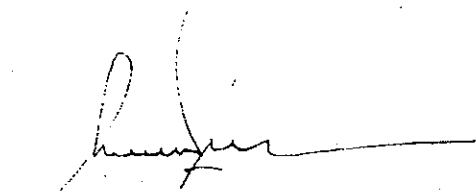
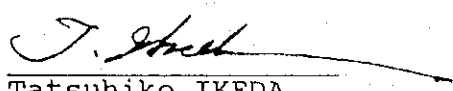


Minutes of Meeting
Regarding the Scope of Work
for
A Study on the Development of the New Port of Colombo
in the Democratic Socialist Republic of Sri Lanka
Agreed upon between
The Sri Lanka Ports Authority
and
The JICA Preparatory Study Team

Colombo, 13 December 1994



Sundra JAYAWARDENA
Chairman
Sri Lanka Ports Authority



Tatsuhiko IKEDA
Leader
Preparatory Study Team
Japan International
Cooperation Agency

A. INTRODUCTION

1. The Preparatory Study Team for the Study on the Development of New Port of Colombo (the Team), that was organized by the Japan International Cooperation Agency (JICA) and headed by Mr. Tatsuhiko Ikeda, visited Sri Lanka from 5 to 14 December 1994 and held a series of discussions with the Sri Lanka Ports Authority (SLPA) and other government organizations concerned regarding the Scope of Work for the Study on the Development of New Port of Colombo in the Democratic Socialist Republic of Sri Lanka (the Study).

2. A wrap-up meeting was held in Colombo on 11 December 1994. After a series of discussions both sides agreed on the final Scope of Work for the Study. This Minutes of Meeting summarizes the results of relevant discussions and conclusions. A list of officials, who participated in the wrap-up meeting is attached as Annex 1. The Study Team express its sincere gratitude to the officials of SLPA and other government organizations concerned for their kind and willing cooperation and hospitality extended to the Study Team.

B. SCOPE OF WORK

I. Bridging the Demand-Supply Gap and the Target Years

3. Both sides noted that the construction period of the Project facilities will be relatively long because of the expected large scale of development of the new port. Sri Lankan side expressed its concern about the anticipated demand-supply gap, i.e. the gap between the actual traffic demand and the capacity of the port, resulting in the port congestion as has been prevailing for these several years.

4. To avoid such situation both sides agreed that:

- a. the Study would cover examinations and recommendations for bridging its gap to minimize port congestion and to make a smooth transition to the commencement of operations of the new port;
- b. the target years, which were initially intended to be set up at 2010 for the master plan and 2002 for the feasibility study, are specified in the Scope of Work in and around 2005 for the feasibility study and in and around 2015 for the master plan, and they would be flexible and be finally determined during the first field work by the full scale study team in Sri Lanka; and
- c. the feasibility study will cover the recommendations on the phased development program of port facilities, including improvement of the existing facilities and development of a part of the new port, together with an appropriate action program for improving port operations.

II. Relationship between the Ports of Colombo and Galle

5. The Study Team noted the following topics regarding the Ports of Colombo and Galle:

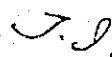
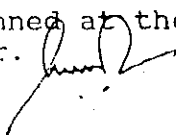
- a. The Government of Sri Lanka places a high priority for development of the Port of Colombo which has been functioning as the national gateway port;
- b. The Port of Colombo, with its favorable location as a regional hub port in South Asia, attracts and handles transshipment container cargoes which accounts for almost 70 per cent of total container cargoes;
- c. With a rapid increasing container cargoes in the region, expansion of capacity as a container hub port is an urgent task in Sri Lanka;
- d. The Government of Sri Lanka also placed a high priority for development of the Port of Galle to stimulate the government program of developing the southern region of Sri Lanka; and
- e. The Government of Sri Lanka, utilizing the outcomes of the JICA Study on the Development of the Port of Galle and with the difficulty of its mobilization of sufficient public funds, sought the possibility of the development of container terminals under the Build-Operate-Transfer scheme.

6. In view of the importance of the examinations on container hub operations in Sri Lanka, both sides agreed that thorough reviews and examinations to determine the level of development of container hub port at the ports of Colombo and Galle should be made in the Study, taking government ports development policy into consideration.

III. Possible Development Site of the New Port

7. Both sides agreed that there are two possible sites for development of a new port: i.e, (i) offshore of the existing QEQ; and (ii) offshore of the northern breakwater. Sri Lankan side stated that the project to convert Queen Elizabeth Quay (QE) into container terminals would be implemented shortly, thus emphasis should be placed on the development of offshore of the northern breakwater.

