided
EmONC training facilitator manual		30	Provided
Neonatal model (Chinese)	(5 bodies)	2	Provided
Replacement Pads	For INSET	2	Provided
Project logo T-shirts		600	Provided
INSET stand banner		3	Provided
HBB/ENC manuals	For INSET	600	Provided
Stationary pack	For INSET	750	Provided
Banner of community action plan		14	Provided
5S manuals in Arabic		110	Provided
5S manuals in English		100	Provided

MINUTES OF MEETINGS OF THE FIRST JOINT COORDINATION COMMITTEE BETWEEN FEDERAL MINISTRY OF HEALTH IN THE REPUBLIC OF SUDAN AND JAPAN INTERNATIONAL COOPERATION AGENCY ON THE TECHNICAL COOPERATION FOR THE PRIMARY HEALTH CARE EXPANSION PROJECT

The first Joint Coordination Committee for modification of the Project Design Matrix was organized on 26 March 2017 by Federal Ministry of Health (hereinafter referred to as "FMOH") and the Japan International Cooperation Agency (hereinafter referred to as "JICA") .

The main agenda of the Joint Coordination Committee was to report the results of the baseline survey and the modification of the Project Design Matrix of the project. As a result of the discussion, both sides confirmed and agreed on the main items described on the attached document.

Khartoum, 30th March, 2017

萩原 明子

Dr. Akiko Hagiwara
Senior Advisor
Japan International Cooperation Agency
Japan

Dr. Elmuez Eltayeb Ahmed Elnaiem
Director General
Primary Health Care Department
Federal Ministry of Health
Republic of Sudan

ATTACHED DOCUMENT

I. OPENING REMARKS

Dr. Asaad Ibrahim Mohamed (Director, Health Affairs, Managil locality, SMOH Gezira) on behalf of Director General, Gezira SMOH, mentioned that the Primary Health Care (PHC) expansion project would provide benefits for large population in Gezira state in maternal and child health.

Mr. Hiromi Motomura (Chief Representative, JICA Sudan office) emphasized JICA's commitment to continuous supports in the health sector, as one of the priority area, especially in maternal and child health. He also mentioned that the recent training in Okinawa, Japan, which have been conducted through the PHC expansion project, have provided opportunities to the participants to learn the Japanese experience to improve PHC situation despite their financial and geographical challenges since World War II.

Dr. Babiker Mohamed Ali (Director General, Khartoum SMOH) appreciated JICA's supports to Sudan, including improvement of infrastructure and capacity building in many sectors, especially in maternal and child health.

Mr. Hideki Ito (Ambassador of Japan in Sudan) emphasized the importance of Japanese contribution to the health sector in Sudan since 1980's. He also appreciated the continuous work of the Japanese expert, Ms. Chiaki Kido, who worked for the Mother Nile project since 2008 for the improvement of PHC.

Dr. Elmuez Eltayeb Ahmed Elnaiem (Director General, PHC Department, FMOH) thanked to the numerous supports by JICA in Sudan and appreciated for the opportunity of the first JCC meeting for the PHC project.

II. PRESENTATIONS

Ms. Chiaki Kido (Chief Advisor, PHC expansion project) presented proposed modifications of the PDM based on the previous discussion with FMOH.

Ms. Kei Yoshidome (Health Promotion/Behavior Change Communication, PHC expansion project) and Mr. Hidenori Matsuo (Project coordinator, PHC expansion project) briefed main findings of follow-up visit to Gezira state, which was conducted based on the recommendation from the previous meeting held on March 14, 2017 for sharing the results of baseline survey.

III. MAIN POINT DISCUSSED

Both sides reached common understanding concerning the specific points of the Project as follows.

1. The indicators of the Project

-Project Purpose

It was discussed whether ANC 1st was needed as indicator of the project purpose as the achievement of the ANC 1st was already as high as 98% in target areas. There was a request from reproductive health division to include ANC 1st to confirm the accessibility of ANC services. Both sides concluded that ANC 1st and 4th visit would be monitored as indicators of project purpose while only ANC 4th visit would be used as an indicator of impact evaluation.

-Overall Goal

There was a discussion on the weakness of the direct relations between overall goal and project activities. Indicator of overall goal "reduction of maternal mortality ratio" may not be suitable and it was agreed to continue discussion on this issue.

2. Activities of the Project

Both sides agreed on the amendment of the project activities based upon the result of the baseline survey and discussions.

-Training for CMWs

Both sides recognized the needs of training on neonatal care and health promotion for reducing under 5 mortality and morbidity. As the reduction of neonatal death is a high priority in Sudan and it is highlighted in the new curriculum of CMWs in-service training, both sides agreed to continue the efforts to cover possible maximum number of CMWs in Sudan with this new in-service training program. Key family practices to prevent child illness, such as hand washing, using mosquito nets, and ORS usages etc. should be also included in CMWs training to reduce child illness and child death. The number of CMWs in-service training will be 900 in this project. JICA has been provided in-service training for 5566 CMWs out of 19,000 CMWs in Sudan so far in the past projects.

-Training for various health cadres in prevention and treatment of child illness

As the MICS survey shows the most common diseases for under 5 children such as pneumonia, diarrhea, measles, and malnutrition, it is necessary to focus on these problems. Both sides agreed to train various health carders in prevention and treatment of child illness and child malnutrition.

-Activities in communities

There was discussion on the impact of the community health promotion activities as the number of the community was limited. After the discussion, both sides recognized the needs for well coordinated community health activities conducted by various community health workers, volunteer and teachers. It was recommended that the Project should include the "key family practices" messages which were already standardized by FMOH for community health promotion to provide messages to families.

-Activities in Kassala State

Kassala SMOH mentioned that they had excellent experiences supported by JICA K-TOP Project in the past. While project activities in Kassala are limited in comparison to Gezira state, Kassla SMOH expects the project to have more activities such as school health component in Kassala. Both sides confirmed that school health components were included in Kassala.

3. Inputs of the Project

- Ready-to-Use Therapeutic Foods

There were concerns on the difficulties of achievement of the project purpose of "number of malnourished children treated with CMAM" as there was no input of Ready-to-Use Therapeutic Foods in project activities. Both agreed to secure the Ready-to-Use Therapeutic Foods through the better coordination with other development partners, as the JICA's technical cooperation scheme cannot procure commodities.

IV. CONCLUSION OF DISCUSSION

Dr. Elmuez suggested that continuous discussions were required to refine project indicators and activities in preparation of commencement of project activities from April 1st, 2017.

