資料 1 調査団員･氏名

(1) 準備調査

総括	小野　智広	JICA 経済基盤開発部運輸交通・情報通信第一課 主任調査役
計画管理	荒木　裕	JICA 経済基盤開発部運輸交通・情報通信第一課
業務主任/　運用・維持管理計画	友井　武人	（財）日本造船技術センター
浚渫計画	櫻井　進士	（株）ドラムエンジニアリング
船体設計	石井　哲郎	（財）日本造船技術センター
艤装・浚渫機材設計	冨士　泰宏	（財）日本造船技術センター
造船計画/ 調達・積算	山田　通政	（財）日本造船技術センター

(2) 準備調査報告書（案）説明調査

総括	青　　晴海	JICA スリランカ事務所長
計画管理	荒木　裕	JICA 経済基盤開発部運輸交通・情報通信第一課
業務主任/　運用・維持管理計画	友井　武人	（財）日本造船技術センター
船体設計	石井　哲郎	（財）日本造船技術センター

資料 2 調査行程

(1) 準備調査

日順	月日	曜日	行動及び調査内容
1	6/27	水	成田発 （バンコク経由） コロンボ着 (友井・櫻井・石井・冨士・山田（以下コンサルタントと記す))
2	6/28	木	JICA スリランカ事務所報告。CFHC との協議（予定表、調査概略、質問票）
3	6/29	金	CFHC との協議（質問票）（コンサルタント）
4	6/30	土	現地調査準備・団内打合せ
5	7/ 1	日	現地調査準備・団内打合せ
6	7/ 2	月	ベルワラ漁港・パナドゥラ漁港視察（コンサルタント）
7	7/ 3	火	団内打合せ
8	7/ 4	水	成田発→コロンボ着（小野・荒木） ムトゥワル漁港、ディコビタ漁港、ネゴンボ漁港視察（コンサルタント）
9	7/ 5	木	ERD、 MFARD との協議、ADB 情報入手（小野、荒木、友井、櫻井）
10	7/ 6	金	CFHC との協議（インセプションレポート、質問票）（小野、荒木、コンサルタント）
11	7/ 7	土	キリンダ漁港視察（小野、荒木、友井、櫻井）
12	7/ 8	日	団内打合せ
13	7/ 9	月	MFARD、MFP 協議（JICA、コンサルタント）CFHC 協議（コンサルタント）
14	7/10	火	CFHC（コンサルタント） ベルワラ漁港視察（JICA、友井、櫻井）
15	7/11	水	MFARD(MOD 署名 JICA/CFHC 他） NARA、CCD 情報入手、CFHC 協議（コンサルタント）
16	7/12	木	チラウ漁港視察（以下コンサルタントのみ）
17	7/13	金	カルピティヤ漁港視察
18	7/14	土	資料整理
19	7/15	日	移動（カルピティア→コロンボ）
20	7/16	月	CFHC との協議、ネイルマリン造船所情報入手
21	7/17	火	MEPA 情報入手、CEA 情報入手、移動（コロンボ→コッドベイ）
22	7/18	水	コッドベイ漁港視察
23	7/19	木	バラチナイ漁港視察、
24	7/20	金	ウルビル漁港視察
25	7/21	土	移動（ウルビル→コロンボ）
26	7/22	日	資料整理
27	7/23	月	CFHC との協議、移動（コロンボ→キリンダ）

28	7/24	火	キリンダ漁港、ハンバントタ漁港、タンガラ漁港視察
29	7/25	水	クダウェラ漁港、ニルワラ漁港、プラナウェラ漁港、ミリッサ漁港視察
30	7/26	木	ゴール漁港、ヒッカドゥア漁港、アンバランゴダ漁港視察、R 号作業視察
31	7/27	金	コロンボドックヤード視察、気象庁情報入手
32	7/28	土	資料整理
33	7/29	日	MOD 原稿作成
34	7/30	月	CFHC との協議、MOD 署名、JICA 報告
35	7/31	火	コロンボ発（バンコク経由）　　成田着

(2) 準備調査報告書（案）説明調査

日順	月日	曜日	行動及び調査内容
1	12/ 9	日	成田発　　コロンボ着
2	12/10	月	JICA スリランカ事務所報告。 財務省(ERD)との協議　（Draft Report 説明他） CFHC との協議（Draft Report 説明他）
3	12/11	火	CFHC との協議（仕様書打合せ） MFARD との協議（Draft Report 説明他）
4	12/12	水	CFHC との協議（仕様書・ERD コメント関連） R 号浚渫作業視察　（ディコビタ漁港）
5	12/13	木	CFHC との協議 JICA スリランカ事務所への報告
6	12/14	金	財務省(ERD)との協議 大使館への報告
7	12/15	土	コロンボ発　　成田着

資料 3 関係者(面会者)リスト

(スリランカ国側)

1. 財務企画省外資局 (ERD(Department of External Resources))

MPUDK Mapa Pathiran	Director General
DLU Peris	Director

2. 財務企画省国家企画局 (Department of National Planning)

Malini Gamage	Director General

3. 漁業水産資源開発省(MFARD(Ministry of Fisheries and Aquatic Resources Development))

Damitha de Zoysa	Secretary
Indra Renasinghe	Director General (Technical)
J.A.D.B.Jaysooria	Fishery Statistician

4. アジア開発銀行(ADB(Asian Development Bank))

Sarath Mathugala	Procurement Specialist
Amila Salgado	Portfolio Management Officer

5. セイロン漁港公社CFHC(CEYLON FISHERY HARBOURS CORPORATION) 関係

CFHC (本部)

Upali Liyanage	Chairman
Lal Samarasinghe	Managing Director
G.G.P.Abeysekara	General Manager
Sumith De Silva	Manager (Engineering Service)
Sasanka Nuwan Jayasinghe	Manager Harbour Operation
Theja Wadaarachchi	Civil Engineering Manager
Athula Amarasinghe	Marine Engineer
Rasika Wiiewardane	Marine Engineer
Vdayu Parsecl	Network Administrator

ベルワラ事務所(Beruwala Office)

Sudath Dissnayale	Harbor Manager
Dhannapola	Marine Engineer
Dayananda	Chief of Fisherman Cooporation
Tissa	Treasurer

Sajith	Vice Mayor, Beruwala Municipal

パナドウラ事務所(Panadura Office)

Sumudu Dahanayake	Harbor Manager

ムトウワル事務所(Mutuwal Office)

M.B.J.S.Pemananda	Senior Harbor Manager

ディコビタ事務所Dikkovita Office

Sasanka Nuwan Jayasinghe	Manager, Harbor Operation

ネゴンボ事務所(Negonbo Office)

Samantha Wass	Harbor Manager

チラウ事務所(Chilaw Office)

Pasindu	Harbor Manager
K.S.Wiclram Scigb	Dredging Cordinator

カルピティア事務所(Kalpitiya Office)

Jayasouriya	Deputy Harbor Manager
K,L,B,Layton	Chairman of Kalpitiya MDB Society

コッドベイ事務所(Cod Bay Office)

Heshada Saneewa	Deputy Harbor Manager
Majeedhan Ralikhan	Jetty Supervisor
Chaminda Ruwan Kuwara	Committee member of Fishery Association

バラチナイ事務所(Valaichchenai Office)

S.S.Hettige	Harbor Manager
M.S.Imriyas	Committee member of Fishery Association

ウルビル建設事務所(Oluvil Office(Construction))

Karanaratna	Resident Engineer
M.T.a.Fowmy	Project Engineer

キリンダ事務所(Kirinda Office)

Nandani Rajapakshe	Harbor Manager

ハンバントウタ事務所(Hambantota Office)

P. Panchihewa	Harbor Manager

タンガラ事務所(Tangalla Office)

Indalar Sargeew	Civil Supervisor
Barath Chauminda Rubasinghe	Jetty Supervisor

クダウエラ事務所(Kudawalla Office)

P.Punchihewa	Harbor Manager
Edward Erarga Dayamal	

ニルワラ事務所(Nilwella Office)

Mithila Witharanage	Harbor Manager

プラナウエラ事務所(Purawawella Office)