8. Both sides agreed that careful examinations and analyses should be made on littoral drifts and sedimentation caused by coastal currents and deposits from the Kelani River, if the new port is planned at the area between the northern breakwater and Kelani River.



IV. Enhancing the Existing Port Facilities

9. Both sides noted that port facilities in the existing port have become orderly positioned by implementing the on-going OECF projects. However, both sides agreed that: (i) further relocation and re-arrangement of on-land port facilities; and (ii) maintenance and rehabilitation of existing port facilities will be needed, thus this scope of reviewing the existing facilities and formulating the short term and long term plans of the existing port should also be included in the Study.

10. Both sides agreed that the capacity of the existing port facilities shall be increased by installing further equipment and improving management and operations to match the future traffic demands prior to the time of commencement of operations of the new port.

V. Environmental Issues

11. The Study Team requested and the Sri Lankan side agreed that the possibility of relocation of two fishery facilities and shanties located along the coast of the possible new port area be critically assessed by the officials of SLPA and other government organizations concerned.

12. The Study Team noted that adjustment and coordination are needed with various organizations concerned for the existing petroleum pipeline, sewage drainage pipeline and storm water tunnel which are located at the possible site of the new port. Both sides agreed that the Study shall take into account of these facilities when formulating the master plan and undertaking the feasibility study of the new port.

VI. Financial Viability of the Project

13. The Sri Lankan side stated that financial viability would be a crucial factor to pursue the Project, thus the level of tariff and/or currency fluctuation shall be critically assessed in the Study. The Study Team agreed that these analyses would be carried out during the feasibility study stage through study items specified in C.5.(8) and (9) in the Scope of Work.

14. The Study Team stated that the possibility of different ways for recovering investment costs would be investigated in the Study by examining: (i) 100 per cent public investment for public use; (ii) lease out system for dedicated container terminals; and (iii) various means of private sector participation.

VII. Enhancing On-Land Cargo Flow

15. The Sri Lankan side stated that there was a critical issue on hampering smooth cargo flow within the port and to/from the hinterlands and temporary stacking yards due to the crossing railway tracks in the port and the traffic congestion in the city. Both sides agreed that the Study should take this situation into account and formulate well coordinated road traffic system, including road connection between the new port and the existing port, interchanges of the port road and the port railway and the port access road to the hinterlands.

VIII. Ensuring safety in Marine Operation

16. Sri Lankan side stated that the existing approach channel might not be sufficient to accommodate the safe operations of post pana-max vessels because of its narrow entrance and the short stopping distance, and it was necessary to widen the channel by removing some part of the existing breakwater and constructing additional breakwater at the mouth of the approach channel. Both sides agreed that the Study should cover the issue of enhancing safety in marine operation.

17. The Sri Lankan side stated that the number and capacity of floating craft, i.e. tag boats, pilot boats and mooring boats, are not sufficient. Both sides agreed that the Study should cover these issues.

C. TRAINING

18. The Sri Lankan side requested the training of counterpart personnel in Japan to enhance the technology transfer. The Team stated that they would convey this request to the Government of Japan.

D. OTHERS

19. The Sri Lankan side requested that survey equipment to be utilized during the Study be given to SLPA to continuously undertake natural condition surveys for accumulating data for further development. The Team stated that they would convey this request to the Government of Japan.

