

PREPARATORY SURVEY REPORT
ON
THE PROJECT FOR THE IMPROVEMENT OF
UGANDA NATIONAL EXPANDED PROGRAMME
ON IMMUNIZATION
IN
REPUBLIC OF UGANDA

MARCH 2010

JAPAN INTERNATIONAL COOPERATION AGENCY

INTEM CONSULTING, INC.

HDD
JR
10-016

PREPARATORY SURVEY REPORT
ON
THE PROJECT FOR THE IMPROVEMENT OF
UGANDA NATIONAL EXPANDED PROGRAMME
ON IMMUNIZATION
IN
REPUBLIC OF UGANDA

MARCH 2010

JAPAN INTERNATIONAL COOPERATION AGENCY

INTEM CONSULTING, INC.

PREFACE

Japan International Cooperation Agency (JICA) conducted the preparatory survey on the Project for the Improvement of Uganda National Expanded Programme on Immunization in Republic of Uganda.

JICA sent to Uganda a survey team from 26th July to 22nd August, 2009.

The team held discussions with the officials concerned of the Government of Uganda, and conducted a field study at the study area. After the team returned to Japan, further studies were made. Then, a mission was sent to Uganda in order to discuss a draft outline design, and as this result, the present report was finalized.

I hope that this report will contribute to the promotion of the project and to the enhancement of friendly relations between our two countries.

I wish to express my sincere appreciation to the officials concerned of the Government of Republic of Uganda for their close cooperation extended to the team.

March 2010

Ms. Nobuko KAYASHIMA
Director General, Human Development Department
Japan International Cooperation Agency

March 2010

Letter of Transmittal

We are pleased to submit to you the preparatory survey report on the Project for the Improvement of Uganda National Expanded Programme on Immunization in Republic of Uganda.

This survey was conducted by INTEM Consulting, Inc., under a contract to JICA, during the period from July 2009 to March 2010. In conducting the survey, we have examined the feasibility and rationale of the project with due consideration to the present situation of Uganda and formulated the most appropriate outline design for the project under Japan's Grant Aid scheme.

Finally, we hope that this report will contribute to further promotion of the project.

Very truly yours,

Mr. Akihiro OKAMOTO
Project Manager,
Preparatory Survey Team on
The Project for the Improvement of
Uganda National Expanded
Programme on Immunization
INTEM Consulting, Inc.

SUMMARY

SUMMARY

Outline of the Country

Republic of Uganda (called 'Uganda' afterwards) is a land-locked country located in the central part of Africa and is bordered by Kenya, Sudan, Democratic Republic of the Congo, Rwanda and Tanzania. Uganda has the land area of approx. 2.41 million square kilometers (about the same as the main island of Japan) and has the population of approx. 30.92 million (World Bank: Health, Nutrition and Population 2007). The population of 'children under 1 year of age' and 'females of child bearing age (15-49 years old)', who are the direct beneficiaries of the Project, is approx. 7.58 million in total. Uganda has administratively 80 districts and the targeted area of the Project is all the 80 districts.

Uganda is situated just above the equator. The weather is categorized in the tropics, but it's temperate because it is located in a plateau of 1,100 m above the sea in average. The temperature is stable through a whole year and is 21 to 25 in average of a year. The central region, which the capital of Kampala is located in, and eastern region has savanna and are facing the Lake Victoria to the south, the north west of the country is lined mountains. The rainy season is from March to May and October to December. The amount of rainfall is 1,000 mm in average of a year and is the biggest in the east Africa. However, the border of northern region is dried and desert area.

For the economy in Uganda, GNI is 132 billion US dollars, GNI per capita is 420 US dollars, economic growth rate is 9.5 percent and inflation rate is 6.3 percent (World Bank: World Development Indicators 2008). Uganda ranks 157th of 182 countries in Human Development Index (UNDP: Human Development Report 2009). Though Uganda has risen higher than the category of 'Low human development', Uganda ranks the second lowest among the category of 'Medium human development' and still has a lot of challenges to be developed. Industry Breakdown of GDP accounted for 29% of the primary industry, 24.8% of the secondary industry and 46.2% in the tertiary industry. The main industry is agriculture. By frequent civil strife, Uganda's economy was unstable until late the 1980s. Since 1987, with the support of World Bank and IMF, Uganda actively promoted the structural adjustment policies. In the 1990s, Uganda recorded economic growth of approx. 6% in average. In recent years, Uganda goes in the same pace and the macro economy has been stable. Ugandan government promotes trade and investment and is seeking to promote private sector-led economic growth under the recognition that further promotion of economic growth is essential to realize poverty reduction.

Background of the Project

Ugandan government has started " National Development Plan (NDP) " as 5-year-plan in July 2009 as the replacement of " Poverty Eradication Action Plan (PEAP) ". At the same time, " National Health Policy (NHP) II " has also started as 10-year-plan in July 2009. Furthermore, " Health Sector Strategic Plan (HSSP) III " has started one year earlier in July 2009, which was formerly planned to be revised in July 2010 in order to start at the same time for NDP and

NHP II.

In particular, MOH considers vaccination as the most important measures to prevent infection efficiently for achieving national strategic goals above and established Uganda National Expanded Programme on Immunization (called 'UNEPI' afterwards). UNEPI implements the management of immunization, supply of vaccine and its control, cultivation of health workers and enlightenment of prevention of diseases to the people in local areas. Having those activities and the implementation of HSSP I (2000 to 2004), the rate of immunization once improved though it dropped in a latter half of 1990s, but it dropped again during 2004 to 2005 and also the percentage of immunized children lowered to 47% (Uganda Demographic and Health Survey 2006) in 2006.

Under such background, Ugandan government have requested the implementation of Grant-Aid for the procurement of cold chain equipment and vehicles to Japan in terms of enhancement of EPI which is an essential basic service in health sector.

Having the request, Japanese Government decided the implementation of the preparatory survey of the Project and JICA sent to Uganda a preparatory survey team from 25th July to 24th August, 2009. After the team returned to Japan, further studies were made. Then, a mission was again sent to Uganda in order to explain a draft outline design from 10th January to 16th January, 2010.

Contents of the Project

The Project targets health centers, hospitals, District Vaccine Stores and Sub-District Stores in 80 districts all over the country which execute the immunization. The facilities that are supplied with refrigerators and freezers are selected according to the following criteria.

- i) Facilities without any refrigerator (hospitals, health centers)
- ii) Facilities with obsolete refrigerators (10 years or more) or broken refrigerators
- iii) Facilities with refrigerators which capacity is not enough for storing vaccines(considering an increase of population for 5 years later and introduction of Pneumococcal Conjugate Vaccine(called " PCV " afterwards) from the year of 2011.

The energy source of refrigerators and freezers is selected by the following policies, considering the actual situations of the infrastructure of health facilities based on data obtained by sample survey at local areas from July to August 2009 and data on actual status of operation and management of the equipment.

- i) Electric refrigerators shall be distributed to the facilities at which electricity is provided more than 8 hours a day.
- ii) Gas/electric refrigerators shall be distributed to the facilities at which electricity is not provided more than 8 hours a day but the access to the facilities from DVS is easier.
- iii) Solar refrigerators shall be distributed to the facilities at which electricity is not provided

more than 8 hours a day, and the access to the facilities from DVS is not so easy.

The sufficient capacity required for storing the vaccine in refrigerators at each facility is calculated based on the targeted population of each facility using the formula adopted by WHO and UNICEF as a standard. The above calculation is done by each basic vaccine of immunized regularly (BCG, Pentavalent Vaccine of DPT-HepB+Hib, OPV, Measles, TT) and PCV introduced in 2010, totally by 6 kinds of vaccine.

The purpose of the project is to contribute to improve the immunization rate by increasing the number of health facility which conducts a routine immunization (including outreach service) and procuring cold chain equipment for the facilities.

The contents of the planned equipment for the Project are as follows.

List of the Planned Equipment

Category	Description	Purpose of use	Q'ty
Cold Chain Equipment	Electric Refrigerator (large size)	mainly for DVS in districts which are provided with electricity for more than 8 hours	29
	Electric Freezer (large size)	mainly for DVS in districts which are provided with electricity for more than 8 hours	77
	Electric Refrigerator /Freezer with ice pack refrigerator (medium size)	mainly for health centers and hospitals which are provided with electricity for more than 8 hours	21
	Gas/Electric Refrigerator with ice pack freezer (medium size)	mainly for health centers and hospitals which are not constantly provide with electricity	72
	Electric Refrigerator /Ice pack freezer (small size)	mainly for health centers which are provided with electricity for more than 8 hours	242
	Gas/Electric Refrigerator with ice pack freezer (small size)	mainly for health centers and hospitals which are not constantly provided with electricity	694
	Gas cylinder without gas	Gas cylinder used for gas/electric refrigerator and ice pack freezer (small size)	500
	Solar Refrigerator with ice pack freezer (small size)	mainly for health centers which are not constantly provided with electricity and road conditions are bad	287
	Solar System	for solar refrigerators with ice pack freezer (small size)	287
Vehicle	Refrigerated Truck for delivery of vaccine	truck for delivery of vaccine from central ware house in Entebbe to each DVS	1
	Open Cage Truck for delivery of gas cylinders	truck for delivery of gas cylinders from central warehouse in Entebbe to each DVS	1

Project Cost Estimation and Implementation Schedule

To implement the Project by Japanese Grant-Aid, it will take 4 months for detailed design and 9 months for the procurement of equipment, thus totally 13 months will be needed. The total amount of expenses at Uganda side for the Project is estimated for approx.2 million yen.

Project Evaluation and Recommendations

1) Project Effect

Direct Effect as a result of the implementation of the Project is as follows.

Refrigerators are newly supplied to 532 health facilities which have no refrigerator.

Refrigerators for 678 DVS and/or health facilities with obsolete refrigerators (10 years or more) or broken refrigerators are replaced.

Refrigerators are additionally supplied to 18 DVS and 19 health facilities with refrigerators which capacity is not enough for storing vaccines(considering an increase of population for 5 years later and introduction of Pneumococcal Conjugate Vaccine(called “ PCV ” afterwards) from the year of 2011.

By the replacement of a refrigerated truck for vaccine, the delivery of vaccine can be continued without any delay

By the replacement of an open cage truck for gas cylinder, the delivery of gas cylinder can be continued without any delay.

Indirect Effect as a result of the implementation of the Project is as follows.

The expectation for the improvement of the rate of immunization (the contribution for improvement of the rate of immunization of pentavalent vaccine of DPT-HepB+Hib3 which is one of the major indicators of MOH) by the enhancement of EPI system as a result of procurement of cold chain equipment is regarded as indirect effect for the Project.

As refrigerators of approx.20% procured under the Project are solar refrigerators, it is considered that the Project indirectly contributes for the spread of clean energy in Uganda.

As the Project targets all of 80 districts in Uganda and refrigerators and freezers procured under the Project are supplied to 1,247 health facilities (approx.48%) among all of 2,621 health facilities in Uganda, it is considered that the expected beneficiary could be the whole of the national in Uganda. In that point of view, the rationale of the implementation of the Project is duly recognized.

2) Validity of the Project

From the following reasons, the Project is considered to be an appropriate for cooperation through Grant-Aid from Japan.

The targeted area of the Project is all the 80 districts in Uganda and the direct beneficiaries of the Project are ‘children under 1 year of age’ and ‘females of child bearing age (15-49 years old)’ and are approx. 7.58 million in total. A mission of HSSP is to “achieve the economic and social development by eradicating the poverty” through decreasing the number of premature death by implementing measures against infectious disease. By procuring cold chain equipment through the implementation of the Project, it is expected that the rate of immunization will be improved as an indirect effect of the Project. The rationale of the Project is fully recognized in terms of the importance of immunization as a measure for achieving objectives at the national development goals.

UNEPI, which manages maintenance and operation of cold chain equipment procured through the Project, is the one of the national programmes under the National Disease Control of MOH which is responsible and implementation organization for the Project. UNEPI conducts operations and supervision of immunization activities all over the country. Maintenance work including adjustment and repair for cold chain equipment such as refrigerators and freezers is one of the major activities of UNEPI as well as vaccine management. UNEPI has enough experiences through activities over the years. Cold chain equipment procured in the Project is almost the same type and specifications to the existing ones that UNEPI currently manages. Thus, it is considered that there would be no problem on operation and maintenance in terms of the implementation of the Project.

As the equipment procured in the Project is used for activities to be conducted as a public health service, there would be no profitability at all. In terms of impact on the environment, the Project introduces solar photovoltaic system and assists the spread of clean energy in Uganda. The impact for natural environment and neighboring communities through the implementation of the Project is extremely small.

The Japanese Government has committed to improve 1,000 health facilities in Africa on “Yokohama Action Plan” during TICAD4. As refrigerators and freezers for storing vaccines are procured to 1,247 health facilities in the Project, the Project greatly contributes to the achievement of the targeted figures of “Yokohama Action Plan” of TICAD4.

The Project supports the improvement of the rate of immunization indirectly by enhancement of the basic immunization activities through procuring cold chain equipment. Figures in infant mortality rate, children under five years mortality rate and maternal mortality rate have still remained low in Uganda. As the reduction of child mortality rate and maternal mortality rate have been featured in the United Nations Millennium Development Goals (MDGs), the implementation of the Project will contribute to protect the public health in Uganda and also contribute greatly to poverty reduction and the achievement of development goals. Therefore, the Project is considered to be an appropriate for cooperation through Grant-Aid from Japan.

3) Recommendations

In order to utilize cold chain equipment procured under the project effectively and continuously and to be managed properly in the future, the following issues have been identified as those that must be considered by Uganda side.

The implementation of outreach activity periodically

As each health facility covers a wide range of area, outreach activity, which is visited directly by health workers to remote areas, is effective in terms of the improvement of the rate of immunization. Though outreach activity in Uganda is defined to be visited at least once a month per outreach basically, in actual, outreach is conducted irregularly in a lot of health facilities because of the lack of budget (PHC (Primary Health Care) Fund by the Government), the lack of health workers and etc. By the implementation of the Project, a lot of health facilities such as health center II/III which had to obtain vaccines each time due to the lack of refrigerator will be supplied refrigerators. Therefore, in such facilities, outreach activity shall be required periodically.

The continuation for updating the inventory data

Though the situation of cold chain equipment will be improved through the implementation of the Project, equipment will be getting obsolete and the needs for replacement and repair of equipment shall occur. UNEPI updates the inventory data around every three years and confirms such as kind, quantity, conditions and etc. of the existing cold chain equipment in each facility. Regarding the reliability of the inventory data, in a sample survey conducted by this survey, the data for refrigerators and freezers have almost been recorded accurately, however, in some DVS in districts, there was the difference between the inventory data and the actual number of refrigerator and freezer. It is assumed that DVS roles as like a buffer in case of exchanging refrigerators and freezers between health facilities and the central vaccine store. As the grasp of an accurate inventory data is essential element in terms of the improvement of the rate of immunization, the periodical update of the inventory data shall be required to be continued.

The enhancement of the capability of vaccine management at health facility level

In each health facility which conducts immunization has recorded the number of immunized person, the number of vial and dose by each vaccine in vaccine management. MOH has introduced HMIS and manages immunization by using data computed. MOH designates person in charge in each Health District Office and collects data from each health facility and reports the data to the Government. However, in fact, health facilities do not report any data to the upper level in many cases, thus, the rate of immunization and the rate of abandoned has not been grasped precisely. Regarding the status of vaccine

management in each health facility, the check of temperature was performed properly twice per day in the morning and the afternoon at the all health facilities visited in sample survey. But, in some facilities, vaccines expired has remained in a refrigerator. The order of usage of vaccine has not been prioritized properly. For the advice of vaccine management to each health facility has been conducted by CCA together with the delivery of vaccine and gas cylinder every month and also conducted at other opportunities appropriately. It is considered that put manuals in order and distribution, training to health workers at site shall be required to be done more effectively.

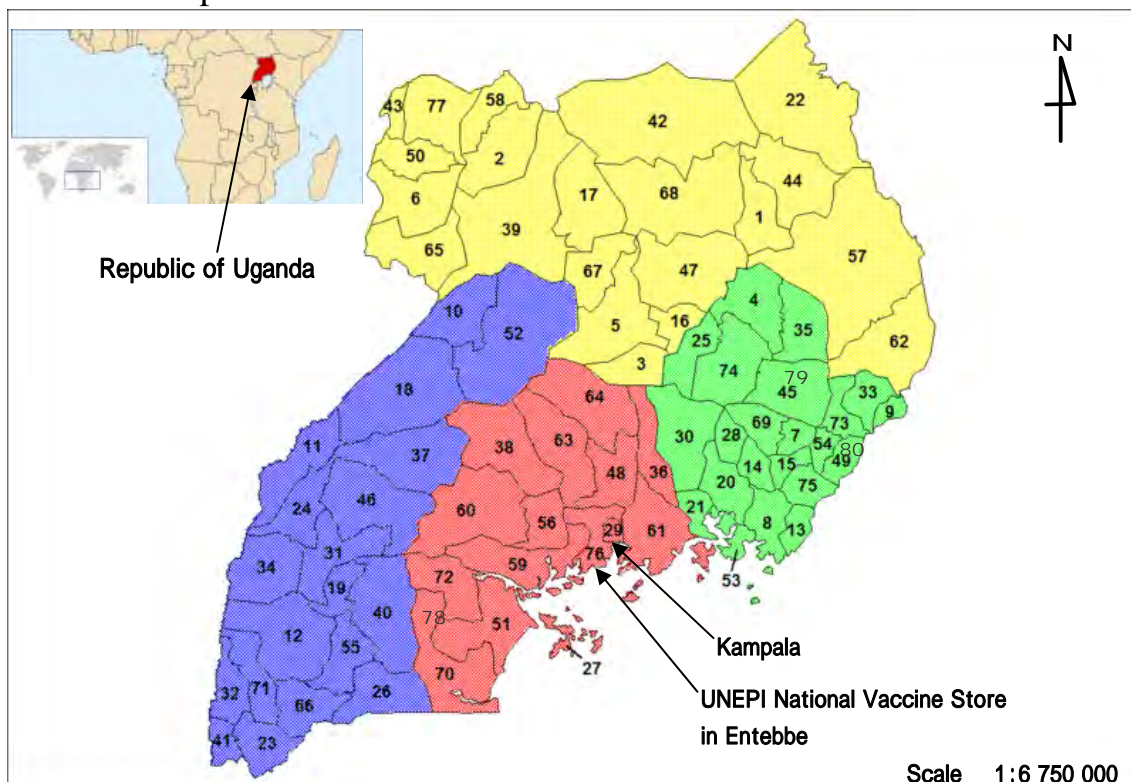
CONTENTS

Preface	
Letter of Transmittal	
Summary	
Contents	
Location Map	
List of Figures & Tables / Abbreviations	
Chapter 1 BACKGROUND OF THE PROJECT	1-1
1-1 Background of the Project.....	1-1
1-2 Natural Conditions.....	1-1
1-3 Environmental and Social Considerations.....	1-2
Chapter 2 CONTENTS OF THE PROJECT	2-1
2-1 Basic Concept of the Project	2-1
2-2 Outline Design of the Japanese Assistance.....	2-1
2-2-1 Design Policy	2-1
2-2-2 Basic Plan	2-8
2-2-3 Outline Design Drawing.....	2-13
2-2-4 Implementation plan	2-13
2-3 Obligations of Recipient Country	2-18
2-4 Project Operation Plan.....	2-19
2-5 Project Cost Estimation	2-20
2-5-1 Initial Cost Estimation	2-20
2-5-2 Operation and Maintenance Cost	2-21
2-6 Other Relevant issues	2-23
Chapter 3 PROJECT EVALUATION AND RECOMMENDATIONS	3-1
3-1 Project Effect	3-1
3-2 Recommendations	3-2

[Appendices]

- 1 . Member List of the Study Team
- 2 . Study Schedule (Outline Design Study)
- 3 . Study Schedule (Explanation of the Draft)
- 4 . List of Parties Concerned in the Recipient Country
- 5 . Minutes of Discussions (Outline Design Study)
- 6 . Minutes of Discussions (Explanation of the Draft)
- 7 . Equipment Allocation List
- 8 . References

Location Map



Notes : All of 80 districts are targeted for procuring equipment for the project.

Western Region	
No.	District
10	Bulisa
11	Bundibugyo
12	Bushenyi
18	Hoima
19	Ibanda
23	Kabale
24	Kabarole
26	Isingiro
31	Kamwenge
32	Kanungu
34	Kasese
37	Kibaale
40	Kiruhura
41	Kisoro
46	Kyenjonjo
52	Masindi
55	Mbarara
66	Ntungamo
71	Rukungiri

Central Region	
No.	District
27	Kalangala
29	Kampala
36	Kayunga
38	Kiboga
48	Luwero
51	Masaka
56	Mityana
59	Mpigi
60	Mubende
61	Mukono
63	Nakaseke
64	Nakasongola
70	Rakai
78	Lyantonde
72	Ssembabule
76	Wakiso

Eastern Region	
No.	District
4	Amuria
7	Budaka
8	Bugiri
9	Bukwa
13	Busia
14	Namutumba
15	Butaleja
20	Iganga
21	Jinja
25	Kaberamaido
28	Kaliro
30	Kamuli
33	Kapchorwa
35	Katakwi
45	Kumi
79	Bukedea
80	Bududa
49	Manafwa
53	Mayuge
54	Mbale
69	Pallisa
73	Sironko
74	Soroti
75	Tororo

Northern Region	
No.	District
1	Abim
2	Adjuman
3	Amolatar
5	Apac
6	Arua
16	Dokolo
17	Gulu
22	Kaabong
39	Amuru
42	Kitgum
43	Koboko
44	Kotido
47	Lira
50	Maracha/Tereg
57	Moroto
58	Moyo
62	Nakapirrit
65	Nebbi
67	Oyam
68	Pader
77	Yumbe

List of Figures & Tables

Table2-1 List of Planned Equipment

Table2-2 Scope of Works

Table2-3 Country/Area of Procurement

Table2-4 Implementation Schedule

Table2-5 Scope of Works for Ugandan Side

Table2-6 Expenses and Estimation of National Budget for EPI

Table3-1 Project Effect

Figure2-1 Organigram of UNEPI

Abbreviations

Abbreviation	Original Name
BCG	Bacille de Calmette et Guérin
CCA	Cold Chain Assistant
CFC	Chlorofluorocarbon
DANIDA	Danish International Development Agency
DPT	Diphtheria-Pertussis-Tetanus
DVS	District Vaccine Store
E/N	Exchange of Notes
EPI	Expanded Programme on Immunization
G/A	Grant Agreement
GAVI	Global Alliance for Vaccine and Immunization
GDP	Gross Domestic Product
GNI	Gross National Income
HC	Health Center
HepB	Hepatitis B
Hib	Haemophilus influenzae type b
HMIS	Health Management Information System
HSD	Health Sub-District
IMF	International Monetary Fund
JICA	Japan International Cooperation Agency
MDGs	Millennium Development Goals
NGO	Non-Governmental Organization
HSSP	Health Sector Strategic Plan
OPV	Oral Polio Vaccine
PCV	Pneumococcal Conjugated Vaccine
TT	Tetanus Toxoid
UNEPI	Uganda National Expanded Programme on Immunization
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization

Chapter 1

BACKGROUND OF THE PROJECT

Chapter 1 BACKGROUND OF THE PROJECT

1-1 Background of the Project

Uganda National Expanded Programme on Immunization (called “UNEPI” afterwards) was established in 1983 as an administrative agency for the purpose of improving health sector indicators through the expansion of immunization. UNEPI draws up 5-year-plan and implements the management of immunization, supply of vaccine and its control, cultivation of health workers and enlightenment of prevention of diseases to the people in local areas. Having those activities and the implementation of HSSP I (2000 to 2004), the rate of immunization once improved though it dropped in a latter half of 1990s, but it dropped again during 2004 to 2005 and also the percentage of immunized children lowered to 47%¹ in 2006. The reasons of obstacle for spread of immunization are, besides a lack of understanding, that the timely immunization has not been executed due to a shortage of cold chain equipment. In particular, the decline of outreach activities is considered as major reason, due to a short stock of vaccine at local health facilities caused by no refrigerator and a bad access. Another reason is that the number of administrative district was increased to 80 districts from 56 districts in 2004 by enforcement of decentralization policy, which accelerated a shortage of cold chain equipment especially at the local health facilities located in remote areas.

This project will furnish the fund, to improve the situation and achieve the enhancement of UNEPI which is an essential basic health service for implementing health policy in Uganda, for procuring cold chain equipment (refrigerators and freezers) and vehicles (a refrigerated truck for vaccine and an open cage truck for gas cylinder) to health centers (level IV, III and II), hospitals, District Vaccine Stores (DVS) and Sub-District Stores in 80 districts all over the country which execute the immunization.

