

付 属 資 料

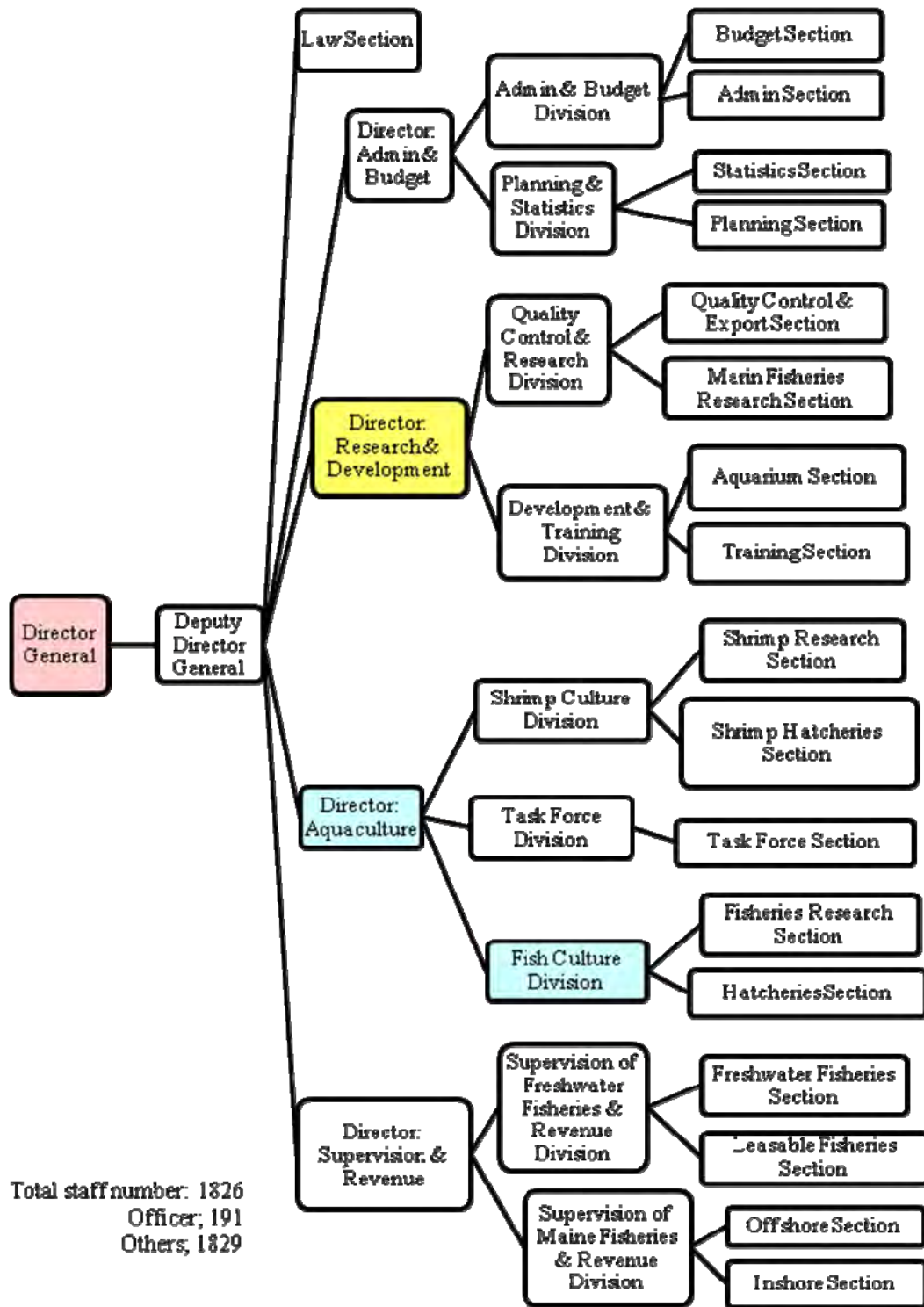
1. 調査団日程表
2. ミャンマー国畜水産省水産局組織図
3. PCM ワークショップ報告書（要約）
4. 協議議事録（M/M）
5. 討議議事録（R/D）

調査日程表

Date		Schedule	Place
6/16	Mon	(普及政策団員) Arrival at Yangon	Yangon
6/17	Tue	Meeting with JICA Courtesy call on DG of DoF	Yangon
6/18	Wed	Meeting with DoF Preparation for field activities and study team	Yangon
6/19	Thu	Ditto	Yangon
6/20	Fri	Document preparation	Yangon
6/21	Sat	Paper preparation	Yangon
6/22	Sun	Ditto	Yangon
6/23	Mon	Preparation for field activities and study team	Yangon
6/24	Tue	Preparation for field activities and study team	Yangon
6/25	Wed	Preparation for field activities and study team	Yangon
6/26	Thu	Yangon for Bogalay by car Bagalay for Kadonekani by boat	Kadone-kani
6/27	Fri	Kadonekani for Bogalay by boat Bogalay for Phya pone by car	Bogalay
6/28	Sat	Visit Maubin Township to observe fishery activity Leave for Yangon by car	Yangon
6/29	Sun	Document preparation (評価分析団員) Arrival at Yangon	Yangon
6/30	Mon	Meeting with JICA Myanmar Office Meeting with DoF	Yangon
7/1	Tue	Leave for Thabaw Ngu Village Observe backyard hatchery supported by JICA and meeting with farmers Meeting with DoF officials of Ayeyawaddy Division in Pathein	Pathein
7/2	Wed	Observe hatchery of DOF in Pathein Leave for Yangon	Yangon
7/3	Thu	Leave for Naypyidaw	Nay Pyi Taw
7/4	Fri	Leave for Yezin Study at backyard hatchery supported by JICA in Yezin Meeting with officials of Ministry of Livestock and Fisheries in Nay Pyi Taw Leave for Yangon	Yangon
7/5	Sat	Paper preparation/ Documentation	Yangon
7/6	Sun	Paper preparation/ Documentation	Yangon
7/7	Mon	Report to JICA Myanmar Office	Yangon
7/8	Tue	PCMWS at Quality Control Section of DOF in Thaketa	Yangon
7/9	Wed	PCMWS at Quality Control Section of DOF in Thaketa	Yangon
7/10	Thu	Document preparation	Yangon
7/11	Fri	Meeting with officials of DoF	Yangon
7/12	Sat	Paper preparation/ Documentation	Yangon
7/13	Sun	Paper preparation/ Documentation (官団員) Arrival at Yangon	Yangon