M.K.Sunil Shantha	Harbor Manager

ミリッサ事務所(Mirissa Office)

J.P.Ananda	Harbor Manager
B.H.Sanjaya Deshapriya	Deputy Harbor Manager

ゴール事務所(Galle Office)

P.B.Gamini	Fishing Society Chairman

ヒッカドウア事務所(Hikkaduwa Office)

Nishan Madawa	Deputy Harbor Manager

アンバランゴダ事務所(Ambalangoda Office)

P. M. A. Niroshan	Harbor Manager

6. 国立水産資源研究開発庁(NARA(National Aquatic Resources Research & Development)) Agency)

Dr K.Arul	
S.A.M.Azmy	Head, Environments Studies Division
Prabath Jayasinghe	Marine Biologist

7. 沿岸保全局(CCD(Coast Conservation Department))

Bandula Wickramaarachchi

R.A.S.Ranawaka

8. 海洋環境保護局(MEPA(Marine Environment Protection Authority))

S.R. Samaratunga	General Manager

9. 中央環境局(CEA(Central Enviromental Authority))

Jeewa Warmakulasuria	Deputy Director
Driyangani Gumathilake	Deputy Director

10. コロンボドックヤード(Colombo Dockyard)

A.Nakauti	Chairman
Y.Kijima	Director
K.Nayakarathna	General Manager(Commercial)
M.Prince Lye	Head of Marketing,New Building
D.Chandrasekera	Head of Marketing,Ship Repeirs

11. ネイルマリン造船所(Neil Marine)

Kapila Sumanapala	Director Administration

(日本国側)(敬称略)

在スリランカ日本大使館

大須賀　寿樹	二等書記官

JICA スリランカ事務所

青　晴海	スリランカ事務所所長
大塚　卓哉	スリランカ事務所次長
阿部　裕之	スリランカ事務所次長
三木　俊伸	スリランカ事務所企画調査員
木村　紀子	スリランカ事務所

資料4 (1) 討議議事録

MINUTES OF DISCUSSIONS
ON THE PREPARATORY SURVEY
ON PROCUREMENT OF A SELF PROPELLED GRAB HOPPER DREDGER

In response to a request from the Government of the Democratic Socialist Republic of Sri Lanka (hereinafter referred to as "GoSL"), the Government of Japan decided to conduct a Preparatory Survey on Procurement of a Self Propelled Grab Hopper Dredger (hereinafter referred to as "the Project"). In accordance with the decision, Japan International Cooperation Agency (hereinafter referred to as "JICA") decided to commence the survey.

JICA sent to Sri Lanka the Preparatory Survey Team for the Field Survey (hereinafter referred to as "the Team"), which is headed by Mr. Tomohiro Ono, Deputy Director, Economic Infrastructure Department, JICA, and is scheduled to stay in the country from July 4th to July 31th, 2012.

The Team held discussions with the officials concerned of GoSL and conducted a field survey at the Project site.

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

Colombo, Sri Lanka, July 11, 2012

Tomohiro Ono Leader Preparatory Survey Team Japan International Cooperation Agency Japan	Dr. Damitha de Zoysa Secretary Ministry of Fisheries and Aquatic Resources Development Sri Lanka
M P D U K Mapa Pathirana Director General Department of External Resources Ministry of Finance and Planning Sri Lanka	Upali Liyanage Chairman Ceylon Fishery Harbours Corporation Ministry of Fisheries and Aquatic Resources Development Sri Lanka

ATTACHMENT

1. Objective of the Project

The objective of the Project is to construct a dredger(s) to recover the function of domestic fishery harbors, which enables smooth entry and departure of fishing crafts.

2. Project Site

The site is shown in Annex-1.

3. Responsible and Implementing Organizations

The responsible ministry is the Ministry of Fisheries and Aquatic Resources Development (MFARD).

The implementing organization is Ceylon Fishery Harbours Corporation (CFHC).

The organization charts are shown in Annex-2 and 3 respectively.

4. Items requested by GoSL

After discussions with the Team, both sides confirmed the items below.

4-1. The original request from GoSL was to build a Self propelled Grab Hopper Dredger.

4-2. JICA will assess the appropriateness of the request and will recommend to the Government of Japan for approval.

4-3. Both sides agreed that the name of the project should be changed to "Provision of a dredger" from "Procurement of a Self Propelled Grab Hopper Dredger" due to the reason that type of a dredger should be determined based on the result of the survey.

5. Japan's Grant Aid Scheme

5-1. GoSL understands the Japan's Grant Aid Scheme and necessary measures to be taken by GoSL. The Team explained the procedures for the Project described in Annex-4 and 5.

5-2. GoSL will take the necessary measures, as described in Annex-6 for smooth implementation of the Project, as a condition for the Japanese Grant Aid to be implemented. Necessary measures specially for the project are as follows.

- Necessary formalities in case the dredger being registered in the Classification Society in Sri Lanka
- Performance of custom clearance, tax and port charge exemption measures, registration of the dredger
- Provision of appropriate berthing/mooring space for the dredger
- Domestic transportation of the dredger from unloading (handing over) point to designated berthing/mooring area

6. Schedule of the Survey

6-1. The Team will proceed with further studies in Sri Lanka until July 31st, 2012.

6-2. JICA will prepare the draft report and the draft specification in English and dispatch a mission in order to explain their contents around December, 2012.

6-3. If the contents of the report are accepted in principle by GoSL, JICA will complete the final report and send it to GoSL by February, 2013.

7. Other Relevant Issues

7-1. Both sides confirmed that it is essential that GoSL will undertake periodical maintenance for the procured dredger(s). GoSL recognized the importance of the operation and maintenance and made a commitment to provide funds under their budget including the required personnel.

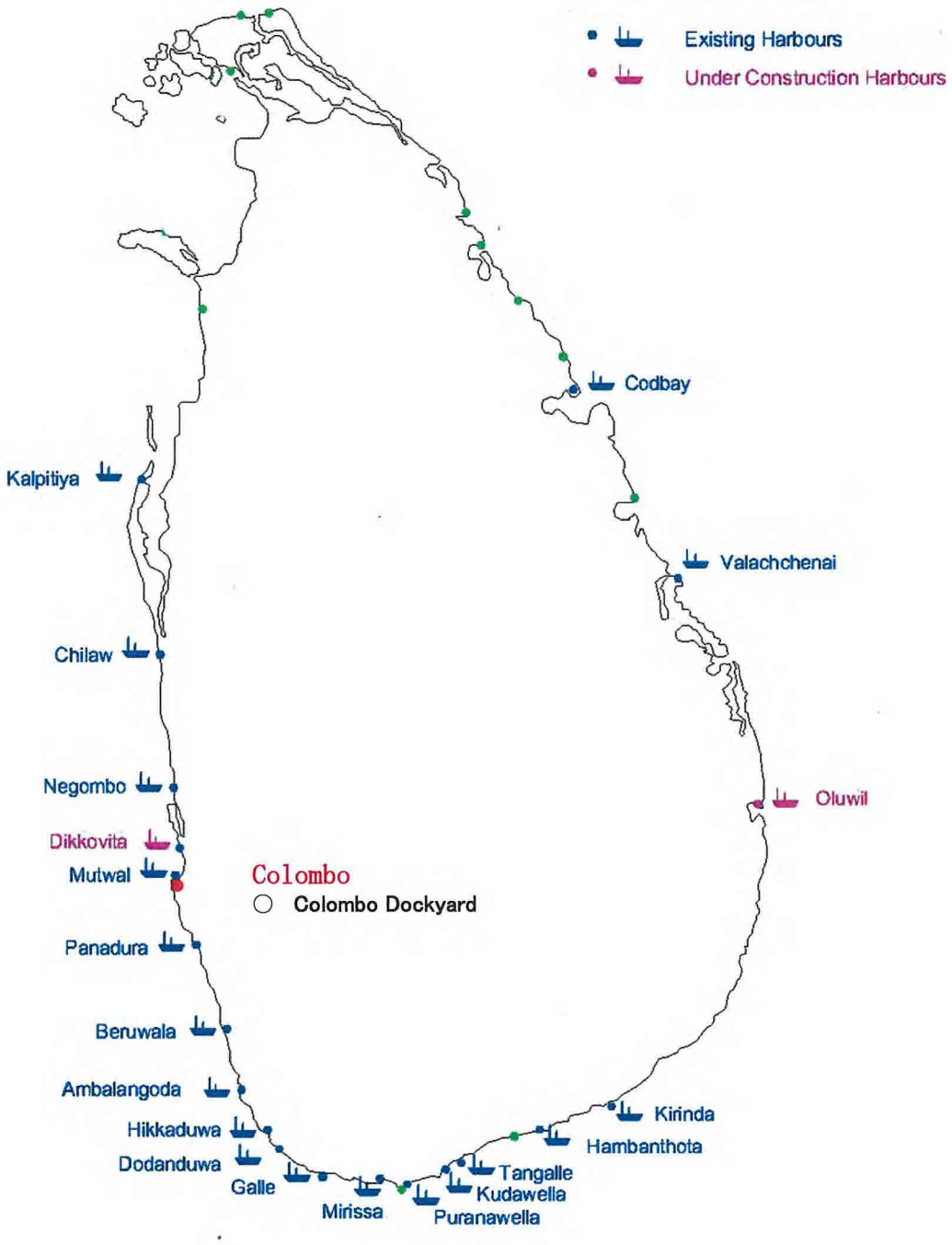
7-2. In addition to the necessary measures mentioned in 5.2, JICA requested GoSL the following cooperation for the smoothly conducting of the survey.

