REPUBLIC OF GHANA
MINISTRY OF HEALTH

PREPARATORY SURVEY REPORT
ON
THE PROJECT FOR THE DEVELOPMENT OF COMMUNITY-BASED HEALTH PLANNING AND SERVICES INFRASTRUCTURE IN THE UPPER WEST REGION
IN
THE REPUBLIC OF GHANA

MARCH 2012

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

MOHRI, ARCHITECT & ASSOCIATES, INC.
FUJITA PLANNING CO., LTD.

HDD
JR
12-015

REPUBLIC OF GHANA
MINISTRY OF HEALTH

PREPARATORY SURVEY REPORT
ON
THE PROJECT FOR THE DEVELOPMENT OF COMMUNITY-BASED HEALTH PLANNING AND SERVICES INFRASTRUCTURE IN THE UPPER WEST REGION
IN
THE REPUBLIC OF GHANA

MARCH 2012

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

MOHRI, ARCHITECT & ASSOCIATES, INC.
FUJITA PLANNING CO., LTD.

PREFACE

Japan International Cooperation Agency (JICA) decided to conduct the preparatory survey and entrust the survey to a joint venture headed by Mohri, Architect and Associates, Inc. (consisting of Mohri, Architect and Associates, Inc. and Fujita Planning Co., Ltd.).

The survey team held a series of discussions with the officials concerned of the Government of Ghana, and conducted field investigations. As a result of further studies in Japan, 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.

Finally, I wish to express my sincere appreciation to the officials concerned of the Government of Ghana for their close cooperation extended to the survey team.

March, 2012

Nobuko Kayashima
Director General,
Human Development Department
Japan International Cooperation Agency

SUMMARY

1. Outline of the Country

The Republic of Ghana (hereinafter referred to as "Ghana") is situated in West Africa, and has a land area of 238,537 km^2 and a population of about 24.22 million (2010)[1]. It faces the Gulf of Guinea to the south, Côte d' Ivoire to the west, Togo to the east, and Burkina Faso to the north. Ghana is vertically long from north to south, and so while the southern region facing the Gulf of Guinea is active in trade, the northern region is inland, making a socio-economical development gap among the regions. Particularly, there is an important gap between Northern Savanna, which includes the Upper West Region (hereinafter referred to as the "UW Region"), and the rest of the regions. Regarding the climate, the southern area where the capital city Accra is situated, is a tropical rainforest climate on the one hand, and the northern area belongs to the tropical savanna climate on the other hand.

The economy of Ghana is dependent on the primary commodities of major industries such as agriculture and mining, and agriculture accounts for about 60% of the employment. According to the World Bank (hereinafter referred to as the "WB"), the composition of the GDP by sector was Agriculture 32%, Industry 19%, and Services 49% in 2009. The major export commodities are Cocoa, Gold, and Timber, and Cocoa is an export commodity that accounts for about 18% of FOB (average of 2008-2009, WB). In addition, Ghana started commercial production of oil from 2010. Ghana locates oil and gas industry development at the heart of the national development agenda, and is working on its expansion. Based on the categorization of the WB, Ghana is ranked as a middle income country with a GNI per capita attaining 1,190 USD in 2009.

2. Background and Outline of the Grant Aid

As we can see from the statistics by WHO[2], in Ghana, both the maternal mortality rate (560 per 100,000 live births) and the under-five mortality rate (76 per 1,000 live births) have not achieved the target of the Millennium Development Goals (herein after referred to as "MDGs"), which signifies the necessity of further improvement of mother and child health status. The situation is especially severe in the Upper West Region (hereinafter referred to as the "UW Region"), where the infant mortality rate (97 per 1,000 live births) and under-five mortality rate (142 per 1,000 live births) are considerably high, compared to the rates of other regions in Ghana[3].

[1] Ministry of Foreign Affairs of Japan
[2] WHO (2010) World Health Statistics 2010
[3] Ghana Demographic and Health Survey 2008 (2009)

Under such circumstance, Ghana launched the Community-based Health Planning and Services (hereinafter referred to as "CHPS") program as a national program in 1999, with the objective to improve access to health services and to promote health at the community level. The CHPS program aims to construct 1,706 CHPS compounds[4] by 2015 and to have CHPS services available and accessible to all Ghanaians who need it by 2015.

However, due to restrictions such as financial constraints, the coverage population of CHPS in the UW region remains low at 29% (2010), and the expansion of the CHPS service area is a task yet to be achieved. For the above-mentioned reasons, the Government of Ghana has requested a grant aid to the Government of Japan for the construction of CHPS compounds in the UW Region.

3. Summary of the Survey and the Content of the Project

In response to this request, Japan International Cooperation Agency (hereinafter referred to as "JICA") decided to implement a preparatory survey consisting of Field Survey I (April 14 to May 14, 2011), Field Survey II (June 18 to July 10, 2011), Field Survey III (October 23 to November 3, 2011) and Field Survey IV (February 27 to March 9, 2012).

3-1. Project Sites

As candidate sites, 80 sites were selected and requested from areas where a CHPS is not yet operational, especially prioritizing deprived areas where health services are underserved and where it is difficult for the other development partners' aid to reach. In Field Survey I, site surveys were implemented at the 80 candidate sites.

After the site surveys, it was determined that 7 of the requested sites overlapped with the CHPS construction projects by the District Assemblies. Therefore, these 7 sites will be excluded from the construction plan, and will only be subject to the procurement of equipment. Therefore, the Project sites for CHPS compounds will be 73 sites, and all 80 sites will be covered for the procurement of CHPS equipment.

The number of Project sites per district in the UW Region is shown below.

[4] A CHPS compound is a health facility complex with a consulting section and a residential section.

Number of Project sites per district

District	Number of Project sites	CHPS compound construction sites
Jirapa	7	7
Lambussie	8	8
Lawra	8	6
Nadowli	9	7
Sissala East	9	9
Sissala West	10	10
Wa East	9	8
Wa Municipal	10	8
Wa West	10	10
Total	80	73

3-2. Project components

① CHPS compound

The design of the CHPS compounds will follow the GHS standard design. The size of the CHPS compound will be the minimum size necessary for CHPS activities, and the same size will be applied to all sites. Furthermore, 2 health staffs are assumed to be permanently stationed, since CHPS activities include home visits and other outside work in addition to consultation at the CHPS compound.

The size of the CHPS compound is shown below.

Size of the CHPS compound

Section		Floor area
CHPS building	Consulting section	28.35m^2
	Residential section 1	39.96 m^2
	Residential section 2	39.96 m^2
	Septic tank (underground)	-
	Total	108.27 m^2
Toilet building		4.50 m^2
Total floor area		112.77 m^2

① CHPS equipment

The CHPS equipment for the Project has been discussed with the Ghanaian counterpart using the equipment list of the technical assistance project “Scaling up of Community Based Health Planning and Services (CHPS) Implementation in the Upper West Region”, and the quantity of each equipment and necessity of additional equipment have been reviewed. The list of CHPS equipment is shown below.

List of CHPS equipment

No.	Category	Description	Qty. /CHPS	Unit	Target sites	Total Qty.
1	General	Sphygmomanometer	1	pc	80	80
2	General	Stethoscope	2	pcs	80	160
3	General	Weighing scale (adult)	1	pc	80	80
4	General	Height scale (adult)	1	pc	80	80
5	General	Weighing scale (baby, flat type)	1	pc	80	80
6	General	Height scale (baby)	1	pc	80	80
7	General	Measuring tape	2	pcs	80	160
8	General	Thermometer digital	2	pcs	80	160
9	General	Brest watch	2	pcs	80	160
10	General	Examination couch	1	pc	80	80
11	General	Snellen's chart	1	pc	80	80
12	General	Nurse scissors (5 1/2")	1	pc	80	80
13	General	Apron, vinyl	1	pc	80	80
14	General	Kidney dish (L, M, S)	1	set	80	80
15	General	Gallipot (L, M, S)	1	set	80	80
16	General	Instrument tray with cover (M, S)	1	set	80	80
17	General	Sterilizing drum (medium)	2	pcs	80	160
18	General	Boiling sterilization case with lid	1	pc	80	80
19	General	Pedal waste bin	1	pc	80	80
20	Outreach	Home visiting bag	1	pc	80	80
21	Outreach	Weighing scale (hanging type for baby)	1	pc	80	80
22	Dressing	Dressing instrument set	1	set	80	80
23	ANC	Foetal Stethoscope	1	pc	80	80
24	ANC	Vaginal speculum Cusco (medium)	1	pc	80	80
25	ANC	Examination bed for obstetrics	1	pc	80	80
26	Delivery	Delivery instrument set	1	set	80	80
27	Delivery	Vacuum extractor, manual	1	pc	80	80
28	Delivery	Ambubag（for adult & infant）	1	set	80	80
29	Medical furniture	Consultation desk & chair	1	set	80	80
30	Medical furniture	Chair for patient	1	pc	80	80
31	Medical furniture	Medical cupboard	1	pc	80	80
32	Medical furniture	Veronika bucket (small)	1	pc	80	80
33	Medical furniture	Veronika bucket (large)	1	pc	80	80
34	EPI	Refrigerator for vaccine	1	pc	80	80
35	Transport	Motorbike	1	pc	80	80

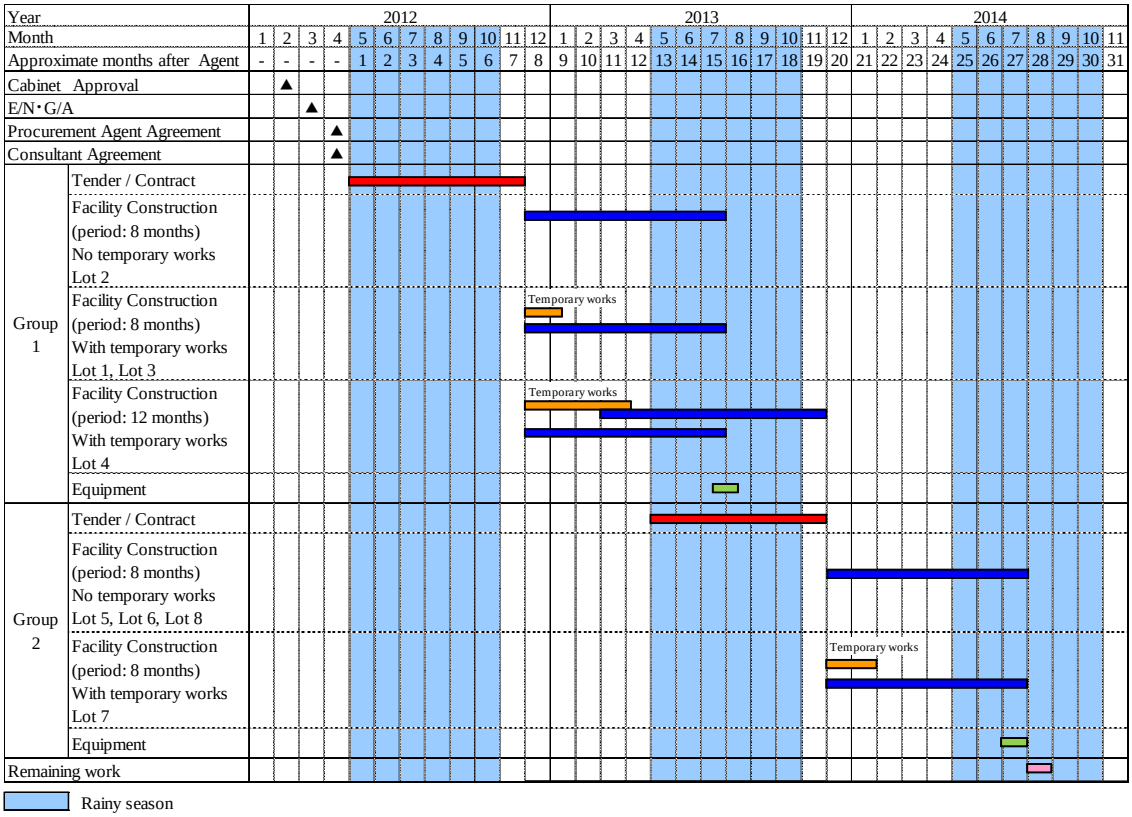
4. Implementation Schedule and Cost Estimation

In the Project, facility construction of CHPS compounds is divided into 2 groups by different construction commencement timings. Sites that require longer construction periods are included in the first construction group. Similarly, the equipment will be divided into 2 groups, according to the timing of delivery.

The facility construction is estimated to take about 8 months in total: 1 month for preparation work, 5 months for building work, 1 month for inspection and corrective work, and 1 month for the time difference, since the commencement of work is scheduled one month later for some of the sites. In the case that placing concrete blocks in the river beds is necessary as temporary works, it is estimated to take about 1.5 ~ 2 months in total: 1 month for preparation work, 0.5~1 month for placing work. Likewise, in the case that placing a culvert is necessary, it is estimated to take about 4.2 months in total: 1 month for preparation work and 3.2 months for construction work.

The tentative Project implementation schedule is as follows.

Project implementation schedule (tentative)



The cost to be borne by the Ghanaian side is estimated to be approximately 3,060,400 GCedis (equivalent to approximately 170.7 million yen).

5. Project Evaluation

5-1. Relevance

The necessity of the Project from the perspective of human security is high, since the Project serves to offer the people of the project target area the health services including health promotion activities, which they were not subject to until now.

The expansion of CHPS compounds is clearly stated in the “Ghana Shared Growth and Development Agenda (GSGDA), 2010-2013”, which was drawn up as the medium term development Strategy. Equally, improvement of CHPS service is mentioned as an important challenge in “the Health Sector Programme of Work 2007-2011”. Therefore, the consistency between the Project and the development strategies in Ghana is high.

Furthermore, the Project contributes to the expansion of access to treatment and prevention for maintaining maternal and infant health in the communities of rural areas (UW Region). In other words, it contributes to the enforcement of community-based and facility-based prevention and treatment as part of an important development field of Japan in Ghana, “Strengthening community-based prevention and treatment” and for the achievement of Goal 5 of MDGs (reducing the maternal mortality ratio) stated in Japan’s Global Health Policy 2011-2015. Thus, the Project has high consistency with the Japanese aid policy.

As the Project contributes to the fulfillment of needs, is consistent with the Ghanaian development policy, and is in conformity with the Japanese development aid policy, it can be said that the Project is relevant.

5-2. Effectiveness

The following effectiveness is expected as a result of the implementation of the Project.

(1) Quantitative effect

Table5-1 Quantitative effect

Index	Base value (2010)	Target value (2016)
Ratio of population covered by CHPS in UW Region (%)	29 *1	50 *2
Ratio of skilled delivery in UW Region (%)	46 *1	75 *3
Penta 3 coverage in UW Region (%)	83 *1	90 *3

*1 UW Regional Health Services 2010 Annual Report

*2 Calculated from documents of UW Regional Health Administration CHPS Unit (2011)

*3 Calculated from Ghana Country Programme Document 2012-2016. The target value takes into consideration the improvement of the quality of maternal and child health services, expansion plan of vaccinations, technical assistance and supply of equipment by other development partners.

(2) Qualitative effect

① The awareness of health (rise in concern for health and disease, notion to participate in CHPS activity, etc.) of the people is raised, by community participation in health activities and health promotion activities as part of CHPS activity.

② The improvement of life of individual community residents is noticed, as an effect of the acceleration of awareness and the condition of health by CHPS activities.

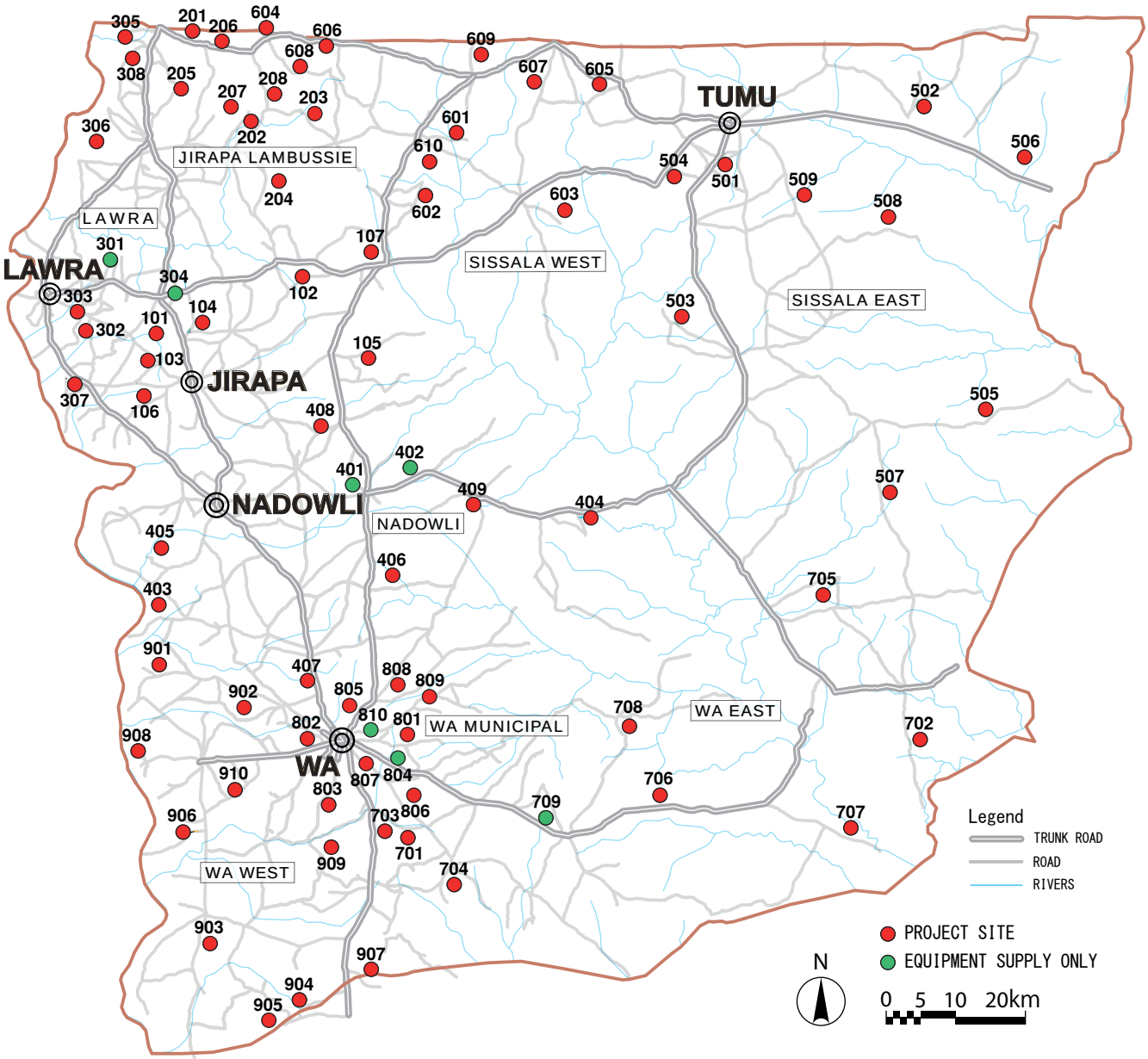
③ The satisfactory level toward public health services is improved by CHPS activities by the CHOs.

From the above-mentioned reasons, the relevancy of the Project is high, with potential for effectiveness.

Contents

[Appendices]

SITE LOCATION MAP



PERSPECTIVE

List of Figures and Tables

Abbreviations

B/A	Banking Arrangement
CHC	Community Health Committee
CHN	Community Health Nurse
CHO	Community Health Officer
CHPS	Community-based Health Planning and Services
CHV	Community Health Volunteer
CWSA	Community Water and Sanitation Agency
DFR	Department of Feeder Roads
DHA	District Health Administration
DHMT	District Health Management Team
E/N	Exchange of Notes
G/A	Grant Agreement
GACE	Grant Aid for Community Empowerment
GCedis	Ghana Cedis
GHA	Ghana Highway Authority
GHS	Ghana Health Service
GOG	Government of Ghana
GOJ	Government of Japan
GSB	Ghana Standard Board
IEC	Information, Education, and Communication
IGF	Internally Generated Fund
JICA	Japan International Cooperation Agency
JICS	Japan International Cooperation System
KVIP	Kumasi Vented Improved Pit
MDGs	Millennium Development Goals
MOFEP	Ministry of Finance and Economic Planning
MOH	Ministry of Health
MRH	Ministry of Roads and Highways
NHIS	National Health Insurance Scheme
RHA	Regional Health Administration
RHMT	Regional Health Management Team
RMS	Regional Medical Store
SDHT	Sub-District Health Team
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
UW	Upper West
WHO	World Health Organization

Chapter1: Background of the Project

Chapter 1: Background of the Project

1-1 Background and Outline of the Grant Aid

The health status in the Republic of Ghana (hereinafter referred to as "Ghana") has seen improvement in recent years. However, as we can see from the statistics by WHO[1], both the maternal mortality rate (560 per 100,000 live births) and the under-five mortality rate (76 per 1,000 live births) have not achieved the target of the Millennium Development Goals (herein after referred to as "MDGs"), which signifies the necessity of further improvement. The situation is especially severe in the Upper West Region (hereinafter referred to as the "UW Region"), where the infant mortality rate (97 per 1,000 live births) and under-five mortality rate (142 per 1,000 live births) are considerably high, compared to the rates of other regions in Ghana[2].

Under such circumstances, Ghana has placed a special emphasis on the three northern states including the UW Region in the medium term development strategy "Ghana Shared Growth and Development Agenda (GSGDA), 2010-2013". Furthermore, Ghana launched the CHPS program as a national program in 1999, with the objective to improve access to health services and to promote health at the community level, and aims to construct 1,706 CHPS compounds[3] by 2015 and to have CHPS services available and accessible to all Ghanaians who need it by 2015.

However, due to restrictions such as financial constraints, the coverage population of CHPS in the UW region remains low at 29% (2010), and the expansion of the CHPS service area is a task yet to be achieved.

For the above-mentioned reasons, the Government of Ghana (hereinafter referred to as the "GOG") has requested a grant aid to the Government of Japan (hereinafter referred to as the "GOJ") for the construction of CHPS compounds in the UW Region. In response to this request, Japan International Cooperation Agency (hereinafter referred to as "JICA") decided to implement a preparatory survey consisting of Field Survey I (April 14 to May 14, 2011), Field Survey II (June 18 to July 10, 2011), Field Survey III (October 23 to November 3, 2011) and Field Survey IV (February 27 to March 9, 2012).

[1] WHO (2010) World Health Statistics 2010
[2] Ghana Demographic and Health Survey 2008 (2009)
[3] A CHPS compound is a health facility complex with a consulting section and a residential section.

1-2 Natural Environmental Conditions

(1) Climate

In Ghana, the southern part belongs to the tropical rainforest climate on the one hand, and the northern part belongs to the tropical savanna climate on the other hand. The UW Region, situated in the northern part, belongs to the savanna climate, and the rainy season and the dry season are distinct. The rainy season is between May and October for a period of approximately 6 months, and the monthly precipitation is the highest in August, which may go up to 300mm. During the raining season, there are localized torrential downpours, and the precipitation may exceed 50mm per hour.

Also, there are prevailing winds from the northeast during the dry season, and from the southwest during the rainy season. The annual temperature difference is around 3°C, but the average maximum temperature will rise nearly to 40°C in March, which is the dry season before the beginning of the rainy season. The region has a high temperature throughout the year, and high humidity during the rainy season.

(2) Soil Conditions

Soil investigation was implemented during Field Survey II, since there was possibility of expansive soil at six of the Project candidate sites. A sample was collected and tested at the laboratory for every meter of depth, from a pit of 3m depth at each of the six sites. As a result, it has been confirmed that there was no expansive soil at any of the investigated sites.

(3) Water Quality

Water quality inspection was done during Filed Survey I for 71 sites with an existing nearby well, out of 73 construction sites. By assigning a local institution, a sample was collected from each site, and tested in the laboratory. Since the result of the laboratory test indicated that there are sites where some of the testing items did not satisfy the standard of the Ghana Standard Board, the UW Regional Health Administration confirmed to prevail upon the Community Water and Sanitation Agency (hereinafter referred to as “CWSA”) for the execution of improvement measures. As for the 2 sites where there aren’t any nearby well, it has been agreed that the Ghanaian side will provide water source and inspect the water quality.

1-3 Considerations for Environmental and Social Issues

There will be no removal of inhabitants related to the Project, because the Project sites are all vacant land. There are certain sites where uprooting of some trees is necessary, but these uprooting works will not disturb the ecosystem of the animals and plants. To consider the environmental issue for the disposal of sewage, the Kumasi Vented Improved Pit (hereinafter referred to as “KVIP”) latrine will dispose of the sewage by natural ventilation, and a septic tank will be set up for flush toilets.

Chapter 2: Contents of the Project

Chapter 2: Contents of the Project

2-1 Basic Concept of the Project

2-1-1 Overall Goal and Project Goal

Ghana has been implementing the CHPS program with the objective to improve the access to health services and to accelerate the people's health conditions, and aims to "construct 1,706 CHPS compounds by 2015" as well as "to have the CHPS services available and accessible to all Ghanaians who need it by 2015". In this relation, the Project aims to improve the access of the people in the UW Region by construction and equipment of CHPS Compounds.

2-1-2 Outline of the Project

For the realization of the above-mentioned objective, the Project aims to construct and equip CHPS compounds at 80 sites (73 target sites for CHPS compounds, and 80 target sites for equipment). Through the implementation of the Project, access to health services for the people of the surrounding communities is expected to improve, as a consequence of construction and equipping of CHPS compounds in the UW Region. Within the context of the Project, the contents of the cooperation are to construct 73 CHPS compounds and to equip medical equipments at 80 sites.

2-2 Outline Design of the Requested Japanese Assistance

2-2-1 Design Policy

2-2-1-1 Basic Policy

The Project will be designed to correspond to the already mentioned CHPS goal, which aims to make the CHPS services available and accessible to all Ghanaians who need it by 2015, and will include the whole UW Region, regardless of rural/urban areas.

Regarding the requested sites situated in rural areas, there are many unimproved areas on the roads leading to the sites. However, since the construction of CHPS compounds in such rural areas will greatly contribute to the improvement of access to health services for the surrounding communities, for those sites where access is difficult, the construction of CHPS compounds will be planned by executing temporary works in order to secure transportation of construction

vehicles.

2-2-1-2 Policy on Natural Environmental Conditions

(1) Climate

Considering the climate conditions mentioned in 1-2 (1), architectural design will be considered with regard to the following points:

① The window system will use glass louvers, which will effectively take in natural ventilation and prevent rain from coming in, and secure lighting and ventilation on rainy days.

② Since the temperature will rise during the dry season, the design will consider natural ventilation by elevating the ceiling.

③ The rainwater collection system will be planned.

(2) Soil condition

The soil conditions of the sites are generally good, and have enough bearing capacity. Although there was possibility of expansive soil at several sites, as the investigation results confirmed that there was no expansive soil, the foundation of all sites will be designed by continuous footing.

2-2-1-3 Policy on social conditions

(1) Consideration for the disabled

To enable the use of CHPS compounds by disabled persons, a slope will be constructed at the entrance.

(2) Consideration for privacy

Since the CHPS compound is a facility with an adjoining residential section of CHOs (mostly female) and a consulting section that will be visited by various patients, the design will consider the privacy of the residential section.

(3) Participation of the community

In the communities, people live their lives through cooperation and involvement in activities such as consumption, production, labor, and education.

Looking at the situation at the existing CHPS compounds, the community residents support the operation and maintenance of the CHPS compounds for the CHO or the CHN,

who provide health services and contribute to the improvement of their health conditions, by carrying water from the nearby borehole, and supplying water needed for living and operation at the CHPS compound.

As the CHPS program is operated by cooperation between the CHO/CHN and the concerned communities, based on a community-based strategy, the Project will consider support from the communities.

2-2-1-4 Policy on architectural situation/ procurement situation

(1) Machinery and Material

The project will be planned with machinery and material that are procurable in Ghana, for the reduction of construction cost and the facilitation of maintenance.

(2) Labor

To participate in public works, category registration is necessary, and the registration must be applied for by each contractor to the Ministry of Water Resources, Works & Housing. The registration must be updated every year, by application by each contractor.

The architectural enterprises belong to category D, and civil engineering enterprises belong to category K, which are then divided into 4 classes, from class 1 to class 4, based on the average sales of the past three years. Since the basis of sales is not so high for class 1, consisting of major enterprises, more than 100 enterprises are registered in class 1. Since it is difficult to follow the total number even for the Ministry of Water Resources, Works & Housing, where the registration is controlled, it was impracticable to obtain the list of enterprises by category and class.

The basis of registration for contractors is as follows:

Table 2-1 Class of contractors

Class	Sales (average of past 3 years)
Class 1	More than US$500,000
Class 2	More than US$200,000, less than US$500,000
Class 3	More than US$75,000, less than US$200,000
Class 4	Less than US$75,000

Note: basis of sales is the same for architectural and civil engineering contractors

(3) Building code and Building permits

① Building code

The design will follow the National Building Regulations (Ghana, 1996) and the British Standard.

② Building permission

To acquire the necessary building permits for construction, application for building permit shall be submitted to the respective district assembly where each site belongs. For application, the outline of the Project and the design drawings shall be submitted, and the application is assumed to take about 1 to 1.5 months.

2-2-1-5 Policy on the utilization of local contractors

In the Project, the contractors will be selected by competitive tendering, which is only open to Ghanaian contractors. The suppliers of equipment will be selected by international open competitive tendering. The Japanese consultant who was in charge of the preparatory survey will be recommended by JICA, and conclude an agreement with the procurement agency for the services regarding tender assistance and supervision. The Japanese consultant will execute the services by employing local consultant.

The policies regarding the selection of local contractors/suppliers are as follows:

- It is necessary to indicate the selection criteria (size of business, available machinery, past experiences, tender guarantee, etc.) precisely in the tender instructions, considering that the technical level of the contractors in Ghana is not exceedingly high in general. In addition, field inspection regarding the possession of machineries and experiences, and confirmation of financial status will be carried out at the selection stage.
- From the perspective of quality control and schedule control, the tender will target the upper class of category registration.
- For the construction of the facility, the construction fee will be set at around 1 hundred million Japanese yen (approx. US$1.2 million), to encourage the participation of major contractors.
- Technical evaluation will be done, in order, from the bidder with the lowest price, and contract negotiation will be carried out when a successful candidate is found.

2-2-1-6 Policy on the management of maintenance and operation

The health services of the CHPS compound is provided by Community Health Officers (hereinafter referred to as "CHO") who are originally Community Health Nurses (hereinafter referred to as "CHN") having completed 2 years education in community health, been trained for additional 2 weeks (CHO training), and who are technically capable of providing the services. In addition, a supervision system has been built to control the quality of the services, by facilitative supervision of CHPS activities by the responsible Sub-District Health Team (hereinafter referred to as "SDHT").

2-2-1-7 Policy on the grade setting of facility and equipment

(1) Policy on the grade setting of facility

The grade of the CHPS compound will be based on the standard plan of the Ghana Health Service (hereinafter referred to as "GHS"), and apply improvements where necessary. The grade setting will be planned with regard to workability and durability considering the fact that construction will be done by a local contractor and to facilitate the maintenance of the facility.

(2) Policy on the grade setting of equipment

To promote and stabilize the CHPS program, the Project will attempt to ameliorate health services by procuring equipment. The grade of the equipment will be set so that it will correspond to the technical level of the health worker to be assigned to the CHPS compound. Also, to encourage sustainable and effective use, the Project will select equipment that is manageable with the current technical level of workers, and plan to reduce maintenance cost by prioritizing types of equipment that contain a minimum of consumable parts.

2-2-1-8 Policy on construction/procurement method, and execution schedule

Since the Project sites are scattered widely, it is difficult to construct the facilities in all the sites simultaneously from the viewpoint of supervision. Therefore, the construction will be divided into two groups and the start of construction will be scheduled at two different times. Likewise, the equipment will be divided into two groups, according to the timing of delivery.

Group 1 targets the sites in 5 districts, which are Lambussie, Lawra, Sissala West, Sissala East, and Wa West, and include sites with longer construction period due to difficulties of access

during the rainy season. Group 2 targets the sites in Jirapa, Lawra, Nadowli, Wa East, and Wa Municipal.

Considering the fact that contract schedule is often delayed in Ghana, in order to eliminate the factors of delays, the Project will be planned based on the following points:

- Payment conditions which correspond to the construction financial plan of the contractors will be planned
- Reduction of repair work and rework deriving from misunderstanding of the specification and drawings
- Utilization of machinery and material that is easily procurable in the remote areas

2-2-2 Basic Plan (Construction Plan/Equipment Plan)

2-2-2-1 Contents of the request

(1) Requested components

The following components were requested as the original request.

① Construction of 80 CHPS compounds
② Construction of roads and bridges to CHPS compounds
③ Construction of wells in CHPS compounds

However, based on the request made from the Ghanaian side during Field Survey I to prioritize the construction of CHPS compounds and procurement of medical equipment which is essential for the operation of CHPS compound (hereinafter referred to as "CHPS equipment"), the final component request was decided to comprise of CHPS compounds and CHPS equipment only.

Therefore, the permanent roads and bridges that were originally requested will not be part of the Project. In addition, it has been agreed that the construction of the well will be omitted from the Project, since there are existing wells, or a plan of construction of well by the Ghanaian side at all the candidate sites.

(2) Requested sites

As candidate sites, 80 sites were selected and requested from areas where CHPS is not yet operational, especially prioritizing deprived areas where health services are underserved and where the other development partners' aid is difficult to reach. The number of requested sites per district in the UW Region is shown below.

