付　属　資　料

1. 協議議事録（M/M）
2. 実施細則（R/D 案）
3. 収集資料リスト
4. 関係機関組織図
5. ステークホルダーワークショップ結果概要

MINUTES OF MEETINGS
BETWEEN
JAPAN INTERNATIONAL COOPERATION AGENCY
AND
THE MINISTRY OF WATER AND ENVIRONMENT
ON BEHALF OF THE GOVERNMENT OF UGANDA
ON
JAPANESE TECHNICAL COOPERATION
FOR
THE NATIONAL WETLANDS MANAGEMENT PROJECT

Japan International Cooperation Agency (hereinafter referred to as "JICA") has dispatched the Detailed Planning Survey Team (hereinafter referred to as "the Team") headed by Mr. ENDO Hiroaki to the Republic of Uganda from April 3rd to April 21st, 2011 for the purpose of preparation of the National Wetlands Management Project (hereinafter referred to as "the Project").

During its stay in Uganda, the Team exchanged their views and had a series of discussions with relevant organizations of the Republic of Uganda.

As a result of discussions, both sides came to an understanding concerning the matters referred to in the documents attached hereto.

Kampala, April 21st, 2011

Mr. ENDO Hiroaki,
Team Leader,
Detailed Planning Survey Team,
Japan International Cooperation Agency

Mr. David O. O. OBONG,
Permanent Secretary,
Ministry of Water and Environment,
The Republic of Uganda

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1. Relevance of the Project

   The Team confirmed the relevance of the Project that it promotes "Wetland Conservation and Wise Use" with the following reasons: 1) Wetland sector is given as one of the enabling sectors in the National Development Plan 2010/11-2014/15 and enhancement of the sustainable use of wetlands for achieving the optimum, ecological value and socio-economic benefits of development is also stipulated; 2) "Wise use and management of wetlands" is set as the program purpose of the proposed Wetland Sector Strategic Plan 2011-2020 included prominently in the Environment and Natural Resource Sector Investment Plan.

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   The Team confirmed the institutional framework of wetland management in Uganda such as the organizational structure and staff allocation in the Wetland Management Department (hereinafter referred to as "WMD") and local governments, and concluded that WMD and local governments are considered to be appropriate as implementing institutions and target beneficiaries of the capacity enhancement of the Project.

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   Based on a series of discussions, a stakeholder workshop and field visits, the Team suggested that the Project should be implemented through an appropriate scheme of "technical cooperation" due to the high needs for human resource development.

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   The Team confirmed that WMD identified approximately one hundred seventy (170) wetland systems comprising of seven thousand (7,000) individual wetlands over the country. The Team affirmed that management of wetlands in Uganda has been integrated, in principle, with a river basin approach to cope with inter-district wetland management issues. Considering that a river basin is the appropriate geographical units for planning and management of wetlands, both sides agreed that the project would adopt the wetland system as a fundamental unit in the progressive sequence from assessment, planning to implementation.

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Both sides confirmed the following points: There are several wetland management plans in terms of administration and wetland ecosystem, and the most effective plan is the "framework management plan" that aims to manage the entire wetland ecosystem considering biophysical, geo-political, socio-economic, and institutional issues. "District wetland action plans" and "community based management plans" should be developed with due consideration to the outcomes of "framework management plan" and in consultation and collaboration with relevant stakeholders.

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Both sides agreed that the thematic areas of assessment will be chosen considering various aspects of the Project's management and implementation including budgetary implication over the total project cost; and benefits arising from such activities.

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The Team confirmed that the National Wetland Information System is a comprehensive database on Uganda's wetlands which is based on wetland inventories, maps and satellite images. Assessing the available information in the database, the Team understood that some of the activities in the Project may be carried out by using the available information in the system.

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Both sides agreed that the Project's target area will be selected among important wetland systems including those with framework management plans, based on mutually agreed criteria.

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Both sides agreed that the Project will be designed generally in line with the project outline as in Annex 1. The Project Design Matrix will be developed at a later stage.

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Annex 1: Project Outline

Project Design

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OVERALL GOAL:

Uganda's wetlands conserved and used more wisely

PROJECT PURPOSE:

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1. National Wetland Information System upgraded and linked to pilot districts and other stakeholders;
2. Detailed resource assessment for the selected wetland system carried out;
3. Various management plans[1] in terms of administration and wetland ecosystem prepared;
4. Priority actions for wise use of wetlands in the management plans tested and implemented; and
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The Project will be implemented with the following coordination structure.

Coordinating Committee:

Chairperson: Permanent Secretary, Ministry of Water and Environment

Member: (Ugandan Side)
Wetland Management Department
Directorate of Water Resource Management
Directorate of Environmental Affairs
National Environment Management Authority
Directorate of Crop Resources
Directorate of Animal Resources and Fisheries
Ministry of Finance

[1] Management plan would include "framework management plan", "district wetland action plan", "community based management plan", etc.

Ministry of Local Government
Ministry of Trade, Industry and Tourism
Ministry of Gender, Labor and Social Development
Other authorities concerned appointed by chairperson

(Japanese Side)
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The Team confirmed that wetland system is a combination of individual wetlands mostly spread over several districts in one river basin. It was further confirmed that the boundary of wetland system is not necessarily identical to the demarcation of river basin but may be bordered by district boundaries and other conditions considering hydrological, ecological and socio-economic aspects.

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Detailed Resource assessment of wetland is an integral part of wetland inventory. The Ugandan side explained that the purpose of the detailed resource assessment in the Project is to provide more detailed resource specific information and enhance accessibility of the governments to quality information and ensure informed decision making in implementing wise use of wetlands; and to enable rationale judgment on investment trade-offs in use of wetland.

Wise use

Wise use of wetlands is the maintenance of their ecological character, achieved through the implementation of ecosystem approaches, within the context of sustainable development. The definition targets three main areas – the integrity of the wetland resource, the socio-economic benefits and the posterity of the resources taking cognizance of the future generations.

Also, wise use of wetland contributes to disaster risk reduction and other climate change adaptation and mitigation measures.

Conservation

It is the protection, preservation and careful use and management of natural resources.

RECORD OF DISCUSSIONS

ON

NATIONAL WETLANDS MANAGEMENT PROJECT

IN

THE REPUBLIC OF UGANDA

AGREED UPON BETWEEN

MINISTRY OF WATER AND ENVIRONMENT

AND

JAPAN INTERNATIONAL COOPERATION AGENCY

Kampala, 28th October, 2011

Mr. Tetsuo SEKI
Chief Representative,
JICA Uganda Office

Mr. David O. O. OBONG
Permanent Secretary,
Ministry of Water and Environment,
The Republic of Uganda

Based on the minutes of meetings on the Detailed Planning Survey on the National Wetlands Management Project (hereinafter referred to as "the Project") signed on April 21st, 2011 between Ministry of Water and Environment (hereinafter referred to as "MWE") and the Japan International Cooperation Agency (hereinafter referred to as "JICA"), JICA held a series of discussions with MWE and relevant organizations to develop a detailed plan of the Project.

Both parties agreed the details of the Project as described in the Appendix 1.

Both parties also agreed that MWE, the counterpart to JICA, will be responsible for the implementation of the Project in cooperation with JICA, coordinate with other relevant organizations and ensure that the self-reliant operation of the Project is sustained during and after the implementation period in order to contribute toward social and economic development of Uganda.

The Project will be implemented within the framework of the Agreement on Technical Cooperation signed on December 8th, 2005 (hereinafter referred to as "the Agreement") and the Note Verbales exchanged on June 7th, 2011 between the Government of Japan (hereinafter referred to as "GOJ") and the Government of Uganda (hereinafter referred to as "GOU").

Appendix 1: Project Description
Appendix 2: Minutes of Meetings on Detailed Planning Survey

Appendix 1

PROJECT DESCRIPTION

Both parties confirmed that there is no major change in the Project Description agreed on in the minutes of meetings on the concerning Detailed Planning Survey on the Project signed on April 21st, 2011 (Appendix 2).

I. BACKGROUND

Wetlands in Uganda cover approximately 13% of the total area of the country. Wetlands not only serve as habitats for numerous wildlife species, but also play a significant role in supporting human lives by providing various ecosystem services such as water, food, medicine, construction materials, flood control, etc.