1-2 Natural Conditions

Uganda is a land-locked country located in the central part of Africa and is bordered by Kenya, Sudan, Democratic Republic of the Congo, Rwanda and Tanzania. Uganda has the land area of approx. 2.41 million square kilometers (about the same as the main island of Japan) and has the population of approx. 30.92 million (World Bank: Health, Nutrition and Population 2007). Uganda is situated just above the equator. The weather is categorized in the tropics, but it's temperate because it is located in a plateau of 1,100 m above the sea in average. The temperature is stable through a whole year and is 21 to 25 in average of a year. The central region, which the capital of Kampala is located in, and eastern region has savanna and are facing the Lake Victoria to the south, the north west of the country is lined mountains. The rainy season is from March to May and October to December. The amount of rainfall is 1,000 mm in average of a year and is the biggest in the east Africa. However, the border of northern region is dried and desert area.

¹ Source: Uganda Demographic and health Survey 2006, the targeted vaccines: BCG, Measles, DPT3 and OPV3

1-3 Environmental and Social Considerations

In a global tide of ozone layer protection and global warming, CFCs must be eliminated by 2015 even in developing countries under the Montreal Protocol adopted in the year of 1987.

In the Project, the replacement of refrigerators containing CFC with refrigerators of CFC-free is included as a part of the Project for targeting refrigerators to be replaced.

Chapter 2

CONTENTS OF THE PROJECT

Chapter 2 CONTENTS OF THE PROJECT

2-1 Basic Concept of the Project

(1) Overall Goal and Project Purpose

Health Sector Indicators (Uganda Bureau of Statistics 2009) of Republic of Uganda (called “Uganda” afterwards) is still remain on a low level as follows: Life Expectancy at Birth ; 50, Infant Mortality Rate ; 78 of 1,000, Under 5 years Mortality Rate ; 134 of 1,000, Maternal Mortality Rate ; 550 of 100,000. Thus, Uganda has still many difficulties in Health Sector.

“Poverty Eradication Action Plan (PEAP)” planned in 1997 as National Development Plan ended in June 2009, and “National Development Plan (NDP)” has followed as 5-year-plan in July 2009. Regarding national health policy, “National Health Policy (NHP) I” which had started in September 1999 for 10-year-plan has ended in June 2009. Then, NHP II has newly planned in July 2009 for 10-year-plan. Furthermore, MOH decided to start “Health Sector Strategic Plan (HSSP) III” one year earlier in July 2009, which was formerly planned to be revised in July 2010 in order to start at the same time for NDP and NHP II. A mission of HSSP II is to “achieve the economic and social development by eradicating the poverty” through reinforcement of UNMHCP and offering effective services of 1) decrease of mortality rate and morbidity rate of major diseases; 2) decrease of number of premature death; 3) Achievement for correction of medical gap in whole country.

MOH considers immunization as the most important measures to prevent infection efficiently for achieving the national strategic goals. The purpose of the project is to support Uganda National Expanded Programme on Immunization and contribute to improve the immunization rate by procuring cold chain equipment to health facilities all over the Uganda and delivery vehicles for vaccine and so on.

(2) Basic Concept of the Project

This project will furnish the fund, to improve the situation and achieve the above purposes, for procuring cold chain equipment (refrigerators and freezers) and vehicles (a refrigerated truck for vaccine and an open cage truck for gas cylinder) to health centers (level IV, III and II), hospitals, District Vaccine Stores (DVS) and Sub-District Stores in 80 districts all over the country which execute the immunization.

2-2 Outline Design of the Japanese Assistance

2-2-1 Design Policy

(1) Basic Policy

In the process of equipment planning, the final list for requested equipment have been precisely studied again in Japan after having discussions with Ugandan side following basic policy mentioned below. The policy for selection of equipment in the local survey and its result are also mentioned below.

1) Selection Policy for Facilities to be targeted

The facilities that are supplied with refrigerators and freezers are selected according to the following criteria:

- i) Facilities without any refrigerator (hospitals, health centers IV, III and II)
- ii) Facilities with obsolete refrigerators (10 years or more) or broken refrigerators
- iii) Facilities with refrigerators which capacity is not enough for storing vaccines(considering an increase of population for 5 years later and introduction of Pneumococcal Conjugate Vaccine(called “PCV” afterwards)

The facilities to be targeted are selected by the conditions above using the data base newly made after integrating information of 3 kinds of existing databases supplied by UNEPI.

[Inventory Database 2007]

In the database, the data for cold chain equipment distributed in health facilities all over the country are included. Main information is as follows.

- Information on local area: location of facilities (districts and other local areas)
- Information on health facilities: code, name and type of health facilities
- Information on equipment: name of equipment, model, energy source, year of installation, current condition (workable or not) and etc. of refrigerators, freezers, cold boxes and vaccine carriers

[Revised database based on the study for certifying the inventory data performed in June 2009]

This revised database is based on the data certified by all of health facilities in whole country in 2009.

[Database on facilities executing the immunization]

This is the information on facilities executing the immunization, and the main information is as follows:

- Information on local area: location of health facilities (districts and other local areas)
- Information on health facilities: code, names and types of health facilities
- Targeted population: population that one facility covers, number of women capable for pregnancy, number of pregnant women
- Accessibility
- Information on immunization : Immunization at health facilities
- With/without electricity
- Measures for transportation: Vehicles (cars, motorbike, bicycle and boat) or on foot

The targeted facilities are selected based on the integrated database of above 3 kinds of

database and following policies.

Having studies, facilities with no refrigerator have been selected as the targeted health facilities for new equipment.

Regarding targeted health facilities for replacement of equipment, among the equipment that Ugandan side listed the models which urgently need a replacement, facilities which have refrigerators and freezers purchased before a year of 2000 and are out of order were selected as the targeted facilities. To fulfill for the future increase of population in terms of capacity of refrigerators and freezers for the routine vaccines, based on the simulation of number of increased population by 2016, we select the facilities at which the storing capacity of existing equipment is not enough, and add the models of equipment which can cover the insufficient capacity. Furthermore, considering the increased capacity for storing of PCV, we add the facilities which are lack of storing capacity after estimating the insufficient capacity. (Referring to the calculation method for sufficient capacity mentioned below.

The government of Uganda implements the electrification of health facilities by using solar system partly in Northern and Western parts receiving the fund from the World Bank. Upon confirmation with the person in charge for World Bank project at MOH infrastructure division, we confirmed that the refrigerators for vaccine are included in the above solar system. Thus, 11 health facilities included in World Bank project were excluded from the targeted health facilities for this project.

2) Selection Policy for Equipment to be targeted

The following 15 items were originally requested.

1. Electric refrigerator/ice pack freezer (small size)	350 pc
2. Electric refrigerator (large size)	20 pc
3. Gas/electric refrigerator/ice pack freezer (small size)	530 pc
4. Electric refrigerator/freezer (large size)	20 pc
5. Gas/electric refrigerator/ice pack freezer (medium size)	38 pc
6. Gas/electric refrigerator/ice pack freezer (large size)	40 pc
7. Electric freezer	20 pc
8. Solar refrigerator/freezer	350 pc
9. Solar refrigerator/freezer without solar panel	30 pc
10. Cold box (large size)	100 pc
11. Vaccine carrier	400 pc
12. Truck for carrying vaccine	2 pc
13. Vehicle for monitoring and maintenance	3 pc
14. Motorcycle	80 pc
15. Bicycle	3,000 pc

The following 5 items are deleted from the original list in the process of screening in terms of validity.

Cold Box (large size)

UNEPI explained that they requested this item considering the case of insufficient quantity at the time of campaign. However, through our sample survey at health facilities, we conclude that the necessity for this item is not so much, because 1) the health facilities visited are storing a sufficient number of this item, 2) they accommodate the equipment each other at the campaign and 3) the campaign is held once every 2 to 3 years.

Vaccine Carrier

This item is deleted from the list because the reason of requesting this item is the same as cold box, and current situation is also the same as above.

Motor Cycle

This item is also deleted from the list. Some facilities have this item but most of facilities are poor in its maintenance. Health workers use usually bodaboda(taxi-like motorbike or bicycle) because of cheap fare of 500 Ushs (approx. 25 Japanese yen). Also, in terms of running cost, possessing a motor cycle is higher than hiring bodaboda in the aspect of fuel and maintenance.

Bicycle

For the same reason as motorcycle, there are problems in maintenance for this item. Health workers at most of health facilities use bodaboda or walk to remote areas for outreach. Then, this item is considered unnecessary.

Single Cabin Pickup Truck

This is used by engineers of UNEPI for their routine works, who visit the health facilities in local districts for the purpose of repairing the equipment related to the cold chain (refrigerators and others) and checking the inventory at warehouses storing the vaccine.

They are consisted of 3 teams involving 6 engineers, who need 3 cars at least for all. Currently, total 4 cars are available for use, one car in good condition, 2 repaired cars and one car for jointly use among engineers. Seeing the current situation, the support in this project does not seem indispensable. Therefore, this item is deleted from the list.

Then, the final list of equipment is as follows:

- | | |
|--|--------|
| 1. Electric refrigerators (medium size) | 292 pc |
| 2. Gas/electric refrigerators (small size) | 676 pc |

3. Gas/electric refrigerators and freezers (medium size)	90 pc
4. Electric freezer (large size)	77 pc
5. Solar refrigerator (small size)	287 pc
6. Refrigerated truck for vaccine	1 pc
7. Open cage truck for gas cylinder	1 pc

Refrigerators and freezers are categorized in 5 groups, however, 8 models of refrigerators and freezers are actually included in the list.

3) Policy for selection of energy source for refrigerator and freezer

The energy source of the equipment to be distributed to the targeted facilities is selected by the following policies, respecting the request from Ugandan side of minimizing the delivery and filling cost of gas, and also considering the actual situations of the infrastructure of health facilities based on data obtained by sample survey at local areas from July to August 2009 and data on actual status of operation and management of the equipment by using new database mentioned above.

- i) Electric refrigerators are distributed to the facilities at which electricity is provided more than 8 hours a day.
- ii) Gas/electric refrigerators are distributed to the facilities at which electricity is not provided more than 8 hours a day but the access to the facilities from DVS is easier.
- iii) Solar refrigerators are distributed to the facilities at which electricity is not provided more than 8 hours a day, and the access to the facilities from DVS is not so easy.

4) Policy for calculation of sufficient capacity required for storing the vaccine in refrigerators and freezers

The sufficient capacity required for storing the vaccine in refrigerators at each facility is calculated using the following calculation method adopted by WHO and UNICEF as a standard method, and based on the population of targeted facilities obtained from the inventory data mentioned above.

Total population (at each facility) X targeted population X wastage factor X coverage rate of vaccine X number of vial for one dose X (supply interval of vaccine + stock) ÷ 1,000²

The above calculation is done by each basic vaccine of 5 kinds (BCG, Pentavalent Vaccine of DPT-HepB+Hib, OPV, Measles, TT) and PCV introduced in 2010. Necessary quantity of refrigerators supplementing a sufficient volume to the facilities which can not satisfy the

² BCG: Total Pop.×4.85%×1×3.33×100%×1.2×0.125÷1000, DPT-HepB+Hib: Total Pop.×4.3%×3×1.11×98%×12.2×0.125÷1000, OPV: Total Pop.×4.3%×4×1.25×90%×1×0.125÷1000, MV: Total Pop.×4.3%×1×1.43×95%×3.5×0.125÷1000, TT: Total Pop.×20%×2×1.33×100%×2.5×0.125÷1000, PCV: Total Pop.×4.3%×1×1.1×90%×22×0.125÷1000 (Source : Forecast for Vaccine 2008-2012-Application Form by UNICEF)

required quantity of each vaccine for storing with the existing refrigerators, after comparing the total quantity of required vaccine for storing with the existing capacity of refrigerators at each facility. For the increase of targeted population, we estimate the rate of increase of population presumed for 5 years from 2011 (starting year of distribution) to 2016, considering the current storing capacity at the central warehouse of UNEPI and the delivery volume to each district.

(2) Policy for natural conditions

Uganda is situated just above the equator. The weather is categorized in the tropics, but it's temperate because it is located in a plateau of 1,100 m above the sea in average. There is very little difference in temperature especially at south east region around Victoria Lake. The rainy season is from March to May and October to November. The amount of rainfall is 1,000 mm in average of the year and is the biggest in the east Africa. The temperature is stable through the whole year and is 21 to 25 in average of the year. The temperature is around 28 even in a day time at all the sites after confirming the conditions for installation of refrigerators at the targeted facilities for sample survey executed from July to August 2009, which does not bring any trouble. There is also no problem for inland transportation because the roads are not flooded even during the rainy season.

(3) Policy for social and economical conditions

The price of propane gas has elevated for these years (13.7% in 2008), which has suppressed the governmental finance. Ministry of Health has an intension to replace the gas refrigerators with electric or solar ones. This project also plans to distribute electric refrigerators to the facilities at which the electricity is provided to save the running cost, and to distribute solar refrigerators to the facilities at which the electricity is not provided and the distribution of gas cylinder is difficult because of a bad access from DVS. This project will decrease the financial burden of Uganda by increasing the quantity of refrigerator at the facilities.

(4) Policy for equipment procuring conditions

The distribution of refrigerators and freezers in this project is to store the vaccine which must be stored in severe conditions. For this purpose the refrigerators and freezers must satisfy the specifications designated by WHO/UNICEF. There is no manufacturer in Japan who satisfy the designated specifications, and no distributors in Uganda. Therefore, the refrigerators and freezers satisfying the specifications will be procured in the third countries such as Luxemburg or Sweden where such specified ones are manufactured. The trucks shall be procured in Uganda to the distributors who are dealing with trucks which meet the specifications.

(5) Policy for operation and maintenance capability

The solar refrigerators do not need a daily maintenance but the batteries expire in 3 to 5 years. Therefore, the expenses for exchanging the batteries should be budgeted because the number of refrigerator is 287 units although the price of battery is around 70,000 yen per unit. The expenses for gas should also be budgeted 145 units of gas refrigerator (250 units which are newly distributed minus 105 units which replaced with electric refrigerators from gas refrigerators). Some health facilities intend to use electric refrigerators in case of gas/electric refrigerators to save the cost for electricity although the electricity is provided because it is born by the district's budget. The enlightenment to such facilities is necessary for more understanding of this project. Ugandan side shall be suggested to secure the budget enough to cover the above expenses.

(6) Policy for selection of levels of equipment

The refrigerators and freezers planned in this project, as explained above, should be the ones satisfying the specifications designated by WHO/UNICEF. There are two models, one for the models which can be used in the worse conditions for the weather and location, and another for better conditions. As explained above, since the condition of Uganda for the temperature is not so severe (yearly average of 21 to 25), the standard models are selected in this project. There are also two ways for installing solar panels in solar system; one is way of Roof Mount and another one is Pole Mount. Pole mount is selected in this project to avoid a robbery because there were some cases of robbery in the past at the facilities where solar system equipped with Roof Mount panels, and also considering the fact that Pole Mount panels are generally adopted at present. For the trucks for delivery of vaccine and for delivery of gas cylinder, they should be specified models with refrigerated for delivering vaccine and with safety cage for delivering gas cylinder.

(7) Policy for procurement measures and time schedule

As mentioned in (4) the manufacturers of refrigerators and freezers in the third countries are included in this project due to the fact that the manufacturers are limited to European countries and the models are also limited, which the engineers of UNEPI, health departments of districts and health facilities can operate and repair. The refrigerators and freezers will be delivered to Ugandan side at the central warehouse of UNEPI in Entebbe, except solar refrigerators which will be installed at each facility and this installation is included in this project because the man power at UNEPI is currently very limited to 6 engineers although a number of solar refrigerator to be installed is 287 units, and the storing period of solar batteries is limited to 6 months, thus, a speedy installation is required. The time schedule of this project is to finish the delivery of equipment by April 2011 considering the allowance of 24 months at maximum for completion with the rules for Japanese Grant-Aid. Uganda is a landlocked country and the cargo is landed at Mombasa in Kenya in case of sea freight. It takes 15 days (including a time for customs clearance) to deliver the equipment to the central

warehouse of UNEPI by trailer. Therefore, a sufficient time for delivery should be considered. For solar refrigerators, the sufficient working time are also considered for burying the poles and building a concrete base for solar panels.

2-2-2 Basic Plan

(1) Whole Plan

15 items in total were listed in the original requirement; 11 items are for cold chain equipment, 4 items of vehicles are for delivering vaccine and gas cylinder, and for engineers and other staff for visiting the facilities to do maintenance and outreach services. Ugandan side list the items and their quantity, such as electric refrigerator/freezer, gas refrigerator and ice pack freezer which will be replaced with new one or require new equipment to supplement, based on the inventory data studied in 2007 by adding another factors of “the rate of increase for population” and “equipment to be replaced with new one” as a criteria. The requested items and quantity to this project are to cover the requirement for 2 years. However, the list does not designate the facility and required quantity at each facility, and shows no reason of quantity for solar refrigerator.

Accordingly, we update the database for necessary part even during the site survey, checking the inventory data for 2007 and the same data updated by the Ministry of Health to the latest one with the result of our site survey against sample facilities (total 90 places) and the result of interview with related persons.

The final list for requested items and quantity are completed based on one basic data which is compromised of various data adopted from the above database for the intended population at each facility, supply condition of electricity, access condition from DVS. For other items but refrigerator and freezer, their necessity and propriety are totally considered referring to the study result of sampling facilities, whether they own the listed items or not, the conditions, insufficient quantity, working conditions.

The total quantity for replaced equipment is calculated by adding the quantity for the refrigerators and freezers currently in out of order to the quantity for models to be replaced urgently, out of the equipment procured before a year of 2000, due to the reason why the equipment is easily broken or uses fluorocarbon gas. All the facilities which own no refrigerator are intended for a supply of new equipment. The additional quantity is also counted presuming an increase of storing volume of vaccine by introduction of PCV in 2010. We also add the quantity for the refrigerator and freezer needed for supplement an insufficient volume of vaccine, after calculating the shorten volume for storing vaccine with the standard calculation method adopted by WHO/UNICEF. The government of Uganda is now implementing the electrification of health facilities located in a part of northern and western regions with the solar system by using a fund from the World Bank. Since the refrigerators for storing the vaccine are included in this implementation, which is confirmed by a staff of Department of Infrastructure in charge for this solar project, 11 health centers included in this solar project are deleted from our project after confirming this fact with the same person in

charge.

(2) Equipment Plan

1) Study on the requested equipment

Selection of the targeted facilities and models of refrigerator and freezer for storing vaccine

The targeted facilities are already determined after a plenty of discussion on the result of the site survey. The specifications of energy source are determined following the basic policy above mentioned and based on circumstances of electricity at each facility and infrastructure of access (road conditions).

Solar System

The electricity is not provided at the most of health facilities located in local areas except the big cities. Therefore, the gas is mainly used as the energy source for existing refrigerator and freezer storing vaccine. The supply system of propane gas used as energy source is that all the propane gas is monthly delivered to the central warehouse in Kampala (capital of Uganda) by the distributor. The staff of UNEPI will distribute the necessary volume to the warehouse at each district, and then the gas will be delivered to health facilities at each district by a staff of warehouse. This system functions very well and there is no problem in the operation of refrigerators and freezers at health facilities in local areas. However, there are many problems caused by the facts that the purchasing cost for gas is very high, and the road conditions are very bad.

Then, UNEPI decided to replace the existing equipment with the one driving by electric power at the facilities where the electricity is provided, and to introduce solar refrigerators to the facilities where the electricity is not provided and of which access conditions are very bad. They already installed the solar refrigerators at 284 facilities.

From this fact, it is the quite proper plan for introducing the solar refrigerators and freezers into this project. The solar system planned in this project is based on the following consideration.

[Solar Panel]

The total output power (PA : KW) of solar panel is calculated to approx. 286W according to the following calculation method and conditions set below.

$$PA = EL \times GS / (HA \times KA)$$

PA : capacity of solar battery (kWh)

EL : electric power consumption per day when charged (kWh/day)

The power consumption of refrigerators selected in this project is 0.6 kWh/24h.

GS : standard factor of sunshine (kW/m²)

The factor is 1 in most proper case.

HA : Basic value of sunshine (kWh/m²/day)

The minimum value in Uganda is 3.498 KW/m², which is indicated in the statistic data of Japan Weather Association.

KA : correction factor

Average value is 0.45 ~ 0.6 with alternating current, and 0.6 is adopted this time for safety.

$$PA = 0.6 \times 1 / (3.5 \times 0.6) = 0.6/2.1 = 0.286 \text{ kW}$$

The solar panel with output power of 95W (others are 50W and 70W) is selected considering the way of pole mount proposed by Ugandan side for prevention of robbery, which makes us to take account of strength of base, its size and easy installation, and to minimize the number of panel. 3 panels are needed by the following calculating method.

$$286 \div 95 = 3.01$$

[Battery]

The capacity of battery for electric current is calculated by the following method and the battery charger of 300 Ah is selected.

$$BE = EL \times 1,000 \times ND / (V \times KB)$$

BE : Capacity of battery (Ah)

EL : Power consumption (loaded) (kWh/day)

As mentioned above, 0.6 kWh/24h

ND : Continuous No Sunlight Days (day)

We determine 4 days after the interview at the site survey.

V : Battery Voltage (V)

12 V is adopted because of easier exchange of battery.

KB : Correction Factor

Average value of 0.665 with direct current is adopted.

$$BE = 0.6 \times 1,000 \times 4 / (12 \times 1.665) = 2,400 / 7.98 = 300.75 \text{ (Ah)}$$

[Charger]

Electric power consumption when charged is 600 Wh/24h. The moving hour of charger for refrigerators will be approx. 8 hours because the compressor moves when the temperature goes up. Accordingly, the charged current may be 6.25 A. The specification of charger is determined with 30 A due to the matter that 5 times of charged current circulates for the initial operation.

The composition of solar system is determined as follows:

- number of solar panes: 95 W x 3 pieces (total 285 W)

- battery charger: 12V/300Ah, shelf life of 5 years or more, deep cycle lead charger
- controller for charger: 30A controller with safety function for overcharge and over discharge
- pole and base: total length of 5 m (3 m on earth) steel pole, base for 3 panels
- connecting cable: approx. 30 m
- others materials for wiring, etc.

Vehicles

2 kinds of vehicles are included in the project.

- Refrigerated Truck for Vaccine

This truck is used for delivering vaccine to DVS in 80 districts over whole country from the central warehouse of UNEPI in Entebbe. The vaccine is delivered following the monthly delivery schedule, which is the main routine work of UNEPI. 4 trucks deliver vaccine in a week to the districts on the fixed route (one route covers around 5 districts). Out of these 4 trucks on full work, the carrying capacity of one truck is insufficient, and another truck should be replaced with new one because it was purchased 11 years ago and its driving distance is more than 200,000 km. The trucks listed in the project is special models with refrigeration for vaccine, which can not be transferred to other purpose.

- Open Cage Truck for Gas Cylinder

This truck is used for the collection and delivery of gas cylinders from the suppliers (Shell etc.). This collection and delivery follows the monthly schedule, which is main routine work of UNEPI. From the view point of safety, the truck with refrigeration for delivery of vaccine can never be used for delivery of gas cylinders, and this type of truck has the cage for protection of gas cylinder. UNEPI now owns one truck of same type, which is on full work. This truck was purchased 12 years ago and its driving distance is more than 400,000 km. This truck should be included in this project due to the matter that this special type of truck may not be used for other purposes and is also indispensable for distribution of gas cylinder for gas powered refrigerators included in this project.

2)Planned Equipment

Having examination on the requested equipment, the planned equipment are as follows.

