NATIONAL WETLANDS MANAGEMENT PROJECT IN THE REPUBLIC OF UGANDA （3rd　YEAR）

PROJECT COMPLETION REPORT

DECEMBER 2016

JAPAN INTERNATIONAL COOPERATION AGENCY(JICA)

CTI ENGINEERING INTERNATIONAL CO., LTD.

OYO INTERNATIONAL CORPORATION

EARTH & HUMAN CORPORATION

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THE REPUBLIC OF UGANDA

MINISTRY OF WATER AND ENVIRONMENT

JAPAN INTERNATIONAL COOPERATION AGENCY

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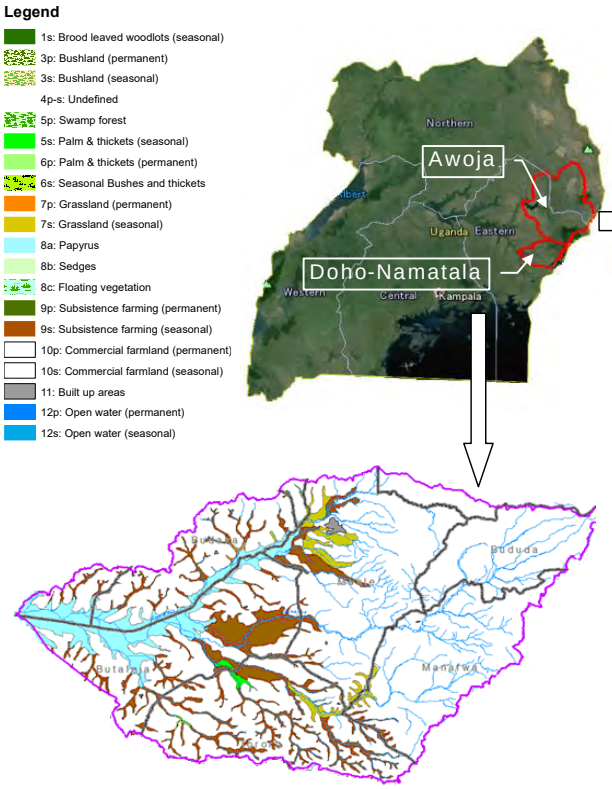
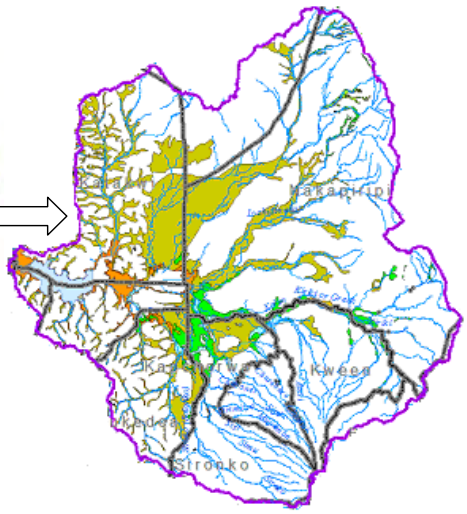
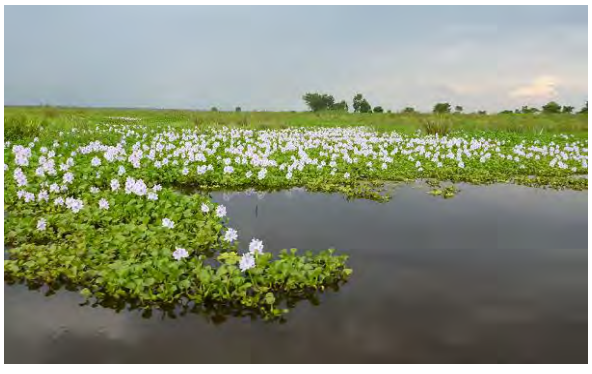
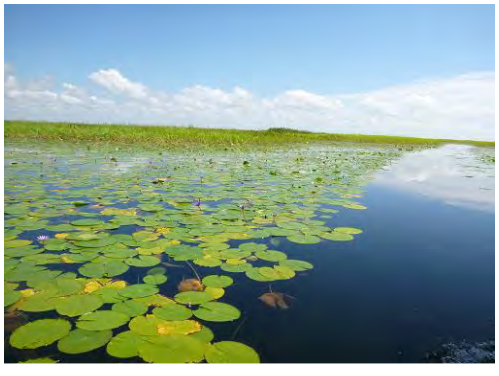




Awoja Wetland System

Doho-Namatala Wetland System





Unique Ecosystems in the Project Sites

Executive Summary

CHAPTER 1. PROJECT BACKGROUND The National Wetlands Management Project was commenced in 2012 to establish a model of conservation and wise use of wetlands in Uganda with geographical focuses on two (2) wetland systems; namely, 1) the Namatala-Doho Wetland System, and 2) the Awoja Wetland System in the eastern region of the country.	The National Wetlands Management Project was commenced in 2012 to establish a model of conservation and wise use of wetlands in Uganda with geographical focuses on two (2) wetland systems; namely, 1) the Namatala-Doho Wetland System, and 2) the Awoja Wetland System in the eastern region of the country. The project is designed to produce six (6) outputs: 1) National Wetland Information System is upgraded and functional; 2) Scientific information of target wetland systems is available; 3) Wetland management plans are prepared; 4) Pilot activities for wise use of wetlands are implemented based on wetland management plans; 5) Wetland related activities harmonized and 6) Wetland management officers capacity is strengthened. The overall goal of the project is "A model of conservation and wise use of wetlands is disseminated". The report presents all the activities carried out until the end of the project in 2016; discusses and evaluates the achievement; shares key lessons learned and recommendations to ensure continued benefit delivery to the project beneficiaries for an extended period after the assistance by the Government of Japan has been terminated.
CHAPTER 2. COMPLETED PROJECT ACTIVITIES The chapter presents thirty eight (38) activities for the production of the six outputs. The project is already handed over to the Wetlands Management Department that has fully engaged in coordinating and bolstering the networks developed under the project in the field mainly in the last months of the project completion. There are six (6) activities to produce Output 1 for upgrading NWIS; seven (7) activities to generate Output 2 for wetland assessment; nine (9) activities for preparing wetland management plans under Output 3; nine (9) activities for implementation of pilot activities under output 4; two (2) activities to harmonize wetland related activities under output 5 and five (5) activities to generate the final output for 6 for strengthening capacity.	The chapter presents all the activities performed since the commencement of the project until the end of 2016. Thirty eight (38) completed activities for the production of the six outputs have been described and discussed. The project is already handed over to the Wetlands Management Department that has fully engaged in coordinating and bolstering the networks developed under the project in the field mainly in the last months of the project completion. The achievements in the past years are laid down hereunder. OUTPUT 1 FOR UPGRADING NWIS 1.1 Consultation to identify information gaps 1-2 Review and redesign the National Wetland Information System. 1.3 Procurement and installation of software and hardware 1.4 Streamlining of the inventory format 1.5 Testing of applicability of NWIS 1.6 Provision of training on NWIS OUTPUT 2 FOR WETLAND ASSESSMENT 2.1 Review of existing information 2.2 Organization of a team to implement assessment 2.3 Development of work plans for assessment 2.4 Conduct of detailed resource assessment 2.5 Update of data in the NWIS 2.6 Design of Decision Support System (DSS) 2.7 Linking of DSS with NWIS and test applicability OUTPUT 3 FOR PREPARING WETLAND MANAGEMENT PLANS 3.1 Organization of Wetland System Committees 3.2 Review and update of existing plans 3.3 Identification of key issues in the systems 3.4 Discussion of measures for key issues 3.5 Development of framework management plans 3-6 Develop Sub-county Wetland Action Plans with support from parish representatives. 3-7 Organize District Technical Planning Committees. 3-8 District Technical Planning Committees develop District Wetland Action Plans in each district. 3-9 Review and update Wetland System Management Plans, District Wetland Action Plans and Sub-county Wetland Action Plans OUTPUT 4 FOR IMPLEMENTATION OF PILOT ACTIVITIES 4.1 Selection of 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 Support the communities in implementing the Pilot Projects. 4-6 Develop and implement ecological monitoring plan.