Mr. Motomura added that good cooperation of two countries was essential to achieve project purpose throughout of the project period.

V. WAY FORWARD

-Signing of minutes of meeting of this 1st JCC would be made on April 2nd, 2017.

-FMOH and JICA project team would wrap up discussions on modifications of PDM until March 30th, 2017.

END

ANNEX 1 List of Participants

No	Name	Organization	Title
1.	Dr. Elmuez Eltayeb Ahmed	FMOH	Director General, PHC Directorate
2.	Ms. Salwa A. Surkatti	FMOH	Director of Nutrition Program, Acting Director of MCH Directorate
3.	Dr. Esmehan Elkheir	FMOH	M&E / MCH Focal Person (JICA Focal Person)
4.	Dr. Manal Hassan Taha	FMOH	Director of Child Health Program
5.	Ms. Amel Mahmoud Mohammed	FMOH	Director of MCH Planning / M&E Department
6.	Ms. Rania Mubark Ali	FMOH	M&E / PHC Expansion Focal Person
7.	Ms. Wafa Muzammil	FMOH	Information Section, PHC Expansion Directorate
8.	Mr. Adam Mohamed Adam	FMOH	CMAM Unit, Nutrition Department
9.	Mr. Mustafa Ahmed	FMOH	M&E / National Nutrition Program Focal Person
10.	Ms. Sahar Hassan Mahdi	FMOH	PHC Expansion Directorate
11.	Ms. Amal Abdulwahab Elhadi	FMOH	MCH Planning / M&E Department
12.	Ms. Sara Elsheikh Aboksami	FMOH	MCH Planning / M&E Department
13.	Ms. Fatima Ahmed Abdulla	SMOH Gezira	RH Coordinator
14.	Dr. Asaad Ibrahim Mohamed	SMOH Gezira, Managil Locality	Director, Health Affairs
15.	Dr. Mohamed Abdulla Mohamed	SMOH Gezira, East Gezira Locality	Director, Health Affairs
16.	Dr. Ali Adam Mohamed	SMOH Kassala	Director General Representative
17.	Ms. Moltazma Hussien	SMOH Kassala	Director of PHC Expansion
18.	Mr. Abdulgadir Abdulwahab	SMOH Kassala	Deputy of RH Coordinator
19.	Dr. Babiker Mohamed Ali	SMOH Khartoum	Director General
20.	Dr. Hiba Hussein Ibrahim	WHO	M&E, MCH Unit
21.	Mr. Hideki Ito	Embassy of Japan	Ambassador Extraordinary and Plenipotentiary
22.	Mr. Koji Hase	Embassy of Japan	First Secretary, Head of Economic Cooperation Section
23.	Dr. Akiko Hagiwara	JICA HQ	Senior Advisor
24.	Mr. Yoshiaki Nagata	JICA HQ	Program Officer
25.	Mr. Hiromi Motomura	JICA Sudan Office	Chief Representative
26.	Ms. Hiroe Ono	JICA Sudan Office	Senior Representative
27.	Dr. Tomoko Ono	JICA Sudan Office	Representative
28.	Ms. Kozue Amemiya	JICA Sudan Office	Project Formulation Advisor
29.	Ms. Halima Abdeen	JICA Sudan Office	Program Officer
30.	Ms. Chiaki Kido	PHC Expansion Project	Chief Advisor
31.	Ms. Kei Yoshidome	PHC Expansion Project	HP/ BCC
32.	Mr. Hidenori Matsuo	PHC Expansion Project	Project Coordinator
33.	Dr. Yazeed Abdulgadir	PHC Expansion Project	Project Officer

MINUTES OF MEETINGS
OF
THE SECOND JOINT COORDINATION COMMITTEE
BETWEEN
FEDERAL MINISTRY OF HEALTH IN THE REPUBLIC OF SUDAN
AND
THE PRIMARY HEALTH CARE EXPANSION PROJECT

Federal Ministry of Health (hereinafter referred as "FMOH") and Primary Health Care Expansion Project, a technical cooperation project by Japan International Cooperation Agency (hereinafter referred as "JICA"), had a second Joint Coordination Committee to confirm progresses of implementation schedule since the start of Project activities in April 2017. As a result of the discussion, both sides confirmed and agreed on the main items described on the attached documents.

Khartoum, March 6th, 2018

Ms. Chiaki Kido Chief Advisor Primary Health Care Expansion Project	Dr. Elmuez Eltayeb Ahmed Elnaiem Director General Primary Health Care Directorate Federal Ministry of Health

Attached document - points of discussion

Dr. Elmuez Eltayeb, Director General of Primary Health Care (PHC) Directorate of FMOH and the Project Director for PHC Expansion Project, chaired the meeting. After the opening ceremony and presentations about progresses of planned activities by Project members and counterparts, several topics shown below were discussed.

1. Target number of INSET

Dr. Hala Gasim Mohmmed, Director of PHC Department, Gezira SMOH, commented that she understood the limitation of the budget and implementation schedule of the Project but Sudan still had large needs for INSET for CMWs. She suggested that target number of INSET should not be reduced from 900 to 720 regardless of the extension of training days.

The Chairman asked the reason of the extension of training days to the participants.

Dr. Manal Hassan Taha, Director of RH Division, MCH Department, PHC Directorate of FMOH, answered that total number of training days were increased from 12 days to 15 days due to the inclusion of IMCI part (Essential Newborn Care and Helping Babies Breathe) into the INSET to improve the knowledge and skills of CMW on neonatal services.

Dr. Esmehan Elkheir, Director of IMCH Division, FMOH and JICA Focal person, asked the reason of reducing the target number of INSET. She said that she would like to know it was because of budget or time factor.

Ms. Chiaki Kido, Chief advisor of the Project, answered that mainly it was because of budget constraints. She added that 720 was the total number of the CMWs who needed INSET in the target localities in Gezira and Kassala State, so it was sufficient to cover the training needs in the target localities.

The chairman suggested to have a separate meeting to finalize the target number of INSET.

2. Timing to start INSET

Dr. Mohamed Abdalla Mohmed, Director of Curative Medicine Department, Gezira SMOH, recommended starting INSET promptly in order to avoid negative effects on the traffic during the rainy season.

The Chief Advisor of the Project answered that the Project planned to start INSET soon after arrival of training models.

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Directorate General of PHC

3. Rural Hospital Package Training Manuals

PHC Director, Gezira SMOH commented that the schedule of finalization of EmONC, ETAT/SAM manuals should be accelerated in consideration of the remaining period of the Project.