- Provision of necessary data for the survey
- Replying to the questionnaire
- Arrangement of meeting with administrator of fishery harbors and of site survey of fishery harbors
- Arrangement of meeting with fishery harbor users
- Arrangement of CFHC staffs' attendance on the team travelling to fishery harbors
- Approval of taking photo necessary for the project report
- Securing the safety of the survey team during their survey in the country
- Approval of bringing back relevant documents to Japan

Annex-1 Project Site
Annex-2 Organization Chart (MFARD)
Annex-3 Organization Chart (CFHC)
Annex-4 Japan's Grant Aid
Annex-5 Flow Chart of Japan's Grant Aid Procedures
Annex-6 Major Undertakings to be taken by Each Government

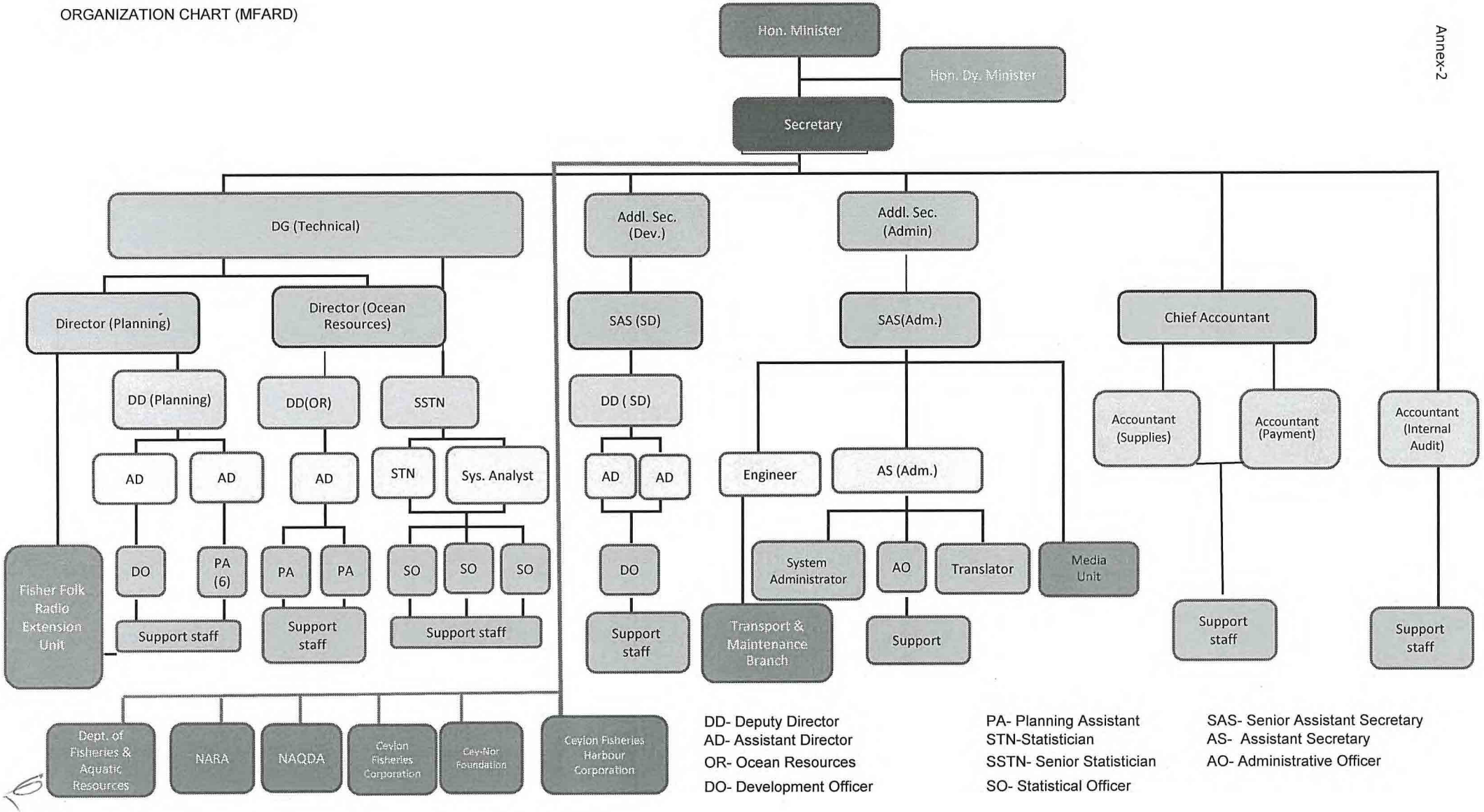
Annex-1

PROJECT SITE



Annex-2

ORGANIZATION CHART (MFARD)