7/14	Mon	Meeting with JICA Office Courtesy call to Embassy of Japan	Yangon
7/15	Tue	Courtesy on Director General of Department of Fisheries Study in Laydaunt Kan, Yangon	Yangon
7/16	Wed	Move from Yangon to Kayin by car Observe Backyard Hatcher in Zarth Pyin Kayin (Hpa-an) Leave for Htilone village Visit Htilone village in Hlaingbwe township to observe community fish pond activity and to meet farmers Leave for Pa-an	Kayin (Hpa-an)
7/17	Thu	Leave for Khanmaedo village Meeting with village fishery development committee members and observe their fish pond activities Leave for Phaya Kone village Visit Phaya Kone village (One of KNU Peace Keeping Groups led by Pado Aung San) to observe their fishing activity and to release fish fingerlings to the pond Leave for Yangon	Yangon
7/18	Fri	Move from Yangon to Letpatan in Bago Division Study at backyard hatchery of DOF supported by JICA Leave for Yangon	Yangon
7/19	Sat	Meeting within study team	Yangon
7/20	Sun	Paper preparation/ Documentation	Yangon
7/21	Mon	Discussion on Minutes of Meeting (M/M) with DOF ① (Yangon)	Yangon
7/22	Tue	Finalizing M/M with concerned officials of DOF ② (Yangon)	Yangon
7/23	Wed	Signing of M/M with Director General of DOF at DOF(Yangon) Report to JICA Myanmar Office Report to EOJ (評価分析、官団員) Departure from Yangon	Yangon
7/24	Thu	Activity of Preparation for New Project	Yangon
7/25	Fri	Activity of Preparation for New Project	Yangon
7/26	Sat	Activity of Preparation for New Project	Yangon
7/27	Sun	Activity of Preparation for New Project	Yangon
7/28	Mon	Activity of Preparation for New Project	Yangon
7/29	Tue	Activity of Preparation for New Project	Yangon
7/30	Wed	Meeting with DoF and JICA office Departure from Yangon	
7/31	Thu	Arrival at Narita	

ミャンマー国畜水産省水産局組織図



PCM ワークショップ報告書（要約）

本プロジェクトに係わる PCM ワークショップは、全てのパイロットプロジェクト候補地から 33 名（男 20 名、女 13 名）の出席者を得て行われた。出席者の職業は水産局職員（30 名：水産局研究開発課課長代理、地方水産局職員、等）、大学教授（1 名：イエジン畜水産大学）、および農民（2 名：イラワジおよびレパダン地区）であった。農民からは、土地利用制限の緩和をはじめとした政府の理解と支援が必要なこと、あるいは、協同組合を結成して助け合いながら水産養殖を実践していきたいが組合の作り方が分からないこと、等、予想を上回る大胆な意見が表明された。水産局職員からは、小規模水産養殖の認知にはメディアの活用による教宣活動が求められること、等、これまで見落とされていた視点が提案された。問題分析では、「農民が貧しい」理由のひとつは「農民の収入手段が限られている」ことであり、その原因のひとつとして「小規模水産養殖が行われていない」ことがあげられた。小規模養殖が行われていない理由は、(a)技術が不足している、(b)十分に知られていない、および(c)種苗の入手が困難である、の 3 点に集約できるとされ、各問題について下表のような分析がなされた：

(a) 小規模養殖技術が不足している。	
技術開発が遅れている。	技術を熟知した人員が不足している。
先人の経験が集積されていない。	先進技術を持った国や地域から学ぶ機会がない。
	技術セミナーが開催されない。
	水産局職員が実地研修で学ばない。
	肥沃で灌漑施設の整った展示圃場がない。

伝統的農業を継承するのみで新たな事柄に興味がない	新たな試みのリスクをとるのを恐れている。	水田が荒らされることを恐れている。
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(b) 小規模養殖が十分に知られていない。						
技術開発および普及にあたる人員が不足している。	普及にあたる人材が未熟である。	教材がミャンマー語で書かれていない。	小規模養殖の経験が不足している。	情報の入手方法を知らない。	技術広報が不足している。	大学教育が不十分である。
出張費が支給されない。	現場担当者の教育・訓練 (TOT) が不足している。	熟練した訓練者によって教材が用意されていない。	農業および水産業を組合せた複合農業の知識が不十分である。	複合農業を支援している組織・機関についての知識がない。	普及サービスが遅れている。	
	普及に必要な資材が不足している。		複合農業実践者の経験に触れることができない。	情報交換が不足している。	展示圃場が少ない。	
	普及に必要な資材が高価である。		小規模養殖を推進する中心人物が不足している。	移動手段の便が悪い。	地域に普及センターがない。	
			親から子へと伝えることができない。	交通費の捻出が困難である。		
				農家が互いに遠隔地に住んでいる。		