Director of RH Division, FMOH commented that the EmONC manual would be finalized by the end of March 2018 according to the schedule of the consultant in-charge. About the ETAT/SAM Manual, she said that it required another week to finalize the part of facilitator's manual.

4. Issues in training for hospital staff

JICA Focal person asked about how to solve issues in the participation of hospital staff training.

PHC Director of Gezira SMOH explained that Gezira SMOH could solve this issue because they would arrange an official letter by DG to target hospitals.

Curative Medicine Director of Gezira SMOH added that they could mandate hospital staff to participate in the training to obtain maximum benefit from the training.

5. Evaluation of training

JICA Focal Person asked to the Project about the evaluation method of the past training and suggested that we need to increase the monitoring and supportive supervision to strengthen the benefit of training in order to achieve our goal in improving the PHC services.

The Chief Advisor of the Project answered that the Project made evaluation report for each training and agreed to share the past reports again with FMOH.

6. Issue of restriction of imports

JICA Focal Person pointed out that there was no problem in importing if FMOH would be a consignee. She said that the Project could proceed procurement of training models from Japan based on the advice of FMOH officer, in-charge of procurement of medical equipment.

7. Timing of the End line Survey

JICA Focal Person suggested that the Project could postpone the timing of Endline survey to April or May 2019, in the timing of the end of project period, to reflect better

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Federal Ministry of Health
Directorate General of PHC

impacts by the Project activities.

Chief Advisor of the Project answered that they need a couple of months for analysis of data and reporting.

The chairman asked to the Project to make a proposal about timing of Endline survey to decide the best timing of it among stakeholders.

8. Wrap up of meeting by the Chairman

The Chairman added information about provision of HAMT car to East Gezira locality would be realized soon with a support by Global Fund. Also he reminded that there was no problem to import goods under the name of FMOH. He closed the meeting with the comment that the participants approved the reports of the progresses and planned activities by the Project.

2nd Joint Coordination Committee for JICA technical Cooperation Project

List of participants

March 6, 2018

No	Name	Title	Organization
1.	Dr. Elmuez Eltayeb Ahmed	Director General	FMOH, PHC Directorate
2.	Dr. Manal Hassan Taha	Director, Nutrition Division	FMOH, PHC Directorate, MCH Department
3.	Dr. Esmehan Elkheir	Director of Child Health Division (JICA Focal Person)	
4.	Ms. Hanaa Garelnabi Ahmed	CMAM National Coordinator, Nutrition Division	
5.	Mr. Khalid Awad Mohamed	Communication Unit, Reproductive Health Division	
6.	Ms. Amal Abdelwahab Elhadi	M&E Division	
7.	Dr. Yousif Tibin	Director of curative medicine, Khartoum SMOH	Khartoum SMOH
8.	Dr. Lubna Abdelwahab	Deputy General Manager, Omdurman Maternity Hospital	
9.	Dr. Osama Gasmelseed	General Manager, Umbaddah Hospital	
10.	Dr. Hala Gasim Mohmmed	Director of PHC Department	Gezira SMOH
11.	Dr. Mohmed Abdalla Mohmed	Director of Curative Medicine	
12.	Mr. Hiromi Motomura	Chief Representative	JICA Sudan Office
13.	Ms. Hiroe Ono	Senior Representative	
14.	Dr. Tomoko Ono	Representative, JICA Sudan Office	
15.	Ms. Kozue Amemiya	Project formulation advisor	
16.	Ms. Halima Abdeen	program officer	
17.	Ms. Chiaki Kido	Team Leader	JICA Project Team
18.	Ms. Kei Yoshidome	Community Health Promotion	
19.	Ms. Mai Fujii	5S-KAIZEN	
20.	Dr. Yazeed Abdelgadir	Project Officer	
21.	Mr. Mohamed Gaafar	Administrative assistant	

MINUTES OF MEETINGS
OF
THE THIRD JOINT COORDINATION COMMITTEE
BETWEEN
FEDERAL MINISTRY OF HEALTH IN THE REPUBLIC OF SUDAN
AND
JAPAN INTERNATIONAL COOPERATION AGENCY
ON
THE TECHNICAL COOPERATION
FOR
THE PRIMARY HEALTH CARE EXPANSION PROJECT

The third Joint Coordination Committee for the Primary Health Care Expansion Project (hereinafter referred to as "the Project") was organized on 14 March 2019 by Federal Ministry of Health (hereinafter referred to as "FMOH") and the Japan International Cooperation Agency (hereinafter referred to as "JICA").

The main agenda of the Joint Coordination Committee was to review the achievements and good practices of the project and to discuss way forward. As a result of the discussion, both sides confirmed and agreed on the main items described on the attached document.

Khartoum, 14th March, 2019

萩原 明子

Dr. Akiko Hagiwara
Senior Advisor
Japan International Cooperation Agency
Japan

Dr. Suleiman Abdgabbar Abdullah Bakheit
Director General
Primary Health Care Department
Federal Ministry of Health
Republic of Sudan

ATTACHED DOCUMENT

I. MAIN POINT DISCUSSED

Both sides reached common understanding concerning the specific points of the Project as follows.

1. The achievements of the Project

(1) Overall

Both sides recognized that the Project contributed to strengthening and improving primary health care (hereinafter referred to as "PHC") service in Sudan. Output 1(capacity building of locality and health area management team), Output 2(capacity building of health service providers, including community midwives), Output 3(community health promotion), and Output 4(5S) are mutually related as follows.

By in-service training and monitoring-supervision, the capacity of community midwives (hereinafter referred to as "CMW(s)") has improved. Pre-and post-test indicated that the service provided by the CMWs improved both with quality and quantity, which contributed to the coverage of basic maternal, newborn and child health (hereinafter referred to as "MNCH") service in the State. CMWs acquired public trust from the community after the in-service training (Output 2).

Community health activities were planned and implemented by the Community Health Committees (hereinafter referred to as "CHC(s)"). Multi-sector activities were also conducted by CHC such as garbage collection, emergency transportation, community fund for medical treatment, school health combined with the community events, utilizing their resources (Output 3).

SMOH, localities and CHC gained capacity of monitoring and reporting with the simplified formats. Results of the monitoring were utilized by the SMOH to develop "annual health plan of Gezira State 2019" (Output 1).

5S contributed to the increase of health worker's awareness on the quality, safety and efficiency of the services as well as their job satisfaction and motivation (Output 4).