However, due to growing population and rapid expansion of agricultural lands, it is said that 25% of Uganda's wetlands have been diminished in the past 15 years. Wetlands are continuously overexploited without sufficient control of MWE, owing to lack of scientific data and absence of effective wetland management plan. As a result, there is a concern that such human pressure may cause degradation of wetland ecosystems, leading to a huge loss of biodiversity and Ugandan people's livelihoods.

The Wetland Management Department (hereinafter referred to as "WMD"), MWE, GOU, which is the Africa's first host of the Ramsar Convention on Wetlands, has been actively implemented wetland related projects with other donor institutions, developing a variety of plans and guidelines such as the Wetland Sector Strategic Plan (2011-2020), Guidelines for Wetland Environmental Impact Assessment, etc. However, further support is needed in order to develop feasible wetland management plans based on scientific data and to realize conservation and wise use of wetlands at local levels.

In this context, the GOU requested GOJ for a technical cooperation to develop a model of sustainable wetland management, by conducting wetland assessment, developing wetland management plans, and implementing community based conservation and wise use activities in Uganda.

II. OUTLINE OF THE PROJECT

Details of the Project are described in the Project Design Matrix (Annex).

1. Input
   (1) Inputs by JICA
   (a) Dispatch of Experts
   Chief Advisor / Wetland Management
   Project Coordinator / Training and Extension

Ecosystem Conservation
Sustainable Rural Development
GIS / Database
Environmental Economics

(b) Training
Technical training in Japan or third country for Ugandan project staffs

(c) Equipment
Vehicle(s)
Equipment necessary for wetland data collection

(2) Inputs by MWE
MWE will take necessary measures to provide at its own expense:

(a) Services of MWE's counterpart personnel and administrative personnel as referred to in II-2.;
(b) Suitable office space for all staffs involved in the Project with necessary equipment;
(c) 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;
(d) Information as well as support in obtaining medical service;
(e) Credentials or identification cards;
(f) Available data (including maps and photographs) and information related to the Project;
(g) Running expenses necessary for the implementation of the Project;
(h) Expenses necessary for transportation within Uganda of the equipment referred to in II-1. (1), as well as for the installation, operation and maintenance thereof;
(i) Necessary facilities to the JICA experts for the remittance as well as utilization of the funds introduced into Uganda from Japan in connection with the implementation of the Project; and
(j) For the above (g) and (h), a contribution to the running expenses for the implementation of the project in the ratio to be agreed by both parties, in case necessity arises;

2. Implementation Structure

The roles and assignments of relevant organizations are as follows:

(1) MWE
(a) Permanent Secretary of the MWE, as the Project Director, will be responsible for overall administration and implementation of the Project.
(b) Commissioner of the WMD, as the Project Manager, will be responsible for the managerial and technical matters of the Project.

(2) JICA Experts
The JICA experts will give necessary technical guidance, advice and recommendations to MWE on any matters pertaining to the implementation

of the Project.

(3) Joint Coordinating Committee
Joint Coordinating Committee (hereinafter referred to as "JCC") will be established in order to facilitate inter-organizational coordination. JCC will be held at least once a year and whenever deems it necessary. JCC will approve an annual work plan, review overall progress, conduct monitoring and evaluation of the Project, and exchange opinions on major issues that arise during the implementation of the Project. A list of JCC members is shown in Appendix 2.

3. Project Sites and Beneficiaries

(1) Project Site: Namatala-Doho Wetland System, Awoja Wetland System

(2) Beneficiaries: Staffs of WMD, District Wetland Officers, Wetland Focal Persons, Sub-counties that are in charge of pilot sites, communities in pilot sites

4. Duration

The duration of the Project will be 5 years from January, 2012.

5. Reports

MWE and JICA experts will jointly prepare the following reports in English.

(1) Progress Report on semiannual basis until the project completion

(2) Project Completion Report at the time of project completion

6. Environmental and Social Considerations

MWE agreed to abide by 'JICA Guidelines for Environmental and Social Considerations' in order to ensure that appropriate considerations will be made for the environmental and social impacts of the Project.

III. UNDERTAKINGS OF MWE AND GOU

MWE and GOU will take necessary measures to:

(1) ensure that the technologies and knowledge acquired by the Uganda nationals as a result of Japanese technical cooperation contributes to the economic and social development of Uganda, and that the knowledge and experience acquired by the personnel of Uganda from technical training as well as the equipment provided by JICA will be utilized effectively in the implementation of the Project; and

(2) grant privileges, exemptions and benefits to the JICA experts and their

families, which are no less favorable than those granted to experts and members of the missions and their families of third countries or international organizations performing similar missions in Uganda.

Other privileges, exemptions and benefits will be provided in accordance with the Agreement between GOU and GOJ.

IV. EVALUATION

1. JICA and the MWE will jointly conduct the following evaluations and review.

   (1) Mid-term review at the middle of the cooperation term

   (2) Terminal evaluation during the last six (6) months of the cooperation term

2. JICA will conduct the following evaluations and surveys to mainly verify sustainability and impact of the Project and draw lessons. The MWE is required to provide necessary support for them.

   (1) Ex-post evaluation three (3) years after the project completion, in principle

   (2) Follow-up surveys on necessity basis

V. PROMOTION OF PUBLIC SUPPORT

For the purpose of promoting support for the Project, MWE will take appropriate measures to make the Project widely known to the people of Uganda.

VI. MUTUAL CONSULTATION

JICA and MWE will consult each other whenever any major issues arise in the course of Project implementation.

VII. AMENDMENTS

The record of discussions may be amended by the minutes of meetings between JICA and MWE.

The minutes of meetings will be signed by authorized persons of each side who may be different from the signers of the record of discussions.

Annex: Logical Framework (Project Design Matrix: PDM)

Annex

Project Design Matrix

Project Name: National Wetlands Management Project
Duration: 2012 - 2016 (5 years)
Implementing Agency: Wetland Management Department (WMD), Ministry of Water and Environment

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption
Overall Goal: A model of conservation and wise use of wetlands is disseminated.	Measures for conservation and wise use of wetlands introduced by the project are implemented in at least 1 wetland system other than the target wetland systems.	Activity reports by WMD and other relevant institutions and organizations	Relevant institutions and organizations maintain support for wetland management. Wetland management officers utilize skills gained through the project's training. Districts in other wetland system have budget to implement wetland management activities.
Project Purpose: A model of conservation and wise use of wetlands is established.	1. Wetland dependent fauna and/or flora (indicator species) show no change in ecological character in pilot sites. 2. At least 50% of the pilot activity participants adopt sustainable livelihood options introduced by the project. 3. Wetland Management Manual[1] is approved as one of the WMD's official document.	Project's periodical reports Ecological Monitoring Reports Interviews and questionnaires	Wetland related policies do not change drastically. Large scale industrial development does not occur at selected wetland systems. Trained wetland management officers continue to work for wetland management.
Outputs: 1. National Wetland Information System is upgraded and functional.	1. Data categories necessary for wetland management are added in the National Wetland Information System. 2. Relevant institutions and organizations[2] are able to access the National Wetland Information System.	Project's periodical reports User's guide for National Wetland Information System	Ugandan project staffs who acquired skills continue to work for WMD. Budgetary support by WMD for maintaining computer programs including updating anti-virus programs continues. Budgetary support by districts in the selected wetland systems for maintaining internet connection continue. Decision-making based on scientific data prevails over political interference and pressure.
2. Scientific information of target wetland systems is available.	1. Detailed Resource Assessment report is developed and shared by relevant institutions and organizations. 2. Relevant institutions and organizations can utilize the data collected by the Detailed Resource Assessment for wetland management.	Detailed Resource Assessment Report Project's periodical reports Interviews and questionnaires to relevant personnel	
3. Wetland management plans are prepared.	1. Framework management plans for two wetland systems are prepared. 2. District wetland action plans consistent with the framework management plans are prepared for at least 50% of districts in charge of managing pilot sites.	Project's periodical reports Interviews to relevant personnel	Cooperation by all stakeholders is maintained. Districts' political will is maintained. Budgetary support and will of districts are maintained.
4. Pilot activities for wise use of wetlands are implemented based on wetland management plans.	1. Community based wetland management plans that reflect communities' voices and are consistent with district wetland action plans are prepared. 2. Communities' awareness toward wetland conservation is enhanced. 3. At least 50% of pilot activity participants are satisfied with local government officers' technical instructions on sustainable livelihood options.	Project's periodical reports Interviews and questionnaires to relevant community members	WMD and relevant district / sub-county officers continue to provide technical support for the wetland users. Pilot activities are supported by target communities. Sustainable Livelihood Options are not used to justify conversion of existing natural wetlands into human-made wetlands.
5. Wetland management officers'[3] capacity is strengthened.	At least 50% of the WMD officers and local government officers who are in charge of managing pilot sites can understand and utilize wetland management manuals.	Project's periodical reports Interviews and/or tests to relevant personnel	No personnel changes occur. Will of district wetland management officers is maintained.