Table2-1 List of Planned Equipment

No.	Name of Equipment	Composition (1) & Major Specifications (2)	Q'ty	Purpose of Use
1-1	electric refrigerator /Ice pack freezer (small size)	(1) body, AVR, spare parts (2) storing capacity of vaccine: 20L or more, storing capacity of ice pack: 8 packs or more, energy source: AC 220V	242	mainly for health centers II/III which are provided with electricity for more than 8 hours
1-2	electric refrigerator (large size)	(1) body, AVR, spare parts (2) storing capacity of vaccine: 100L or more, energy source: AC 220V	29	mainly for central warehouses in the districts which are provided with electricity for more than 8 hours
1-3	electric refrigerator /freezer with ice pack refrigerator (medium size)	(1) body, AVR, spare parts (2) Storing capacity of refrigerator : 75L or more, energy source: AC220V	21	mainly for health centers IV and hospitals which are provided with electricity for more than 8 hours
2-1	Gas/electric refrigerator with ice pack freezer (small size)	(1) body, spare parts (2) storing capacity of refrigerator: 10L or more, storing capacity of freezer: 4 packs or more, Energy source: gas/AC220V	694	mainly for health centers II/III and hospitals which are not constantly provided with electricity
2-2	gas cylinder without gas	capacity: 15kg, material: steel , with regulator and hose	500	Gas cylinder used for gas/electric refrigerator and ice pack freezer (small size)
3	Gas/electric refrigerator with ice pack freezer (medium size)	(1) body, spare parts (2) storing capacity of refrigerator: 50L or more, storing capacity of freezer: 45L or more	72	mainly for health centers IV and hospitals which are not constantly provide with electricity
4	electric freezer (large size)	(1) body, AVR, spare parts (2) storing capacity of freezer: 250L or more, energy source: AC220V	77	mainly for DVS in each district which are provided with electricity for more than 8 hours
5-1	solar refrigerator with ice pack freezer (small size)	(1) body, spare parts (2) storing capacity of vaccine: 14L or more, storing capacity of ice pack: 4 packs or more, energy source: solar	287	mainly for health centers II/II which are not constantly provided with electricity and road conditions are bad
5-2	solar system for solar refrigerator with ice pack freezer (small size)	(1) solar panels, frame for installing panels, battery, battery charger, regulator, cable and accessories for installation (2) solar panel: 95W x 3 pieces, pole: steel, approx. 5m(H) x 100mm(D), battery: battery box 12V, 300Ah/100h, regulator for battery charger: for solar, 12V/30A, cable: approx. 10m x 2 (from panel to regulator) and approx. 5m (from regulator to refrigerator)	287	for solar refrigerators with ice pack freezer (small size)
6	Refrigerated truck for delivery of vaccine	(2) drive: 4 x 2, cargo space: aluminum container for refrigeration for 10tons or more, diesel engine of 6 cylinders, exhaust capacity of 7,500cc, wheel base of 700mm or more, manual transmission, right handle	1	truck for delivery of vaccine from central warehouse in Entebbe to each DVS
7	open cage truck for delivery of gas cylinders	(2) drive: 4 x 2, cargo space with flat beds and steel cage, 10tons, diesel engine of 6 cylinders, exhaust capacity of 7,500cc or more, wheel base of 4,700mm or more, right handle	1	truck for delivery of gas cylinders from central warehouse in Entebbe to each DVS

2-2-3 Outline Design Drawing

The design drawing is not prepared for this project because this project is only for a supply of equipment.

2-2-4 Implementation plan

2-2-4-1 Implementation Policy

The cooperation of Japanese side is planned for procurement and installation of cold chain equipment (refrigerators and freezers) and vehicles (delivery trucks for vaccine and gas cylinders). The scope of work to be borne by Japanese side in this project is performed following the scheme of grant-aid of Japanese government.

This project will be signed on the exchange of notes (E/N) between Ugandan government and Japanese government after the Japanese cabinet approves. After that the grant agreement (G/A) will be signed between Ugandan government and JICA, and this project will officially go on. After signing the E/N and G/A, the consulting contract will be signed in a short period between the implementing agency of Uganda and the consulting firm incorporated in Japan, who will prepare the project design of this project. The tender will be executed to select the supplier incorporated in Japan who will supply the equipment based on the project design prepared above. The contract will be signed between the firm awarded in this tender and the implementing agency of Uganda, and the procurement and installation of equipment following the contract.

The basic items and the matters to be considered are as follows:

1) Implementing Agency

The Ministry of health of Uganda is an implementing agency responsible for execution of this project.

2) Consultant

After signing the E/N between both government and G/A between Ugandan government and JICA, the consultant incorporated in Japan will conclude the consulting contract with the implementing agency of Uganda following procedures of grant-aid of Japanese government. The consultant will execute the following items following the contract.

Design Stage : final confirmation of the contents of plan, preparation of detailed design documents including specifications, other technical information, tender documents, support of the execution of the tender, evaluation of the tender documents, support of the contract with the supplier.

Procurement Stage : supervision for procurement of equipment, installation, operation of equipment, management and maintenance of equipment.

「Detailed Design」 is to determine the details of the plan for equipment based on the preparatory survey report, and to prepare the tender documents including specifications, tender conditions and plans for various contracts related to the procurement of equipment.

The estimation of expenses for the procurement of equipment is also included.

The support of execution of the tender is to attend the tender for selection of the supplier of equipment, and to advise the procedures for the documentation and the report to the Japanese government.

「Procurement Supervision」 is to check whether the supplier of equipment execute exactly following the contract and to advise, guide and solve the problems among the related persons. The main work for the consultant is as follows:

Checking the schedule for procurement and installation, layout, specifications and other information provided by the supplier and the advice of their approval procedures

Checking the quantity, quality and functions of the equipment prior to the shipment and issuing the approval

Checking the delivery, installation and the operation manual

Grasping and reporting the progress of procurement

Inspection of the equipment and attendance at inspection and handing over

The consultant, besides above works, shall report a progress on the project to the relative agencies of Japanese government for its payment and completion of delivery.

3) Supplier

The supplier shall perform the procurement, delivery and installation of the equipment following the contract, and shall give the instruction for operation and maintenance of the equipment. The supplier shall supply successively the spare parts free of charge during the guarantee period or with payment, and cooperate with the manufacturers and their agents for the technical support after the delivery and installation are completed.

4) Japan International Cooperation Agency

Japan International Cooperation Agency (JICA) shall assist the smooth execution of the project following the rules of grant-aid.

5) Procurement Schedule Plan

The staff of implementing agency of Uganda and the consultant will discuss the procurement plan during the time of detailed design. Japanese side and Ugandan side shall determine the each work clearly by confirming each other the starting time and the method in order to perform the work smoothly following the work schedule mentioned in preparatory survey report.

2-2-4-2 Implementation Conditions

The delivery schedule of equipment in this project must be seriously considered. The equipment procured from Japan and the third country will be landed at the port of Mombasa in Kenya and transported on land by a truck to Entebbe via Kampala. All of the equipment procured from Japan will be gathered at the warehouse in Entebbe after finishing the inspection by the responsible person of Ugandan side, supplier and consultant.

The operational function and quality of equipment shall be inspected at random with each model especially of refrigerators and freezers because the quantity is quite a lot (1,422 units of 7 types). The inspection by sampling the equipment at random must be performed equally with each cargo lot in each container. We need a wide space for the above work and for the additional work of unpacking of the wooden cases or cartons for refrigerators and freezers and repacking. The working schedule must be planned considering the collection, delivery, storing, working measures for inspection and working days. The installation of solar system (including refrigerators) at the health facilities in each district is charged to Japan side as well as the land delivery by trucks to the health facilities in each district from the warehouse of UNEPI. These works are planned to be performed by the local transporters and the engineers of local distributors for solar systems. The plan for delivery and installation must be made out taking the sufficient working days into consideration.

2-2-4-3 Scope of Works

The list below shows the work assignment in this project between Japanese side and Ugandan side.

Table2-2 Scope of Works

Works	Japan	Uganda
Procurement of equipment		
- Procurement of equipment		
- Installation of equipment		
- Initial operation		
- Instruction for operation and maintenance		
- Legal procedures and/or inspection on installation		
Utilities		
- Connecting work(electrical outlet,etc.) to the equipment		
- Solar system installation		
Securing warehouse for storing the equipment		
Transportation and customs clearance		
- Transportation to the central store in Entebbe		
- Transportation from the central store in Entebbe to DVS		
- Customs clearance		
- Tax exemption		
Banking arrangements and payment of banking charges		
Assistance on migration for persons in charge of the project		
Appropriate and effective O&M for equipment procured		
Procedures of approval on implementation of the project		
All expenses on the project other than fund from Japan side		

2-2-4-4 Consultant Supervision

1) Policy for equipment procurement supervision

All the equipment is procured from the third parties in Europe and local parties in Uganda. The inspection of equipment is performed at the loading port, prior to the shipment, by the entrusted and neutral inspection agency. The consultant shall check the inspection report provided in writing by the inspection agency, and shall issue the inspection report to the implementing agency of Uganda after confirming the completion of inspection. All the equipment procured in this project will be gathered at the central warehouse of UNEPI in Entebbe and delivered after checking of the equipment by the responsible person of Ugandan side, supplier and consultant. The names of models, origin of product, names of manufacturers, stickers printing the name of Japanese grant-aid attached or not and appearance are inspected at random on 10% of equipment following the items in the contract of procurement. The inspected equipment will be transported with the engineers of UNEPI to the targeted health facilities and installed by the same engineers. UNEPI side is required to keep all of the inspection reports with the central head quarters, including the pictures for installing the equipment at each health facility and the receipt of the installed equipment issued by the responsible person of each facility, so that the Japan side can easily check the delivery and installation of equipment when needed. The installation of solar systems, as well as the inland transportation by truck to the health facilities in each district from the central warehouse of UNEPI in Entebbe, shall be performed by Japan side, and shall be inspected by the responsible person of Ugandan side, supplier and consultant after completion of installation. The districts targeted for the inspection are selected at random out of the districts located in Eastern, Western, Southern and Northern regions of Uganda. All the health facilities installed with solar systems in each selected district are targeted for the inspection. 20% of all of the health facilities are targeted for the inspection. For other facilities where the consultant does not inspect, the supplier is required to submit the certification for delivery and inspection. The consultant will issue the certification of completion with receipt of this certification for all of the facilities. The contents of certification will be as follows.

- (1) Date of foundation work of pole
- (2) Name of engineer for foundation work of pole
- (3) Completion date of foundation work of pole, Completion date of installation of solar system and refrigerators
- (4) Name of engineer for the works above
- (5) Signature of responsible person of each health facility
- (6) Signature of completion of instruction for operation and maintenance at each health facility
- (7) Pictures of completion of installation work

2) Procurement Supervision Plan

Regarding procurement supervision, the following consultants shall be assigned.

- Resident procurement supervision engineer : 1 person
Procurement supervision, 1st Inspection/Handing over, 2nd Inspection/Handing over
- Procurement supervision engineer : 1 person
Procurement supervision, Final confirmation of Inspection/Handing over
- Inspection engineer 1 : 1 person
Confirmation for procurement schedule after the contract between Ugandan side and a supplier
- Inspection engineer 2 : 1 person
Preparation for third party inspection prior to the shipment, checking the certification of the inspection

2-2-4-5 Quality Control Plan

Out of all the equipment procured for this project, the refrigerators and freezers are designated with the brands which are approved by WHO/UNICEF (certified by Product Information Sheets 2000 edition) for each model, if necessary. Therefore, the manufacturers and models of the equipment are limited to those who are already introduced to Uganda and of which maintenance by the engineers of UNEPI can be performed without problem.

2-2-4-6 Procurement Plan

The equipment planned for procurement in this project is classified as 1) refrigerators and freezers, 2) solar systems and 3) vehicles. 1) Refrigerators and freezers are procured from the third country for European made such as Luxemburg and Sweden because they must be the brands designated by WHO/UNICEF. 2) Solar systems are basically procured from the local distributors due to the facts that many American and European brands are already introduced into Uganda, and they have several local distributors who distribute and install the solar systems at the health facilities targeted for this project. However, Japanese brands can also be procured because those are also introduced to the health facilities through the local distributor. 3) Vehicles (trucks for delivery of vaccine and delivery of gas cylinder) are procured locally because there are several Japanese and European car dealers in Uganda.

Table2-3 Country/Area of Procurement

Category of Equipment	Country/Area of Procurement		
	Local	Japan	Third Counties
Refrigerator • Freezer			
Solar System			
Vehicle			

2-2-4-7 Operational Guidance Plan

The engineers of the supplier and manufacturers will give the training, at the time of delivery, for the initial operation and maintenance of equipment procured in this project. The consultant will check if the guidance is properly performed, and if the guidance and explanation especially on the solar system are performed in a good way. The consultant should confirm if the persons in charge for solar systems well understand or not after having the interviews with the responsible persons for practical use of health facilities where the solar systems are installed.

2-2-4-8 Soft Component Plan

We explained about the soft components but the demand for soft components was not so much. Therefore, the request for soft components was omitted in this project. The reasons are that the managing system at this moment is somehow working, and the demand for the equipment is bigger than soft components, while the necessity for the construction of system for the management and maintenance is high.

2-2-4-9 Implementation Schedule

The project will start in 2 steps of the detailed design and the procurement of equipment after concluding the Exchange of Notes (E/N) between both country and the Grant Agreement (G/A) between the Government of Uganda and JICA. The following table shows the working schedule for the work charged to Japan side.

Table2-4 Implementation Schedule

Item / Month	1	2	3	4	5	6	7	8	9	10
Design Stage	■ (Final confirmation)								(Total 4 months)	
		□ (Finalize of Tender Documents)								
		■ (Approval of Tender Documents)								
			□ (Tender Announcement)							
				■ (Tender Evaluation)						
Procurement Stage									(Total 9 months)	
				□ (Equipment procurement)						
					□ (Third Party Inspection prior to the Shipment)					
						■ (Transportation)				
							■ (Inspection in Entebbe)			
							■ (Solar Installation)			
									■ (Final Inspection)	

2-3 Obligations of Recipient Country

The following table shows the work charged to Ugandan side which was agreed at the time of the study for basic design.

Table2-5 Scope of Work for Ugandan Side

Scope of Work for Ugandan Side	
1	Securing the space for Installation of Equipment
2	Preparation of Utilities for Installation of Equipment
3	Banking charges based on Banking Arrangements
4	Banking charges for opening Authorization to Pay
5	Payment Charges
6	Payment of the expenses for unloading the equipment and for the customs clearance at the port, and the smooth enforcement of procedures
7	Enforcement of tax exemption of the import duties on the purchased equipment, and also the local tax and other taxes posed on the Japanese nationals
8	Providing the Japanese engineers who are engaged in the services of man power with the accommodation for immigration and staying in Uganda based on the contract verified by Japanese Government
9	Inland transportation from the central warehouse of UNEPI to each health facility and installation of equipment except solar system
10	Necessary expenses for appropriate implementation and effective use for equipment procured in the project as donation and also expenses for operation and maintenance(including gas cost, replacement cost for solar battery and etc.)
11	Other expenses born by installation of equipment procured except the expenses born by equipment procured for the project as Japanese grant aid program.

2-4 Project Operation Plan

(1) Operation and Management Plan

The following table shows the chart of organization of UNEPI. UNEPI is responsible for 1) the management of cold chain equipment included in this project, 2) the delivery of refrigerators to the warehouse for storing vaccine in each district (called DVS), 3) the repair and collection of refrigerators, 4) the monthly delivery and collection of gas cylinders and 5) the technical guidance on the management of vaccine. UNEPI has the workshop for maintenance of refrigerator and other equipment inside the central warehouse in Entebbe which is managed and practically operated by 6 engineers.

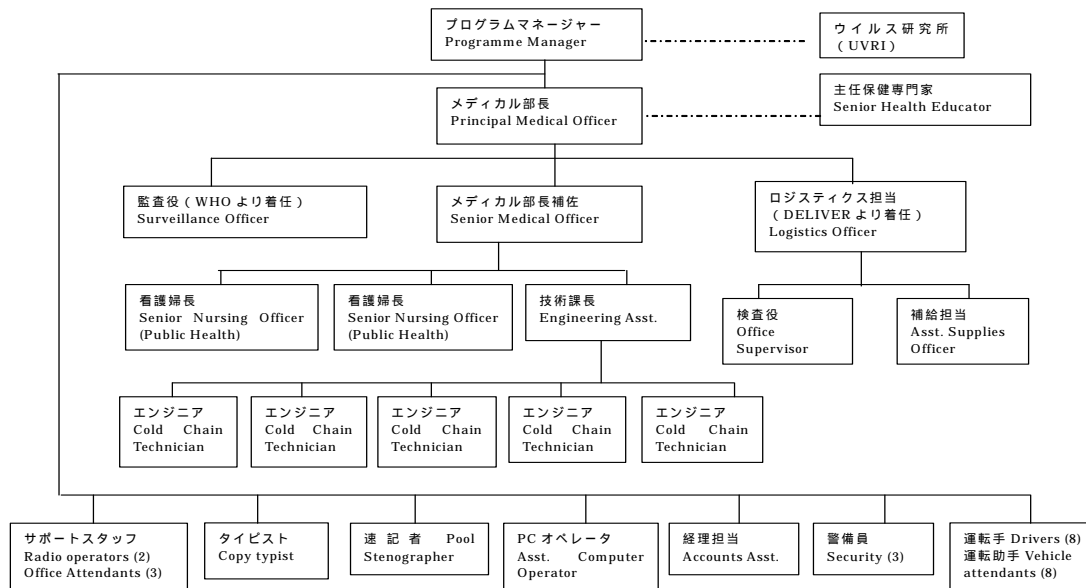


Figure2-1 Organigram of UNEPI

The immunization is executed at all the levels of health facilities (hospitals and health centers) in Uganda. 2 health workers or more are working at each health facility, even at the health facilities which are not provided with the refrigerators. Therefore, there will be no problem in execution of immunization at the health facilities which are newly provided with the refrigerators in this project. One cold chain assistant (CCA) is working at the DVS in each district who receives the training at the center. This CCA is monthly visiting each health facility in the district for the distribution and collection of vaccine. At the time of visit, CCA gives the guidance for vaccine on the proper way of storing, the observation of validity for use and the management of stock. The measurement and its report for the purpose of managing the temperature inside the refrigerator are performed twice a day and every day at the health facilities where the refrigerators are provided. There will be no problem for the proper management of vaccine at the health facilities where no refrigerator is provided because of the above guidance for vaccine by CCA

(2) Operation and Management Plan

As mentioned above, 1 person of CCA is assigned at each DVS of all districts in Uganda. CCA is responsible for distribution management of vaccine and gas cylinder for gas refrigerator and also responsible for basic maintenance management of cold chain equipment within a district. Vaccine and gas cylinder are distributed from the central warehouse in Entebbe once a month basically. DVS distributes vaccine and gas cylinder once or twice a month to health facilities in a district. CCA has the basic knowledge and the technique for installation, adjustment and maintenance of refrigerators. However, in case of being required of higher technique, CCA has the difficulties for dealing with such cases. The 6 engineers belong to the UNEPI central warehouse shall manage such cases instead of CCA.

2-5 Project Cost Estimation

2-5-1 Initial Cost Estimation

The details of estimated expenses to be borne at Uganda side are as follows based on the conditions for calculating the amount shown in (2).

(1) Expenses to be borne by Ugandan Side

Estimated Overall Project Cost 45.951million Uganda Shillings (UGX)
(Approx.2.1 million Yen)

Item	Estimated Cost
Customs Clearance Fee	15.317million UGX (0.7mill.yen)
Transportation Fee for Refrigerators except Solar System	30.634million UGX (1.4mill.yen)

(2) Conditions for the Cost Estimation

- 1) Time of Estimation : August 2009
2) Exchange Rate : 1 US\$ = ¥97.19/ 1 €= ¥131.09/ 1 UGX= ¥0.0457

- 3) Procurement Schedule : Required duration for Design Stage and Procurement Stage is as shown in the Procurement Schedule.
- 4) Others : Cost Estimation shall be calculated based on the system of Japanese Grant Aid.

2-5-2 Operation and Maintenance Cost

(1) National Budget for EPI

The budget during 2008/2009 for the activity of EPI is approx. US\$240,000,000 as shown below in the Table 6. The expenses for the purchase of vaccine are approx. US\$17,000,000 which occupies 71% of the whole budget. Out of this amount, GAVI finances the amount for the purchase of pentavalent vaccine which is expensive. The actual for the activity of EPI is approx. US\$10,000,000 which the Uganda government bears. The increase of budget for EPI is anticipated for the reason that the immunization of PCV in a year of 2010 and vaccine for Rota virus in 2013 is scheduled to be executed in Uganda. However, the budget for EPI will not much increased but increased by approx. US\$3,000,000 every year with the instruction of new vaccine because the expenses for new vaccine will be financed by GAVI. The rate for annual increase of budget is approx. 5%, while the rate for annual increase of governmental budget is 10% and EPI will secure 10% of the whole governmental budget, which will not make any problem in the budget. The storing capacity required necessary for PCV will be increased with this project. Therefore, the financial support by GAVI for the introduction of PCV should be stepped forward further more.

Table2-6 Expenses and Estimation of National Budget for EPI

Expenses and Estimation of National Budget for EPI (Unit : US dollars)					
Fiscal year	2008/09	2011/12	2012/13	2013/14	2014/15
Vaccine	17,374,210	59,376,923	62,757,402	90,706,347	90,853,028
BCG,MV,OPV,TT	1,608,444	2,535,726	2,680,032	2,831,484	3,008,934
Penta Valent, PCV, Rota	15,765,766	56,841,197	60,077,370	87,874,863	87,844,094
Consumable (syringe, etc.)	1,058,903	1,494,293	1,580,579	1,670,924	1,768,575
Wage	2,161,764	2,267,077	2,312,419	2,358,667	2,405,841
Transportation Fee	47,458	49,376	50,363	51,370	52,398
Maintenance & contingency ³	655,763	821,069	976,976	1,153,630	1,258,667
Training Fee	200,000	208,080	671,002	216,486	220,816
In-service training, meals	155,690	161,980	392,346	168,524	171,894
EPI management	762,985	840,932	870,061	863,919	881,198
Programme management	56,027	58,290	59,456	60,645	61,858
Others	1,673,229	1,847,402	1,880,125	1,913,502	1,947,546
Total Annual Expenses	24,146,029	67,125,422	71,550,729	99,164,014	99,621,821

³ Including the expenses for re-filling of gas cylinder and replacement fee of solar battery

(2) Budget for UNEPI

The increase and decrease of the expenses for the management and maintenance with this project is calculated as follows.

Increase of expenses for gas filling caused by the increase of gas refrigerators

Decrease of expenses for gas filling caused by replacement of the existing gas refrigerators with the electric or gas refrigerators

Reserve money for replacing the solar battery with the new one

The budget in 2008/2009 is approx. 593 million siring (approx. 27,100,000 yen) for gas filling. The number of gas refrigerators newly purchased in this project is 250 units, while 105 units of gas refrigerator will be replaced with the electric refrigerators out of the existing gas refrigerators to be replaced with the new one. Therefore, the actual increased quantity is 145 units. The additional expenses for gas filling will be 104.4 million siring (approx. 4,770,000 yen) which is approx. 17.6% of the yearly total expenses of gas filling. This increased amount of expenses should be included in the budget for the management of gas refrigerators.

No.of GAS Fridges newly added	250 units		
Re-filling of GAS	60,000 Ushs/unit x	12 months=	720,000 Ushs/year/unit
		A...	180,000,000 Ushs/year/250units
No.of replacement with Electric Fridge from Gas Fridge	105 units		
Re-filling of GAS	60,000 Ushs/unit x	12 months=	720,000 Ushs/year/unit
		B...	75,600,000 Ushs/year/105units
Additional annual cost for GAS	145 台	A-B...	104,400,000 Ushs
			≒Approx.¥4,771,000

The initial cost including the purchase, customs clearance, delivery and installation of equipment is usually high, which is a big problem in the introduction of solar refrigerators, although the expenses for management and maintenance are not born after the completion of installation except the expenses for replacing the solar battery with the new one. Since the above initial cost is born at Japanese side, the expenses born at Ugandan side are mainly for the replacement of solar batteries. These expenses for replacement (approx. 70,000 yen /piece) should be planned in the annual budget. As the average validity of solar batteries is considered 5 years, and 155 units of solar refrigerator are planned in this project to be newly and additionally placed. Therefore, the total amount of 10,850,000 yen (70,000 yen x 155 units) should be included in the annual budget for 5 years.

In case of the gas refrigerators, the total amount of 25,500,000 yen (see the calculation mentioned below) is required for 5 years as the expenses of gas filling. It is quite possible that the expenses for solar batteries can be included in the annual budget and the solar refrigerators are more effective in cost saving than the gas refrigerators.

No.of GAS Fridges newly added	155 units	
Re-filling of GAS	60,000 Ushs/unit x 12 months=	720,000 Ushs/year/unit 111,600,000 Ushs/year/155units
Additional annual cost for GAS		111,600,000 Ushs ≒Approx.¥5,100,000

Thus, the execution of this project will raise the rate of immunization and contribute to the spread of immunization in Uganda. The introduction of solar refrigerators is more effective in cost saving and will contribute to the spread of clean energy.

As shown in 5-1 (2) (Expenses to be borne at Ugandan side), other initial costs in this project born at Ugandan side will be approx. 700,000 yen for the customs clearance of equipment procured to the third country and approx. 1,400,000 yen for delivery of equipment to health facilities in each district from the central warehouse in Entebbe.

2-6 Other Relevant issues

As shown in 3 (Summary of the work charged to Ugandan side), the expenses of inland transportation for delivery of solar systems and solar refrigerators to the health facilities in each district from the central warehouse in Entebbe are born at Japanese side and the same expenses for other equipment are born at Ugandan side. 1,135 units of refrigerator are included in this other equipment delivered by Ugandan side. The schedule for the effective transportation should be carefully planned such as the arrangement of man power and vehicles.

Chapter 3

PROJECT EVALUATION AND RECOMMENDATIONS

Chapter 3 PROJECT EVALUATION AND RECOMMENDATIONS

3-1 Project Effect

For setting of direct effect as a result of the implementation of the Project, direct effect for the following 3 categories of facilities, which are targeted for procuring cold chain equipment (refrigerators, freezers and etc.) in the Project, are adapted.