PARTICIPANTS IN THE WRAP-UP MEETING, 12 DECEMBER 1994SRI LANKA PORTS AUTHORITY

1.	Mr. Sandra Jayamardena	Chairman
2.	Mr. S. K. W. Dias	General Manager
3.	Mr. K. L. P. de Silva	Additional General Manager
4.	Mr. M. Ramanayake	Chief Engineer (P.R. and D.)
5.	Mr. W. A. W. Weerasinghe	Chief Finance Manager
6.	Mr. M. Colonne	Director (Training)
7.	Capt. S. Chinniah	Harbour Master
8.	Mr. R. M. Jayasekera	Chief Internal Auditor
9.	Dr. and Mrs. C.R. Weeratunga	Chief Medical Officer
10.	Mr. N.H.E.D. Talpawela	Chief Law Officer
11.	Lt. Col. C.P. Algama	Chief Security Manager
12.	Mr. D. B. Ranasinghe	Personnel Manager
13.	Mr. D.S.V. Perera	Chief Operations Manager
14.	Mr. D. Godage	Chief Engineer (Ports)
15.	Mr. R.P. Patuwathawithana	Addl. Chief Engineer (Ports)
16.	Mr. G. P. Weerasinghe	Deputy Chief Engineer (P.R.D.)
17.	Mr. S.H. Liyanage	Acting Deputy Chief Engineer, Electrical
18.	Capt. D. R. J. S. Jayamanne	Deputy Harbour Master
19.	Mr. W. G. Samaratinga	Additional Personnel Manager
20.	Mr. K.A.D. Siddisena	Administrative Secretary
21.	Mr. H. Premarathna	Manager, Statistics
22.	Mr. R. Arambewela	Supply Manager
23.	Mr. Clifford Thomas	S.D.C.M.

THE PRELIMINARY STUDY TEAM

24.	Mr. Tatsuhiko Ikeda	Leader/Port Planning Expert
25.	Mr. Seigoro Endo	Facility Planning Expert
26.	Mr. Isao Sakai	Demand Forecast Expert
27.	Mr. Masami Fuwa	Study Planning Organizer
28.	Mr. Haruyuki Shimada	Assistant Study Planning Organizer
29.	Mr. Takeaki Hoshino	Natural Condition Survey Expert
30.	Mr. Yuji Tanaka	Environmental Expert

資料リスト (収集資料)

平成 6年12月19日作成

主審部長	文書管理課長	技術情報課長
	主審課長	

地域	南西アジア	調査の種類又は 調査の種別又は は指導科目	事前調査	作成 部課	社会開発調査一課
国名	スリランカ国	現地調査期間 又は派遣期間	'94年12月4日~'94年12月15日	担当者氏名	堀田雅行

番号	資料の名称	形態	版数	ページ数	オリジナル コピーの別	部数	収集先名称又は 発行機関	寄贈・購入 (価値)の別	取扱区分	利用表示	利用者所属氏名	納入 予定日	納入 確認欄
1	OECF/MCS レポート抜粋				コピー	1							
2	General Publications				コピー	1							
3	New Capital City Drainage Project Feasibility Study 1980 Final Report Vol. 1 & 2	A4			コピー	1	Engineering Consultants Ltd.						
4	Master Plan Coast Erosion Management Vol. 3	A1			コピー	1	Danish Hydraulic Institute						
5	Investigations & Studies in Connection with Crow Island Stabilization Scheme Colombo North Vol. 1.2	A4			コピー	1	Lanka Hydraulic Institute						
6	Report on Crow Island Investigations Post Monsoon '87 Survey	A4			コピー	1	Lanka Hydraulic Institute						
7	Sri Lanka Water Supply & Rehabilitation Project Study of the Canal & Drainage System in Colombo, F/E	A4			コピー	1	National Water Supply & Drainage Board						
8	Coastal Zone Management Plan	A4		75	コピー	1	Coast Conservation Department						
9	Details of Nutawal Fishery Harbour Area	A4		6	コピー	1	Ceylon Fishery Corporation						
10	Port Facilities of Port of Colombo 第四章	A4			コピー	1							

国際協力事業団

事務課

資料リスト (収集資料)

平成 6年12月19日作成

主管部長	文書管理課 長	主管課長	情報管理課 長	技術情報課 長
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自然条件

地域	南西アジア	調査団名又は 専門家氏名	新コロロンボ港開発計画調査 自然条件 星野毅明	調査の種類又は 指導科目	事前調査	作成 部署	社会開発調査課
国名	スリランカ国	配属機関名		現地調査期間 又は派遣期間	94年12月 4日~94年12月19日	担当者氏名	

番号	資料の名称	形態	版数	ページ数	オリジナル コピーの別	部数	取集先名称又は 発行機関	寄贈・購入 (価値)の別	取扱区分	利用表示	利用者所属氏名	納入 予定日	納入 確認欄
11	Sea Level Rise with Special Reference to IELANI GANGA Estuary	本	A4	47	コピー	1	Irrigation Dep't						
12	Coastal Investigations Colombo North	図	A4		コピー	3	Lanka Hydraulic Institute Ltd.						
13	Sea Bed Heights Colombo Port 1/10,000	図	A1		コピー	1	JPC						
14	NARA National Hydraulic Office	パンフ	A1		オリジナル	1	NARA						
15	Land Use Map	図	A0		オリジナル	2	Survey Dep't						
16	Catalog	パンフ	A4		オリジナル	1	Survey Eng. Co.,Ltd.						
17	Colombo Wave Measurement Programme, April 1993- March 1994, F/R	本	A4		コピー	1	SLPA						
18	Report on the Tide Measurements off Galle	本	A4		オリジナル	1	Lanka Hydraulic Institute Ltd.						