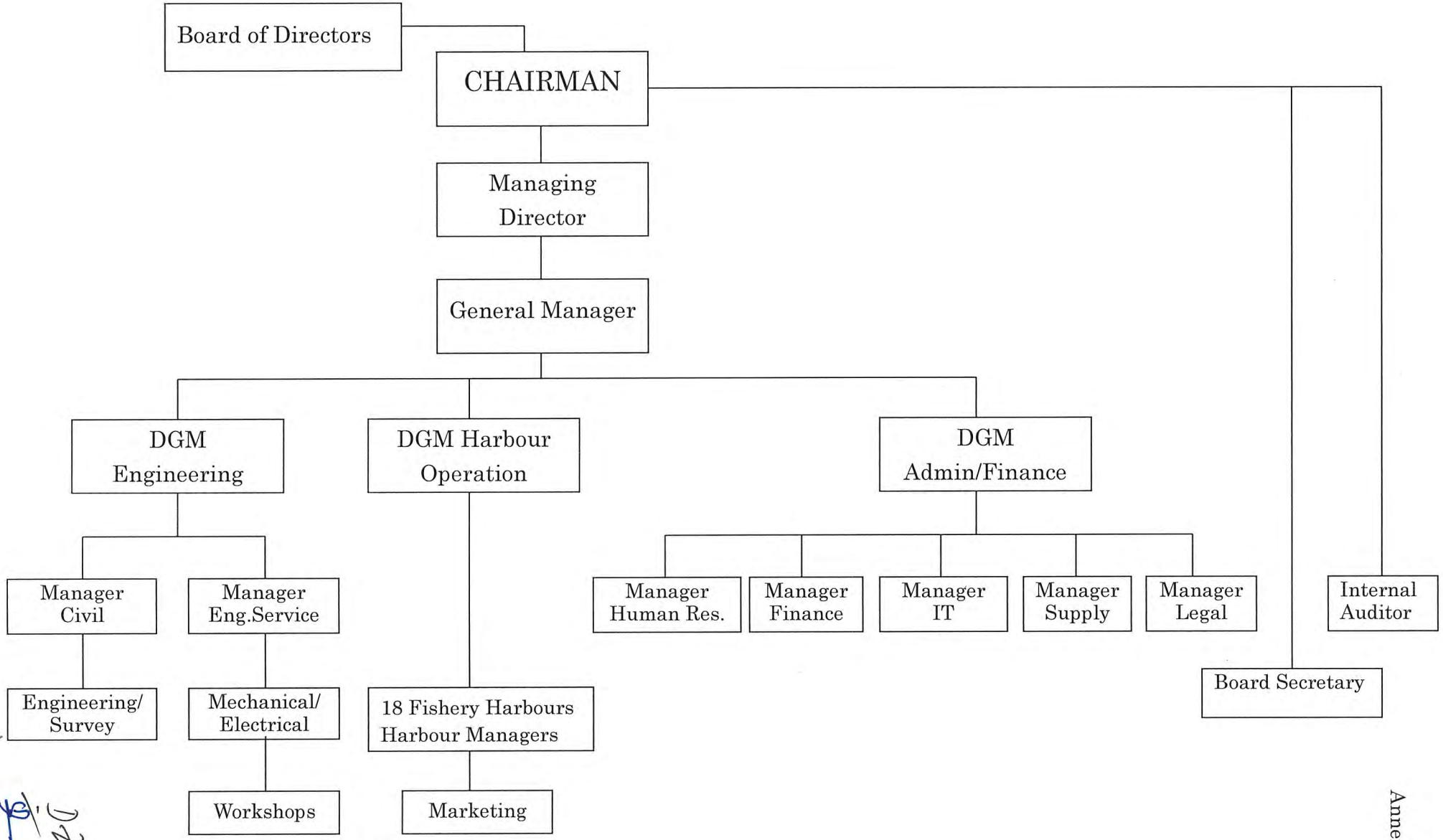


DD- Deputy Director
AD- Assistant Director
OR- Ocean Resources
DO- Development Officer

PA- Planning Assistant
STN-Statistician
SSTN- Senior Statistician
SO- Statistical Officer

SAS- Senior Assistant Secretary
AS- Assistant Secretary
AO- Administrative Officer

ORGANIZATION CHART (CFHC)



Annex-3

JAPAN'S GRANT AID

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, a new JICA law was entered into effect on October 1, 2008. Based on this law and the decision of the GOJ, JICA has become the executing agency of the Grant Aid for General Projects, for Fisheries and for Cultural Cooperation, etc.

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

1. Grant Aid Procedures

The Japanese Grant Aid is supplied through following procedures :

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

2. Preparatory Survey

(1) Contents of the Survey

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

- Confirmation of the background, objectives, and benefits of the Project and also institutional capacity of relevant agencies of the recipient country necessary for the implementation of the Project.
- Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, financial, social and economic point of view.

- Confirmation of items agreed between both parties concerning the basic concept of the Project.
- Preparation of a outline design of the Project.
- Estimation of costs of the Project.

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

JICA requests the Government of the recipient country to take whatever measures necessary to achieve 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 of the recipient country which actually implements the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country based on the Minutes of Discussions.

(2) Selection of Consultants

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

(3) Result of the Survey

JICA reviews the Report on the results of the Survey and recommends the GOJ to appraise the implementation of the Project after confirming the appropriateness of the Project.

3. Japan's Grant Aid Scheme

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

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

(2) Selection of Consultants

In order to maintain technical consistency, the consulting firm(s) which conducted the Survey will be recommended by JICA to the recipient country to continue to work on the Project's implementation after the E/N and G/A.

(3) Eligible source country

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

(4) Necessity of "Verification"

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

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

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

(6) "Proper Use"

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

(7) "Export and Re-export"

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

(8) Banking Arrangements (B/A)

a) The Government of the recipient country or its designated authority should open an account under the name of the Government of the recipient country in a bank in Japan (hereinafter referred to as "the Bank"). JICA will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by the Government of the recipient country or its designated authority under the Verified Contracts.

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

(9) Authorization to Pay (A/P)

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

FLOW CHART OF JAPAN's GRANT AID PROCEDURES

Stage		Flow & Works	Recipient Government	Japanese Government	JICA	Consultant	Contract	Others
Application		Request (T/R : Terms of Reference)	●					
		Screening of Project → Evaluation of T/R → Project Identification Survey*		●	●			
Project Formulation & Preparation	Preparatory Survey	Preliminary Survey* → Field Survey Home Office Work Reporting (*if necessary)	●	●	●			
		Outline Design → Selection & Contracting of Consultant by Proposal → Field Survey Home Office Work Reporting	●	●	●	●		
		Explanation of Draft → Final Report	●	●	●	●		
Appraisal & Approval		Appraisal of Project		●	●			
		Inter Ministerial Consultation		●				
		Presentation of Draft Notes	●	●				
		Approval by the Cabinet		●				
Implementation		E/N and G/A (E/N: Exchange of Notes) (G/A: Grant Agreement)	●	●	●			
		Banking Arrangement (A/P : Authorization to Pay)	●					●
		Consultant Contract → Verification → Issuance of A/P	●		●	●		
		Detailed Design & Tender Documents → Approval by Recipient Government → Preparation for Tendering	●		●	●		
		Tendering & Evaluation	●		●	●	●	
		Procurement /Construction Contract → Verification → A/P	●		●	●	●	
		Construction → Completion Certificate → A/P	●		●	●	●	
		Operation → Post Evaluation Study	●		●			
Evaluation& Follow up		Ex-post Evaluation → Follow up	●	●	●			

Major Undertakings to be taken by Each Government

No.	Items	To be covered by Grant Aid	To be covered by Recipient Side
1	To design and construct dredger(s)	●	
2	To procure equipment to be covered under the Project	●	
3	Any items which are not covered under the Project, e.g. rehabilitation of existing wharf, etc.		●
4	Allocate the appropriate budget and conduct the undertakings in a timely manner necessary for proper operation and maintenance of dredger(s) to be provided (procurement of fuel, spare parts and overhaul of the dredger(s))		●
5	To ensure prompt unloading and customs clearance of the products at ports of disembarkation in recipient country and to assist internal transportation of the products		
	1) Marine (Air) transportation of the products from Japan to the recipient country (Sailing of the new dredger(s) with equipment on board by their own propulsion)	●	
	2) Tax exemption and custom clearance of the products (dredger with equipment on board) at the port of disembarkation (homeport)		●
6	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 products and the services be exempted		●
7	To accord Japanese nationals whose services may be required in connection with the supply of the products and the services such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work		●
8	To ensure that the dredger(s) be maintained and used properly and effectively		●
9	To bear all the expenses, other than those covered by the Grant, necessary for implementation of the Project		●
10	To bear the following commissions paid to the Japanese bank for banking services based upon the B/A		
	1) Advising commission of A/P		●
	2) Payment commission		●

(B/A : Banking Arrangement, A/P : Authorization to pay)

MEMORANDUM OF TECHNICAL DISCUSSIONS ON THE PREPARATORY SURVEY ON PROCUREMENT OF A SELFPROPELLED GRAB HOPPER DREDGER

From June 28, 2012 to July 30, 2012 , the Preparatory Survey Team (hereinafter referred to as" the Team") held a series of technical discussions with the officials of Ceylon Fishery Harbours Corporation (hereinafter referred to as" CFHC") at Colombo and twenty (20) fishery harbors managed by CFHC and had field surveys at each fishery harbor thereof with the project-related facilities.

As a result of the discussions and the field surveys, the both sides confirmed the items described in the attached sheets and annexes.

Colombo, July 30, 2012

友井武人

Takehito Tomoi
Chief of the Consultant
Shipbuilding Research Centre of Japan
JICA Preparatory Survey Team

Upali Liyanage
Chairman
Ceylon Fishery harbours Corporation

Sumith De Silva
Manager (Engineering Service)
Ceylon Fishery harbours Corporation

1. Required dredging quantity

1.1 Regarding the bathymetric survey monitor and the estimation of annual dredging volume of CFHC, the Team found the followings:

(1) Bathymetric survey has been done twice a year from 2002 by the set of survey equipment as follows:

1) Survey platform	: Shallow draft dingy boat with Out- board- Motor
2)Positioning system	: Global Positioning System - Trimble DSM 212/DGPS
3)Echo Sounder	: Hydrotrac
4)survey software	: HYDROpro

(2) Latest results of bathymetric survey of the harbors except Dikkowita, Nilwalla, Oulvil were given in PDF Data to the Team.