[1] A manual that describes proper methodology of wetland assessment, wetland management planning, sustainable livelihood options, etc.
[2] Ministry of Water and Environment, Ministry of Agriculture, Animal Industry and Fisheries, National Environment Management Authority, Districts in charge of managing pilot sites.
[3] WMD staffs, wetland management officers at districts and sub-counties who are in charge of managing pilot sites, wetland management officers who work in other wetland systems.

Activities	Inputs		Preconditions
1-1 Consult with relevant institutions and organizations to identify scientific data and information gaps. 1-2 Review and redesign the National Wetland Information System. 1-3 Procure and install the best option of software and hardware. 1-4 Streamline the inventory format in line with the newly designed National Wetland Information System. 1-5 Test applicability of National Wetland Information System at relevant institutions and organizations. 1-6 Provide training on National Wetland Information System to staffs of relevant institutions and organizations.	***Japanese Side*** 1) Experts: -Chief Advisor / Wetland Management -Project Coordinator / Training and Extension -Ecosystem Conservation -Sustainable Rural Development -GIS / Database -Environmental Economics 2) Training: Technical training in Japan or third country for Ugandan project staffs 3) Equipment: -Vehicle(s) -Equipment necessary for wetland data collection	***Ugandan Side*** 1) Ugandan Project Staffs: -Project Director -Project Manager -Project Coordinator -GIS/Database -Ecosystem Management -Sustainable Rural Development -Local Government Staffs 2) Furnished office in or near the WMD and relevant district government buildings 3) Existing data and information required for project implementation	Relevant institutions and organizations provide existing data required for project implementation. Districts and sub-counties in pilot wetland systems approve and make commitment for project implementation.
2-1 Review existing scientific and socio -economic information. 2-2 Organize a district-led multi-disciplinary team to implement Detailed Resource Assessment. 2-3 Develop work plans for Detailed Resource Assessment. 2-4 Conduct Detailed Resource Assessment. 2-5 Update wetland inventory and enter data into the upgraded National Wetland Information System. 2-6 Design Decision Support System[4]. 2-7 Link Decision Support System with National Wetland Information System and test applicability at relevant institutions and organizations.			
3-1 Organize Wetland System Planning Committees. 3-2 Review and update existing framework management plans. 3-3 Identify key issues in the target wetland systems. 3-4 Discuss countermeasures for key issues. 3-5 Wetland System Planning Committees develop framework management plans for the target wetland systems. 3-6 Organize District Technical Planning Committees. 3-7 District Technical Planning Committees develop District Wetland Action Plans in each district. 3-8 Review and update Wetland System Management Plans and District Wetland Action Plans.			Preconditions: No drastic changes in wetland management policy occur. Project activities are accepted by relevant districts and sub-counties. Ugandan project staffs are assigned.
4-1 Select pilot sites. 4-2 Organize community based wetland planning and management committees. 4-3 Develop community based wetland management plans with pilot communities. 4-4 Identify sustainable livelihood options together with the pilot communities. 4-5 Conduct training on sustainable livelihood options at pilot communities. 4-6 Develop and implement ecological monitoring plan. 4-7 Review and update wetland management plans based on monitoring results.			
5-1 Conduct capacity and training needs assessment. 5-2 Develop a Wetland Management Manual. 5-3 Develop and implement training programs. 5-4 Conduct evaluation of training programs.			

[4] A system that supports decision making by providing basic information on socio-economic and ecological importance of a particular wetland.

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Wise use

Wise use of wetlands is the maintenance of their ecological character, achieved through the implementation of ecosystem approaches, within the context of sustainable development. The definition targets three main areas – the integrity of the wetland resource, the socio-economic benefits and the posterity of the resources taking cognizance of the future generations.

Also, wise use of wetland contributes to disaster risk reduction and other climate change adaptation and mitigation measures.

Conservation

It is the protection, preservation and careful use and management of natural resources.