資料リスト (収集資料)

平成 6年12月19日作成

主管部長	文書管理課 課長	主管課長	情報管理課 課長	技術情報課 課長
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環境省：その1

地域	東南アジア	調査団名又は専門家氏名	新コロンボ港開発計画調査団 環境 田中 謙二	調査の種類又は指導科目	事前調査	作成 部 課	社会開発調査課
国名	スリランカ国	配属機関名		現地調査期間又は派遣期間	1994年12月4日～1994年12月19日	担当者氏名	

番号	資料の名称	形態	版 型	ページ数	オリジナルコピーの別	部 数	収集先名称又は発行機関	査閲・購入(価値)の別	取扱い区分	利用表示	利用者所属氏名	納 入 予定日	納 入 確認欄
19	NATURAL RESOURCES OF SRI LANKA	本	A4	280	オリジナル	1	SLPA/NRESH						
20	ENVIRONMENTAL PLANNING PROGRAM IN THE PORT OF COLOMBO		A4	270	オリジナル	1	SLPA/JPC						
21	CHAPTER 6 - BASIC CONCEPTS OF HYDROGRAPHIC OBSERVATIONS & CHEMICAL ANALYSIS	冊200-号	A4	16	コピー	1	SLPA/JPC						
22	CHAPTER IV Pollution	冊200-号	A4	24	コピー	1	SLPA/JPC						
23	GUIDANCE FOR IMPLEMENTING THE ENVIRONMENTAL IMPACT ASSESSMENT (EIA) PROCESS		A4	57	コピー	1	SLPA/CEA						
24	TOLERANCE LIMITS		A4	6	コピー	1	SLPA/CEA						
25	NATIONAL ENVIRONMENTAL ACT PART I: SECTION(1)-GENERAL Regulations -1990.1.8		A4	12	コピー	1	SLPA						
26	NATIONAL ENVIRONMENTAL ACT PART I: SECTION(1)-GENERAL Order under Section 23Y -1993.6.18 Order under Section 23Z -1993.6.18 Regulation -1993.6.18		A4	8	コピー	1	SLPA						
27	The Journal of the MARA	雑誌	B5	75	オリジナル	1	MARA/MARA						
28	Freshwater Fauna of SRI LANKA	図表	A1	1	オリジナル	1	MARA/MARA	購入					
29	Marine Mussels of the Indian Ocean	図表	A1	1	オリジナル	1	MARA/MARA	購入					

資料リスト(収集資料)

主管部長	文書管理課長	主管課長	情報管理課長	技術情報課長
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環境：その2

地域	南西アジア	調査団名又は 専門家氏名	新コロンボ港開発計画調査 班 塚田中雄二	調査の種類又は 指図科目	事前調査	作成 部課	社会開発調査一課
国名	スリランカ国	配属機関名		現地調査期間 又は派遣期間	94年12月4日~94年12月19日	担当者氏名	

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30	Details of Nutwal Fishery Harbour Area		A4	8	コピー	1	SLPA/CFC & NIDA						
31	海抜図	図表	A1	1	オリジナル	1	NARA/NARA	購入					
32	Company Profile① Sanitar Limited ② Survey Eng. ③ Banner & Brace ④ Trade & Develp.	カタログ カタログ カタログ カタログ	A4 A4 A4 A4	80 1 30 80	オリジナル オリジナル オリジナル オリジナル	1 1 1 1	Sawiter Ltd. Survey Eng. B & B T & D Consultants						
33	NARA ITS RESPONSIBILITY	pamphlet	A4	1	オリジナル	1	NARA/NARA						
34	Master Plan of Muthurajawela & Nagoabo Lagoon	Report	A4	119	オリジナル	1	BOI/Euroconsult	購入					
35	Environmental Profile of Muthurajawela & N.L.	Report	A4	173	オリジナル	1	BOI/Euroconsult	購入					
36	National Environmental Action Plan 1995-1998 (Revised Draft)		A4 (コピ-:A3)	約150	コピー	1	Ministry of Environment:MOE						
37	National Environmental Act No. 47 of 1980	冊子	A5	40	オリジナル	1	MOE						
38	Central Environmental Authority	冊子	A5	17	オリジナル	1	CEA/CEA						
39	DRAFT: 94.11.8: Report of the National Task Force on Environmental Law	冊子	A4	19	オリジナル	1	MOE						
40	Summary of Draft Proposal of ELTF	冊子	A4	6	オリジナル	1	MOE						
41	自動車交通法: No. 817/76: 94.5.3		A4	3		1	CEA						