(c) 苗の入手が困難である。									
親魚が不足している。				種苗が不足している。					
親魚となりうる魚種の知識に欠けている。	親魚管理技術が低い。	育苗・養殖にかかる経費が高い。	地域に適合した魚種の入手が困難である。	小規模種苗施設不足している。	種苗および幼魚生産技術が不十分である。	種苗の運搬が困難である。	種苗が高価である。	品質のよい種苗の入手が困難である。	種苗育成にかかわる情報が不足している。
	親魚に病気が起こる。	餌, 酸素ガス, 運送費, ビニール資材, 排卵促進ホルモン, 人件費, 等		幼魚飼育用の池が不足している。				種苗販売後のサービスが不足している。	種苗生産者と農家との対話が不足している。
	養殖池の水質管理技術が未熟である。							適当な大きさの種苗の入手が困難である。	水産局, 農家, あるいはNGOとの間の協力が不足している。
									幼魚生産に関してマスメディアを通じた啓蒙活動が不足している。

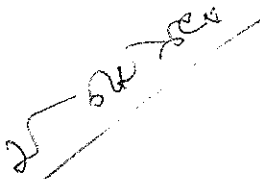
**MINUTES OF MEETINGS
BETWEEN
JAPAN INTERNATIONAL COOPERATION AGENCY
AND
DEPARTMENT OF FISHERIES, MINISTRY OF LIVESTOCK AND FISHERIES
OF THE GOVERNMENT OF THE UNION OF MYANMAR
ON
JAPANESE TECHNICAL COOPERATION
FOR SMALL-SCALE AQUACULTURE EXTENSION FOR PROMOTION
OF LIVELIHOOD OF RURAL COMMUNITIES IN MYANMAR PROJECT**

The Preliminary Survey Team (hereinafter referred to as “the Team”), organized by Japan International Cooperation Agency (hereinafter referred to as “JICA”) headed by Mr. Hideki TOMOBE, visited the Union of Myanmar from June 16, 2008 to July 30, 2008 for the purpose of formulating a technical cooperation project, the Small-scale Aquaculture Extension for Promotion of Livelihood of Rural Communities in Myanmar (hereinafter referred to as “the Project”) in response to the request made by the Government of the Union of Myanmar toward the Government of Japan.

During its stay in the Union of Myanmar, the Team exchanged views and opinions with the Department of Fisheries, Ministry of Livestock and Fisheries (hereinafter referred to as “DoF”) of the Union of Myanmar through a series of meetings and field surveys in relation to the Project.

As a result of the preliminary surveys, JICA and DoF have reached a mutual understanding regarding the matters in the documents attached hereto.

Yangon, July 22, 2008



U Khin Maung Aye
Director General,
Department of Fisheries,
Ministry of Livestock and Fisheries
Union of Myanmar



Mr. Hideki TOMOBE
Leader,
Preliminary Survey Team,
Japan International Cooperation Agency
Japan

ATTACHED DOCUMENT

1. BACKGROUND OF THE PROJECT

In Myanmar, the agriculture and fisheries sector plays a crucial role in contributing to the social and economic development of Myanmar where the people are traditionally great consumer of rice and fish. Fish is regarded as one of the most important diet for the Myanmar people since more than 70% of animal protein consumed is from fishery products. Annual per capita fish consumption is around 44kg (DoF, Fisheries Statistics 2006-2007).

It has been reported, however, that people in the rural area particularly those who live far from the main river systems suffer from a deficiency of animal protein due to insufficient supply of fish. The majority of those people is needy rice farmers and then depends only on rice production for their livelihood.

Small-scale aquaculture is considered a potential measure to solve the problems of protein deficiency. Although it is expected to mitigate the rural poverty, the extension services have not been delivered sufficiently due to various reasons such as insufficient number of extension personnel and limited budget.

An appropriate practice of aquaculture would provide tremendous opportunities for the poor rural population, who are solely engaged in rice cultivation, to improve their livelihood.

Trough the project activities, small-scale aquaculture with low investment and easy technology will be disseminated and the number of fish farmers is expected to be increased. Small-scale aquaculture will certainly contribute to improving nutritional conditions of the rural people and enhancing income level of fish farmers.

2. OUTCOME OF THE SURVEY

The Team has undertaken the following activities.

- (1) States/Divisions and villages survey for selection of target areas,
- (2) Participatory planning workshop by means of Project Cycle Management (hereinafter referred to as "PCM") method to identify issues and problems pertaining to the aquaculture development,
- (3) Field observation and interviews to different stakeholders, and
- (4) A series of discussion meetings on the project framework.

As a result, a tentative framework of the project that includes Project Design Matrix (hereinafter referred to as "PDM") and Tentative Plan of Operation (hereinafter referred to as "TPO") was formulated. JICA and DoF have clarified measures to be taken by both side for effective implementation of the Project.



3. PROJECT CONCEPT

The Project aims to disseminate small-scale aquaculture with low investment and easy technology to the rural farmers for their livelihood improvement. Through the implementation small-scale aquaculture, the rural farmers can produce fish for their own consumption and for their income by selling its surplus.

In other words, small-scale aquaculture is expected to contribute to improvement of their livelihood by increasing fish consumption or an important animal protein source, and decreasing the expenses for fish purchase, and selling the surplus fish.

For the efficient implementation and increasing the sustainability of the Project, a rice-field aquaculture technology and a farmer to farmer extension approach will be practiced as project activities.