Table 2-2 Number of requested sites per district

District	Number of requested sites
Jirapa	7
Lambussie	8
Lawra	8
Nadowli	9
Sissala East	9
Sissala West	10
Wa East	9
Wa Municipal	10
Wa West	10
Total	80

2-2-2-2 Verification of the validity of requested sites

During Field Survey I, the Survey Team and the Ghanaian side held a discussion and agreed on the conditions that the Project sites must satisfy. The validity of the requested sites was analyzed based on the following conditions.

(1) Conditions

① The demand of health service in surrounding communities is high.

② The lands should be secured.

③ There is no duplication with other kinds of support from government or other development partners for CHPS compound construction.

④ There are no critical obstacles for construction works (land conditions, accessibility of construction vehicles/machines, and spaces)

⑤ Potable water is able to be accessed.

⑥ CHO is allocated to the respective Project sites.

⑦ Community is sensitized properly for the implementation of the Project.

(2) Result of verification

① Demand for health services

The UW Region aims to make 208 CHPS zones operational by 2015. CHPS zones are the smallest units of health service division, targeting one to several communities belonging to the respective CHPS zone. As of June 2011, there are 95 operational CHPS zones, which signify that construction of 113 more CHPS compounds is required. The requested sites for the Project targets 80 zones out of 113 non-operational zones, and the remaining 33 sites are either constructing, or planned in the budget of the GHS.

Therefore, the requested number signifies what will be left when we subtract the spontaneous effort, and demonstrates the adequacy of the request.

The target number in 2015, existing zones (operational, non-operational) and the requested number by district are shown below.

Table 2-3 Number of target and existing CHPS zones and requested sites for the Project

District	2015 Target (Earmarked zones to be operationalized)	Number of operational CHPS zones	Number of non-operational CHPS zones	Requested sites for CHPS compound/ equipment
Jirapa	22	8	14	7
Lambussie	19	8	11	8
Lawra	22	12	10	8
Nadowli	25	16	9	9
Sissala East	23	8	15	9
Sissala West	20	8	12	10
Wa East	26	10	16	9
Wa Municipal	22	12	10	10
Wa West	29	13	16	10
Total	208	95	113	80

(Source: Record of CHPS Unit in UW Regional Health Administration as of June, 2011)

② Land certificate

During Field Survey II, the land-use right certificates for all 73 target sites for the construction of CHPS compounds were submitted to the Regional Health Administration (herein after referred to as “RHA”) of the UW Region, and the Survey Team obtained copies of the certificates.

③ Duplication with other donor’s projects

During Field Survey I, it was determined that 7 of the requested sites overlapped with the CHPS construction projects by the District Assemblies. Therefore, these 7 sites will be excluded from the construction plan based on the conditions indicated above, and will only be subject to the procurement of equipment.

④ Obstacles for construction work

Although the road conditions are generally poor, with the exception of trunk road, they do not hinder the passage of construction vehicles during the dry season. Nevertheless, there are watercourse-crossing points at some of the roads, which become difficult to pass during the rainy season. For the 4 sites where such difficulty arises, passage during the rainy season will be secured by execution of temporary works. The sites where temporary works are required are as follows:

Table 2-4 Sites where temporary works will be executed

District	Site No.	Name of Community
Lambussie	No. 202	Hanchagagan
Sissala East	No. 508	Dolibizon
Wa East	No. 702	Chawuli
Wa West	No. 903	Tegme-Tuole

⑤ Water Quality Inspection

Since there were sites where some of the test results did not fulfill the Ghana Standard, the RHA will request the CWSA to take measures such as chlorination for improvement. Regarding the 2 sites where the nearby well was not completed as of Field Survey I (May 2011), the RHA have agreed to be responsible for securing the source and quality of water.

Table 2-5 Sites where construction of well is required

District	Site No.	Name of Community
Wa Municipal	No. 801	Jonga
Wa West	No. 905	Tieyiri

⑥ Allocation of personnel to CHPS compounds

The allocation of CHO/CHN is planned at all sites (CHPS zones). Furthermore, the Ghanaian side has made a commitment to train and assign the necessary number of CHOs to each CHPS zone, before the completion of the construction of the CHPS compounds. The plan for the training and assignment of the CHO/CHN will be mentioned in 2-4-1.

⑦ Situation of Community awareness and participation

GHS has provided the “CHPS Operational Policy” as a guideline for CHPS, and indicates a step-by-step activity sequence.

The 15 items of the step-by-step CHPS activities are shown below.

Table 2-6 Fifteen items of the CHPS activity

No.	Contents of the activity	Community participation
1	Program planning: situation analysis and problem identification at the level of the District Health Management Team (hereinafter referred to as "DHMT"), Consultation with District Assembly (Chief Executive and the Social Services Sub Committee), Selection of Communities	-
2	Consultation and Sensitization of health workers	-
3	Dialogue with community leadership	●
4	Community Information Durbar (community meeting)	●
5	Selection and training of CHOs	●
6	Selection and orientation of Community Health Committee members, and durbar approval	●
7	Compilation of community profile	-
8	Construction of CHPS compounds	-
9	Mobilization of logistics	-
10	Durbar of formal launching of the CHO program	●
11	Selection of Community Health Volunteers (hereinafter referred to as "CHV")	●
12	Durbar for approval of CHVs	●
13	Training of CHVs	-
14	Mobilization of logistics and equipping the volunteers	-
15	Durbar to launch the CHV program	●

Source: made in accordance with the CHPS Operational Policy by GHS

The final community participation activity before the construction of the CHPS compound is the 6th activity, the "Selection and orientation of Community Health Committee members", which is implemented by collaboration between DHMT, Sub-District Health Team (hereinafter referred to as "SDHT"), and the community leader group.

As of June 2011, 34 zones out of the 80 requested CHPS zones have completed the selection of an official Community Health Committee. Also, similar/alternative committees (unofficial committees), which act for health related discussions and activities, exist in 46 zones. These committees will be officially approved at the stage when the CHPS zone is made operational.

From the above-mentioned situation, it can be said that the selection of Community Health Committees at the requested sites is nearly completed in all of the requested 80 sites.

2-2-2-3 Sites and components of the Project

(1) Project sites

Based on the results of the verification regarding the validity of requested sites, the Project sites for CHPS compounds will be 73 sites, and all 80 sites will be covered for the procurement of CHPS equipment. The list of Project sites and the priority for the construction of CHPS compounds is as follows:

Table 2-7 Project sites and priority order for CHPS compound construction

District	Site No.	Sub-District	Community	Priority
Jirapa	101	Duroi	Tamapuo	1
	102	Ullo	Ulkpng	10
	103	Tuggo	Doggo/Konzokala	19
	104	Jirapa	Zingpuuroyiri	28
	105	Sabuli	Chacha/Guo	37
	106	Yagha	Tie	46
	107	Hain	Chepuuri/Guri	55
Lambussie	201	Hamile	Happa/B-Line	63
	202	Piina	Hanchagagan	11
	203	Samoa	Dindee	20
	204	Samoa	Naawie	29
	205	Billaw	Nabaala	38
	206	Hamile	Bamwon	47
	207	Billaw	Katiligo	56
	208	Samoa	Bognuo	2
Lawra	301	Eremon	Dazur	-
	302	Lawra	Tongo/Zakpee	3
	303	Zambo	Kalsare	12
	304	Domwine	Buokal	-
	305	Puffien	Birechiiteng	21
	306	Gengemkpe	Tanchara	30
	307	Babile	Brif-Cha	39
	308	Puffien	Guri	48
Nadowli	401	Daffiama	Owlu	-
	402	Issa	Wogu	-
	403	Nanvilli	Meguo	4
	404	Kojokpere	Jolinyiri	13
	405	Charikpong	Biire	22
	406	Jang	Kpandiga	31
	407	Kaleo	Loho	40
	408	Daffiana	Tuori	49
	409	Fian	Sulaguo	57
Sisala East	501	Tumu	Kong	5
	502	Kunchogu	Piina	14
	503	Wellembele	Jiien	23
	504	Tumu	Lilixi	32
	505	Nabulo	Goasi	41
	506	Kunchogu	Banu	50
	507	Nabulo	Du East	58
	508	Nabugubele	Dolibizon	64
	509	Nabugubele	Bujian	69
Sisala West	601	Zini	Heil	6
	602	Zini	Wassai	15
	603	Jeffesi	Timmie	24
	604	Fielmuo	Chetu (Kyetu)	33
	605	Gwollu	Kusali	42
	606	Fielmuo	Konchuri	51
	607	Gwollu	Nyimeti	59
	608	Fielmuo	Kankanduole	65
	609	Gwollu	Gbal	70
	610	Zini	Niator	71
Wa East	701	Loggu	Tanina	7
	702	Kundugu	Chawuli	16
	703	Loggu	Polee	25
	704	Loggu	Balayiri	34
	705	Funsi	Tinniabe	43
	706	Bulenga	Kande	52
	707	Holomuni	Kpawuliwagu	60
	708	Funsi	Jong Fian	66
	709	Bulenga	Goripie	-
Wa Municipal	801	Busa	Jonga	8
	802	Kambali	Mangu/Sombo	17
	803	Kambali	Dandafuri/Kagu	26
	804	Bamahu	Sing	-
	805	Wa Central	Kanbiehi	35
	806	Busa	Biihee	44
	807	Wa Central	Dokpong	53
	808	Charingu	Kunjenhi	61
	809	Charingu	Yibile	67
	810	Wa Central	Dondoli	-
Wa West	901	Eggu	Bultuo	9
	902	Eggu	Asse	18
	903	Wechiau	Tegme-Tuole	27
	904	Gurungu	Yuonuuri	36
	905	Gurungu	Tieyiri	45
	906	Wechiau	Bamkpama	54
	907	Ponyentanga	Domongyilli	62
	908	Dorimon	Janbusi	68
	909	Lassie Tuolu	Kangba	72
	910	Dorimon	Domawa	73

Sites with CHPS equipment only

(2) Project components

① CHPS compound

The design of the CHPS compounds will follow the GHS standard design. The size of the CHPS compound will be the minimum size necessary for CHPS activities, and the same size will be applied to all sites. Furthermore, 2 health staffs are assumed to be permanently stationed, since CHPS activities include home visits and other outside work in addition to consultation at the CHPS compound.

The size of the CHPS compound is shown below.

Table 2-8 Size of the CHPS compound

Section		Floor area
CHPS building	Consulting section	28.35m^2
	Residential section 1	39.96 m^2
	Residential section 2	39.96 m^2
	Septic tank (underground)	-
	Total	108.27 m^2
Toilet building		4.50 m^2
Total floor area		112.77 m^2

② CHPS equipment

The CHPS equipment for the Project has been discussed with the Ghanaian counterpart using the equipment list of the technical assistance project “Scaling up of Community Based Health Planning and Services (CHPS) Implementation in the Upper West Region”, and the quantity of each equipment and necessity of additional equipment have been reviewed.

Table 2-9 Alternation from the equipment of technical assistance project “Scaling up of Community Based Health Planning and Services (CHPS) Implementation in the Upper West Region”

Category	No.	Description	Quantity change	Additional equipment	Reason for modification
General	1	Sphygmomanometer	1→1		
	2	Stethoscope	2→2		
	3	Weighing scale (adult)	1→1		
	4	Height scale (adult)	0→1	●	For outpatient consultation
	5	Weighing scale (baby, flat type)	0→1	●	For outpatient consultation
	6	Height scale (baby)	0→1	●	For outpatient consultation
	7	Measuring tape	2→2		
	8	Thermometer digital	2→2		
	9	Brest watch	0→2	●	For measuring pulse and breathing rate
	10	Examination couch	0→1	●	For consultation and treatment
	11	Snellen's chart	1→1		
	12	Nurse scissors (5 1/2")	1→1		
	13	Apron, vinyl	1→1		
	14	Kidney dish (L, M, S)	2→1		
	15	Gallipot (L, M, S)	1,1,2→1		
	16	Instrument tray with cover (M, S)	1→1		
	17	Sterilizing drum (medium)	2→2		
	18	Boiling sterilization case with lid	0→1	●	For simple disinfection
	19	Pedal waste bin	0→1	●	For waste disposal during treatment
Outreach	20	Home visiting bag	1→1		
	21	Weighing scale (hanging type for baby)	1→1		
Dressing	22	Dressing instrument set, consisting of 1. Surgical blade holder 2. Surgical blade #24 3. Dissecting forceps (6" toothed & non-toothed) 4. Scissors ordinary (7") 5. Artery forceps (6" str & cvd) 6. Artery forceps (8" str & cvd) 7. Needle holder (big, small)	 2→1 1→1 2→1 2→1 2→1 4→2 2→1		
ANC	23	Foetal Stethoscope	2→1		
	24	Vaginal speculum Cusco (medium)	1→1		
	25	Examination bed for obstetrics	0→1	●	For prenatal/post natal checkup
Delivery	26	Delivery instrument set, consisting of 1. Episiotomy scissors (big, small) 2. Tissue holding forceps 3. Cord scissors 4. Umbilical cord clamp 5. Mucus extractor	 1→1 1→1 2→1 200→20 50→10		
	27	Vacuum extractor (suction) foot, manual	0→1	●	For suction in emergency delivery
	28	Ambubag (for adult & infant)	1→1		
Medical Furniture	29	Consultation desk & chair	0→1	●	For outpatient consultation and documentation
	30	Chair for patient	0→1	●	For outpatient consultation
	31	Medical cupboard	1→1		
	32	Veronika bucket (small)	1→1		
	33	Veronika bucket (large)	1→1		
EPI	34	Refrigerator for vaccine	0→1	●	For expanded vaccine plan
Transport	35	Motorbike	1→1		

Following the discussion, the list for request of equipment with priority was submitted by the Ghanaian side.

The list of equipment request and the contents of analysis is shown below, and the criteria for prioritization are shown in Table 2-11.

Table 2-10 Analysis of selection and quantity setting of CHPS equipment

Category	No.	Description	Requested Qty.	Priority	Result of analysis	Analyzed Qty.
General	1	Sphygmomanometer	1	A	○	1
	2	Stethoscope	2	A	○	2
	3	Weighing scale (adult)	1	A	○	1
	4	Height scale (adult)	1	A	○	1
	5	Weighing scale (baby, flat type)	1	A	○	1
	6	Height scale (baby)	1	A	○	1
	7	Measuring tape	2	A	○	2
	8	Thermometer digital	2	A	○	2
	9	Brest watch	2	A	○	2
	10	Examination couch	1	A	○	1
	11	Snellen's chart	1	A	○	1
	12	Nurse scissors (5 1/2")	1	A	○	1
	13	Apron, vinyl	1	A	○	1
	14	Kidney dish (L, M, S)	1	A	○	1
	15	Gallipot (L, M, S)	1	A	○	1
	16	Instrument tray with cover (M, S)	1	A	○	1
	17	Sterilizing drum (medium)	2	A	○	2
	18	Boiling sterilization case with lid	1	A	○	1
	19	Pedal waste bin	1	A	○	1
Outreach	20	Home visiting bag	1	A	○	1
	21	Weighing scale (hanging type for baby)	1	A	○	1
Dressing	22	Dressing instrument set	1	A	○	1
ANC	23	Foetal Stethoscope	1	A	○	1
	24	Vaginal speculum Cusco (medium)	1	B	○ Confirmation by Ghanaian side to give training	1
	25	Examination bed for obstetrics	1	B	○ Exclusive use for medical service	1
Delivery	26	Delivery instrument set	1	B	○ Exclusive use for medical service	1
	27	Vacuum extractor (suction) foot, manual	1	B	○ Confirmation by Ghanaian side to give training	1
	28	Ambubag (for adult & infant)	1	B	○ Confirmation by Ghanaian side to give training	1
Medical Furniture	29	Consultation desk & chair	1	B	○ Exclusive use for medical service	1
	30	Chair for patient	1	B	○ Exclusive use for medical service	1
	31	Medical cupboard	1	B	○ Exclusive use for medical service	1
	32	Veronika bucket (small)	1	B	○ Exclusive use for medical service	1
	33	Veronika bucket (large)	1	B	○ Exclusive use for medical service	1
EPI	34	Refrigerator for vaccine	1	A	○	1
Transport	35	Motorbike	2	B	○ Exclusive use for medical service	1

Table 2-11 Criteria for prioritization of equipment

Priority	Criteria
A	Equipment which is indispensable for the operation of CHPS compound and which fulfill all the following conditions: 1) Equipment for daily activities of CHPS excluding emergency delivery 2) Equipment which CHO has skill in its use as of the end of June 2011 3) Equipment which is not for general purpose use
B	Equipment which is required for the operation of CHPS compound, but does not fulfill all the conditions of Priority A.
C	Equipment which is not required and/or which cannot be confirmed its necessity for the operation of CHPS compound.

Three items of the requested equipment (No. 24 vaginal speculum Cusco, No. 27 vacuum extractor, and No. 28 ambubag) are recognized to be necessary, but the CHOs have not been trained sufficiently for their use, as of Field Survey II. Therefore, it has been agreed in the Minutes of Discussions that the Ghanaian side will provide training to the CHO/CHN for these items before the completion of delivery of equipment.

Motorbikes are used for outreach activities (home visits, community visits, site visits), supervision of CHVs, transportation of vaccines, and reporting to the SDHT, and is essential equipment for the operation of CHPS. Although the requested quantity was 2 per site, the Project will plan the minimum quantity necessary, which is 1 per site.

2-2-2-4 Architectural plan

(1) Plan for temporary works

There are three types of roads that will be used for access to the Project sites.

- Trunk Road: Managed by the Ghana Highway Authority under the Ministry of Roads and Highways (hereinafter referred to as “MRH”)
- Feeder Road: Managed by the Department of Feeder Road under MRH
- Community Road: Managed by the respective communities

Of the three road types, the Trunk Roads are paved and have no obstacles for the passage of construction vehicles. However, temporary works will be planned along the Feeder roads and the Community roads for some sections where passage will be difficult during the rainy season.

① Feeder Road

Of the 44 sections of Feeder Road to be used for access to the Project sites, there are watercourse-crossing points on the way to sites No. 202, No. 508, and No. 702, as

indicated in Table 2-12. For those crossing points, temporary works are necessary to enable passage during the rainy season. With regard to the ease of procurement, laying, removal, and cost, concrete blocks will be laid for 3m width (one lane).

② Community Road

Community roads are naturally formed, as a result of people passing on foot or by a two-wheeler (or four-wheeled vehicle, once in a while), which are generally dirt roads. Despite the fact that they are dirt roads, there is no hindrance for passage during the rainy season since the soil condition is good. However, since the road leading to site No. 903 has two watercourse-crossing points where passage will be infeasible during the rainy season, box culverts will be placed at the crossing points. After the construction is completed, the box culverts will be devolved to the Ghanaian side, and will be managed by Ghanaian side.

Table 2-12 Contents of temporary works

Site name	Spot for temporary works	Contents of the works
No.202 (Hanchagagan)	1 spot	Laying concrete blocks (18”×8”×5”)
No.508 (Dolibizon)	1 spot	Laying concrete blocks (18”×8”×5”)
No.702 (Chawuli)	3 spots	Laying concrete blocks (18”×8”×5”)
No.903 (Tegme-Tuole)	2 spots	Construction of box culvert (4m×4m)

(2) Layout plan

The CHPS compounds will be laid out in consideration of the site conditions at the Project sites. The points of the layout plan are as follows:

① To plan the layout on flat land, to avoid development works as an undertaking of the Ghanaian side.

② To plan the layout to keep the existing trees as much as possible.

③ To secure appropriate distance between the Toilet building and the CHPS building.

(3) Floor plan

As the GHS standard design has a complicated floor plan with unevenness, the roof is also planned in a complicated shape. For that reason, there are ridges and valleys that have difficult fittings for weatherproofing. Taking into consideration the construction ability of the local contractors, the floor plan will be simplified, and the roof will be a pent roof.

① CHPS building (consulting section)

A consulting room and a waiting area (semi-outdoor) will be provided. The size of the consulting room for the consultation of outpatients by the CHO shall be center

to center measurement: 6.30m×4.50m=28.35 ㎡. The waiting area will be semi-outdoor with only a roof, and will also be used as a porch.

② CHPS building (residential section)

Bedroom, living room, kitchen, and a bathroom with washing space will be provided in two units, so that families of the two CHOs can live separately. A stainless steel sink will be installed in the kitchen, and a western type toilet will be installed in the bathroom with washing space.

③ Toilet building

A KVIP type natural ventilated latrine will be planned as a separate block, for the use of outpatients.

The floor plan comparison is shown in Table 2-13, the contents and floor area of the facility is shown in Table 2-14, and the external area is shown in Table 2-15.

Table 2-13 Comparison of the CHPS compound floor plan

		GHS Standard design	The Project
Structure		Masonry + reinforced concrete structure	Masonry + reinforced concrete structure
Total floor area (construction floor area)		110.34 m^2 (128.44 m^2)	108.27+4.5=112.77 m^2 (167.4+12.6=180 m^2)
Rooms	Rooms for CHPS	Waiting area Consulting room Toilet for patients	Waiting area Consulting room Toilet for patients (KVIP type)
	Rooms for CHO's residence	Bedroom (2) Living room (2) Kitchen (2) Toilet (1) Shower (1)	Bedroom (2) Living room (2) Kitchen (2) Bathroom with washing space (2)

Table 2-14 Contents and floor area of the CHPS compound

Sections/rooms			Floor area	semi-outdoor/ underground area	Construction floor area
CHPS building	Consulting section	Consulting room	28.35 m^2		45.36 m^2
		Waiting area		17.01 m^2 (semi-outdoor)	
	Residential section 1	Living room	14.175 m^2		52.92 m^2
		Bedroom	11.34 m^2		
		Kitchen	7.56 m^2		
		Store	0.81 m^2		
		Hallway	2.025 m^2		
		Bathroom with washing space	4.05 m^2		
		Backyard section with eaves		5.40 m^2 (semi-outdoor)	
		Entrance, motorbike shed		7.56 m^2 (semi-outdoor)	
	Residential section 2	Living room	14.175 m^2		
		Bedroom	11.34 m^2		
		Kitchen	7.56 m^2		
		Store	0.81 m^2		
		Hallway	2.025 m^2		
		Bathroom with washing space	4.05 m^2		
		Backyard section with eaves		5.40 m^2 (semi-outdoor)	
		Entrance, motorbike shed		7.56 m^2 (semi-outdoor)	
	Septic tank			16.20 m^2 (underground)	16.20 m^2
	Total of CHPS block				**167.40 m^2**
Toilet building	Toilet booths		4.50 m^2		21.60 m^2
	Entrances and exterior			8.10 m^2 (outdoor)	
	Latrine pit			9.00 m^2 (underground)	
	Total of Latrine block				**21.60 m^2**
Total construction floor area					**189.00 m^2**

Table 2-15 External area

External area	Front yard	62.37 m^2
	Backyard	41.58 m^2
	Total	103.95 m^2

(4) Section plan

The below mentioned points will be considered, based on the local situation.

- The shape of the roof will be a pent roof, which is easy to construct
- Sloped ceiling will be provided by plywood
- There will be sheathing roof board under the roofing material, and a thermal insulating material will be placed between the ceiling material and roof sheathing

- To effectively take in natural ventilation, ventilation blocks will be placed at the upper part of the wall

(5) Structure plan

The foundation will be a reinforced concrete continuous footing, and for the upper structure, reinforced concrete will be used for columns and girders, and concrete blocks will be used for the walls. The roof frame will be a wooden structure.

(6) Mechanical and electrical plan

① Electrical plan

For those sites where electricity is provided in the nearby area, (No.501 Kong, No. 504 Lilixi, No. 802 Mangu/Sombo, No. 805 Kanbiehi) electrical equipment (lighting, ceiling fans, and outlets) will be installed. For the rest of the sites, only conduit pipes will be provided.

② Water supply plan

Two poly tanks will be installed; one for keeping well water and one for collecting rainwater.

③ Drainage plan

A sewage disposal facility (septic tank) will be provided. The septic tank for the residential section for the CHO and the KVIP latrine for outpatients will be designed so that the sewage can be pumped out periodically.

(7) Material Plan

The construction methods and the specifications for the CHPS compound to be planned in the Project are indicated in the table below.

Table 2-16 Construction method and specification of the CHPS compound

Division		Local common method	Project method	Reason for selection
Main structure	Foundation	Reinforced concrete continuous footing	Same as on the left	Based on the local method
	Column/girder	Reinforced concrete	Same as on the left	Based on the local method
	Wall	Concrete blocks	Same as on the left	Based on the local method
	Roof	Wooden truss	Wooden frame	Consideration of workability
Exterior	Wall	Mortar + paint	Same as on the left	Based on the local method
	Floor	Mortar	Same as on the left	Based on the local method
	Roof	Aluminum sheet	Same as on the left	Based on the local method
	Eave (inner part)	None	Plywood + paint	Improvement of durability
	Doors & windows	Steel frame, Glass louver window, grill, wire mesh, insect screen	Same as on the left	Based on the local method
	Septic tank	Concrete block	Same as on the left	Based on the local method
	Yard	Concrete steel trowel	Interlocking block	Improvement of durability
Interior	Floor	Mortar	Mortar + tile	Improvement of durability
	Wall	Mortar + paint	Same as on the left	Based on the local method
	Ceiling	Plywood + paint	Same as on the left	Based on the local method

2-2-2-5 Equipment plan

(1) Overall plan

① Procurement plan

The procurement of the equipment for the Project will target suppliers who have their head office or branch office in Ghana. Since the majority of the equipment is not manufactured in Ghana, products from a third country, including Japan, will be considered.

② Transportation plan

Equipment that has the risk of poor performance due to shock or excess humidity/temperature will be packed in a way that such an ill effect will not occur.

The hand over place has been agreed with the Ghanaian side to be at the Regional Medical Store (hereinafter referred to as the “RMS”). Consequently, the RHA will be responsible for the conveyance from the RMS to the respective sites. The RMS has a 7-ton truck, a wagon, and a pick-up truck as transportation vehicles, and takes charge of receiving medicine, medical equipment, and stationary from the store of GHS headquarters, and the conveyance to each District Health Administration (hereinafter referred to as “DHA”) as daily operations. In addition, a handwritten document of stock management, receipt, and logistics are prepared for documentation. Furthermore, since the equipment provided by the technical assistance Project

"Scaling up of Community-Based Health Planning and Services (CHPS) Implementation in the Upper West Region" was also handed over at the RMS, and the RMS has experience delivering them to the respective CHPS compounds, its ability proves to be sufficient for the Project.

There are paved trunk roads from Accra and other major cities leading to the RMS, so there is no obstacle to inland transportation.

(2) Equipment plan

As a result of analyzing the requested equipment (2-2-2-3 (2) ②), the CHPS equipment to be procured for the Project is indicated in Table 2-17, and the specifications of the main equipment is indicated in Table 2-18.

Table 2-17 List of CHPS equipment

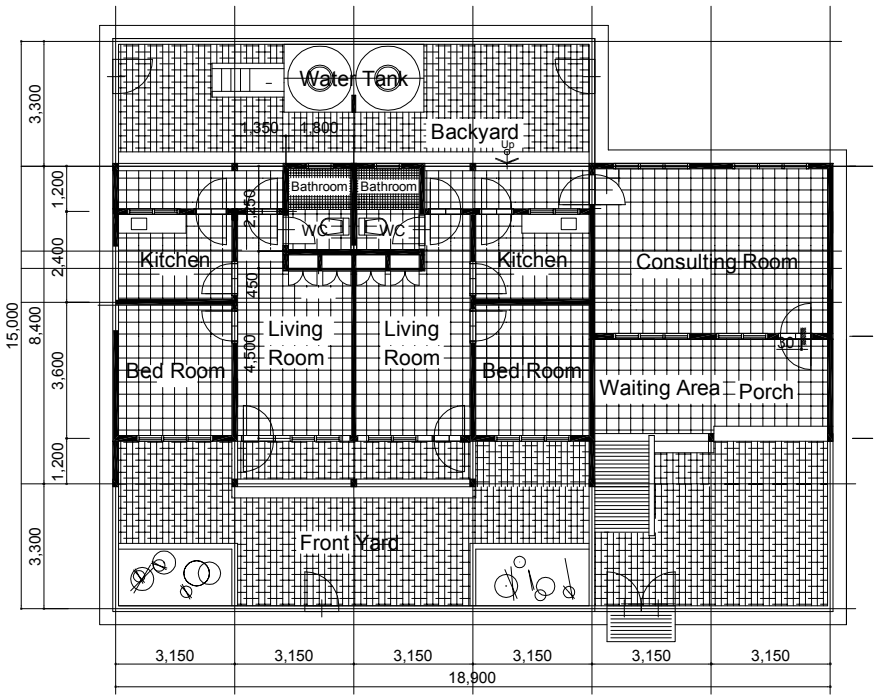
No.	Category	Description	Qty. /CHPS	Unit	Target sites	Total Qty.
1	General	Sphygmomanometer	1	pc	80	80
2	General	Stethoscope	2	pcs	80	160
3	General	Weighing scale (adult)	1	pc	80	80
4	General	Height scale (adult)	1	pc	80	80
5	General	Weighing scale (baby, flat type)	1	pc	80	80
6	General	Height scale (baby)	1	pc	80	80
7	General	Measuring tape	2	pcs	80	160
8	General	Thermometer digital	2	pcs	80	160
9	General	Brest watch	2	pcs	80	160
10	General	Examination couch	1	pc	80	80
11	General	Snellen's chart	1	pc	80	80
12	General	Nurse scissors (5 1/2")	1	pc	80	80
13	General	Apron, vinyl	1	pc	80	80
14	General	Kidney dish (L, M, S)	1	set	80	80
15	General	Gallipot (L, M, S)	1	set	80	80
16	General	Instrument tray with cover (M, S)	1	set	80	80
17	General	Sterilizing drum (medium)	2	pcs	80	160
18	General	Boiling sterilization case with lid	1	pc	80	80
19	General	Pedal waste bin	1	pc	80	80
20	Outreach	Home visiting bag	1	pc	80	80
21	Outreach	Weighing scale (hanging type for baby)	1	pc	80	80
22	Dressing	Dressing instrument set	1	set	80	80
23	ANC	Foetal Stethoscope	1	pc	80	80
24	ANC	Vaginal speculum Cusco (medium)	1	pc	80	80
25	ANC	Examination bed for obstetrics	1	pc	80	80
26	Delivery	Delivery instrument set	1	set	80	80
27	Delivery	Vacuum extractor, manual	1	pc	80	80
28	Delivery	Ambubag（for adult & infant）	1	set	80	80
29	Medical furniture	Consultation desk & chair	1	set	80	80
30	Medical furniture	Chair for patient	1	pc	80	80
31	Medical furniture	Medical cupboard	1	pc	80	80
32	Medical furniture	Veronika bucket (small)	1	pc	80	80
33	Medical furniture	Veronika bucket (large)	1	pc	80	80
34	EPI	Refrigerator for vaccine	1	pc	80	80
35	Transport	Motorbike	1	pc	80	80

Table 2-18 Specification and Purpose of the main equipments

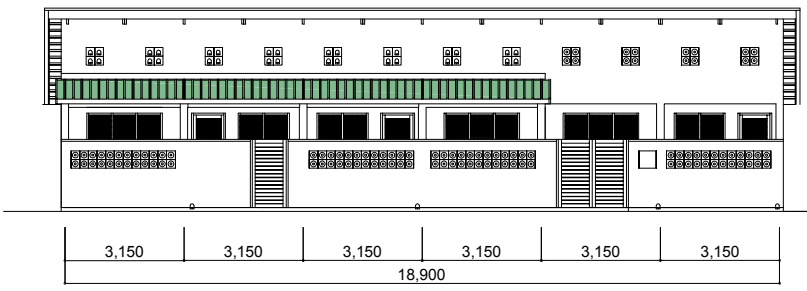
No.	Description	Qty.	Specification	Purpose
3	Height scale (adult)	80	Capacity: 850-2000mm Graduation: 1mm	Use to measure height of adult patient.
6	Height scale(baby)	80	Capacity: 0-990mm Graduation: 5mm	Use to measure height of baby.
10	Examination couch	80	Inclinable head part, without castors.	Use to examine patient in laying position.
18	Boiling sterilization case with lid	80	Stainless steel made	Use to put instrument while boiling sterilization.
22	Dressing instrument set	80	Surgical blade holder and 6 other components.	Instrument for minor dressing in outpatient service.
25	Examination bed for obstetrics	80	Inclinable back board and foot board, with knee support.	Use for examination of expectant and nursing mothers.
26	Delivery instrument set	80	Episiotomy scissors and 4 other components.	Instrument use for attending delivery.
27	Vacuum extractor, manual	80	Manual, with suction cup.	Use for manual extract during delivery.
29	Consultation desk and chair	80	Desk: wooden, single wing, 1400-1600(W)mm Chair: with backrest, castors	Set of desk and chair to conduct patient examination at CHPS.
31	Medical cupboard	80	Double 900(W)mm Wooden or stainless steel	Cupboard for storage of medicines, etc.
32	Veronika bucket (small)	80	Capacity: 60L, plastic and/or rubber made	Use for water supply
33	Veronika bucket (large)	80	Capacity: 120L, plastic and/or rubber made	Use for water supply
34	Refrigerator for vaccine	80	Energy source: electricity/LPG Vaccine storage chamber capacity: 10-15L	Refrigerator indispensable for storage of vaccine.
35	Motorbike	80	Off-road type Displacement: 95-125cc	A means of transportation for CHO for its activities such as home visits.