(2) In Khartoum

Khartoum state actively introduced 5S and monitored its progress in not only original target hospitals, but also several additional hospitals and organizations.

(3) In Gezira

Gezira State experienced all of activities by the project.

1) JICA team conducted all activities with Gezira SMOH. It strengthened management capacity of the ministry

2) 611 CMWs were trained during the project.

3) All target communities achieved planed goal and many good practices are observed.

4) 4 out of 6 target hospitals implement 5S actively.

(4) In Kassala

Kassala state has shown good results regarding all activities.

1) 143 CMWs will be trained by April.
2) All target communities achieved planed goal and many good practices were observed.
3) 2 out of 2 target hospitals showed good progress of 5S.

2. Good practices

The Project demonstrated the effectiveness of capacity building at the grassroots level to provide PHC services to all. CMWs and CHCs were empowered as a core function of the quality PHC. CMWs and CHCs received the skill training and supportive supervision strategically conducted by the local government. The Project proven that the combination of the three: 1) CMWs, 2) CHCs and 3) local government (SMOH, locality) were the golden combination to provide quality PHC services with sustainability.

CMWs, used to be called Village Midwives (hereinafter referred to as "VMW(s)"), were focused and received in-service training at the Mother Nile Project Phase 1 (hereinafter referred to as "MNP1") (2008-2011) conducted in Sennar by JICA. Mother Nile Project Phase 2(hereinafter referred to as "MNP2") (2011-2014) scaled up VMW in-service training beyond Sennar States and expanded quality cares related to pregnancy and childbirth in Sudan. 5,566 VMWs out of 13,260 (41%) completed in-service training through JICA (2014). More than 100,000 deliveries are assisted every year by CMWs and VMWs who completed in-service training conducted by JICA.

Importance of CMWs were clearly stated and supported in Sudan National Health Sector Strategic Plan II 2012-16, National Strategy Document for Scaling-up Midwifery in the Republic of the Sudan 2010, Sudan National Acceleration Plan for Maternal and Child Health 2013-2015, and PHC Expansion Project. These strategies accelerated more investment and more support for the community health workers including the VMWs.

In-service training for CMWs was upgraded and conducted by the Project. 754 CMWs will be trained by the end to April. It surely contributed to the improvement of both quality and the coverage of the MNCH services at the PHC level in Sudan.

The Project verified that the CMWs would be further empowered through supportive supervision and the support from the local government, such as supply of the consumables and equipment, as well as the legal and regulation protection, such as incentives and employment. The "CMW (VMW) empowerment model" was introduced and promoted through MNP1, MNP2 and the Project. More than 80% of the CMWs are employed, received regular monitoring as well as the support by the SMOH.

Additionally the Project conducted the training for members of the CHC on planning, implementing and reporting the health promotion activities. CHC, multi-sector members of the community leaders, teachers, health workers, and influential stakeholders, successfully conducted health promotion activities at the community utilizing their own resources. CHC was a catalyst to

bound influential community members and health workers to plan and implement activities related to health and social development of the community together.

CMWs and CHCs built their capacity and raised their motivation by receiving monitoring and supervision conducted by SMOH and localities while the SMOH and localities built their capacity through conducting the monitoring and supervision. Gezira SMOH developed Gezira annual health plan 2019 based upon the report and data collected by the monitoring and supervision, which in the end contributed to the capacity building of the SMOH.

In conclusion, communities were benefited with the 1) quality of MNCH services provided by CMWs, 2) health promotion activities conducted by CMWs and CHCs, 3) monitoring and supervision conducted by the SMOH. The project confirmed that the investment at the community level to both health workers and community committees can build resilient PHC system at the community.

3. Way forward

Both sides recognized PHC service improvements. JICA team recommended that continuous activities by each state, and overall support of FMOH in the future as Annex 2. Especially, FMOH has authority and function to collect information from the all states and disseminate good practices to the every state. Good practices found in Gezira state should be distributed to other states.

Documentation of the good practice is important to share and scale up the good practices with other states. Documentation is also important for the global learning and sharing. Project reports, official reports and strategies of the Sudan MOH, policy brief and policy recommendations should be compiled by both parties. International conferences, such as Tokyo International Conference for African Development and other meetings may be the opportunity for Sudan MOH to present good practices to global partners.

Both parties agreed to work together to achieve Universal Health Coverage and Sustainable Development Goals by strengthening the PHC in Sudan with other global partners.

END

Annex 1 List of Participants

Annex 2 List of Achievements and Recommendation

Annex 1

3rd Joint Coordination Committee for JICA technical cooperation project

List of participants

March 14, 2019

No.	Name	Title	Organization
1	Dr. Suleiman Abdgabbar	DG of PHC	FMOH
2	Dr. Sawsan Eltahir	Director MCH	FMOH
3	Dr. Manal Hassan Taha	RH Director	FMOH
4	Dr. Nuha Abdulfatah Saliheen	National Nutrition Director	FMOH
5	Dr. Esmehan Alkhair	CH Director, JICA Focal Person	FMOH
6	Ms. Amel Mahmoud	M & E / Planning	FMOH
7	Ms. Esraa Mohamed	RH	FMOH
8	Ms. Hanady Abduldayem	MCH	FMOH
9	Ms. Howayda Ali Mohamed	PHC Expansion	FMOH
10	Ms. Sana Eltahir Suliman	RH/M&E	FMOH
11	Mr. Elrasheed Mohamed Ali Ahmed	Partnership coordinator	FMOH
12	Dr. Lubna Abdulwahab	Assistant DG, Omduramn Maternity HP	Khartoum SMOH
15	Dr.Nezar.Gadal	DG	Gezira SMOH
13	Dr. Mohamed Abdullah Mohamed	PHC Director	Gezira SMOH
14	Dr. Mohsen Hassan	EG Locality Director	Gezira SMOH
16	Dr. Abdulgadir Abdulwahab	RH Director	Kassala SMOH
17	Mr. Minoru Yamaguchi	IM Secretary	Embassy of Japan
18	Mr. Yasser Mahdi	Ass Economic cooperation	Embassy of Japan
19	Dr. Akiko Hagiwara	Senior Advisor	JICA HQ
20	Mr. Yoshiaki Nagata	Deputy Assistant Director	JICA HQ
21	Mr. Makoto Takahashi	Chief representative	JICA Sudan Office