The basic framework of the Project is described below.

- (1) The Project (DoF and JICA expert team) trains the farmers in six (6) target villages.
- (2) The Project select maximum 10 pilot farmers per year in each target village from the ex-trained farmers
- (3) The Project provides necessary inputs, such as fish seeds, digging a ditch in rice-field, and construction of ponds to the pilot farmers
- (4) The Project selects core farmers (seed producers and provider) from the pilot farmers
- (5) The Project provides core farmers with necessary inputs, such as construction of seed production facilities
- (6) The Project carries out demonstration activities for small-scale aquaculture by using the project farmers' rice-field and ponds for the farmers in target villages
- (7) The core farmer carries out demonstration activities for small-scale aquaculture for other farmer to increase the number of fish farmers to whom they can sell their produced seeds (farmer to farmer extension)
- (8) The Project supports and monitors farmer to farmer extension, analysis feasibility and makes manuals for the expansion of farmer to farmer extension.

This framework of the Project is also shown in Annex I as PDM and TPO of the Project is shown in Annex II.

4. SCHEDULE

- (1) JICA will prepare and send the draft Project Document and draft R/D to DoF by the end of October, 2008, and DoF will make written comments to the drafts and addressed to JICA Myanmar Office by the end of November, 2008.
- (2) JICA will finalize the Project Document and the R/D by incorporating comments of



DoF.

- (3) The R/D of the Project will be signed between Resident Representative of JICA Myanmar Office and Director General of DoF by the end of January, 2009.
- (4) DoF is required to submit A1 Form (an official request form for the expert) based on the R/D to Embassy of Japan by the end of February, 2009.
- (5) The project is expected to commence in May, 2009 on condition of clearance of Government of Japan and Government of Union of Myanmar as well as procedural matters.

5. OTHER REMARKS

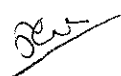
- (1) The Project tries to promote “farmer to farmer” extension approach. For its smooth and effective implementation, periodical support and monitoring work especially for the core farmers by the DoF is very important. DoF in collaboration with JICA expert team is expected to establish a system for it by assigning staff, allocating budget and so on.
- (2) To secure the sustainability of the project activities including “farmer to farmer” extension and their expansion to other village and areas, the government support for the farmers who want to start small-scale aquaculture is essential. Even if these farmers understand the feasibility of the small-scale aquaculture, they can not start it without supply of fish seed in a special low price, providing micro-finance for the initial investment for construction of pond and digging ditches in rice-fields and technical advices. In the Project, the pilot farmers and core farmers can access these supports as the project activities with the conditions of their contribution to the Project attached, but other farmers can not acquire them. The Project has to consider these matters and make recommendation to DoF during the Project.
- (3) The Project tries to establish small-scale aquaculture and to promote the rice-field aquaculture where it is possible, but important prerequisite is to obtain technical approval and collaboration of the agriculture sector. DoF is requested to make clarify the necessary procedure and try to receive the agreement with authorities concerned to introduce the Project.
- (4) As the pilot and core farmers can get support and enjoy the benefit from the Project, the Project should secure the fairness and accountability on the selection of them.

Annex I: PROJECT DESIGN MATRIX (PDM)

Annex II: TENTATIVE PLAN OF OPERATION (TPO)

Annex III: MASTER PLAN

Annex VI: DRAFT RECORD OF DISCUSSION (R/D)



Annex I

Project Design Matrix (PDM)

Project Name: Small-scale Aquaculture Extension Project for Promotion of Livelihood of Rural Communities in Myanmar
Target Area: Six (6) target villages in Aeyarwady and Bago Divisions and Kayin State

Target Group: Farmers in the target villages with land for aquaculture such as pond and/or rice-field

Beneficiaries: Staff of Department of Fisheries (DoF), Ministry of Livestock and Fisheries,

Target Farmers (a. core farmers, b. pilot farmers, c. farmers in the target villages)

Duration: May 2009 – April 2012 (3 years)

Date: 22/July/2008 Version 1

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
<p>Overall Goal Small-scale aquaculture for improvement of livelihood is disseminated in Aeyarwady and Bago Divisions, Kayin State, and extended in other less developed areas.</p>	<p>Number of farmers who are implementing small-scale aquaculture in the target areas Number of villages in other less developed areas where farmers are implementing small-scale aquaculture</p>	<p>DoF's report</p>	
<p>Project Purpose Number of the farmers who are implementing small-scale aquaculture for the improvement of their livelihood is increased in the target villages.</p>	<p>Number of farmers who are implementing small-scale aquaculture in the target villages Level of fish consumption (kg) increased Amount of income increased</p>	<p>Project report Interview survey</p>	
<p>Outputs</p> <ol style="list-style-type: none"> Necessary conditions and technology on the small scale aquaculture promotion for farmers in the target villages are clarified. Extension systems for the small-scale aquaculture for the farmers in the target villages are established and practiced. "Pilot farmers" and "core farmers" are selected in the target villages and "farmer to farmer" extension approach is practiced by them. 	<p>Technical manuals for DoF staff Extension manuals for DoF staff Extension manuals for core farmers focused on farmer to farmer extension approach Frequency of training course for DoF staff Frequency of training course for farmers Number of participants Frequency of DoF staff' visit to farmers Frequency of farmers' consultation to DoF staff Number of pilot farmers selected Number of core farmers selected Number of farmers trained by core farmers Number of farmers who purchase fish seed from core farmers</p>	<p>Project report Interview survey Manuals</p>	