	4-7 Select Priority Pilot sites for Scaling Up 4-8 Assist Communities in Scaling Up 4-9 Review and update wetland management plans based on monitoring results. OUTPUT 5 FOR HARMONIZATION OF ACTIVITIES 5-1 Review of policies, laws and regulations 5-2 Recommend measures for strengthening policy framework and instruments OUTPUT 6 FOR STRENGTHENING CAPACITY 6.1 Conduct of capacity and training assessment 6.2 Development of Wetland Management Manual 6.3 Development and implementation of training programmes 6.4 Evaluation of training programmes 6-5 Publish project deliverables
CHAPTER 3. EVALUATION OF PROJECT ACHIEVEMENT The chapter presents the result of the evaluation of project achievement. Overall the project is judged achieved all the targets defined in the sixteen (16) Objectively Verifiable Indicators. The prominent achievements of the project for the project purpose are summarised below. 1. The ecological monitoring plans adopted a combination of three tools: photo point monitoring, water quality monitoring and description and recording of plant community by using Relevé data sheets. At the catchment level, significant impacts on ecology have not apparently emerged because the pilot activities began in 2015 for demarcating wetlands and setting out rules for management and tree planting activities were commenced in 2016. However the ecological monitoring activity has identified improvement of ecological character as a result of the project intervention by the creation of protection zones and tree planting along the pertinent water bodies in the pilot sites as captured by photo point monitoring. 2. All the communities supported under the project have adopted the sustainable livelihood options introduced by the project. This is because the project adopted participatory approach in preparing the relevant plans and identifying the livelihood options. 3. As of 15th November 2016, following three publications have been formally published: 1) NWIS handbook; 2) SWAP/DWAP Manual and 3) Wetland Management Planning Process Manual.	The chapter presents the result of the evaluation of project achievement. Overall the project is judged achieved all the targets defined in the sixteen (16) Objectively Verifiable Indicators. The evaluation of the project achievement is summarised below. For the Project Outputs; 1. Data categories necessary for wetland management have been added in the National Wetland Information System. They include, among others, wetland section observation, wetland monitoring site, hydrograph (river), hydrology (lake), protected area, soil map and land cover map. 2. The data on NWIS is released to the public by using ArcGIS Online. Thus, external users of NWIS, even those who do not have GIS software, have access to the released information. 3. Wetland assessment has been conducted and thus the information on the two wetland systems is available based on the Detailed Resource Assessment reports. The findings of the assessment were integrated into the Framework management planning process. The information on the assessment was also shared with the Ministry of Agriculture, Animal Industry and Fisheries in undertaking the Project on Irrigation Scheme Development in Central and Eastern Uganda (PISD). 4. District governments have used the assessment reports in preparing the framework management plans and District Wetland Action Plans. Relevant district officers in collaboration with Sub county officers supported the communities in preparing the Community Based Wetland Management Plans on the basis of the reports. 5. The Framework Management Plans of the Wetland Systems were prepared and formally launched on 22nd and 24th January 2014 for Doho-Namatala and Awoja Wetland Systems with the participation of the relevant officers. 6. District wetland action plans consistent with the framework management plans were prepared at all the districts in charge of managing pilot sites. 7. The communities in the pilot sites have prepared community based wetland management plans that have reflected communities' voices and are consistent with district wetland action plans. 8. The community's awareness on wetland conservation is judged enhanced as evidenced by the incremental changes of positive response by 18 % between the year 2015 and 2016 to a series of questions on the community's appreciation on wetlands conservation. 9. One indicator for output 4 was that "at least 50% of pilot activity participants are satisfied with local government officers' technical instructions on sustainable livelihood options". The project is judged achieved the numerical target of the indicator as evidenced by the questionnaire survey conducted for the 110 pilot activity participants. The survey indicated 89 and 71% satisfaction with district and Sub-county officers respectively on their technical instruction. 10. The revision process of the previous guideline for paddy rice cultivation identified the key issues. 11. The minutes of meeting for the development of guidelines for Paddy rice cultivation Uganda held on 27th/9/2016 at Afrique suites hotel, Kampala