22	Ms. Yumi Kimura	Senior representative	JICA Sudan Office
23	Dr. Tomoko Ono	Representative	JICA Sudan Office
24	Ms. Kozue Amemiya	Project Formulation Advisor	JICA Sudan Office
25	Ms. Halima Abdeen Abdullla	Program Officer	JICA Sudan Office
26	Ms. Kido Chiaki	Chief Advisor	JICA Project Team
27	Dr. Myo Nyein Aung	Associate Professor	JICA Project Team
28	Mr. Nobuya Goto	Project coordinator	JICA Project Team
29	Dr. Yazeed Abdulgadir	Project Health Officer	JICA Project Team
30	Mr. Mohamed Gafaar	Administrative Assistant	JICA Project Team

Annex 2

	Achievements	Recommendation
Federal Ministry of Health (FMOH)	· in-service training (INSET) (standard training package for training and TOT, provision of the training, deployment of the supervisor, review of the training with SMOH) · National Reproductive Health (RH) and Child Health (CH) coordinator meeting in Gezira, inviting all states and stakeholders to share good practices.	· Provide INSET, dispatch national facilitators and supervisors · Support Gezira, Kassala and Khartoum SMOH to sustain good practices · Support Gezira and other states to learn from Gezira State experiences · Documentation of good practices
Gezira State Ministry of Health (SMOH)	· Conduct INSET and review it with FMOH · Regular supervision of CHC activities with localities · Provide consumables and supplies to CMWs · Presented at the National RN and CH coordinators meeting on the project achievements and good practices · Some of the good practices were already taken into the State Annual Plan · SMOH and the Project analyzed the problems and took actions together with the leadership of PHC Director. · Gezira Facilitators (a total of 12) supported the INSET in Kassala (collaboration of 2 states)	· Continue capacity development of the SMOH staff, all locality and HAMT leaders · Continue monitoring of the communities with the localities to motivate CHC and CMWs. · Continue INSET in all localities and follow up the progress · Continue to support CHC and CMWs · Support more communities to start community health promotion activities and rehabilitate HCs at target communities · Expand 5S to other hospitals · Disseminate own experience to other states with the support of FMOH · Gezira Facilitators continue to support INSET in other States
Kassala SMOH	· Conduct INSET and review it with FMOH · Regular supervision of CHC activities with localities	· Continue INSET in all localities and follow up the progress · Continue to support CHC and CMWs · Expand 5S to other hospitals

Khartoum SMOH	• 5S workshops were conducted 2 times by SMOH	• Continuous support to Omdurman Maternity Hospital, Umbaddah Hospital and other 2 hospitals • Start training of QIT for 21 state hospitals based on 5S-KAIZEN implementation plan • Monitor 5S hospital for quality assurance and motivation of the hospital staff
Target communities	• CHC regular meeting for planning, implementation, monitoring and adjustment • Good coordination with the community, health workers and school teachers were established	• Continue regular meeting for planning, implementation, monitoring and adjustment • Disseminate own experience to other communities
5S hospitals	• QITs are established and activities started • motivation and satisfaction among some health workers improved	• Continue 5S activities for better quality of service • Work with communities for better environment (clean hospitals with community)
JICA Project team	• IINSET improved the technical capacity and social recognition of the CMWs • CMWs are respected and supported by the community more • **CMWs and CHC planed and conducted health promotion activities together at community** • Project and SMOH coordinated all the time to support CMWs and CHCs effectively • **Project coordinated various stakeholders related to RH, CH, Nutrition and community to work together for MNCH and community development (Promotion of integrated approach)** • Project introduced 5S to selected hospitals and encouraged voluntary improvements • CMW activities and CHC activities were monitored monthly and data were collected for planning and evaluation.	• Conduct study tour from 17 states to Gezira state • Documentation of good practices • Draw lessons of the project and disseminate it as the project completion report • Collect and organize objective data to show effectiveness of intervention of the project

Attachment 8 Training Conducted in the Project

Output 1 related meetings

Name	Date	purpose	Number of participants
Orientation workshop in Gezira State (with Output 3)	April 13, 2017	· Sharing project activities and implementation schedule with stakeholders	50 persons (staff of SMOH and 2 target localities, representatives from target communities)
Orientation workshop in Kassala State (with Output 3)	April 27, 2017	· Sharing project activities and implementation schedule with stakeholders	25 persons (staff of SMOH and 2 target localities)
Review meeting of roles for locality and HAMT (1)	August 6, 2017	· Review of existing TOR for Locality and HAMT · Review of existing training manuals	8 persons (DG of Gezira SMOH, directors and person in-charge of HAMT)
Individual meetings with key persons of SMOH about roles for locality and HAMT	3rd week of August 2017	· Review of drafted roles of locality and HAMT · Selection of training modules according to the drafted roles of locality and HAMT	PHC director, Director of Nutrition department, Person in-charge of HAMT
Review meeting of roles for locality and HAMT (2)	August 24, 2017	· Finalization of roles of locality and HAMT	4 persons (Directors and person in-charge of HAMT)
Health plan review meeting	September 12, 2018	· Review of Gezira Strategic Health Plan 2017 and 2018	13 persons (staff of SMOH)
M&E system review	September 14, 2018	· Sharing common understanding of viewpoints of data analysis · Discussion on modification of “Environmental Health Monthly Report” format	12 persons (staff of SMOH, 2 localities and HAMT)
Follow-up meeting on data collection (1)	January 29, 2019	· Comments on the modified “Environmental Health Monthly Report” format · Review of December 2018 and January 2019 data by AU	12 persons (staff of SMOH, 2 localities and HAMT)
Follow-up meeting on data collection (2)	February 19, 2019	· Review of February 2019 data by AU · Development of Priority plans by AU	13 persons (staff of SMOH, 2 localities and HAMT)
Follow-up meeting on data collection (3)	March 12, 2019	· Review of March 2019 data by AU · Data entry exercise in a spread sheet with mobile phone	10 persons (staff of SMOH and HAMT)

Output 1 related trainings

Name	date	Contents	Facilitators and participants
Training of SMOH and locality	Dec 17-21, 2017 (5 days)	· Lecture on health system structure, leadership and management, team building, M&E · Explanation on action plan developed by trainees in Japan	Facilitator: 5 persons from SMOH and Gezira CPD Participants: 27 (19 SMOH staff, 8 locality staff)
Training of HAMT members	Jan 29-31, 2018 (3 days)	· Lecture on PHC basic health package structure, leadership,	Facilitator: 4 persons who were selected from the participants of among above mentioned

		team building, planning and M&E, case study	"Training of SMOH and locality" Participants: 27 HAMT members