2-2-3 Outline Design Drawing

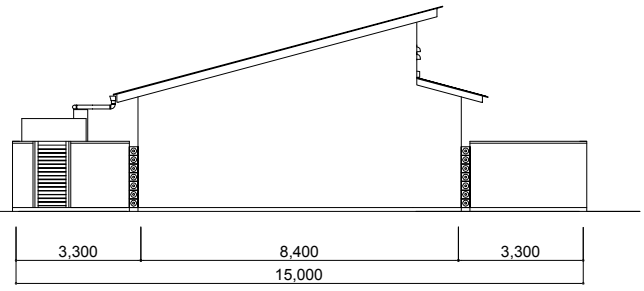
The outline design drawings are shown in the next two pages.



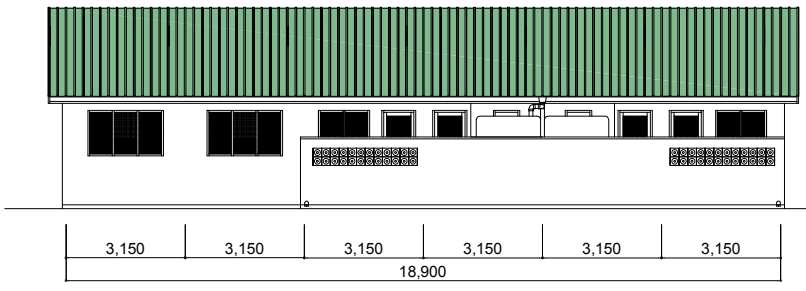
FLOOR PLAN



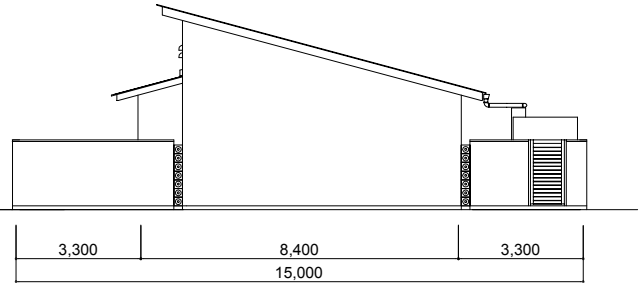
FRONT ELEVATION



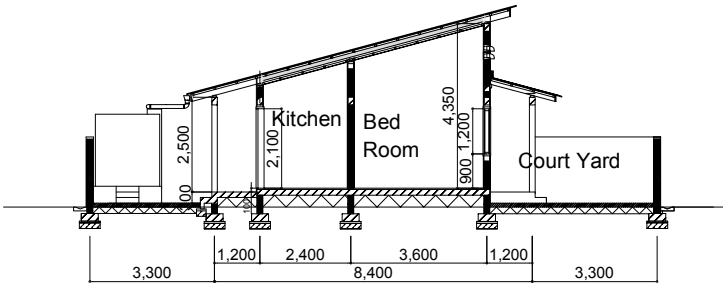
SIDE ELEVATION



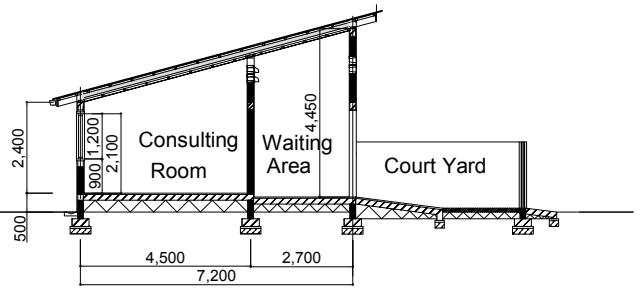
REAR ELEVATION



SIDE ELEVATION

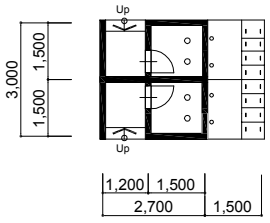


SECTION

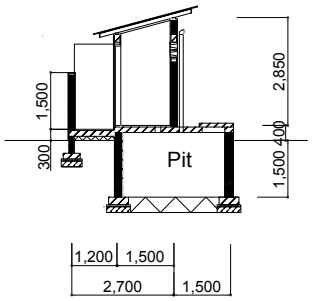


SECTION

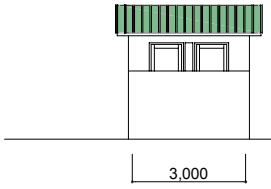
TOILET Building (KUMASI Vented Improved Pit Latrine) S=1/200



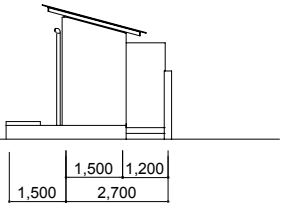
FLOOR PLAN



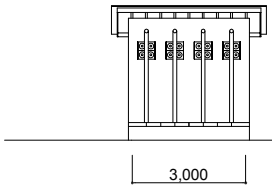
SECTION



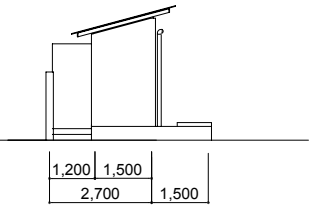
FRONT ELEVATION



SIDE ELEVATION



REAR ELEVATION



SIDE ELEVATION

2-2-4 Implementation Plan

2-2-4-1 Implementation Policy

(1) Implementation by the Procurement Agent

The Project will be implemented in accordance with the Procurement Management Method. The Procurement Agent acts as a project implementation agent to manage the Project fund, procurement, and Project implementation on behalf of GHS. In this Project, Japan International Cooperation System (hereinafter referred to as "JICS") will be designated as the Procurement Agent.

The consulting firm that is responsible for the preparatory survey will be recommended as the Construction Supervision Consultant. The Construction Supervision Consultant will enter into an agreement with JICS to assist in the tender process and supervise the Project implementation.

The Project implementation organizational chart is shown below.

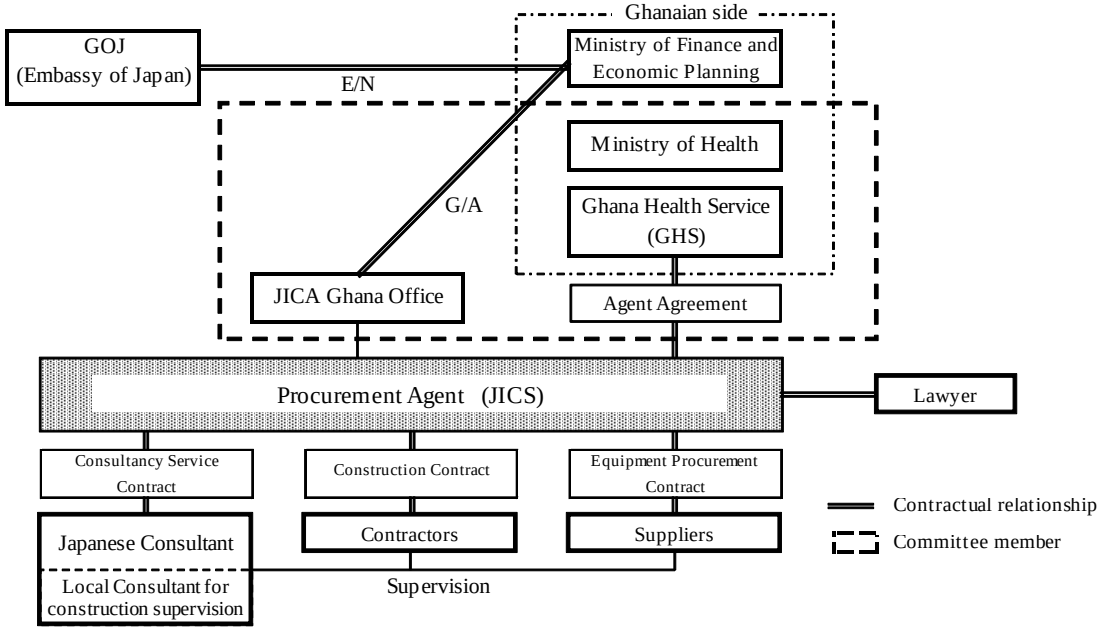


Figure 2-1 Project Implementation Organization

(2) Committee

After the signing of the E/N, a Committee will be organized. The Committee consists of representatives of the GOG and JICA, and JICS will take part as an advisor. From the Ghanaian side, the Ministry of Health (hereinafter referred to as "MOH"), and GHS will participate. Various problems that may occur during the implementation of the Project will be discussed and coordinated in the Committee. In addition, since the sites are in remote areas, a sub-committee will be set up for the management of the Project.

(3) Procurement Agent

As stated previously, the Procurement Agent will manage the Project fund, procurement of various services and products (Lawyer, Construction supervision consultant, Contractors, and Suppliers) as well as Project implementation. The staff allocation and responsibilities of the Procurement Agent are as follows.

Table 2-19 Staff Allocation of the Procurement Agent

Staff		Responsibility
Japanese Staff	Project Manager	To carry out overall supervision work of the Procurement Agent. He/she will be dispatched to Ghana at the time of tenders and during the final stage of Project completion.
	Assistant Project Manager	To be stationed in Ghana for the entire period of tenders and construction as the representative of the Procurement Agent.
	Tender Document Developer	To prepare tender documents for facility construction and equipment procurements in Japan.
	Administration Staff for contract and fund management	To handle contracts and payments as well as to manage the Project fund in Japan.
Local Staff	Office Staff 1	To assist the tender process and budget management.
	Assistant Staff 1	To take care of chores in the office.

(4) Consultant for construction supervision

JICA will recommend the consultant firm, which is responsible for the preparatory survey as the Construction Supervision Consultant. With an approval by the GOG, the firm will be employed as the Construction Supervision Consultant. Responsibilities of the Construction Supervision Consultant include:

[Tender Stage]

- To examine the feasibility of the commencement of the Project by conducting a site survey for all the requested sites.
- To develop a detailed design, specifications and a bill of quantity.
- To provide technical assistance to the Procurement Agent in preparing tender documents.
- To provide technical assistance to the Procurement Agent in carrying out the tenders, tender evaluation and contract negotiation.

[Construction Supervision Stage]

- To visit every site to check whether or not quality control, Project schedule, and safety management are implemented in accordance with the Terms of Reference. The results are reported to the Procurement Agent periodically.
- To examine and report to the Procurement Agent concerning the value of the work done when a Contractor requests payment.
- To carry out completion inspection and report to the Procurement Agent.
- To carry out warranty inspection one year after the completion of construction and report to the Procurement Agent.

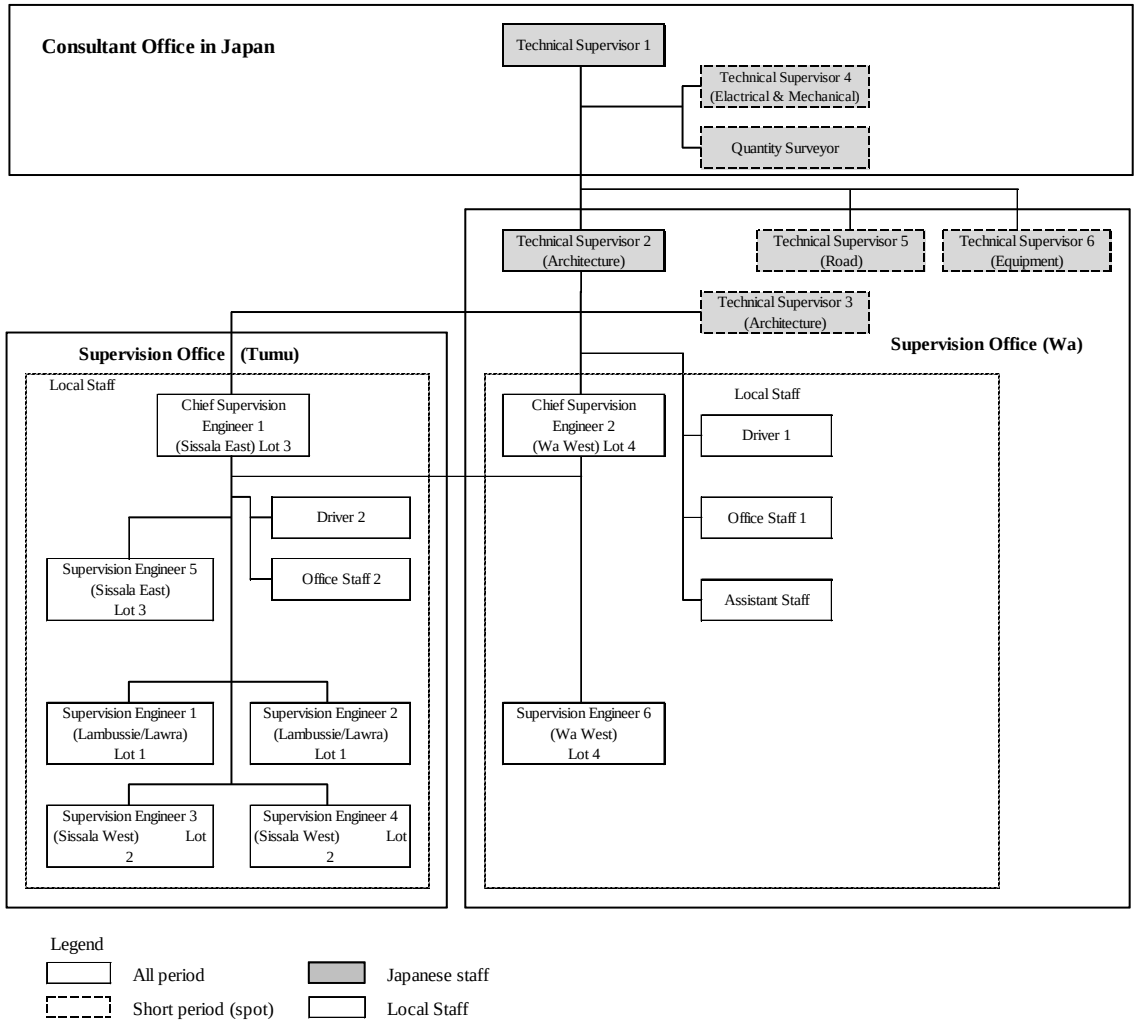


Figure 2-2 Organization of the Construction Supervision Consultant (1st Group)

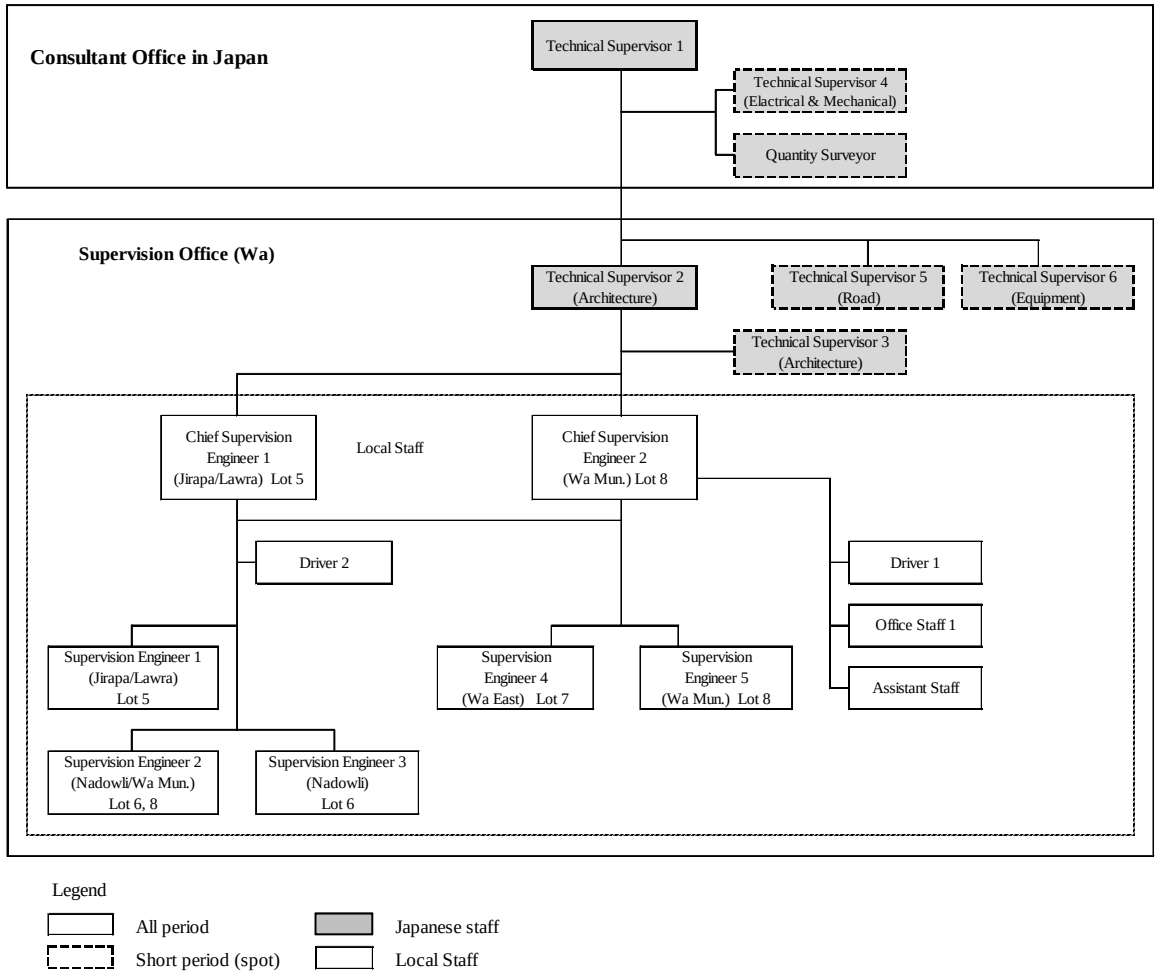


Figure 2-3 Organization of the Construction Supervision Consultant (2nd Group)

Table 2-20 Staff Allocation of the Construction Supervision Consultant

Staff		Responsibilities
Japanese Staff	Technical Supervisor 1 (Tender management)	To manage the entire work of the Construction Supervision and tenders.
	Technical Supervisor 2 (Construction supervision: Architecture)	To be stationed in the Construction Supervision Office in Wa to supervise the construction work from the commencement to the completion. To carry out a defect inspection one year after the completion.
	Technical Supervisor 3 (Construction supervision: Architecture)	To be dispatched to Ghana to supervise the construction work at the commencements of the 1st and 2nd Groups respectively.
	Technical Supervisor 4 (Electrical and mechanical works)	To handle Q & As and evaluate the tenders in Japan.
	Technical Supervisor 5 (Construction supervision: Road)	To be dispatched to Ghana to supervise the construction work during the 1st Group.
	Technical Supervisor 6 (Equipment)	To be dispatched to Ghana to evaluate the tender concerning Equipment and to inspect the delivered equipment. To handle overall work concerning the equipment.
	Quantity Surveyor	To assist Engineer 1 in developing the tender documents and evaluating the tenders.
Local Staff	Chief Supervision Engineer 1	To assist Technical Supervisor 1 during the tender period. To be stationed in the Construction Supervision Office (in Tumu and Jirapa during the construction periods of Group 1 and 2 respectively) to lead supervision engineers.
	Chief Supervision Engineer 2	To assist Technical Supervisor 1 during the tender period. To be stationed in the Construction Supervision Office in Wa during the entire construction period to lead supervision engineers.
	Supervision Engineer 1	To be based in the Construction Supervision Office and visit his/her sites in-charge to supervise the construction work.
	Supervision Engineer 2	Ditto
	Supervision Engineer 3	Ditto
	Supervision Engineer 4	Ditto
	Supervision Engineer 5	Ditto
	Supervision Engineer 6	Ditto
	Office Staff 1, 2	To be based in the Construction Supervision Office to take charge of administration works.
	Assistant Staff 1	To be based in the Construction Supervision Office to take charge of chores in the office.

(5) Contractors

Contractors will be selected through competitive tenders that are only open to Ghanaian contractors. The Contractors will construct the facilities based upon the contract documents with the Procurement Agent.

(6) Plaque Supplier

A plaque supplier will be selected through a competitive tender that is open to plaque makers in Ghana and its neighboring countries.

(7) Equipment Suppliers

Equipment Suppliers will be selected through international open competitive tendering. The selected Suppliers will enter into an agreement with the Procurement Agent to procure and deliver the equipment.

(8) Lawyer

A lawyer will be employed to verify the contents of various contracts, and to handle and resolve disputes.

2-2-4-2 Implementation Conditions

Concerning the procurement of contractors, it is necessary to select contractors above a certain level in order to avoid nonperformance of work and/or construction delays. In order to secure qualified contractors, setting criteria for selecting contractors as well as setting the dimension of lots requires utmost attention.

2-2-4-3 Scope of Works

The table below indicates the scope of works by the Japanese and the Ghanaian sides respectively.

Table 2-21 Scope of Works

Item	Undertaking by the Japanese Side	Undertakings by the Ghanaian Side
Facility	・ To construct CHPS compounds (CHPS building, septic tank, and Toilet building)	・ To secure the sites. ・ To remove obstacles on and underground of each site. ・ To connect electricity at sites No.501, No.504, No.802, & No.805. ・ To work on attached facilities such as planting the yard.
Equipment	・ To procure CHPS equipment ・ To deliver the above equipment to RMS in UW Region (Wa)	・ To deliver the procured equipment from RMS in UW Region (Wa) to all the Project sites ・ To procure and deliver equipment, furniture, and consumables which are not covered by the Japanese side.

2-2-4-4 Consultant Supervision

In the Project, construction work at a large number of sites shall be completed simultaneously within the planned schedule. Therefore, it is necessary for the Construction Supervision Consultant to execute appropriate supervision by communicating closely with the MOH as a responsible organization, GHS as an implementing organization and JICS, via frequent reporting and meetings, and by giving relevant instructions to the contractors.

Technical Supervisor 2, who has sufficient previous experience in construction supervising work, will be stationed in Wa to control the schedule and quality of construction that are specified in 2-2-4-5 together with the local Chief Supervision Engineers. Further, the Construction Supervision Consultant will collect information, prepare reports and report regularly to the GHS and JICS.

2-2-4-5 Quality Control Plan

(1) Implementation of Training to Local Consultants

Due to the fact that it is difficult to rent a suitable office building in Wa, the Consultant will build a Construction Supervision Office with identical design as the CHPS compound before the commencement of the CHPS compound construction. The construction will serve as a training of local Supervising Engineers for securing the required construction level and to reduce the risk of construction delays. At the same time, the Construction Supervision Office will be a reference model for the Contractors.

After the signing of the Consultant Agreement with the Procurement Agent, the Construction Supervision Office will be built within the site of RHA in Wa. During the construction of the said office, the Technical Supervisor 2 and local Chief Supervision Engineers will be stationed to supervise, examine the design and specifications, agree upon on the required construction level and construction procedure, and acquire supervision methods. The Project aims to construct numerous facilities in scattered areas. Therefore, by constructing the Construction Supervision Office as a pre-training, it is expected that local Supervision Engineers will understand the required quality, thereby securing the quality above the required level and reducing the amount of repair works.

It has been agreed that after the Project is completed, the supervision office will be devolved to the RHA of UW Region, and the Ghanaian side will be responsible for its management.

(2) Tentative Quality Control Items

Based upon the design documents and the construction supervision plan, the Construction Supervision Consultant will scrutinize construction plans, check shop drawings and samples, and carry out various types of inspections in and outside of the sites. The following table shows the major quality control items at each structural work stage.

Table 2-22 Major Quality Control Items for Each Structural Work Stage

Work	Items	Method	Frequency
Excavation	Check the excavated areas	Observation	On completion of the excavation
Re-bar and Forms	Reinforcement Materials	Check the mill sheets	Ever lot Every size
	Bar arrangement	Inspection of re-bar arrangement	Before casting concrete
	Forms	Inspection of forms	Before casting concrete
Concrete Work	Materials	Cement : Types Aggregates : particle diameter	On planning the mixture
	Trial Mixing	Compression test on samples	Every lot, Once per material used
	Casting	Compression test on samples	Once per site

2-2-4-6 Procurement Plan

Major construction materials can be procured in the domestic market of Ghana. Concerning reinforcement bars, in addition to domestic products, imported ones from Ukraine, China, and other countries are available. Cement, steel roof materials, and aluminum windows are domestically produced and thus available in the local market.

Suppliers of major construction materials and equipment are shown in the table below.

Table 2-23 Suppliers of Major Construction and Equipment

Material	Supplier			Remarks
	Ghana	Japan	Others	
Cement	○			Domestically Produced
Aggregates for concrete	○			Domestically Produced
Filling earth for road	○			Domestically Produced
Reinforcement steel bar	○			Domestically Produced /Imported from Ukraine, China, etc.
Form materials	○			Domestically Produced
Plywood	○			Domestically Produced
Concrete block	○			Domestically Produced
Lumber	○			Domestically Produced
Wooden doors & windows	○			Domestically Produced
Steel doors & windows	○			Imported from South Africa and Italy
Glass	○			
Paint materials	○			
Roofing metal sheet	○			Domestically Produced
Panel board	○			Imported from Holland and UK
Electric wire/cable	○			Imported from India and Turkey
Lighting	○			Imported from Holland and UK
Conduit pipe	○			
Valve, Attachment hardware for piping	○			
Sanitary ware	○			

2-2-4-7 Operational Guidance Plan

No operational guidance plan is included in the Project, because no special guidance by an engineer as to how to use the equipment is necessary.

2-2-4-8 Soft Component (Technical Assistance) Plan

From the below-mentioned reasons, it has been concluded that soft components are not essential in the Project.

① The CHPS activities have already been defined, and are activities which shall be implemented within the health system of Ghana.

② There are a sufficient number of personnel allocated at the SDHT to implement promotional activities for community participation.

③ The ability of SDHT, which was enforced during the past Technical Assistance project, is sustained.

④ The SDHT has experience in CHPS activities.

⑤ The minimum requisite activities to be done before the construction of the CHPS

compounds are nearly completed in the target CHPS zones.

2-2-4-9 Implementation Schedule

(1) Division of Construction Groups and Lots

Under the Project, there will be two types of orders, which are construction of facilities (CHPS compounds) and procurement of CHPS equipment. The construction will be divided into 2 groups (based upon the work schedule) and 8 lots (based upon the area). The plaques will be divided into 2 lots, based on the construction groups. Similarly, the equipment will be divided into 2 groups. Each group is further divided into 3 lots by kind, namely medical equipment, refrigerators, and motorbikes (6 lots in total).

Table 2-24 Lot List

Group	Facility Lot No.	Equipment Lot No.	Plaque Lot No.	Districts to be Covered
1	1	1. Medical equipment 2. Refrigerators 3. Motorbikes	1	Lambussie, Lawra
	2			Sissala West
	3			Sissala East
	4			Wa West
2	5	4. Medical equipment 5. Refrigerators 6. Motorbikes	2	Jirapa, Lawra
	6			Nadowli
	7			Wa East
	8			Wa Municipal

(2) Project Implementation Schedule

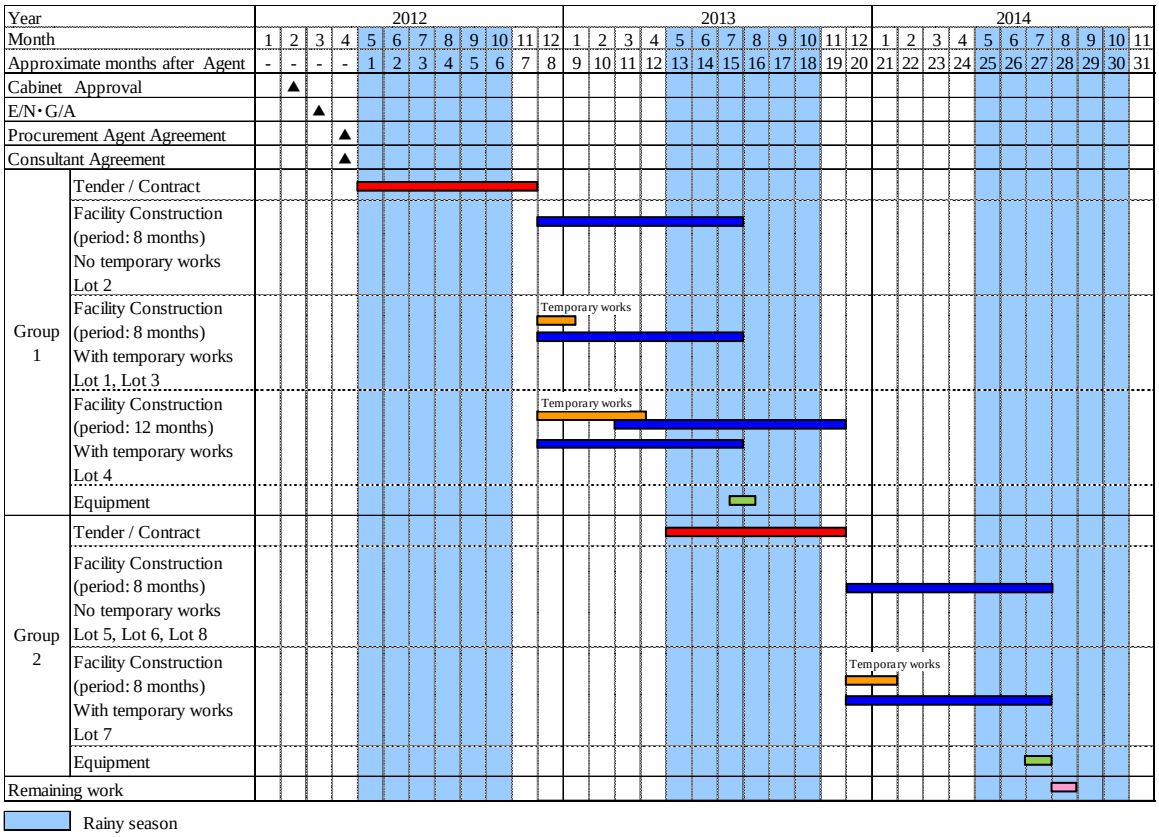
As stated, the facility construction is divided into 2 groups by different construction commencement timings. Sites which require longer construction periods are included in the first construction group.

The facility construction is estimated to take about 8 months in total: 1 month for preparation work, 5 months for building work, 1 month for inspection and corrective work, and 1 month for the time difference, since the commencement of work is scheduled one month later for some of the sites.

In the case that placing concrete blocks in the river beds is necessary as temporary works, it is estimated to take about 1.5 ~ 2 months in total: 1 month for preparation work, 0.5~1 month for placing work. Likewise, in the case that placing a culvert is necessary, it is estimated to take about 4.2 months in total: 1 month for preparation work and 3.2 months for construction work.

The tentative Project implementation schedule is as follows.

Table 2-25 Project implementation schedule (tentative)



2-3 Obligations of the Recipient Country

In the context of implementing the Project under the Grant Aid for Community Empowerment by Japan, items to be undertaken by the GOG are as follows:

(1) To secure the land necessary for the implementation of the Project, and to secure the landownership or land-use right certificates;
(2) To connect electricity to the following sites, where a power line is available nearby, before the completion of construction: No. 501 (Kong), No. 504 (Lilixi), No.802 (Mangu/Sombo) and No. 805 (Kanbiehi);
(3) To secure all the necessary permits and approvals for the implementation of the Project;
(4) To bear the commissions to the Japanese bank for the banking services based upon B/A;
(5) To take measures for prompt unloading and customs clearance at ports of disembarkation, and to assist internal transportation of the products;
(6) To take measures to authorize the Japanese nationals in connection with the Project for their entry into Ghana and stay therein for the performance of their work, in accordance with the contract with and by JICS;
(7) To exempt customs duties, internal taxes and other taxes imposed to the material, equipment, and other items related to the implementation of the Project for the corporations and also the individuals under the Project;
(8) To exempt customs duties, internal taxes and other fiscal levies which may be imposed in Ghana with respect to the purchase of the Components as well as the employment of the Agent be exempted;
(9) To be responsible for all the items to be undertaken by the Ghanaian side;
(10) To ensure that the facilities and equipment provided by the Project be maintained and used properly and effectively; and,
(11) To bear all necessary expenses, other than those covered by the GACE by the GOJ, for the implementation of the Project.

2-4 Project Operation Plan

2-4-1 Allocation of personnel to CHPS compounds

In order for a CHPS compound to be operated and maintained effectively, it is required that one CHO, and another staff (either CHO or CHN), be assigned for each site. Further, at least one of them must have completed midwifery training, for the handling of equipment for delivery.

For the implementation of the Project, it has been committed by the Ghanaian side that a necessary number of CHN/CHO will be trained and assigned, before the completion of the CHPS compound in 2014. Thus, it is required that the Ghanaian side will develop a specific plan for training and assigning personnel, and take measures to secure the necessary budget.

The plan for allocation of CHPS personnel is as follows.

2-4-1-1 Employment of CHNs

CHOs are trained, by training the CHNs that are employed by RHA. The table below shows that an annual increase of about 60 CHNs has been seen in the five years between 2007 and 2011. Assuming that the trend remains unchanged, 180 CHNs will be additionally employed by 2014. Further, the number of graduates from a CHN training school in the UW Region is shown in Table 2-27. It demonstrates that the number is steadily increasing.

Table 2-26 Progress of the number of CHNs employed in the UW Region

Year	2007	2008	2009	2010	2011
CHN	118	219	311	312	371

Source: MOH Human Resources Department

Table 2-27 Number of Graduates from the CHN Training School in Jirapa District

Year	2007	2008	2009	2010	2011
Graduates	90	94	98	104	117

Source: MOH Human Resources Department

2-4-1-2 Training of CHOs

A two-weeks training is provided for a CHN to be a CHO, and the RHA of UW Region has trained an annual average of 40 CHNs to be CHOs so far. Furthermore, it is planned to train 160 additional CHOs in the coming 4 years between 2011 and 2014. Therefore, it is expected that the training of necessary number of CHOs for the CHPS compounds will be carried out by 2014.