	recorded the said issues that have been reflected in the revised version of the guidelines. 12. It was judged that more than 50% of the WMD officer and local government officers who were in charge of managing pilot sites could understand and utilize wetland management manuals by a questionnaire survey. 13. In a questionnaire survey, more than 50% of the district officers in charge of wetland management over the country stated that they understand and use the three major publications of the project i.e. 1) NWIS handbook, 2) SWAP/DWAP Manual and 3) Wetland Management Planning Process Manual. Thus it is judged that the numerical target of the indicator is achieved. For the project purpose, 14. The ecological monitoring plans adopted a combination of three tools: photo point monitoring, water quality monitoring and description and recording of plant community by using Relevé data sheets. At the catchment level, significant impacts on ecology have not apparently emerged because the pilot activities began in 2015 for demarcating wetlands and setting out rules for management and tree planting activities were commenced in 2016. However, the ecological monitoring activity has identified improvement of ecological character as a result of the project intervention by the creation of protection zones and tree planting along the pertinent water bodies in the pilot sites as captured by photo point monitoring. 15. All the communities supported under the project have adopted the sustainable livelihood options introduced by the project. This is because the project adopted participatory approach in preparing the relevant plans and identifying the livelihood options. 16. As of 15th November 2016, following three publications have been formally published: 1) NWIS handbook; 2) SWAP/DWAP Manual and 3) Wetland Management Planning Process Manual.
CHAPTER 4. ***KEY LESSON LEARNED*** The section 4.1 presented the lessons of each project output and the section 4.2 provided eighteen (18) lessons drawn from the wetland management planning and implementation process of the project. They include, but not limited to: 1. It is worthwhile to develop a data sharing protocol to enable NWIS's data regularly updated recognizing that it is only useful so long as the data is periodically updated. 2. As for DSS, it was developed by integrating various existing decision support tools such as Kampala Matrix and would be progressively expanded and elaborated by combining other management tools. 3. It was recognized that it requires careful mapping of stakeholders involving in planning process; and policy makers and communities are	Key lessons of each project output are presented in Section 4.1 and eighteen (18) lessons drawn from the planning process are presented in Section 4.2. The followings are the lessons for each project output. ✓ For Output 1 on operationalization of NWIS, collection of relevant GIS data requires a lengthy step-by-step process. It is worthwhile to develop a data sharing protocol to enable NWIS's data regularly updated recognizing that it is only useful so long as the data is periodically updated. It was also reaffirmed that NWIS must be well financed for sustainable information management. ✓ For Output 2 on assessment and DSS, pertinent information is scattered and thus requires a long process to compile them for assessment. As for DSS, it was developed by integrating various existing decision support tools such as Kampala Matrix and would be progressively expanded and elaborated by combining other management tools. ✓ As for Output 3 on planning process, it was recognized that it requires careful mapping of stakeholders involving in planning process; and policy makers and communities are the important stakeholders. The wetlands management plans should integrate existing resource management plans. Similarly, the wetland management plans should also be integrated into other resource management plans such as catchment management plans. At the same time, it is also needed to integrate the plans into the District and Sub-County Development Plans. The framework management plans require an institutional arrangement that should be integrated into local government stricture to make it operational. It is reaffirmed that DWAP is a useful process to make the actions taken in a short term and quickly fed into relevant government programmes. ✓ Regarding Output 4 on community management, setting-up viable livelihood

the important stakeholders. 4. Setting-up viable livelihood activities requires an adequate consultation with communities on priorities, assessment of feasibility and social impacts and institutional arrangement. 5. Concerning Output 5, the process leading to policy reform was supported through development of the guideline. 6. It was recognized that harmonization of relevant on-going activities generate synergy effects on capacity development.	activities requires an adequate consultation with communities on priorities, assessment of feasibility and social impacts and institutional arrangement. The participating community members should be sensitized on the linkage between the use/conservation of wetlands and the community activities. ✓ Concerning Output 5 on rice guidelines, it was reaffirmed that policy integration requires a long term to take actions and realized that such activities go beyond project scope. However, the process leading to policy reform was supported through development of the guideline. ✓ With respect to Output 6 on capacity development, it was recognized that harmonization of relevant on-going activities generate synergy effects on capacity development. The membership of JCC meeting was co-opted, which has contributed, particularly, to capacity development of the relevant ministries. It also ensured that the project principles are integrated into other on-going projects.
CHAPTER 5. RECOMMENDATIONS The recommendations were developed to ensure continued benefit delivery to the project beneficiaries for an extended period after the assistance by the Government of Japan has been terminated. They include, among others: 4. The WMD should transfer the NWIS Homepage to the formal Website of the Ministry or coordinate with IT officers of MWE to link the website of the ministry to the NWIS site as a mid to long term measure for maintaining the NWIS Homepage; 5. 5 The WMD should enhance inter-departmental network and collaboration with the Directorate of Water Resource Management, among others, to exchange the latest information and regularly report on progress in drawing up strategies to ensure continued operation of Inter-district Implementation Committee of the two wetland systems. 7. 7 The WMD should secure a budget to continue supervision and monitoring of implementation of pilot activities for at least one-year period; and 8. 8 The Local Government Administration should seek additional external grants such as Third Northern Uganda Social Action Fund (NUSAF 3) to support the communities and also work with existing civil society to move forward on-going initiatives and unfunded areas arising out of the project. These negotiations may be done in close collaboration with the Wetlands Management Department.	The recommendations outlined herein were developed to ensure continued benefit delivery to the project beneficiaries for an extended period after the assistance by the Government of Japan has been terminated. To ensure that NWIS is used continuously, it is recommended that: 1 The WMD should secure a sufficient budget for maintenance services of ArcGIS at UGX 4.4 million per annum. 2 The WMD should integrate and broaden use of QGIS in managing wetlands information as a contingency measure in the event of failing in budget allocation for ArcGIS. 3 The WMD should secure budget for the FY 2017/2018 estimated at UGX UGX417,900.as a short-term measure for maintaining the NWIS Homepage. 4 The WMD should transfer the NWIS Homepage to the formal Website of the Ministry or coordinate with IT officers of MWE to link the website of the ministry to the NWIS site as a mid to long term measure for maintaining the NWIS Homepage. For support of relevant districts, it is recommended that: 5 The WMD should enhance inter-departmental network and collaboration with the Directorate of Water Resource Management, among others, to exchange the latest information and regularly report on progress in drawing up strategies to ensure continued operation of Inter-District Implementation Committee of the two wetland systems. 6 The WMD through the Regional Coordinator for the East should liaise with the Kyoga Water Management Zone to facilitate integration of wetland management into the river basin approach. To ensure sustainability of the initiatives by the communities, it is recommended that: 7 The WMD should secure a budget to continue supervision and monitoring of implementation of pilot activities for at least one-year period. 8 The Local Government Administration should seek additional external grants such as Third Northern Uganda Social Action Fund (NUSAF 3) to support the communities and also work with existing civil society to move forward on-going initiatives and unfunded areas arising out of the project. These negotiations may be done in close collaboration with the Wetlands Management Department. 9 The district officers should integrate the community plans into the district development plans to ensure allocation of conditional grant to communities' pilot projects. 10 The WMD should work closely with the Kyoga Management Zone and JICA

	Uganda Office to ensure that the synergy of the relevant projects[1] is exerted. For achieving the overall goal, it is recommended that: 11 The WMD should consolidate future direction and concrete policy to achieve the overall goal by formulating approaches, designing measures and securing budget for upscaling the pilots and use of the wetland management tools developed and upgraded by the project.