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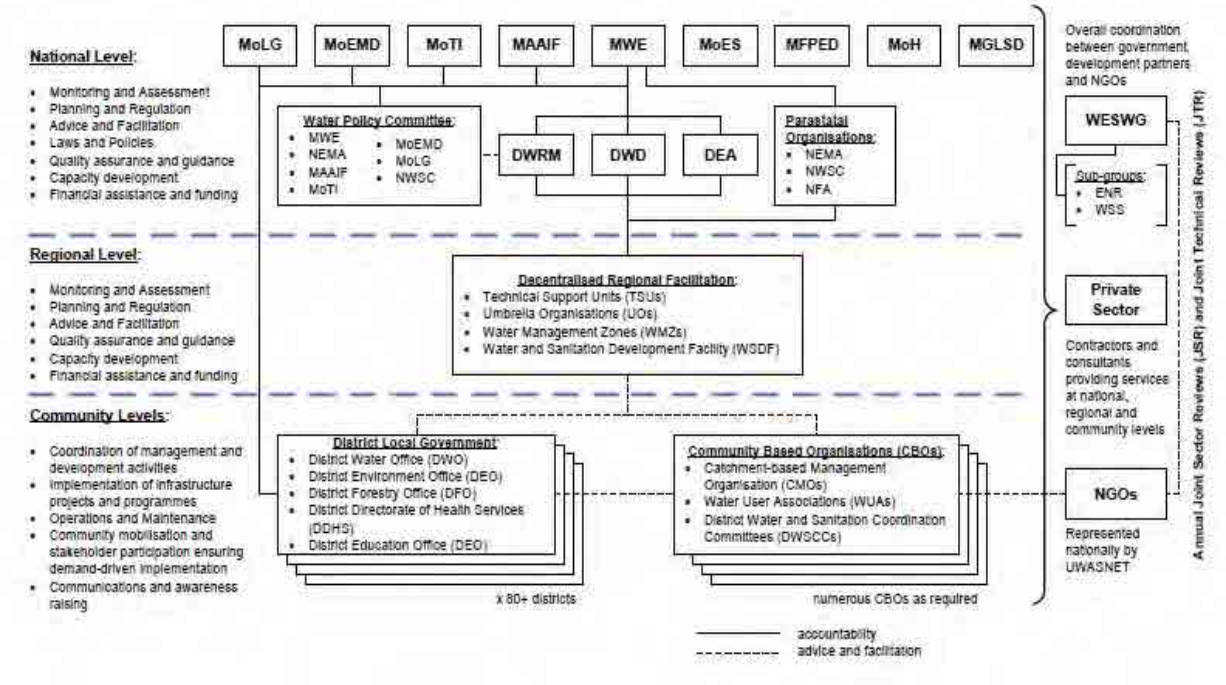
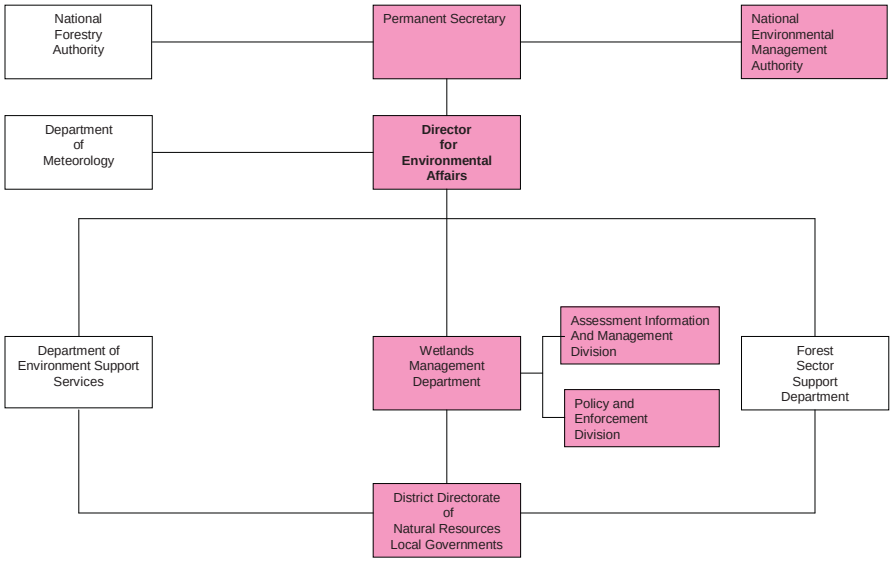
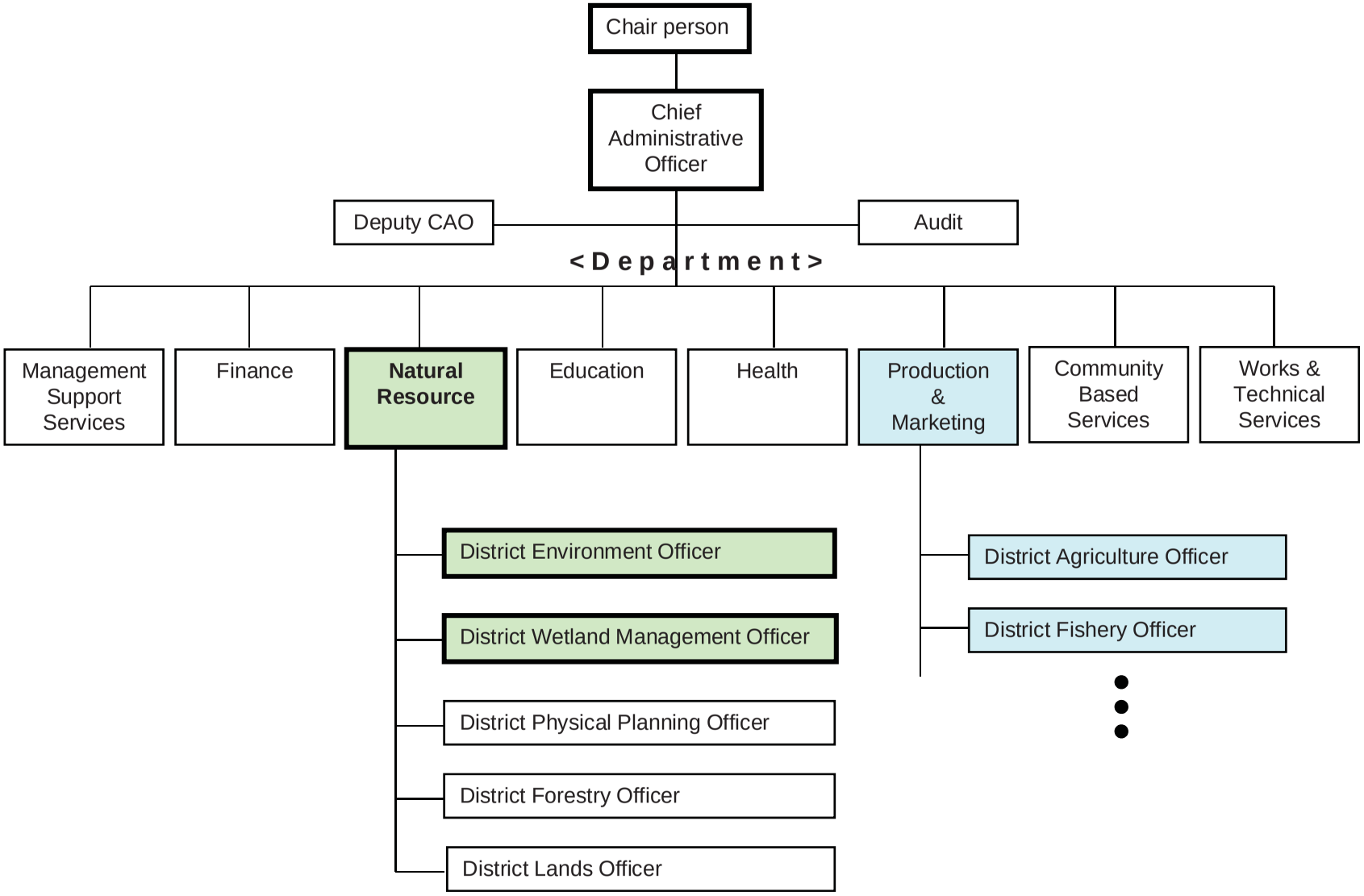


ORGANOGRAMME

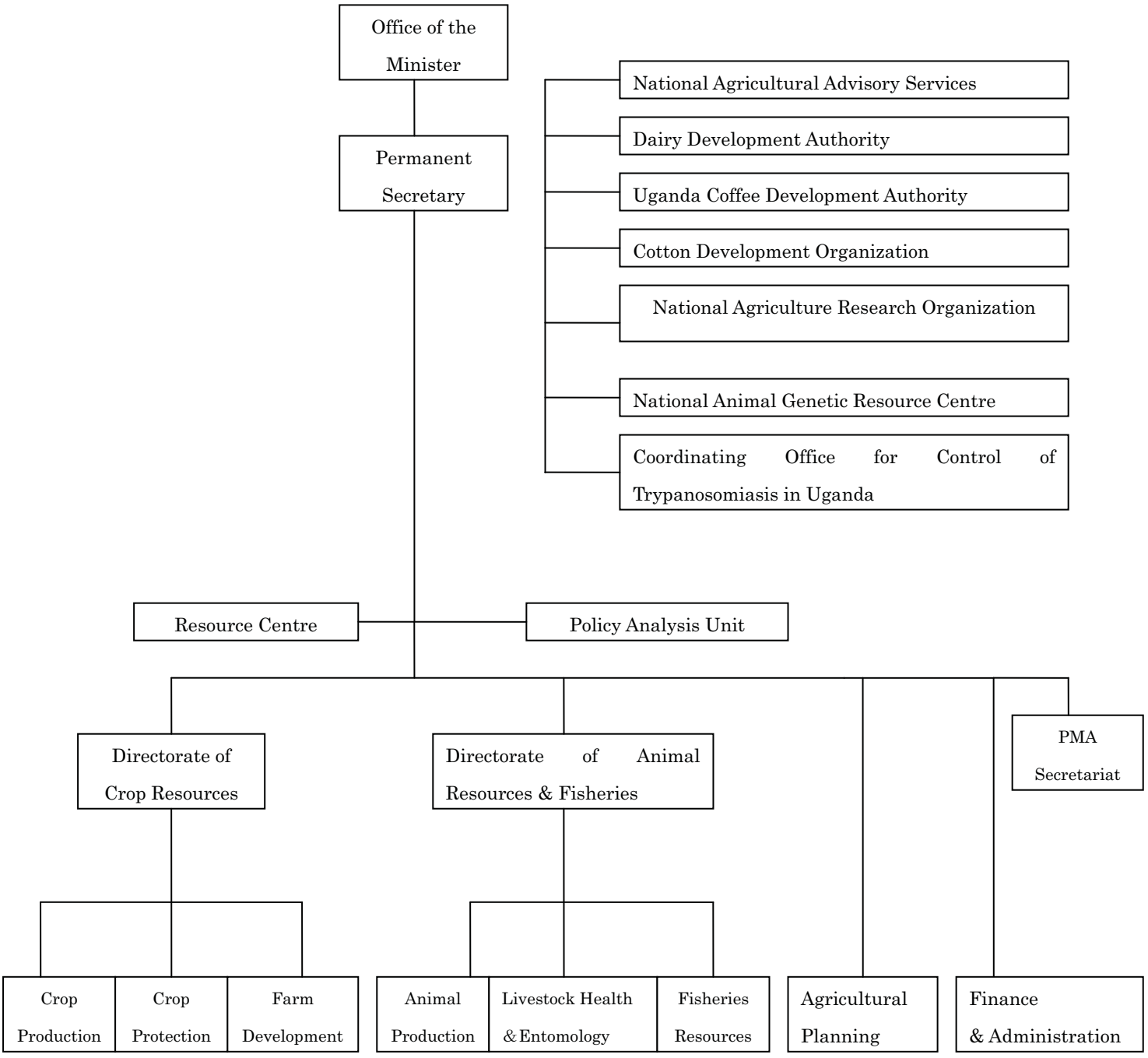
DIRECTORATE OF ENVIRONMENTAL AFFAIRS



地方政府(LC5)の組織構成



別添 1.農業・畜産・水産省組織図(Ministry of Agriculture, Animal Industry & Fisheries)



