

1 Members of the Team

(1) Field Survey I (in October 2008)

Mr. Satoshi CHIKAMI	Leader	Senior Advisor, Japan International Cooperation Agency (JICA)
Mr. Kiyoshi KATSUYAMA	Marine Aquaculture Development	Director, Overseas Fisheries Cooperation Office, International Affairs Division, Resources Management Department, Fisheries Agency
Mr. Shin MARUO	Coordinator	Senior Program Officer, Arid and Semi-arid Farming Area Division II, Rural Development Department, Japan International Cooperation Agency (JICA)
Mr. Toru FUJIKI	Project Manager / Operation and Management Planning	Overseas Agro-Fisheries Consultants Co., Ltd. (OAFIC)
Mr. Masanori DOI	Marine Aquaculture Survey/Environmental and Social Consideration	INTEM Consulting Co., Ltd (INTEM)

(2) Field Survey II (in December 2008)

Mr. Satoshi CHIKAMI	Leader	Senior Advisor,	
		Japan International Cooperation Agency (JICA)	
Mr. Masakazu OKA	Marine Aquaculture	Research Coordinator,	
	Development	Fisheries Research Agency	
Mr. Kunihiro NAKASONE	Coordinator	Chief,	
		Paddy Field Based Farming Area Division II,	
		Paddy Field Based Area Group	
		Rural Development Department,	
		Japan International Cooperation Agency (JICA)	
Mr. Toru FUJIKI	Project Manager /	Overseas Agro-Fisheries Consultants Co., Ltd.	
	Operation and	(OAFIC)	
	Management Planning		
Mr. Toru TACHIKI	Architectural and	Overseas Agro-Fisheries Consultants Co., Ltd.	
	Facility Planning	(OAFIC)	
Mr. Yoshiaki KOBAYASHI	Seawater Intake Facility	Fuyo Ocean Development & Engineering Co.,Ltd	
	Planning/Natural	(FUYO)	
	Condition Survey		
Mr. Rikio USHIODA	Construction Planning /	Overseas Agro-Fisheries Consultants Co., Ltd.	
	Cost Estimation	(OAFIC)	
MR. Masuo WATANABE	Equipment and	Fuyo Ocean Development & Engineering Co.,Ltd	
	Procurement Planning /	(FUYO)	
	Cost Estimation		
Mr. Masanori DOI	Marine Aquaculture	INTEM Consulting Co., Ltd	
	Survey/Environmental	(INTEM)	
	and Social		
	Consideration		

(3) Explanation of the Draft Basic Design Study (in April 2009)

Mr. Kunihiro NAKASONE	Leader	Chief,
		Paddy Field Based Farming Area Division II,
		Paddy Field Based Area Group
		Rural Development Department,
		Japan International Cooperation Agency (JICA)
Mr. Toru FUJIKI	Project Manager /	Overseas Agro-Fisheries Consultants Co., Ltd.
	Operation and	(OAFIC)
	Management Planning	
Mr. Toru TACHIKI	Architectural and	Overseas Agro-Fisheries Consultants Co., Ltd.
	Facility Planning	(OAFIC)

2. Studuy Schedule

(1) First Field Survey (BD1: Oct. of 2008)