Table 2-28 Number of Pre-Service CHO Trainees

Year	2006	2007	2008	2009	2010	2011	Total
Trainees	19	60	60	21	25	49 (planned)	234

Source: Data from CHPS Unit of UW RHA

2-4-1-3 Midwifery training of CHNs

The GOG has developed a strategy to staff CHPS compounds with midwives, and the UW Region plans to train CHNs in midwifery training schools. To this end, the UW Region has opened a Post-Basic Training course for CHNs at the Midwifery Training College in Jirapa, and established a Midwifery Training School in Nandom solely for the Post-Basic Training course.

The training period is 2 years and thus the 41[4] trainees who started their training in October 2010 are expected to complete the training by October 2012. In addition, the UW Region is planning to open a training course for an equivalent number of trainees for 2011 and 2012. Thus, it is presumed that about 120 midwives will be trained by 2014, when the completion of construction is scheduled. Since these certified midwives will be encouraged to be posted within the UW Region, it is possible that at least one CHN with the ability to use the aforementioned 3 types of equipment will be staffed at each CHPS by the completion of construction.

As demonstrated in Table 2-29, even when some of the CHNs are in training schools, considering the annual increase of 60 CHNs, there will not be a major hindrance in the operation of health services.

Table 2-29 Summary of the allocation of CHPS related personnel

	Actual record					Projection (estimate)		
Year	2007	2008	2009	2010	2011	2012	2013	2014
①Number of employed CHN*1	118	219	311	312	371	390	410	430
②New entrance to Midwifery Training *2	-	-	-	41	40	40	-	-
③Enrolled students in Midwifery Training (Post-Basic) *3				41	81	80	40	-
④CHN at post （①− ③）	118	219	311	271	290	310	370	430
⑤Number of employed Midwives*4	104	147	155	161	165	210	255	300
⑥Total number of CHN/Midwife （①+ ⑤）	222	366	466	473	536	600	665	730

Source: *1 MOH Human Resources Department. Projected as an annual increase of 60 CHN from 2012 onward.
*2 UW Regional Health Services Annual Report/ interview. Projected as an entrance of 40 students every year.
*3 From the duration of course which is 2 years, calculated as about 80 enrolled students each year.
*4 Calculated from the data in the UW Regional Health Services Annual Report. Annual increase of 4 to 5 new employment plus the graduates from the midwifery training course.

[4] UW Regional Health Services 2010 Annual Report

2-4-2 Operation and Maintenance of CHPS compounds

In accordance with the CHPS program regulations, the CHPS compounds and CHPS equipment to be procured by the Project will be managed by the CHOs, and the community residents, under the management of DHA and RHA.

2-4-2-1 Operation and Maintenance of the CHPS compounds and Equipment

(1) Facility

The CHPS compounds to be constructed by the Project are designed to be easily maintained with materials widely available in the local market. Still, it is important for CHOs (or CHNs/midwives) and community residents to understand the necessity of regular maintenance and to implement daily maintenance.

(2) Equipment

In order for the equipment used for pre-natal check and delivery to be used properly, the medical staff must be well trained with the equipment. As previously stated, the UW Region now offers CHO/CHNs a 2-year training program in the midwifery training schools. Furthermore, the training of CHO/CHNs in midwifery skill has been agreed in the Minutes of Discussions during Field Survey II. By stationing properly trained CHO/CHNs, the said equipment will be used and maintained properly.

The necessary periodic maintenance for motorbikes is undertaken by DHMT, who order maintenance works from auto workshops every month. Thus, there is no anticipated problem in maintaining motorbikes.

2-4-2-2 Contribution from Community Residents

The Project requires that the community in every CHPS zone contribute to the operation and maintenance of the CHPS compounds, by labor work such as fetching water and by participating in health activities as CHVs. These activities will be promoted and explained by the DHMT before construction begins, and shall be encouraged by CHOs after the completion of construction.

2-5 Project Cost Estimation

2-5-1 Initial Cost Estimation

The initial cost to be borne by the Ghanaian side based upon the aforementioned scope of works of both countries is indicated below. The cost estimation is estimated under the conditions described in (2) below.

(1) Cost to be borne by the Ghanaian Side

Approximately 3,060,400 GCedis (equivalent to approximately 170.7million yen)

Item	Amount (GCedis)	Equivalent to (Yen)
Land (*1)	107,000	5,967,000
Tax exemption (*2)	2,805,200	156,444,000
Extension and connection of electricity to the sites	20,000	1,115,000
Furniture (residential section)	109,500	6,107,000
Bank commissions	18,700	1,043,000
Total	3,060,400	170,676,000

*1: In response to the request from the Ghanaian side, calculated as 248,806.19 m^2× 0.43 GCedis/m^2
*2: In response to the request from the Ghanaian side, the maximum amount is calculated based on the cost to be borne by the Japanese side

(2) Conditions of Estimation

① Estimation as of: July, 2011

② Foreign exchange rate: 1US$=83.00 yen, 1GCedis=55.77 yen

③ Implementation period: As shown in the tentative Project implementation schedule

④ Other conditions: The Project will be implemented in accordance with the grant-aid scheme of the GOJ

2-5-2 Operation and Maintenance Cost

2-5-2-1 Costs for CHO/CHN Training and Employment

(1) Personnel Cost

The following amount is necessary to employ an additional 160 CHOs/CHNs and midwives for the operation of the CHPS compounds to be constructed by the Project.

Table 2-30 Necessary Personnel Costs for the CHPS compounds

(Unit: GCedis)

Type	Annual Salary (average)	Necessary number of staff	Additional personnel costs
CHO/CHN	6,500	80	520,000
Midwife	9,500	80	760,000
Total		160	1,280,000

Source: Based on documents from human resource unit of UW RHA

The necessary personnel cost is no more than 0.27% of the total personnel cost of MOH and GHS in 2010. Therefore, no difficulties are expected in securing the budget for employing additional CHO/CHNs and midwives for the Project.

(2) Training Cost

According to an interview with the RHA, the training cost per CHN is approximately 400GCedis. Assuming that the number of pre-service CHO trainees remains at 40 per annum, the total annual training cost is 16,000 GCedis.

Thus far, UNICEF has been the major provider for the training cost, but there are other financial sources, which could be allocated to cover the cost.

① Financial assistance from UNICEF

The table below shows the amount of assistance between 2008 and 2010 to Ghana from UNICEF, which provided the training cost for the pre-service CHO trainees in 2010 and 2011.

Table 2-31 Financial Assistance from UNICEF (Unit: thousand GCedis)

Year	2008	2009	2010
To Entire Ghana	6,624.0	6,989.0	8,982.0

Source: Ghana Health Service (2008-2010) Annual Report 2008-2010

The assistance from UNICEF to all of Ghana has been increasing, with the assistance provided for the UW Region amounting to about 500 thousand GCedis in 2010. That is, the necessary cost for the pre-service CHO training for 160 CHNs (16,000GCedis) only accounts for 3.2% of the total assistance provided for the UW Region.

Further, according to an interview with UNICEF during Field Survey I, the organization will continue to provide assistance for the CHPS program in the coming years. While their assistance for CHPS compound construction in 2009 was one-time and they do not have any concrete plan to construct additional CHPS compounds, assistance for human capacity development and technical assistance, which are major activities of UNICEF, is planned to be continued vigorously.

② National Budget

The cost of the pre-service CHO training as an in-service training for CHNs is budgeted as a service cost. Of the total service cost in the National Budget 2011, 3.2 million GCedis (about 0.9% of the total service cost), is earmarked for mother and child health care service for all the 10 regions.

The necessary cost for the pre-service CHO training for 40 CHNs per year accounts for no more than 0.5% of the total mother and child health service care cost in all the 10 regions. Therefore, it is possible that the National Budget covers the training cost.

2-5-2-2 Facility Operation Cost

The additional amount necessary for the new 80 CHPS to operate is estimated to be 439 thousand GCedis, according to the table below.

Table 2-32 Annual Operation and Maintenance Cost for 80 CHPS compounds

(Unit: GCedis)

Item	Unit Cost	Qty/Frequency	Total (Annual)
Cost for providing service			**1,024.8**
Fuel cost for motorbikes (Home visits, outreach activities, community meetings, school visits, visit TBAs and CHVs, etc) *	35.0／month （5 gal／month）	Every month	420.0
Travel cost（Attending SDHT meetings）	5.5／person-month	Every month 2 persons	132.0
Travel cost（Attending DHMT meetings）	9.6／person-month	Every quarter 2 persons	76.8
Travel and shipping costs (Receiving and shipping medicines and vaccines, other necessary logistical costs)	25.0／month	Every month	300.0
LPG cost for a refrigerator for vaccines*（average cost per month）	8.0／month	Every month	96.0
Cost for medicines and medical supplies			**2,676.1**
Medicines and medical supplies			2.676.1
Non-medical Consumables			**1,347.4**
Stationary			1,000.6
Family planning commodity			346.8
Cost for motorbike maintenance			**440.0**
Periodical check cost	5.0／month	Every month	60.0
Spare parts	75.0／month	Every quarter	300.0
Spare tires	12.0／month	Every quarter	48.0
Replacement fees	8.0／month	Every quarter	32.0
Total Operation and Maintenance Cost Per CHPS			**5,488.3**
Total Operation and Maintenance Cost for 80 CHPS			**439,064.0**

Source: Study by GHS (except for items with*. The cost of items with * are calculated by the Preparatory Survey Team)

The operation and maintenance cost associated with the CHPS service is financed by the service cost earmarked in RHA budget and Internally Generated Fund[5] (IGF). The latter is the major source of the finance. As the number of national health insurance subscribers is increasing year by year, it has become more stable than before to secure the operation and maintenance cost for the CHPS service.

The additional cost necessary to operate the new 80 CHPS procured by the Project accounts for only 4% of the IGF revenue of the UW Region in 2010. Therefore, it can be concluded that there is no difficulty to secure the budget for the additional cost. The transition of annual IGF revenue of the UW Region is shown in the table below.

[5] IGF refers to the revenue generated by the national health insurance system introduced in 2004. Beneficiaries pay a certain amount per visit for their diagnosed disease based upon the cost chart. Such payments from beneficiaries consist of the IGF and are to be used for purchasing medicines, and operating and maintaining health facilities.

Table 2-33 IGF Revenue of the UW Region

(Unit: thousand GCedis)

Year	2008	2009	2010
IGF Revenue	6,331.6	9,441.6	10,857.9

Source: UW Regional Health Services 2010 Annual Report (2011）

The assistance from the community, including providing labor etc, is voluntary. Therefore, no cost is necessary to for their involvement.

2-5-2-3 Maintenance Cost for the Facilities and Equipment

The following items require maintenance for the facility and equipment procured by the Project.

(1) Cost for Maintenance of CHPS compounds

The annual cost for the maintenance of CHPS compounds is as indicated in Table 2-34. The Ghanaian side is competent of the responsibility, since the annual maintenance cost of the facilities and equipment is merely 0.7% of the IGF revenue (2010), which is the major source.

Table 2-34 Cost for Facility Maintenance

(Unit: GCedis)

Item	Frequency	Annual Cost
Repainting exterior walls	Once every 10 years	17,000
Repainting interior walls	Once every 5 years	48,000
Repainting fittings	Once every 5 years	10,000
Changing bulbs due to dilapidation	Once every 2 years	1,000
Removal of sludge in the septic tank	Once every 5 years	2,000
Total	-	78,000

(2) Cost for Maintenance of CHPS equipment

Refrigerators, motorbikes and other equipment should be replaced with new ones every 8, 10 and 6 years respectively.

Chapter 3: Project Evaluation

Chapter 3: Project Evaluation

3-1 Preconditions

As already mentioned, the CHPS program is divided into 15 steps, with the "Construction of CHPS compounds" as the 8th step. As preconditions, step 6 "Selection and orientation of community health committee members, and durbar approval" and step 7 "Compilation of community profile" shall be completed before the construction.

In addition, the required permits shall be acquired before the construction.

3-2 Necessary Inputs by the Recipient Country

(1) Operationalization of the CHPS zones

To operationalize the CHPS zones, the Ghanaian side shall be responsible for implementing all 15 steps of the CHPS activities (Table 2-6).

(2) Allocation of personnel

Allocation of 2 CHO/CHN (including one staff with midwifery training) is required at each site, for smooth operation of the CHPS compound. In order to satisfy this requirement, the sufficient amount of recruitment of CHN and training for CHO shall be fulfilled.

(3) Allocation of IEC material and medicine necessary for CHPS activity

Since CHPS activities are comprised of treatment and health promotion, IEC materials, medicine, and administration tools for management of medicine and other necessary equipment shall be supplied to the CHPS compounds.

3-3 Important Assumptions

The CHPS program continues to be one of the principal policies in the development strategy and the agenda of the health sector of Ghana, and an adequate amount of finance, human resources, equipment, medicine, and information will be allocated.

3-4 Project Evaluation

3-4-1 Relevance

The necessity of the Project from the perspective of human security is high, since the Project serves to offer the people of the project target area the health services including health promotion activities which they were not subject to until now.

The expansion of CHPS compounds is clearly stated in the "Ghana Shared Growth and Development Agenda (GSGDA) 2010-2013", which was drawn up as the medium term development Strategy. Equally, improvement of CHPS service is mentioned as an important challenge in the "Health Sector Programme of Work 2007-2011". Therefore, the consistency between the Project and the development strategies in Ghana is high.

Furthermore, the Project contributes to the expansion of access to treatment and prevention for maintaining maternal and infant health in the communities of rural areas (UW Region). In other words, it contributes to the enforcement of community-based and facility-based prevention and treatment as part of an important development field of Japan in Ghana "Strengthening community-based prevention and treatment", and for the achievement of Goal 5 of MDGs (reducing the maternal mortality ratio) stated in Japan's Global Health Policy 2011-2015. Thus, the Project has high consistency with the Japanese aid policy.

As the Project contributes to the fulfillment of needs, is consistent with the Ghanaian development policy, and is in conformity with the Japanese development aid policy, it can be said that the Project is relevant.

3-4-2 Effectiveness

The following effectiveness is expected as a result of the implementation of the Project.

(1) Quantitative effect

Table 3-1 Quantitative effect

Index	Base value (2010)	Target value (2016)
Ratio of population covered by CHPS in UW Region (%)	29 *1	50 *2
Ratio of skilled delivery in UW Region (%)	46 *1	75 *3
Penta 3 coverage in UW Region (%)	83 *1	90 *3

*1 UW Regional Health Services 2010 Annual Report

*2 Calculated from documents of CHPS Unit of RHA (2011)

*3 Calculated from Ghana Country Programme Document 2012-2016 by UNICEF. The target value takes into consideration the improvement of the quality of maternal and child health services, expansion plan of vaccinations, technical assistance and supply of equipment by other development partners.

(2) Qualitative effect

① The awareness of health (rise in concern for health and disease, notion to participate in CHPS activity, etc.) of the people is raised, by community participation in health activities and health promotion activities as part of CHPS activity.

② The improvement of life of individual community residents is noticed, as an effect of the acceleration of awareness and the condition of health by CHPS activities.

③ The satisfactory level toward public health services is improved by CHPS activities by the CHOs

From the above-mentioned reasons, the relevancy of the Project is high, with potential for effectiveness.

Appendices

1. Member list of the Survey Team

Field Survey I (April 14 to May 14, 2011)

Name	Role	Institution
Mr. Nobuaki Miyata	Team Leader	Visiting Senior Advisor Japan International Cooperation Agency (JICA)
Mr. Eishi Aizawa	Planning & Management	Health Division 2, Health Group 1, Human Development Department, Japan International Cooperation Agency (JICA)
Ms. Rika Matsumoto	Procurement Planning & Management	Second Construction Management Division, First Management Department, Japan International Cooperation System (JICS)
Mr. Kazuna Koizumi	Project Manager/ Architectural Planning	Mohri, Architect & Associates, Inc.
Mr. Hiroyuki Yoshizawa	Deputy Project Manager/ Architectural and Facility Planning (1)	Mohri, Architect & Associates, Inc.
Mr. Junichi Yokobori	Architectural and Facility Planning (2)	Mohri, Architect & Associates, Inc.
Mr. Yosuke Umemiya	Equipment Planning/ Procurement/ Cost Estimation	Fujita Planning Co., Ltd.
Mr. Takeshi Fukushima	Construction Planning/ Cost Estimation	Mohri, Architect & Associates, Inc.
Mr. Hirofumi Tsuruta	Health Planning/ Community Organization Planning	Fujita Planning Co., Ltd.
Mr. Masaru Homma	Traffic Planning/ Road and Bridge Construction/ Cost Estimation	Mohri, Architect & Associates, Inc.
Mr. Shinichi Yamamoto	Architectural and Facility Planning (3)	Mohri, Architect & Associates, Inc.
Ms. Yukiko Okada	Coordinator/ Community Organization Planning (2)	Mohri, Architect & Associates, Inc.

Field Survey II (June 18 to July 10, 2011)

Name	Role	Institution
Mr. Nobuaki Miyata	Team Leader	Visiting Senior Advisor Japan International Cooperation Agency (JICA)
Mr. Tomoya Yoshida	Planning & Management	Advisor, Grant Aid Project Management Division 2, Financing Facilitation and Procurement Supervision Department, Japan International Cooperation Agency (JICA)
Mr. Kazuna Koizumi	Project Manager/ Architectural Planning	Mohri, Architect & Associates, Inc.
Mr. Yosuke Umemiya	Equipment Planning/ Procurement/ Cost Estimation	Fujita Planning Co., Ltd.
Mr. Takeshi Fukushima	Construction Planning/ Cost Estimation	Mohri, Architect & Associates, Inc.
Mr. Hirofumi Tsuruta	Health Planning/ Community Organization Planning	Fujita Planning Co., Ltd.
Mr. Masaru Homma	Traffic Planning/ Road and Bridge Construction/ Cost Estimation	Mohri, Architect & Associates, Inc.
Ms. Yukiko Okada	Coordinator/ Community Organization Planning (2)	Mohri, Architect & Associates, Inc.

Field Survey III (October 23 to November 3, 2011)

Name	Role	Institution
Mr. Nobuaki Miyata	Team Leader	Visiting Senior Advisor Japan International Cooperation Agency (JICA)
Mr. Eishi Aizawa	Planning & Management	Health Division 2, Health Group 1, Human Development Department, Japan International Cooperation Agency (JICA)
Mr. Kazuna Koizumi	Project Manager/ Architectural Planning	Mohri, Architect & Associates, Inc.
Mr. Hiroyuki Yoshizawa	Deputy Project Manager/ Architectural and Facility Planning (1)	Mohri, Architect & Associates, Inc.
Mr. Yosuke Umemiya	Equipment Planning/ Procurement/ Cost Estimation	Fujita Planning Co., Ltd.
Mr. Masaru Homma	Traffic Planning/ Road and Bridge Construction/ Cost Estimation	Mohri, Architect & Associates, Inc.
Ms. Yukiko Okada	Coordinator/ Community Organization Planning (2)	Mohri, Architect & Associates, Inc.

Field Survey IV (February 27 to March 9, 2012)

Name	Role	Institution
Mr. Hiroyuki Yoshizawa	Deputy Project Manager/ Architectural and Facility Planning (1)	Mohri, Architect & Associates, Inc.
Mr. Yosuke Umemiya	Equipment Planning/ Procurement/ Cost Estimation	Fujita Planning Co., Ltd.
Mr. Masaru Homma	Traffic Planning/ Road and Bridge Construction/ Cost Estimation	Mohri, Architect & Associates, Inc.

2. Survey Schedule

Field Survey I

Date			Officials (JICA)	Officials (JICS)	a	b	c	d	e	f	g	h	i
			Team Leader, Planning & Management	Procurement Planning and Management	Project Manager／Architectural Planning	Deputy Project Manager／Architectural and Facility Planning (1)	Architectural and Facility Planning (2)	Equipment Planning/Procurement/ Cost Estimation	Construction Planning/Cost Estimation	Health Planning/Community Organization Planning	Traffic Planning／Road and Bridge Construction／Cost Estimation	Architectural and Facility Planning (3) (Assistant)	Coordinator/Community Organization Planning (2) (Assistant)
			Nobuaki Miyata, Eishi Aizawa	Rika Matsumoto	Kazuna Koizumi	Hiroyuki Yoshizawa	Junichi Yokobori	Yosuke Umemiya	Takeshi Fukushima	Hirofumi Tsuruta	Masaru Homma	Shinichi Yamamoto	Yukiko Okada
			15days	15 days	15days	31days	25days (+6days)	15 days	25days	18days	28days	17days	15days
	4/9	Sat					Narita→						
	4/10	Sun					→Dubai→Accra						
	4/11	Mon					Preparation for Contract with local firms						
	4/12	Tue					Preparation for Contract with local firms						
	4/13	Wed					Preparation for Contract with local firms						
1	4/14	Thu				Narita→	Preparation for Contract with local firms						
2	4/15	Fri				→Dubai→Accra	Preparation for Contract with local firms						
3	4/16	Sat				Preparation for Contract with local firms							
4	4/17	Sun				Preparation for Contract with local firms					Narita→		
5	4/18	Mon				Courtesy visits to JICA, MOH, and GHS					→Dubai→Accra		
6	4/19	Tue				Accra→Wa	Accra→Wa				Courtesy visit to and discussion with MPH		
7	4/20	Wed				Courtesy visit to and Discussion with RHA of Upper West, Preparation for Site Survey	Courtesy visit to and Discussion with RHA of Upper West, Preparation for Site Survey		Haneda→Kansai→		Ditto	Haneda→Kansai→	
8	4/21	Thu				Site Survey (Wa West)	Site Survey (Lawra)		→Dubai→Accra		Accra→Wa	→Dubai→Accra	
9	4/22	Fri				Ditto	Ditto		Cost and Procurement Survey		Courtesy visit to and Discussion with RHA of Upper West, Preparation for Site Survey	Architectural and Facility Survey	
10	4/23	Sat				Ditto	Ditto		Data Analysis		Road Survey	Data Analysis	
11	4/24	Sun				Data Analysis	Data Analysis		Accra→Wa		Data Analysis	Accra→Wa	
12	4/25	Mon				Site Survey (Wa West)	Site Survey (Jirapa)		Site Survey（Sissala East）		Road Survey	Site Survey (Sisala West)	
13	4/26	Tue				Site Survey (Wa Municipal)	Ditto		Ditto		Ditto	Ditto	
14	4/27	Wed				Ditto	Ditto		Ditto	Haneda→Kansai	Ditto	Ditto	
15	4/28	Thu				Ditto	Site Survey (Nadowli)		Site Survey (Wa East)	→Dubai→Accra	Ditto	Ditto	
16	4/29	Fri				Ditto	Ditto		Ditto	Accra→Wa	Ditto	Site Survey (Lambussie)	
17	4/30	Sat	Narita→		Narita→	Site Suvey (supplementary)	Ditto	Narita→	Ditto	Meeting with RHA of Upper West and Visiting and interviewing existing health posts	Ditto	Ditto	Narita→
18	5/1	Sun	→Amsterdam→Accra		→Dubai→Accra	Data Analysis	Data Analysis	→Dubai→Accra	Data Analysis	Preparation for focus-group discussion	Data Analysis	Data Analysis	→Dubai→Accra
19	5/2	Mon	Internal Meeting	AM: Meeting at JICS office PM: Procurement survey	Internal Meeting	Site Suvey (supplementary)	Site Survey (supprementary)	Accra→Wa	Cost and Procurement Survey (Regional Level)	Focus-group discussion	Road Survey	Site Survey (Lambussie)	Same as A
20	5/3	Tue	Accra→Wa(visit a UNICEF Prototype health post on the way)	Accra → Wa	Accra→Wa(visit a UNICEF Prototype helth post on the way)	Site Suvey (supplementary)	Site Suvey (supplementary)	Survey at existing CHPS compounds	Ditto	Ditto	Ditto	Wa→Accra	Accra→Wa
21	5/4	Wed	Site visits		Site visits	Data Analysis	Data Analysis	Ditto	Ditto	Ditto	Ditto	Accra→	Data Analysis
22	5/5	Thu	Team Meeting, Courtesy visit to Upper West Regional Counsil		Team Meeting, Courtesy visit to Upper West Regional Counsil	Team Meeting	Team Meeting	Team Meeting	Ditto	Team Meeting	Team Meeting	→Dubai→	Same as A
23	5/6	Fri	Discussion with Regional Health Administration of Upper West		Discussion with Regional Health Administration of Upper West	Discussion with Regional Health Administration of Upper West	Wa→Accra	Discussion with Regional Health Administration of Upper West	Wa→Accra	Courtesy visit to and Discussion with Health Administration of Upper West	Road Survey	→Narita	Same as A
24	5/7	Sat	Site visits		Site visits	Site visits	Accra→	Survey on existing CHPS equipment	Cost and Procurement Survey	Visiting and Discussion with NGOs	Ditto		Same as A
25	5/8	Sun	Wa→Accra		Wa→Accra	Wa→Accra	→Dubai→	Wa→Accra	Data Analysis	Wa→Accra	Wa→Accra		Wa→Accra
26	5/9	Mon	Meeting at JICA, Meeting with JICS		Meeting at JICA, Meeting with JICS	Architectural and Facility Survey	→Narita	Cost survey on equipment	Cost and Procurement Survey	Visiting and Discussion with NGOs	Cost Survey		Same as A
27	5/10	Tue	Discussion on M/D with MOH, GHS		Discussion on M/D with MOH, GHS	Ditto		Discussion on M/D with MOH, GHS	Ditto	Discussion on M/D with MOH, GHS	Discussion on M/D with MOH, GHS		Same as A
28	5/11	Wed	Discussion on & signing of M/D		Discussion on & signing of M/D	Ditto		Discussion on & signing of M/D	Ditto	Discussion on & signing M/D	Cost Survey		Same as A
29	5/12	Thu	Report to JICA Office and EoJ, Leaving Accra→		Report to JICA Office and EoJ, Leaving Accra→	Report to JICA Office and EoJ, Leaving Accra→		Report to JICA and EoJ, Accra→	Accra→	Report to JICA and EoJ, Accra→	Accra→		Same as A
30	5/13	Fri	→Amsterdam→		→Dubai→			→Dubai→					→Dubai→
31	5/14	Sat	→Narita		→Narita			→Narita					→Narita

Field Survey II

Date			Officials (JICA)	a	b	c	d	e	f
			Team Leader, Planning & Management	Project Manager／Architectural Planning	Equipment Planning/Procurement/ Cost Estimation	Construction Planning/Cost Estimation	Health Planning/Community Organization Planning	Traffic Planning／Road and Bridge Construction／Cost Estimation	Coordinator/Community Organization Planning (2) (Assistant)
			Nobuaki Miyata, Tomoya Yoshida	Kazuna Koizumi	Yosuke Umemiya	Takeshi Fukushima	Hirofumi Tsuruta	Masaru Homma	Yukiko Okada
			13 days	18 days	16 days	16 days	16 days	16 days	16 days
1	6/18	Sat				Narita→		Narita→	
2	6/19	Sun				Dubai→Accra		Dubai→Accra	
3	6/20	Mon		Narita→		Construction/Procurement Survey, Meeting with Local Consultants		Cost Survey	
4	6/21	Tue		Dubai→Accra		ditto		Accra→Wa	
5	6/22	Wed		Architectural survey, Meeting wit GHS		ditto	Haneda→Kansai→	Road Survey	Haneda→Kansai→
6	6/23	Thu		Accra→Wa		Accra→Wa	Dubai→Accra	ditto	Dubai→Accra
7	6/24	Fri		Site & road survey (supplementary)		Construction/Procurement Survey	Health related survey	ditto	Accompany (d)
8	6/25	Sat	Narita→	Site & road survey (supplementary)	Narita→	ditto	Accra→Wa	ditto	Accra→Wa
9	6/26	Sun	Frankfurt→Accra	Data Analysis	Dubai→Accra	Wa→Accra	Data Analysis	Data Analysis	Data Analysis
10	6/27	Mon	Accra→Wa	Architectural survey	Accra→Wa	Cost Survey	Survey on RHA and DHA	Road Survey	Accompany (a)
11	6/28	Tue	Discussion on M/D with UW Regional Health Administration	Discussion on M/D with UW Regiona Health Administration, Site visit (other donors)	Accompany (a)	ditto	Accompany (a)	Cost Survey	Accompany (a)
12	6/29	Wed	Site visits	Site visit, Architectural survey	Equipment survey	ditto	Health related survey	ditto	Accompany (a)
13	6/30	Thu	Visit to District Hospital and Health Centres		ditto	ditto	ditto	Wa→Accra	Accompany (a)
14	7/1	Fri	Discussion with UW Regional Health Administration		Accompany (a)	Accra→	Accompany (a)	Accra→	Accompany (a)
15	7/2	Sat	Wa→Accra		Equipment Survey	→Dubai→	Health related survey	→Dubai→	Wa→Accra
16	7/3	Sun	Data Analysis		Wa→Accra	→Narita	Wa→Accra	→Narita	Data Analysis
17	7/4	Mon	Discussion on M/D with MOFEP, MOH, and GHS	Discussion on M/D with MOFEP MOH, and GHS, Meeting with Local Consultants	Accompany (a)		Health related survey		Accompany (a)
18	7/5	Tue	Report to JICA Ghana Office and Embassy of Japan, Accra→		Equipment survey		Health related survey Accra→		Accompany (a) Accra→
19	7/6	Wed	→Frankfurt→	→Dubai→	ditto		→Dubai→		→Dubai→
20	7/7	Thu	→Narita	→Narita	ditto		→Narita		→Narita
21	7/8	Fri			ditto, Accra→				
22	7/9	Sat			→Dubai→				
23	7/10	Sun			→Narita				

Field Survey III

Date			Officials (JICA)	a	b	c	d	e
			Team Leader, Planning & Management	Project Manager／Architectural Planning	Deputy Project Manager／ Architectural and Facility Planning (1)	Equipment Planning/Procurement/ Cost Estimation	Traffic Planning／Road and Bridge Construction／Cost Estimation	Coordinator/Community Organization Planning (2) (Assistant)
			Nobuaki Miyata, Eishi Aizawa	Kazuna Koizumi	Hiroyuki Yoshizawa	Yosuke Umemiya	Masaru Homma	Yukiko Okada
			13 days	18 days	31days	16 days	16 days	16 days
1	10/23	Sun	Narita→					
2	10/24	Mon	→Frankfurt→Accra	→Dubai→Accra				→Amsterdam→Accra
3	10/25	Tue	Meeting with JICA Ghana Office, Courtesy visit to the Embassy o Japan		Accompany (a)	Accompany (a)	Accompany (a)	Accompany (a)
4	10/26	Wed	Accra→Wa		Meeting with Local consultants	Accra→Wa	Accra→Wa	Accra→Wa
5	10/27	Thu	Explanation of Draft Outline Design to UW Regional Health Administration		ditto	Explanation of Draft Outline Design to UW Regional Health Administration, visit to Midwifery training schoo and CHN training school	Accompany (a)	Accompany (c)
6	10/28	Fri	Discussion on M/D with UW Regional Health Administration, site visit		ditto	Accompany (a)	Accompany (a)	Accompany (a)
7	10/29	Sat	Wa→Accra		ditto	Wa→Accra	Wa→Accra	Wa→Accra
8	10/30	Sun	Data Analysis					
9	10/31	Mon	Disucussion on the M/D		Meeting with Local consultants	Equipment / Procurement survey	Accompany (b)	Accompany (b)
10	11/1	Tue	Signing of M/D, Report to JICA Ghana Office, Accra→		ditto, Accra→	Accompany (a), Accra→	Accompany (a), Accra→	Accra→
11	11/2	Wed	Frankfurt→	Dubai→				
12	11/3	Thu	→Narita	→Narita				

Field Survey IV

Date			a	b	c
			Deputy Project Manager／ Architectural and Facility Planning (1)	Equipment Planning/Procurement/ Cost Estimation	Traffic Planning／Road and Bridge Construction／Cost Estimation
			Hiroyuki Yoshizawa	Yosuke Umemiya	Masaru Homma
			12 days	12 days	12 days
1	2/27	Mon	Narita 22:00 (EK319) →		
2	2/28	Tue	→ 05:00 Dubai 07:40 (EK787) → Accra 12:40 Courtesy visit to JICA Ghana Office, Embassy of Japan		
3	2/29	Wed	Courtesy visit and explanation of Draft Tender documents to MOH and GHS		
4	3/1	Thu	Accra→Wa		
5	3/2	Fri	Explanation of Draft Tender documents to RHA of UW Region		
6	3/3	Sat	Supplementary survey		
7	3/4	Sun	Wa→Accra		
8	3/5	Mon	Discussion on Technical Notes with MOH and GHS		
9	3/6	Tue	Supplementary survey		
10	3/7	Wed	Signing of Technical Notes Accra 18:45 (EK788) →		
11	3/8	Thu	06:30 Dubai 02:55 (EK318) →		
12	3/9	Fri	→ Narita 17:20		

3. List of Parties Concerned in the Recipient Country

Ministry of Health

Mr. Joseph Yieleh Chireh	-	Minister
Dr. Sylvester Anemana	-	Chief Director
Mr. F. George Dakapallah	Policy Planning Monitoring & Evaluation	Director
Mr. Sammuel Boateng	Procurement & Supply	Director
Dr. Nichodemus K. Gebe	Biomedical Engineering Unit	Head of Unit
Mr. Kafui Kan-Sennya	Planning and Budgetting	Director
Mr. Kofi D. Afari	Human Resourse Directorate	Information Manager
Dr. Reginald N.O. Odai	Research and Statistics Unit	Head of Unit
Mr. Alex Moffatt	Research and Statistics Unit	Officer