ステークホルダーワークショップ結果概要

1. 実施日
2011 年 4 月 13 日（水）

2. 開催場所
Fairway Hotel, Kampala - Terrace View Room

3. ワークショップの目的
ワークショップは、以下の 3 つの目的で実施された。
- ウガンダにおける湿地管理（湿地保全とワイズユース）についての問題点、優先分野などを関連機関が協議することで明らかにするとともに、様々な視点からの意見を取り入れて JICA プロジェクトの計画を行うこと。
- JICA の技術協力プロジェクトの管理ツールである PCM 手法について理解を得ること。
- 参加者がお互いのことをより良く理解すること。

4. ワークショップの参加者
ワークショップには、プロジェクト実施機関と想定される WMD、関係機関として想定される機関（MOWE 各局、MAAIF、NEMA 等の中央政府機関、地方政府の湿地管理・環境管理担当者、NGO など）から合計 29 名（資料１：参加者リスト）の参加があった。

5. ワークショップの構成・スケジュール
ワークショップは、4 月 13 日（水）9:00～17:00 の 1 日で行われた（資料２：Workshop Agenda）。ワークショップは大まかに 3 部構成であり、第 1 部が湿地管理と JICA 技術協力に関するプレゼンテーション、第２部が関係者分析、問題分析を行うグループワーク、第３部はグループワークの結果をベースに JICA による支援に関する議論を行うセッションであった。

6. ワークショップの結果
(1)グループワーク

関係者分析

関係者分析は、参加者全員で行った。まず、「湿地」に関するステークホルダーを検討することから始めた。参加者には思いつくステークホルダーを全てカードに書きだし、それを掲示してしたのち、中央政府系、地方政府系、住民といった大まかなグルーピングを行った。その後、「湿地管理」をキーワードに、「実施者」、「湿地からの受益者」、「意思決定者」、「費用負担者」、「協力者」に分類してもらい合意を得た（資料３：関係者分析結果）。

関係者分類の議論が多岐に亘り議論に時間を要したこと、時間的な制限の中で問題分析に必要な時間を割り当てる必要があること等から、特に中心となる実施者（資料３における Very Important に相当するもの）に対する詳細分析を行う時間がとれなかった。

問題分析

問題分析は、参加者を２グループに分けて実施した。想定されるプロジェクトが湿地管理の適正化を目指したものであることから、中心問題の特定のため、参加者には「湿地管理を適正に行う上での問題」をカードに列挙してもらった。その上で、列挙されたカードを「原因－結果」の関係で整理し、中心問題を特定し、問題系図の作成を行った（資料４：問題系図）。

JICA による支援に関する議論

JICA による支援に関する議論は、問題分析の結果を提示したまま、参加者全員で実

施した。問題分析で示された問題のうち、JICA 支援で解決されるべき問題、プロジェクトのターゲット、等が議論された。

(2)まとめ

本ワークショップでは、プロジェクトで予定されている実施機関だけでなく関係機関の担当者を含めて、PCM 手法の紹介を行い、実際に関係者分析を経て、湿地管理を取り巻く問題について分析し（問題分析）、JICA による支援に関しての議論が活発に行なわれた。この結果、参加者間でプロジェクト内容についても情報共有が図られるとともに PCM 手法に対し理解を得ることができた。また、ワークショップの結果はほぼ想定していた通りとなり、これまで考えてきプロジェクトの方向性が実施機関および関係機関のニーズと合致していることが確認された。

以上

資料１：Workshop Agenda

Stakeholder Workshop
for
Detailed Planning Survey for Wetland Management Project in Uganda

Date/Time: 13th April, 2011 8:30 – 17:00
Venue: Fairway Hotel, Kampala

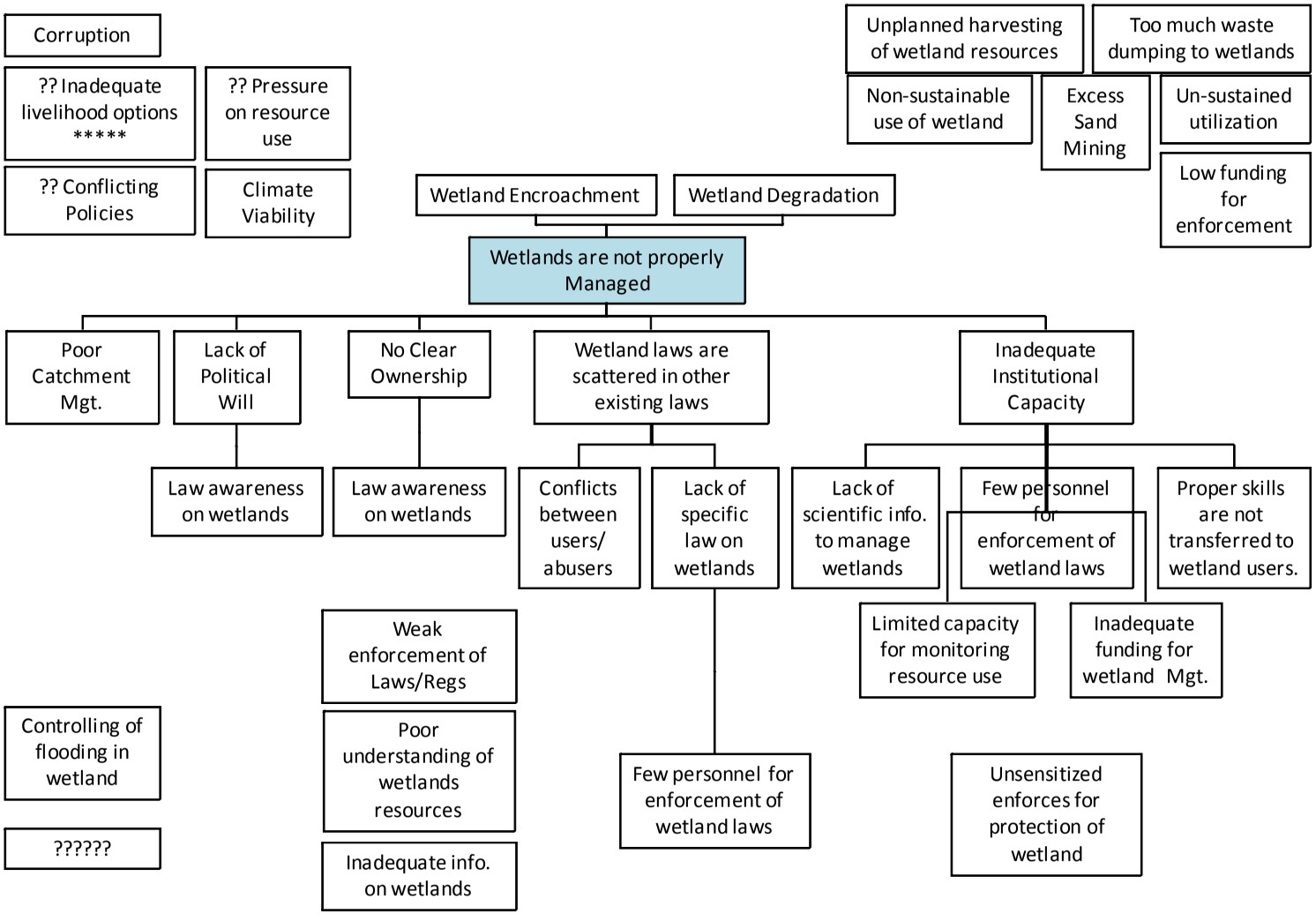
Agenda

8:30	Registration
9:00	Opening remarks
	Mr. Paul Mafabi, Acting Director,
	Directorate of Environmental Affairs, Ministry of Water and Environment
	Mr. Hiroshi Endo, Learder Detailed Planning Survey Team
	Director, Forestry and Nature Conservation Division 2, JICA Headquarters
9:20	Overview of workshop
	Dr. Ryo Matsumaru, Member, Detailed Planning Survey Team
9:30	Wetland Management - Introductory Presentation -
	Dr. Yasuhiko Muramatsu, Member, Detailed Planning Survey Team
10:00	Scheme of JICA's Technical Assistance
	Mr. Yuki Arai, Member, Detailed Planning Survey Team
	Forestry and Nature Conservation Division 2, JICA Headquarters
10:20	Introduction of Participants
10:40	Tea Break
11:00	Stakeholders' Analysis (Theory & Group Work)
	Moderated by Dr. Ryo Matsumaru
12:20	Lunch
13:10	Problem Analysis (Theory & Group Work)
	Moderated by Dr. Ryo Matsumaru
15:10	Tea Break
15:30	Discussion of Priority Areas for the JICA Project (Discussion and Presentation)
	Moderated by Dr. Ryo Matsumaru
16:30	Wrap up and Closing Address