- i) Facilities without any refrigerator (hospitals, health centers)
- ii) Facilities with obsolete refrigerators (10 years or more) or broken refrigerators
- iii) Facilities with refrigerators which capacity is not enough for storing vaccines(considering an increase of population for 5 years later and introduction of Pneumococcal Conjugate Vaccine(called “ PCV ” afterwards) from the year of 2011.

Regarding vehicles, having confirmation of the number of the existing vehicles at UNEPI central store in Entebbe and those conditions, the replacement of a refrigerated truck for vaccine and an open cage truck for gas cylinder are considered as a rationale in terms of continuing delivery of vaccine and gas cylinder efficiently. Thus, the replacement of a refrigerated truck for vaccine and an open cage truck for gas cylinder are adapted as direct effect for the Project.

Regarding indirect effect, health sector indicators of Uganda are still remain low level as follows: Infant Mortality Rate ; 78 of 1,000, Under 5 years Mortality Rate ; 134 of 1,000. The reason of obstacle for spread of immunization is considered that the timely immunization has not been executed due to a shortage of cold chain equipment. Thus, the expectation for the improvement of the rate of immunization (the contribution for improvement of the rate of immunization of penta-valent vaccine of DPT-HepB+Hib3 which is one of the major indicators of MOH) by the enhancement of EPI system as a result of procurement of cold chain equipment is regarded as indirect effect for the Project.

And also, as the 287 refrigerators of total 1,422 (approx.20%) procured under the Project are solar refrigerators, it is considered that the Project indirectly contributes for the spread of clean energy in Uganda.

Table3-1 Project Effect

Current conditions and problems	Countermeasures through the Project	Direct Effect Degree of improvement	Indirect Effect Degree of improvement
The reasons of obstacle for spread of immunization are, besides a lack of understanding, that the timely immunization has not been executed due to a shortage of cold chain equipment. In particular,	Procurement of cold chain equipment (refrigerators and freezers) and vehicles (a refrigerated truck for vaccine and an open cage truck for gas cylinder) to health centers (level IV, III and II), hospitals, District	Refrigerators are newly supplied to 532 health facilities which has no refrigerator. Refrigerators for 678 DVS and/or health facilities with obsolete refrigerators	the expectation for the improvement of the rate of immunization (the contribution for improvement of the rate of immunization of penta-valent vaccine of

<p>the decline of outreach activities is considered as major reason, due to a short stock of vaccine at local health facilities caused by no refrigerator and a bad access.</p>	<p>Vaccine Stores (DVS) and Sub-District Stores in 80 districts all over the country which execute the immunization.</p>	<p>(10 years or more) or broken refrigerators are replaced. Refrigerators are additionally supplied to 18 DVS and 19 health facilities with refrigerators which capacity is not enough for storing vaccines. A refrigerated truck for vaccine is replaced. An open cage truck for gas cylinder is replaced.</p>	<p>DPT-HepB+Hib3 which is one of the major indicators of MOH) by the enhancement of EPI system as a result of procurement of cold chain equipment as the refrigerators of approx.20% procured under the Project are solar refrigerators, it is considered that the Project indirectly contributes for the spread of clean energy in Uganda.</p>
---	--	---	---

3-2 Recommendations

In order to utilize cold chain equipment procured under the project effectively and continuously and to be managed properly in the future, the following issues have been identified as those that must be considered by Uganda side.

(1) The implementation of outreach activity periodically

As each health facility covers a wide range of area, outreach activity, which is visited directly by health workers to remote areas, is effective in terms of the improvement of the rate of immunization. Though outreach activity in Uganda is defined to be visited at least once a month per outreach basically, in actual, outreach is conducted irregularly in a lot of health facilities because of the lack of budget (PHC Fund: Primary Health Care Fund by the Government, etc.), the lack of health workers and etc. By the implementation of the Project, a lot of health facilities such as health center II/III which had to obtain vaccines each time due to the lack of refrigerator will be supplied refrigerators. Therefore, in such facilities, outreach activity shall be required periodically.

(2) The continuation for updating the inventory data

Though the situation of cold chain equipment will be improved through the implementation of the Project, equipment will be getting obsolete and the needs for replacement and repair of equipment shall occur. UNEPI updates the inventory data around every three years and confirms such as kind, quantity, conditions and etc. of the existing cold chain equipment in each facility. Regarding the reliability of the inventory data, in a sample survey conducted by this survey, the data for refrigerators and freezers have almost been recorded accurately, however, in some DVS in districts, there was the difference between the inventory data and the actual number of refrigerator and freezer. It is assumed that DVS roles as like a buffer in case of exchanging refrigerators and freezers between health facilities and the central vaccine store. As the grasp of an accurate inventory data is essential element in terms of the improvement of the rate of immunization, the periodical update of the inventory data shall be required to be continued.

(3) The enhancement of the capability of vaccine management at health facility level

In each health facility which conducts immunization has recorded the number of immunized person, the number of vial and dose by each vaccine in vaccine management. MOH has introduced HMIS and manages immunization by using data computed. MOH designates person in charge in each Health District Office and collects data from each health facility and reports the data to the Government. However, in fact, health facilities do not report any data to the upper level in many cases, thus, the rate of immunization and the rate of abandoned has not been grasped precisely. Regarding the status of vaccine management in each health facility, the check of temperature was performed properly twice per day in the morning and the afternoon at the all health facilities visited in sample survey. But, in some facilities, vaccines expired has remained in a refrigerator. The order of usage of vaccine has not been prioritized properly. For the advice of vaccine management to each health facility has been conducted by CCA together with the delivery of vaccine and gas cylinder every month and also conducted at other opportunities appropriately. It is considered that put manuals in order and distribution, training to health workers at site shall be required to be done more effectively.

APPENDICES

- 1 Member List of the Study Team**
- 2 Study Schedule (Outline Design Study)**
- 3 Study Schedule (Explanation of the Draft)**
- 4 List of Parties Concerned in the Recipient Country**
- 5 Minutes of Discussions (Outline Design Study)**
- 6 Minutes of Discussions (Explanation of the Draft)**
- 7 Equipment Allocation List**
- 8 References**

Appendix 1 Member List of the Study Team

(1) Outline Design Study (25th July, 2009 ~ 24th August, 2009)

No.	Name	Position	Organization
1	Mr. Ikuo TAKIZAWA	Leader	Regional Project Formulation Advisor for Health, Regional Support Office for Africa, JICA
2	Mr. Ken KUBOKURA	Project Coordinator	Program Officer, Reproductive Division, Human Development Department, JICA
3	Mr. Akihiro OKAMOTO	Project Manager & Equipment Planner	INTEM Consulting, Inc.
4	Mr. Yasumichi DOI	Equipment Procurement & Cost Planner	INTEM Consulting, Inc.
5	Ms.L.C.GARCIA	EPI	Consultant

(2) Explanation of the Draft (10th January, 2010 ~ 16th January, 2010)

No.	Name	Position	Organization
1	Mr. Tetsuo SEKI	Leader	Chief Representative, JICA Uganda Office
2	Mr. Akihiro OKAMOTO	Project Manager & Equipment Planner	INTEM Consulting, Inc.

Appendix 2 Study Schedule (Outline Design Study)

No.	Date/ Month	Day	Leader	Project Coordinator	Project Manager/ Equipment Planner	Equipment Procurement & Cost Planner	EPI
			Mr.Ikuo TAKIZAWA	Mr.Ken KUBOKURA	Mr.Akihiro OKAMOTO	Mr.Yasumichi DOI	Ms.Luzviminda C. GARCIA
1	25-July	Sat			Flight (from Narita to Bangkok)		
2	26-July	Sun			Flight (from Bangkok via Dubai to Entebbe)		
3	27-July	Mon			AM Courtesy Call to MOH PM UNEPI (Explanation of Inception Report)	Flight (from Manila via Dubai to Entebbe)	
4	28-July	Tue			Meeting with UNEPI (Confirmation of requested equipment)		
5	29-July	Wed			Sample Survey (Nakaseke)		
6	30-July	Thu			Sample Survey (Nakaseke)		
7	31-July	Fri			Meeting with UNEPI (Confirmation of equipment)	Sample Survey (Luwero)	Meeting with UNEPI (Confirmation of equipment)
8	1-August	Sat			Internal Meeting		
9	2-August	Sun			Document Study		
10	3-August	Mon			Meeting with UNEPI (Confirmation of equipment)	Sample Survey (Lira)	Sample Survey (Mtyana)
11	4-August	Tue			Sample Survey (Mbarara)	Sample Survey (Lira)	Sample Survey (Mtyana)
12	5-August	Wed			Sample Survey (Isingiro)	Sample Survey (Lira)	Sample Survey (Mubende)
13	6-August	Thu			Sample Survey (Isingiro)	Sample Survey (Dokolo)	Sample Survey (Mubende)
14	7-August	Fri			Meeting with UNEPI (Confirmation of equipment)	Sample Survey (Dokolo/Amoratar)	Meeting with UNEPI (Confirmation of equipment)
15	8-August	Sat			Flight (from Haneda via Kansai to Dubai)	Internal Meeting	Sample Survey (Amoratar)
16	9-August	Sun	Flight (from Nairobi to Entebbe)	Flight (from Dubai to Entebbe), PM/meeting	AM Document Study PM Internal Meeting		
17	10-August	Mon	10:00 Meeting at JICA, 11:30 Meeting with Dr.Possy, 12:00 MOH PM Meeting with UNEPI		Sample Survey (Manafwa)	Same as PM	
18	11-August	Tue	Sample Survey (Mukono)		Sample Survey (Manafwa/Mbale)	Meeting with UNEPI (Confirmation of equipment)	
19	12-August	Wed	9:00 Workshop with Donors 14:30 Meeting with infrastructure div. of MOH		Sample Survey (Mbale)	Same as PM	
20	13-August	Thu	10:00 Drafting of M/D with UNEPI (Contents of equipment, etc.) 17:00-17:30 Drafting of M/D at JICA		Sample Survey (Namutumba/Iganga)	Meeting with UNEPI (O&M/delivery cost)	
21	14-August	Fri	AM Signing of M/D 16:00 Courtesy Call to EOJ, 17:00 Reporting to JICA		Sample Survey (Iganga) PM: Same as PM	Same as PM	
22	15-August	Sat	Flight (from Entebbe to Sri Lanka)	Flight (from Entebbe to Dubai)	Internal Meeting/Document Study		
23	16-August	Sun		Flight (from Dubai via Kansai to Haneda)	Internal Meeting/Document Study		
24	17-August	Mon		Meeting with UNEPI (Confirmation of equipment)	Survey of Procurement (Equipment/Transportation)	Meeting with UNEPI (Budget/Personnel)	
25	18-August	Tue		Meeting with UNEPI (Confirmation of equipment)	Survey of Procurement (Equipment/Transportation)	Meeting with UNEPI (Budget for O&M/delivery)	
26	19-August	Wed		AM: Meeting with UNEPI PM: Signing of Technical Notes	Survey of Procurement (Equipment/Transportation)	Meeting with UNEPI (Donor/Personnel)	
27	20-August	Thu		Meeting with UNEPI Reporting to JICA	Survey of Procurement Reporting to JICA	Meeting with UNEPI (Budget/Personnel)	
28	21-August	Fri		Survey of Procurement (Equipment/Transportation) Meeting with Dr.Possy			
29	22-August	Sat		Internal Meeting/Document Study Flight (from Entebbe to Dubai)			
30	23-August	Sun		Flight (from Dubai to Bangkok)		Flight (from Dubai to Manila)	
31	24-August	Mon		Flight (from Bangkok to Narita)			

Appendix 3 Study Schedule (Explanation of the Draft)

No.	Date/ Month	Day	JICA	Project Manager/Equipment Planner
				Akihiro OKAMOTO
1	10-January	Sun		Flight (from Hanada via Kansai to Dubai)
2	11-January	Mon		Flight (from Dubai to Entebbe) EK723 Arr.14:45
				Meeting with UNEPI
3	12-January	Tue		Meeting with JICA, Courtesy Call to MOH
				Meeting with UNEPI(Explanation of the Draft)
4	13-January	Wed		Meeting with UNEPI(Explanation of the Draft)
				Drafting of M/D
5	14-January	Thu		Reporting to JICA Tokyo 10:30-12:00
				Signing of M/D
6	15-January	Fri		Reporting to JICA Uganda, Supplementary Survey
				Flight (from Entebbe to Dubai) EK724 Dep 16:20
7	16-January	Sat		Flight (from Dubai via Kansai to Haneda)

Appendix 4 List of Parties Concerned in the Recipient Country

Organization	Position	Name
Ministry of Health	Permanent Secretary	Ms. Mary L. Nannono
	Director General of Health Services	Dr. Sam Zaramba
	Director Health Services	Dr. Kenya-Mugisha Nathan
	Commissioner Health Services	Dr. Francis Runumi Mwesigye
	Commissioner Health Services (National Disease Control)	Dr. D.K.W. Lwamafa
Uganda National Expanded Programme On Immunization (UNEPI)	Programme Manager	Dr. Possy Mugenyi
	Engineering Asst.	Mr. Elly Tumwine Rwezire
	Cold Chain Technician	Ms. Pamela H. Zaninka
	Cold Chain Technician	Mr. Lubwama Humphrey
	Cold Chain Technician	Mr. Kangave Michael
	Cold Chain Technician	Mr. Masiiko Gilbert
	Cold Chain Technician	Mr. Jurua Alex Pariyo
Health Infrastructure	Senior Engineer	Mr. Sitra Mulepo
Uganda Revenue Authority	Entebbe CBC Administrator	Mr. Charles Rumanyika
Nakaseke DHO	District Health Officer	Dr. Ssesimba Badru
	In charge of HMIS	Mr. Yawe Moses
	DVS	Mr. David Sseiliranda Kibirige
	Kiwoko Hospital	Mr. Ssekidde Moses
	Kikamulo HCIII	Mr. Vincent Okumu
	Nakaseke Hospital	Ms. Mubeegi Sarale
	Semuto HCIV	Mr. Milly Nansiri
	Kapeeka HCIII	Mr. Pande Gephrey
	Namusaale HCII	Mr. Tondo Samuel
Bulyake HCII	Ms. Tumuleaye Jaculay	
Luwero DHO	District Health Officer	Dr. B. Agabe
	DVS	Mr. Luwemba Godfrey
	Luwero HCIV	Mr. Wamahe Abraham
	Lugo HCIII	Mr. Namande Samalie
	Family Planning Unit	Mr. Nabul Iajvsdng
	Katikamu HCIII	Mr. Bagonla Samuel
	Kayindu HCII	Ms. Wamono Apollo
	Kalagala HCIV	Mr. Mbabaz Beagle
Lira DHO	Deputy District Health Officer	Dr. John Nelson
	DVS	Mr. Isaac Ogwal
	Amugo HCIII	Ms. Grace Awongi
	Amach HCIV	Ms. Lilly Epilla
	Anyangatir HCII	Ms. Susan Adoch
	Pag HVIV	Ms. Lilian Adero
	Lira Hospital	Ms. Anna Agnes Hok

Organization	Position	Name
Dokolo DHO	District Health Officer	Dr. Ojok Samuel
DVS	Cold Chain Assistant	Mr. Joseph Ebiru
Dokolo HCIV	In charge of HSD	Mr. Okello Moses
Anyacoto HCII	Midwife	Ms. Ojok Nelson
Kwera HCIII	Nursing Officer	Ms. Afiuis Jaowia
Kanigai HCIII	Nursing Officer	Ms. Akello Molly Freda
Amolatar DHO	District Health officer	Dr. Quinto Ohello
DVS	Cold Chain Assistant	Mr. Okello Willy Agel
Amolatar HCIV	Laboratory Technician	Mr. Acio Roserline
Apti HCIII	Nurse	Ms. Celly Alucu
Amai Community Hosp.	In charge of Administration	Mr. Oille Patqich
Awonangiro HCII	Nurse Assistant	Ms. Okwir Albert
Mityana DHO	District Health Officer	Dr. Joseph Muwanga
DVS	Cold Chain Assistant	Mr. Ssemulem Achiloco
Mityana Hospital	In charge of EPI	Mr. Jaweesa Gladys
Mwera HCIV	Midwife	Ms. Nabidandi Samali
Archbishop Mayirye HCIII	Nurse Assistant	Ms. Emma Inalusimdi
Tanda HCII	Midwife	Ms. Elizabeth Ngobi
Namutamba HCIII	Laboratory Technician	Mr. Violet Vansukusa
Bulera HCIII	Midwife	Ms. Namukwaya Anepher
Kyantungo HCIV	Laboratory technician	Mr. Samaneya Adona
Kalangaalo HCII	Nurse	Ms. Beatrice Naalya
Kyamusisi HCIII	Nurse	Ms. Beatrice Kasulta
Naluggi HCII	Nurse	Ms. S. Nona
Mubende DHO		
DVS	Cold Chain Assistant	Mr. Adolph Tamale
Mubende Hospital	Nurse Assistant	Ms. Angel Molly Nansamba
Kassanda HCIV	Nursing Officer	Ms. Robina Nantongo
Bukuya HCIII	Nurse	Ms. Betty Makayiki
Kyakidu HCII	Midwife	Ms. Eve Nabulya
Nabingoola HCIII	Nurse Assistant	Ms. Joselin Ategeka
Kabilinga HCII	Nurse Assistant	Ms. Zipola Kwagala
Kiganda HCIV	Nurse	Ms. Theodora Namasuke
Mbarara DHO	Senior Medical Officer	Dr. Ed Mabumba
DVS	Cold Chain Assistant	Mr. Santos Onwa
Mbarara DHO	Nursing Officer	Ms. Nalcalauzi Assumpta
Mbarara HCIV	Nurse Assistant	Ms. Nalubega Reheme
Rubindi HCIII	Laboratory Technician	Mr. Mugume Lorokamu
Rubindi HCII	In charge of Laboratory	Mr. Atwine Samuel

Organization	Position	Name
Isingiro DHO	District Health Officer	Dr. W. Nyehangane
DVS	Cold Chain Assistant	Mr. Monday Jusius
Rwekubo HCIV	Nursing Assistant	Ms. Mirembe Zeridah
Nakivale HCII	Nursing Officer	Ms. kato Hussein Hassan
Rugaaga HCIV	In charge of Adminisration	Mr. Mbiharugaba Thonas
Birinduma HCII	Nurse	Ms. G. Turyatemba
Juru HCII	Project Cordinator	Dr. Francis Engwau
Nyakitunda HCIII	Nurse	Ms. Lydia Kobusimgye
Kabuyanda HCIV	In charge of Health	Mr. Ssekizniyu Godfrey
Mukono DHO	Deputy District Health Officer	Dr. Anthony Rkoude
DVS	Cold Chain Assistant	Mr. Serulijoli Godfrey
Mukono HCIV	Nursing Officer	Ms. Anna Kazimoto
Lugazi Mission HCII	Nursing Officer	Ms. Elizabeth Bogere
Kawolo Hospital	Nursing Officer	Ms. Betty Nalumansi
Buwagajjo HCIII	Nurse	Ms. Justine Liammiomba
Najjembe HCIII	Laboratory Technician	Mr. Naikele Ohirer
Manafwa DHO		
DVS	Cold Chain Assistant	Mr. Wamutu Moses Blsiku
Bubulo HCIII	Nursing Officer	Ms. Susan Kihanza
Bukhabusi HCIII	Laboratory Technician	Mr. GiboGi Michael
Buwambala HCIII	Laboratory Technician	Mr. Mc J. Walinbwa
Buwasunguyi HCII	Nurse Assistant	Ms. Doreen Nabwire
Bugobero HCIV	Laboratory Technician	Mr. Richard Kabuga
Mbale DHO	District Health Officer	Dr. Hanas Agwaimo
DVS	Cold Chain Assistant	Mr. Moses Mwasa
Bumadanda HCII	Nurse	Ms. Mushebu Godfrey
Bufumbo HCIV	Nursing Officer	Ms. Agnes Asanyo
Nakalole HCIII	Nursing Officer	Ms. Irene Rose Kituyi
Mbale Region Hospital	Nursing Officer	Ms. Ekido Chessiah
Namutumba DHO		
DVS	Cold Chain Assistant	Mr. Tom Kamizariw
Nsinze HCIV	Laboratory Technician	Mr. James Nweamugwe
Ivukula HCIII	Midwife	Ms. Maria Nakato
Namutumba HCIII	Midwife	Ms. Gdia Hatemere
Kiranga HCII	Nurse Assistant	Ms. Nanunuba Harrhi
Iganga DHO	District Health Officer	Dr. Dg Muwanonzi
DVS	Cold Chain Assistant	Mr. Byekwaso Pamice
Nakalama HCIII	Nurse	Ms. Nambassi Esther
Busesa HCIV	Nursing Officer	Ms. Nangobi Phoebe

Organization	Position	Name
Iganga Islamic HCII Iganga Hospital	In charge of Health Nursing Officer	Ms. Rose Kabukaire Ms. Beatrice Okotel
UNICEF	Chief, Health & Nutrition	Ms. Claudia Hudspeth
WHO	Uganda Office	Dr. Frena Braka
USAID	Uganda Office	Dr. Janex Kabarangira
Embassy of Japan	Counsellor, Deputy Head of Mission Third Secretary	Mr. Masaki Shiga Ms. Eri Ogawa
JICA Uganda Office	Chief Representative Representative	Mr. Tetsuo Seki Mr. Shintaro Takano

MINUTES OF DISCUSSIONS
ON PREPARATORY SURVEY (BASIC DESIGN)
ON THE PROJECT FOR REHABILITATION OF COLD CHAIN FOR
UGANDA NATIONAL EXPANDED PROGRAMME ON IMMUNIZATION
IN REPUBLIC OF UGANDA

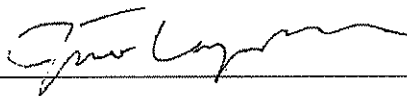
In response to the official request from the Government of Uganda, the Government of Japan decided to conduct a Preparatory Survey (Basic Design) on the Project for Rehabilitation of Cold Chain for Uganda National Expanded Programme on Immunization (hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency (hereinafter referred to as "JICA").

JICA sent to the Republic of Uganda the Preparatory Survey Team (hereinafter referred to as "the Team"), which is headed by Mr Ikuo Takizawa, Project Formulation Advisor for Health, JICA Regional Support Office for Africa, and is scheduled to stay in the country from 26th July to 22nd August, 2009.

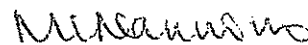
The Team held discussions with the officials concerned of the Government of Uganda and conducted a field survey at the survey area.

In the course of discussions and field survey, both parties confirmed the items described on the attached sheets. The Team will proceed to further works and prepare the Preparatory Survey Report.

Kampala, August 14, 2009



Mr. Ikuo Takizawa
Leader
Preparatory Survey Team
Japan International Cooperation Agency



Ms. Mary L. Nannono
Permanent Secretary
Ministry of Health
Republic of Uganda

ATTACHMENT

1. Objective of the Project

The objective of the Project is to improve immunization rates (polio, measles, BCG, DPT and others) by procuring cold chain equipment for health facilities in Uganda.

2. Project site

Nationwide in the Republic of Uganda

3. Responsible and Implementing Agency

The Responsible and Implementing Agency is the Ministry of Health.

4. Items requested by the Government of Uganda

After discussions with the Team, the procurement of the Equipment as listed in Annex 1 was finally requested by the Uganda side. JICA will assess the appropriateness of the request and will recommend to the Government of Japan for approval.

5. Japan's Grant Aid Scheme

Uganda side understands the Japan's Grant Aid Scheme and the necessary measures to be taken by the Government of Uganda as explained by the Team and described in Annex 2 and Annex 3.

6. Schedule of the Study

6-1. The consultants will proceed to further studies in the Republic of Uganda until 22nd August.

6-2. JICA will prepare the draft report and dispatch another mission in order to explain its contents in December, 2009.

6-3. In case the contents of the report is accepted in principle by the Government of Uganda, JICA will complete the final report and send it to the Government of Uganda around January, 2010.

7. Other relevant issues

7-1. Uganda side agreed to allocate budget (operational and maintenance costs) and manpower (health service providers, cold chain technicians and any other personnel) necessary for the proper distribution, installation, utilization and maintenance of the equipments provided under the Project, including the re-supply of bottled gas and replacement of solar battery.

7-2. While the Government of Uganda is basically responsible for distribution of items procured under the Project from the National Store to the project sites, the Government of Uganda requested that refrigerators with solar power system should be installed with guidance from the Japanese side. Regarding the installation of solar powered refrigerators, JICA will review the possibility of reassessing the available budget and how many days are necessary to complete the installation.



MIN

7-3. Regarding the provision of gas-type refrigerators, the Government of Uganda requested that JICA shall procure such refrigerators that are long-lasting, easy to maintain and with less energy consumption.

7-4. The Government of Uganda requested JICA to deliver the items procured under the Project before April 2011 since Uganda's fiscal year starts from July and ends in June.