[1] The Project on Irrigation Scheme Development in Central and Eastern Uganda and the National Wetlands Management Project

NATIONAL WETLANDS MANAGEMENT PROJECT IN THE REPUBLIC OF UGANDA

PROJECT COMPLETION REPORT

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ABBREVIATIONS

CAO	Chief Administrative Officer
CBWMP	Community-Based Wetland Management Plan
COP	Conference of the Parties
DCDO	District Community Development Officer
CDD	Community Driven Development
DDP	District Development Plan
DEC	District Executive Committee and District Environmental Committee
DEO	District Environmental Office
DFO	District Forest Officer
DPO	District Planning Officer
DPU	district planning unit
DSS	Decision Support System
DTPC	District Technical Planning Committee
DWAP	District Wetland Action Plan
DWD	Directorate of Water Development
DWO	District Wetlands Officer
DWRM	Directorate of Water Resources Management
EIA	Environmental Impact Assessment
FAO	Food and Agriculture Organization
FGD	Focus Group Discussion
FMP	Framework Management Plan
GIS	Geographical Information System
GIZ	Gesellschaft für Internationale Zusammenarbeit
GOJ	Government of Japan
GOU	Government of Uganda
GPS	Global Positioning System
HTML	HyperText Markup Language
IGA	Income Generating Activity
IRR	Internal Rate of Return
JCC	Joint Coordinating Committee
JICA	Japan International Cooperation Agency
JV	Joint Venture
KML	Keyhole Markup Language
KMZ	Keyhole Markup language Zipped
M/M	Minutes of Meeting
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
MM	Man-Month
MOU	Memorandum of Understanding
MWE	Ministry of Water and Environment
NAAS	National Agricultural Advisory Service
NARO	National Agricultural Research Organisation
NEMA	National Environmental Management Authority
NFA	National Forest Authority
NGO	Non-Governmental Organization
NUSAF	Northern Uganda Social Action Fund Project
NWIS	National Wetland Information System
ODA	Official Development Assistance
OJT	On-the-Job Training

PDM	Project Design Matrix
PISD	Project on Irrigation Scheme Development
QGIS	Quantum GIS
R/D	Record of Discussions
S/C	Sub-county
SAACO	Savings and Credit Cooperative Organizations
SQL	Structured Query Language
SWAP	Sub-county Wetland Action Plan
TOR	Terms of Reference
UGX	Ugandan Shillings
W/S	Workshop
WMC	Wetland Management Committee
WMD	Wetland Management Department

Chapter 1. PROJECT BACKGROUND

1.1 BACKGROUND

Wetlands in Uganda cover between 10-13 % (WMD, 2008) of the total land area of the country. They have intrinsic attributes, perform functions and produce goods and services, including, but not limited to, important refugee for wildlife, filtration and wastewater treatment, fishing and support for agricultural activities of riparian communities. There are reportedly 7,000 individual wetlands spreading over 170 wetland systems in the country.

The Government of Uganda (hereinafter referred to as GOU) has recognized their vital role for sustainable development of the country and thus placed them on the primary policy agenda. The government policy on wetland conservation and management was codified in 1995 as the National Policy for the Conservation and Management of Wetland Resources. The GOU has subsequently prepared a wide range of technical guidelines for management of wetlands and developed the Wetland Sector Strategic Plan for 2011-2020 under various international cooperation schemes. In 2005, Uganda hosted the Ninth Meeting of the RAMSAR Convention Conference of the Parties (RAMSAR COP9), the first occasion of the RAMSAR COP in Africa. This demonstrates raised awareness among the officials concerned in the conservation of wetlands.

The Wetland Management Department under the Ministry of Water and Environment is the lead agency for managing wetlands in the country. The primary mandate of the department is to formulate policies and guide district governments in implementing the policies, as well as sub-counties in delivering technical services and disseminating information at the local level. As such, the wetland management intervention takes place through a multi-layered hierarchy structure that embeds into the governance system of the country. Wetland information is managed by the National Wetland Information System that was established with donor assistance, a well-known example of cases wherein standardized inventory methods are used successfully.

Wetland management planning is an indispensable process in translating the policies into specific actions. However, most of local governments have not come up with such plans, or have not brought them into action. Limited information availability on wetland characteristics is also a constraint for effective and efficient management of wetlands, so that extensive wetlands have been converted to farm lands in the eastern and central parts of the country without due consideration and assessment of their conservation value.

It is popularly said that about 25% of wetland areas have diminished in the past fifteen years over the country. Disruption of soil and water environment is believed to have resulted in degradation of wetlands as refugee for wildlife. It is further reported that lowering water level and associated soil

erosion has pushed down rice yield. Lack of legislation to protect the designated twelve (12) RAMSAR sites in the country has also resulted in the overexploitation of wetland resources.

In such context, GOU requested the Government of Japan (hereinafter referred to as GOJ) a technical cooperation project for implementing wise use principle of wetlands through participatory process by: 1) making use of the project outputs of various donors; 2) equipping appropriate information on wetland characteristics; and 3) preparing wetland management plans. In response, the GOJ dispatched a project preparation mission in April 2011 to identify and agree on the project framework. Thereafter, an agreement was reached which was executed on the 28th day of October 2011 as stipulated in the Record of Discussions (hereinafter referred to as R/D) on the National Wetland Management Project in the Republic of Uganda, to which the original Project Design Matrix was annexed.

1.2 CHANGES IN PROJECT DESIGN MATRIX

During the implementation of the project, the design of the project has been reviewed and modified as necessary. Major changes were made at the occasion of project monitoring and evaluation in December 2015. As a result of the changes, following activities and an output have been added.

The table below summarises the changes in the Project Design Matrix. Details are provided in the annex.

Table 1-1 Changes in Project Design Matrix

Annex	Title
Annex 1	Project Design Matrix (Original)
Annex 2	Project Design Matrix (Revised on 19th June 2014)
Annex 3	Project Design Matrix (Proposed on 21st July 2015)
Annex 4	Project Design Matrix (Revised on 9th December 2015)

1.3 PROJECT DESCRIPTION

1.3.1 Project Development Objective and Performance Indicators

The purpose of the National Wetland Management Project is to establish a model of conservation and wise use of wetlands in Uganda. The overall goal of the project is “A model of conservation and wise use of wetlands is disseminated.” Performance indicators of the project purpose are: 1) Ecological character of the pilot sites shows no changes or improvement in pilot sites based on the ecological monitoring plans of each site; 2) At least 50% of the pilot activity participants adopt sustainable livelihood options introduced by the project; 3) Wetland Management Manual is approved as one of the WMD’s official document. The project outputs and their objectively verifiable indicators are presented below.

1	National Wetland Information System is	1	Data categories necessary for wetland management are added in the National Wetland Information System.

	upgraded and functional.	2	Relevant institutions and organizations are able to access the National Wetland Information System.
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.
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.
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.
5	Wetland related activities harmonized	1	Issues identified in the relevant policy, laws and regulations
		2	Minutes of Workshop/Symposium
6	Wetland management officer's capacity is strengthened.	1	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.
		2	At least 50% of the district officers in charge of wetland management over the country can understand and can use the wetland management manual.

All the project activities are presented in a format of flow chart in Annex 5.

1.3.2 Project Sites

Two (2) wetland systems; namely, 1) the Namatala-Doho Wetland System, and 2) the Awoja Wetland System were chosen as the target wetland systems for project activities. Both of the wetland systems lie in the eastern region of the country. They are neighbouring but having uniqueness in its resources as well as use.

Figure1-1 Two Wetland Systems in the Eastern Region of the Country

The Doho-Namatala wetland system is shared among the eight districts of Budaka, Bududa, Butaleja, Kibuku, Manafwa, Mbale, Pallisa and Tororo. The middle part of the wetland system is dedicated to rice production that has begun in the late 1970's. The total surface area of the basin pertinent to the wetland system is computed at approximately 2,299 km^2.