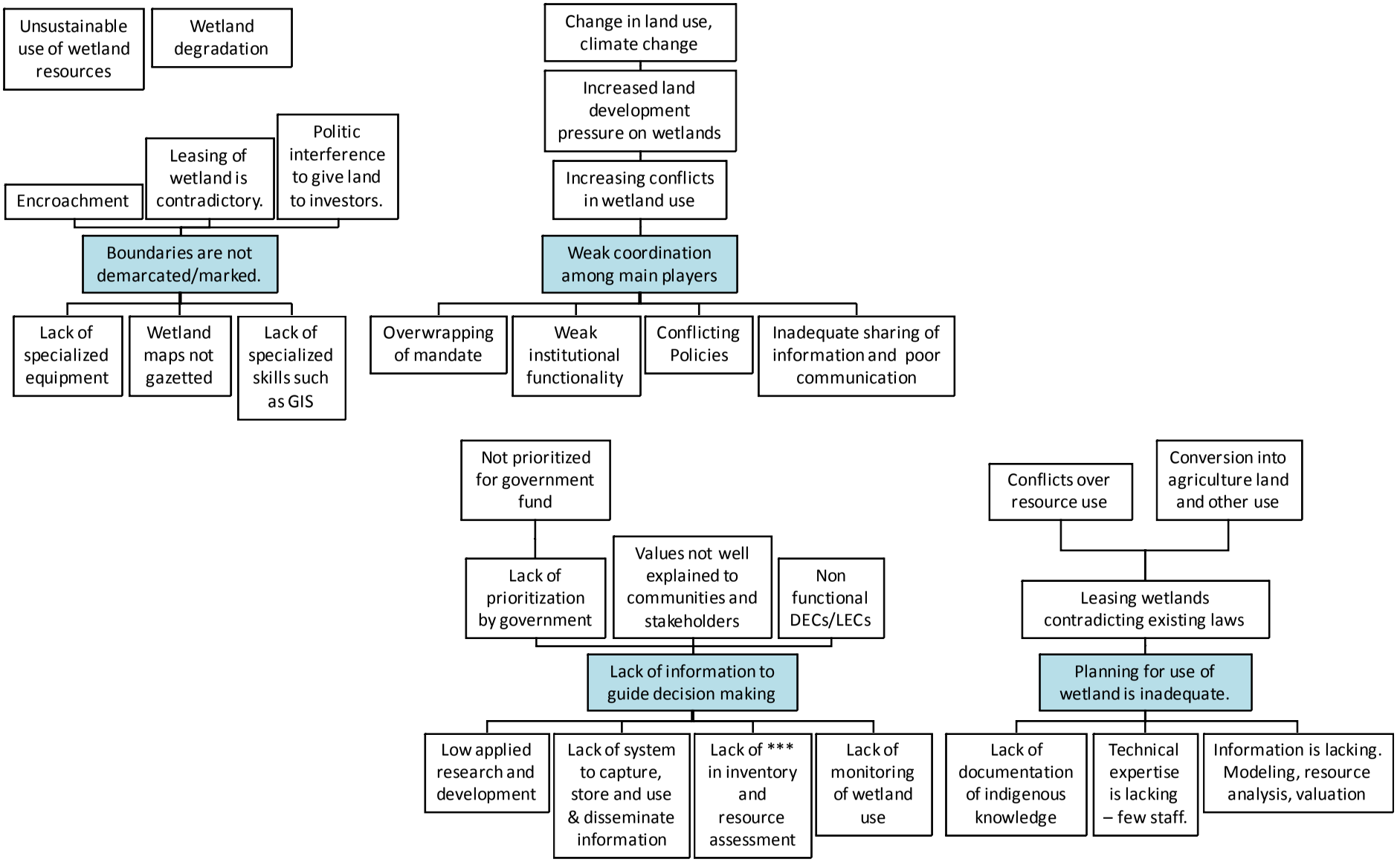
資料２：関係者分析結果

Wetland Management Implementating Organizations			Users(=Direct Beneficiaries)		Decision Makers	Funding Agencies	Support Organizations
Very Important	Essential						
◆WMD ◆NEMA ◆DWRM ◆District/Local Gov't ◆NGOs	◆MOWE ◆MAAIF ◆MOLG ◆Directorate of Water Development ◆Water for Production, MOWE ◆UWA ◆NFA ◆Police ◆Uganda Investment Authority	◆Community ◆Local Leaders ◆District Wetland Management Dept. ◆DPP ◆Media ◆University ◆Researchers ◆Higher Training Institutes ◆CBOs ◆District Land Board ◆Land Dept./Land Registry	◆MAAIF ◆MTTI ◆MLHUD ◆Min. Works and Transport ◆NWSC ◆UNRA ◆Schools ◆UIA ◆MEMD ◆National Housing Corporation ◆Water Supply ◆Real Estate Agencies and Land Developers ◆Tour Companies ◆Developers ◆Wetland Resource Harvesters	◆Local Communities ◆Farmers ◆Rice Growers ◆Fisherman ◆Craft Makers ◆Sand Miners ◆Tree Growers ◆Vegetable Growers ◆Cattle Grazers ◆Fish Farmers ◆Construction Material Excavators ◆Traditional Herbalists ◆Rural People ◆Mailo Land Owners	◆President ◆Parliament ◆Min. of Finance ◆MOWE ◆MAAIF ◆MTTI ◆DEC(District Env. Committee) ◆LEC(Local Env. Committee) ◆Sub-county Leaders ◆Community	◆Min. of Finance ◆Donors	◆TPC(Technical Planning Committee) ◆MTTI ◆Min. of Education ◆Police ◆Media ◆NBI ◆Inspectorate Dept., MOLG ◆Cultural Leaders

資料３：問題系図
（グループ１）



（グループ２）


Unsustainable use of wetland resources
Wetland degradation
Encroachment
Leasing of wetland is contradictory.
Politic interference to give land to investors.
Boundaries are not demarcated/marked.
Lack of specialized equipment
Wetland maps not gazetted
Lack of specialized skills such as GIS
Change in land use, climate change
Increased land development pressure on wetlands
Increasing conflicts in wetland use
Weak coordination among main players
Overwrapping of mandate
Weak institutional functionality
Conflicting Policies
Inadequate sharing of information and poor communication
Not prioritized for government fund
Lack of prioritization by government
Values not well explained to communities and stakeholders
Non functional DECs/LECs
Lack of information to guide decision making
Low applied research and development
Lack of system to capture, store and use & disseminate information
Lack of *** in inventory and resource assessment
Lack of monitoring of wetland use
Conflicts over resource use
Conversion into agriculture land and other use
Leasing wetlands contradicting existing laws
Planning for use of wetland is inadequate.
Lack of documentation of indigenous knowledge
Technical expertise is lacking – few staff.
Information is lacking. Modeling, resource analysis, valuation

ABOUT THE NATIONMAL WETLANDS INFORMATION SYSTEM IN BRIEF

The National Wetlands Information System (NWIS) is a computerized database which is based on access software and GIS. The NWIS was developed to store data collected during the inventory exercise. The data collected during the inventory exercise is what is described in the appendix below. The data was mainly descriptive based on the maps generated from satellite imagery of Spot for the period between 1990 and 1992. The only way to keep the volume of data collected was to come up with a storage database which was later upgraded to be able to accommodate other data. To-date, it is only the data collected through the inventory exercise that is in the database as well as the maps used for the inventory then. The data was collected at sampling points as there is a huge area of wetlands using the data sheet labeled data sheet for wetland section observation. The data was also collected at some isolated points for purposes of water quality and this data was entered on the sheet labeled datasheet for monitoring section observation.