(3) The Team considers the survey method and equipment are appropriate.

(4) Despite the above monitoring system, the previous survey data were almost lost due to the PC crash. Only 6 harbors have 2 sets of bathymetric data of the different time.

(5) The table of Annexure-06 Estimated annual dredging requirement of Fishery Harbours in "Application for Grant Aid from Japan for the Project of Procurement of a Self Propelled Grab Dredger October 2011"was made by the dredging area multiplied by the annual sedimentation thickness, which comes from "estimation by experience".

1.2 Re-estimation of annual dredging volume (sedimentation volume)

Following the above, the Team requested re-estimation of the volume with thefollowing orientation:

(1) For 6 harbours having 2 sets of data at the different survey time, the sedimentation volume is calculated from the difference of those 2 data and the volume of dredging between 2 survey times.

(2) For new harbors, the estimation of sedimentation is referred to the design report.

(3) For the other harbors, the volume above the design level of the basin is calculated. Reviewing the volume with the information gained by the interview with harbor operators and fishermen at each harbor, the annual sedimentation thickness is decided.

1.3. Re-estimated volume of sedimentation is shown in "Required Dredging Quantity." (ANNEX- 1)

1.4 The both side agreed to design the Dredger on the following conditions;

(1) Required dredging quantity by new dredger:

Off-monsoon season	: 7,300m3/month
Season transition period	: 5,600m3/month

(2) Operation days/ month : 16 days / month

The dredging quantity of the existing dredgers is shown in "Dredging Quantity (2010 to 2012 (expect.)) " (ANNEX- 2)

2. Specifications of the Dredger

In accordance with the required dredging quantity and design condition mentioned above and the information of the operation site and the various data obtained in the course of discussions with CFHC, the Team conducted the preliminary review on the CFHC request for the Dredger mentioned below, and the Team considered the request to be basically appropriate to the Project.

(1) Quantity and type : One (1) Self propelled grab hopper dredger

(2) Principal Particulars :

Length	approx. 45 m
Beam(mould)	approx. 11 m
Draft (mould) (max.)	not more than 2.5 m
Hopper capacity	not less than 300 m3
Grab bucket capacity	not less than 2.0 m3
Dredging depth	not less than 15 m

(3) The other and detailed specifications are in general followed to those of the existing grab hopper dredger "Ruhunuputha" except the items in relation to the capacity and size of the Dredger and the items which CFHC newly requested to apply to the Dredger as shown below.

1) The rudders shall be of shoe-pin type.

2) The each side void space shall be provided with a transverse bulkhead to be separated into two (2) compartments.

3) The air conditioning facility shall be provided to the following accommodation space.

- Captain class --- One (1) cabin
- Officers class --- Two (2) cabins

- Crew cabin
- Mess room
- Wheelhouse

4) Indication panel for the loading condition of the hopper in wheelhouse

(3) General Arrangement

The preliminary general arrangement of the Dredger is shown in ANNEX-3 General Arrangement (Preliminary), which, however, the new requests by CFHC mentioned above are not included.

On the basis of the technical items mentioned above, the Team will proceed the further study in the course of Preparatory Survey of the Project and through the investigation to be made in Japan, and the Preparatory Survey of the Project will be finalized with due consideration of the objectives and necessity within the frame work of the Japan's ODA with discussions between higher authorities of the Government of Japan.

3. Operation and maintenance

The Team obtained the data concerning the operation and maintenance of the existing dredgers of CFHC as follows:

1) Annual amount for Operation and Maintenance (CFHC)
2) Operation and Maintenance Cost for "Ruhunuputha"
3) Organization of Operation and Maintenance

Refer to "Operation and Maintenance Cost for Dredgers" (ANNEX- 4) and " Organization Chart for Operation and Maintenance of Existing Dredgers" (ANNEX- 5)

4. Familiarization Training

CFHC requested the acceptance of total four (4) persons for familiarization training in the shipyard in Japan. The Team will investigate the numbers of persons and the period of training etc., in the course of the Preparatory Survey.

5. Other

(1) Environment

CFHC was required to follow all the environmental regulations of the relating

offices including MEPA, CEA and CCD for the operation of the dredger.

(2) Shipyard of the Dredger to be built

CFHC strongly requested the Dredger to be built in the shipyard in Japan and the machinery and equipment to be of Japanese make as far as practicable from the view point of reliability, durability and easy operation and maintenance as well as the familiarization of the similar dredger "Ruhunuputha" made in Japan in 1989.

(3) Record of Daily Dredging Operation and Bathymetric Survey Monitor

CFHC should be highly recommended to monitor and record the followings:

1) The daily work log of dredger operation including weather, wave, working hours, number of disposal transportation, special maintenance work etc.
2) The pre-and post-dredging bathymetric survey result

Those data should be recommended to be recorded with duplication in appropriate document filing system.

ANNEX-1 Required Dredging Quantity
ANNEX-2 Dredging Quantity (2010 to 2012 (expect.))
ANNEX-3 General Arrangement (Preliminary)
ANNEX-4 Operation and Maintenance Cost for Dredgers
ANNEX-5 Organization Chart for Operation and Maintenance of Existing Dredger

Annex-1

Required Dredging Quantity

		Registered Boats (2010)			Annual Required Volume (m^3)	CFHC Former Estimated Volume (m^3)
		SDB	MDB	Total		
1	Kalpitiya	73	74	147	6,000	2,000
2	Chilaw				11,000	11,000
3	Negombo	27	162	189	1,000	10,000
4	Dikkowita				18,000	10,000
5	Mutuwal				1,000	3,500
6	Panadura	22		22	7,000	5,000
7	Beruwala	141	457	598	8,000	5,500
8	Ambalangoda	1	8	9	9,000	1,000
9	Hikkaduwa	169	55	224	12,000	10,500
10	Galle	227	293	520	1,000	1,500
11	Mirissa	91	159	250	1,000	2,500
12	Purunawella	66	323	389	5,000	4,500
13	Nilwala				3,000	
14	Kudawella	268	347	615	3,000	1,000
15	Tangalle	117	192	309	4,000	2,500
16	Hambantota	32	12	44	27,000	8,000
17	Kirinda	80	13	93	35,000	30,000
18	Oluvil				12,000	15,000
19	Valachchenai				9,000	20,000
20	Cod Bay	144	731	875	0	1,500
	Total	1,458	2,826	4,284	173,000	145,000