7-5. The Government of Uganda shall take necessary measures to exempt Japanese nationals who will be engaged in the Project from all duties and related fiscal charges, which may be imposed in Uganda with respect to the import and local procurement of equipment and services.

ANNEX 1. List of Requested Equipment

ANNEX 2. Japan's Grant Aid Scheme

ANNEX 3. Major Undertakings to be taken by Each Government

27

2011

List of Requested Equipment

ANNEX 1

1. Cold Chain Equipment

	Type	Q'ty			
		New	Replacement	Capacity adjustment	Total
1	Icelined fridge/Icepack freezer- Electric Storage capacity range /approx.20 to 100 liters	129	130	40	299
2	Chest fridge/Icepack freezer- Gas/Electric Storage capacity range /approx.10 liters	250	433		683
3	Upright fridge/freezer- Gas/Electric Storage capacity range /approx.15 to 60 liters		90	7	97
4	Chest freezer-Electric Storage capacity range /approx.250 liters		97		97
5	Chest fridge/Icepack freezer- Solar system Storage capacity range /approx.15 liters	153	149	2	304
		532	899	49	1480

2. Logistic Equipment

	Type	Q'ty
1	Vaccine delivery truck Box body type	1
2	Gas delivery truck Open body type	1
3	Field vehicles for cold chain equipment maintenance Pickup, single cabin	2

2

MUN

Japan's Grant Aid Scheme

The Government of Japan (hereinafter referred to as “the GOJ”) is implementing the organizational reforms to improve the quality of ODA operations, and as part of this realignment, JICA was reborn on October 1, 2008. After the reborn of JICA, following the decision of the Government of Japan (hereinafter referred to as “the GOJ”), Grant Aid for General Project is extended by JICA.

Grant Aid is non-reimbursable fund to a recipient country to procure the facilities, equipment and services (engineering services and transportation of the products, etc.) for economic and social development of the country under principles in accordance with the relevant laws and regulations of Japan. The Grant Aid is not supplied through the donation of materials as such.

1. Grant Aid Procedures

Japanese Grant Aid is conducted as follows-

- Preparatory Survey (hereinafter referred to as “the Survey”)
 - the Survey conducted by JICA
- Appraisal & Approval
 - Appraisal by The GOJ and JICA, and Approval by the Japanese Cabinet
- Determination of Implementation
 - The Notes exchanged between the GOJ and a recipient country
- Grant Agreement (hereinafter referred to as “the G/A”)
 - Agreement concluded between JICA and a recipient country
- Implementation
 - Implementation of the Project on the basis of the G/A

2. Preparatory Survey

(1) Contents of the Survey

The aim of the Survey is to provide a basic document necessary for the appraisal of the Project by JICA and the GOJ. The contents of the Survey are as follows:

- Confirmation of the background, objectives, and benefits of the Project and also institutional capacity of agencies concerned of the recipient country necessary for the implementation of the Project.

- Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, financial, social and economic point of view.
- Confirmation of items agreed on by both parties concerning the basic concept of the Project.
- Preparation of a basic design of the Project.
- Estimation of costs of the Project.

The contents of the original request by the recipient country are not necessarily approved in their initial form as the contents of the Grant Aid project. The Basic Design of the Project is confirmed considering the guidelines of the Japan's Grant Aid scheme.

JICA requests the Government of the recipient country to take whatever measures are necessary to ensure its self-reliance in the implementation of the Project. Such measures must be guaranteed even though they may fall outside of the jurisdiction of the organization in the recipient country actually implementing the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country through the Minutes of Discussions.

(2) Selection of Consultants

For smooth implementation of the Survey, JICA uses (a) registered consulting firm(s). JICA selects (a) firm(s) based on proposals submitted by interested firms.

(3) Result of the Survey

The Report on the Survey is reviewed by JICA, and after the appropriateness of the Project is confirmed, JICA recommends the GOJ to appraise the implementation of the Project.

3. Japan's Grant Aid Scheme

(1) The E/N and the G/A

After the Project is approved by the Cabinet of Japan, the E/N will be signed between the GOJ and the Government of the recipient country to make a pledge for assistance, which is followed by the conclusion of the G/A between JICA and the Government of the recipient country to define the necessary articles to implement the Project, such as payment conditions, responsibilities of the Government of the recipient country, and procurement conditions.

(2) Selection of Consultants

MEM

Q

The consultant firm(s) used for the Survey Will be recommended by JICA to the recipient country to also work on the Project's implementation after the E/N and the G/A, in order to maintain technical consistency.

(3) Eligible source country

Under the Japanese Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased. When JICA and the Government of the recipient country or its designated authority deem it necessary, the Grant Aid may be used for the purchase of the products or services of a third country. However, the prime contractors, namely, constructing and procurement firms, and the prime consulting firm are limited to "Japanese nationals". (The term "Japanese nationals" means persons of Japanese nationality or Japanese corporations controlled by persons of Japanese nationality.)

(4) Necessity of "Verification"

The Government of recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by JICA. This "Verification" is deemed necessary to secure accountability to Japanese taxpayers.

(5) Major undertakings to be taken by the Government of the Recipient Country

In the implementation of the Grant Aid Project, the recipient country is required to undertake such necessary measures as Annex.

(6) "Proper Use"

The Government of recipient country is required to maintain and use the facilities constructed and the equipment purchased under the Grant Aid properly and effectively and to assign staff necessary for this operation and maintenance as well as to bear all the expenses other than those covered by the Grant Aid.

(7) "Export and Re-export"

The products purchased under the Grant Aid should not be exported or re-exported from the recipient country.

(8) Banking Arrangements (B/A)

- a) The Government of the recipient country or its designated authority should open an account in the name of the Government of the recipient country in a bank in Japan (hereinafter referred to as "the Bank"). JICA will execute the Grant Aid by making

payments in Japanese yen to cover the obligations incurred by the Government of the recipient country or its designated authority under the Verified Contracts.

- b) The payments will be made when payment requests are presented by the Bank to JICA under an Authorization to Pay (A/P) issued by the Government of the recipient country or its designated authority.

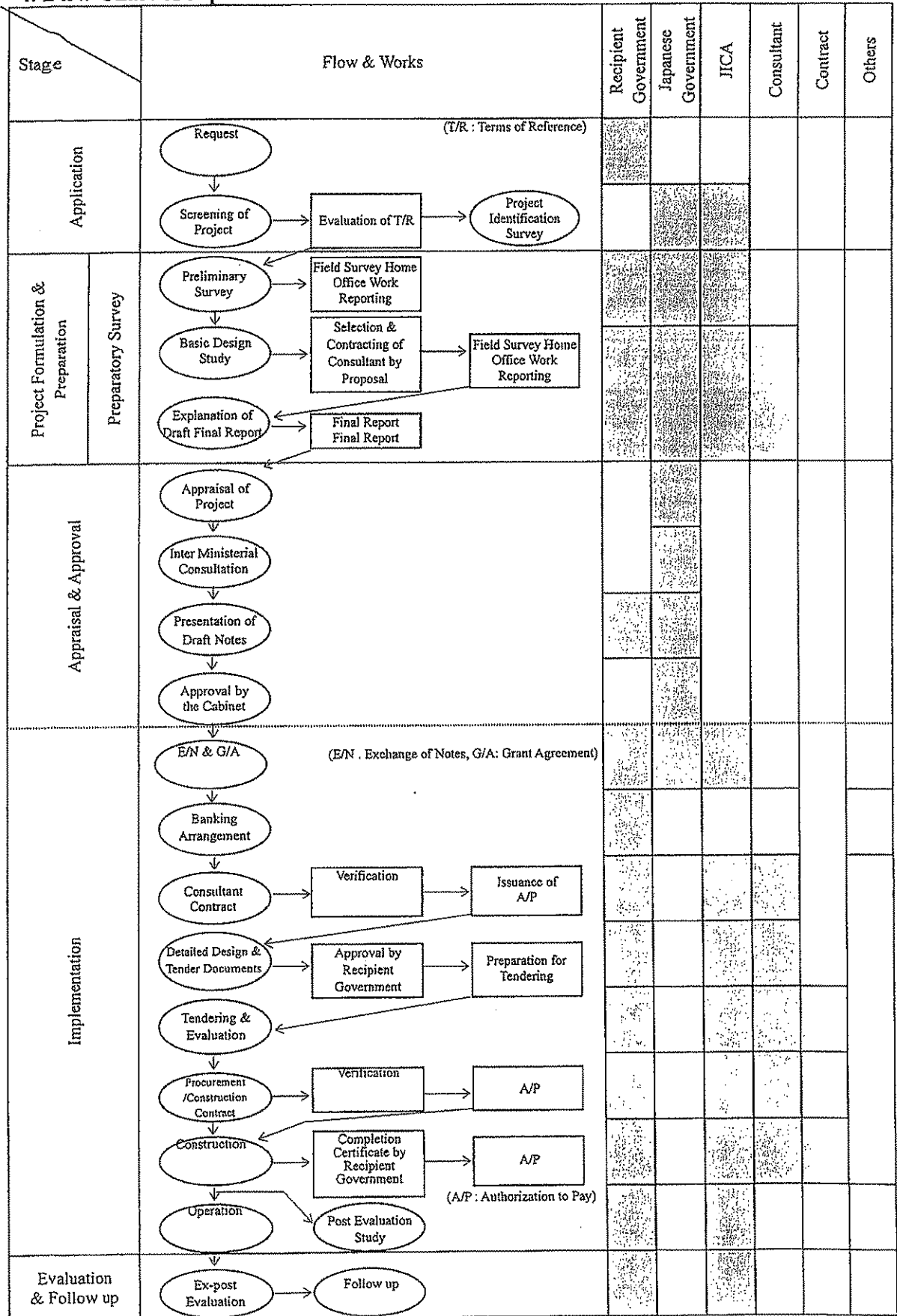
(9) Authorization to Pay (A/P)

The Government of the recipient country should bear an advising commission of an Authorization to Pay and payment commissions to the Bank.

(10) Social and Environmental Considerations

A recipient country must ensure the social and environmental considerations for the Project and must follow the environmental regulation of the recipient.

4. Flow Chart of Japan's Grant Aid Procedures



2

ALCA

Major Undertakings to be taken by Each Government (Equipment)

NO	Items	To be covered by the Grant	To be covered by Recipient side
1	To bear the following commissions to a bank of Japan for the banking services based upon the B/A		
	1) Advising commission of A/P		•
	2) Payment commission		•
2	To ensure prompt unloading and customs clearance at the port of disembarkation in recipient country		
	1) Marine(Air) transportation of the products from Japan to the recipient country	•	
	2) Tax exemption and customs clearance of the products at the port of disembarkation		•
	3) Internal transportation from the port of disembarkation to the project site	•	
3	To accord Japanese nationals whose services may be required in connection with the supply of the products and the services under the verified contract such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work		•
4	To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contract		•
5	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant Aid		•
6	To bear all the expenses, other than those to be borne by the Grant Aid, necessary for the transportation and installation of the equipment		•

(B/A: Banking Arrangement, A/P: Authorization to pay, N/A: Not Applicable)

E

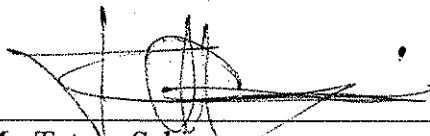
MINUTES OF DISCUSSIONS
ON PREPARATORY SURVEY ON THE PROJECT FOR REHABILITATION
OF COLD CHAIN FOR UGANDA NATIONAL EXPANDED PROGRAMME
ON IMMUNIZATION IN REPUBLIC OF UGANDA
(EXPLANATION OF THE DRAFT REPORT)

In August 2009, Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the Preparatory Survey Team for the Basic Design Study on the Project for Rehabilitation of Cold Chain for Uganda National Expanded Programme on Immunization (hereinafter referred to as "the Project") to the Republic of Uganda (hereinafter referred to as "Uganda"). Based upon the results of the field survey and technical examination in Japan, JICA prepared the Draft Report of the Preparatory Survey.

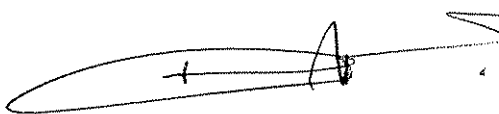
In order to explain and to consult the Government of Uganda on the components of the Draft Report, JICA sent to Uganda the Preparatory Survey Team for the Draft Report Explanation (hereinafter referred to as "the Team"), which is headed by Mr. Tetsuo Seki, Chief Representative of JICA Uganda Office, from January 11th to 15th, 2010.

As a result of discussions, both parties confirmed the main items described on the attached sheets.

Kampala, January 14th, 2010



Mr. Tetsuo Seki
Leader of Preparatory Survey Team /
Chief Representative of JICA Uganda Office
Japan



Dr. Francis Runumi
Acting Director General of Health Services
Ministry of Health
Republic of Uganda

ATTACHMENT

1 Components of the Draft Final Report

The Government of Uganda agreed and accepted in principle the components of the draft final report explained by the Team.

2 Japan's Grant Aid scheme

Uganda side understands the Japan's Grant Aid scheme and the necessary measures to be taken by the Government of Uganda as explained by the Team and described in Annex-5 and Annex-6.

3 Schedule of the Study

JICA will complete the final report in accordance with the confirmed items and send it to the Government of Uganda by the end of March, 2010.

4. Confidentiality of the Project

Both sides confirmed that all information related to the Project including detailed specifications of the equipment and other technical information shall not be released to any outside party before the signing of all the Contract(s) for the Project.

5. Other Relevant Issues

5-1. Confidentiality of the Project Cost Estimation

The Team explained the cost estimation of the Project as described in Annex-1. Uganda side understood that the Project Cost Estimation attached as Annex-1 is not final and is subject to change.

5-2. Final Destination of the Items Procured by Japan's Grant Aid

Both sides confirmed that the final destination of planned items as follows.

- (1) Gas/Electric fridges/freezers; National Cold Store of the Uganda National Expanded Programme on Immunization (hereinafter referred to as "UNEPI")
- (2) Solar fridges/freezers; Health facilities targeted by the Project
- (3) Vaccine delivery truck and gas delivery truck; National Cold Store of UNEPI
- (4) Regarding (1) Gas/Electric fridges/freezers, the Uganda side shall deliver those fridges/freezers to health facilities targeted by the Project.

5-3. Technical Specifications of the Equipments

The Team explained the specification of the planned equipment, and both sides agreed about it.

5-4. The Owner of Items after the Delivery

Both sides confirmed that the owner of items after the delivery to the final destination is UNEPI for all items. Regarding the solar fridges procured by the Project, the Uganda side agreed to take necessary measures to replace the batteries whose lives are over.

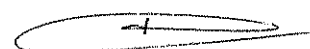
5-5. Maintenance Cost

Uganda side agreed to allocate the budget for maintenance cost as shown in Annex-2.

5-6. Evaluation and Monitoring of the Project

Uganda side agreed to submit the confirmation letter to Embassy of Japan and JICA Uganda Office without any delay, once the items procured by Japan's Grant Aid arrived at the National Cold Store of UNEPI. In addition, the Uganda side agreed to report Embassy of Japan and JICA Uganda Office the progress on the distribution of the items from the National Cold Store of UNEPI to health facilities targeted by the Project every three (3) month until when the all items are distributed and installed at such health facilities within six (6) months after the arrival of such items procured by the Japan's Grant Aid.

- Annex-1 Project Cost Estimation
- Annex-2 Operation and Maintenance Cost to be borne by the Uganda Side
- Annex-3 Tentative Schedule of the Project
- Annex-4 List of Planned Equipment
- Annex-5 Japan's Grant Aid Scheme
- Annex-6 Major Undertakings to be taken by Each Government (Equipment)



Operation and Maintenance Cost to be borne by the Uganda side

(1) Custom Clearance and Inland Transportation (National Cold Store of UNEPI to each health facility)

Custom Clearance	0.7 million yen	US\$7,654
Inland Transportation	1.4 million yen	US\$15,309

(2) Banking commissions

(3) Maintenance

Items	Total (US\$)
Additional gas supply	US\$49,193
Additional electricity supply	US\$19,013
TOTAL	US\$68,206

(4) Calculation Conditions

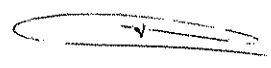
1) Current as of January, 2010

2) Exchange rate 1 US\$=91.45yen 1 Euro=131.62 yen

Tentative Schedule of the Project

The sequence of works, shown in the table below, will be followed by the Project after the Exchange of Notes between the Government of Japan and the Government of Uganda.

Number of Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Actual Year	2010												2011				
Actual Month	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8
● Japan																	
E/N	•																
G/A	•																
Consultant Agreement		•															
Detail Design		■	■														
Tender related work				■	■	■											
Supply Contract					•												
Equipment Ordering, Manufacturing						■	■	■	■								
Transportation										■	■						
Unpacking and Inspection of the Equipment at Entebbe												■	■				
Internal Transportation (Solar Fridges/Freezers)													■	■	■		
Inspection and Handing over of the Equipment															■	■	
● Uganda																	
Internal Transportation (All Equipment except Solar Fridges/Freezers)																	

List of Planned Equipment

Annex-4

No.	Description	Q'ty
1-1	Electric refrigerator/Icepack freezer (small size) Storage capacity of vaccine : 20 liters or more Storage capacity of ice pack : 8 packs or more with AVR and Spare parts	242
1-2	Electric refrigerator (large size) Storage capacity of vaccine : 100 liters or more with AVR and Spare parts	29
1-3	Electric refrigerator/Ice pack freezer (medium size) Storage capacity of refrigerator : 75 liters or more Storage capacity of freezer : 40 liters or more with AVR and Spare parts	21
2-1	Gas/electric refrigerator/Icepack freezer (small size) Storage capacity of vaccine : 10 liters or more Storage capacity of ice pack : 4 packs or more with Spare parts	694
2-2	Gas cylinder Capacity : 15kg, with a regulator and a hose	500
3	Gas/electric refrigerator/Icepack freezer (medium size) Storage capacity of refrigerator : 50 liters or more Storage capacity of freezer : 45 liters or more with Spare parts	72
4	Electric freezer (large size) Storage capacity of freezer : 250 liters or more with AVR and Spare parts	77
5-1	Solar refrigerator/Icepack freezer (small size) Storage capacity of vaccine : 14 liters or more Storage capacity of ice pack : 4 packs or more with Spare parts	287
5-2	Solar system for solar refrigerator/Icepack freezer (small size) Solar panel : 95Wp x 3 or equivalent, Panel structure : Pole-mount, Battery : For solar battery 12V/300Ah, Battery charge regulator : For solar 12V/30A, with cable and installation materials	287
6	Refrigerated truck for delivery of vaccine 4x2, with aluminum container box, Loading capacity : 10,000kgs or equivalent, Engine type : Diesel 6 cylinders, Transmission : Manusl, Steering : Right-hand-side	1
7	Open cage truck for delivery of gas cylinders 4x2, with steel cage bed type, Loading capacity : 10,000kgs or equivalent, Engine type : Diesel 7 cylinders, Transmission : Manusl, Steering : Right-hand-side	1

Japan's Grant Aid Scheme

The Government of Japan (hereinafter referred to as “the GOJ”) is implementing the organizational reforms to improve the quality of ODA operations, and as part of this realignment, JICA was reborn on October 1, 2008. After the reborn of JICA, following the decision of the Government of Japan (hereinafter referred to as “the GOJ”), Grant Aid for General Project is extended by JICA.

Grant Aid is non-reimbursable fund to a recipient country to procure the facilities, equipment and services (engineering services and transportation of the products, etc.) for economic and social development of the country under principles in accordance with the relevant laws and regulations of Japan. The Grant Aid is not supplied through the donation of materials as such.

1. Grant Aid Procedures

Japanese Grant Aid is conducted as follows-

- Preparatory Survey (hereinafter referred to as “the Survey”)
 - the Survey conducted by JICA
- Appraisal & Approval
 - Appraisal by The GOJ and JICA, and Approval by the Japanese Cabinet
- Determination of Implementation
 - The Notes exchanged between the GOJ and a recipient country
- Grant Agreement (hereinafter referred to as “the G/A”)
 - Agreement concluded between JICA and a recipient country
- Implementation
 - Implementation of the Project on the basis of the G/A

2. Preparatory Survey

(1) Contents of the Survey

The aim of the Survey is to provide a basic document necessary for the appraisal of the Project by JICA and the GOJ. The contents of the Survey are as follows:

- Confirmation of the background, objectives, and benefits of the Project and also institutional capacity of agencies concerned of the recipient country necessary for the implementation of the Project.

- Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, financial, social and economic point of view.
- Confirmation of items agreed on by both parties concerning the basic concept of the Project.
- Preparation of a basic design of the Project.
- Estimation of costs of the Project.

The contents of the original request by the recipient country are not necessarily approved in their initial form as the contents of the Grant Aid project. The Basic Design of the Project is confirmed considering the guidelines of the Japan's Grant Aid scheme.

JICA requests the Government of the recipient country to take whatever measures are necessary to ensure its self-reliance in the implementation of the Project. Such measures must be guaranteed even though they may fall outside of the jurisdiction of the organization in the recipient country actually implementing the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country through the Minutes of Discussions.

(2) Selection of Consultants

For smooth implementation of the Survey, JICA uses (a) registered consulting firm(s). JICA selects (a) firm(s) based on proposals submitted by interested firms.

(3) Result of the Survey

The Report on the Survey is reviewed by JICA, and after the appropriateness of the Project is confirmed, JICA recommends the GOJ to appraise the implementation of the Project.

3. Japan's Grant Aid Scheme

(1) The E/N and the G/A

After the Project is approved by the Cabinet of Japan, the E/N will be signed between the GOJ and the Government of the recipient country to make a pledge for assistance, which is followed by the conclusion of the G/A between JICA and the Government of the recipient country to define the necessary articles to implement the Project, such as payment conditions, responsibilities of the Government of the recipient country, and procurement conditions.

(2) Selection of Consultants




The consultant firm(s) used for the Survey Will be recommended by JICA to the recipient country to also work on the Project's implementation after the E/N and the G/A, in order to maintain technical consistency.

(3) Eligible source country

Under the Japanese Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased. When JICA and the Government of the recipient country or its designated authority deem it necessary, the Grant Aid may be used for the purchase of the products or services of a third country. However, the prime contractors, namely, constructing and procurement firms, and the prime consulting firm are limited to "Japanese nationals". (The term "Japanese nationals" means persons of Japanese nationality or Japanese corporations controlled by persons of Japanese nationality.)

(4) Necessity of "Verification"

The Government of recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by JICA. This "Verification" is deemed necessary to secure accountability to Japanese taxpayers.

(5) Major undertakings to be taken by the Government of the Recipient Country

In the implementation of the Grant Aid Project, the recipient country is required to undertake such necessary measures as Annex.

(6) "Proper Use"

The Government of recipient country is required to maintain and use the facilities constructed and the equipment purchased under the Grant Aid properly and effectively and to assign staff necessary for this operation and maintenance as well as to bear all the expenses other than those covered by the Grant Aid.

(7) "Export and Re-export"

The products purchased under the Grant Aid should not be exported or re-exported from the recipient country.

(8) Banking Arrangements (B/A)

- a) The Government of the recipient country or its designated authority should open an account in the name of the Government of the recipient country in a bank in Japan (hereinafter referred to as "the Bank"). JICA will execute the Grant Aid by making



payments in Japanese yen to cover the obligations incurred by the Government of the recipient country or its designated authority under the Verified Contracts.

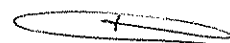
- b) The payments will be made when payment requests are presented by the Bank to JICA under an Authorization to Pay (A/P) issued by the Government of the recipient country or its designated authority.