Output 2 related trainings

Trainings related CMW INSET for Gezira state

Name	date	Participants
TOT for CMW INSET (RH part)	October 24-30, 2017 (6 days) in Khartoum	25 HV/AHV
TOT for CMW INSET (CH part),	October 31-November 2, 2018 (3 days) in Khartoum/ sponsored by FMOH	4 HV
	November 8-10, 2018 (3 days) in Medani	21 HV/AHV
INSET 1st to 29th batches	April 24, 2018 to January 19, 2019 (each batch for 15 days) in Medani, Rufaa and Managil CMW schools	611 CMWs in total

CMW INSET for Kassala state

Name	date	Participants
INSET 1st to 6th batches	February 9 to April 13, 2019 (each batch for 15 days) in Kassala	141 CMWs in total

Rural Hospital Package Training

Name	date	Participants
IPC training	February 4-8, 2018 (5 days) in Managil	15 hospital staff
	February 11-15, 2018 (5 days) in East Gezira	15 hospital staff (including 4 participants from Managil)
ETAT/SAM training	April 30-May10, 2018 (11 days) in Medani CPD	12 medical doctors
EmONC training	Oct 21-26, 2018 (6 days) in Gezira University, Medani	13 medical doctors

IMCI/ CMW INSET for Kassala state

Name	date	Participants
IPC training	February 4-8, 2018 (5 days) in Managil	15 hospital staff
	February 11-15, 2018 (5 days) in East Gezira	15 hospital staff (including 4 participants from Managil)
IMCI training	May 16-18, 2017 (3 days) in Medani	23 MA
CMAM training for HC staff	May 20-25, 2017 (5 days) in East Gezira	15 HC staff
	May 20-25, 2017 (5 days) in Managil	17 HC staff
CMAM training for community volunteers	July 19 - Aug 8, 2017 in East Gezira and Managil, (2 days) 12 batches	121 community volunteers

4.3 Output 3

Workshops

Name	Date	purpose	Number of participants
Orientation workshop in Gezira State (with Output1, 2)	April 13, 2017	· To orient the overall project outlines	50
Orientation workshop in Kassala State (with Output1, 2)	April 27, 2017	· To orient the overall project outlines	25
Orientation workshop in East Gezira Locality on Output 3	April 18, 2017	· To orient the overall project outlines · (2) To advocate community key persons on health issues (RH/Nutrition/WES) · (3) To share the good practices of community actions among the communities for mutual learning · (4) To orient the planned activities for strengthening CHC and Community Action Planning Workshop	60
Orientation workshop in Managil Locality on Output 3	April 19, 2017	Same as above	30

Trainings

Name	Date	purpose	Number of participants
Community Action Plan Development Workshop (14 workshops x 1 day)	<Gezira> April 23 – 27, 2017 at Managil Locality April 30 – May 4, 2017 at East Gezira <Kassala> May 15 – 16, 2017 at Girba Locality May 20 -21, 2017 at Wad El Helew Locality *1 day per each community	· To orient the overall project outlines and objectives · To share the baseline survey results · To develop CHC regulations, communication strategy and community action plan	379 (total) <breakdown> East Gezira: 158 Managil: 117 Girba: 55 Wad El Helew: 49 Including SMOH and Locality officers
School Health Training (3 trainings x 3 days)	<Gezira> August 27 – 29, 2017 at Managil Locality October 23 – 25, 2017 at East Gezira Locality <Kassala> November 9 – 11, 2017 at Kassala (for Girba and Wad El Helew Locality	· To train school health teachers to become key health educators in schools and community according to the School Health Package/Child Health · To introduce school health teachers on the project outline and activities related to Output 3, and introduce to education materials prepared by the project	74 <breakdown> Managil: 27 East Gezira: 28 Girba and Wad El Helew: 19

TOT on education materials utilization (2 trainings x 2 days)	<Gezira> January 9 – 10, 2018 at Gezira State <Kassala> January 20 – 21, 2018 Kassala State	· To orient the trainers on purposes and characteristics of education materials prepared for Mother Nile Supporters · To understand the key messages to be conveyed with education materials · To obtain skills on facilitating discussions by using Flipchart and other education materials	49 <Breakdown> Gezira: 29 Kassala: 20
Trial Training on Utilization of Education Materials for CHC (1 training x 2 days)	January 13 – 14, 2018 at Kamil Nomak, Managil, Gezira	· To test the feasibility of education materials utilization training for community	19
Workshop on Reviewing and Planning Community Health Plan and Experience Sharing (3 workshops x 1 day)	<Gezira> March 3, 2018 at Managil March 4, 2018 at East Gezira <Kassala> February 27, 2018 at Kassala	· To review the Community Health Plan and Communication Strategy developed in the previous year, and develop a Community Health Plan for 2018 · To share and learn good practices and motivate each other for improving their community actions	110 <Breakdown> Girba and Wad El Helew Locality: 30 Managil: 40 East Gezira: 40
Training on Utilization of Education Materials for CHC (Gezira: 8 training x 4 days and 2 training x 2 days, Kassala: 2 training x 4 days)	<Gezira> March 3 – 7, 2018 at Kamil Nomak March 11 – 14, 2018 at Bedina March 12 – 15, 2018 at Ebood March 18 – 21, 2018 at Wad Sagorta March 19 – 22, 2018 at Gaboja March 25 – 28, 2018 at Alghisnaib March 26 – 29, 2018 at Dar Nyle April 1 – 4, 2018 at Albashagra April 2 – 5, 2018 at Surhan November 3 – 4, 2018 at Abu Harira <Kassala> March 12 – 15, 2018 at Girba March 17 – 20, 2018 at Wad El Helew	· To train community members for effective health promotion activities with using education materials	354 <Breakdown> <Gezira> **East Gezira: 150** Abu Harira: 18 Alghesnaib: 34 Albashagra: 37 Bedina: 29 Wad Sagorta: 32 **Managil: 150** Ebood: 29 Dar Nyle: 24 Gaboja: 35 Kamil Nomak: 19 Surhan: 43 <Kassala> **Girba: 29** Um Gamees: 17 Khor Laban: 12 **Wad El Helew: 25** Um Ali: 13 Village 9: 12
Workshop on Reviewing and Planning Community Health Plan and	<Gezira> January 30, 2019 at Medani	· To review the Community Health Plan in the previous year and develop a	69 <Breakdown>