SDB : Single day boat

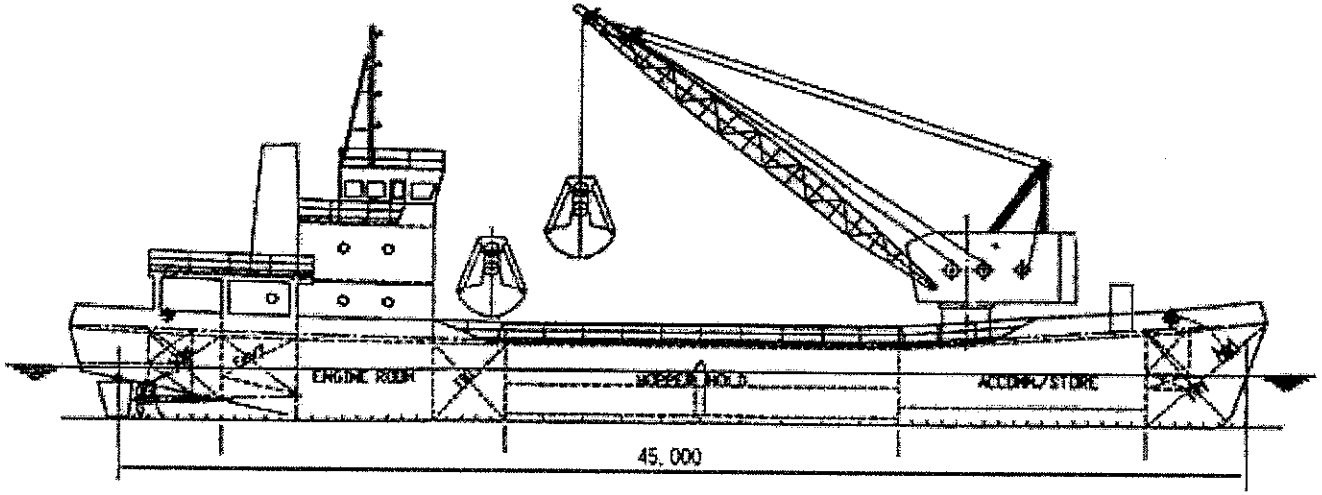
MDB: Multi day boat

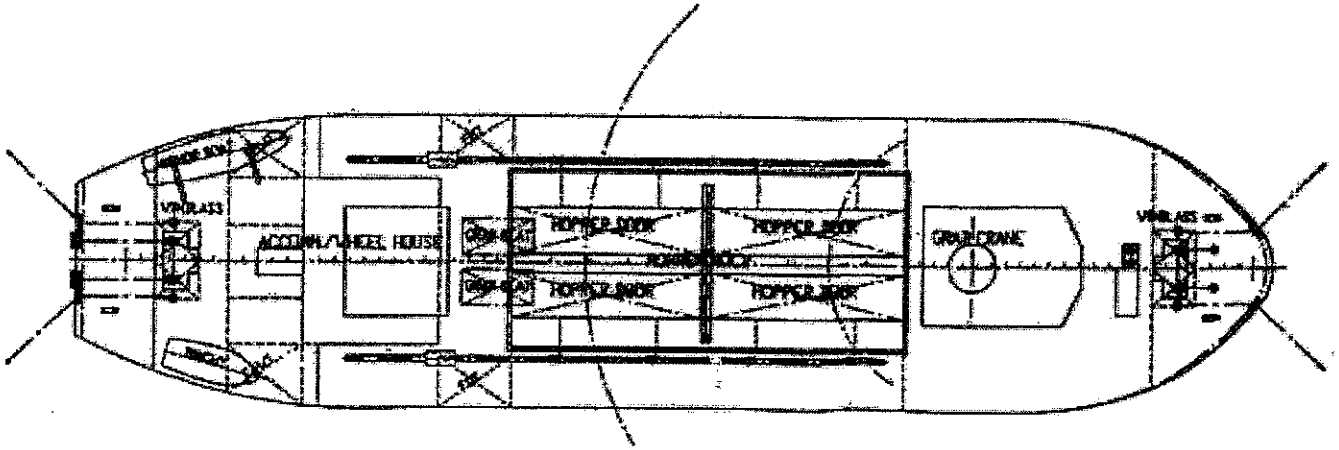
ANNEX- 2 Dredging Quantity (2010 to 2012 (expect.))

6

Dredger	Dredging	2010		2011		2012 (expect.)	
		Month	Dredgin Quantity(m3)	Month	Dredgin Quantity(m3)	Month	Dredgin Quantity(m3)
Ruhunuputha (Grab Hopper)	Maintenance	10.0	46,000	8.0	43,500	9.0	42,500
	Capital	-	-	-	-	-	-
	Total	10.0	46,000	8.0	43,500	9.0	42,500
Nildiwara (S.Prop. Cutter Suction)	Maintenance	4.0	4,000	5.0	4,500	4.0	4,500
	Capital	8.0	16,000	5.0	7,000	8.0	12,500
	Total	12.0	20,000	10.0	11,500	12.0	17,000
Salapura (Portable Cutter Suction)	Maintenance	-	-	2.0	3,000	3.0	4,000
	Capital	12.0	15,000	10.0	18,000	9.0	12,000
	Total	12.0	15,000	12.0	21,000	12.0	16,000
Weligouwa (Portable Cutter Suction)	Maintenance	12.0	14,500	12.0	13,500	12.0	15,000
	Capital	-	-	-	-	-	-
	Total	12.0	14,500	12.0	13,500	12.0	15,000
Total	Maintenance	26.0	64,500	27.0	64,500	28.0	66,000
	Capital	20.0	31,000	15.0	25,000	17.0	24,500
Grand Total		46.0	95,500	42.0	89,500	45.0	90,500

ANNEX-3 General Arrangement (Preliminary)





ANNEX- 4 Operation and Maintenance Cost for Dredgers

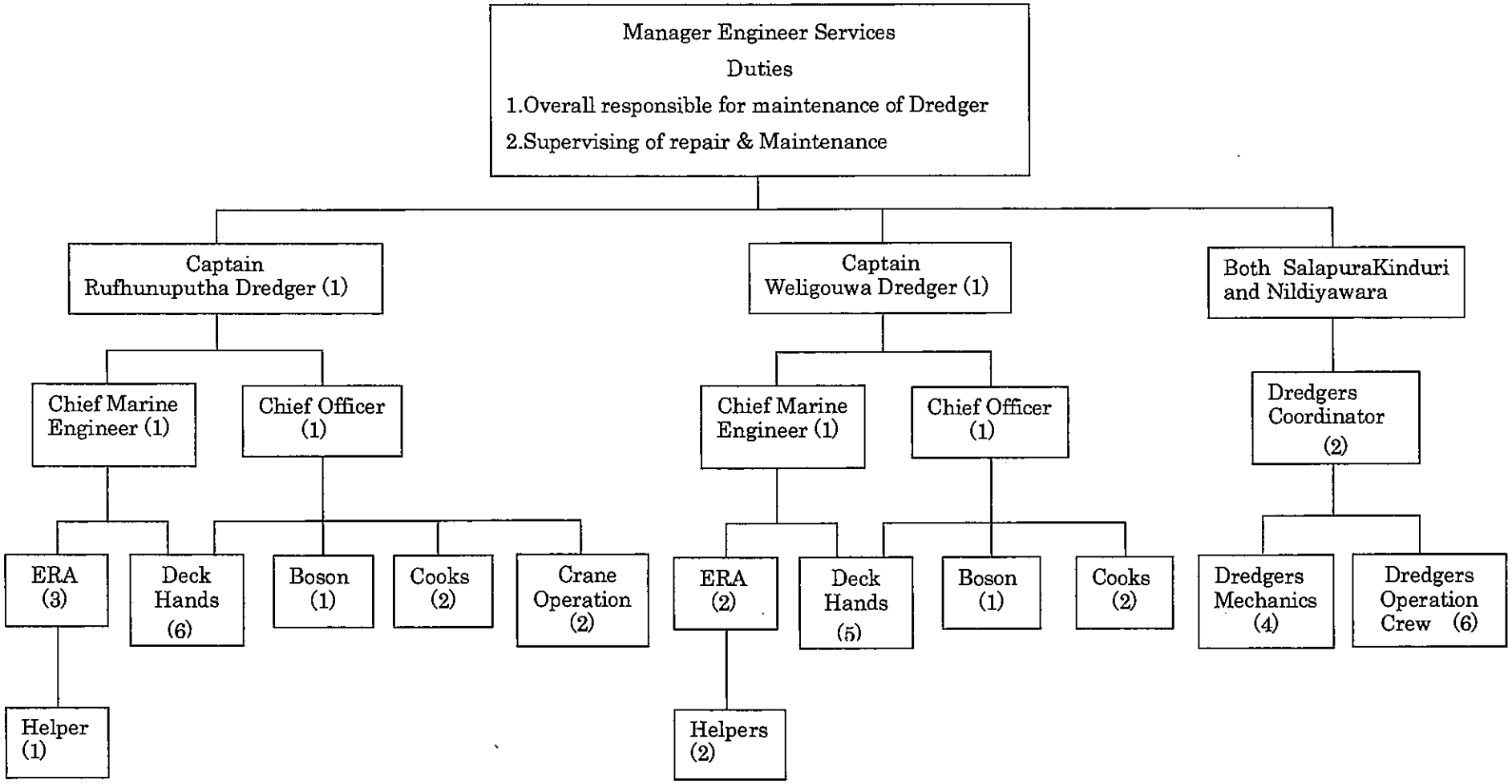
1. Annual Amount for Operation and Maintenance (CFHC)
(for all dredgers)