		Leader	Marine Aquaculture Development	Coordinator	Project Manager / Operation and Management Planning	Marine Aquaculture Survey Environmental and Social Consideration
2-Oct	Thu	Tokyo - Phnom Penh				
3-Oct	Fri		Embassy of Japan and JICA C Fisheries Administration	Office		
4-Oct	Sat	Site Survey				Sihanoukville aquaculture firm survey
5-Oct	Sun	Site Survey				Sihanoukville aquaculture firm survey
6-Oct	Mon	Meeting with Fisheries	Administration			PP Distribution of fisheries products & market survey
7-Oct	Tue	Meeting with Fisheries	Meeting with Fisheries Administration			Meeting with Fisheries Administration, PP Distribution of fisheries products & man survey
8-Oct	Wed	09:00 Signing on Minut 16:00 Report to the Eml				PP Distribution of fisheries products & market survey
9-Oct	Thu	15:00 Report to JICA O Phnom Penh -	ffice		Meeting with Fisheries Administration, National aquaculture firm survey	Sihanoukville Distribution of fisheries products & marke survey, Sihanoukville aquaculture firm survey
10-Oct	Fri	- Tokyo			Kampot aquaculture firm survey	Sihanoukville & Kampot aquaculture firm survey
11-Oct	Sat				Kampot aquaculture firm survey	Kampot aquaculture firm surv
12-Oct	Sun				Koh Kong aquaculture firm survey	Koh Kong aquaculture firm survey
13-Oct	Mon				Kep aquaculture firm survey	Kep aquaculture firm survey
14-Oct	Tue		\ /		Meeting with Fisheries Administration	Meeting with Fisheries Administration Phnom Penh -
15-Oct	Wed				Meeting with Fisheries Administration	- Tokyo
16-Oct	ļ		\times		Meeting with Fisheries Administration Meeting with Fisheries	
17-Oct 18-Oct	ļ				Administration Local consultants survey	
19-Oct	ļ]	/ \		Local consultants survey	
20-Oct	Mon				Meeting with Fisheries Administration, Report to JICA Office	
21-Oct	Tue				Meeting with Fisheries Administration, Phnom Penh -	
22-Oct	Wed	/			- Tokyo	

(2) Secondary Field Survey (BD2: Dec. of 2008)

			Survey Schedule (Official Team Members & Consultants)		
	Date	Day	Official Team Members & Consultant	Consultant Tokyo -> PP	Consultant
1	12/2	Tue			
2	12/3	Wed	Preliminary me	and discussion at FiA	
3	12/4	Thu	move to SV Environmental and social consideration survey in SV	move to SV Architectural planning (site survey) Construction planning survey (site survey) Environmental and social consideration survey in SV	move to SV Seawater intake and natural conditions survey (site survey) Equipment procurement survey
4	12/5	Fri	Related project survey in SV, Base line survey in SV	Architectural planning (site survey) Construction planning survey(site survey) Environmental and social consideration survey in SV	Seawater intake and natural conditions survey (site survey) Equipment procurement survey
5	12/6	Sat		visit Aquaculture farm	
6	12/7	Sun		move to PP	preparation for next day move to PP
7	12/8	Mon	Discussion at FiA (Infrastructure,Environmental issue etc.), Environmental and social consideration survey (on EIA, Ministry of Environment)	Architectural planning (law & regulation etc.,) Construction planning survey (Construction material price etc.,) Environmental and social consideration survey (on EIA, Ministry of Environment)	survey (site survey) Equipment procurement survey (in PP)
8	12/9	Tue	Discussion at FiA (MADeC operation and management)	Architectural planning (law & regulation etc.,) Construction planning survey (Construction material price etc.,) Environmental and social consideration survey (FiA)	Seawater intake and natural conditions survey (site survey) Equipment survey (IFReDI)
9	12/10	Wed	Discussion at FiA (MADeC operation and management), Visit National University of Agriculture	Architectural planning (Architectural method & Design) Construction planning survey (Construction material price etc.,) Environmental and social consideration survey (FiA)	Seawater intake and natural conditions survey (site survey) Equipment survey (Visit National University of Agriculture)
10	12/11	Thu	Discussion at FiA (Acuaculture technology development), Visit at BATI Fresh water aquaculture center	Architectural planning (Visit at BATI Fresh water aquaculture center) Construction planning survey (Visit at BATI Fresh water aquaculture center) Environmental and social consideration survey (NGO)	Seawater intake and natural conditions survey (site survey) Equipment survey (BATI Fresh water aquaculture center)
11	12/12	Fri	Discussion at FiA (Acuaculture technology development)	Architectural planning (Discussion at FiA) Construction planning survey (Construction material price etc.,) Environmental and social consideration survey (Discussion at FiA)	Seawater intake and natural conditions survey (site survey) Equipment procurement survey (in PP)
12	12/13	Sat	visit fish market	visit fish market move to SV	Seawater intake and natural conditions survey (site survey) move to SV
13	12/14	Sun	preparation for next day		
14	12/15	Mon	Discussion at FiA (training and enlightenment plan etc.,)	Architectural planning (infrastructure) Construction planning survey (construction method etc.,) Environmental and social consideration survey (to support the Stake holder meeting hold by FiA)	Seawater intake and natural conditions survey (site survey) Equipment survey (water quality analysis center in SV)