Ghana Health Service

Dr. Elias Sory	-	Director General
Dr. Frank Nyonator	-	Acting Director General
Dr. George Walter K. Amofah	-	Deputy Director General
Dr. Abraham Hodgson	Research and Development Directorate	Director
Dr. Joseph Amankwa	Public Health Directorate	Director
Ms. Martha Gyansa-Lutterot	Pharmaceutical Services	Director
Dr. C. Bennene	Institutional Care Division	Assistant Director
Mr. Dan Osei	Policy Planning Monitory & Evaluation Division	Acting Director
Dr. Yaw Brobbey-Mpiani	Administration	Deputy Director
Dr. Patrick Aboagye	Reproductive & Child Health Department	Deputy Director
Dr. Nicholas Adjabu	Clinical Engineering Department	Head of Department
Mr. W.A. Mills-Pappoe	Clinic Laboratory Unit, ICD	Head of Department
Mr. Sam Quarshe	Information Communication Technical Department	Head of Department
Dr. William K. Bosu	Non-Communicable Disease Control Programme	Programme Manager
Mr. Emmanuel Domeh	-	Principal Accountant
Mr. Yahya Khasem	Estate Management Unit	Head of Estates
Mr. Jacob Andoh	Public Relation Unit	Public Relation Person
Mr. Gerald Asakeya	Estate Management Unit	Quantity Surveyor

Upper West Regional Health Administration

Dr. Alexis Nang-Beifubah	-	Regional Director
Dr. Kofi Issah	-	Deputy Director
Mr. Albert Saklo	-	Regional Accountant
Mr. R.K.S. Hadsi	-	Regional Pharmacist
Mr. Mohammed Al-Hassan S.	Audit Unit	-
Ms. Rebecca Alalbila	CHPS Unit	Regional CHPS Coordinator
Mr. Haruna Zakaria	-	Technical Officer (Estate)
Mr. Prosper Tang	-	Administrative Officer
Mr. Eric Yesuah-Donso	-	Estate Manager

District Health Administration and District Hospital

Ms. Phoebe Belagumyetime	Jirapa District Health Administration	District Director
Ms. Francisca Bagni	Lambussie District Health Administration	District Director
Dr. Sebastian Ngmenenso Sandaare	Lawra District Health Administration	District Director
Mr. Edwin Damn	Lawra District Health Administration	CHPS Coordinator
Ms. Florence Angsomwine	Nadowli District Health Administration	District Director
Mr. Joseph Bolibie	Sissala East District Health Administration	District Director
Ms. Grace Tanye	Sissala West District Health Administration	District Director
Mr. Thompson Dumba	Wa East District Health Administration	District Director
Ms. Beatrice Kunfah	Wa Municipal Health Administration	Municipal Director
Ms. Cicilia Kakariba	Wa Municipal Health Administration	CHPS Coordinator
Mr. Musah Ali	Wa West District Health Administration	CHPS Coordinator
Dr. Boamah Boateng	Nadowli District Hospital	Medical Director
Mr. Daniel K. Ekwam	Nadowli District Hospital	Senior Pharmacist

Ministry of Finance & Economic Planning

Mr. Yaw Okyere-Nyako	External Resource Mobilization (Bilateral) Division	Director
Mr. Samuel Abu-Bonsrah	External Resource Mobilization (Bilateral) Division	Chief Economist

Ministry of Roads and Highways

Mr. Anthoney T. Essilfie	-	Chief Director
Mr. E. Nii Klemes Ashong	Department of Feeder Roads	Director
Mr. Opori A. Duku	Department of Feeder Roads	Head of Planning
Mr. J. Obeng Asiedu	Department of Feeder Roads	Deputy Director (Planning)
Mr. Omane Brimpong	Department of Feeder Roads (UWR)	Residence Manager in Wa
Mr. Felix Bakobze	Department of Feeder Roads (UWR)	Operation Manager

Community Water and Sanitation Agency (CWSA)

Mr. Stephen Mumuni	-	Acting Regional Director
Mr. Mohammed Rpegla	-	Information Manager
Ms. Louisa Dayang	-	Extension Specialist
Ms. Paulina Kingbee	-	Administration Officer
Mr. Chelteau Barajei	-	Engineer
Mr. Sampson Atateura	-	Engineer

Other Donors / NGOs

Mr. George Fom Ameh	Unicef	Child Survival and Development Specialist
Ms. Gloria Obeng-Amoako	Plan Ghana	Health Advisor
Mr. Ramanus Gyang	Network for Sustainable Development	Former coordinator (Care International, Project Manager)
Ms. Joachim Gornah	Skycom Consult & Training	-

JICA Ghana Office

Mr. Jiro Inamura	-	Chief Representative
Mr. Koichi Kito	-	Senior Representative
Ms. Megumi Kato	-	Representative (Health)
Mr. George Walter G. Woode	-	Program Officer

Embassy of Japan in the Republic of Ghana

Mr. Shinichi Honda	-	First Secretary
Mr. Haruyuki Irie	-	Researcher/Adviser

MINUTES OF DISCUSSIONS
ON PREPARATORY SURVEY ON THE PROJECT
FOR
THE DEVELOPMENT OF COMMUNITY-BASED HEALTH PLANNING AND SERVICES INFRASTRUCTURE IN THE UPPER WEST REGION IN THE REPUBLIC OF GHANA

In response to the request from the Government of the Republic of Ghana (hereinafter referred to as "Ghana"), the Government of Japan decided to conduct a Preparatory Survey on the Project for the development of Community-based Health Planning and Services (hereinafter referred to as "CHPS") infrastructure in the Upper West Region in the Republic of Ghana (hereinafter referred to as "the Project") and entrusted the survey to the Japan International Cooperation Agency (hereinafter referred to as "JICA").

JICA sent the Preparatory Survey Team (hereinafter referred to as "the Team") headed by Mr. Nobuaki Miyata, Senior Advisor, JICA from April 10, 2011 to May 12, 2011.

The Team had a series of discussions with the Ghanaian officials concerned and conducted field surveys.

In the course of discussions and field survey, both parties confirmed the main items described on the attached sheets.

Accra, Ghana
May 11, 2011

Mr. Nobuaki Miyata
Leader,
Preparatory Survey Team
Japan International Cooperation Agency

Dr. Sylvester Anemana
Chief Director,
Ministry of Health

Mr. Yaw Okyere-Nyako
Director,
External Resource Mobilization-Bilateral
Ministry of Finance and Economic Planning

Dr. Elias Sory
Director General,
Ghana Health Service
Ministry of Health

ATTACHMENT

1. Objective of the Project

The main objective of the Project is to improve access to health care services for the people in the Upper West Region.

2. Purpose of the Preparatory Survey

The purpose of the preparatory survey is to explain the Japan's Grant Aid Scheme to concerned organizations in Ghana, to gather data/information in connection with contents of the request and to formulate the Project to satisfy the conditions of the Japan's Grant Aid for Community Empowerment with submission of the Inception Report. The implementation of the Project would be finally determined by the Government of Japan based on the result of Field Survey I, II and III (with reference to ANNEX 1).

3. Responsible and Implementing Organization

The responsible organization of the Project is the Ministry of Health (hereinafter referred to as "MOH") and the implementing agency is Ghana Health Service (hereinafter referred to as "GHS"). The organizational chart of each organization is shown in ANNEX 2 and ANNEX 3 respectively.

4. Project Components

In order to achieve the objective of the Project, Ghana has requested CHPS compounds and equipment for CHPS compounds.

4-1. CHPS compounds

A CHPS compound is to be constructed on project sites described below in "5. Project Sites".

4-2. Equipment for CHPS compounds

The list of candidate equipment for CHPS compounds is shown in ANNEX 4. The list will be finalized in Field Survey II and confirmed in Field Survey III. The equipment should be selected and prioritized based on the following conditions:

- Should ensure the functionality of CHPS and satisfy the needs of basic services under the primary health care concept.
- Should be the basic and minimum equipment for CHPS.
- Should be easily and effectively maintained and operated among Community Health Officer (hereinafter referred to as "CHO"), communities and the Government of Ghana.

The Ghanaian policies, standards and protocols in respective service delivery areas as specified by Upper West Regional Directorate, GHS, shall be taken into consideration. The Ghanaian side will identify the equipment needed for each CHPS compound and the compiled list will be submitted to JICA. In case the list mentioned above is not submitted

by the start of Field Survey II, the list of ANNEX 4 is considered as final request of equipment component.

The appropriateness and feasibility of the request would be further assessed by JICA from the technical and financial point of view. The components to be supported by the Japan's Grant Aid will be selected based on the result of Field Survey II and within the budget limitation of the Government of Japan.

5. Project Sites

Candidate sites of the Project (shown in ANNEX 5) were selected in consultation with the communities and other stakeholders. These stakeholders include policy makers, traditional leaders, religious leaders, local non-governmental organizations, women and youth groups.

Candidate sites will be finalized and agreed in Field Survey II. The Project sites should satisfy the following conditions:

- Demand of health service in surrounding communities is high.
- The lands should be secured by the responsible organization. (The landownership or right to use the land should be verified by valid documents.)
- There is no duplication with other kinds of support from government or other development partners for CHPS compounds construction.
- There is no critical obstacles for construction works (land conditions, accessibility of construction vehicles/machines, and spaces).
- Potable water is able to be accessed. Quality of the water should be tested and verified.
- CHO is allocated in the respective Project sites.
- Community is sensitized properly for the implementation of the Project.

6. Japan's Grant Aid Scheme

6-1. The Ghanaian side understood the Japan's Grant Aid for Community Empowerment as described in ANNEX 6, ANNEX 7, ANNEX 8, and ANNEX 9, which was explained by the Team.

6-2. The Ghanaian side assured to take the necessary measures, as described in ANNEX 10, for the smooth implementation of the Project.

7. Framework of Project Implementation and Scope of Works

7-1. Japan's Grant Aid is extended in accordance with the "Exchange of Notes" by the two governments concerned and with the "Grant Agreement" between JICA and the Government of Ghana, in which the objectives of the Project, period of execution, conditions and amount of Grant Aid, etc., are confirmed.

7-2. After concluding the Exchange of Notes and Grant Agreement, the Ghanaian side shall make the Agent Agreement with the Procurement Agent (hereinafter referred to

as "the Agent"). In accordance with "Procurement Guidelines for Grand Aid for Community Empowerment (Type I –C)"of JICA, the Agent shall conduct the following works on behalf of the Government of Ghana:

(1) Administration of the Grant;
(2) Preparation for and evaluation of tender;
(3) Signing contracts with suppliers and service providers;
(4) Procurement of necessary goods and services;
(5) Payment to suppliers and service providers;
(6) Provision of information and advice to the committee; and
(7) Management of the progress of the Project.

7-3. To implement the Project smoothly, both sides confirmed to facilitate a consultative committee chaired by the head of the representatives of the Government of Ghana. The members of the committee shall be as follows:

(1) Representative(s) of MOH
(2) Representative(s) of GHS
(3) Representative(s) of JICA Ghana Office

The Agent will appoint its representative to participate in the meetings of the committee as an advisor. Representatives of organizations other than the Agent, may be invited, whenever necessary, to participate in the meetings to provide advisory services. The major function of the committee is to discuss any matters that may arise from or in connection with the Grant Agreement for the Project. The terms of reference of the committee are: to confirm the implementation schedule of the Project, to discuss the modifications to the Project, to exchange views on allocations of the Grant and its accrued interest, to identify problems which may delay the utilization of the Grant and its accrued interest, and to explore solutions to such problems.

8. Schedule of the Survey

Tentative schedule of the Survey is shown in ANNEX 1.

9. Other Relevant Issues

9-1. Tax exemption

The Ghanaian side agreed to exempt internal tax and custom duties, which may be imposed in Ghana with respect to the implementation of the Project.

9-2. Committee

The Ghanaian side proposed that the committee (described above in 7-3.) should be chaired by Ministry of Finance and Economic Planning. The Ghanaian side also proposed to set sub-committee or management task force at the regional level to discuss practical, managerial and technical matters of the Project. Upper West Regional Health Directorate will be a member of the sub-committee or management task force.

9-3. Roads to CHPS Compounds

Trunk roads to the Project sites are not included in the Japan's Grant Aid. When other roads are indispensable for the construction of CHPS compounds, they are considered as the construction work by contractors. The details and location of the work will be proposed by Japanese side in Field Survey II and discussed with the Ghanaian side.

9-4. Water for CHPS Compounds

Installation of water resources (such as boreholes and wells) is not included in the Japan's Grant Aid. The Ghanaian side noted that Community Water and Sanitation Agency (hereinafter referred to as "CWSA") and other stakeholders (such as District Assemblies, NGOs, etc.) will be contacted to provide potable water in the Project sites. Both sides agreed that water quality in the Project sites which is inspected by the Preparatory Survey should satisfy the Ghanaian standard specified by Ghana Standard Board. Quality of supplied water for CHPS should be secured by the Ghanaian side.

9-5. Design for CHPS compounds

The standard design for CHPS compounds should be finalized through the discussion by both sides. The Ghanaian side proposed that the design should be named as "Upper West Improved CHPS Compound Design".

9-6. Suggestion and statement from the Ghanaian side

The Ghanaian side suggested the following:

- Where it is necessary on the Project sites, communities and other stakeholders should be mobilized to improve accessibility and aid the speedy construction of the compound by contractors.
- Problems of physical access to communities for contractors and supervisors in the Project should not supercede the greater goal of ensuring access to health care services for the beneficial communities under the concept of primary health care and CHPS.

Besides, the Ghanaian side stated as follows:

- Since health care service is a social service, the assemblies, members of parliament and other stakeholders should support the Project by ensuring roads accessibility.

9-7. Situation and prospect for the Project

The Ghanaian side noted the current situation and future prospects for the Project as follows:

- Communities, in the spirit of communalism and responding to their felt health needs, have demanded for CHPS services by providing the proposed sites for the compounds construction.
- Due processes and diligence were followed in the selection and preparation of the Project sites guided by the CHPS implementation guidelines with the full

participation of communities.

- Beneficial communities of the Project have donated lands for the sites as their contribution to the Project.
- Communities shall provide security for CHPS compounds and participate in CHPS operations through activities such as Community Health Action Plans under CHPS concept.
- Communities are ready to patronize the services to be rendered by the CHOs aim at improving their health status.

10. Way forward

The Ghanaian side should submit the documents below to JICA by the end of Field Survey I:

- The prioritized list of candidate sites for the Project

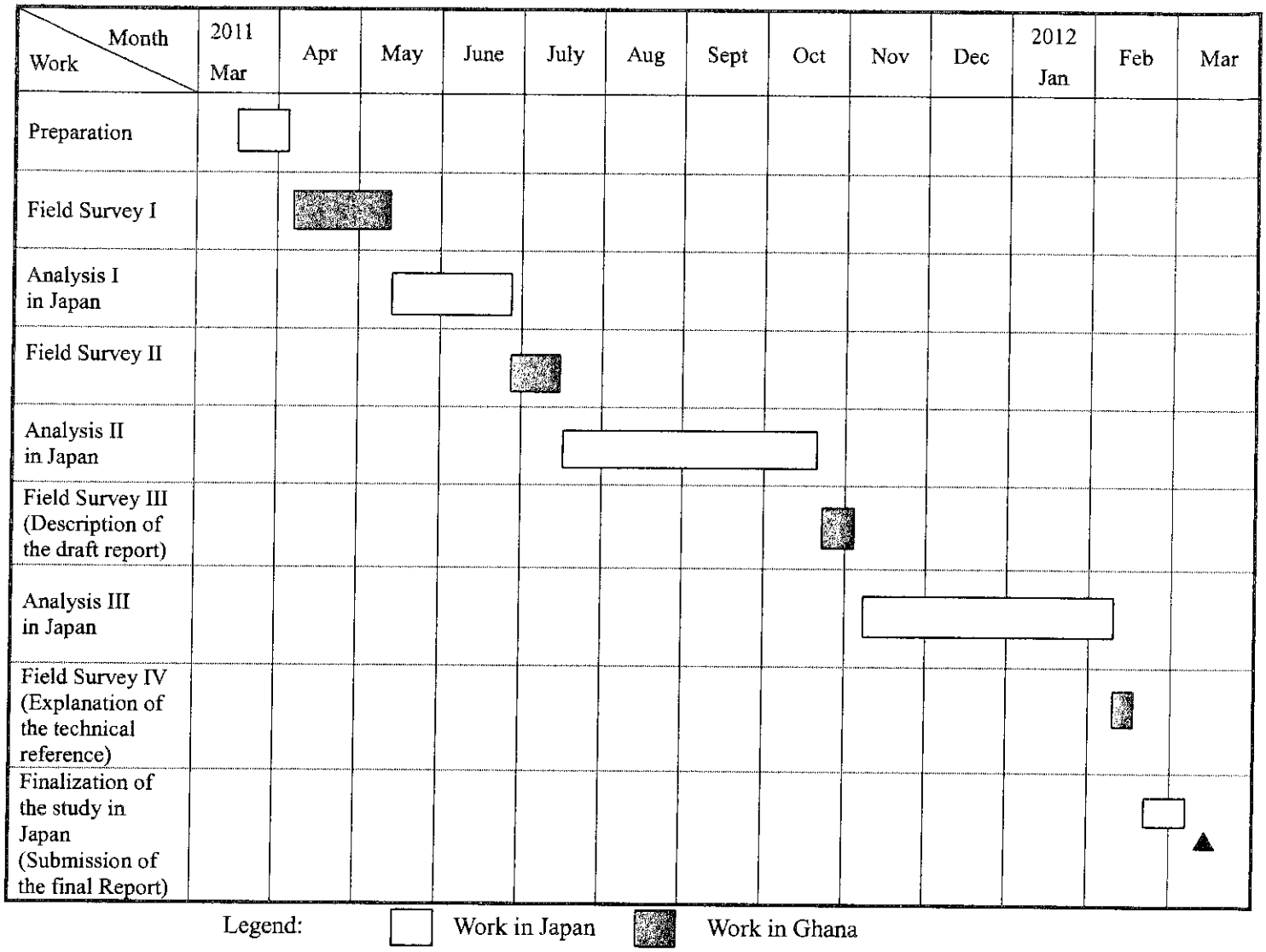
The Ghanaian side should submit the documents below to JICA and secure water resources below by the start of Field Survey II:

- Land Use Right Certificate for respective candidate sites
- The recommendation list of candidate equipment after a forum with communities.
- Water resources for the site No. 801 and No. 905 and documents providing the quality of the water.

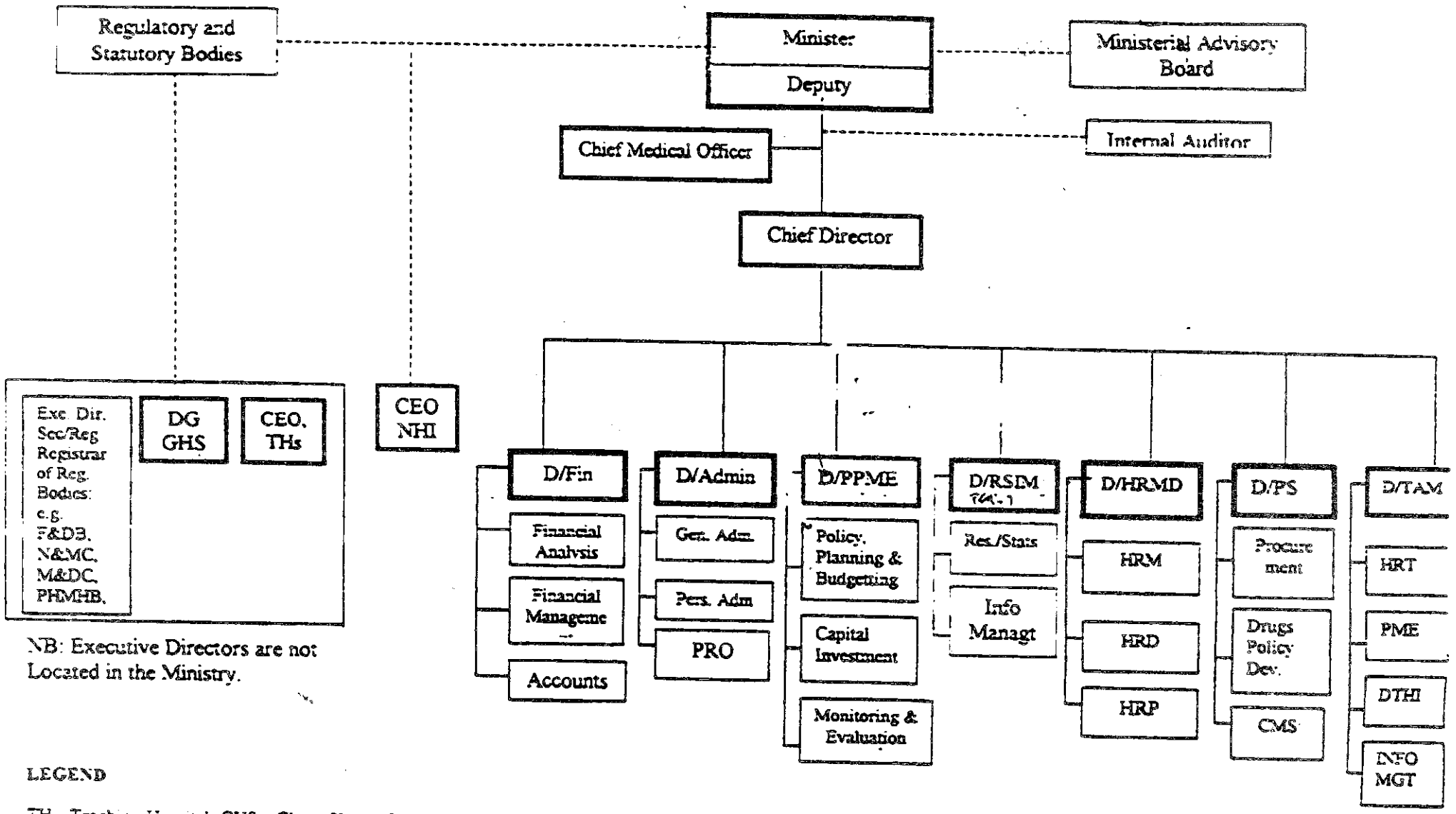
END

ANNEX 1: Tentative Schedule of the Survey
ANNEX 2: Organizational Chart of MOH
ANNEX 3: Organizational Chart of GHS
ANNEX 4: The List of Candidate Equipment for CHPS Compounds
ANNEX 5: The List of Candidate Sites for the Project
ANNEX 6: Grant Aid for Community Empowerment of the Government of Japan
ANNEX 7: Flow Chart of Japan's Grant Aid Procedures for Community Empowerment
ANNEX 8: Flow of Funds for implementation under the Japan's Grant Aid for Community Empowerment
ANNEX 9: Implementation Flow of Japan's Grant Aid for Community Empowerment after E/N and G/A
ANNEX 10: Major Undertakings to be taken by Each Government

ANNEX 1 Tentative Schedule of the Survey



ANNEX 2 Organizational Chart of MOH

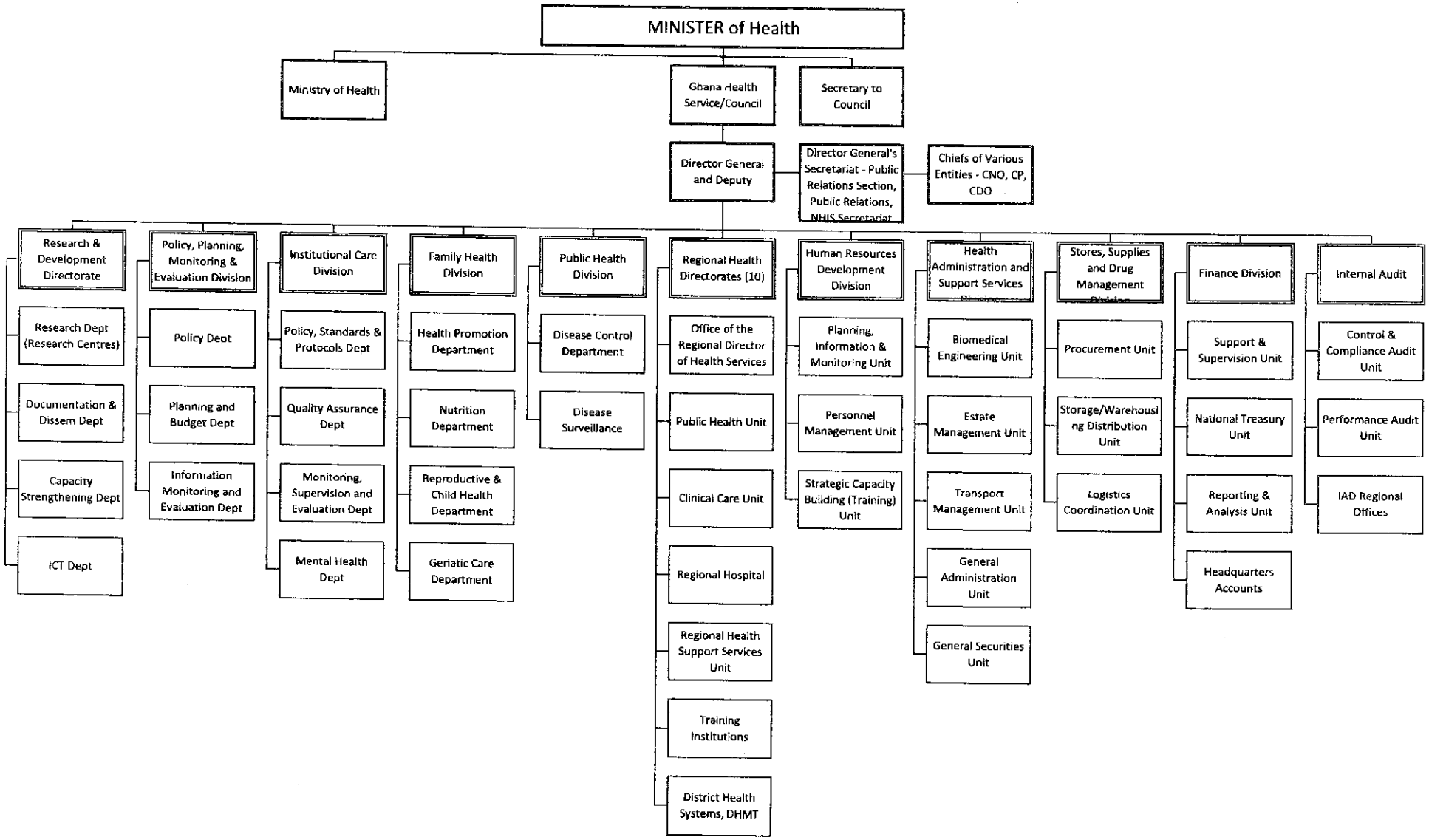


NB: Executive Directors are not Located in the Ministry.

LEGEND

TH - Teaching Hospital, GHS - Ghana Health Service, F&DB - Food and Drugs Board, PC - Pharmacy Council, N&MC - Nurses and Midwives Council, M&DC - Medical and Dental Council, PHMHB - Private Hospitals and Maternity Homes Board, DG - Director General, CEO - Chief Executive Officer, D - Director, TAM - Traditional and Alternate Medicine, PPME- Policy, Planning, Monitoring and Evaluation, F&A - Finance and Administration, RSIM - Research Statistics and Information Management, SP - Supplies and Procurement, PRO - Public Relations Officer, CMS - Central Management Store, IA – Internal Auditor, CMO – Chief Medical Officer, CD – Chief Director

ANNEX 3 Organizational Chart of GHS



ANNEX 4 The List of Candidate Equipment for CHPS Compounds

No.	Equipment
1	Weighing scale, adult
2	Weighing scale, hanging type for baby
3	Feotal stethoscope
4	Sphygmomanometer
5	Stethoscope
6	Nurse scissors, 5 1/2"
7	Artery forceps 8" str & cvd
8	Umblical cord clamp
9	Vaginal speculum coscus medium
10	Thermometer digital
11	Kidney dish large
12	Needle holder big
13	Surgical blade holder
14	Gallipot large
15	Gallipot medium
16	Episiotomy scissors big
17	Cord scissors
18	Sterilizing drum medium
19	Dressing set
20	Instrumental tray with cover small
21	Surgical blade #24

No.	Equipment
22	Dissecting forceps, 6" toothed
23	Dissecting forceps, 6" non-toothed
24	Kidney dish medium
25	Kidney dish small
26	Gallipot small
27	Scissors ordinary 7"
28	Episiotomy scissors small
29	Needle holder 6" small
30	Artery forceps, 6" str & cur
31	Mucus extractor
32	Instrument tray with cover medium
33	Measuring tape
34	Home visiting bag
35	Medical cupboard
36	Veronika bucket (small)
37	Veronika bucket (large)
38	Apron, vinyl
39	Eye chart
40	Delivery bed
41	Weighing scale, neonate, flat
42	Motorbike
43	Refrigerator

ANNEX 5 The List of Candidate Sites for the Project

Site No.	District	Sub-District	Community
101	Jirapa	Douri	Tamapuo
102		Ullo	Ulkpng
103		Tuggo	Doggo/Konzokala
104		Jirapa	Zingpuuroyiri
105		Sabuli	Chacha/Guo
106		Yagha	Tie
107		Hain	Chepuuri/Guri
201	Lambussie	Hamile	Happa/B-Line
202		Piina	Hanchagagan
203		Samoa	Dindee
204		Samoa	Naawie
205		Billaw	Nabaala
206		Hamile	Bamwon
207		Billaw	Katiligo
208		Samoa	Bognuo
301	Lawra	Eremon	Dazur
302		Lawra	Tongo/Zakpee
303		Zambo	Kalsare
304		Domwine	Buokal
305		Puffien	Birechiiteng
306		Gengemkpe	Tanchara
307		Babile	Brif-Cha
308		Puffien	Guri
401	Nadowli	Daffiama	Owlu
402		Issa	Wogu
403		Nanvilli	Meguo
404		Kojokpere	Jolinyiri
405		Charikpong	Biire
406		Jang	Kpandiga
407		Kaleo	Loho
408		Daffiama	Tuori
409		Fian	Sulaguo
501	Sisala East	Tumu	Kong
502		Kunchogu	Piina
503		Wellembele	Jiien
504		Tumu	Lilixi
505		Nabulo	Goasi
506		Kunchogu	Banu
507		Nabulo	Du East
508		Nabugubele	Dolibizon
509	Sisala East	Nabugubele	Bujian
601	Sisala West	Zini	Heil
602		Zini	Wassai
603		Jeffesi	Timmie
604		Fielmuo	Chetu(Kyetu)
605		Gwollu	Kusali
606		Fielmuo	Konchuri
607		Gwollu	Nyimeti
608		Fielmuo	Kankanduole
609		Gwollu	Gbal
610		Zini	Niator
701	Wa East	Loggu	Tanina
702		Kundugu	Chawuli
703		Loggu	Polee
704		Loggu	Balayiri
705		Funsi	Tinniabe
706		Bulenga	Kande
707		Holomuni	Kpawuliwagu
708		Funsi	Jong Fian
709		Bulenga	Goripie
801	Wa Municipal	Busa	Jonga
802		Kambali	Mangu/Sombo
803		Kambali	Dandafuri/Kagu
804		Bamahu	Sing
805		Wa Central	Kanbiehi
806		Busa	Biihee
807		Wa Central	Dokpong
808		Charingu	Kunjenhi
809		Charingu	Yibile
810		Wa Central	Dondoli
901	Wa West	Eggu	Bultuo
902		Eggu	Asse
903		Wechiau	Tegme-Tuole
904		Gurungu	Yuonuuri
905		Gurungu	Tieyiri
906		Wechiau	Bamkpama
907		Ponyentanga	Domongyilli
908		Dorimon	Janbusi
909		Lassie Tuolu	Kangba
910		Dorimon	Domawa

Note: ・Regarding the site No.301,304,401,402,709,804 and 810:
- Construction of CHPS compounds are excluded from the component because there exist CHPS compounds already.
- Equipment supply is considered as the component.

・Water resources for Site No.801 and 905 shall be provided by the Ghanaian side.

ANNEX 6

Grant Aid for Community Empowerment of the Government of Japan

(Provisional)

The Government of Japan (hereinafter referred to as "the GOJ") is implementing the organizational reforms to improve the quality of ODA operations, and as a part of this realignment, the new JICA law was entered into effect on October 1, 2008. Based on the law and the decision of the GOJ, JICA has become the executing agency of Grant Aid for Community Empowerment (hereinafter referred to as "GACE").

The Grant Aid provides the government of a recipient country (hereinafter referred to as "the Recipient") with non-reimbursable funds 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.

1. Procedures for GACE

GACE is executed through the following procedures.

Application	Request made by a recipient country
Survey	Preparatory Survey conducted by JICA
Appraisal & Approval	Appraisal by the Government of Japan and JICA, and Approval by the Japanese Cabinet
Determination of Implementation	The Notes (hereinafter referred to as "E/N") exchanged between the Governments of Japan and the 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

Firstly, the application or request for a GACE Project submitted by the Recipient is examined by the Government of Japan (the Ministry of Foreign Affairs) to determine whether or not it is eligible for GACE.

Secondly, if the request is deemed appropriate, the Government of Japan entrusts JICA (Japan International Cooperation Agency) to conduct the Preparatory Survey,

using a Japanese consulting firm.

Thirdly, the Government of Japan and JICA appraise the Project to see whether or not it is suitable for Japan's GACE, based on the Preparatory Survey report prepared by JICA, and the results are then submitted to the Japanese Cabinet for approval.