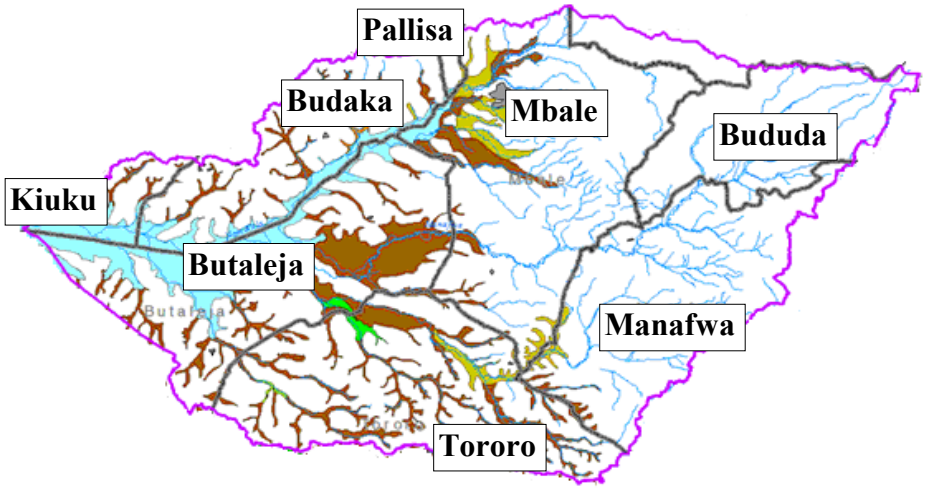


Figure1-2 Districts in Namatala-Doho Wetland System

Awoja wetland system comprises of twelve (12) districts: Katakawi, Soroti, Amuria, Kumi, Ngora, Napak, Bukedea, Sironko, Bulumbuli, Kween, Kapchorwa and Nakapiripirit. It is characterized by unique ecosystems of Bisina and Opeta Lakes that are recognized as Ramsar sites. The total area of the basin pertinent to the wetland system stands at 10,281 km^2.

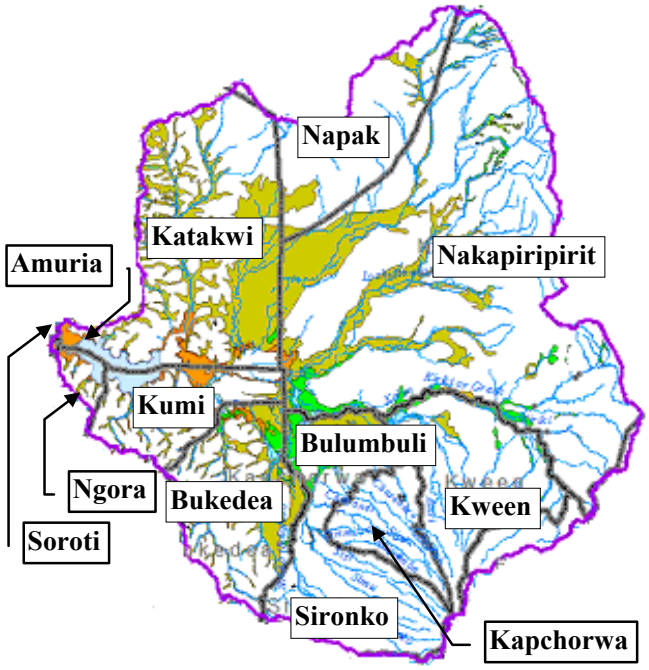


Figure1-3 Districts in Awoja Wetland System

1.3.3 Project Duration and Phasing

The assistance by Japan International Cooperation Agency was initially designed to support the Ugandan Government over a period of four (4) years from 2012 to March 2016. However, it was recommended and agreed that the duration of the project should be modified to extend another nine (9) months; and the entire project duration would be thus five (5) years as agreed in the R/D. The Project is thus implemented over 59 months until the end of December 2016, as follows:

Stage 1: From the beginning of March 2012 until the end of November 2013
Stage 2: From the beginning of December 2013 until the end of December 2014
Stage 3: From the beginning of January 2015 until the end of December 2016

1.3.4 Scope of Work

The Project was implemented in accordance with the R/D signed on the 28th day of October 2011 and the M/M signed on the 21st day of April 2011. Although this specific engagement was intended to implement activities specified in the contract executed by JICA and the Joint Venture formed for this engagement on the 1st March 2012, the service was delivered with full consideration of the overall goal of the Project.

1.3.5 Structure of Project Completion Report

The report is structured into five (5) chapters. This chapter provides project background, shed light to the changes made during the project implementation. The subsequent chapter presents the project activities completed. The chapter highlighted the significant issues; and detailed information on the

activities is placed in the attachment annex to the report. A general flow of the activities is presented in a chart as attached to the Annex 5. The third chapter of the report provides the information on the results of the terminal evaluation by summarizing the findings in the periodical monitoring and evaluation sheet. In Chapter 4, eighteen (18) key lessons drawn from the experience in implementing the project are presented. The final chapter of the report presents the recommendations to ensure continued benefit delivery to the project beneficiaries for an extended period after the assistance by the Government of Japan has been terminated.

Chapter 2. COMPLETED PROJECT ACTIVITIES

2.1 OUTPUT 1 FOR UPGRADING NWIS

1.1 Consultation to identify information gaps

Relevant institutions and organizations were consulted to identify scientific data and information gaps. A series of interviews complemented by FGD meetings were convened throughout the reporting period in order 1) to get an overview of information systems available in the country in the relevant authorities; and 2) to identify information that may be helpful for undertaking wetland assessment and planning. The consulted institutions included NFA, Makerere University, NEMA, DWRM and Ministry of Lands, Housing & Urban Development. Through the consultation meetings, it was confirmed that 1) there was a wide variety of layers produced in the past projects; and 2) they provide valuable information for wetland management. Pertinent information from the institutions were procured and integrated into NWIS.

As a result, the base map layers in new NW-GIS were enriched by such layers as rivers, roads, administrative boundaries, schools, hospitals, soil resource, land cover and locations of water supply facilities in addition to the wetland polygon data in 1994 and the administrative boundary polygons.

Table 2-1 Data categories added in the National Wetland Information System.

Data Categories	Description
Wetland (2008)	Polygon layer as a result of satellite image analysis in 2008
Wetland Section Observation	NWIS Section survey sites based on UTM XY coordinates
Wetland Monitoring Site	NWIS Monitoring survey sites based on UTM XY coordinates
Hydrograph (River)	River polylines from the data of Water Resources Department.
Hydrology (Lake)	Lake polygons from the data of Surveys and Mapping Department.
Road Network	Road Network polylines from NFA (1996), UNRA (2012), JICA Study Team (2012), and UBOS.
Protected Area	Protected Area, such as National Park, Wildlife Reserve, Hunting Area and so on polygons from Uganda Wildlife Authority (UWA)
Educational Institute	21,484 school points from UBOS
Health Centre (Hospital)	1,700 hospital points from UBOS
Trading Centre	2,869 trading centre points from UBOS
Local Government H/Q Town	Points of local government headquarter and town from MoLG
Soil Map	Soil map on the basis of FAO World reference base for soil resources for the two wetland systems
Land Cover Map	Land cover map available from National Forest Authority
Water Supply	Water Resource Directorate Information on location of boreholes

1-2 Review and redesign the National Wetland Information System.