The parameters that were considered were as shown in the datasheets shown below. The data was entered into the database just as it was collected from the field. During report preparation, some of the data was not utilized and is therefore still usable to generate other reports that are of use. To-date no additional reports have been generated as the NWIS was not complete and operationalised due to funding gaps.

The detail for each of the parameters is described in the appendix attached.

DATA SHEET FOR WETLAND SECTION OBSERVATION

1. GENERAL

Compilers names | Date

District | District code

2. WETLAND IDENTIFICATION (obtain data from maps and locally)

Name of wetland | Name of system

Local name | Local name of system

Wetland code

3. OBSERVATION SITE IDENTIFICATION

Map name | Map no | Observation site code

Geographical UTM coordinates of observation site

Eastings | Northings

Village name at observation site

4. WETLAND TYPE AT OBSERVATION SITE

b) **(Do not leave boxes blank: d=dominant c=common o=occasional n=none)**

Swamp forest | Shrubland | Bushland/palms | Papyrus | Reeds/sedges

Natural grassland | Converted to farmland | Open water | Woodland

5. ECOLOGICAL FEATURES AT OBSERVATION SITE

Vegetation (give local names when scientific name is not known)

Community	Y/N/?	Significant species
Floating		
Submerged		
Emergent		
Shrubs/thickets/palms		
Trees		
Mixed community		
Original vegetation (only when modified)		

Mammals, reptiles, amphibia (do not leave space blank. ? when no or conflicting information)

Fish (do not leave space blank. ? when no or conflicting information)

Birds (do not leave space blank. ? when no or conflicting information)

Other ecological features

6. USES OF WETLAND RESOURCES/PRODUCTS/GOODS IN OBSERVATION SITE

(1)): gender of users: f=female, ml=male, c=children, x=not gender specific (2): level of use: h=high, m=moderate, l=low, n=none, ?=no info,
(3): impact on the wetland system: h=high, m=moderate, l=low, n=none, ?=no info

Activity	Goods/uses	(1)Gender	(2) evel	(3) mpact	*Describe/comment and state whether activity is commercial*
Harvesting of natural herbaceous vegetation (papyrus, sedges etc)	Food				
	Fuel (e.g. peat, papyrus)				
	Building material				
	Craft material				
	Mulch material				
	Medicines				
Excavation of minerals	Salt				
	Clay				
	Sand				
	Gravel				
	Gold, gemstones, minerals				
Cultivation	Food				
	Fibre/other				
Water collection/use	Rural domestic water				
	Urban domestic water				
	Water for livestock				
	Industrial water				
	Irrigation water				
Harvesting of natural trees	Food				
	Fuel/firewood				
	Building poles or timber				
	Craft material				
	Medicines				
Plantation tree cultivation/ harvesting	Building / fencing materials				
	Food				
	Fuel/firewood				
	Craft material				
	Medicinal				
Fisheries	Food / skins				
Livestock grazing					
Beekeeping					
Human settlement	Housing				
	Industrial development				
Hunting	Meat				
	Skins				
	Craft material				
Tourism					
Other					

7. ABUSE OF WETLAND AT THE OBSERVATION SITE

(1): level of use: h=high, m=moderate, l=low, n=none, ?=no info, (2): impact on the wetland system: h=high, m=moderate, l=low, n=none, ?=no info

Activity	**(1) Gender**	**(2) Level**	**(3) Impact**	**Describe/comment (also state whether activity is commercial)**
Artificial drainage				
Dam construction/water diversion				
Virgin land clearing ongoing				
Burning of vegetation				
Propagation of exotic plant/animal species				
Solid waste disposal				
Liquid waste disposal				
Other				
Other				

8. LAND USE AND MAJOR DEVELOPMENTS IN THE CATCHMENT AROUND THE OBSERVATION SITE:

Gender of users: f=female, ml=male, c=children, x=not gender specific (2): level of use: h=high, m=moderate, l=low, n=none, ?=no info, (3): impact on the wetland system: h=high, m=moderate, l=low, n=none, ?=no info

Activity	(1) Gender	(2) Level	(3) Impact	Describe/comment (also state whether activity is commercial)
Dry land agriculture				
Irrigated agriculture				
Livestock grazing				
Dam construction/water diversion				
Virgin land clearing ongoing				
Deforestation				
Harvesting of local animals				
Propagation of exotic plants/animals				
Soil erosion				
Fertilisers/ pesticides use				
Population density				
Urban development				
Industrial development				
Excavation/filling/mining				
Buildings/structures, settlements				
Other				
Other				

Note: Leave blank spaces only if shaded, otherwise if the listed activity is NOT present write NONE; tenure

9. LAND OWNERSHIP AS PERCEIVED BY LOCAL COMMUNITIES AT OBSERVATION SITE

In the wetland (do not leave boxes blank: __when present, __when not present, ? when no or conflicting information)

Lease ☐ Freehold ☐ Communal ☐ Public ☐ Mailo ☐ Gazetted ☐

In the surrounding areas (do not leave boxes blank: __when present, __when not present, ? when no or conflicting information)

Lease ☐ Freehold ☐ Customary ☐ Public ☐ Mailo ☐ Gazetted ☐

10. CONSERVATION MEASURES TAKEN AROUND THE OBSERVATION SITE:

In the wetland area	
In the surrounding area	

11. CONSERVATION MEASURES PROPOSED

In the wetland area	
In the surrounding area	

12. OTHER REMARKS

DATASHEET FOR MONITORING SECTION OBSERVATION

1. GENERAL

			i)	ii)	iii)	iv)	v) y	vi) y
Compilers names		Date						
District		District code						

2. WETLAND IDENTIFICATION (obtain data from maps)

Name of wetland		Name of system	
Local name		Local name of system	
Wetland code			

3. MONITORING SITE IDENTIFICATION

Map name		Map no		Observation site code	

Geographical UTM coordinates of observation site

Eastings		Northings	
Village name at observation site			

4. WETLAND TYPE AT MONITORING SITE

c) (Do not leave boxes blank: __when present, __when not present, ? when don't know)

Swamp forest ☐ Shrubland ☐ Bushland/palms ☐ Papyrus ☐ Reeds/sedges ☐

Natural grassland ☐ Converted to farmland ☐ Open water ☐ Woodland ☐

5. SOILS AT MONITORING SITE (texture and colour)

d) (Do not leave boxes blank: __when present, __when not present, ? when don't know)

Sandy ☐ Silty ☐ Clayey ☐ Peaty ☐

Reddish-brown ☐ Greyish/blue ☐ Dark/black ☐ Mottled ☐

6. WATER QUALITY AT MONITORING SITE

pH ☐☐☐☐ Conductivity ☐☐☐ Temperature ☐☐☐ °C Transparency ☐☐ cm

Color ☐ Smell ☐ Stationary/flowing ☐ Oil sheen Y/N ☐

7. ECOLOGICAL FEATURES AT OBSERVATION SITE

Vegetation (give local names when scientific name is not known)

Community	Y/N/?	Significant species
Floating		
Submerged		

Emergent		
Shrubs/thickets/Palms		
Trees		
Mixed community		

Original vegetation (only when modified)

Other ecological features at the monitoring site

8. LAND OWNERSHIP AT MONITORING SITE

In the wetland (do not leave boxes blank: __when present, __when not present, ? when no or conflicting information)

Lease ☐ Freehold ☐ Customary ☐ Public ☐ Mailo ☐ Gazetted ☐

Land dispute at monitoring site

9. CONSERVATION MEASURES AT THE MONITORING SITE

i)

10. DISTURBANCES/THREATS OBSERVED AT MONITORING SITE

Impact: current impact on wetland system: h=high, m=moderate, l=low, n=none, ?=don't know)