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
<p>Activities</p> <p>1-1. Necessary conditions and procedures to start small scale aquaculture are clarified.</p> <p>1-2. Appropriate aquaculture technologies for each target area are established.</p> <p>1-3. Manuals for the small-scale aquaculture promotion for DoF staff and farmers are prepared.</p> <p>2-1. Training courses for DoF staff and farmers are implemented.</p> <p>2-2. Farmer support system by DoF in each target village is established.</p> <p>2-3. Extension system among farmers, "farmer to farmer" approach, is established.</p> <p>3-1. Pilot farmers are selected and provided necessary inputs for fish production and extension of aquaculture.</p> <p>3-2. Core farmers are selected and provided necessary input for seed production and extension.</p> <p>3-3. "Farmer to farmer" approach is practiced by the pilot farmers and core farmers under the guidance and support of DoF.</p>	<p>Inputs</p> <p><u>Myanmar Side</u></p> <ul style="list-style-type: none"> - Administrative Personnel and counterparts - Project Director (Director General, DoF) - Project Manager (assigned by DG) - Counterpart personnel (assigned by DG) - Relevant fishery officers in the target areas <p>- Facilities:</p> <ul style="list-style-type: none"> - Land, office space and necessary facilities in DoF for the Japanese experts and related staff members - Rooms and space necessary for installation and storage of the equipment - Other facilities mutually agreed upon as necessary <p>- Local costs:</p> <ul style="list-style-type: none"> - Expenditure for counterparts - Water and electricity charges necessary for operation and maintenance of the facilities - Tax exemption measure <p><u>Japanese Side</u></p> <ul style="list-style-type: none"> - Dispatch of experts: <ul style="list-style-type: none"> Two (2) long term experts (chief adviser/extension policy, and coordinator/aquaculture technology) Short term experts (in necessity for implementation of the Project within the framework of the Project.) - Provision of equipment: <ul style="list-style-type: none"> Machinery, equipment, vehicles, and other extension materials necessary for the effective implementation of the Project within budgetary limitations. - Provision of training course in Japan, in the third countries, or in Myanmar. 		<p>Pre-conditions</p> <ul style="list-style-type: none"> - Government of Myanmar allows small-scale aquaculture activities in the target areas. - Agrichemicals are not intensively used near to the sites of rice- field fish culture. - Natural disasters do not attack the target areas. - Serious fish diseases do not break out.

Annex II

Tentative Plan of Operation (TPO): Small-scale Aquaculture Extension Project for Promotion of Livelihood of Rural Communities in Myanmar

	Year 1			Year 2			Year 3																
	2009			2010			2011			2012													
	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M
Outputs and activities																							
1 (output)	Necessary conditions and technology on the small scale aquaculture promotion for farmers in the target villages are clarified.																						
1-1 (activities)	Necessary conditions and procedures to start small scale aquaculture are clarified.																						
1-2 (activities)	Appropriate aquaculture technologies for each target area are established.																						
1-3 (activities)	Manuals for the small scale aquaculture promotion for DOF staff and farmers are prepared.																						
2 (output)	Extension systems for the small scale aquaculture for the farmers in the target villages are established and implemented.																						
2-1 (activities)	Training courses for DOF staff and farmers are implemented.																						
2-2 (activities)	Farmer support system by DOF in each target village is established.																						
2-3 (activities)	Extension system among farmers, "farmer to farmer" approach, is established.																						
3 (output)	"Pilot farmers" and "core farmers" are selected in the target villages and "farmer to farmer" extension approach is practiced by them.																						
3-1 (activities)	Pilot farmers are selected and provided necessary inputs for fish production and extension of aquaculture.																						
3-2 (activities)	Core farmers are selected and provided necessary input for seed production and extension.																						
3-3 (activities)	"Farmer to farmer" approach is implemented by the pilot and core farmers under the guidance and support of DOF.																						

607

Annex III

MASTER PLAN

I OUTLINE OF THE PROJECT

1. Overall Goal

Small-scale aquaculture for improvement of livelihood is disseminated in Ayeyarwady and Bago Divisions, Kayin State, and extended in other less developed areas.

2. Project Purpose

Number of the farmers who are implementing small-scale aquaculture for the improvement of their livelihood is increased in the target villages.

3. Outputs and Activities

(1) Output 1: Necessary conditions and technology on the small scale aquaculture promotion for farmers in the target villages are clarified.

Activities:

(1)-1: Necessary conditions and procedures to start small scale aquaculture are clarified.

(1)-2: Appropriate aquaculture technologies for each target area are established.

(1)-3: Manuals for the small-scale aquaculture promotion for DOF staff and farmers are prepared.

(2) Output 2: Extension systems for the small-scale aquaculture for the farmers in the target villages are established and practiced.

Activities:

(2)-1: Training courses for DoF staff and farmers are implemented.

(2)-2: Farmer support system by DoF in each target village is established.

(2)-3: Extension system among farmers, “farmer to farmer” approach, is established.

(3) Output 3: “Pilot farmers” and “core farmers” are selected in the target villages and “farmer to farmer” extension approach is practiced by them.

Activities:

(3)-1: Pilot farmers are selected and provided necessary inputs for fish production and extension of aquaculture.

(3)-2: Core farmers are selected and provided necessary input for seed production and extension.

(3)-3: “Farmer to farmer” approach is practiced by the pilot farmers and core farmers under

the guidance and support of DoF.

4. Project Area

The six (6) target villages from (3) three target regions: Ayeyarwady Division, Bago Division and Kayin State.

These target villages should be selected taking the matters described below including their natural conditions into consideration.