Fourthly, the Project, once approved by the Cabinet, becomes official with the Exchange of Notes (E/N) signed by the Governments of Japan and the Recipient.

Simultaneously, the Grant will be made available by concluding a Grant Agreement (hereinafter referred to as "G/A") between the Government of the Recipient Country or its designated authority and the Japan International Cooperation Agency (JICA). JICA is designated by the Government of Japan as an organization responsible for the proper execution of the Grant.

Procurement Agent ("the Agent") is designated to conduct the procurement services of products and services (including fund management, preparing tenders, contracts and so on) for GACE on behalf of the Recipient. The Agent is an impartial and specialized organization and shall render services according to the Agent Agreement with the Recipient. The Agent is recommended to the Recipient by the Government of Japan and agreed between the two Governments in the Agreed Minutes ("A/M").

2. Preparatory Survey

1) Contents of the Survey

The aim of the Preparatory Survey ("the Survey"), conducted by JICA on a requested Project ("the Project "), is to provide a basic document necessary for the appraisal of the Project by the Government of Japan and JICA. The contents of the Survey are as follows:

(1) Confirmation of the background, objectives, and benefits of the Project and also institutional capacity of agencies and communities concerned of the recipient country necessary for the Project 's implementation;
(2) Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme for Community Empowerment from a technical, social and economic point of view;
(3) Confirmation of items agreed upon by both parties concerning the basic concept of the Project;
(4) Preparation of an outline design of the Project ;
(5) Estimation of cost for the Project ; and
(6) Preparation of reference documents for tender.

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

JICA requests the Government of the recipient country to take whatever measures 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 registered consulting firms. JICA selects firms based on the proposals submitted by interested firms. The firms selected carry out a Preparatory Survey and write a report, based upon terms of reference set by JICA. The consulting firms used for the Survey shall be nominated as a responsible Japanese consultant (hereinafter referred to as "the Japanese Consultant") for proceeding construction supervision for the Project under the Agent in order to maintain technical consistency. The Japanese Consultant shall organize an appropriate construction supervision team utilizing local consultants.

3) Result of the Survey

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

3. Implementation of GACE after the E/N and G/A

1) Exchange of Notes (E/N) and Grant Agreement (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) Procedural details

Procedural details on the procurement of products and services under GACE will be agreed upon between the Recipient and JICA at the time of the signing of the G/A. Essential points to be agreed upon are outlined as follows:

a) JICA executes the Grant by making payments of the amount agreed upon in the E/N and pays serious attention to ensure the accountability on proper and effective use of the Grant for the Project.
b) The products and services shall be procured and provided in accordance with "Procurement Guidelines of Japan's Grant Aid for Community Empowerment (Type I – C)".
c) The Government of the recipient country shall conclude an employment contract with the Agent.
d) The Government of the recipient country shall designate the Agent as the representative acting in the name of the Government of the recipient country concerning all transfers of funds to the Agent.

3) Focal Points of JICA's "Procurement Guidelines of Japan's Grant Aid for Community Empowerment (Type I – C)"

a) The Agent

The Agent is the organization which provides procurement services of products and services on behalf of the Recipient according to the Agent Agreement with the Recipient. The Agent is recommended to the Recipient by the Government of Japan and agreed between the two Governments in the A/M.

b) Agent Agreement

The Recipient shall conclude an Agent Agreement, within two (2) months after the date of entry into force of the G/A, in accordance with the A/M. The scope of the Agent's services shall be clearly specified in the Agent Agreement.

c) Approval of the Agent Agreement

The Agent Agreement, which is prepared in two identical documents, shall be submitted to JICA by the Recipient through the Agent. JICA confirms whether or not the Agent Agreement is concluded in conformity with the E/N, the G/A, and the JICA's Procurement Guidelines of Japan's Grant Aid for Community Empowerment, and approves the Agreement. The Agent Agreement concluded between the Recipient and the Agent shall become effective after the approval by JICA in a written form.

d) Payment Methods

The Agent Agreement shall stipulate that "regarding all transfers of the fund to the Agent, the Recipient shall designate the Agent to act on behalf of the Recipient and issue a Blanket Disbursement Authorization ("the BDA") to conduct the transfer of the fund (Advances) to the Procurement Account from the Recipient Account."

The Agent Agreement shall clearly state that the payment to the Agent shall be made in Japanese yen from the Advances and that the final payment to the Agent shall be made when the total Remaining Amount becomes less than 3 % of the Grant and its accrued interest excluding the Agent's fees.

e) Products and Services Eligible for Procurement

Products and services to be procured shall be selected from those defined in the G/A.

f) Firms

In principle, the consultant firm who carried out the Preparatory Survey will be recommended by JICA to the recipient country as the supervisor of the Project's implementation after the E/N and the G/A signing, in order to maintain technical consistency. Besides, firms for construction works shall be of recipient country's nationality as long as the firms satisfy the conditions specified in the tender documents. Firms of any nationality could be contracted as suppliers as long as the firms satisfy the conditions specified in the tender documents.

g) Method of Procurement

In implementing procurement, sufficient attention shall be paid so that there is no unfairness among tenderers who are eligible for the procurement of products and services. For this purpose, competitive tendering shall be employed in principle.

h) Tender Documents

The tender documents should contain all information necessary to enable tenderers to prepare valid offers for the products and services to be procured by GACE. The rights and obligations of the Recipient, the Agent and the Suppliers of the products and services should be stipulated in the tender documents to be prepared by the Agent. Besides this, the tender documents shall be prepared in consultation with the

Recipient.

i) Pre-qualification Examination of Tenderers

The Agent may conduct a pre-qualification examination of tenderers in advance of the tender so that the invitation to the tender can be extended only to eligible firms. The pre-qualification examination should be performed only with respect to whether or not the prospective tenderers have the capability of accomplishing the contracts concerned without fail. In this case, the following points should be taken into consideration:

(1) Experience and past performance in contracts of a similar kind;
(2) Property foundation or financial credibility; and
(3) Existence of offices, etc. to be specified in the tender documents.

j) Tender Evaluation

The tender evaluation should be implemented on the basis of the conditions specified in the tender documents. Those tenders, which substantially conform to the technical specifications, and are responsive to other stipulations of the tender documents, shall be judged in principle on the basis of the submitted price, and the tenderer who offers the lowest price shall be designated as the successful tenderer.

The Agent shall prepare a detailed tender evaluation report clarifying the reasons for the successful tender and the disqualification and submit it to the Recipient to obtain confirmation before concluding the contract with the successful tenderer. The Agent shall, before a final decision on the awards is made, furnish JICA with a detailed evaluation report of tenders, giving the reasons for the acceptance or rejection of tenders.

k) Additional Procurement

If there is an additional procurement fund after competitive and / or selective tendering and / or direct negotiation for a contract, and the Recipient would like an additional procurement, the Agent is allowed to conduct an additional procurement, following the points mentioned below:

(1) Procurement of the same products and services

When the products and services to be additionally procured are identical with the initial tender and a competitive tendering is judged to be disadvantageous, the additional procurement can be implemented by a direct contract with the

successful tenderer of the initial tender.

(2) Other procurements

When products and services other than those mentioned above in (1) are to be procured, the procurement should be implemented through a competitive tendering. In this case, the products and services for additional procurement shall be selected from among those in accordance with the E/N and the G/A.

l) Conclusion of the Contracts

In order to procure products and services in accordance with the G/A, the Agent shall conclude contracts with firms selected by tendering or other methods.

m) Terms of Payment

The contract shall clearly state the terms of payment. The Agent shall make payment from the "Advances", against the submission of the necessary documents from the Firm on the basis of the conditions specified in the contract, after the obligations of the Firm have been fulfilled. When the services are the object of procurement, the Agent may pay certain portion of the contract amount in advance to the firms on the conditions that such firms submit the advance payment guarantee worth the amount of the advance payment to the Agent.

4) Major Undertakings to be taken by the Government of the recipient country

(a) In the implementation of the Grant Aid Project, the recipient country is required to undertake such necessary measures as the following:

(1) to secure lots of land necessary for the implementation of the Project and to clear the sites;

(2) to ensure prompt customs clearance and to assist internal transportation in the recipient country and to assist internal transportation therein of the products;

(3) to ensure that customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the purchase of the Components as well as the employment of the Agent be exempted/be borne by its designated authority without using the Grant and its accrued interest;

(4) to accord Japanese nationals and / or nationals of third countries, including

such nationals employed by the Agent, whose services may be required in connection with the supply of the Components such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work (The term "nationals" whenever used in the G/A means Japanese physical persons or Japanese juridical persons controlled by Japanese physical persons in the case of Japanese nationals, and physical or juridical persons of third countries in the case of nationals of third countries.);

(5) to ensure that the Facilities and the Components are maintained and used properly and effectively for the implementation of the Project;

(6) to bear all the expenses, other than those covered by the Grant and its accrued interest, necessary for the implementation of the Project; and

(7) to give due environmental and social consideration in the implementation of the Project.

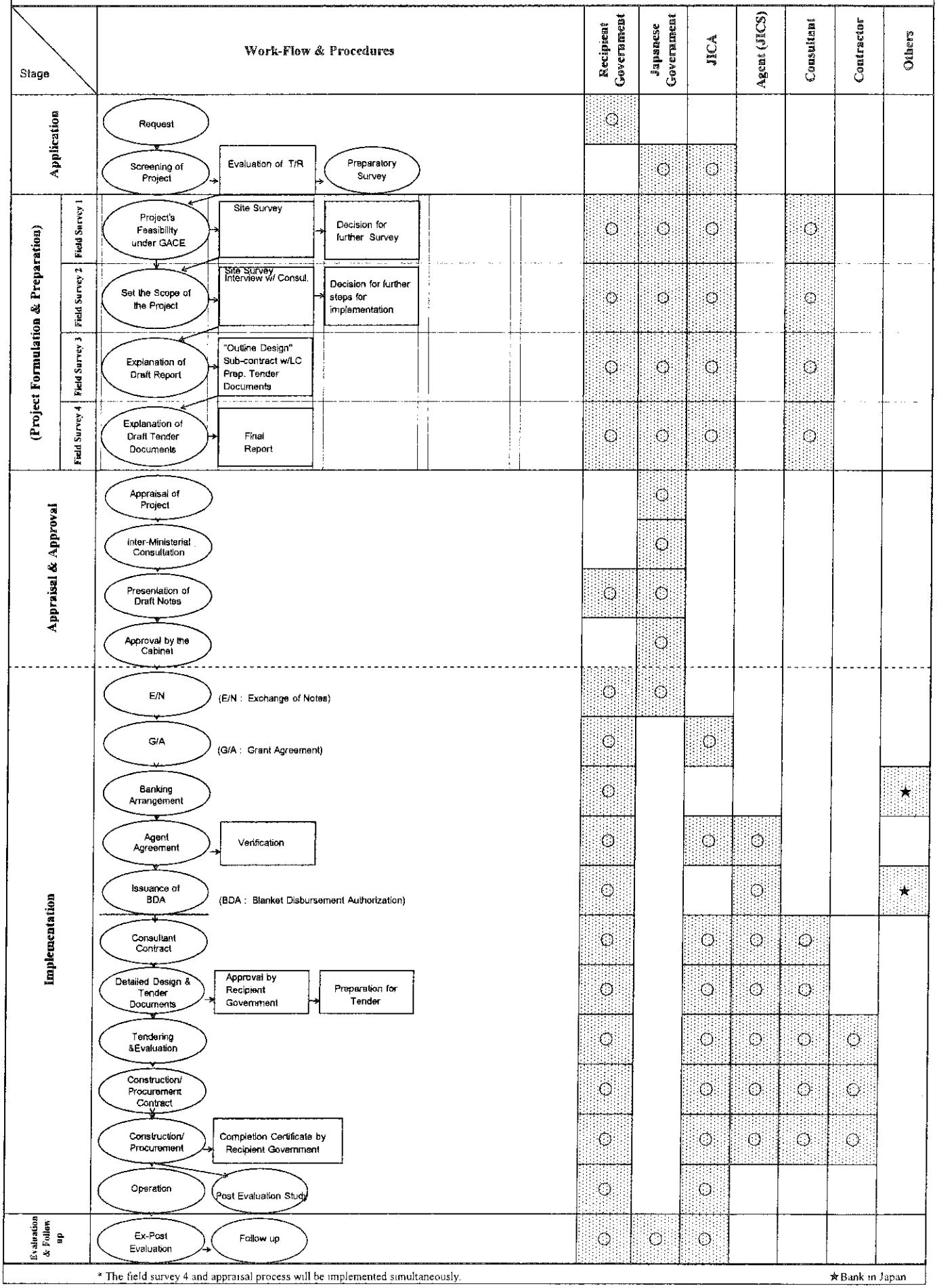
(b) Upon the request of JICA, the Recipient shall provide JICA with necessary information on the Project.

(c) With regard to the shipping and marine insurance of the products procured by the Project, the Recipient shall refrain from imposing any restrictions that may hinder fair and free competition among the shipping and marine insurance companies.

(d) The products procured by the Project shall not be exported or re-exported from the recipient country.

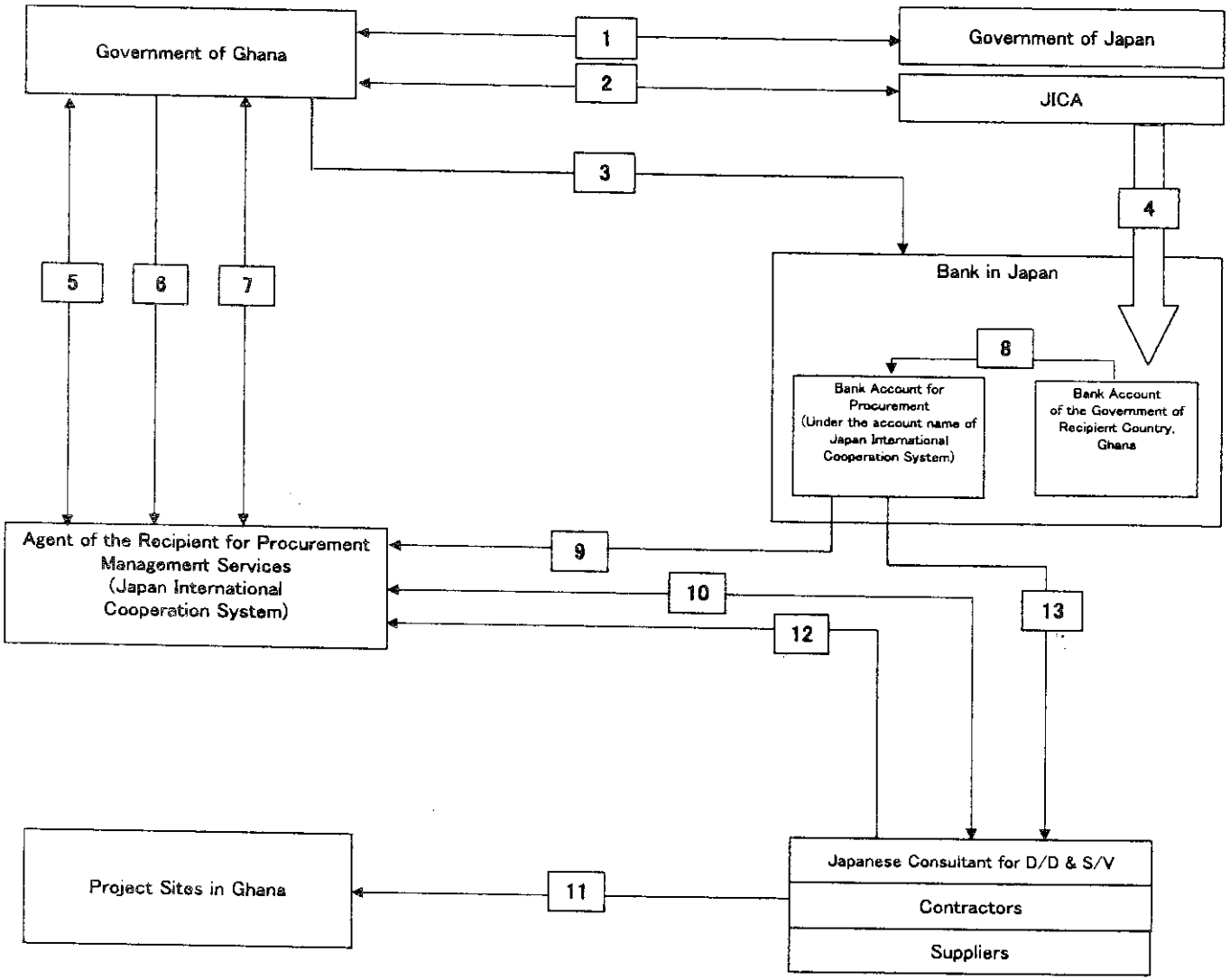
(e) The Recipient shall ensure that any official of its government does not undertake any part of the Japanese nationals' work and / or the work of nationals of third countries on purchase of the Components.

Annex 7 Flow Chart of Japan's Grant Aid Procedures for Community Empowerment



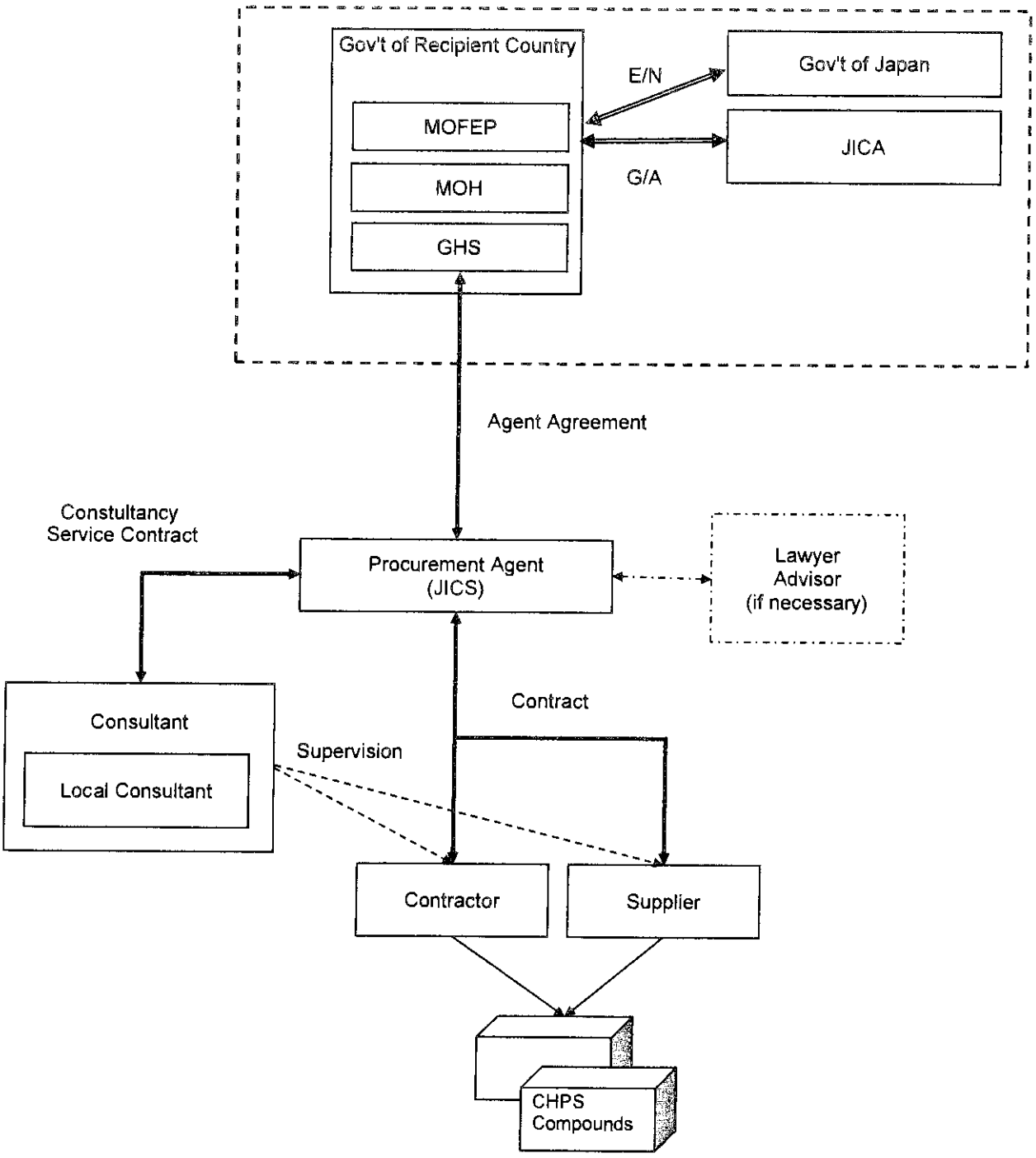
* The field survey 4 and appraisal process will be implemented simultaneously.

ANNEX 8 Flow of Funds & Services for the Implementation of Japan's Grant Aid for Community Empowerment



1	Signing of Exchange of Notes (E/N)
2	Signing of Grant Agreement (G/A)
3	Banking Arrangement (B/A)
4	Disbursement of Funds
5	Signing of Agreement for Agent (A/A)
6	Blanket Disbursement Authorization (BDA)
7	Confirmation of the Components of the Project: Facilities & equipments
8	Transfer of Funds
9	Payment of Remuneration to the Agent
10	Conclusion of Contract
11	Construction and/or Procurement of Equipment
12	Application for Payment
13	Payment

ANNEX 9 Implementation Flow of Japan's Grant Aid for Community Empowerment after E/N and G/A



Annex 10 Major Undertakings to be Taken by Each Government

No.	Items	To be covered by Grant Aid	To be covered by Recipient Side
1	To secure land		●
2	To clear level and reclaim the site when needed		●
3	To construct gates and fences in and around the site (if necessary)		●
4	To Construct the Parking lot	N.A	N.A
5	To construct roads		
	1) Within the site	N.A	N.A
	2) Outside the site		●
6	To construct the building	●	
7	To provide facilities for the distribution of electricity, water supply, drainage and other incidental facilities		
	1) Electricity (if necessary)		
	a. The distributing line to the site		●
	b. The drop wiring and internal wiring within the site (incl. connections between buildings)		●
	c. The main circuit breaker and transformer		●
	2) Water		
	a. Secured Water Resource		●
	b. The supply system within the site (receiving and elevated tanks)	N.A	N.A
	3) Drainage		
	a. The city drainage main (for storm sewer and others to the site)	N.A	N.A
	b. The drainage system (for toilet sewer, ordinary waste, storm drainage and others) within the site	N.A	N.A
	4) Gas Supply		
	a. The city gas main to the site	N.A	N.A
	b. The gas supply system within the site	N.A	N.A
	5) Telephone System		
	a. The telephone trunk line to the main distribution frame/panel (MDF) of the building	N.A	N.A
	b. The MDF and the extension after the frame/panel	N.A	N.A
	6) Furniture and Equipment		
	a. General furniture		●
	b. Project equipment	●	
8	To bear the commissions to the Japanese bank for banking services based upon B/A		●
9	To ensure prompt customs clearance and to assist internal transportation in the recipient country and to assist internal transportation therein of the products		●
10	To ensure that customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the purchase of the Components as well as the employment of the Agent be exempted/be borne by its designated authority without using the Grant and its accrued interest.		●
11	To accord Japanese nationals and / or nationals of third countries, including such nationals employed by the Agent, whose services may be required in connection with the supply of the Components such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work (The term "nationals" whenever used in the G/A means Japanese physical persons or Japanese juridical persons controlled by Japanese physical persons in the case of Japanese nationals, and physical or juridical persons of third countries in the case of nationals of third countries.)		●
12	To ensure that the Facilities and the Components be maintained and used properly and effectively for the implementation of the Project		●
13	To bear all the expenses, other than those covered by the Grant and its accrued interest, necessary for the implementation of the Project		●
14	To give due environmental and social consideration in the implementation of the Project		●

N.A: Not Applicable

MINUTES OF DISCUSSIONS
ON PREPARATORY SURVEY ON THE PROJECT
FOR
THE DEVELOPMENT OF COMMUNITY-BASED HEALTH PLANNING AND SERVICES INFRASTRUCTURE IN THE UPPER WEST REGION IN THE REPUBLIC OF GHANA

In response to the request from the Government of the Republic of Ghana (hereinafter referred to as "Ghana"), the Government of Japan decided to conduct a Preparatory Survey on the Project for the development of Community-based Health Planning and Services (hereinafter referred to as "CHPS") infrastructure in the Upper West Region in the Republic of Ghana (hereinafter referred to as "the Project") and entrusted the survey to the Japan International Cooperation Agency (hereinafter referred to as "JICA").

JICA sent the Preparatory Survey Team (hereinafter referred to as "the Team") headed by Mr. Nobuaki Miyata, Senior Advisor, JICA from June 19, 2011 to July 8, 2011.

The Team had a series of discussions with the Ghanaian officials concerned and conducted field surveys.

In the course of discussions and field survey, both parties confirmed the main items described on the attached sheets.

Accra, Ghana
July 5, 2011

Mr. Nobuaki Miyata
Leader,
Preparatory Survey Team
Japan International Cooperation Agency

Dr. Sylvester Anemana
Chief Director,
Ministry of Health

Mr. Yaw Okyere-Nyako
Director,
External Resource Mobilization-Bilateral
Ministry of Finance and Economic Planning

Dr. Elias Sory
Director General,
Ghana Health Service
Ministry of Health

ATTACHMENT

1. Objective of the Project

The main objective of the Project is to improve access to health care services for the people in the Upper West Region.

2. Purpose of the Preparatory Survey

The purpose of the Field Survey II is to discuss the details of the component of the Project and gather data/information to formulate the Project. Based on the result of the Field Survey II the Team will make the Outline Design of the Project and calculate the cost of the Project. The Team will explain the Outline Design and the cost of the Project shouldered by both sides to the Ghanaian side in the Field Survey III which is planned in October 2011.

3. Responsible and Implementing Organization

The responsible organization of the Project is the Ministry of Health (hereinafter referred to as "MOH") and the implementing agency is the Ghana Health Service (hereinafter referred to as "GHS").

4. Project Components

Both sides agreed that the components targeted by the Project are as follows.

4-1. CHPS compounds

Both sides agreed 73 Candidate sites shown in ANNEX 1 will be targeted for the construction of CHPS compounds by the Project. 3 CHPS compounds at site No.107, 201 and 306 were planned to be constructed by the Ghanaian side, but the Ghanaian side decided that those 3 shall be covered by the Project and will remove those sites from their plan.

4-2. Equipment for CHPS compounds

Both sides agreed 80 Candidate sites shown in ANNEX 2 will be targeted for the procurement of the Equipment for CHPS compounds by the Project, and the list of equipment for CHPS compounds with priority covered by the Project is shown in ANNEX 3.

5. Priority of the Project Sites

Both sides agreed that the prioritization of the Sites is determined in line with the national CHPS policy and is shown in ANNEX 4.

6. Japan's Grant Aid Scheme

The Ghanaian side understood the Japan's Grant Aid for Community Empowerment, and both sides agreed to take necessary measures for the smooth implementation of the Project

as referred to in the Minutes of Discussions singed on May 11, 2011 during Field Survey I.

7. Framework of Project Implementation and Scope of Works

Both sides agreed to the framework of the Project implementation and scope of work as referred to in the Minutes of Discussions signed on May 11, 2011 during Field Survey I.

8. Other Relevant Issues

8-1. Roads to the Site of CHPS Compounds

Both sides agreed that when roads to the Site of CHPS compounds are indispensable for the construction of CHPS compounds, they should be included in the construction work by contractors.

8-2. Water for CHPS Compounds

The water source for CHPS Compounds will be provided from the existing or newly constructed wells by the Ghanaian side. At some Project sites, the water quality of the nearby well, which has been inspected by the Team, does not satisfy the Ghanaian standard specified by Ghana Standard Board. The Ghanaian side confirmed that the GHS will prevail upon the Community Water and Sanitation Agency (CWSA) to take necessary measures such as chlorination of the water resource and/or improvement of surrounding environment of the well/borehole to secure the water quality before the construction of the CHPS Compounds under the Project.

The Ghanaian side agreed that they will inspect water quality of the water source for CHPS Compounds at the site 801 and 905 before the Field Survey III.

8-3. Floor Plan for CHPS compounds

Both sides agreed that the floor plan for CHPS compounds covered by the Project is design shown in ANNEX 5.

8-4. Allocation of human resources for CHPS compounds

The Ghanaian side commits that the necessary number of Community Health Officers and Community Health Nurses for CHPS compounds covered by the Project will be recruited/trained and assigned to each CHPS zone before the completion of the construction of CHPS compounds.

8-5. Tax Exemption

The Ghanaian side confirmed that the following taxes for the Project will be exempted.

-The Value-added Tax, National Health Insurance and Customs of the material and equipment purchased by the contractors, who have contractual relationship with the Procurement Agency.

-The Value-added Tax, National Health Insurance and Customs for the vehicles to be purchased by the Procurement Agency.

-The Value-added Tax, National Health Insurance and Customs for the vehicle to be purchased by the Consultant.
-The taxes related to the contract between the Procurement Agency and the contractor.
-The taxes related to the contract between the Consultant and the local consultant.

8-6. Tender

Both sides agreed that the tender will be divided into 2 phases based on the location and priority set in "5. Priority" above for smooth implementation of the Project.

8-7. Clinical Training for the Equipment

The Ghanaian side confirmed that they will conduct clinical training for cuscus vaginal speculum medium, vacuum extractor (suction) and ambubag for CHO and/or CHN assigned to the targeted CHPS zones by the Project before the completion of the Project.

8-8. Delivery Place of the Equipment

Both sides agreed that the delivery place of the Equipment will be the Regional Medical Store located in Wa, UW. The Ghanaian side confirmed that they will distribute the Equipment to each site.