Experience Sharing (2 workshops x 1 day)	<Kassala> February 11, 2019 at Kassala	Community Health Plan for 2019 · To share and learn good practices and motive each other for improving their community actions · To develop a sustainable plan beyond 2019	<Gezira> Managil: 23 East Gezira: 14 SMOH Gezira: 5 <Kassala> Girba: 9 Wad El Helew: 14 SMOH Kassala: 4

4.4 Output 4

Workshops and trainings for target hospitals in Khartoum State

Name	Date	purpose	Number of participants
5S-KAIZEN workshop at Omdurman Maternity Hospital	May 31 – June 1, 2017 (2 days)	· Introduction of PHC expansion project · Lecture on hospital management and 5S-KAIZEN · Sharing experience in Omdurman Maternity Hospital · Sharing experience in Kassala state	27 persons (staff of FMOH, SMOH of Gezira, Kassala, Khartoum, staff of Omdurman Maternity Hospital)
Kick-off meeting at Umbaddah Hospital	July 20, 2017	· Make an agreement to introduce 5-Kaizen approach to the hospital · Orientation of project activities and schedule · Brief introductory session of 5S-Kaizen approach	6 persons
5S-KAIZEN Seminar at Umbaddah Hospital	July 27, 2017	· Outlines of 5S-KAIZEN · Planning and discussion to held TOT · Brief introductory session of 5S-Kaizen approach	29 persons
5S-KAIZEN seminar at Omdurman Maternity Hospital	November 7, 2017	· Review of 5S Kaizen approaches · Presentation of the progress of 5S activities · Effective 5S approaches in terms of waste management	10 persons (QIT leaders)
5S-KAIZEN seminar at Umbaddah Hospital	November 22, 2017	· Review of 5S Kaizen approaches · Presentation of the progress of 5S activities · Effective 5S approaches in terms of waste management	25 persons (QIT leaders and managerial staff)
Training for with WIT, Omdurman Maternity Hospital	June 4, 2017	· Situation analysis on activities and structure of WIT	8 persons
Training for QIT, Omdurman Maternity Hospital	June 5, 2017	· Situation analysis on activities and structure of QIT · Discussion on way forwards · Planning and practice 5S-Kaizen activities	12 persons
TOT for Umbadda Hospital	August 24, 27, 29, 2017 (3 days)	· Introduction of 5S-KAIZEN · Sharing of experience at Omdurman Maternity Hospital · Discussion	20 persons

		· Planning and practice 5S-Kaizen activities	
5S-KAIZEN workshop at Umbaddah New Hospital	February, 2019	· Lecture of basic knowledge on 5S · Sharing experience in Gezira and Kassala states	120 persons from all departments of Umbaddah New Hospital

Workshops and trainings for target hospitals in Kassala State

Name	Date	purpose	Number of participants
Kick-off meeting at Kassala Maternity Hospital	August 2, 2017	· Make an agreement to introduce 5-Kaizen approach to the hospital · Orientation of project activities and schedule · Brief introductory session of 5S-Kaizen approach	3 persons
Kick-off meeting at Girba Hospital	August 3, 2017	· Make an agreement to introduce 5-Kaizen approach to the hospital · Orientation of project activities and schedule · Brief introductory session of 5S-Kaizen approach	4 persons
TOT for Girba Locality Hospital	September 14, 17, 19, 2017 (3 days)	· Introduction of 5S-KAIZEN · Sharing of experience at Kassala SMOH · Discussion · Planning and practice 5S-Kaizen activities	18 persons
TOT for Kassala Maternity Hospital	September 14, 18, 20, 2017 (3 days)	· Same as above	22 persons

Workshops and trainings for target hospitals in Gezira State

Name	Date	purpose	Number of participants
Kick-off meeting at Algamousi Hospital	August 14, 2017	· Make an agreement to introduce 5-Kaizen approach to the hospital · Orientation of project activities and brief explaining about 5S-Kaizen	5 persons
Kick-off meeting at Alhuda Hospital	August 15, 2017	· Same as above	4 persons
Kick-off meeting at Managil-teaching Hospital	August 15, 2017	· Same as above	7 persons
Kick-off meeting at Wadrawa Hospital	August 16, 2017	· Same as above	6 persons
Kick-off meeting at Tamboul Hospital	August 16, 2017	· Same as above	4 persons
Kick-off meeting at Alhilalia Hospital	August 16, 2017	· Same as above	5 persons
TOT for Tamboul Hospital	November 12, 2017	· Introduction session of 5S-Kaizen	13 persons
TOT for Alhilalia Hospital	November 20, 2017	· Same as above	10 persons

TOT for Wadrawa Hospital	November 22, 2017	· Same as above	13 persons
TOT for Managil Teaching Hospital	November 13, 2017	· Same as above	39 persons
TOT for Algamousi Hospital	November 9, 2017	· Same as above	16 persons
TOT for Al-Huda Hospital	November 19, 2017	· Same as above	17 persons
Additional training for QIT to Tambool Hospital	April 2, 2018	· Strengthening of QIT function	8 persons
Additional training for QIT to Alhilalia Hospital	April 3, 2018	· Strengthening of QIT function	12 persons
Additional training for QIT to Wadrawa Hospital	April 4, 2018	· Strengthening of QIT function	11 persons
Additional training for QIT to Alhuda Hospital	April 8, 2018	· Strengthening of QIT function	18 persons
Additional training for QIT to Algamousi Hospital	April 10, 2018	· Strengthening of QIT function	15 persons
Additional training for QIT to Managil Teaching Hospital	April 11, 2018	· Strengthening of QIT function	7 persons
Joint 5S-KAIZEN workshop for Gedarif, Girba and Tambool hospitals	February 17, 18, 2019	· Site visit of Tambool hospital · Workshop at Gezira SMOH to share mutual 5S experience	21 persons form Gedarif, Girba and Tambool Hospitals

Workshops and trainings for FMOH

Name	Date	purpose	Number of participants
5S-KAIZEN workshop for Quality Department	July 17, 2017	· Outlines of 5S-KAIZEN · Experience of Japan and other countries	25 persons (Quality Department, FMOH)
Advanced 5S-KAIZEN workshop for Quality Department (2)	March 4, 2018	· Improvement of quality, leadership and management	31 persons (Quality Department and MCH Department, FMOH)
Advanced 5S-KAIZEN workshop for Quality Department (3)	July 11, 2018	· Upgrading of work efficiency	26 persons (Quality Department and MCH Department, FMOH)
5S-KAIZEN orientation workshop for IMCI department, FMOH	September, 2018	· Lecture on basic knowledge of 5S	14 persons from IMCI department, FMOH
5S-kAIZEN workshop for IMCI department, FMOH	December, 2018	· On-sight instruction at IMCI department office and storage	10 persons from IMCI department, FMOH