(9) Authorization to Pay (A/P)

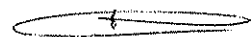
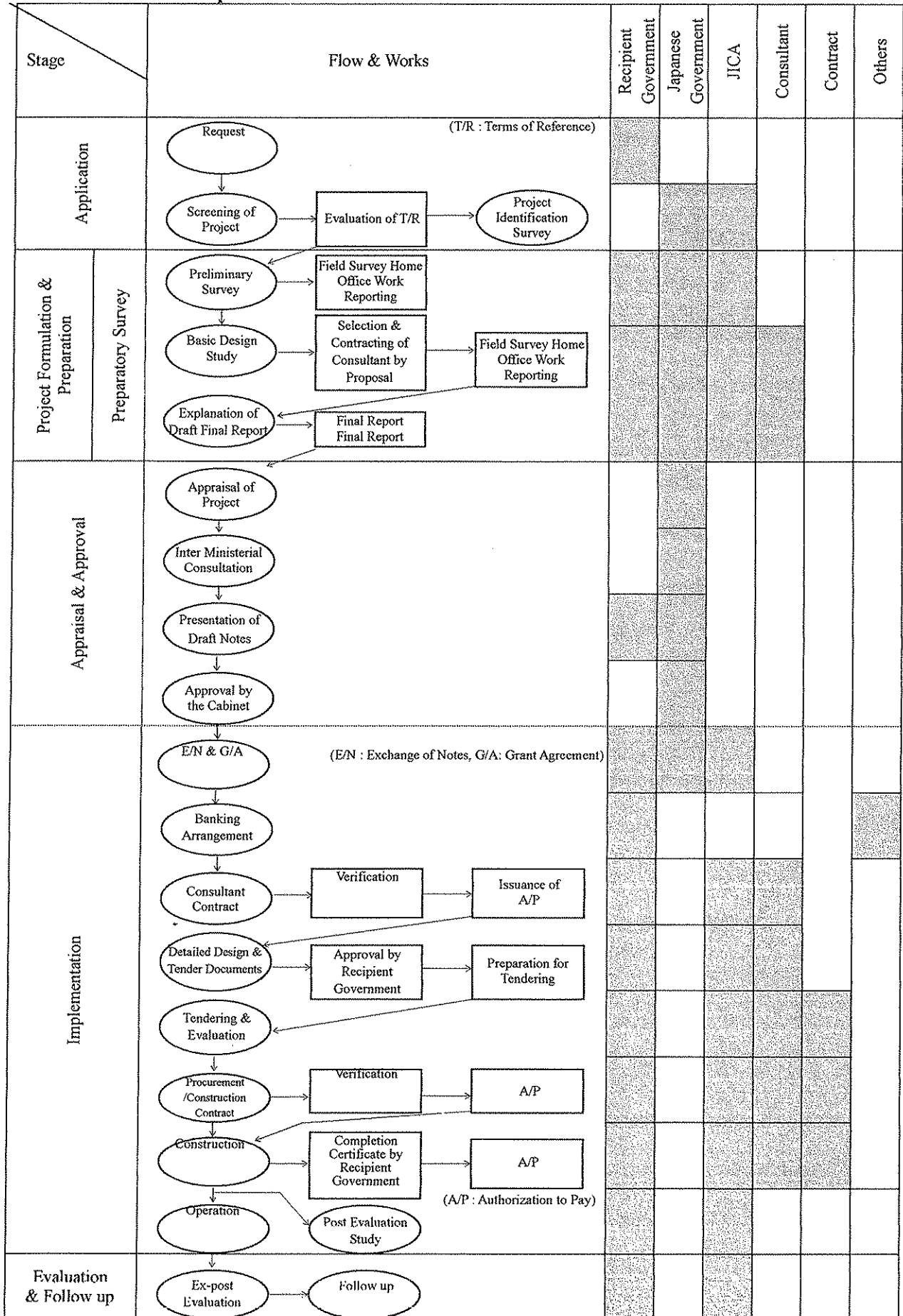
The Government of the recipient country should bear an advising commission of an Authorization to Pay and payment commissions to the Bank.

(10) Social and Environmental Considerations

A recipient country must ensure the social and environmental considerations for the Project and must follow the environmental regulation of the recipient.



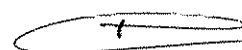
4. Flow Chart of Japan's Grant Aid Procedures



Major Undertakings to be taken by Each Government (Equipment)

NO	Items	To be covered by the Grant	To be covered by Recipient side
1	To bear the following commissions to a bank of Japan for the banking services based upon the B/A		
	1) Advising commission of A/P		•
	2) Payment commission		•
2	To ensure prompt unloading and customs clearance at the port of disembarkation in recipient country		
	1) Marine(Air) transportation of the products from Japan to the recipient country	•	
	2) Tax exemption and customs clearance of the products at the port of disembarkation		•
	3) Internal transportation from the port of disembarkation to the project site	•	
3	To accord Japanese nationals whose services may be required in connection with the supply of the products and the services under the verified contract such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work		•
4	To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contract		•
5	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant Aid		•
6	To bear all the expenses, other than those to be borne by the Grant Aid, necessary for the transportation and installation of the equipment		•

(B/A: Banking Arrangement, A/P: Authorization to pay, N/A: Not Applicable)

ALLOCATION LIST

District	Sub-District	Sub-County	Facility Name	Facility Level	New			Replacement						Capacity Adjustment					Qty							
					MK074	RCW42EGCF	RCW42DC	MK074	RCW42EGCF	RCW42GCF	TCW2000	V170GE	V170GE	MF314	RCW42DC	MK074	TCW2000	V170GE		V170GE	RCW42DC					
ABIM	LABWOR	ABIM	ABIM	Public Hospital							1														1	
ABIM	LABWOR	ABIM	ABIM	Public Hospital																		1				1
ABIM	LABWOR	ABIM	KANU	Public HCH																			1			1
ABIM	LABWOR	ABIM	ADEA	Public HCH																						1
ABIM	LABWOR	ALEREK	KOYA	Public HCH																						1
ABIM	LABWOR	ALEREK	WILELA	Public HCH																						1
ABIM	LABWOR	ALEREK	KIRU	Public HCH																						1
ABIM	LABWOR	LOTUKEI	ORWAMUGE	Public HCH																						1
ABIM	LABWOR	LOTUKEI	ORWAMUGE	Public HCH																						1
ADJUMANI	EAST MOYO	ADJUMANI T.C	DYS	District Store																						1
ADJUMANI	EAST MOYO	ADJUMANI T.C	DYS	District Store																						1
ADJUMANI	EAST MOYO	ADJUMANI T.C	ADJUMANI	Public Hospital																						1
ADJUMANI	EAST MOYO	ADROPI	ALERE	Private HCH																						1
ADJUMANI	EAST MOYO	ADROPI	UDERU	Public HCH																						1
ADJUMANI	EAST MOYO	ADROPI	ARRA	Public HCH																						1
ADJUMANI	EAST MOYO	CIFORO	MAGRURU	NGO HCH																						1
ADJUMANI	EAST MOYO	CIFORO	MAI B	NGO HCH																						1
ADJUMANI	EAST MOYO	CIFORO	DUBALO	NGO HCH																						1
ADJUMANI	EAST MOYO	CIFORO	UMIA	NGO HCH																						1
ADJUMANI	EAST MOYO	CIFORO	MAI A	NGO HCH																						1
ADJUMANI	EAST MOYO	CIFORO	ESIA	NGO HCH																						1
ADJUMANI	EAST MOYO	CIFORO	OPEJO II	Public HCH																						1
ADJUMANI	EAST MOYO	DZAIPI	ELEMA	NGO HCH																						1
ADJUMANI	EAST MOYO	DZAIPI	AJUGOPI	Public HCH																						1
ADJUMANI	EAST MOYO	DZAIPI	NYUMAZI	NGO HCH																						1
ADJUMANI	EAST MOYO	OFUA	ALIWARA	NGO HCH																						1
ADJUMANI	EAST MOYO	OFUA	KUREKU	Public HCH																						1
ADJUMANI	EAST MOYO	PAKELLE	BIRRA	NGO HCH																						1
ADJUMANI	EAST MOYO	PAKELLE	PAKELLE	Public HCH																						1
ADJUMANI	EAST MOYO	PAKELLE	LEWA	Public HCH																						1
ADJUMANI	EAST MOYO	PAKELLE	OLIA	Public HCH																						1
AMOLATAR	KIOGA	APUTI	JAMA COMMUNITY HOSPITAL	NGO Hospital																						2
AMOLATAR	KIOGA	APUTI	AMOLATAR HC 4	Public HCH																						1
AMURIA	AMURIA	ABARILELA	ABARILELA	Public HCH																						1
AMURIA	AMURIA	KUJU	AMURIA DVS	District Store																						1
AMURIA	AMURIA	KUJU	AMURIA DVS	District Store																						1
AMURIA	AMURIA	KUJU	AMURIA DVS	District Store																						1
AMURIA	AMURIA	KUJU	AMURIA	Sub-district Store																						2
AMURIA	AMURIA	KUJU	AMUSUS	NGO HCH																						1

28 P

ALLOCATION LIST

District	Sub-District	Sub-County	Facility Name	Facility Level	New		Replacement						Capacity Adjustment				Qty		
					RCW42EGCF	RCW42DC	MK074	MK304	RCW42EGCF	TCW2080	VI10GE	VI70GE	MFS14	RCW42DC	MK074	MK304		TCW2080	VI10GE
AMURIA	AMURIA	KUJU	WILLA	NGO HCH		1													1
AMURIA	AMURIA	MORUNGATUNY	MORUNGATUNY	Public HCH						1									1
AMURIA	AMURIA	MORUNGATUNY	ABEKO	NGO HCH															1
AMURIA	AMURIA	ORUNGO	CALVARY	NGO HCH															1
AMURIA	KAPEBYONG	KAPEBYONG	KAPEBYONG	Public HCH											1				1
AMURU	KILAK	AMURU	LABONGGALI H/C	Public HCH															1
AMURU	KILAK	AMURU	AMURU	District Store													1		1
AMURU	KILAK	PABBO	PAWEL H/C	Public HCH															1
AMURU	KILAK	PABBO	JENGARI H/C	Public HCH															1
AMURU	NWOYA	ANAKA	ANAKA HOSPITAL	Public Hospital															1
AMURU	NWOYA	ANAKA	TODORA H/C	Public HCH															1
APAC	KOLE	ABOKE	ABOKE HC IV	Public HCH															1
APAC	KOLE	ABOKE	ABONGODERO	NGO HCH															1
APAC	KOLE	ABOKE	OPETA	Public HCH															1
APAC	KOLE	AKALO	AKALO HCIII	Public HCH															1
APAC	KOLE	ALITO	ALITO	Public HCH															1
APAC	KOLE	ALITO	ALITO	Public HCH															1
APAC	KOLE	AYER	AYER	Public HCH															1
APAC	KOLE	AYER	CKELE HCH	Public HCH															1
APAC	KOLE	BALA	BALA HCH	Public HCH															1
APAC	KWANIA	ABONGOMOLA	ABEDOBER HCH	NGO HCH															1
APAC	KWANIA	ADUKU	ADUKU HCH	NGO HCH															1
APAC	KWANIA	CHAWENTE	CHAWENTE	Public HCH															1
APAC	KWANIA	INOMO	INOMO HCIII	Public HCH															1
APAC	KWANIA	NAMBIESO	NAMBIESO HCIII	Public HCH															1
APAC	MARUZI	AKOKORO	AYAGO	Public HCH															1
APAC	MARUZI	AKOKORO	APOL	Public HCH															1
APAC	MARUZI	AKOKORO	KUNGU	Public HCH															1
APAC	MARUZI	APAC	ATAR HCH	Public HCH															1
APAC	MARUZI	APAC	OLEIPEK	Public HCH															1
APAC	MARUZI	APAC T.C.	DYS	District Store															1
APAC	MARUZI	APAC T.C.	DYS	District Store															1
APAC	MARUZI	APAC T.C.	DYS	District Store															1
APAC	MARUZI	APAC T.C.	DYS	District Store															1
APAC	MARUZI	CEGERE	KADLANI	Public HCH															1
APAC	MARUZI	CEGERE	TEBOKE	Public HCH															1
APAC	MARUZI	CEGERE	TEBOKE	Public HCH															1
APAC	MARUZI	CEGERE	TEBOKE HC II NGO	NGO HCH															1
APAC	MARUZI	CEGERE	TEBOKE	Public HCH															1

DS A

ALLOCATION LIST

District	Sub-District	Sub-County	Facility Name	Facility Level	New				Replacement						Capacity Adjustment						Qty					
					MK074	RCW42EGCF	RCW42DC	RCW42DC	MK074	MK314	RCW42DC	MK074	MK314	RCW42DC	MK074	MK314	RCW42000	V110GE	V170GE	RCW42DC						
APAC	MARUZI	IBUJE	IBUJE	Public HCIII				1																		1
APAC	MARUZI	IBUJE	ALENGA	NGO HCIII				1																		1
APAC	MARUZI	IBUJE	AGANGA	Public HCII																						1
APAC	MARUZI	IBUJE	ALWOROENG	Public HCI				1																		1
ARUA	ARUA MUNICIPALITY	ARUA HILL	DYS	District Store				1																		1
ARUA	ARUA MUNICIPALITY	ARUA HILL	DYS	District Store				1																		1
ARUA	ARUA MUNICIPALITY	ARUA HILL	ARUA HOSPITAL	Public Hospital																						1
ARUA	ARUA MUNICIPALITY	ARUA HILL	DYS	District Store				1																		1
ARUA	ARUA MUNICIPALITY	OLI RIVER	POPULY PLANNING ASSOCIATION CLINIC HCII	NGO HCII																						1
ARUA	ARUA MUNICIPALITY	OLI RIVER	ARUA PRISON HC II	Public HCI				1																		1
ARUA	AYIVU	ADUMI	ADUMI HC IV	Public HCIV																						1
ARUA	AYIVU	OLUKO	RIRI HC III	Public HCIII				1																		1
ARUA	MADI-OKOLLO	OGOKO	OGOKO HC II	Public HCII				1																		1
ARUA	MADI-OKOLLO	RIGBO	ODLOBU HC II	Public HCII				1																		1
ARUA	MADI-OKOLLO	ULEPPI	ULEPPI HC II	NGO HCII				1																		1
ARUA	YUREA	AJIA	AJIA HC III	Public HCIII				1																		1
ARUA	YUREA	LOGIRI	LAZEBU HC II	Public HCII				1																		1
ARUA	YUREA	YURRA	KULIYA HOSPITAL	NGO Hospital				1																		1
BUDAKA	BUDAKA	BUDAKA	BUDAKA	DYS																						1
BUDAKA	BUDAKA	BUDAKA	BUDAKA HC IV	Public HCIV																						1
BUDAKA	BUDAKA	BUDAKA	BUDAKA	DYS																						1
BUDAKA	BUDAKA	BUDAKA	NAMENGO HC III	Private HCIII																						1
BUDAKA	BUDAKA	IKHIKI	KERERERE	Public HCIII				1																		1
BUDAKA	BUDAKA	KADERUNA	KEBUNA	Public HCII				1																		1
BUDAKA	BUDAKA	KAMONKOLI	MARAH CLINIC	NGO HCIII				1																		1
BUDAKA	BUDAKA	KAMONKOLI	SITA	NGO HCIII				1																		1
BUDAKA	BUDAKA	LYAMA	LYAMA	Public HCIII				1																		1
BUDAKA	BUDAKA	NABOA	NAMUSITA HC II	Public HCII				1																		1
BUDUDA	MANIYA	BUBIITA	NAMASHETI	Public HCIII																						1
BUDUDA	MANIYA	BUBIITA	BUWAGHYU II	Public HCII				1																		1
BUDUDA	MANIYA	BUBIITA	BUMUSI	Public HCII				1																		1
BUDUDA	MANIYA	BUDUDA	NAMITSU	NGO HCII				1																		1
BUDUDA	MANIYA	BUDUDA	DYS	District Store																						1
BUDUDA	MANIYA	BUKIGAI	BUKIGAYI SDA	Public HCIII																						1
BUGIRI	BUKOOLI CENTRAL	BUDHAYA	BUDHAYA	Public HCI				1																		1
BUGIRI	BUKOOLI CENTRAL	BUDHAYA	BUSIRO	NGO HCIII				1																		1
BUGIRI	BUKOOLI CENTRAL	BUDHAYA	MAYUGE	Public HCIII				1																		1
BUGIRI	BUKOOLI CENTRAL	BULESA	KITOODHA	Public HCII				1																		1
BUGIRI	BUKOOLI CENTRAL	BULESA	BULESA HC III	Public HCIII																						1

18 2

ALLOCATION LIST

District	Sub-District	Sub-County	Facility Name	Facility Level	New		Replacement						Capacity Adjustment				Qty			
					MK074	RCW42ECGF	RCW42DC	MK074	MK304	RCW42EGCF	TCW2000	V110GE	V170GE	MF314	RCW43DC	MK074		MK304	TCW2000	V110GE
IBANDA	IBANDA NORTH	ISHONGORORO	KASHOZI	Public HCII			1													1
IBANDA	IBANDA NORTH	NYAMAREBE	BIHANGA	Public HCII			1													1
IBANDA	IBANDA SOUTH	IBANDA T.C.	IBANDA MISSION	NGO HCII																1
IBANDA	IBANDA SOUTH	KIKYENKYE	RUGAGA	Public HCII			1													1
IBANDA	IBANDA SOUTH	KIKYENKYE	RWENGWE HC II	Public HCII			1													1
IBANDA	IBANDA SOUTH	NYABUHIKYE	Ruhoko HCIV	District Store																2
IBANDA	IBANDA SOUTH	NYABUHIKYE	RWOBUZIZI	Public HCII			1													1
IBANDA	IBANDA SOUTH	NYABUHIKYE	RUBAYA HC	Public HCII			1													1
IBANDA	IBANDA SOUTH	NYABUHIKYE	NSASI	Public HCII			1													1
IBANDA	IBANDA SOUTH	NYABUHIKYE	NYAMIRIMA	Public HCII			1													1
IBANDA	IBANDA SOUTH	RUKURI	NYARUKIKA	NGO HCIII			1													1
IBANDA	IBANDA SOUTH	RUKURI	KIGUNGA	Public HCII			1													1
IBANDA	IBANDA SOUTH	RUKURI	MPASHA	Public HCIII			1													1
IGANGA	BUGWERI	BUYANGA	BUTABA HC	Public HCII							1									1
IGANGA	BUGWERI	IBULANKU	IBULANKU	NGO HCII			1													1
IGANGA	BUGWERI	IBULANKU	BULYANSIME	NGO HCII			1													1
IGANGA	BUGWERI	IBULANKU	NSALE HC	Public HCII			1													1
IGANGA	BUGWERI	NAMALEMBA	NAMALEMBA	NGO HCII			1													1
IGANGA	BUGWERI	NAMALEMBA	IDINDA	Public HCII			1													1
IGANGA	KIGULU NORTH	NABITENDE	BUCONO	Public HCIV																1
IGANGA	KIGULU NORTH	NABITENDE	ITANDA	Public HCII			1													1
IGANGA	KIGULU NORTH	NABITENDE	NABITENDE HC	Public HCII			1													1
IGANGA	KIGULU NORTH	NAMUNGALWE	KAWETE	Public HCII			1													1
IGANGA	KIGULU NORTH	NAMUNGALWE	NAMUNKESU	Public HCII			1													1
IGANGA	KIGULU NORTH	NAWANDALA	NAWANDALA	Public HCII			1													1
IGANGA	KIGULU NORTH	NAWANDALA	KIWANYI	NGO HCII			1													1
IGANGA	KIGULU SOUTH	BULAMAGI	KASOLO	NGO HCII			1													1
IGANGA	KIGULU SOUTH	BULAMAGI	BUDHEGE	NGO HCII			1													1
IGANGA	KIGULU SOUTH	BULAMAGI	BUNYIRO	NGO HCII			1													1
IGANGA	KIGULU SOUTH	BULAMAGI	ST. PETER CLAVER	NGO HCII			1													1
IGANGA	KIGULU SOUTH	IGANGA TOWN COUNCIL	DYS	District Store																1
IGANGA	KIGULU SOUTH	IGANGA TOWN COUNCIL	DYS	District Store																1
IGANGA	KIGULU SOUTH	IGANGA TOWN COUNCIL	DYS	District Store																1
IGANGA	KIGULU SOUTH	IGANGA TOWN COUNCIL	DYS	District Store																1
IGANGA	KIGULU SOUTH	IGANGA TOWN COUNCIL	IGANGA TOWN COUNCIL	Public HCIII			1													1
IGANGA	KIGULU SOUTH	IGANGA TOWN COUNCIL	WALLUCOO	Public HCII			1													1
IGANGA	KIGULU SOUTH	NAKALAMA	NAKALAMA	Public HCIII																1
IGANGA	KIGULU SOUTH	NAKALAMA	NAKALAMA	Public HCIII			1													1
IGANGA	KIGULU SOUTH	NAKALAMA	NAKALAMA	Public HCIII			1													1
IGANGA	KIGULU SOUTH	NAKIGO	NAWANZU	Public HCII			1													1

28 7

ALLOCATION LIST

District	Sub-District	Sub-County	Facility Name	Facility Level	New		Replacement							Capacity Adjustment					Qty							
					MK074	RCW426GCF	RCW42DC	MK074	MK304	RCW42GCF	TCW2000	V170GE	MFS14	RCW42DC	MK074	MK304	TCW2000	V170GE		V170GE	RCW42DC					
KABALE	RUBANDA WEST	MUKO	BANYERZAI MEMORIAL	Private HCIII																					1	
KABALE	RUBANDA WEST	MUKO	MUKO HC 4	Public HCIV																						1
KABALE	RUBANDA WEST	MUKO	IKAMIRO NGO HC 2	NGO HCII												1										1
KABALE	RUKIGA	BUKUNDA	KAKATUNDA	NGO HCII																						1
KABALE	RUKIGA	BUKUNDA	KYERERO HC	Public HCII																						1
KABALE	RUKIGA	BUKUNDA	MUHANGA	NGO HCII																						1
KABALE	RUKIGA	KAMWEZI	KAMWEZI	Public HCIV																						1
KABALE	RUKIGA	KAMWEZI	KASHEKYE	NGO HCII																						1
KABALE	RUKIGA	KAMWEZI	RWENYANGYE	Public HCII																						1
KABALE	RUKIGA	KASHAMBYA	KASHAMBYA HC 3	Public HCII																						1
KABALE	RUKIGA	RWAMUKUCU	IBUMBA HC 2	Public HCH																						1
KABALE	RUKIGA	RWAMUKUCU	NYARURAMBI HC 2	Public HCH																						1
KABAROLE	BUNYANGABU	BUHEESI	KIYOMBYA	Public HCIII																						1
KABAROLE	BUNYANGABU	KIBITO	YERYA	NGO HCIII																						1
KABAROLE	BUNYANGABU	KIBITO	KASUNGANYANJA	Public HCIII																						1
KABAROLE	BUNYANGABU	KISOMORO	KICHUCU	Public HCH																						1
KABAROLE	BURAHYA	BUKUKU	KASENDA	Public HCII																						1
KABAROLE	BURAHYA	HAKIBAALE	KIYURA	Public HCIII																						1
KABAROLE	BURAHYA	KICWAMBA	NYANTABOOMA	Public HCH																						1
KABAROLE	BURAHYA	MUGUSU	MUGUSU	Public HCIII																						1
KABAROLE	BURAHYA	RUTETE	NKURUBA	NGO HCH																						1
KABAROLE	FORT PORTAL MUNICIPALITY	SOUTHERN	KABAROLE	District Store																						1
KABAROLE	FORT PORTAL MUNICIPALITY	SOUTHERN	KABAROLE	District Store																						1
KABAROLE	FORT PORTAL MUNICIPALITY	SOUTHERN	KABAROLE	District Store																						1
KABAROLE	FORT PORTAL MUNICIPALITY	SOUTHERN	KABAROLE	District Store																						1
KABAROLE	FORT PORTAL MUNICIPALITY	SOUTHERN	KABAROLE	District Store																						1
KABAROLE	FORT PORTAL MUNICIPALITY	SOUTHERN	KABAROLE	District Store																						1
KABAROLE	FORT PORTAL MUNICIPALITY	SOUTHERN	KABAROLE	District Store																						1
KABAROLE	FORT PORTAL MUNICIPALITY	SOUTHERN	KABAROLE	District Store																						1
KABERAMAIDO	KABERAMAIDO	KABERAMAIDO	KABERAMAIDO	District Store																						1
KABERAMAIDO	KALAKI	BULJLU	OCHELAKAR	Public HCII																						1
KABERAMAIDO	KALAKI	KALAKI	KALAKI	Public HCIII																						1
KABERAMAIDO	KALAKI	KALAKI	KALAKI	Public HCIII																						1
KABERAMAIDO	KALAKI	OTUBOI	OTUBOI	Public HCIII																						1
KABERAMAIDO	KALAKI	OTUBOI	OTUBOI	NGO Hospital																						1
KALANGALA	BUJUMBA	BUJUMBA	MULABANA	Public HCII																						1
KALANGALA	BUJUMBA	KALANGALA TOWN COUNCIL	DYS	District Store																						1
KALANGALA	BUJUMBA	KALANGALA TOWN COUNCIL	DYS	District Store																						1
KALANGALA	BUJUMBA	KALANGALA TOWN COUNCIL	DYS	District Store																						1
KALANGALA	BUJUMBA	KALANGALA TOWN COUNCIL	MUGOYE	Public HCII																						1