It was confirmed that the NWIS database is comprised of two fundamental software packages, i.e. 1) Microsoft Access, specifically referred to as NWIS, and 2) ArcGIS, the mapping application software that is referred to as NW-GIS. They are collectively referred to as the National Wetlands Information System, or NWIS. ***1) Major technical issues in the NWIS:*** The review of NWIS identified two major

technical issues in the NWIS: 1) ArcGIS License Expiration; and 2) Incompatibility of user interfaces in the upgraded software as summarised below.

ArcGIS License Expiration: It was recognized that the software of the two sets of ArcGIS ArcView and one set of extension Spatial Analyst were installed in the previous computer, but their licenses had been expired making the maintenance service by Esri, the supplier of ArcGIS, impossible.

Incompatibility of user interfaces in the upgraded software: A user interface was developed using VBA, Visual Basic for Applications, by building user defined functions, automating processes such as data exchange, manipulation, and presentation between MS Access and ArcGIS. A verification test of the software after upgrade identified that the user interface had become non-functional. According to a website[2], ESRI will no longer support VBA as a development platform beyond ArcGIS 10, the latest version of ArcGIS.

Measures to address the issues: Under the Project, the ArcGIS licenses were upgraded to the latest version ArcGIS V 10.0 and the applications including VBA were installed to the personal computers procured under the project. MS Access was also upgraded to the latest version 2010. As .mdb file format remains as one of standard format recognized by ArcGIS 10, the files in .accdb were converted to .mdb, thus the data in the previous format became recognizable by the latest version of ArcGIS.

New file format of Access unrecognizable by updated ArcGIS: The NWIS was originally developed by using MS Access 2003 with ".mdb" file format and ArcGIS V.9.0. Before the project, the two packages of software had been upgraded to MS Access 2007 and ArcGIS V.9.2. In the project it was inevitable to convert NWIS original file format ".mdb" to ".accdb" to update VBA programs in NWIS. However, files in .accdb format are not recognized by the ArcGIS. Therefore, the files in .accdb format were downgraded into .mdb formatted file to make them fully functional.

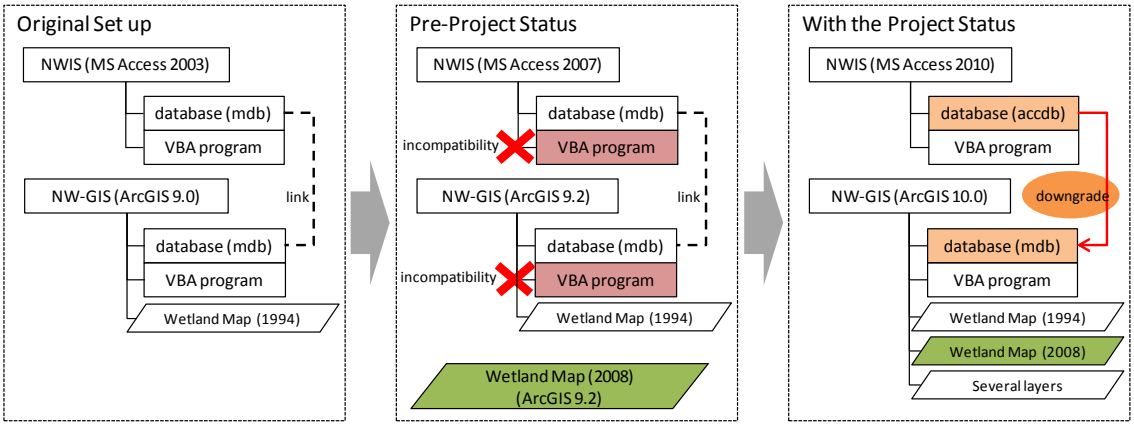


Figure2-1 Recovery of NWIS

NWIS is now fully operational: NWIS became fully operational through further modification: 1) errors and inconsistencies in the database such as disconnected association between the data entry and search function on NWIS database were corrected; 2) a wetland layer developed in 2008 by satellite image analysis was integrated into NW-GIS to be displayed in comparison with a wetland layer

[2] An article titled "What's new for VBA developers with ArcGIS 10" on ArcGIS resource center. [online]. Available from http://help.arcgis.com/en/sdk/10.0/vba_desktop/conceptualhelp/index.html#//000100000133000000 [accessed 3rd November 2016].

prepared in 1994. All the map layers presented in Table 2-1 were also integrated into the upgraded NW-GIS.

Redesign of NWIS to increase accessibility from other organizations: The NWIS had to be redesigned to enable relevant institutions and organizations to access the NWIS. To this end, use of a server machine was initially considered. However, this technical option was rejected considering feasibility of sustainable management of the system with due consideration on financial and technical capacity. In this context, the WMD decided to choose web-based services to ensure likelihood of sustainable use. It was agreed that the GIS data should be released to the public by using ArcGIS Online. Thus, external users of NWIS, even those who do not have GIS software, have access to the released information. The polygon data in NWIS are released after converting them into KMZ format and users will be able to manipulate both on Google Earth and ArcGIS online.

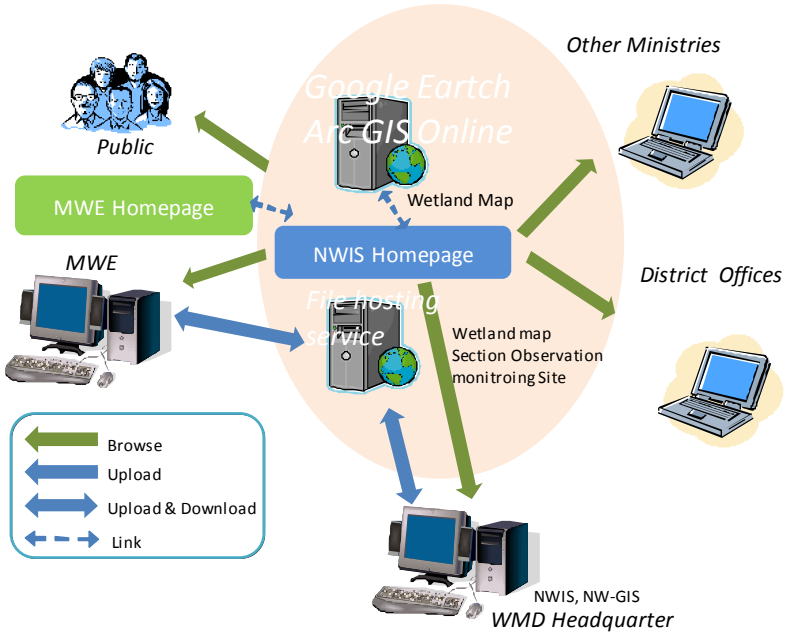


Figure2-2 Overview of NWIS online

This arrangement was made considering the wide-spread use of Google Earth. On the other hand, Access data is released using a file hosting service that offers cloud storage, file synchronization, and client software. It allows users to create a special folder on each of their computers, which then synchronizes so that it appears to be the same folder (with the same contents) regardless of which computer is used to view it. Considering that district officers are more familiar with Excel format than Access formatted data, the data would be released in Excel converted data by using a new tool developed under the project.