END

ANNEX 1: List of Candidate Sites for the construction of CHPS compound targeted by the Project

ANNEX 2: List of Candidate Sites for the procurement of Equipment for CHPS compound targeted by the Project

ANNEX 3: List of equipment with priority for CHPS compounds covered by the Project

ANNEX 4: List of Priority for the construction of CHPS compound

ANNEX 5: The Floor Plan for CHPS compound for the Project

ANNEX 1 List of Candidate Sites for the construction of CHPS compound tageted by the Project

Site No.	District	Sub-District	Community
101	Jirapa	Douri	Tamapuo
102		Ullo	Ulkpng
103		Tuggo	Doggo/Konzokala
104		Jirapa	Zingpuuroyiri
105		Sabuli	Chacha/Guo
106		Yagha	Tie
107		Hain	Chepuuri/Guri
201	Lambussie	Hamile	Happa/B-Line
202		Piina	Hanchagagan
203		Samoa	Dindee
204		Samoa	Naawie
205		Billaw	Nabaala
206		Hamile	Bamwon
207		Billaw	Katiligo
208		Samoa	Bognuo
	Lawra		
302		Lawra	Tongo/Zakpee
303		Zambo	Kalsare
305		Puffien	Birechiiteng
306		Gengemkpe	Tanchara
307		Babile	Brif-Cha
308		Puffien	Guri
	Nadowli		
403		Nanvilli	Meguo
404		Kojokpere	Jolinyiri
405		Charikpong	Biire
406		Jang	Kpandiga
407		Kaleo	Loho
408		Daffiama	Tuori
409		Fian	Sulaguo
501	Sisala East	Tumu	Kong
502		Kunchogu	Piina
503		Wellembele	Jiien
504		Tumu	Lilixi
505		Nabulo	Goasi
506		Kunchogu	Banu
507		Nabulo	Du East
508		Nabugubele	Dolibizon

Site No.	District	Sub-District	Community
509	Sisala East	Nabugubele	Bujian
601	Sisala West	Zini	Heil
602		Zini	Wassai
603		Jeffesi	Timmie
604		Fielmuo	Chetu(Kyetu)
605		Gwollu	Kusali
606		Fielmuo	Konchuri
607		Gwollu	Nyimeti
608		Fielmuo	Kankanduole
609		Gwollu	Gbal
610		Zini	Niator
701	Wa East	Loggu	Tanina
702		Kundugu	Chawuli
703		Loggu	Polee
704		Loggu	Balayiri
705		Funsi	Tinniabe
706		Bulenga	Kande
707		Holomuni	Kpawuliwagu
708		Funsi	Jong Fian
801	Wa Municipal	Busa	Jonga
802		Kambali	Mangu/Sombo
803		Kambali	Dandafuri/Kagu
805		Wa Central	Kanbiehi
806		Busa	Biihee
807		Wa Central	Dokpong
808		Charingu	Kunjenhi
809		Charingu	Yibile
901	Wa West	Eggu	Bultuo
902		Eggu	Asse
903		Wechiau	Tegme-Tuole
904		Gurungu	Yuonuuri
905		Gurungu	Tieyiri
906		Wechiau	Bamkpama
907		Ponyentanga	Domongyilli
908		Dorimon	Janbusi
909		Lassie Tuolu	Kangba
910		Dorimon	Domawa

ANNEX 2 List of Candidate Sites for the procurement of Equipment for CHPS compound targeted by the Project

Site No.	District	Sub-District	Community
101	Jirapa	Douri	Tamapuo
102		Ullo	Ulkpng
103		Tuggo	Doggo/Konzokala
104		Jirapa	Zingpuuroyiri
105		Sabuli	Chacha/Guo
106		Yagha	Tie
107		Hain	Chepuuri/Guri
201	Lambussie	Hamile	Happa/B-Line
202		Piina	Hanchagagan
203		Samoa	Dindee
204		Samoa	Naawie
205		Billaw	Nabaala
206		Hamile	Bamwon
207		Billaw	Katiligo
208		Samoa	Bognuo
301	Lawra	Eremon	Dazur
302		Lawra	Tongo/Zakpee
303		Zambo	Kalsare
304		Domwine	Buokal
305		Puffien	Birechiiteng
306		Gengemkpe	Tanchara
307		Babile	Brif-Cha
308		Puffien	Guri
401	Nadowli	Daffiama	Owlu
402		Issa	Wogu
403		Nanvilli	Meguo
404		Kojokpere	Jolinyiri
405		Charikpong	Biire
406		Jang	Kpandiga
407		Kaleo	Loho
408		Daffiama	Tuori
409		Fian	Sulaguo
501	Sisala East	Tumu	Kong
502		Kunchogu	Piina
503		Wellembele	Jiien
504		Tumu	Lilixi
505		Nabulo	Goasi
506		Kunchogu	Banu
507		Nabulo	Du East
508		Nabugubele	Dolibizon
509	Sisala East	Nabugubele	Bujian
601	Sisala West	Zini	Heil
602		Zini	Wassai
603		Jeffesi	Timmie
604		Fielmuo	Chetu(Kyetu)
605		Gwollu	Kusali
606		Fielmuo	Konchuri
607		Gwollu	Nyimeti
608		Fielmuo	Kankanduole
609		Gwollu	Gbal
610		Zini	Niator
701	Wa East	Loggu	Tanina
702		Kundugu	Chawuli
703		Loggu	Polee
704		Loggu	Balayiri
705		Funsi	Tinniabe
706		Bulenga	Kande
707		Holomuni	Kpawuliwagu
708		Funsi	Jong Fian
709		Bulenga	Goripie
801	Wa Municipal	Busa	Jonga
802		Kambali	Mangu/Sombo
803		Kambali	Dandafuri/Kagu
804		Bamahu	Sing
805		Wa Central	Kanbiehi
806		Busa	Biihee
807		Wa Central	Dokpong
808		Charingu	Kunjenhi
809		Charingu	Yibile
810		Wa Central	Dondoli
901	Wa West	Eggu	Bultuo
902		Eggu	Asse
903		Wechiau	Tegme-Tuole
904		Gurungu	Yuonuuri
905		Gurungu	Tieyiri
906		Wechiau	Bamkpama
907		Ponyentanga	Domongyilli
908		Dorimon	Janbusi
909		Lassie Tuolu	Kangba
910		Dorimon	Domawa

ANNEX 3: List of equipment with priority for CHPS compounds covered by the Project

No.	Category	Description	Priority			Total Q'ty
			A	B	C	
1	General	Sphygmomanometer	1			1
2	General	Stethoscope	2			2
3	General	Weighing scale, adult	1			1
4	General	Height scale, adult	1			1
5	General	Weighing scale, baby, flat type	1			1
6	General	Height scale, baby	1			1
7	General	Measuring tape	2			2
8	General	Thermometer digital	2			2
9	General	Breast watch	2			2
10	General	Examination couch	1			1
11	General	Snellen's chart	1			1
12	General	Nurse scissors, 5 1/2″	1			1
13	General	Apron, vinyl	1			1
14	General	Kidney dish, L, M, S	1			1
15	General	Gallipot, L, M, S	1			1
16	General	Instrument tray with cover, M, S	1			1
17	General	Sterilizing drum medium	2			2
18	General	Boiling sterilization case with lid	1			1
19	General	Pedal waste bin	1			1
20	Outreach	Home visiting bag	1			1
21	Outreach	Weighing scale, hanging type for baby	1			1
22	Dressing	Dressing instrument set, consisting of	1			1
		Surgical blade holder	1			1
		Surgical blade #24	1			1
		Dissecting forceps, 6″ toothed & non toothed	1			1
		Scissors ordinary 7″	1			1
		Artery forceps, 6″ str & cvd	1			1
		Artery forceps, 8″ str & cvd	2			2
		Needle holder, big & small	1			1
23	ANC	Foetal stethoscope	1			1
24	ANC	Vaginal speculum Cusco medium		1		1
25	ANC	Examination bed for obstetrics		1		1
26	Delivery	Delivery instrument set, consisting of		1		1
		Episiotomy scissors, big & small		1		1
		Tissue holding forceps		1		1
		Cord scissors		1		1
		Umblical cord clamp		20		20
		Mucus extractor		10		10
27	Delivery	Vacuum extractor (suction), foot, manual		1		1
28	Delivery	Ambubag for adult and infant		1		1
29	M.Furniture	Consulation desk and chair		1		1
30	M.Furniture	Chair for patient		1		1
31	M.Furniture	Medical cupboard		1		1
32	M.Furniture	Veronika bucket, small		1		1
33	M.Furniture	Veronika bucket, large		1		1
34	EPI	Refrigerator for vaccine	1			1
35	Transport	Motorbike		2		2

Priority	Criteria
A	Equipment which is indispensable for the operation of CHPS compound and which fulfill all the following conditions. 1) Equipment for daily activities of CHPS excluding emergency delivery. 2) Equipment which CHO has skill in its use as of the end of June 2011. 3) Equipment which is not for general purpose use.
B	Equipment which is required for the operation of CHPS compound but does not fulfill all the conditions in Priority A.
C	Equipment which is not required and/or which cannot be confirmed its necessity for the operation of CHPS compound.

35

ANNEX 4 List of Priority for the construction of CHPS compound

PRIORITISED SITES FOR COMPOUND CONSTRUCTION

Priority	Site No.	District	Sub-district	Community
1	101	Jirapa	Douri	Tamapuo
10	102		Ullo	Ulkpng
19	103		Tuggo	Doggo/Konzokala
28	104		Jirapa	Zingpuuroyiri
2	208	Lambussie	Samoa	Bognuo
11	202		Piina	Hanchagagan
20	203		Samoa	Dindee
29	204		Samoa	Naawie
3	302	Lawra	Lawra	Tongo/Zakpee
12	303		Zambo	Kalsare
21	305		Puffien	Birechiiteng
30	306		Gengemkpe	Tanchara
4	403	Nadowli	Nanvilli	Meguo
13	404		Kojokpere	Jolinyiri
22	405		Charikpong	Biire
31	406		Jang	Kpandiga
5	501	Sissala East	Tumu	Kong
14	502		Kunchogu	Piina
23	503		Wellembele	Jiien
32	504		Tumu	Lilixi

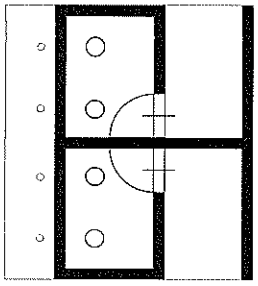
Priority	Site No.	District	Sub-district	Community
6	601	Sissala West	Zini	Heil
15	602		Zini	Wassai
24	603		Jeffesi	Timmie
33	604		Fielmuo	Chetu(Kyetu)
7	701	Wa East	Loggu	Tanina
16	702		Kundugu	Chawuli
25	703		Loggu	Polee
34	704		Loggu	Balayiri
8	801	Wa Municipal	Busa	Jonga
17	802		Kambali	Mangu/Sombo
26	803		Kambali	Dandafuri/Kagu
35	805		Wa Central	Kunbiehi
9	901	Wa West	Eggu	Bultuo
18	902		Eggu	Asse
27	903		Wechiau	Tegme-Tuole
36	904		Gurungu	Yuonuuri

Priority	Site No.	District	Sub-district	Community
37	105	Jirapa	Sabuli	Chacha/Guo
46	106		Yagha	Tie
55	107		Hain	Chepuuri/Guri
38	205	Lambussie	Billaw	Nabaala
47	206		Hamile	Bamwon
56	207		Billaw	Katiligo
63	201		Hamile	Happa/B-line
39	307	Lawra	Babile	Brifo-Cha
48	308		Puffien	Guri
40	407	Nadowli	Kaleo	Loho
49	408		Daffiama	Tuori
57	409		Fian	Sulaguo
41	505	Sissala East	Nabulo	Goasi
50	506		Kunchogu	Banu
58	507		Nabulo	Du East
64	508		Nabugubele	Dolibizon

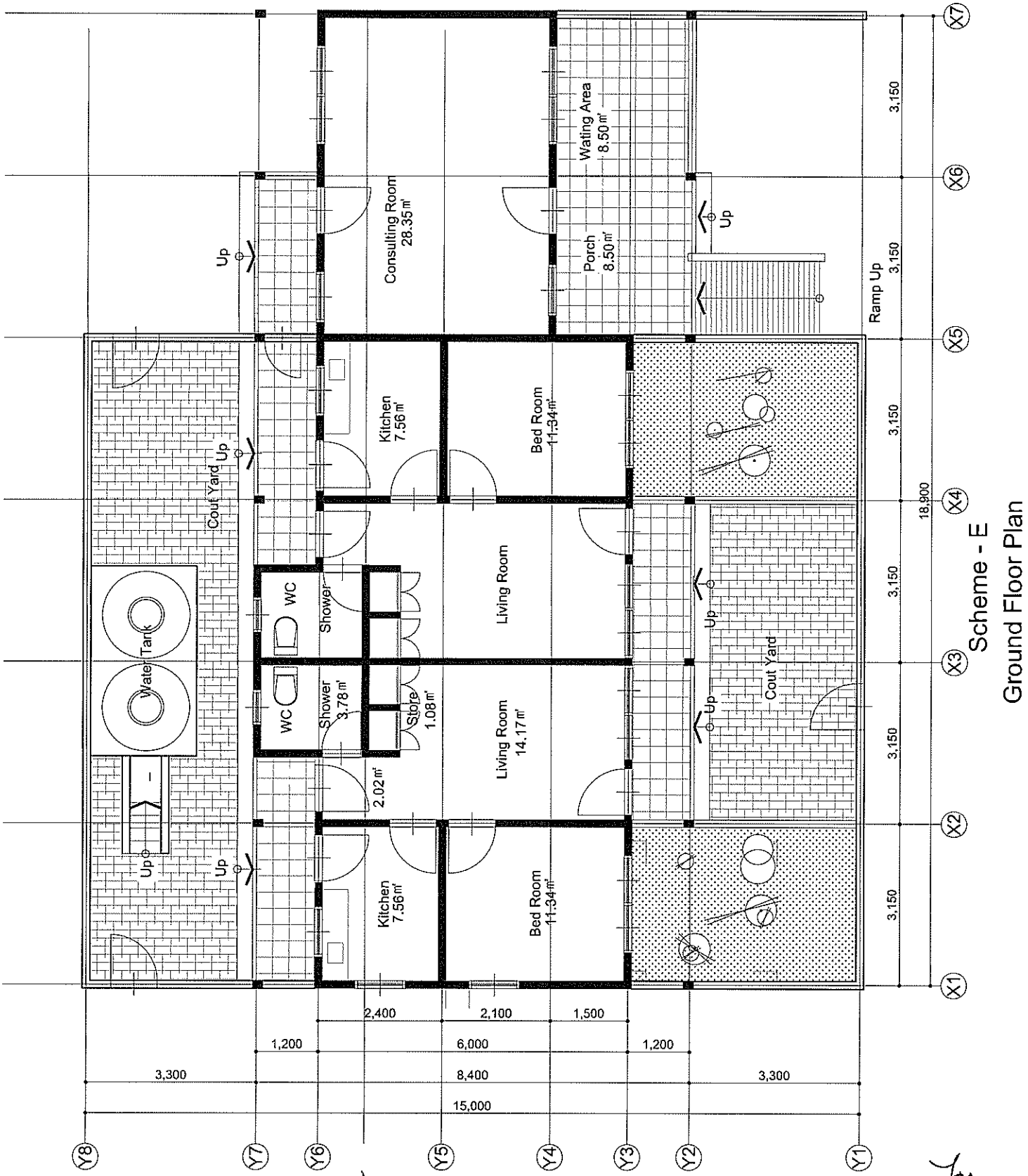
Priority	Site No.	District	Sub-district	Community
42	605	Sissala West	Gwollu	Kusali
51	606		Fielmuo	Konchuri
59	607		Gwollu	Nyimeti
65	608		Fielmuo	Kankanduole
43	705	Wa East	Funsi	Tinniabe
52	706		Bulenga	Kande
60	707		Holomuni	Kpawuliwagu
66	708		Funsi	Jong Fian
44	806	Wa Municipal	Busa	Biihee
53	807		Wa Central	Dokpong
61	808		Charingu	Kunjenhi
67	809		Charingu	Yibile
45	905	Wa West	Gurungu	Tieyiri
54	906		Wechiau	Bamkpama
62	907		Ponyentanga	Domongyilli
68	908		Dorimon	Janbusi

Priority	Site No.	District	Sub-district	Community
69	509	Sissala East	Nabugubele	Bujian
70	609	Sissala West	Gwollu	Gbal
71	610		Zini	Niator
72	909	Wa West	Lassie Tuolu	Kangba
73	910		Dorimon	Domawa

ANNEX 5 The Floor Plan for CHPS compound for the Project



KVIP



Scheme - E

Ground Floor Plan

(3) Minutes of Discussions (Field Survey III)

MINUTES OF DISCUSSIONS
ON PREPARATORY SURVEY ON THE PROJECT
FOR
THE DEVELOPMENT OF COMMUNITY-BASED HEALTH PLANNING AND SERVICES INFRASTRUCTURE IN THE UPPER WEST REGION IN THE REPUBLIC OF GHANA

In response to the request from the Government of the Republic of Ghana (hereinafter referred to as "Ghana"), the Government of Japan decided to conduct a Preparatory Survey on the Project for the development of Community-based Health Planning and Services (hereinafter referred to as "CHPS") infrastructure in the Upper West Region in the Republic of Ghana (hereinafter referred to as "the Project") and entrusted the survey to the Japan International Cooperation Agency (hereinafter referred to as "JICA").

JICA sent the Preparatory Survey Team (hereinafter referred to as "the Team") headed by Mr. Nobuaki Miyata, Senior Advisor, JICA from October 23, 2011 to November 3, 2011.

The Team had a series of discussions with the Ghanaian officials concerned and conducted field surveys.

In the course of discussions and field survey, both parties confirmed the main items described on the attached sheets.

Accra, Ghana
November 1, 2011

Mr. Nobuaki Miyata
Leader,
Preparatory Survey Team
Japan International Cooperation Agency

Dr. Sylvester Anemana
Chief Director,
Ministry of Health

Mr. Yaw Okyere-Nyako
Director,
External Resource Mobilization-Bilateral
Ministry of Finance and Economic Planning

Dr. Frank Nyonator
Acting Director General,
Ghana Health Service
Ministry of Health

ATTACHMENT

1. Objective of the Project

The main objective of the Project is to improve access to health care services for the people in the Upper West Region.

2. Purpose of the Preparatory Survey

The purpose of the Field Survey III is to discuss the Preparatory Survey Draft Report which contains the Outline Design of the Project and the cost of the Project shouldered by both sides. Based on the result of the Field Survey III, the Team will explain a set of Technical Reference for Tender Documents to the Ghanaian side in the Field Survey IV.

3. Japan's Grant Aid Scheme

Both sides confirmed that the Project shall be extended under the Japan's Grant Aid for Community Empowerment, and both sides agreed to take necessary measures for the smooth implementation of the Project as referred to in the Minutes of Discussions singed on May 11, 2011 during Field Survey I.

4. Contents of the draft Preparatory Survey Report

The Ghanaian side agreed and accepted in principle the contents of the Preparatory Survey Draft Report explained by the Team.

5. Confidentiality of the Project

The Team explained the cost estimation of the Project as described in ANNEX 1. Both sides agreed that the cost estimation of the Project should never be duplicated or released to any outside parties before the signing of all the contract(s) for the Project.

6. Other relevant issues

6-1. Equipment covered by the Project

Equipment for CHPS compounds covered by the Project is referred to in the Minutes of Discussions singed on July 5, 2011 during Field Survey II, with the exception that the number of motorbikes is changed to be one in each site as shown in ANNEX 2.

6-2. Cost estimation of the Project

The Ghanaian side agreed to bear the cost estimation of the Project described in ANNEX 1, and understood that the cost estimation is not final and subject to change in the process for the approval of the Project by the Government of Japan.

6-3. Necessary undertakings

Both sides agreed to implement necessary undertakings described in ANNEX 3.

6-4. Construction supervision office

The Team requested to build a construction supervision office within the premises of Upper West Regional Health Administration, GHS (hereinafter referred to as "RHA") and the Ghanaian side agreed to provide necessary site within the premises of RHA. The office will be built with the same design as CHPS compound before the commencement of the CHPS compound construction in the Project, as a part of the training of local supervising engineers. The office will be devolved to Upper West Regional Health Administration, GHS (hereinafter referred to as "RHA"), after the completion of the Project. RHA shall take all the obligations for the office after the devolution.

6-5. Electricity layout for CHPS compounds

The Ghanaian side requested the specification of CHPS compounds should stand on the standard design of GHS which includes electricity layout. The Ghanaian side explained that the national plan is under formulation to extend electricity grid to all the area in Upper West Region near future. Both sides agreed that CHPS compounds covered by the Project include minimum layout (conduit pipe) in preparation for installing electricity.

6-6. Plan for temporary works

Temporary works will be planned along the Feeder roads leading to the sites No. 202, 508 and 702, and the Community road leading to the site No. 903, where passage will be difficult during the rainy season. Concrete blocks will be laid at the above Feeder roads, and they will be removed after the completion of CHPS compounds. Box culverts will be placed at the above Community road, and they will be devolved to the Ghanaian side after the completion of CHPS compound. The Ghanaian side shall take all the obligations for the box culverts after the devolution.

6-7. Allocation of human resources for CHPS compounds

The Ghanaian side committed that one CHO with midwifery skill and another staff (either CHO or CHN) shall be recruited/trained and assigned to 80 CHPS compounds covered by the Project before the completion of the construction.

6-8. Committee

Both sides agreed that sub-committee or management task force will be set for the management of the Project as referred to in the Minutes of Discussions singed on May 11, 2011 during Field Survey I. Both sides also agreed that the members of sub-committee or management task force are nominated by each side until the start of Field Survey IV.

6-9. Proper use and maintenance

Both sides agreed that proper use and maintenance of the components covered by the Project would be indispensable for their long-term use. The estimated cost for maintenance

and operation of the components is shown in ANNEX 4. The Ghanaian side assured to facilitate the proper maintenance and operation of the components with the active involvement of concerned parties such as Ministry of Health, Ghana Health Service and other concerned organizations.

END

ANNEX 1: Cost estimation of the Project
ANNEX 2: List of equipment covered by the Project
ANNEX 3: Necessary undertakings
ANNEX 4: Estimated Cost for Maintenance and Operation

ANNEX I

This part is closed due to confidentiality.

(2) Cost to be borne by the Ghanaian Side

Approximately 3,060,124 GCedis (equivalent to approximately 170.7 million yen)

Item	Amount (GCedis)	Equivalent to (Yen)
Land	106,924 (*1)	5,964,000 (*1)
Tax exemptions	2,805,000 (*2)	156,444,000 (*2)
Extension and connection of electricity to the sites	20,000	1,115,000
Furniture (residential section)	109,300	6,107,000
Bank commissions	18,700	1,043,000
Total	3,060,124	170,673,000

This part is closed due to confidentiality.

(3) Conditions of Estimation

① Estimation as of : July, 2011

② Foreign exchange rate : 1US$=83.00 yen, 1GCedis=55.77yen

③ Other conditions : The Project will be implemented in accordance with the grant-aid scheme of the Government of Japan

ANNEX 2

List of equipment covered by the Project

No.	Category	Description	Qty /CHPS	Unit	Target sites	Total Qty
1	General	Sphygmomanometer	1	pc	80	80
2	General	Stethoscope	2	pcs	80	160
3	General	Weighing scale (adult)	1	pc	80	80
4	General	Height scale (adult)	1	pc	80	80
5	General	Weighing scale (baby, flat type)	1	pc	80	80
6	General	Height scale (baby)	1	pc	80	80
7	General	Measuring tape	2	pcs	80	160
8	General	Thermometer digital	2	pcs	80	160
9	General	Brest watch	2	pcs	80	160
10	General	Examination couch	1	pc	80	80
11	General	Snellen's chart	1	pc	80	80
12	General	Nurse scissors (5 1/2")	1	pc	80	80
13	General	Apron, vinyl	1	pc	80	80
14	General	Kidney dish (L, M, S)	1	set	80	80
15	General	Gallipot (L, M, S)	1	set	80	80
16	General	Instrument tray with cover (M, S)	1	set	80	80
17	General	Sterilizing drum (medium)	2	pcs	80	160
18	General	Boiling sterilization case with lid	1	pc	80	80
19	General	Pedal waste bin	1	pc	80	80
20	Outreach	Home visiting bag	1	pc	80	80
21	Outreach	Weighing scale (hanging type for baby)	1	pc	80	80
22	Dressing	Dressing instrument set	1	set	80	80
23	ANC	Foetal Stethoscope	1	pc	80	80
24	ANC	Vaginal speculum Cusco (medium)	1	pc	80	80
25	ANC	Examination bed for obstetrics	1	pc	80	80
26	Delivery	Delivery instrument set	1	set	80	80
27	Delivery	Vacuum extractor, manual	1	pc	80	80
28	Delivery	Ambubag (for adult & infant)	1	set	80	80
29	Medical furniture	Consultation desk & chair	1	set	80	80
30	Medical furniture	Chair for patient	1	pc	80	80
31	Medical furniture	Medical cupboard	1	pc	80	80
32	Medical furniture	Veronika bucket (small)	1	pc	80	80
33	Medical furniture	Veronika bucket (large)	1	pc	80	80
34	EPI	Refrigerator for vaccine	1	pc	80	80
35	Transport	Motorbike	1	pc	80	80

ANNEX 3

Necessary undertakings

1. Necessary undertakings for Ghanaian side

(1) To secure the land necessary for the implementation of the Project, and to secure the landownership or land-use right certificates;

(2) To connect electricity to the following sites, where a power line is available nearby, before the completion of construction: No. 501 (Kong), No. 504 (Lilixi), No.802 (Mangu/Sombo) and No. 805 (Kanbiehi);

(3) To secure all the necessary permits and approvals for the implementation of the Project;

(4) To bear the commissions to the Japanese bank for the banking services based upon banking arrangement;

(5) To take measures for prompt unloading and customs clearance at ports of disembarkation, and to assist internal transportation of the products;

(6) To take measures to authorize the Japanese nationals in connection with the Project for their entry into the recipient country and stay therein for the performance of their work, in accordance with the contract with and by Japan International Cooperation System;

(7) To exempt customs duties, internal taxes and other taxes for the corporations and also the individuals under the Project;

(8) To exempt customs duties, internal taxes and other fiscal levies which may be imposed in Ghana with respect to the purchase of the Components as well as the employment of the Agent be exempted;

(9) To be responsible for all the Ghanaian side's obligations in respect of the Project;

(10) To ensure that the facilities and equipment provided by the Project be maintained and used properly and effectively; and,

(11) To bear all necessary expenses, other than those covered by Japan's Grant Aid for Community Empowerment by the Government of Japan, for the implementation of the Project.

2. Necessary undertakings for Japanese side

(1) To construct CHPS compounds referred to in the Minutes of Discussions singed on July 5, 2011 during Field Survey II;

(2) To procure equipment for CHPS compounds referred to in ANNEX II of the Minutes of Discussions during Field Survey III.

ANNEX 4

Estimated Cost for Maintenance and Operation

The estimated amount required for the operation and maintenance of the CHPS compounds to be constructed by the Project is indicated below.

(1) Training of CHOs and Allocation of Personnel

(Unit : GCedis)

Item	Unit cost per CHN/CHO	No. of additional CHO/CHN	Total Cost
Training of CHO	400	160	64,000
Annual Salary for additional CHN/CHO	6,456	160	1,032,960
Total	-	-	1,096,960

(2) Operation of the CHPS compound

(Unit: GCedis)

Item	Unit Cost	Qty/Frequency	Total (Annual)
Cost for providing service			**1,024.8**
Fuel cost for motorbikes (Home visits, outreach activities, community meetings, school visits, visit TBAs and CHVs, etc) *	35.0／month (5 gal／month)	Every month	420.0
Travel cost (Attending SDHT meetings)	5.5／person-month	Every month 2 persons	132.0
Travel cost (Attending DHMT meetings)	9.6／person-month	Every quarter2 persons	76.8
Travel and shipping costs (Receiving and shipping medicines and vaccines, other necessary logistical costs)	25.0／month	Every month	300.0
LPG cost for a refrigerator for vaccines* (average cost per month)	8.0／month	Every month	96.0
Cost for medicines and medical supplies			**2,676.1**
Medicines and medical supplies			2,676.1
Non-medical Consumables			**1,347.4**
Stationary			1,000.6
Family planning commodity			346.8
Cost for motorbike maintenance			**440.0**
Periodical check cost	5.0／month	Every month	60.0
Spare parts	75.0／month	Every quarter	300.0
Spare tires	12.0／month	Every quarter	48.0
Replacement fees	8.0／month	Every quarter	32.0
Total Operation and Maintenance Cost Per CHPS			**5,488.3**
Total Operation and Maintenance Cost for 80 CHPS			**439,064.0**

(3) Maintenance of the facility

(Unit: GCedis)

Item	Frequency	Annual Cost
Repainting exterior walls	Once every 10 years	17,000
Repainting interior walls	Once every 5 years	48,000
Repainting fittings	Once every 5 years	10,000
Changing bulbs due to dilapidation	Once every 2 years	1,000
Removal of sludge in the septic tank	Once every 5 years	2,000
Total	-	78,000

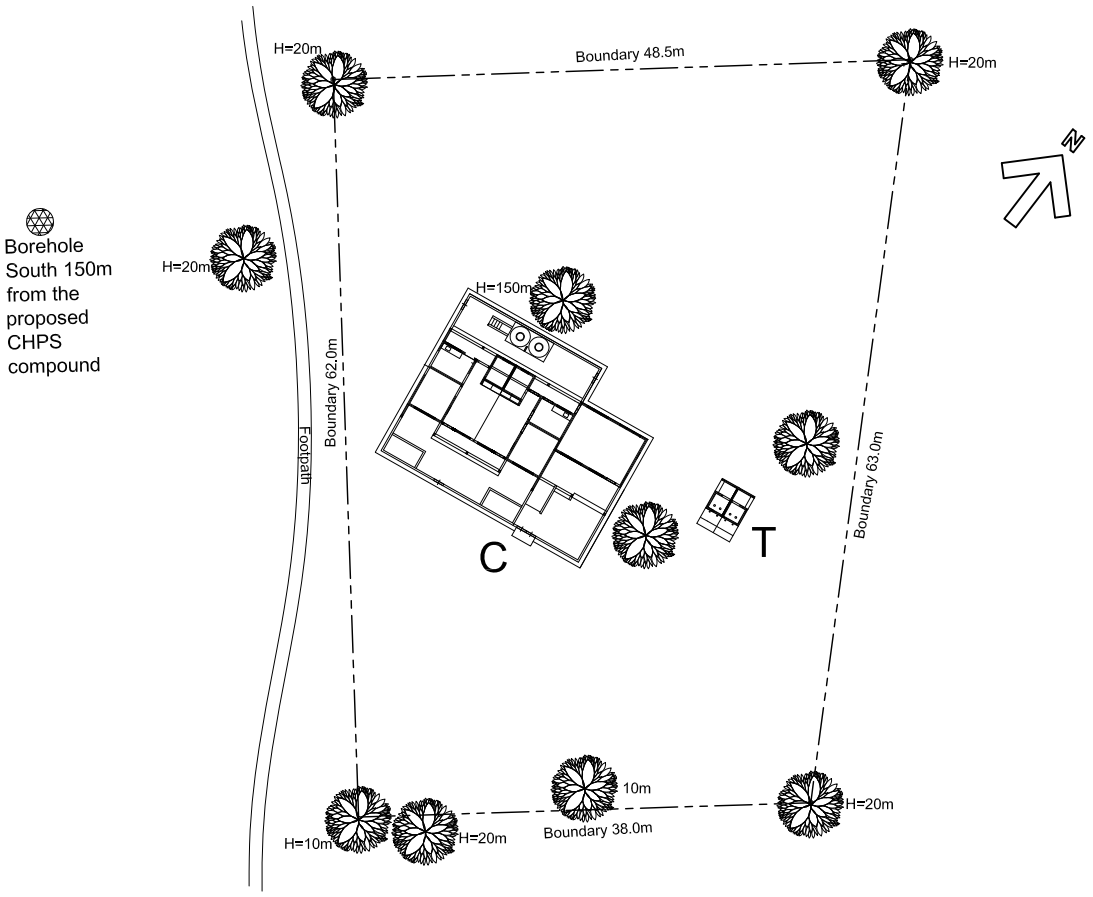
5. References

No	Title	Format (Data/Book)	Original/ Copy	Issued by	Year of Issue
1	Tracking Progress in Maternal, Newborn & Child Survival – the 2008 Report	Book	Copy	UNICEF	2009
2	Achieving MDG4 in Sub-Saharan Africa: What Has Contributed to the Accelerated Child Mortality Decline in Ghana?	Book	Copy	H. Nakamura, N. Ikeda, A. Stickely, R. Mori and K. Shibuya	2011
3	Ghana Demographic and Health Survey 2008 Report	Book	Copy	Ghana Health Service	2009
4	Ghana Demographic and Health Survey 2003 Report	Book	Copy	Ghana Health Service	2003
5	Independent Review- Health Sector Programme of Work 2010	Book	Copy	Ministry of Health, Ghana	2011
6	Independent Review- Health Sector Programme of Work 2009	Book	Copy	Ministry of Health, Ghana	2010
7	Independent Review- Health Sector Programme of Work 2008	Book	Copy	Ministry of Health, Ghana	2009
8	Upper West Regional Health Services 2010 Annual Report (draft)	Book	Copy	Upper West Regional Health Services	2011
9	Upper West Regional Health Services 2008 Annual Report	Book	Copy	Upper West Regional Health Services	2008
10	The Health Sector Programme of Work 2007-2011	Book	Copy	Ministry of Health	2007
12	The Health Sector Annual Programme of Work 2010	Book	Original	Ministry of Health	2010
13	The Health Sector Annual Programme of Work 2009	Book	Copy	Ministry of Health	2009
14	The Health Sector Annual Programme of Work 2007	Book	Copy	Ministry of Health	2007
15	Community-based Health Planning and Services (CHPS) The Operational Policy	Book	Copy	Ghana Health Service	2005
16	Community-based Health Planning and Services Handbook	Book	Copy	Ministry of Health	1999
17	The Impact of the Navrongo Community Health and Family Planning Project on Child Mortality, 1993-2000	Book	Copy	Population Council and Navrongo Health Research Centre	2001
18	The Ghana Community-based Health Planning and Services Initiative: Fostering Evidence-based Organizational Change and Development in a Resource-constrained Setting	Book	Copy	Population Council	2005
19	The Ghana Community-based Health Planning and Services initiative for Scaling Up Service Delivery Innovation	Book	Copy	Nyonator FK, Awoonor-Williams JK, Phillips JF, Jones TC and Miller RA	2005
20	Making CHPS Work - Informative Guide detailing the Ghana Health Service's Community-based Health Planning and Services (CHPS) Initiative	Book	Copy	Ghana Health Services	2008
21	In-depth Review of the Community-based Health Planning Services (CHPS) Programme - a Report of the Annual Health Sector Review 2009 Final Report	Book	Copy	MOH, University of Ghana	2009

No	Title	Format (Data/Book)	Original/ Copy	Issued by	Year of Issue
22	Final Report- The Retrospective Evaluation of ACSD: Ghana	Book	Copy	Institute for International Progrrams Johns Hopkins Bloomberg School of Public Health	2008
23	Accelerating Reproductive and Child Health Program Development: The Navrongo Initiative in Ghana	Book	Copy	Population Council	2005
24	Medium-term National Development Policy Framework: Ghana Shared Growth and Development Agenda (GSGDA), 2010-2013, Volume I: Policy Framework	Book	Copy	National Development Planning Commission, Government of Ghana	2010
25	Medium-term National Development Policy Framework: Ghana Shared Growth and Development Agenda (GSGDA), Costing Framework (2010-2013)	Book	Copy	National Development Planning Commission, Government of Ghana	2010
27	WHO Country Corporation Strategy 2008-2011	Book	Copy	AFRO/WHO	2010
28	UNFPA Ghana −Information for Activities	Book	Copy	UNFPA Ghana	2010
29	United Nations Development Assistance Framework (UNDAF) for Ghana, 2006-2010	Book	Copy	United Nations	2005
30	USAID/Ghana Health Sector Strategy 2009-2013	Book	Copy	USAID	2008
31	Project Information: Ghana Health Sector Support Programme	Book	Copy	DFID	2011
32	Project Information: Support for Emergency Obstetric Equipment	Book	Copy	DFID	2011
33	Human Resources Policies & Strategies for the Health Sector 2012-2016 (Draft)	Book	Copy	Ministry of Health	2011
34	Human Resources for Health Country Profile -Ghana	Book	Copy	Africa Health Workforce observatory	2010
35	Working Practices and Income of Health Workers: Evidence from an Evaluation of a Delivery Fee Exemption Scheme in Ghana, BMC Human Resources for Health 5:2	Book	Copy	S. Witter, A. Kusi and M. Aikins	2007
36	Health Workforce "Innovative Approaches and Promising Practices" Study - Providing Doorstep Services to Underserved Rural Populations: Community Health Officers in Ghana	Book	Copy	Capacity Project, USAID	2006
37	2008 Ghana Millennium Development Goals Report	Book	Copy	Republic of Ghana, United Nations	2010
38	Quality Assurance Strategic Plan for Ghana Health Service 2007-2011	Book	Copy	Ghana Health Service	2007
39	Reproductive Health Strategic Plan 2007-2011	Book	Copy	Ministry of Health	2007