- (1) enough supply of water
- (2) available land for small-scale pond and rice-field for aquaculture
- (3) less flood influence
- (4) easy to access from main road

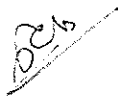
5. Target Group

Target group is farmers in the target villages. As being selected as the pilot and core farmers means that they can receive necessary logical and technical support from the Project. Then, their selection should be carefully carried out based on the criteria like described below. These criteria will be finalized and completed by the Project.

- (1) Having the land for aquaculture pond and/or rice-field
- (2) Having good communication with DoF staff and neighboring farmers
- (3) Having an intention to cooperate with the Project
- (4) Having a leadership

6. Target Fish Species

Target fish species will be made clear at the early stage of the project. Species like "Rohu", "Tilapia", "Freshwater prawn", "Common carp", "Tapiian" are considered as the potential ones.



II LIST OF JAPANESE EXPERTS

1. Long-term Experts

- (1) Chief Advisor/ Extension Policy
- (2) Coordinator/Aquaculture Technology

2. Short-term Experts

Short-term experts such as a) seed production technology, b) fresh water aquaculture technology, c) social economic investigation will be dispatched within the framework of the Project.



III LIST OF MACHINERY AND EQUIPMENT

Machinery, equipment, vehicles, and other extension materials necessary for the effective implementation of the Project will be provided by the Japanese side within budgetary limitations.

Dev

A

IV LIST OF MYANMAR COUNTERPART AND ADMINISTRATIVE PERSONNEL

1. Organization responsible for the Project

Department of Fisheries, Ministry of Livestock and Fisheries (DoF)

2. Project Director

Director General, Department of Fisheries, Ministry of Livestock and Fisheries (DoF)


3. Project Manager

(assigned by DG, DoF)

4. Counterpart Personnel

(assigned by DG, DoF)

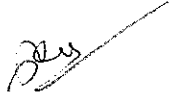
Relevant fishery officers in target areas



V LIST OF LAND, BUILDINGS AND FACILITIES

The following will be prepared by the Myanmar side for the implementation of the Project.

1. Land, office space and necessary facilities in DoF for the Japanese experts and related staff members
2. Rooms and space necessary for installation and storage of the equipment
3. Water and electricity charges necessary for operation and maintenance of facilities
4. Other facilities mutually agreed upon as necessary



VI JOINT COORDINATING COMMITTEE

The Joint Coordinating Committee (hereinafter referred to as "JCC") composed of members listed below, will meet whenever necessity arises in order to fulfill the following functions.

1. Functions

- (1) To deliberate and approve the Plan of Operation (PO) and the Annual Plan of Operation (APO) of the Project.
- (2) To review and control overall progress of the technical cooperation program in accordance with the above-mentioned Plans and the Record of Discussions.
- (3) To review measures taken by Myanmar side and Japanese side.
- (4) To exchange views on major issues arising from or in connection within the Project and recommend corrective measures.

2. Committee Composition

(1) Chairperson

Director General, Department of Fisheries, Ministry of Livestock and Fisheries (DoF)

(2) Members

<Myanmar side>

Project Manager, Project Coordinator, Representatives of counterpart personnel and Farmers

<Japanese side>

- Resident Representative and/or Deputy Resident Representative, JICA Myanmar Office
- Experts assigned to the Project
- Other Japanese personnel concerned dispatched by JICA, as and when required

Notes:

1. Officials of the Embassy of Japan in the Union of Myanmar may attend the JCC meetings as observers, as and when required.
2. Other relevant personnel nominated by the chairperson may attend the JCC meetings as observers, as and when required.

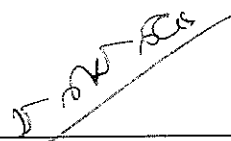


(DRAFT)
RECORD OF DISCUSSIONS
BETWEEN
JAPAN INTERNATIONAL COOPERATION AGENCY
AND
DEPARTMENT OF FISHERIES, MINISTRY OF LIVESTOCK AND FISHERIES
OF THE GOVERNMENT OF THE UNION OF MYANMAR
ON
JAPANESE TECHNICAL COOPERATION
FOR
SMALL-SCALE AQUACULTURE EXTENSION FOR PROMOTION
OF LIVELIHOOD OF RURAL COMMUNITIES IN MYANMAR PROJECT

With regard to the Minutes of Meeting of the Preliminary Survey signed on July 22, 2008, concerning the Small-scale Aquaculture Extension for Promotion of Livelihood of Rural Communities in Myanmar Project (hereinafter referred to as “the Project”), the Japan International Cooperation Agency (hereinafter referred to as “JICA”) exchanged views and had a series of discussions with Department of Fisheries, Ministry of Livestock and Fisheries (hereinafter referred to as “DoF”) of the Union of Myanmar with respect to desirable measures to be taken by JICA and the DoF for the successful implementation of the above-mentioned Project.

As a result of the discussions, JICA and the DoF agreed to recommend to their respective Governments the matters referred to in the document attached hereto.

Place, Date



U Khin Maung Aye
Director General,
Department of Fisheries,
Ministry of Livestock and Fisheries
Union of Myanmar

Ms. Michiko UMEZAKI
Resident Representative,
Myanmar Office,
Japan International Cooperation Agency



ATTACHED DOCUMENT

I. COOPERATION BETWEEN BOTH GOVERNMENTS

1. Department of Fisheries, Ministry of Livestock and Fisheries (hereinafter referred to as "DoF") will implement the Small-scale Aquaculture Extension for Promotion of Livelihood of Rural Communities in Myanmar Project (hereinafter referred to as "the Project") in cooperation with JICA.
2. The Project will be implemented in accordance with the Master Plan which is given in Annex I.