The WMD has created a web site on NWIS. Users will be able to view wetlands polygon data and major attribute data such as cover type and download map data at the website. Section Observation and Monitoring site information can also be downloaded from the site in an excel format. The web site

was initially hosted by using the service of Dropbox. However, it has discontinued the service for hosting HTML files for a website. Therefore, it was transferred to a Uganda based hosting service.

1.3 Procurement and installation of software and hardware

***Software Procured to make NWIS functional*:** Existing two (2) ArcGIS licences along with a license for Spatial Analyst were updated accompanied through two (2) years maintenance service contracts. A program of VBA, Visual Basic for Applications, was also updated to ensure that NWIS is fully operational on MS Access 2010 and ArcGIS10.

Table 2-2 Software procured for operation of NWIS

Category	License Quantity
MS Office Professional 2010	5
ESRI ArcGIS for Desktop Basic (formerly ArcView) 10.0 Single Use	2
ESRI ArcGIS Spatial Analyst for Desktop Single Use	1
VBA for ArcGIS	2

Table 2-3 Software maintenance programme

Category	Quantity	Maintenance period
ArcView Primary License Maintenance	1	2 years
ArcView Secondary License Maintenance	1	2 years
Maintenance for Spatial Analyst Extension	1	2 years

Hardware Procured to make NWIS functional: The best combination of hardware for operating NWIS was chosen and their minimum specifications for operating the database were laid down. The JICA Uganda Office subsequently procured computers and printers in accordance with these specifications. The procurement was taken place in March 2012.

Table 2-4 Hardware procured for operation of NWIS

Category	Product Name	Quantity	General Specifications
Desktop Computer	DELL Optiplex 780	2	CPU: Pentium Dual Core 3.20 GHz RAM: 2.0 GB HDD: 463 GB OS: Windows 7 Professional 64 bit type
Laptop computer	DELL Vostro	3	CPU: Pentium Dual Core 3.20 GHz RAM: 2.0 GB HDD: 463 GB OS: Windows 7 Professional 64 bit type
Printer	Canon iR-ADV C2020/C2020F color laser	1	Colour Digital Multifunction Imaging System Letter Up to 20/20 ppm Legal Up to 15 ppm Ledger Up to 15 ppm Magnification 25% - 400% (1% Increments)
	Canon image RUNNER 2525 monochrome laser	1	Desktop (Reader Combined + Inner Output) Magnification 25% to 400% (1% increment) Maximum Original Size Max. A3 / 11" x 17" Copy / Print Speed 25ppm Resolution Reading: 600 x 600dpi Writing:1200 x 1200dpi

Hardware Procured for the district offices in the two wetland system: A set of hardware was procured for the twenty (20) districts in the two wetland system. In selecting them, it was envisaged that the district officers should be equipped with a laptop computer and a GPS with a camera so that they were able to take georeferenced field photos by a camera with GPS and send the images and

reports to the Wetland Management Department using the internet from their office. They were provided with a set of antivirus program and also a stabilizer to protect the computers. For modem, district officers were consulted to choose appropriate service providers in each of the districts because internet connectivity significantly differs among the providers in each district.

Table 2-5 Software procured for operation of NWIS

Category	Product name	Quantity	General Specification
GPS with camera	Garmin GPS MAP 62sc	20	Handheld navigator with a 3-axis tilt-compensated compass with a 5 megapixel autofocus camera. Waterproof
Lap Top Computer	Dell Inspiron 3521 Kaspersky Antivirus MS Office Professional WINDOWS 7	20	Intel Core i3 1.5 Ghz, HD 500Gb Ram 4Gb USB Port
Stabilizers	INV-3855/13	20	5 KVA
Internet Modem	6 MTN 8 Orange 6 AIRTEL	20	Internet modems

1.4 Streamlining of the inventory format

The inventory format was revised as part of the activities for the detailed resource assessment under Output 2. A new format for Ecosystem Assessment was developed in November 2012 to include vegetation description by using the Braun-Blanquet flouristic-sociological approach. A tabulation format was also designed to enter them into NWIS.

1.5 Testing of applicability of NWIS

Testing of applicability of NWIS was performed in two stages. They are Stand-alone type PC and Homepage based NWIS.

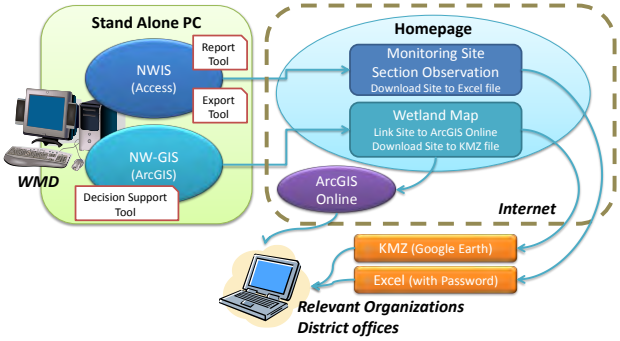


Figure2-3 Overview of testing of NWIS

Stage 1: Testing on stand-alone type PC: Testing on stand-alone PC is a continuing process of trial and error of design, review, consultation and modification of the programme. The project implementation adhered to the fundamental principles in order to minimize further customization of NWIS in the process of modification. Effort was made to accommodate diverse needs of WMD and settle evolving issues through progressive elaboration of the project. In the testing process, it was

modified, among others, to display survey point layer; monitoring site and polygon layer of wetlands. The record of the assessment under Output 2 was also reflected in the NW-GIS through integration of attribute tables and location information. In addition, a standard tool of ArcGIS, Report Viewer, was applied to create reports based on the information of each layer.

Stage 2: Testing of Homepage based NWIS: NWIS homepage was tested on line. The homepage was initially designed to display wetland maps via ArcGIS Online service as a single channel of information delivery. However, it was realized that ArcGIS Online connection in some instances is either slow or unavailable in displaying wetland maps. Considering that such situation may arise more frequently in accessing it from rural districts, WMD opted to make broader technical options available to the districts countrywide. Thus it was modified to provide wetland maps in KMZ format and downloadable from the website to enable district officers to view wetland map on Google Earth that may be installed, as needed, on their computers.