(Continue)

15	12/16	Tue	Discussion at FiA (Requested Component)	Architectural planning (infrastructure) Construction planning survey (construction method etc.,) Environmental and social consideration survey (to support the Stake holder meeting hold by FiA)	Seawater intake and natural conditions survey (site survey) Equipment survey (water quality analysis center in SV)
16	12/17	Wed	Discussion at FiA Architectural planning (Law & Reguration) Construction planning survey (construction material price) Environmental and social consideration survey (Discussion at FiA in SV)		Seawater intake and natural conditions survey (site survey) Equipment planning survey
17	12/18	Thu	Official Team Members : Tky→PP	Architectural planning (Law & Reguration) Construction planning survey (construction material price) Environmental and social consideration survey (supplement survey)	Seawater intake and natural conditions survey (site survey) Equipment planning survey
18	12/19	Fri	Preliminary meeting at the JICA office, Courtesy call at Embassy of Japan, Courtesy call and discussion at FiA	Architectural planning (Law & Reguration) Construction planning survey (construction material price) Environmental and social consideration survey (supplement survey)	Seawater intake and natural conditions survey (site survey) Equipment procurement survey
19	12/20	Sat	PP→SV Site survey	move to SV with Official Team Members	Seawater intake and natural conditions survey (site survey) Equipment survey
20	12/21	Sun	SV→PP Discussing in Team	Seawater intake and natural conditions survey (site survey) Equipment planning survey	
21	12/22	Mon	Discussion on the minutes draft at	Seawater intake and natural conditions survey (site survey) Equipment planning survey (supplement survey)	
22	12/23	Tue	Discussion on the minutes draft at FiA		Seawater intake and natural conditions survey (site survey) Equipment planning survey(supplement survey)
23	12/24	Wed	Signing to the minutes at FiA	move to PP	
24	12/25	Thu	Reporting at Embassy of Japan and JICA office, PP→		
25	12/26	Fri	→Tokyp		

TKY: Tokyo, PP: Phnom Penh, SV: Sihanouk ville,
Project Manager/Operation and Management Planning, Architectural and Facility Planning,
Water Intake Facility Planning/Natural Condition Survey, Construction Planning/Cost Estimation,
Equipment Planning/Procurement Planning/Cost Estimation, and Ocean Aquaculture Survey/Environmental and Social Consideration

(3) Explanation of the Draft Basic Design Study (in April 2009)

	Date	Day	Official Team Member	Consultant
1	4/25	Sat		1100 Tokyo → 1925 Phnom Penh
2	4/26	Sun	1100 Tokyo →1925 Phnom Penh	Supplement survey (Cost estimation), Preliminary preparation
3	4/27	Mon	Preliminary meeting at JICA office, Courtesy call Embassy of Japan, Courtesy call and discussion at FiA	←: Ditto
4	4/28	Tue	Discussion at FiA, Signing to the Minutes at FiA	←: Ditto
5	4/29	Wed	Reporting at Embassy of Japan and JICA office Phnom Penh →	←: Ditto
6	4/30	Thu	Tokyo	Supplement survey (Cost estimation)
7	5/1	Fri		Supplement survey (Cost estimation)
8	5/2	Sat		Move to Sihanouk Ville Site condition Supplement survey
9	5/3	Sun		Site condition Supplement survey
10	5/4	Mon		Site condition Supplement survey (Socio environment etc)
11	5/5	Tue		Site condition Supplement survey (Socio environment etc), Move to Phnom Penh
12	5/6	Wed		Supplement survey (Cost estimation)
13	5/7	Thu		Reporting at JICA office, FiA Phnom Penh →
14	5/8	Fri		Tokyo