II. MEASURES TO BE TAKEN BY JICA

In accordance with the laws and regulations in force in Japan, JICA will take, at its own expense, the following measures according to the normal procedures under the Colombo Plan Technical Cooperation Scheme.

1. DISPATCH OF JAPANESE EXPERTS

JICA will provide the services of the Japanese experts as listed in Annex II.

2. PROVISION OF MACHINERY AND EQUIPMENT

JICA will provide such machinery, equipment and other materials (hereinafter referred to as "the Equipment") necessary for the implementation of the Project as listed in Annex III. The Equipment will become the property of the Government of the Union of Myanmar upon being delivered C.I.F. (cost, insurance and freight) to the Myanmar authorities concerned at the ports and/or airports of disembarkation.

3. TRAINING OF MYANMAR PERSONNEL IN JAPAN

JICA will receive the Myanmar personnel connected with the Project for technical training in Japan and in the third countries upon necessity.

III. MEASURES TO BE TAKEN BY Department of Fisheries, Ministry of Livestock and Fisheries (DoF)

1. DoF will take necessary measures to ensure that the self-reliant operation of the



Project will be sustained during and after the period of Japanese technical cooperation, through full and active involvement of all the related authorities, beneficiary groups and institutions in the Project.

2. DoF will ensure that the technologies and knowledge acquired by the Myanmar nationals as a result of Japanese technical cooperation will contribute to the economic and social development of the Union of Myanmar.
3. DoF will grant privileges, exemptions and benefits to the Japanese experts referred to in II-1 above and their families, which are no less favorable than those accorded to experts of third countries working in Myanmar under the Colombo Plan Technical Cooperation Scheme.
4. DoF will ensure that the Equipment referred to in II-2 above will be utilized effectively for the implementation of the Project in consultation with the Japanese experts referred to in II-1.
5. DoF will take necessary measures to ensure that the knowledge and experience acquired by the Myanmar personnel from technical training in Japan and in the third countries referred to in II-3 will be utilized effectively in the implementation of the Project.
6. In accordance with the laws and regulations in force in the Union of Myanmar, DoF will take necessary measures to provide at its own expense:
 - (1) Services of the Myanmar counterpart personnel and administrative personnel as listed in Annex IV;
 - (2) Land, buildings and facilities as listed in Annex V;
 - (3) Supply or replacement of machinery, equipment, instruments, vehicles, tools, spare parts and any other materials necessary for the implementation of the Project other than the Equipment provided by JICA under II-2 above;
7. In accordance with the laws and regulations in force in the Union of Myanmar, the DoF will take necessary measures to meet:

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[Signature]

- (1) Expenses necessary for transportation within the Union of Myanmar of the Equipment referred to in II-2 above as well as for the installation, operation and maintenance thereof;
- (2) Customs duties, internal taxes and any other charges, imposed in the Union of Myanmar on the Equipment referred to in II-2 above; and
- (3) Running expenses necessary for the implementation of the Project.

IV. ADMINISTRATION OF THE PROJECT

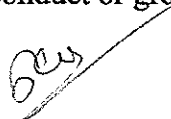
1. Director General of DoF, as the Project Director, will bear overall responsibility for the administration and implementation of the Project.
2. Project Manager, will be responsible for the managerial and technical matters of the Project.
3. The Japanese Chief Advisor will provide necessary recommendations and advice to the Project Director and the Project Manager on any matters pertaining to the implementation of the Project.
4. The Japanese experts will give necessary technical guidance and advice to the Myanmar counterpart personnel on technical matters pertaining to the implementation of the Project.
5. For the effective and successful implementation of technical cooperation for the Project, a Joint Coordinating Committee and a Project Implementation Committee will be established whose functions and composition are described in Annex VI.

V. JOINT EVALUATION

Evaluation of the Project will be conducted jointly by JICA and the Myanmar authorities concerned during the last six months of the cooperation term in order to examine the level of achievements.

VI. CLAIMS AGAINST JAPANESE EXPERTS

DoF undertakes to bear claims, if any arises, against the Japanese experts engaged in technical cooperation for the Project resulting from, occurring in the course of, or otherwise connected with the discharge of their official functions in Myanmar except for those arising from the willful misconduct or gross negligence of the Japanese experts.



VII. MUTUAL CONSULTATION

There will be mutual consultation between JICA and the DoF on any major issues arising from, or in connection with this Attached Document.

VIII. MEASURES TO PROMOTE UNDERSTANDING OF AND SUPPORT FOR THE PROJECT

For the purpose of promoting support for the Project among the people of the Union of Myanmar, DoF will take appropriate measures to make the Project widely known to the people of Myanmar.

IX. TERM OF COOPERATION

The duration of the technical cooperation for the Project under this Attached Document will be three (3) years from the arrival date of the first JICA Expert for the Project.

Annex I	MASTER PLAN
Annex II	LIST OF JAPANESE EXPERTS
Annex III	LIST OF MACHINERY AND EQUIPMENT
Annex IV	LIST OF MYANMAR COUNTERPART AND ADMINISTRATIVE PERSONNEL
Annex V	LIST OF LAND, BUILDINGS AND FACILITIES
Annex VI	JOINT COORDINATING COMMITTEE

Note: The Annex listed above are not attached to the Draft R/D.