Year	Record for Last 5 years (Million Rs.)					Plan Budget for Future (Million Rs.)		
	2007	2008	2009	2010	2011	2012	2013	2014
Annual amount for Operation & maintenance	22	26.8	32.6	35.1	45.9	49	57	64
Total Capital Budget for CFHC	264	228	226	166	261	245	375	390

2. Operation and Maintenance Cost for "Ruhunuputha"

Description		Amount (Million Rs.)		
		2009	2010	2011
(1)	Fuel Cost	2.82	2.84	3.20
(2)	Wages & Salaries necessary	4.65	4.98	5.12
(3)	Procurement of Spares	2.10	2.40	3.60
(4)	Lubricants	0.40	0.45	0.52
(5)	Other General repairs	0.58	0.65	0.75
Total		10.55	11.32	13.19

ANNEX- 5 Organization Chart for Operation and Maintenance of the Existing Dredger



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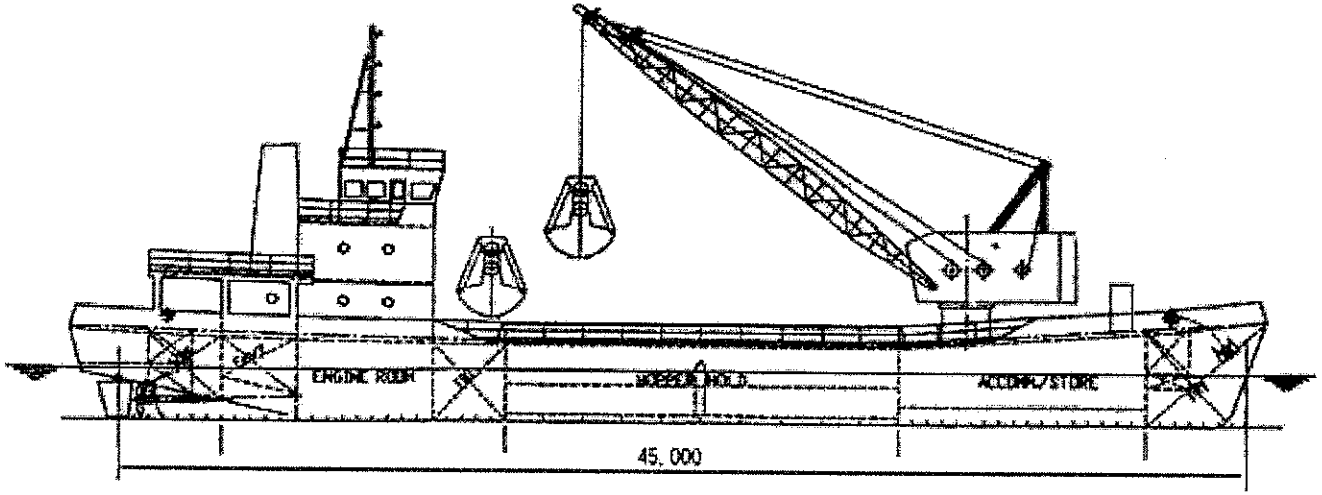

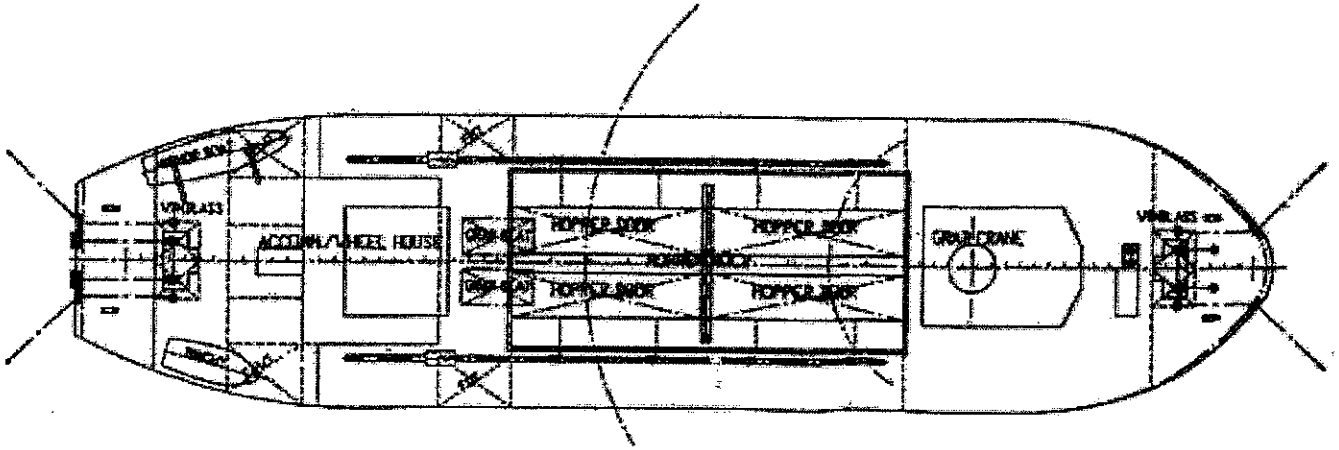

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(for all dredgers)

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Description		Amount (Million Rs.)		
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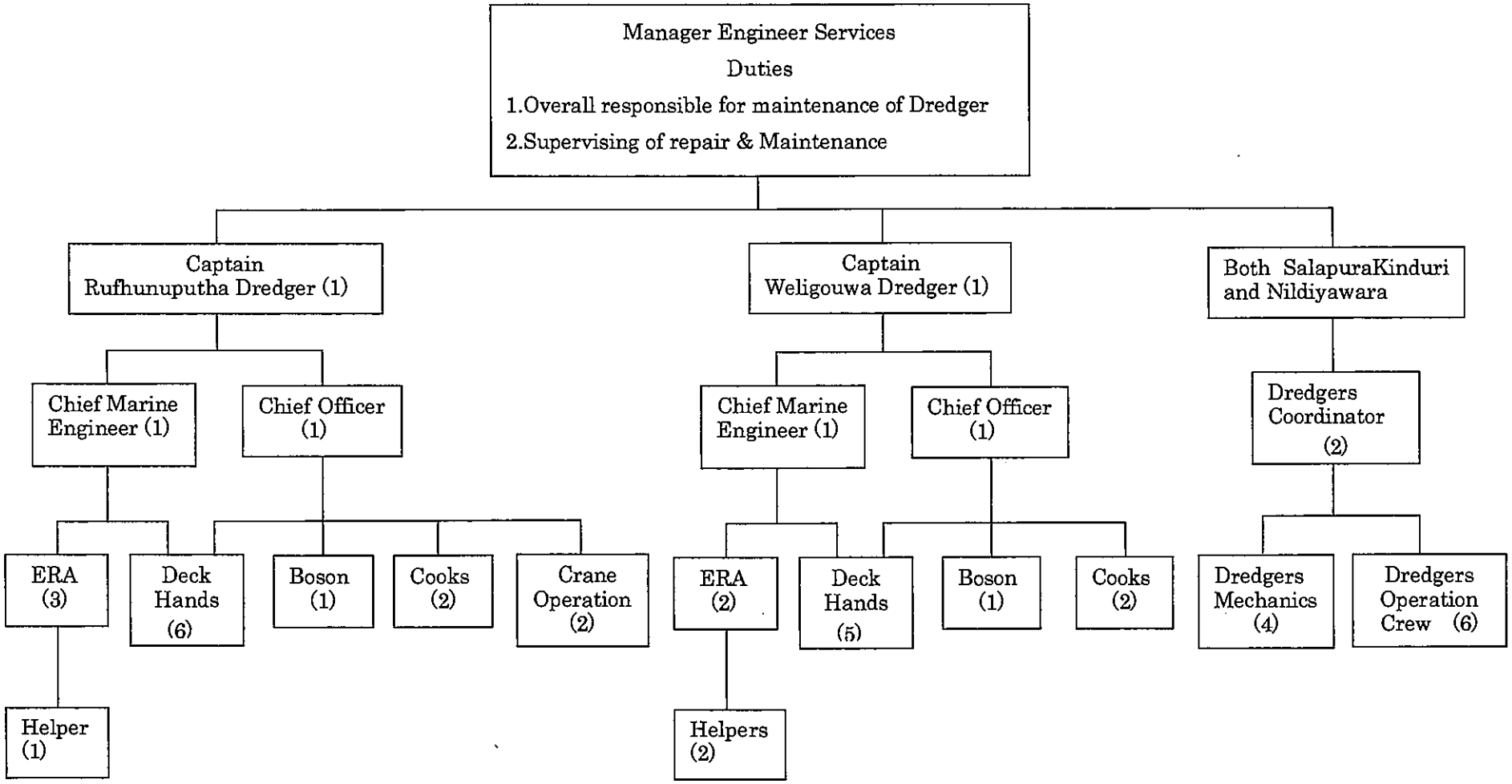
ANNEX- 5 Organization Chart for Operation and Maintenance of the Existing Dredger