Activity	Impact	Describe/comment
Artificial drainage		

Dam construction/water diversion		
Land clearing		
Excavation or filling		
Deforestation/de-vegetation		
Burning of vegetation		
Human settlement		
Urban or industrial pollution		
Other		
Other		
Other		
Other		

11. OTHER REMARKS

Wetland Systems in Uganda

1 Alakatuk
2 Alam
3 Asuneto
4 Awoja
5 Awoja kobuin
6 Bisini Opeta Okurutum
7 Budumbuli
8 Bugasu
9 Bugoriba
10 Buhindagi
11 Bukumbi
12 Bulimba Bay
13 Binambulye plains
14 Bunyanyi margins
15 Ihalafi
16 Chambura
17 Charubuta-Karhojwa
18 Chijaagu (Kigaagi)
19 Chosa Bay
20 Damba channel
21 Dangi
22 Gifrudwe
23 Ikana
24 Ishasha
25 Kabande
26 Kabere
27 kabiso
28 Kabizi
29 Kabuta
30 Kachwamba- Kakihumba
31 Kafu river
32 Kafu mpanga
33 Kakono-kahengye
34 Kakorogoto
35 Kaku- Nyabikani
36 Kakara- Evisivikatura
37 Kahira
38 Kamira
39 Kamwana
40 Kanyabuha-Kanyamagogo-Kitaraka-Namuremu
41 Kanyara-Nyampimbi
42 Karajugo
43 Kasharara
44 Kashewanzi -Kasharara
45 Katara
46 Katarimwa (Katarimu)
47 Katanga
48 Katereza
49 Kimbimbi
50 Kifuka-Kibare
51 Kigeyo-Ruhuhuma
52 Kikenyi
53 Kiko
54 Kirinya
55 Kiruruma-Ishasha
56 Kiruruma-south
57 Kitarema
58 Kiwam·ba
59 Kiyanja
60 Kkome Island
61 Komasingo - Kadugala-Olupe
62 Kya·bahingi-Kaxhwekano
63 Kyamugambi re-Kimbi-Kyawigi-Kitagata
64 Kyamwasha-Kabirbo-Riero-Bizi
65 Kangara-Kamira
66 Kyarero
67 Kyeni
68 Kyogo
69 Lake Chazenyi
70 Lake Edward Margins
71 Lake Kyamwango
72 Lake Nyamusingiri
73 Mulindi
74 Munyere
75 Muragyegye
76 Mutanda
77 Mabigaga
78 Namatala
79 Naigombwa
80 Nasigombe-Nalwire-Hone
81 Nancwera
82 Nchwera-Runyiga
83 Ndala
84 Ndibahera-Kabuye
85 Nombe
86 Nkanka
87 Nseko-Nyakachwamba-Kyobugome
88 Ntungu
89 Nyabiha
90 Nabitabe
91 Nyabugongi -Kamira
92 Nyabutare
93 Nyakasa
94 Nyakisana
95 Nyakisizi
96 Nyamahizi -Kateizi-Kasere
97 Nyamirumbi- Katuma-Kabushoro
98 Nyamwera
99 Nyangoma
100 Nyarutime
101 Nyarutora
102 Nyaruzingi Okwapi-Apapai-Kakole-Kung
103 Olanai
104 Omianza-kihane
105 Omobor
106 Rivernile
107 Rosebery Channel
108 Rugasha
109 Rugazi -Omukasingi
110 Ruhezamundi
111 Rushishs
112 Rutamde
113 Rwabanjeri-karugorora
114 Rwamabando
115 Rwamuneba
116 Rwatobo-kakingaire-Ahankendo
117 Rwizi
118 Saba
119 Sango-sio
120 Sanja
121 Sezibwa

表　Vs に基づく優先湿地選定基準

類型	基準	
Class I Vital Wetlands (Critical)	開発行為などにより破壊が進捗し、早急に対策が必要となっている重要湿地である。これら重要湿地は少なくとも社会経済的になんらかの財もしくはサービスの提供をしているものであり、代替提供手段が存在しないか、もしくは代替提供手段が現実的でない湿地をいう。以下の例がある。 - 都市飲料水源の浄化に貢献している湿地 - 汚水の浄化に貢献している湿地 - **洪水調整機能を果たしている湿地** - 乾燥地帯やオアシスにおいて家畜あるいは野生動物の乾季の給水機能を果たしている湿地 - 希少種や固有種の生息に重要な役割を果たしている湿地 - 高度な生物多様性を維持している湿地 - 当該県において特徴的あるいは典型(基準の項を参照)と判断される湿地 - 国際的に重要な湿地 - ラムサール登録湿地および他の保全湿地	
Class II Vital Wetland (Non-Critical)	Class I と同様に重要な機能を果たしている湿地のうち、現在は開発あるいは破壊の危機にさらされていないが、将来、そのような危機が発生する可能性のある湿地を言う。	
Class III Valuable Wetlands (Critical)	Class I あるいは Class II と同様に重要な湿地であるが、その提供する財・サービスは他の代替供給源がある湿地を指す。但し、代替供給源に頼る場合には、その財およびサービスの質は劣るものも含めてよい。 これら湿地は、破壊の危機にあり、将来、継続して財・サービスの提供が危ぶまれるため Critical と類型する。	
Class IV Valuable Wetlands (non-Critical)	Class III と同等の湿地であるが、現在、破壊の危機がない湿地をさす。	
Class V Various Wetlands	重要な財やサービスの提供をしていない湿地であるか、仮にこのような財・サービスがあっても、地域にその資源が豊富であるために危機にあるとは考えられない湿地をさす。また、絶滅の危機にある生物種や固有種の生息、あるいは独特の動植物の生息域となっていない湿地を指す。以下 3 つが主要なものである。	
	Victor wetlands	一般に大面積の湿地であるため現状のウガンダ国の技術では全面的に排水し湿地の荒廃を引き起こすことはないと考えられる湿地
	Victim wetlands	重要性の低い湿地であり、農業開発あるいは都市開発の目的などのために「犠牲」にしてもよい湿地を指す。
	Vanquished wetlands	1）酪農や不可逆的な都市開発など他の生産的な活動のために転換された湿地をさし、そのままそのような利用が継続することが望まれる湿地、あるいは 2）転換が進んだ湿地であるが、その生産性は劣り、経済的に可能であれば回復することが望ましい湿地

資料：Guidelines for Prioritizing Wetlands in Need of Management, Wetland Booklet No.1, 1999

WMD では、これら湿地の類型ごとに湿地利用の指針をまとめており、以下の表に示した。

表　湿地利用の指針

優先類型		I Vital critical	II Vital not critical	III Valuable critical	IV Valuable not critical	V Victim/Vanquished
湿地管理		厳格保護	保全レベル上	保全レベル下	転換レベル下	転換レベル上
活動 ＼ 概要		生態系は厳格に保護する。また当該湿地へのアクセスおよび利用は制限される。	生態系は厳格に保護されるが、持続可能な利用やアクセスは許可される。	保護レベルは軽度であり、より広範囲な持続的利用方法やアクセスが可能である。但し、水理水文的改変は行われていない。	軽微な生態系の改変および水利用も許されるが、排水や埋め立ては許されない。	自然環境の改変が許される。水理水文的改変も許可される。
観光、研究		■				
生物多様性保全、ラムサール湿地		■	■			
再生可能な資源採取	水（飲料水、家畜給水）	■	■	■	■	
	草の利用		■	■	■	■
	伝統的な家畜飼養		■	■	■	
	材木		■	■	■	
	伝統的な漁業	■	■	■	■	
	狩猟			■		
非再生可能な資源採取	土砂および粘土			■	■	
既存生物種の改善	植林		■	■	■	
	水産		■	■	■	
新種の導入	湿地生息可能な作物			■	■	
	樹種			■	■	
	魚種			■	■	
	水稲				■	
生態系の改変	小規模灌漑			■	■	
	養殖池開発			■	■	
	汚水の投棄			■	■	
	小規模湿地養殖				■	
	部分排水			■	■	
	大規模排水				■	
インフラ開発	都市開発（住宅、工業）					■
	地方開発（灌漑）					■
	地方開発（酪農）					■
	住宅開発					■