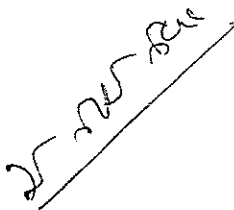


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Yangon, March 6, 2009



U Khin Maung Aye
Director General
Department of Fisheries
Ministry of Livestock and Fisheries
Union of Myanmar



Mr. Hideo Miyamoto
Chief Representative
Myanmar Office
Japan International Cooperation Agency

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IV. ADMINISTRATION OF THE PROJECT

1. Director General of DoF, as the Project Director, will bear overall responsibility for the administration and implementation of the Project.
2. Head, Research and Development Division of DoF, as the Project Manager, will be responsible for the managerial and technical matters of the Project.
3. The Japanese Chief Advisor will provide necessary recommendations and advice to the Project Director and the Project Manager on any matters pertaining to the implementation of the Project.
4. The Japanese experts will give necessary technical guidance and advice to the Myanmar counterpart personnel on technical matters pertaining to the implementation of the Project.
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ANNEX I MASTER PLAN

I OUTLINE OF THE PROJECT

1. Overall Goal

Small-scale aquaculture for improvement of nutritional condition and livelihood is disseminated in Ayeyarwady Division, Bago Division and Kayin State, and extended in other less developed areas.

2. Project Purpose

Number of the farmers who are implementing small-scale aquaculture for the improvement of their nutritional condition and livelihood is increased in the target villages.

3. Outputs and Activities

(1) Output 1: Necessary conditions and technology on the small scale aquaculture promotion for farmers in the target villages are clarified.

Activities:

1-1: Necessary conditions and procedures to start small scale aquaculture are clarified.

1-2: Appropriate aquaculture technologies for each target area are established.

1-3: Manuals for the small-scale aquaculture promotion for DoF staff and farmers are prepared.

(2) Output 2: Extension systems for the small-scale aquaculture for the farmers in the target villages are established and practiced.

Activities:

2-1: Training courses for DoF staff are implemented.

2-2: Training courses for farmers are implemented.

2-3: Farmer support system by DoF in each target village is established.

2-4: Extension system among farmers, "farmer to farmer" approach, is established.

(3) Output 3: "Pilot farmers" and "core farmers" are selected in the target villages and "farmer to farmer" extension approach is practiced by them.

Activities:

3-1: Pilot farmers are selected and provided necessary inputs for fish production and extension of aquaculture.

3-2: Core farmers are selected and provided necessary input for seed production and extension.



3-3: "Farmer to farmer" approach is practiced by the pilot farmers and core farmers under the guidance and support of DoF.

4. Project Area

The six (6) target villages from (3) three target regions: Ayeyarwady Division, Bago Division and Kayin State.

These target villages should be selected taking the matters described below including their natural conditions into consideration.

- (1) enough supply of water
- (2) available land for small-scale pond and/or rice-field for aquaculture
- (3) less flood influence
- (4) easy to access from main road

5. Target Group

Target group is farmers in the target villages. As being selected as the pilot and core farmers means that they can receive necessary logical and technical support from the Project. Then, their selection should be carefully carried out based on the criteria like described below. These criteria will be finalized and completed by the Project.

- (1) Having the land for aquaculture pond and/or rice-field
- (2) Having good communication with DoF staff and neighboring farmers
- (3) Having an intention to cooperate with the Project
- (4) Having a leadership

6. Target Fish Species

Target fish species will be made clear at the early stage of the project. Species like "Rohu", "Tilapia", "Freshwater prawn", "Common carp", "Tapian" are considered as the potential ones.



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ANNEX II LIST OF JAPANESE EXPERTS

1. Long-term Experts

- (1) Chief Advisor/ Extension Policy
- (2) Coordinator/ Small-scale Aquaculture Technology

2. Short-term Experts

Short-term experts such as a) seed production technology, b) fresh water aquaculture technology, c) social economic investigation will be dispatched within the framework of the Project.



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ANNEX III LIST OF MACHINERY AND EQUIPMENT

Machinery, equipment, vehicles, and other extension materials necessary for the effective implementation of the Project will be provided by the Japanese side within budgetary limitations.



ANNEX IV LIST OF MYANMAR COUNTERPART AND ADMINISTRATIVE PERSONNEL

1. Organization responsible for the Project

Department of Fisheries, Ministry of Livestock and Fisheries (DoF)

2. Project Director

Director General, Department of Fisheries, Ministry of Livestock and Fisheries (DoF)

3. Project Manager

Head, Research and Development Division, Department of Fisheries (DoF)

4. Project Coordinator

Officer in-charge, International Relations, Research and Development Division
Department of Fisheries (DoF)

5. Counterpart Personnel

Sufficient number of counterpart officials from DoF and related authorities in the three target areas will be assigned from the Myanmar side.



ANNEX V LIST OF LAND, BUILDINGS AND FACILITIES

The following will be prepared by the Myanmar side for the implementation of the Project.

1. Land, office space and necessary facilities in DoF for the Japanese experts and related staff members
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- (3) To review measures taken by Myanmar side and Japanese side.
- (4) To exchange views on major issues arising from or in connection within the Project and recommend corrective measures.

2. Committee Composition

(1) Chairperson

Director General, Department of Fisheries (DoF), Ministry of Livestock and Fisheries

(2) Co-Chairperson

Deputy Director General, Department of Fisheries (DoF), Ministry of Livestock and Fisheries

(3) Members

<Myanmar side>

Project Manager, Project Coordinator, Representatives of counterpart personnel and Farmers

<Japanese side>

-Chief Representative and/or Senior Representative, JICA Myanmar Office

-Experts assigned to the Project

-Other Japanese personnel concerned dispatched by JICA, as and when required

Notes:

1. Officials of the Embassy of Japan in Union of Myanmar may attend the JCC meetings as observers, as and when required.
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