18 A

ALLOCATION LIST

District	Sub-District	Sub-County	Facility Name	Facility Level	New		Replacement						Capacity Adjustment				Qty		
					MK074	RCW42EGCF	MK074	MK304	RCW42EGCF	TCW2000	VI10GE	VI70GE	ME314	RCW42DC	MK074	MK304		TCW2000	VI10GE
KALANGALA	KYAMUSWA	BUBEKE	JAANA	Public HCl		1													1
KALANGALA	KYAMUSWA	BUJUMIRA	LUJLAMBIA	Public HCl		1													1
KALANGALA	KYAMUSWA	KYAMUSWA	BUKASA	Public HCl															1
KALIRO	BULAMOGI	BUMANYA	BUMANYA	Public HCl															1
KALIRO	BULAMOGI	BUMANYA	KALIRO FLEP	NGO HCl		1													1
KALIRO	BULAMOGI	GADUMIRE	GUDUMIRE	Public HCl															1
KALIRO	BULAMOGI	GADUMIRE	GUDUMIRE	Public HCl															1
KALIRO	BULAMOGI	GADUMIRE	KALIRO TOWN COUNCIL	Public HCl		1													1
KALIRO	BULAMOGI	GADUMIRE	BUYIGE	NGO HCl															1
KALIRO	BULAMOGI	NAMUCONGO	KASOKWE	Public HCl		1													1
KALIRO	BULAMOGI	NAMUCONGO	NABIKOLI	Public HCl		1													1
KALIRO	BULAMOGI	NAMWIWA	NAWAIKOKO	NGO HCl		1													1
KALIRO	BULAMOGI	NAMWIWA	NAWAMPITI	Public HCl															1
KALIRO	BULAMOGI	NAWAIKOKO	BUDINI	NGO HCl															1
KAMPALA	CENTRAL DIVISION	CENTRAL DIVISION	DYS District Store	District Store															2
KAMPALA	CENTRAL DIVISION	CENTRAL DIVISION	SPRINTERS HEALTH CLINIC	Private HCl															1
KAMPALA	CENTRAL DIVISION	CENTRAL DIVISION	DYS	District Store															1
KAMPALA	CENTRAL DIVISION	CENTRAL DIVISION	KISENYI HC 3	Public HCl															1
KAMPALA	CENTRAL DIVISION	CENTRAL DIVISION	VICTORIA MEDICAL CENTER	Private HCl															1
KAMPALA	CENTRAL DIVISION	CENTRAL DIVISION	KAMPALA DISPENSARY	Public HCl															1
KAMPALA	CENTRAL DIVISION	CENTRAL DIVISION	SASI CLINIC	Public HCl		1													1
KAMPALA	CENTRAL DIVISION	CENTRAL DIVISION	KAMPALA MEDICAL CENTER	Public HCl															1
KAMPALA	CENTRAL DIVISION	CENTRAL DIVISION	HEALTH LINK	NGO Hospital															1
KAMPALA	CENTRAL DIVISION	CENTRAL DIVISION	CHILDREN'S CLINIC	Private HCl															1
KAMPALA	CENTRAL DIVISION	CENTRAL DIVISION	BAL CENTER	Private HCl															1
KAMPALA	CENTRAL DIVISION	CENTRAL DIVISION	MEDICAL SPECIALIST CENTER	Private HCl															1
KAMPALA	KAWEMPE DIVISION	KAWEMPE DIVISION	SIRIGA-BODDA	Private HCl															1
KAMPALA	KAWEMPE DIVISION	KAWEMPE DIVISION	KOMAMBOGA HC 3	Public HCl															1
KAMPALA	KAWEMPE DIVISION	KAWEMPE DIVISION	SPAN MEDICAL CENTER	Private HCl															1
KAMPALA	KAWEMPE DIVISION	KAWEMPE DIVISION	KAWEMPE MEDICAL CENTER	Private HCl															1
KAMPALA	KAWEMPE DIVISION	KAWEMPE DIVISION	KAWEMPE COMMUNITY HEALTH	Public Hospital															1
KAMPALA	KAWEMPE DIVISION	KAWEMPE DIVISION	KAWEMPE HC 4	Public HCl															1
KAMPALA	KAWEMPE DIVISION	KAWEMPE DIVISION	KAWEMPE COMMUNITY HEALTH	Public Hospital															1
KAMPALA	KAWEMPE DIVISION	KAWEMPE DIVISION	FRAU OUT REACH CLINIC	NGO HCl															1
KAMPALA	KAWEMPE DIVISION	KAWEMPE DIVISION	FRAU KAZO CLINIC	NGO HCl															1
KAMPALA	KAWEMPE DIVISION	KAWEMPE DIVISION	BWAISE HEALTH CLINIC	Private HCl															1
KAMPALA	KAWEMPE DIVISION	KAWEMPE DIVISION	KAWEMPE COMMUNITY HEALTH	Private HCl															1
KAMPALA	KAWEMPE DIVISION	KAWEMPE DIVISION	BAHABASAGA CLINIC	Private HCl															1
KAMPALA	KAWEMPE DIVISION	KAWEMPE DIVISION	KAWEMPE COMMUNITY HEALTH CENTER	Private HCl															1

28 / A

ALLOCATION LIST

District	Sub-District	Sub-County	Facility Name	Facility Level	New		Replacement							Capacity Adjustment				Qty					
					MK074	RCW42ECCF	MK074	RCW42ECCF	RCW42ECCF	TCV2080	VI06GE	VI06GE	MFS14	RCW42DC	MK074	MK304	TCV2080		VI06GE	VI06GE	RCW42DC		
KATAKWI	USUK	KATAKWI	AKOBOI	Public HCII																		1	
KATAKWI	USUK	KATAKWI T.C	DYS	District Store			1																1
KATAKWI	USUK	KATAKWI T.C	DYS	District Store				1															1
KATAKWI	USUK	KATAKWI T.C	DYS	District Store					1														1
KATAKWI	USUK	NGARIAM	NGARIAM	Public HCIII																			1
KATAKWI	USUK	NGARIAM	NGARIAM	Public HCIII																			1
KATAKWI	USUK	USUK	AAKUM	Public HCII																			1
KATAKWI	USUK	USUK	USUK	NGO HCII																			1
KATAKWI	USUK	USUK	USUK	NGO HCII																			1
KATAKWI	USUK	USUK	USUK	NGO HCII																			1
KAYUNGA	BBAALE	KAYONZA	NAKYESA HC II	Public HCII			1																1
KAYUNGA	BBAALE	WABWOKO-KITIMBEWA	NKONKONJERU HCII	Public HCIII			1																1
KAYUNGA	NTENJERU NORTH	BUSANA	NAMUSALAALA HCII	Public HCII			1																1
KAYUNGA	NTENJERU NORTH	KAYUNGA TOWN COUNCIL	KAYUNGA TOWN COUNCIL	NGO HCII			1																1
KAYUNGA	NTENJERU NORTH	KAYUNGA TOWN COUNCIL	NAMAGABI MISSION HCT	District Store							1												1
KAYUNGA	NTENJERU NORTH	KAYUNGA TOWN COUNCIL	VACCINE STORE	District Store																			1
KAYUNGA	NTENJERU NORTH	KAYUNGA TOWN COUNCIL	KAYUNGA DISTRICT	District Store			1																1
KAYUNGA	NTENJERU NORTH	KAYUNGA TOWN COUNCIL	NTENJERU HCII	Public HCIII			1																1
KAYUNGA	NTENJERU SOUTH	KANGULUMIRA	KANGULUMIRA MISSION HCT	NGO HCII			1																1
KAYUNGA	NTENJERU SOUTH	NAZICO	NAZICO MISSION HCII	NGO HCII			1																1
KIBAALE	BUGANGAZI	KASAMBYA	KASAMBYA HC	Private HCIII											1								1
KIBAALE	BUGANGAZI	KASAMBYA	KASAMBYA HC	Private HCIII											1								1
KIBAALE	BUGANGAZI	KISHITA	KISHITA HC	Public HCIII											1								1
KIBAALE	BUGANGAZI	KISHITA	KISHITA HC	Public HCIII											1								1
KIBAALE	BUYAGA	KAGADI	KAGADI HOSPITAL	Public Hospital											1								1
KIBAALE	BUYAGA	KAGADI	KAGADI HOSPITAL	Public Hospital											1								1
KIBAALE	BUYAGA	KUYANGA	KYABASARA HC	Public HCIII											1								1
KIBAALE	BUYAGA	KYAMAIKOKE	ISUNGA	Public HCIII											1								1
KIBAALE	BUYANJA	BWAMIRAMIRA	DYS	District Store											4								1
KIBAALE	BUYANJA	BWAMIRAMIRA	DYS	District Store											1								1
KIBAALE	BUYANJA	BWAMIRAMIRA	DYS	District Store											1								1
KIBAALE	BUYANJA	BWAMIRAMIRA	KIBAALE HC	Public HCIV											1								1
KIBAALE	BUYANJA	BWAMIRAMIRA	DYS	District Store											1								1
KIBAALE	BUYANJA	BWAMIRAMIRA	BUYANJA HSD	Sub-district Store											1								1
KIBAALE	BUYANJA	BWAMIRAMIRA	BUYUN HC	NGO HCII			1																1
KIBAALE	BUYANJA	MUGARAMA	KAKUMIRO HC	Public HCIII											1								1
KIBAALE	BUYANJA	MUGARAMA	KAKUMIRO HC	Public HCIII											1								1
KIBAALE	BUYANJA	MUGARAMA	KAKUMIRO HC	Public HCIII											1								1
KIBOGA	BUKOMERO	BUKOMERO	MWEZI	Public HCII																			1
KIBOGA	BUKOMERO	BUKOMERO	BUKOMERO	Public HCIV											1								1
KIBOGA	BUKOMERO	DWANIRO	KATALAMA	Public HCII											1								1

ALLOCATION LIST

District	Sub-District	Sub-County	Facility Name	Facility Level	New			Replacement						Capacity Adjustment					Qty								
					MK074	RCW42EGCF	RCW42DC	MK074	MK004	RCW42EGCF	TCW2000	Y110GE	Y170GE	MFS14	RCH42DC	MK074	MK204	TCW2000		Y110GE	Y170GE	RCW42DC					
																							New				
KIBOGA	BUKOMERO	DWANIRO	KATWE	Public HCIII						1																1	
KIBOGA	BUKOMERO	LWAMATA	NSALA	Public HCH						1																	1
KIBOGA	BUKOMERO	LWAMATA	BULAGA	Public HCH						1																	1
KIBOGA	KIBOGA CENTRAL	KIBOGA T.C.	KIBOGA	District Store								1															1
KIBOGA	KIBOGA CENTRAL	KIBOGA T.C.	KIBOGA	District Store									1														1
KIBOGA	KIBOGA CENTRAL	KIBOGA T.C.	RACHIWANGOZI	Public HCH						1																	1
KIBOGA	KIBOGA CENTRAL	KIBOGA T.C.	AGAPE	Public HCIII							1																1
KIBOGA	KIBOGA CENTRAL	KIBOGA T.C.	BPI CENTER	Public HCH								1															1
KIBOGA	KIBOGA CENTRAL	KYANKWANZI	ST. BALIKUDEMBE	NGO HCH								1															1
KIBOGA	NTWETWE	BUTEMBA	BUKWIRI	NGO HCH							1																1
KIRUHURA	KAZO	BUREMBA	BUREMA HCH	Public HCIII								1															1
KIRUHURA	KAZO	BUREMBA	KABINGO HC II	Public HCH								1															1
KIRUHURA	KAZO	BUREMBA	NGOMBA HCH	Public HCH									1														1
KIRUHURA	KAZO	BURUNGA	BURUNGA HC III	Public HCIII								1															1
KIRUHURA	KAZO	BURUNGA	ORWIGI	Public HCH									1														1
KIRUHURA	KAZO	KANONI	KANONI HC III	Public HCIII									1														1
KIRUHURA	KAZO	KANONI	MBOGO HC II	Public HCH										1													1
KIRUHURA	KAZO	KAZO	KAYANGA HCH	Public HCH									1														1
KIRUHURA	KAZO	KAZO	REBARA COMMUNITY BASED HEALTH CARE CENTER	NGO HCH									1														1
KIRUHURA	KAZO	KAZO	RWAMURANGA HC II	Public HCH										1													1
KIRUHURA	KAZO	RWEMIKOMA	RWEMIKOMA HC III	Public HCIII											1												1
KIRUHURA	KAZO	RWEMIKOMA	KUUMA HC II	Public HCH												1											1
KIRUHURA	NYABUSHOZI	KANTARYERU	LAKE MBURO HC III	Public HCIII									1														1
KIRUHURA	NYABUSHOZI	KASHONGI	KITURA HC II	Public HCH										1													1
KIRUHURA	NYABUSHOZI	KENSHUNGA	KIRUHURA DVS	District Store																				1			1
KIRUHURA	NYABUSHOZI	KIKATSI	KIKATSI	Private HCH												1											1
KIRUHURA	NYABUSHOZI	KIKATSI	KYEBUZA (ST. MARYS)	NGO HCH													1										1
KIRUHURA	NYABUSHOZI	KINONI	RWETAMU HC II	Public HCH																							1
KIRUHURA	NYABUSHOZI	KINONI	RWETAMU HCH	Public HCH																							1
KIRUHURA	NYABUSHOZI	NYAKASHASHARA	RURAMBIRA HC II	Public HCH																							1
KIRUHURA	NYABUSHOZI	NYAKASHASHARA	NYAKAHITA HC II	Public HCH																							1
KIRUHURA	NYABUSHOZI	SANGA	RWABARATA HC II	Public HCH																							1
KISORO	BUFUMBIRA EAST	BUKIMBIRI	IRENERA	Public HCIII																							1
KISORO	BUFUMBIRA EAST	BUKIMBIRI	KAGUNGA	Public HCH																							1
KISORO	BUFUMBIRA EAST	KANABA	KAGEZI	Public HCH																							1
KISORO	BUFUMBIRA EAST	MURORA	CHAHAFI	Public HCIV																						1	1
KISORO	BUFUMBIRA EAST	MURORA	CHIBUMBA	Public HCH																							1
KISORO	BUFUMBIRA EAST	NYUNDO	BUKIMBIRI	Public HCIII																							1
KISORO	BUFUMBIRA EAST	NYUNDO	BUKIMBIRI	Public HCIII																							1

DS A

ALLOCATION LIST

District	Sub-District	Sub-County	Facility Name	Facility Level	New		Replacement							Capacity Adjustment					Qty		
					MK074	RCW42EGCF	MK074	RCW42EGCF	RCW2800	V110GE	V110GE	MF314	RCW42DC	MK074	MK304	TCW2800	V110GE	V170CE		RCW42DC	
MOYO	WEST MOYO	METU	EBEMI	Public HCII			1														1
MOYO	WEST MOYO	MOYO	MOYO MISSION	NGO HCIII			1														1
MOYO	WEST MOYO	MOYO	LAMA	NGO HCII			1														1
MOYO	WEST MOYO	MOYO TOWN COUNCIL	MOYO	District Store							1										1
MOYO	WEST MOYO	MOYO TOWN COUNCIL	RAMOGI	Public HCII				1													1
MOYO	WEST MOYO	MOYO TOWN COUNCIL	MOYO	District Store				1													2
MOYO	WEST MOYO	MOYO TOWN COUNCIL	MOYO	District Store				1													1
MOYO	WEST MOYO	MOYO TOWN COUNCIL	MOYO	District Store						1											1
MOYO	WEST MOYO	MOYO TOWN COUNCIL	MOYO	District Store				1													1
MOYO	WEST MOYO	MOYO TOWN COUNCIL	BESIA	Public HCII			1														1
MPIGI	BUFAMBALA	BUDEDE	KYABADAZA	Public HCIII			1														1
MPIGI	BUFAMBALA	KALAMBALA	KIROKOLA HC II	Public HCII			1														1
MPIGI	BUFAMBALA	KIBIBI	XIBIBI NURSING HOME	NGO HCIII			1														1
MPIGI	BUFAMBALA	NGANDO	NGANDO HC III	Public HCIII				1													1
MPIGI	BUFAMBALA	NGANDO	BUGOBANGO HC II	NGO HCII			1														1
MPIGI	COMBA	KABULASOKE	MAWUKI HC II	Public HCII			1				1										1
MPIGI	COMBA	KYEGONZA	KANOMI HC III	Public HCIII			1														1
MPIGI	COMBA	KYEGONZA	KEWERIMUDE HC II	Public HCII			1														1
MPIGI	COMBA	KYESONZA	MAMABEYA HC II	Public HCII			1														1
MPIGI	COMBA	MAIDJU	MADDU HC IV	Public HCIV				1													1
MPIGI	COMBA	MADJU	BUYANIA HC II	Public HCII			1														1
MPIGI	COMBA	MPENJA	NGOMANENE HC II	Public HCII			1														1
MPIGI	COMBA	MPENJA	KANZIPRA HC II	Public HCII			1														1
MPIGI	MAWOKOTA NORTH	BUWAMA	BUWAMA HC II	Public HCII				1													1
MPIGI	MAWOKOTA NORTH	BUWAMA	DISTRICT VACCINE STORE	District Store				1													1
MPIGI	MAWOKOTA NORTH	BUWAMA	BURJAKO HC II	Public HCII				1													1
MPIGI	MAWOKOTA NORTH	KAMENGO	KIBANGA HC III	NGO HCIII				1													1
MPIGI	MAWOKOTA NORTH	KAMENGO	GGOLI HC III	NGO HCIII				1													1
MPIGI	MAWOKOTA NORTH	KIRINGENTE	ST MONICA KATENDE	NGO HCII				1													1
MPIGI	MAWOKOTA NORTH	MPIGI	KYALI HC III	Public HCIII				1													1
MPIGI	MAWOKOTA NORTH	MPIGI	KAPUMU HC II	Public HCII				1													1
MPIGI	MAWOKOTA SOUTH	KITUNTU	BUKASA HC II	Public HCII				1													1
MPIGI	MAWOKOTA SOUTH	MPIGI TOWN COUNCIL	MPIGI HC IV	Public HCIV					1												1
MPIGI	MAWOKOTA SOUTH	MPIGI TOWN COUNCIL	DDHS CLINIC	Public HCII				1													1
MPIGI	MAWOKOTA SOUTH	MUDUMA	MUDUMA HC III	Public HCIII				1													1
MPIGI	MAWOKOTA SOUTH	MUDUMA	BUJUKO HC III	Private HCIII				1													1
MPIGI	MAWOKOTA SOUTH	MUDUMA	JIEZA HC III	Private HCIII				1													1
MPIGI	MAWOKOTA SOUTH	NKOZI	NKOZI HOSPITAL	Private Hospital					1												1
MPIGI	MAWOKOTA SOUTH	NKOZI	NABYEWANKA HC II	Public HCII				1													1

RS X

ALLOCATION LIST

District	Sub-District	Sub-County	Facility Name	Facility Level	New			Replacement					Capacity Adjustment				Qty											
					RCW42EGCF	RCW42DC	MK074	RCW42EGCF	MK304	RCW42EGCF	TCW2000	VI10CE	VI10CE	VI10CE	VI10CE	VI10CE		TCW2000	MK304	VI10CE	VI10CE	RCW42DC						
					MK074	RCW42DC	MK074	RCW42EGCF	MK304	RCW42EGCF	TCW2000	VI10CE	VI10CE	VI10CE	VI10CE	VI10CE		VI10CE	TCW2000	MK304	VI10CE	VI10CE	RCW42DC					
NAKASONGOLA	BURULI	WABINYONYI	DYS	District Store																							1	
NAKASONGOLA	BURULI	WABINYONYI	DYS	District Store																								1
NAKASONGOLA	BURULI	WABINYONYI	SIKYE	Public HCHI							1																	1
NAKASONGOLA	BURULI	WABINYONYI	WAMPITI	NGO HCHI								1																1
NAKASONGOLA	BURULI	WABINYONYI	DYS	District Store																								1
NAKASONGOLA	BURULI	WABINYONYI	KAMUNINA	Public HCHI						1																		1
NAMUTUMBA	BUSIKI	BULANGE	BUGOBI H C II	Public HCHI																								1
NAMUTUMBA	BUSIKI	BULANGE	BUGOBI	NGO HCHI																								1
NAMUTUMBA	BUSIKI	BULANGE	BUYOBUYA	Public HCHI																								1
NAMUTUMBA	BUSIKI	IYUKULA	IYUKULA	Public HCHI																								1
NAMUTUMBA	BUSIKI	IYUKULA	NAMUSITA H C II	Public HCHI																								1
NAMUTUMBA	BUSIKI	IYUKULA	KISOWOZI	NGO HCHI																								1
NAMUTUMBA	BUSIKI	IYUKULA	LWATAMA H C II	Public HCHI																								1
NAMUTUMBA	BUSIKI	KIBAALE	MPULIRA H CII	NGO HCHI								1																1
NAMUTUMBA	BUSIKI	KIBAALE	NAKYERE H C II	Public HCHI																								1
NAMUTUMBA	BUSIKI	MAGADA	NSOOLA	NGO HCHI																								1
NAMUTUMBA	BUSIKI	MAGADA	KAITI	Public HCHI																								1
NAMUTUMBA	BUSIKI	MAGADA	MULAMA	Public HCHI																								1
NAMUTUMBA	BUSIKI	MAGADA	KAGULU	Public HCHI																								1
NAMUTUMBA	BUSIKI	MAGADA	IRIMBA	Public HCHI																								1
NAMUTUMBA	BUSIKI	MAGADA	MAZUBA	NGO HCHI																								1
NAMUTUMBA	BUSIKI	MAGADA	NAKUTUMBA DISTRICT	District Store																								1
NAMUTUMBA	BUSIKI	MAGADA	VACCINE STORE	District Store																								1
NAMUTUMBA	BUSIKI	NAMUTUMBA	KIGALAMA	NGO HCHI																								1
NAMUTUMBA	BUSIKI	NAMUTUMBA	KIGALAMA H C II	Public HCHI																								1
NAMUTUMBA	BUSIKI	NAMUTUMBA	KIGALAMA H C II	NGO HCHI																								1
NAMUTUMBA	BUSIKI	NAMUTUMBA	NAMUTUMBA IGERERA	NGO HCHI																								1
NAMUTUMBA	BUSIKI	NAMUTUMBA	KASENDHERE	NGO HCHI																								1
NAMUTUMBA	BUSIKI	NAMUTUMBA	KISUMU H C II	Public HCHI																								1
NAMUTUMBA	BUSIKI	NSINZE	NSINZE H C 4	Public HCHI																								1
NAMUTUMBA	BUSIKI	NSINZE	BUKONTE H C III	Public HCHI																								1
NAMUTUMBA	BUSIKI	NSINZE	BUWONGO H C II	Public HCHI																								1
NAMUTUMBA	BUSIKI	NSINZE	NAWAIKONA H C III	NGO HCHI																								1
NAMUTUMBA	BUSIKI	NSINZE	NAWAIKONA H C III	NGO HCHI																								1
NEBBI	JONAM	PAKWACH TOWN COUNCIL	PAKWACH MISSION	NGO HCHI																								1
NEBBI	JONAM	PAKWACH TOWN COUNCIL	PAKWACH	Sub-district Store																								1
NEBBI	JONAM	PANYANGO	FUALWONGA	Public HCHI																								1
NEBBI	JONAM	PANYANGO	ALWI	Public HCHI																								1
NEBBI	JONAM	PANYANGO	POKWERO	Public HCHI																								1
NEBBI	JONAM	PANYANGO	ALWI	Public HCHI																								1
NEBBI	JONAM	PANYANGO	PAKIA	Public HCHI																								1