6. Site Plans

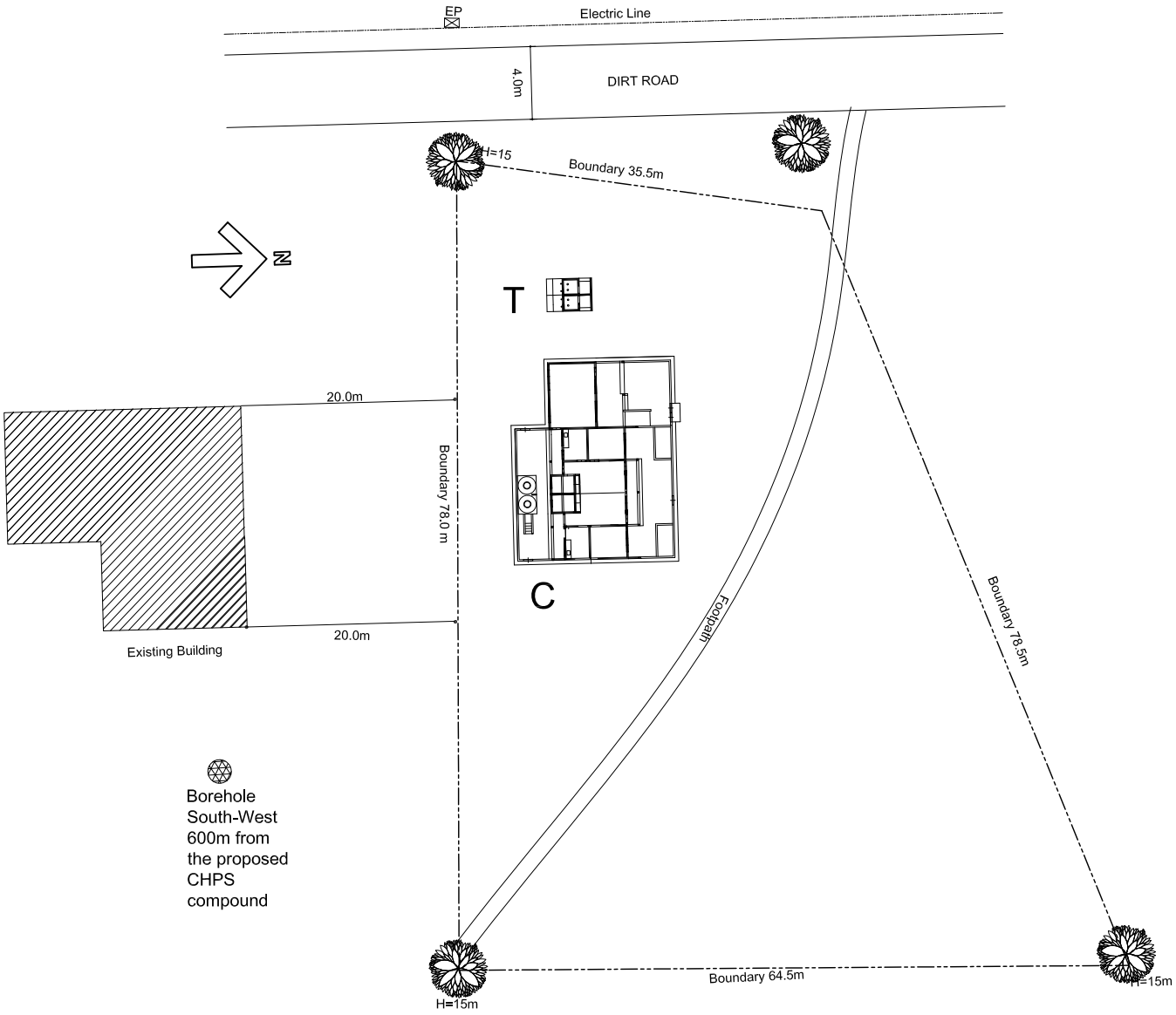
Site No.	CHPS Compound	Sub-District	District
101	Tamapuo	Duori	Jirapa



C : CHPS Building
T : Toilet Building

Site Plan Scale =1:600

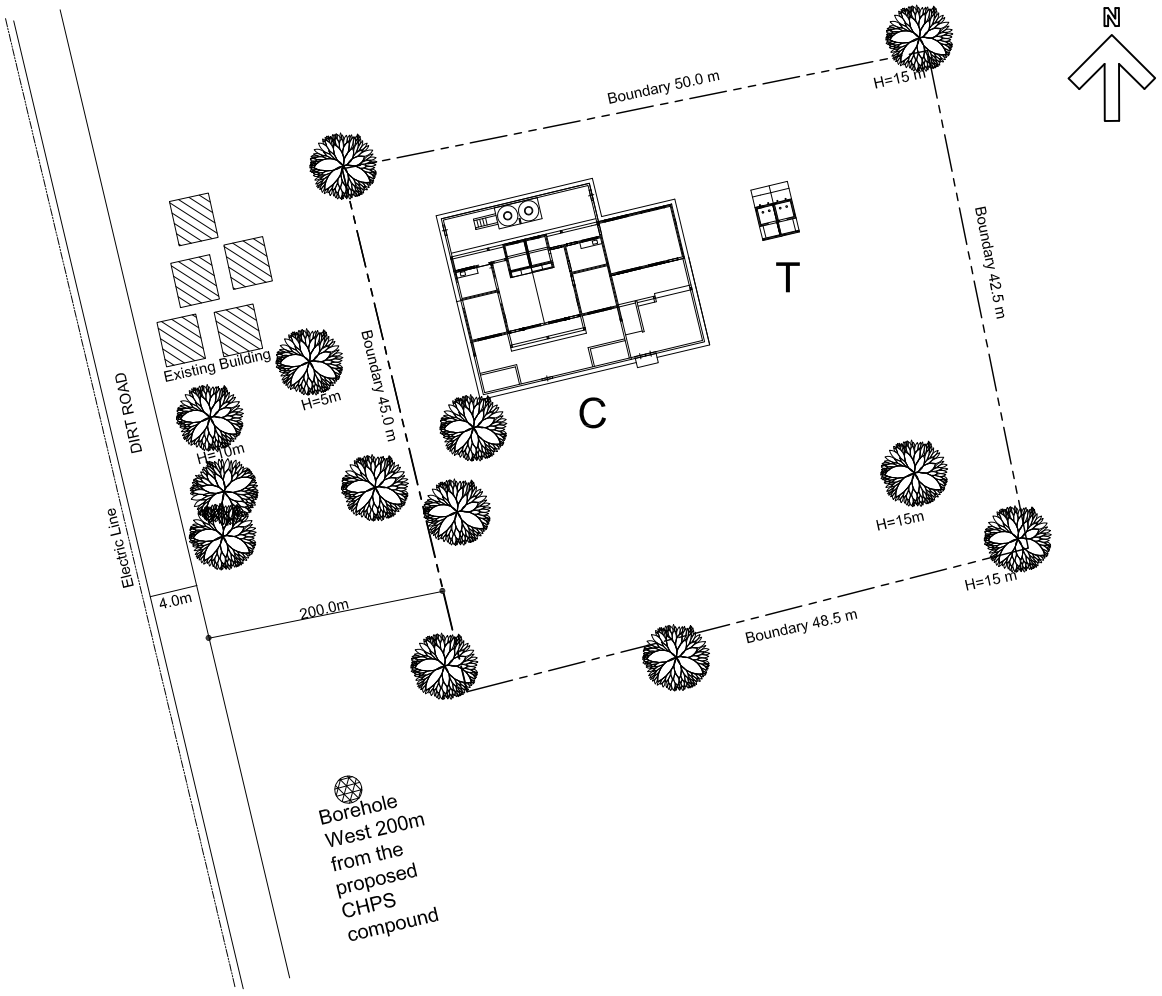
Site No.	CHPS Compound	Sub-District	District
102	Ulkpng	Ullo	Jirapa



C : CHPS Building
T : Toilet Building

Site Plan Scale =1:600

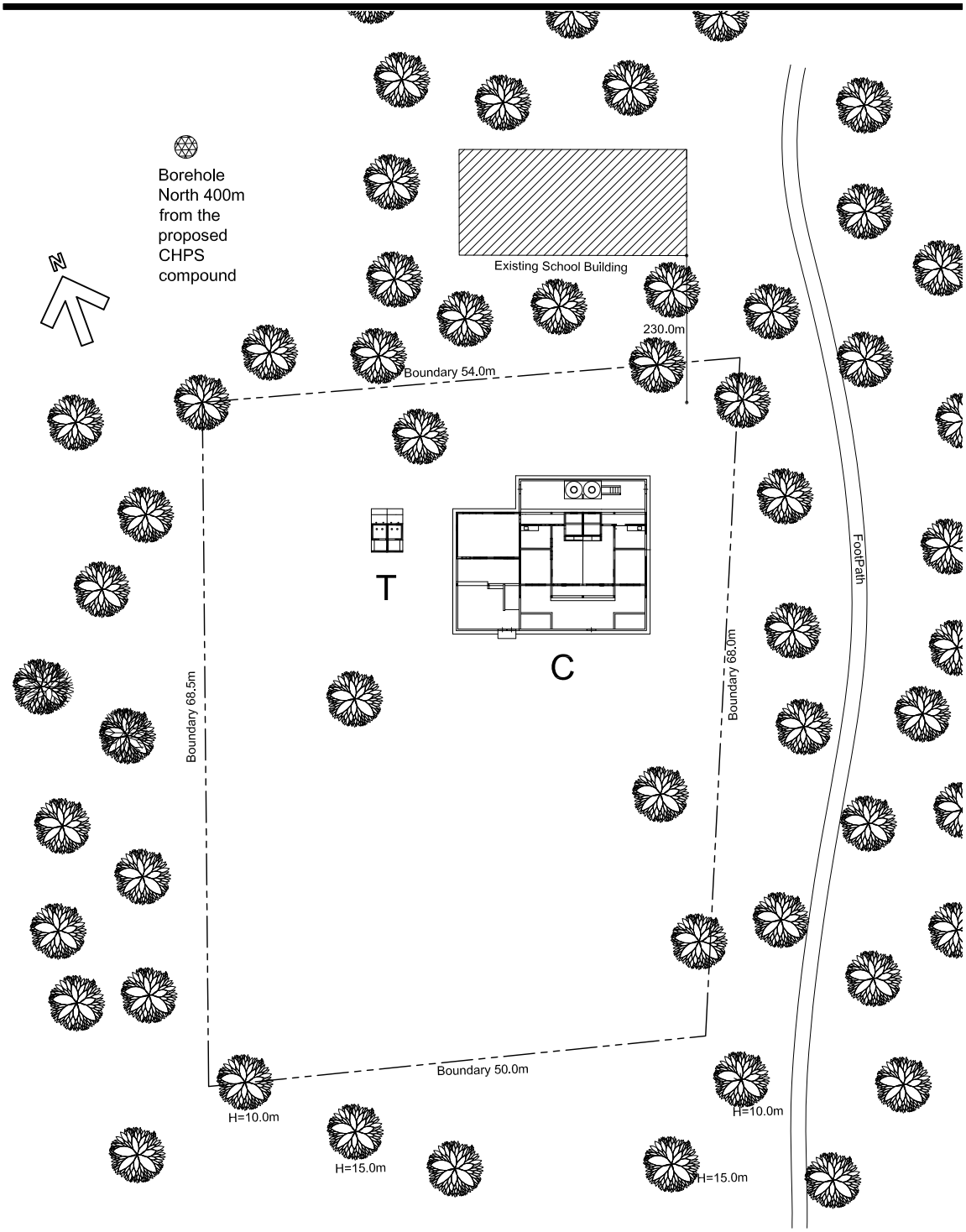
Site No.	CHPS Compound	Sub-District	District
103	Doggo/Konzokala	Tuggo	Jirapa



C : CHPS Building
T : Toilet Building

Site Plan Scale =1:600

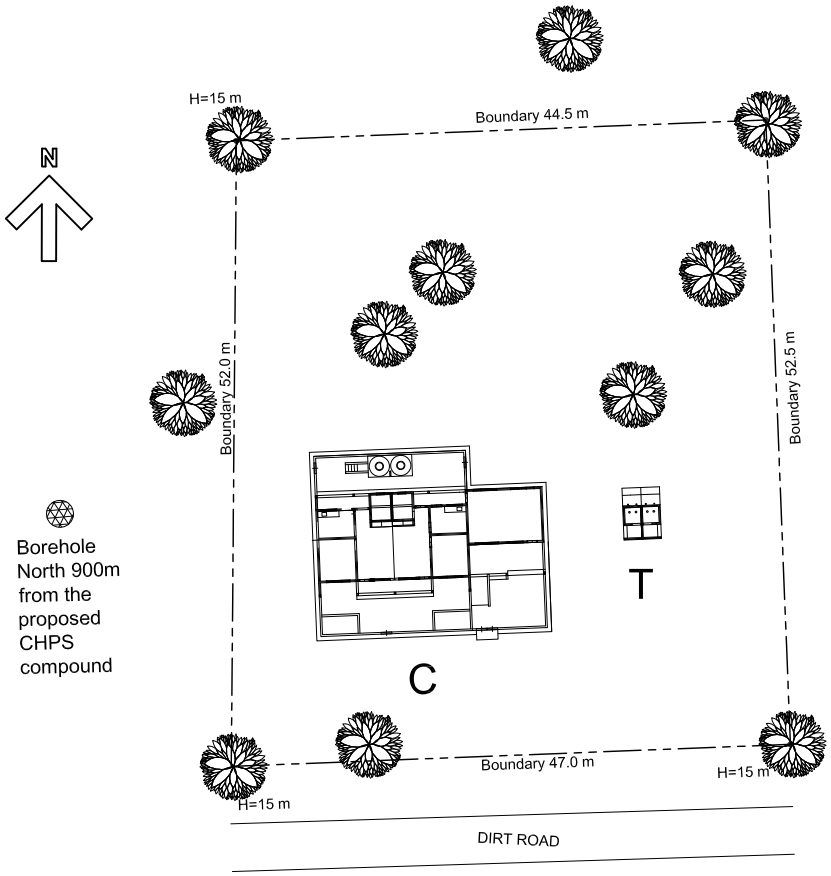
Site No.	CHPS Compound	Sub-District	District
104	Zingpuuroyiri	Jirapa	Jirapa



C : CHPS Building
T : Toilet Building

Site Plan Scale =1:600

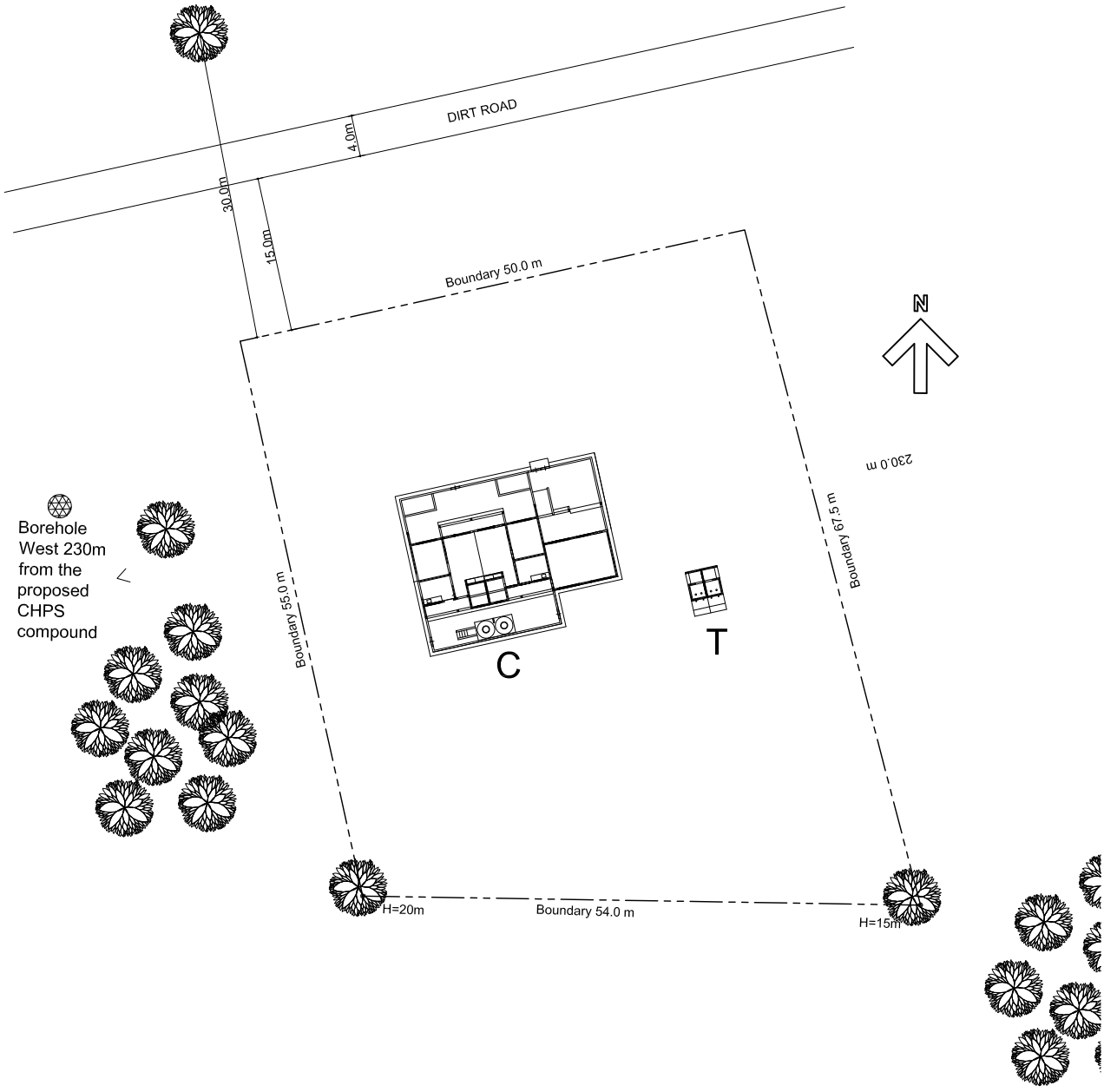
Site No.	CHPS Compound	Sub-District	District
105	Chacha/Guo	Sabuli	Jirapa



C : CHPS Building
T : Toilet Building

Site Plan Scale =1:600

Site No.	CHPS Compound	Sub-District	District
106	Tie	Yagha	Jirapa

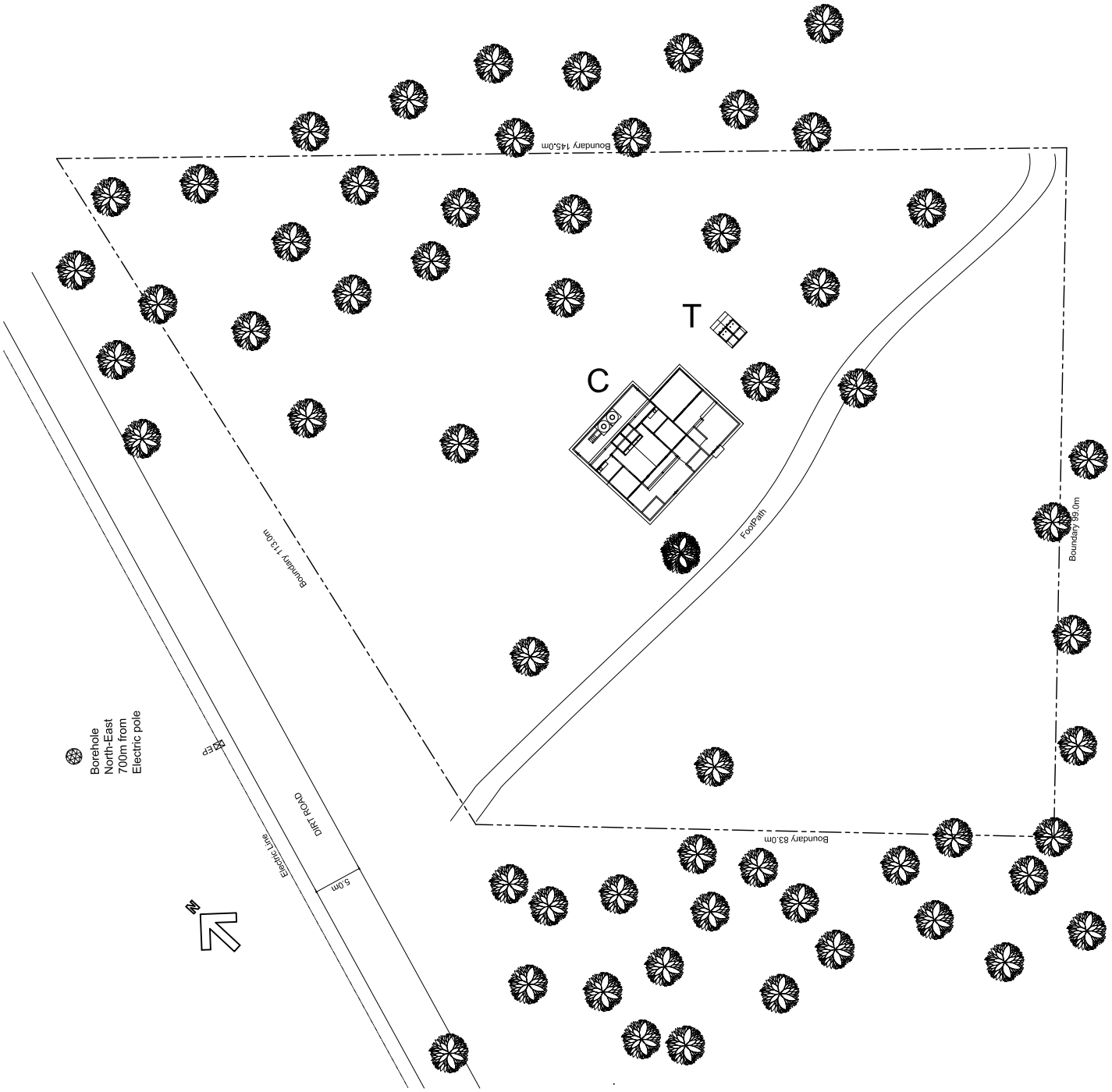


C : CHPS Building
T : Toilet Building

Site Plan

Scale =1:600

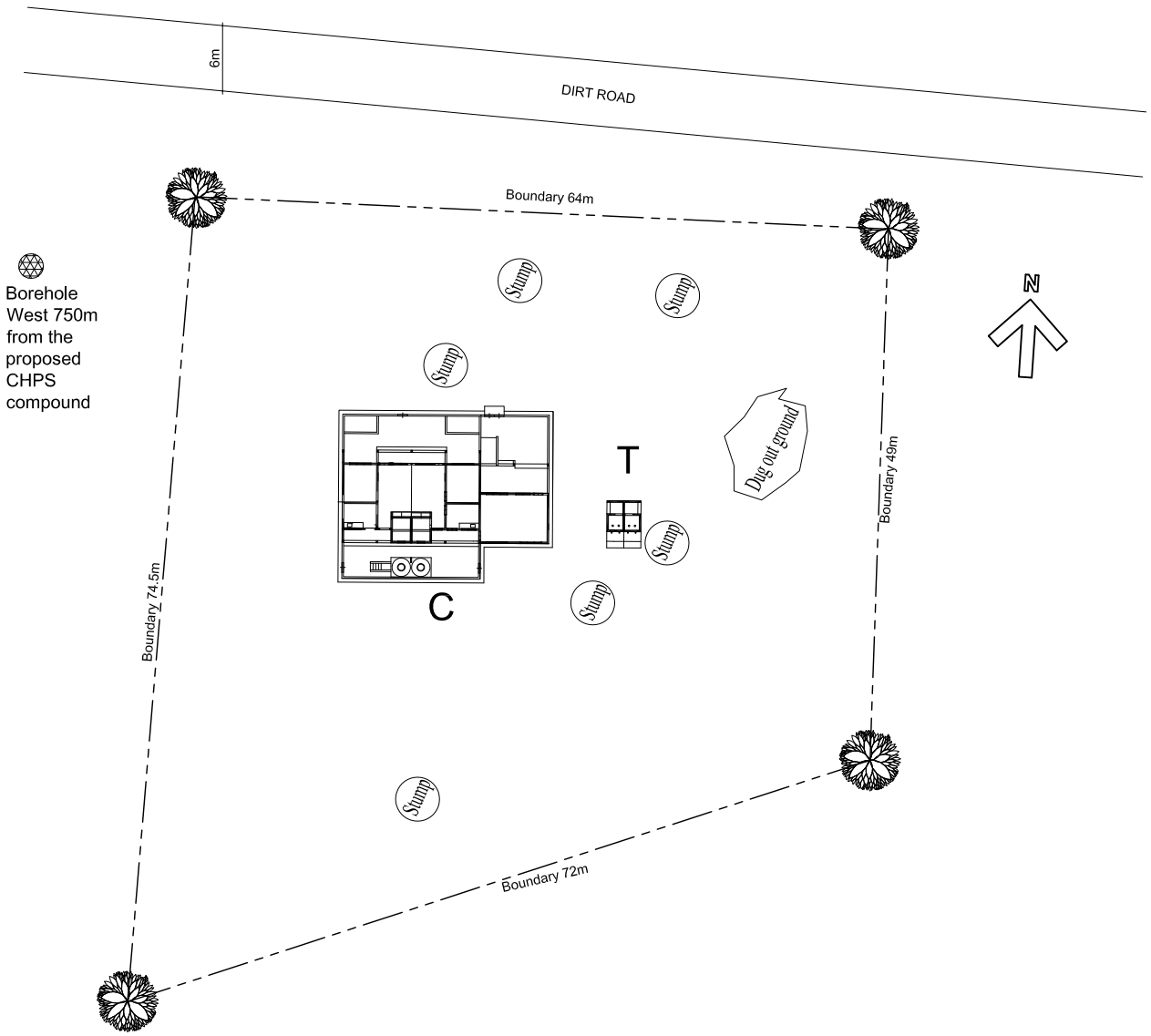
Site No.	CHPS Compound	Sub-District	District
107	Chepuuri/Guri	Hain	Jirapa



C : CHPS Building
T : Toilet Building

Site Plan Scale =1:800

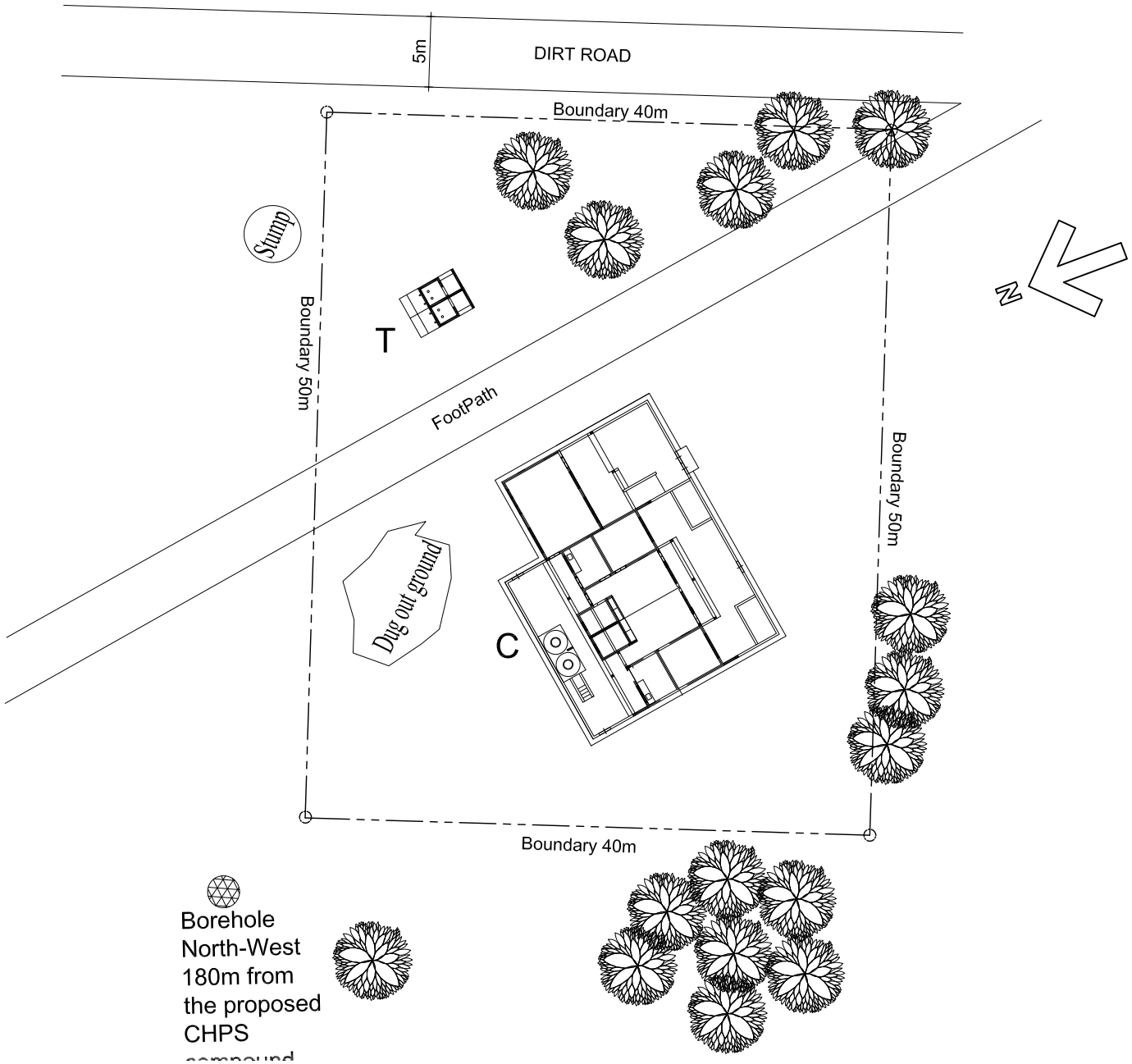
Site No.	CHPS Compound	Sub-District	District
201	Happa/B-Line	Hamile	Lambussie



C : CHPS Building
T : Toilet Building

Site Plan Scale =1:600

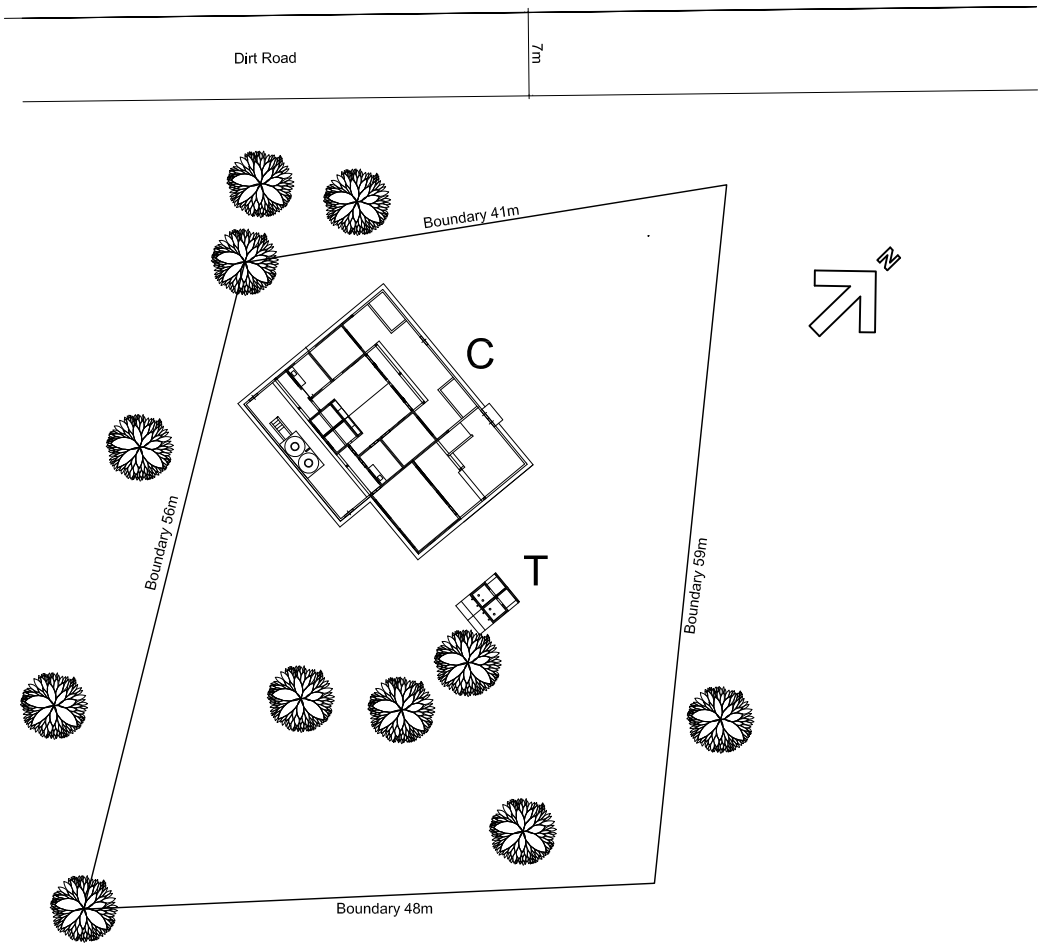
Site No.	CHPS Compound	Sub-District	District
202	Hanchagagan	Piina	Lambussie



C : CHPS Building
T : Toilet Building

Site Plan Scale =1:600

Site No.	CHPS Compound	Sub-District	District
203	Dindee	Samoa	Lambussie



Borehole
North-East
300m from
the proposed
CHPS
compound

C : CHPS Building
T : Toilet Building

Site Plan Scale =1:600