ローカル・コンサルタント・リスト

自然条件調査

専門分野	コンサルタント・研究所名	住所	TEL., FAX.	得意分野	評価等
波高・潮流・ 水深・音波・ 地形測量	Lanka Hydraulic Institute Ltd. (LHI)	John Rodrigo Mawatha, Katubedda, Moratuwa, Sri Lanka	TEL.: 647471 645409 FAX.: 647470 587227	波高・潮流・ 水深・音波・ 漂砂・河川	装備・実績 共に良好。
	National Aquatic Resources Agency (NARA) Hydrographic Office & Oceanography Office	Crow Island, Mattakkuliya, Colombo, Sri Lanka	TEL.: 522705 522009 FAX.: 522699	潮位・潮流・ 水深・漂砂・ 河川	装備・実績 共に良好。 調査期間の 制約有り。
	Survey Engineering Co., Ltd.	Suite 2G/34, BWICH, Baudhdhaloka, Mawatha, Colombo, Sri Lanka	TEL.: 686784 530692 FAX.: 686784	地形・水深・ 河川	装備と実績 は有る。 大会社では ないため コストで有 利。
土質調査・ 室内試験	Soil Engineering & Deepwells Ltd. Geo Lanka Land Surveyors	736/1-A, Negombo Road, Mattuwagala, Ragama, Sri Lanka 31/8, Kirulapana Station Road, Nawara, Nugegoda, Sri Lanka	TEL.: 531458 FAX.: 581283 TEL.: 853065 FAX.: —	海上・陸上 ボーリング 室内試験・ 地形測量 地形測量・ 陸上ボーリング 室内試験	装備と実績 は有る。 海上ヤグラ 無し。 装備は有る が海上ボー リング実績 無し。

ローカル・コンサルタント・リスト

環境調査

専門分野		コンサルタント・研究所名	住所	TEL., FAX.	得意分野・評価・その他		
水質調査	大気調査					騒音調査	交通調査
○	△	SAMITAR LTD	103, SIRI DHAMMA MAWATHA, COLOMBO 10	TEL.: 697985 FAX.: 697801	建築・土木・上下水道・茶井戸等を得地分野とし、実績多い。		
△	△	SURVEY ENGINEERING CO., LTD.	COLOMBO OFFICE: SUITE 2G/34 B. M. I. C. H. BAUDDHALOKA MAWATHA, COLOMBO 7	TEL.: 686784 FAX.: 697420	水質・産質等の分析は他社との連合による。		
○	△	Bamber & Bruce Ltd.	56 1/1 VAJIRA ROAD, COLOMBO 5	TEL.: 500254 592151 FAX.: 508813	化学・微生物等の分析を専門とし、港内水質等分析の実績有り。ノルウェー・水質研究所とグループでCEAに登録済み。大気質・交通量調査は、セイロン科学研究所等の専門家との提携により可能とされる。		
△		Trade & Development Consultants Engineering Consultants Ltd. (ECL)	7/B, BELLANTARA ROAD, DEHIWALA 60, DHARNAPALA MAWATHA, COLOMBO 3	TEL.: 712394 FAX.: 724414 TEL.: 574154 575512 FAX.: 575514	2社連合。輸送・船舶・港湾・輸出入・商標調査・環境関係のコンサルタント。 水質調査・建築・環境・農業・海外開発と交通関係のコンサルタント。FIDICのメンバー。		
○	○	University of Moratuwa, Department of Civil Engineering	Moratuwa, Sri Lanka	TEL.: 647567/8 FAX.: 647622	研究室として、分析を請け負う。水質・産質・大気質共に分析は研究室に持ち帰り行う。ガス・クロマトグラフ使用可能だが、他は手分析。		
		National Aquatic Resources Agency (NARA)	Crow Island, Mattakkuliya, Colombo 15	TEL.: 522008 FAX.: 522932	調査期間の制約有り。		

JICA