資料4 (3) 討議議事録

MINUTES OF DISCUSSIONS
ON THE PREPARATORY SURVEY
ON THE PROJECT FOR PROVISION OF A DREDGER
FOR THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA

In December 2012, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the Preparatory Survey Team (hereinafter referred to as "the Team") on the Project for Provision of a Dredger (hereinafter referred to as "the Project") to the Democratic Socialist Republic of Sri Lanka (hereinafter referred to as "Sri Lanka"), and through discussions, field surveys and technical examination of the results in Japan, JICA prepared a Draft Final Report of the study.

In order to explain and to consult with the concerned officials of the Government of Sri Lanka (hereinafter referred to as "GoSL") on the contents of the Draft Final Report, JICA sent to Sri Lanka the team for explaining the Draft Final Report. The team is headed by Mr. Harumi Ao, Chief Representative of JICA Sri Lanka Office and is scheduled to stay in Sri Lanka from December 10th to 14th, 2012.

As a result of the discussions, both sides confirmed the main items described in the attached sheets.

Colombo, Sri Lanka, January 16th, 2013

Harumi Ao
Chief Representative
Sri Lanka Office
Japan International Cooperation Agency
Japan

Dr. Damitha de Zoysa
Secretary
Ministry of Fisheries and Aquatic Resources Development
Sri Lanka

M P D U K Mapa Pathirana
Director General
Department of External Resources
Ministry of Finance and Planning
Sri Lanka

Upali Liyanage
Chairman
Ceylon Fishery Harbours Corporation
Ministry of Fisheries and Aquatic Resources Development
Sri Lanka

ATTACHMENT

1. Contents of the Draft Report

The Sri Lanka side agreed and accepted in principle the contents of the Draft Report explained by the Team.

2. Cost Estimation

Both sides agreed that the Project Cost Estimation as attached in Annex-1 should never be duplicated or disclosed to any third parties before the signing of all the contract(s) with contractor(s) for the Project.

3. Japan's Grant Aid Scheme

3-1. The Sri Lankan side understood the Japan's Grant Aid scheme and the necessary measures to be taken by the recipient country as explained by the Team and described in Annex-5, Annex-6 and Annex-7 of the Minutes of Discussions signed on July 11th, 2012.

3-2. The Sri Lankan side understands that the Team is not in a position to guarantee implementation of the Project but requests early delivery of the new dredger.

4. Schedule of the Study

4-1. JICA will complete the final report in conformity with the confirmed items and time schedule and deliver the same to the Sri Lankan side, in English around January 2013.

4-2. The commencement of the Project is subject to the approval by GoJ and will be informed by GoJ to GoSL.

5. Other Issues Discussed

5-1. Both sides agreed that the new dredger should be used only for the intended purpose and should not be leased or rented under any circumstances.

5-2. Both sides discussed regarding the additional installation of equipment for transporting dredged sand to land such as pumping system to the designed grab hopper dredger, but agreed not to include it in this project due to the following reasons.

- Additional cost will be necessary for the amendment of specification of designed dredger.
- Significant delay of the commencement of the project caused by the drastic amendment of specification and additional Environmental and Social consideration.

6. Undertakings by Sri Lankan Side

6-1. Both sides confirmed that the following undertakings should be carried out by the Sri Lankan side at the Sri Lankan expenses for the Project.

(1) To obtain the provisional nationality certificate and necessary documents for the transportation of the new dredger from Japan to Sri Lanka.

(2) To perform the custom clearance, tax and port charges exemption and registration of the new dredger.

(3) To provide appropriate berthing/ mooring space for the new dredger.

(4) To carry out the domestic transportation of the new dredger from the hand over point to the designated birthing / mooring area.

(5) To perform the necessary formalities in case the new dredger being registered in the Classification Society in Sri Lanka.

(6) To bear all the expenses for the operation and maintenance costs for the new dredger in addition to those for the existing dredgers of CFHC.

6-2. The Sri Lankan side shall bear the following costs as a condition for the Japan's Grant Aid to be implemented.

(1) The commissions for the banking services based upon Banking Arrangement (B/A)

(2) The advising commission of the Authorization to Pay (A/P)

Annex-1 Project Cost Estimation

Project Cost Estimation

The cost of the Project to be borne by the Japan's Grant Aid is estimated at 1,300 million Japanese Yen as summarized in Table 1. These costs estimated are provisional and will be further examined by the Government of Japan for the approval of the Grant.

1. Project cost to be borne by Japan's Grant Aid

Table 1 Project cost to be borne by Japan's Grant Aid

Item		Amount (Million Japanese Yen)	
Facility	Construction cost	1,200	1,250
	Transportation (Japan to Sri Lanka)	50	
Design and Supervision expenses			50
Total			1,300

2. Project cost to be borne by Sri Lankan Side

The commissions for the banking services based upon Banking Arrangement (B/A) and the advising commission of the Authorization to Pay (A/P) is about 800 thousand Japanese Yen (equivalent to 1.23 million Sri Lanka Rupee) for reference.

The project is implemented under the Japan's Grant Aid Scheme. The above project costs will be revised by the Japanese government before the signing of the Exchange of Notes (E/N).

資料 5 参考資料

番号	名　称	形態 (図書・ビデオ 地図・写真等)	オリジナル コピー
1	DRY DOCKING OF DREDGER "RUHUNUPUTHA"	図書	コピー
2	Main Social　Economic Data of Sri Lanka	〃	〃
3	Climate of Sri Lanka	〃	〃
4	Ceylon Fishery Harbours Corporation Vessel length ～ Monthly berthing chargers	〃	〃
5	Executive Summary	〃	〃
6	Historical Tables	〃	〃
7	SPECIFICATION OF DREDGERS	〃	〃
8	FISHERY HARBOURS	〃	〃
9	BATHYMETRIC　SURVEY（１６港）	〃	〃
10	HARBOUR LAYOUT PLAN(DIKOWITA)	〃	〃
11	LAND SURVEY AT NEGAMBO FISHERY HARBOUR	〃	〃
12	LAND SURVEY AT DODANDUWA FISHERY HARBOUR	〃	〃
13	Maritime Zones & Resource Base of Sri Lanka	〃	〃
14	Ceylon Fishery Harbours Corporation (CFHC)	〃	〃
15	Dikkowita Fishery Harbour	〃	〃
16	Valachchennai Fishery Harbour	〃	〃
17	Trimble,positioning(カタログ)	〃	〃
18	Dikkowita Fishery Harbour - Management system	〃	〃
19	INCOME & EXPENDITURE STATEMENT FOR THE MONTH　(JANUARY 2011-JUNE　2012)	〃	〃
20	BERTHING CHARGES INCOME　2012 June (Example)	〃	〃
21	Directional Wave Climate Study South-West of Sri Lanka	〃	本紙
22	NEAL MARINE　(工場案内、製品案内)	〃	本紙
23	OLUVIL PORT DEVELOPMENT PROJECT DETAILS OF OLUVIL PORT PLAN	〃	コピー
24	Colombo Dockyard　(工場案内、製品案内)	〃	本紙
25	風向・風速データ	〃	コピー
26	潮位データ	〃	〃
27	Performance 2012 Minisiry of Fisheries & Aquatic Resources Development	ビデオ	〃