28 ✓

ALLOCATION LIST

District	Sub-District	Sub-County	Facility Name	Facility Level	New				Replacement						Capacity Adjustment				Qty									
					MK074	RCW42EGCF	RCW42DC	MK074	MK304	RCW42EGCF	TCW2800	V110GE	V170GE	MF314	RCW42DC	MK074	MK304	TCW2000		V110GE	V170GE	RCW42DC						
NEBBI	JONAM	PANYANGO	PAKJA	Public HCIII																								1
NEBBI	JONAM	PANYIMUR	PANYIMUR	Public HCIII							1																	1
NEBBI	JONAM	WADELAI	WADELAI	Public HCIII																								1
NEBBI	JONAM	WADELAI	RAGEM	Public HCTI																								1
NEBBI	OKORO	ATYAK	WARR	Public HCIII																								1
NEBBI	OKORO	JANGOKORO	JANGOKORO	Public HCIII																							1	1
NEBBI	OKORO	KANGO	AGYERMACH	NGO HCIII							1																	1
NEBBI	OKORO	KANGO	ALANGI	Public HCIII																								1
NEBBI	OKORO	KANGO	KANGO	Public HCIII							1																	1
NEBBI	OKORO	KANGO	KANGO	Public HCIII							1																	1
NEBBI	OKORO	PAIDHA	PAKADHA	NGO HCIII																								1
NEBBI	OKORO	PAIDHA TOWN COUNCIL	PAIDHA	Public HCIII																								1
NEBBI	PADYERE	AKWORO	AKWORO	Public HCIII																								1
NEBBI	PADYERE	KUCWING	KYCWING	Public HCIII																								1
NEBBI	PADYERE	NEBBI TOWN COUNCIL	NEBBI	District Store																								1
NEBBI	PADYERE	NEBBI TOWN COUNCIL	NEBBI	Public Hospital																								1
NEBBI	PADYERE	NEBBI TOWN COUNCIL	NEBBI	District Store																								1
NEBBI	PADYERE	NEBBI TOWN COUNCIL	NEBBI T C	Public HCH																								1
NEBBI	PADYERE	NEBBI TOWN COUNCIL	NEBBI	District Store																								1
NEBBI	PADYERE	NEBBI TOWN COUNCIL	NEBBI	District Store																								1
NEBBI	PADYERE	NEBBI TOWN COUNCIL	NEBBI	District Store																								1
NEBBI	PADYERE	NEBBI TOWN COUNCIL	NEBBI	District Store																								1
NEBBI	PADYERE	NEBBI TOWN COUNCIL	NEBBI	District Store																								1
NEBBI	PADYERE	NEBBI TOWN COUNCIL	NEBBI	District Store																								1
NTUNGAMO	RUHAAMA	NTUNGAMO TC	NTUGAMO HC III	Public HCIII																								1
NTUNGAMO	KAJARA	BWONGYERA	BWONGYERA	Public HCIII																								1
NTUNGAMO	RUHAAMA	NTUNGAMO TC	DYS	District Store																								1
NTUNGAMO	RUHAAMA	NTUNGAMO TC	DYS	District Store																								1
NTUNGAMO	RUHAAMA	NTUNGAMO TC	DYS	District Store																								1
NTUNGAMO	RUHAAMA	NTUNGAMO TC	DYS	District Store																								1
NTUNGAMO	RUSHENYI	NGOMA	KISAASA HC II	Public HCIII																								1
NYADRI	MARACHA	YIVU	WADRA	Public HCIII																								1
NYADRI	MARACHA	NYADRI	NYADRI	Public HCIII																								1
NYADRI	MARACHA	OLEBA	OLEBA	Public HCIII																								1
NYADRI	MARACHA	OLUVU	OLUETE	Public HCIII																								1
NYADRI	MARACHA	OLUVU	OLUVU	Public HCIII																								1
NYADRI	TEREGO	AII - YU	ARIPEA	Public HCIII																								1
NYADRI	TEREGO	AII - YU	CLIO	Public HCIII																								1
NYADRI	TEREGO	KATRINI	ORIAGIN	Private HCIV																								1
NYADRI	TEREGO	ODUPI	OTUMBARI	NGO HCIII																								1

BS P

ALLOCATION LIST

District	Sub-District	Sub-County	Facility Name	Facility Level	New		Replacement						Capacity Adjustment					Qty					
					MK074	RCW42EGCF	RCW42JDC	MK074	MK304	RCW42EGCF	TCW2000	V110GE	V170GE	MF314	RCW42JDC	MK074	MK304		TCW2000	V110GE	V170GE	RCW42DC	
NYADRI	TEREGO	ODUPI	ODUPI	Public HCIII																		1	
NYADRI	TEREGO	OMUGO	OMUGO HC	Public HCIV																			1
OYAM	OYAM NORTH	ABER	ABER	NGO Hospital																			1
OYAM	OYAM NORTH	ABER	ABER	Public HCII																			1
OYAM	OYAM NORTH	ABER	ZAMBERA	Public HCII																			1
OYAM	OYAM NORTH	ACABA	ANYEKE	Public HCIV																			1
OYAM	OYAM NORTH	ACABA	OYAM DYS	District Store																			2
OYAM	OYAM NORTH	ICEEME	ICEEME	NGO HCIII																			1
OYAM	OYAM NORTH	ICEEME	ICEEME	Public HCII																			1
OYAM	OYAM NORTH	NGAI	ARIBA	Public HCII																			1
OYAM	OYAM NORTH	OTWAL	ACOKORA	Public HCIII																			1
OYAM	OYAM SOUTH	LORO	AGULURUDE	Public HCIII																			1
OYAM	OYAM SOUTH	LORO	LORO	Public HCII																			1
OYAM	OYAM SOUTH	MINAKULU	MINAKULU	Public HCII																			1
OYAM	OYAM SOUTH	MINAKULU	MINAKULU	NGO HCIII																			1
PADER	AGAGO	ADILANG	KALONGO HOSPITAL	NGO Hospital																			1
PADER	AGAGO	ADILANG	KALONGO HOSPITAL	NGO Hospital																			1
PADER	AGAGO	ADILANG	KALONGO HOSPITAL	NGO Hospital																			1
PADER	AGAGO	ADILANG	UKHILGI	Public HCII																			1
PADER	AGAGO	LAPONO	AMYEL	Public HCII																			1
PADER	AGAGO	HIRA PALWO	LAMIYO	Public HCII																			1
PADER	AGAGO	LUKOLE	OLUNG	Public HCII																			1
PADER	AGAGO	OMOT	GEREGERE	Public HCII																			1
PADER	AGAGO	OMOT	OMOT	Public HCII																			1
PADER	AGAGO	PAIMOL	KUKIL	Public HCII																			1
PADER	AGAGO	WOL	TOROMA	Public HCII																			1
PADER	ARUU	ATANGA	ATANGA	Public HCIII																			1
PADER	ARUU	AWERE	RACKOKO	NGO HCII																			1
PADER	ARUU	AWERE	RACKOKO	NGO HCII																			1
PADER	ARUU	AWERE	AWERE	Public HCIII																			1
PADER	ARUU	AWERE	LAGLE	Public HCII																			1
PADER	ARUU	LAPUL	ALIM	Public HCII																			1
PADER	ARUU	PADER TOWN COUNCIL	DISTRICT VACCINE STORE	District Store																			1
PADER	ARUU	PADER TOWN COUNCIL	DISTRICT VACCINE STORE	District Store																			1
PADER	ARUU	PADER TOWN COUNCIL	DISTRICT VACCINE STORE	District Store																			1
PADER	ARUU	PADER TOWN COUNCIL	PAKOR	Public HCII																			1
PADER	ARUU	PAULE	PAULE	Public HCIV																			1
PADER	ARUU	PAULE	OGUTA	Public HCII																			1
PADER	ARUU	PAULE	PAULA	Public HCII																			1

18 7

ALLOCATION LIST

District	Sub-District	Sub-County	Facility Name	Facility Level	New			Replacement							Capacity Adjustment				Qty					
					MK074	RCW43EGCF	RCW42DC	MK074	MK304	RCW42EGCF	TCW2800	V110GE	V170GE	MF314	RCW42DC	MK074	MK304	TCW2800		V110GE	V170GE	RCW42DC		
PADER	ARUU	PURANGA	OGONYO	Public HCII						1														1
PADER	ARUU	PURANGA	PURANGA ALLSAINTS	NGO HCII							1													1
PALLISA	BUTEBO	BUTEBO	BUTEBO	Public HCIV																	1			
PALLISA	BUTEBO	KABWANGASI	KAKORO SDA	NGO HCII																				1
PALLISA	BUTEBO	KABWANGASI	PUTTI	Public HCII																				1
PALLISA	BUTEBO	KIBALE	KAPUWAI HC 4	NGO HCIV																				1
PALLISA	BUTEBO	KIBALE	KIBALE	Public HCIII																				1
PALLISA	BUTEBO	KIBALE	OLADOT	Public HCII																				1
PALLISA	BUTEBO	PETETE	GALIMAGI	NGO HCIII																				1
PALLISA	BUTEBO	PETETE	NAGWERE	Public HCIII																				1
PALLISA	KIBUKU	BUSETA	BUSETA HC 3	Public HCIII																				1
PALLISA	KIBUKU	KADAMA	DODOI HC 2	Public HCII																				1
PALLISA	KIBUKU	KADAMA	KARWERI HC 2	Public HCII																				1
PALLISA	KIBUKU	KADAMA	KENKEBU HC 2	Public HCII																				1
PALLISA	KIBUKU	KAGUMU	BUCHANAGADI HC 3	NGO HCIII																				1
PALLISA	KIBUKU	KAGUMU	KAGUMU	NGO HCIII																				1
PALLISA	KIBUKU	KAGUMU	SAKULU COMMUNITY ASSOCIATION	NGO HCII																				1
PALLISA	KIBUKU	KAGUMU	MABULI HC 2	Public HCII																				1
PALLISA	PALLISA	AGULE	AGULE COMMUNITY CENTER	Private HCIII																				1
PALLISA	PALLISA	OGONYO	OBUTET	Public HCII																				1
PALLISA	PALLISA	KAMEKE	KAMEKE HC 3	Public HCIII																				1
PALLISA	PALLISA	KASODO	OLOK	Public HCII																				1
PALLISA	PALLISA	PALLISA TOWN COUNCIL	PALLISA HOSPITAL	Public Hospital																				1
PALLISA	PALLISA	PALLISA TOWN COUNCIL	PALLISA TOWN COUNCIL	Public HCIII																				1
PALLISA	PALLISA	PALLISA TOWN COUNCIL	DYS	District Store																				1
PALLISA	PALLISA	PALLISA TOWN COUNCIL	DYS	District Store																				1
PALLISA	PALLISA	PALLISA TOWN COUNCIL	PALLISA MISSION DISPENSARY	NGO HCII																				1
PALLISA	PALLISA	PUTI-PUTI	LIMACTO HC 2	Public HCII																				1
RAKAI	KAKUUTO	KAKUUTO	MUTUKULA	Private HCIII																				1
RAKAI	KAKUUTO	KASASA	KASASA	Public HCIII																				1
RAKAI	KAKUUTO	KIBANDA	MAGABI HC	Public HCII																				1
RAKAI	KAKUUTO	KYEBE	MNZIRO	Public HCII																				1
RAKAI	KAKUUTO	KYEBE	KASENBERO HC	Public HCII																				1
RAKAI	KAKUUTO	KYEBE	GWANDA	Public HCII																				1
RAKAI	KAKUUTO	KYEBE	NAZARETH	NGO HCII																				1
RAKAI	KAKUUTO	KYEBE	BYAKABANDA HC	Public HCIII																				1
RAKAI	KOOKI	DDWANIRO	LIWAKAKOLOLO	Sub-district Store																				1
RAKAI	KOOKI	KACHEERA	KACHEERA HC	Public HCIII																				1
RAKAI	KOOKI	KAGAMBA (BUYAMBA)	KAGAMBA (BUYAMBA) HC	Public HCII																				1

28 A

ALLOCATION LIST

District	Sub-District	Sub-County	Facility Name	Facility Level	New				Replacement				Capacity Adjustment				Qty						
					RCW42EGCF		RCW42DC		RCW42EGCF		RCW42DC		MK304		MK304			V110GE					
					MK074	RCW42EGCF	RCW42DC	MK074	RCW42DC	MK304	RCW42EGCF	RCW42DC	MK304	RCW42DC	V110GE	VI70GE		V110GE	VI70GE	RCW42DC			
SIRONKO	BUDADIRI EAST	BUMASIFWA	BUNAGAMI	Public HCHI								1										1	
SIRONKO	BUDADIRI EAST	BUMASIFWA	BUGITIMWA	Private HCHI				1															1
SIRONKO	BUDADIRI EAST	BUSULANI	KALAWA HC2	Private HCHI				1															1
SIRONKO	BUDADIRI EAST	BUTANDIGA	MBAWA	Public HCHI								1											1
SIRONKO	BUDADIRI EAST	ZESUJI	BULOLO HC 2	Public HCHI								1											1
SIRONKO	BUDADIRI WEST	BUWALASI	BUWALASI HC 3	Public HCHI							1												1
SIRONKO	BUDADIRI WEST	BUWALASI	BUYAYA HC 2	Public HCHI				1															1
SIRONKO	BUDADIRI WEST	SIRONKO T.C.	SIRONKO	District Store								1											1
SIRONKO	BUDADIRI WEST	SIRONKO T.C.	SIRONKO	District Store								1											1
SIRONKO	BULAMBULI	BUGINYANYA	BULGANYA	Public HCHI								1											1
SIRONKO	BULAMBULI	BUGINYANYA	BUGINYANYA HC 3	Public HCHI								1											1
SIRONKO	BULAMBULI	BUGINYANYA	BULGANYA	Public HCHI								1											1
SIRONKO	BULAMBULI	BUKHALU	BUKHALU	Public HCHI								1											1
SIRONKO	BULAMBULI	BULAGO	BUMVAMBU	Public HCHI								1											1
SIRONKO	BULAMBULI	BUNAMBITYE	BUNAMBITYE	Public HCHI								1											1
SIRONKO	BULAMBULI	MASHIRA	MASHIRA	Public HCHI								1											1
SIRONKO	BULAMBULI	MUYEMBE	MUYEMBE	Public HCV										1									1
SIRONKO	BULAMBULI	MUYEMBE	MUYEMBE	Public HCV								1											1
SIRONKO	BULAMBULI	MUYEMBE	MUYEMBE	Public HCV								1											1
SOROTI	KASILO	BUGONDO	KAMOCH	Public HCHI										1									1
SOROTI	KASILO	PINGIRE	PINGIRE	Public HCHI										1									1
SOROTI	SERERE	ATIRA	ATIRA	Public HCHI										1									1
SOROTI	SERERE	KATETA	KAMUSALA	Public HCHI										1									1
SOROTI	SERERE	KYERE	OMAGORO	Public HCHI										1									1
SOROTI	SERERE	KYERE	KYERE MISSION	NGO HCHI										1									1
SOROTI	SERERE	OLIO	SERERE	Public HCV																			1
SOROTI	SERERE	OLIO	ST.MARTINS AMAKIO	NGO HCHI																			1
SOROTI	SOROTI	ARAPAI	DAKABELA	Public HCHI										1									1
SOROTI	SOROTI	GWERI	GWERI	Public HCHI										1									1
SOROTI	SOROTI MUNICIPALITY	EASTERN DIVISION	SOROTI IDP MARTENTY	NGO HCHI																			1
SOROTI	SOROTI MUNICIPALITY	WESTERN DIVISION	DVS	District Store																			1
SOROTI	SOROTI MUNICIPALITY	WESTERN DIVISION	WESTERN DIVISION	Public HCHI																			1
SOROTI	SOROTI MUNICIPALITY	WESTERN DIVISION	DVS	District Store																			1
SOROTI	SOROTI MUNICIPALITY	WESTERN DIVISION	DVS	District Store																			1
SSEMABULE	LWEMYAGA	LWEMYAGA	MAKOOLE HC II	Public HCHI																			1
SSEMABULE	MAWOGOLA	LUGUSILU	KYABI HC III	NGO HCHI																			1
SSEMABULE	MAWOGOLA	LUGUSILU	MUSI HC II	Public HCHI																			1
SSEMABULE	MAWOGOLA	MAITEETE	KIBENGO B/C II	Public HCHI																			1
SSEMABULE	MAWOGOLA	MAITEETE	MITETE HC II	Public HCHI																			1

89 

ALLOCATION LIST

District	Sub-District	Sub-County	Facility Name	Facility Level	New				Replacement						Capacity Adjustment				Qty						
					MK074	RCW42EGCF	RCW42DC	MK074	MK304	RCW42EGCF	RCW42DC	MF314	VI10GE	VI10GE	VI10GE	VI10GE	VI10GE	VI10GE		VI10GE					
SSEMBABULE	MAWCOOLA	SEMBABULE T.C.	DVS	District Store																					1
SSEMBABULE	MAWCOOLA	SEMBABULE T.C.	DVS	District Store																					1
TORORO	KISOKO NORTH	KIREWA	MIFUMI HC	NGO HCIII																					1
TORORO	KISOKO NORTH	KIREWA	KIREWA CHAWOLO HC	Public HCII																					1
TORORO	KISOKO NORTH	KISOKO HC	KISOKO HC	Public HCIII																					1
TORORO	KISOKO SOUTH	IYOLWA	POYEMI	Private HCIII																					1
TORORO	KISOKO SOUTH	IYOLWA	FUNGWE	Public HCII																					1
TORORO	KISOKO SOUTH	IYOLWA	MAGOLA	Public HCII																					1
TORORO	KISOKO SOUTH	MULANDA	MWELLO	Public HCII																					1
TORORO	KISOKO SOUTH	MULANDA	MULANDA HC	Public HCIV																					1
TORORO	KISOKO SOUTH	NABUYOGA	LUGINGI	Public HCII																					1
TORORO	KISOKO SOUTH	PAYA	PAYA	Public HCIII																					1
TORORO	KISOKO SOUTH	RUBONGI	RUBONGI	Public Hospital																					1
TORORO	KISOKO SOUTH	RUBONGI	OSIA HC	Public HCII																					1
TORORO	KISOKO SOUTH	RUBONGI	PANYANGASI	Public HCII																					1
TORORO	TORORO	MOLO	MOLLO II	Public HCIII																					1
TORORO	TORORO	OSUKURU	OSUKURU III	Public HCIII																					1
TORORO	TORORO	OSUKURU	TORORO CEMENT LTD.	NGO HCII																					1
TORORO	TORORO MUNICIPALITY	EASTERN DIVISION	TORORO HOSPITAL	Public Hospital																					1
TORORO	TORORO MUNICIPALITY	EASTERN DIVISION	TORORO MUNICIPALITY	Public HCII																					1
TORORO	TORORO MUNICIPALITY	EASTERN DIVISION	TORORO MUNICIPALITY	District Store																					1
WAKISO	BUSHIRO EAST	NSANGI	NABINGO HCIII	NGO HCIII																					1
WAKISO	BUSHIRO EAST	NSANGI	KASENGE HCII	Public HCII																					1
WAKISO	BUSHIRO EAST	NSANGI	RESURBIA MATERNITY HOME HC II	NGO HCII																					1
WAKISO	BUSHIRO EAST	WAKISO	MENDE HCIII	Public HCIII																					1
WAKISO	BUSHIRO EAST	WAKISO	BBIKA HCII	NGO HCII																					1
WAKISO	BUSHIRO EAST	WAKISO TOWN COUNCIL	DVS	District Store																					1
WAKISO	BUSHIRO EAST	WAKISO TOWN COUNCIL	DVS	District Store																					1
WAKISO	BUSHIRO EAST	WAKISO TOWN COUNCIL	DVS	District Store																					1
WAKISO	BUSHIRO NORTH	KAKIRI	NAMPONGE HCII	NGO HCIII																					1
WAKISO	BUSHIRO NORTH	KAKIRI	MAGOGO HCII	Public HCII																					1
WAKISO	BUSHIRO NORTH	MASULITA	BUSAWA MANZE HC III	Public HCIII																					1
WAKISO	BUSHIRO NORTH	MASULITA	KANZELE - KYONDO HCII	Public HCII																					1
WAKISO	BUSHIRO NORTH	MASULITA	KYENGEZA HCII	Public HCII																					1
WAKISO	BUSHIRO NORTH	MASULITA	KAMBUGU HCII	Public HCII																					1
WAKISO	BUSHIRO NORTH	MASULITA	ST. UBIRIKA HCIII	NGO HCIII																					1
WAKISO	BUSHIRO NORTH	NAMAYUMBA	KITALYA HC II	Public Hospital																					1
WAKISO	BUSHIRO NORTH	NAMAYUMBA	LUTIST HC II	Public HCII																					1

RB 2

ALLOCATION LIST

District	Sub-District	Sub-County	Facility Name	Facility Level	New		Replacement						Capacity Adjustment						Qty									
					MK074	RCW426GCF	MK074	RCW43DC	MK074	RCW426GCF	MK304	RCW426GCF	TCW2009	V100GE	V170GE	MF314	RCW43DC	MK074		RCW43DC	TCW2009	V100GE	V170GE	RCW42DC				
WAKISO	BUSHIRO SOUTH	KASANJE	BUYEGE HCIII	Public HCIII			1																					1
WAKISO	BUSHIRO SOUTH	KASANJE	BUSISI SDA	NGO HCIII				1																				1
WAKISO	BUSHIRO SOUTH	KATABI	NALOGALA HCII	Public HCII																								1
WAKISO	BUSHIRO SOUTH	SSISA	NAKAWUKA HCII	Public HCII																								1
WAKISO	ENTEBBE MUNICIPALITY	DIVISION A	KIWARU	UYRI																								1
WAKISO	ENTEBBE MUNICIPALITY	DIVISION A	KIWARU	UYRI																								1
WAKISO	ENTEBBE MUNICIPALITY	DIVISION A	ENTEBBE GENERAL WING	Public Hospital			1																					1
WAKISO	ENTEBBE MUNICIPALITY	DIVISION A	ENTEBBE HOSPITAL PRIVATE	Private Hospital			1																					1
WAKISO	ENTEBBE MUNICIPALITY	DIVISION B	WISOKA CHARITY NURSING HOME	Private HCH																								1
WAKISO	KYADONDO EAST	KIRA	KIRA HC III	Public HCIII																								1
WAKISO	KYADONDO EAST	KIRA	BWYOGERERE WOLUWA HC III	NGO HCIII																								1
WAKISO	KYADONDO EAST	KIRA	KIRINYA HC II	Public HCH																								1
WAKISO	KYADONDO EAST	KIRA	FOYER-DE-CHARITY HCII	NGO HCII																								1
WAKISO	KYADONDO EAST	NABWERU	KAWANDA	Public HCIII																								1
WAKISO	KYADONDO EAST	NABWERU	NANSANA	Public HCH																								1
WAKISO	KYADONDO EAST	NABWERU	ST. DAVIDE KAZO MEDICAL CENTRE HC II	NGO HCII																								1
WAKISO	KYADONDO EAST	NANGABO	KABUBU	NGO HCII																								1
WAKISO	KYADONDO EAST	NANGABO	TAQHA CBHC	NGO HCH																								1
WAKISO	KYADONDO NORTH	BUSUKUMA	KASOZI	Public HCIII																								1
WAKISO	KYADONDO NORTH	BUSUKUMA	NAMUJONGE HC III	Public HCIII																								1
WAKISO	KYADONDO NORTH	GOMBE	MUTUGA	Public HCH																								1
WAKISO	KYADONDO NORTH	GOMBE	TTIKALU	Private HCII																								1
WAKISO	KYADONDO NORTH	GOMBE	MIGADDE	Public HCH																								1
WAKISO	KYADONDO NORTH	GOMBE	GOMBE	Private HCIII																								1
WAKISO	KYADONDO SOUTH	SSABAGABO-MAKINDYE	ATON MEDICAL CENTRE	Public HCH																								1
WAKISO	KYADONDO SOUTH	SSABAGABO-MAKINDYE	ST. MAGDALENE L.WEZA	NGO HCH																								1
WAKISO	KYADONDO SOUTH	SSABAGABO-MAKINDYE	MUTUNDWE	Public HCH																								1
WAKISO	KYADONDO SOUTH	SSABAGABO-MAKINDYE	MASHAIA KYABAGGU HCIII	NGO HCIII																								1
WAKISO	KYADONDO SOUTH	SSABAGABO-MAKINDYE	ST. APOLLO	NGO HCIII																								1
WAKISO	KYADONDO SOUTH	SSABAGABO-MAKINDYE	BUNAMWAYA HC II	Public HCH																								1
WAKISO	KYADONDO SOUTH	SSABAGABO-MAKINDYE	MUTUNGO HCH	Public HCH																								1
YUMBE	ARINGA	APO	APO	Public HCH																								1
YUMBE	ARINGA	KEI	KEI	NGO HCIII																								1
YUMBE	ARINGA	ODRAVU	OKUYO	NGO HCII																								1
YUMBE	ARINGA	ODRAVU	ABIRAMAJO	NGO HCII																								1
YUMBE	ARINGA	ROMOGI	LOCOMBO	Public HCH																								1
YUMBE	ARINGA	YUMBE T.C	YUMBE DISTRICT VACCINE STORE	District Store																								2
					129	250	153	108	5	426	10	14	69	77	192	5	24	11	4	3	2							1422

18 A

Appendix 8 List of References

Reference	Publisher	The Time of Issue
Health Sector Strategic Plan (HSSP I)	Ministry of Health	2000/01-2004/05
Health Sector Strategic Plan II (HSSP II)	Ministry of Health	2005/06-2009/10
Uganda Health and Nutrition Thematic Paper	Government of Uganda	Nov./2008
National Health Policy II (Draft)	Ministry of Health	May/2009
UNEPI Multi Year Plan 2006-2010	Ministry of Health	Revised Oct./2008
UNEPI Multi Year Plan 2010-2014	Ministry of Health	Aug./2009
UNEPI Standards second edition	Ministry of Health	June/2005
Cold Chain and Vaccine Management Review 2007	UNEPI	Revised Nov./2007
Annual Health Sector Performance Report 2006/07	Ministry of Health	Oct./2007
Annual Health Sector Performance Report 2007/08	Ministry of Health	Oct./2008
Uganda Demographic and Health Survey 2006	Uganda Bureau of Statistics	Nov./2006
Projections of Demographic Trends in Uganda 2007-2017	Uganda Bureau of Statistics	Dec./2007
The State of Uganda Population Report 2008	UNFPA	2008
Background to the Budget 2008/09 Fiscal Year	Ministry of Finance	June/2008
Background to the Budget 2009/10 Fiscal Year	Ministry of Finance	June/2009
Statistical Abstract 2009	Uganda Bureau of Statistics	June/2009