PP: Phnom Penh, SV: Sihanouk ville,

Consultant : Project Manager/Operation and Management Planning, Architectural and Facility Planning

3. List of Parties Concerned in the Recipient Country

Ministry of Agriculture, Forestry and Fisheries

H.E. San Vanty Under Secretary of State

Ministry of Agriculture, Forestry and Fisheries

Fisheries Administration

H.E. Nao Thuok General Directorate

Mr. Sam Nuov Deputy Director General

Mr. Ing Try Deputy Director General

Mr. Oum Dokun Deputy Director

Director, Marine Aquaculture Development

Dr. So Nam

Center

Mr. Haing Leap Deputy Director, Aquaculture Division

Mr. Pich Sereywath Deputy Director, Aquaculture Division

Dr. Chea Tharith Deputy Director, IFReDI

Mr. Ngan Heng Director, Bati Fish Seed Production and Research

Center

Mr. Yos Chanthana Deputy Director Marine Aquaculture

Development Center

Mr. Yi Boros Deputy Director Marine Aquaculture

Development Center

Mr. Prak Sarawatt Deputy Director, Cantonment Kompong som

Mr. Nen Chamroun Deputy Director, Cantonment Kompong som

Mr. Khin Sarauuta Fishery Office Cantonment Kampong som

Mr. Keila Samrith Fishery Office Cantonment Kampong som

Mr. Lang Kirg Director, Koh Kong Province Fishery Office

Mr. Doeur Dully Fishery Officer Koh Kong Province

Mr. Tau Thearith Fishery Officer Koh Kong Province

Mr. Ith Seang Sovimol Fishery Officer Koh Kong Province

Mr. Sar Sorin Director, Cantonment Kampot

Mr. Yun Veha Cantonment Kampot Fishery Office

Mr. Pheun Phalla Cantonment Kampot Fishery Office

Mr. Thay Saman Cantonment Kampot Fishery Office

Mr. Soun Savorn Cantonment Kampot Fishery Office

Ministry of Environment,

Department of Environmental Impact Assessment

Mr. Puth Sorithy Director

Stuff

Ms Chhim Sophanny

Department of Environmental Education

Mr. Kim Nong, Deputy director

Ministry of Interior

Municipality of Sihanouk Ville

Mr. Sbong Sarath Governor of Sihanouk Ville

Ministry of Land Management & Urban Planning and Construction,

Sihanouk Ville

Mr. So Sok Director,

Ministry of Public Works and Transport

Sihanouk Ville Autonomous Port,

Mr. Chea Sambath Director, Planning Department

Police Office Fire Board Division, Sihanouk Ville

Mr. Has Chandara Chief,

EDC Sihanouk Ville Branch

Mr. Chea Subuddhy Director, EDC Sihanouk Ville Branch,

Mr. Thuon Socheath Deputy Director, EDC Sihanouk Ville Branch

Mr. Rm. Raveendran Plant Manager, Colben Energy limited

Sihanouk Ville Water Supply

Mr. Sim Sitha Director, Sihanouk Ville Water Supply

Department of Environment, Sihanouk Ville

Mr. Samuth Sothearith Deputy Director

Mr. Neou Chhon, Chief EIA Office

Mr. Hun Reth Vice Chief, EIA Office

Mr. Kung Sokha Vice Chief, Water Pollution Office

4. Minute of Disccusions

4-1 (BD1: Oct. of 2008)

MINUTES OF DISCUSSIONS ON BASIC DESIGN STUDY I ON THE PROJECT

FOR CONSTRUCTION OF MARINE AQUACULTURE DEVELOPMENT CENTER IN KINGDOM OF CAMBODIA

Based on the results of the Preliminary Study and supplementary information provided by Kingdom of Cambodia (hereinafter referred to as "Cambodia"), the Government of Japan decided to conduct a Basic Design Study on the Project for Construction of Marine Aquaculture Development Center (hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency (hereinafter referred to as "JICA").