Workshops and trainings for Khartoum SMOH

Name	Date	purpose	Number of participants
5S-KAIZEN workshop for Ibrahim Malik Hospital	February 28, 2018	· Lecture on basic knowledge of 5S	20 persons from all department of Ibrahim Malik Hospital
5S-KAIZEN workshop for hospitals in Khartoum State	July 10, 2018	· Orientation of 5S concept for hospital managers	100 persons from 21 hospitals in Khartoum state

Workshops for Gezira SMOH

Name	Date	Contents	Facilitators and participants
5S-KAIZEN seminar at Gezila State Ministry of Health	November 8, 2017	· Outlines of 5S-KAIZEN · Experience of Japan and other countries	21 persons (Gezila SMOH officers)
5S-KAIZEN seminar at Gezila State Ministry of Health	March 5, 2018	· Review of 5S- Kaizen approaches · Introducing practical tips and tools to implement 5S-Kaizen · Presentation of the planning to introduce 5S for FMOH · Discussions to sort the issues	23 persons (Curative medicine, PHC, pharmacy, documentation office, Quality Management sections of FMOH)
5S-KAIZEN workshop for hospitals in Gezira state	December 23, 2018	· Sharing experience of 5S activities by the Project · Hospital management and leadership · Discussion for way forward	54 persons from hospitals in Medani locality (Gezira Heart Center, Maternity Hospital, Oncology Hospital, Dental Hospital), hospitals in East Gezira locality (Tambool and Wadrawa Hospital), staff of Gezira SMOH

Attachment 9　Educational Materials Created in the Project

Name	Printed date and number of copies	Purpose	Utilization (User, Target, Activity)
Flipchart Specification 66 pages, A4 size Adopted from IMCI picture card, manual, Message for Life by UNICEF, Safe motherhood protocol and neonatal essential care by FMOH, RH/Nutrition/Sanitation materials from FMOH/UNICEF/GOAL/CRS, and updated with FMOH	<For TOT use> October 22, 2017 60 copies <Final Version> February 15, 2018 700 copies	To deliver key health messages related to RH, child health and nutrition to community people and facilitate the discussion	CHC members (non-medical persons) use to pregnant and lactating women, their family in home visit and small group discussion
Manual on Flipchart Specification 48 pages, A4 size Adopted from IMCI picture card, manual, Message for Life by UNICEF, Safe motherhood protocol and neonatal essential care by FMOH, RH/Nutrition/ Sanitation materials from FMOH/UNICEF/GOAL/CRS, and updated with FMOH	<For TOT use> January 4, 2018 60 copies <Final Version> February 7, 2018 700 copies	To provide basic health information related to RH/child health/Nutrition	CHC members (non-medical persons) read for self-learning and use for providing supplementary information to community people
Small booklets Specification 18 to 24 pages, A6 size, 5 kinds, adopted from UNICEF	October 22, 2017 750 x 5 kinds = 3,750 copies	To provide basic health information to CHC members on ORS, Breastfeeding, EPI, Mosquito net use, hand washing	CHC members use as reference materials for discussion, health talk, health education to community people

Brochure Specification 16 pages, A6 size, adopted from UNICEF	October 22, 2017 22,000 copies	To distribute to students on basic health information (hand washing, hygienic food preparation, latrine use, water treatment, breastfeeding, mosquito net use, MUAC)	School teachers provide to students Students use it for delivering health messages to family members All students in 15 target communities are supposed to receive each
Leaflet on IMCI Specification 2 pages, A4 size, adopted from IMCI/Child Health	October 22, 2017 15,000 copies	To distribute to households for delivering child health messages	CHC members give to their target audiences in home visit, health talk, etc. Each CHC members have 25 copies each
Posters on reproductive health Specification A2 size, 2 kinds (Delivery Plan, Danger signs during pregnancy), Adopted from IMCI Picture Card/FMOH	October 22, 2017 250 x 2 designs = 500 copies	To send safe motherhood messages to pregnant women and their families	Putting on the places where women usually exchange information
Poster on exclusive breastfeeding Specification A2 size, 1 kind Adopted from UNICEF/WHO/FMOH	October 22, 2017 250 copies	To send the message on importance of exclusive breastfeeding to lactating women and their families	Putting on the places where women usually exchange information

Posters on growth Monitoring Specification A2 size, 2 designs Adopted from UNICEF/WHO/FMOH	November 9, 2017 250 x 2 designs = 500 copies	To send the message on importance of growth monitoring	Putting on the places where parents with U5 children and school children can look at
Posters on hand washing with soap Specification A1 size, 2 types Adopted from UNICEF	October 22, 2017 250 x 2 designs = 500 copies	To send the messages on critical timing of hand washing with soap and steps for hand washing	School health session Displaying at school
Poster on F-diagram Specification A1 size, Adopted from UNICEF	October 22, 2017 250 copies	To send the messages on the routes of transmitting causes of diarrhea	School health session Displaying at school
Poster on vector control Specification A1 size, Adopted from WHO	October 22, 2017 250 copies	To send the messages on the vector control	School health session Displaying at school

Poster on Prevention of respiratory infection Specification A1 size, Adopted from WHO/UNICEF/FMOH	October 22, 2017 250 copies	To send the messages on prevention of respiratory infection among children U5	School health session Displaying at school
Poster on steps of hygienic food preparation Specification A1 size, Adopted from WHO/UNICEF/FMOH	October 22, 2017 250 copies	To send the messages on steps for hygiene food preparation to prevent diarrhea	School health session or in community
Manual for school health (IMCI) Specification A4 size, 71 pages, IMCI School Health Manual	August 20, 2017 130 sets	To train school health teachers to deliver IMCI key health messages to students	School health training School health sessions
Cotton bag Specification Cotton, 5 colors	August 26, 2017 700 sets	To carry health education materials	Promotion goods

Flag	August 26, 2017 600 sets	To put at the door of CHC to show the spot of health information in community	Promotion goods
Total 23 kinds of materials	・ Flipchart 760 ・ Manual 660 ・ A1 Poster (5 kinds) 1250 ・ A2 Poster (6 kinds) 1500 ・ IMCI Leaflet 22000 ・ Students booklet 15000 ・ Small booklets (5 kinds) 3750 ・ School Health Training Manual 130 ・ Bag 700 ・ Flag 600		