JICA sent to Cambodia the Basic Design Study Team I (hereinafter referred to as "the Team"), which is headed by Mr. Satoshi Chikami, Senior Advisor, JICA, and is scheduled to stay in Cambodia from $2^{\rm nd}$ to $21^{\rm st}$ October 2008.

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

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

Phnom Penh, 8th October, 2008

Satoshi Chikami

Leader

Basic Design Study Team

Japan International Cooperation Agency

Nao Thuok

Director General

Fisheries Administration

Ministry of Agriculture, Forestry and Fisheries

ATTACHMENT

1. Objective of the Project

The objective of the Project is to develop marine aquaculture in Cambodia through development of basic technology on marine aquaculture, supply of seeds of marine aquaculture, and provision of education, technical training, and consultation opportunities to private marine aquaculture farmers and other related stakeholders.

2. Project site

The site of the Project is in Sihanoukville, south-west of Cambodia as shown in ANNEX-I.

- 3. Responsible and Implementing Agency
- 3.1. The Responsible Agency is the Ministry of Agriculture, Forestry and Fisheries.
- 3.2. The Implementing Agency is the Fisheries Administration, Ministry of Agriculture, Forestry and Fisheries.

4. Items Requested by the Royal Government of Cambodia

After discussion with the Team, the Royal Government of Cambodia requested items as components to be included in the Project (hereinafter referred to as "the Project Components") and eliminate some items from the original request as described in ANNEX-II. Further discussion on the Project Components will be done in Basic Design Study II.

5. Japan's Grant Aid Scheme

The Cambodian side understood the Japan's Grant Aid Scheme and the necessary measures to be taken by the Royal Government of Cambodia as explained by the Team and described on the Minutes of Discussions signed by the Preliminary Study Team and the Royal Government of Cambodia on 12th July, 2007. The Team explained that there would be some changes on the procedures of Japan's Grant Aid scheme and that the renewed procedures might be explained by the Basic Design Study Team II in December, 2008.

6. Schedule of the Study

- 6-1. The consultant members of the Team will conduct the study in Cambodia till 21st October, 2008. The Cambodian side agreed to assist the study conducted by the consultant members. 6-2. After going back to Japan, the Team will analyze the study result and appraise feasibility, sustainability and relevancy of the activity plan in Marine Aquaculture Development Center (hereinafter referred to as "MADeC") presented by the Cambodian side.
- 6-3. Basic Design Study Team II is planned to be dispatched in December, 2008, and further discussion and field survey will be conducted.

7. Other Items Discussed

7-1. The Project Components

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The Team explained that the Project Components would be further discussed and analyzed by the following process.

- (1) JICA will analyze data and information collected in this Study in Japan, and will appraise feasibility, relevancy and sustainability on the planned activities of MADeC.
- (2) Basic Design Study Team II will discuss with Cambodian side on the activities of MADeC based on the analysis made in Japan and confirm requests of Cambodian side on components of the Project.
- (3) JICA will assess the appropriateness of the request after further study and analysis.

Further, the Team addressed that the following matters should be considered for the planning of the Project component.

- (1) For securing sustainability of operation and management of MADeC, it is important to make collaboration with existing institutions in Cambodia such as the Inland Fisheries Research and Development Institute (IFReDI) and universities in the field of research and study on marine aquaculture development. In this regard, the facilities and equipment for MADeC should be designed to avoid unnecessary duplications of the roles of institutions concerned.
- (2) It is expected that MADeC be developed gradually over the years through various activities undertaken. In this respect, this Project will consider facilities and equipment indispensable for the activities of MADeC on the initial stage, although the layout plan should incorporate possibility of future expansion of facilities.

ANNEX- I Location Map of the Project Site

ANNEX-II Items requested by the Royal Government of Cambodia

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