1.6 Provision of training on NWIS

Focus issues of the Training-Basics-: The customised user interface provided in NWIS obviously reduced the number of steps in deriving a result. However, the simplicity and user-friendliness of the interface would be attained at the cost of incomprehension by the users on data *per se* being analysed and relational linkage of one table to another. Capturing the entire structure of the database and deepening understanding of the NWIS/NW-GIS *per se* is desirable because it enhances the flexibility in data analysis and capability for troubleshooting, thus, maximizes the likelihood of sustainability. In this context, the training on NWIS was provided with two major purposes: 1) to enable data handling by the default commands of ArcGIS and MS Access; and 2) to understand the structure of the data tables of NWIS and the contents of each table. The training is also supposed to enable the officers to extract needed data from NWIS and to register them as layers of ArcGIS. Thus trainings on understanding database itself and operating default commands of software were convened for the WMD officers from May to December 2012. It started from basics of GIS and expanded to include, among others, data creation in GIS, operation of database software and understanding NWIS database.

Table 2-6 Topics of OJT on NWIS / NW-GIS

Category	Topics
Basics of GIS	Mapping & Database, Vector data, Attribute Table, Coordinate System, Raster data (DEM, Satellite image), Thematic Map, GIS & CAD
Application of GIS (using NW-GIS)	SQL (Select by Attribute), Zoom to Selected Feature, Measure Distance, Editor tool, Import Excel data, Display XY Data, Import / Export Google Earth kmz file, Spatial Adjustment tool, Map Layout, Creating Thematic Map
Basics of MS Access	Open Table, Data View / Design View of Table, Relationships, Primary Key
Application of Access (using NWIS)	Manual Operation of NWIS database tables, Split NWIS data tables, Relationships in NWIS, Add Relationship, Run Query, Export Query table to Excel,

Focus issues of the training- Procedure to create point layers-The procedure to add location table to body data table enables users to browse its data directly as attribute table. It is essential difference from relationships in MS Access. The issues instructed OJT basis included: 1) Relationships of tables in NWIS are confirmed and necessary tables; location table, body data table and legend table are picked up from MS Access; 2) Location data fields are joined to body data table by SQL in MS Access or by Add Join tool in ArcGIS. Legend tables were joined in the same way and 3) The joined table is imported into ArcGIS as point layer and saved in another name.

Focus issues of the Training-Sustainability- Recognizing that maintenance of the GIS software service would incur additional fiscal burden to the department, an alternative approach to allow use of geographical information was discussed. The training in Japan in the final year 2016 was so designed to enable use of QGIS in addition to ArcGIS. Thus the department is now capable of using two sets of geographical information software that may be chosen depending on the budget availability and technical needs.

2.2 OUTPUT 2 FOR WETLAND ASSESSMENT

2.1 Review of existing information

A review of existing information was conducted either as part of Activity 1.1 on consultation to identify information gaps or as an independent activity under Output 2. As presented in Table 2-1 a wide range of map layers were collected. Soil maps, among others, provided valuable information on the direction of the project.

2.2 Organization of a team to implement assessment

It was initially expected that the detailed resource assessment of the wetlands should be implemented by a multi-disciplinary team led by district officer(s) at the time of project preparation in 2011. However, it was affirmed through the process of developing the work plan that separate teams be organized for each district and according to purpose of the subprojects that were implemented at different timing. The team formation of each assessment component is summarised and presented in Table 2-7.

2.3 Development of work plans for assessment

A work plan for Detailed Resource Assessment was developed through the following major steps: 1) a preliminary field survey from 23rd April until 27th April 2012, 2) workshops convened to identify major management issues on 6th June in Mbale and 8th June 2012 in Soroti with the participation of district officer in wetlands, agriculture, forestry and fishers and 3) a reconnaissance survey conducted to verify the key findings of the workshops from 19th June until 29th June 2012. The draft work plans

were further modified through a follow-up reconnaissance survey conducted from 20th to 30th November 2012. The assessment at the time of preparing the work plan included eight subprojects; though, the eighth subproject for review of policies was subsequently integrated into the fifth output of the project to harmonize wetland related activities. For the details of the activity, please refer to Section 2.5 Output 5 for Harmonization of activities.

1 Ecosystem Assessment
2 Wetland Use and Livelihood Assessment
3 Assessment of Flood Control Function
4 Preliminary Assessment of Soil Erosion and Sediment Yield
5 Sedimentation Monitoring in Awoja
6 Water Quality Assessment
7 Rural Biomass Energy Assessment

Table 2-7 Organization of team to implement assessment

	Subprojects	Team Organization	
		Team	Members
1	Ecosystem Assessment	A team was organized for each of the districts assessed. Each team was headed by a district officer in charge of wetland management and technically supported by one of the WMD officers. The JICA Team provided hands-on skills training on the methodology to WMD officers.	District: Environmental/Wetland Officers WMD: Afai Silvano, Kabaalu Deo and Ituka Gilbert JICA: Hiroyoshi Chujo
2	Wetland Use and Livelihood Assessment	A team was organized for each district headed by a district officer in charge of wetland management. Sub-county focal persons also participated in the assessment at each of the selected sites. Most of them were supported by the JICA Team. But for Kibuku, Bududa, Pallisa and Manafwa, the assessments were supported and led by the officer in Budaka District. While the assessments in Nakapiripirit, Kapchorwa and Kween were supported and led by an environmental focal person in Bukedea.	District: Wetland Officer Subcounty: Focal Persons JICA: Yasuhiko Muramatsu ■ Kijali Cyprian Kamwada supported the district officers in Kibuku, Bududa, Pallisa and Manafwa. ■ Omuya Peter supported the district officers in Nakapiripirit, Kapchorwa and Kween.
3	Assessment of Flood Control Function	The assessment was initially supported by Kanehiro Morishita of the JICA Team and jointly reviewed by Kymbadde Richard.	District: Kymbadde Richard JICA: Kanehiro Morishita
4	Preliminary Assessment of Soil Erosion and Sediment Yield	This part of the assessment was undertaken by the National Agricultural Research Laboratories Kawanda.	National Agricultural Research Laboratories Kawanda.
5	Sedimentation Monitoring in Awoja	A team was organized headed by Kymbadde Richard and supported by Yasuhiko Muramatsu. At each site, villagers also participated in identifying appropriate sites for monitoring.	WMD: Kymbadde Richard Subcounty: Focal Persons JICA: Yasuhiko Muramatsu Villagers also participated.
6	Water Quality Assessment	The assessment was undertaken by the water quality management department of Directorate of water resources management under MWE.	Water quality management department of Directorate of water resources management under MWE.
7	Rural Biomass Energy Assessment	A team is organized for Kumi district headed by the district officer in charge of wetland management	District: Okalang Emmanuel WMD: Afai Silvano and Gokaka Geoffrey JICA: Chujo Hiroyoshi

2.4 Conduct of detailed resource assessment

The activities pertaining to the detailed resource assessment were launched in December 2012 after completing a technical orientation to the officers undertaking the assessment.

Table 2-8 Detailed resource assessment conducted

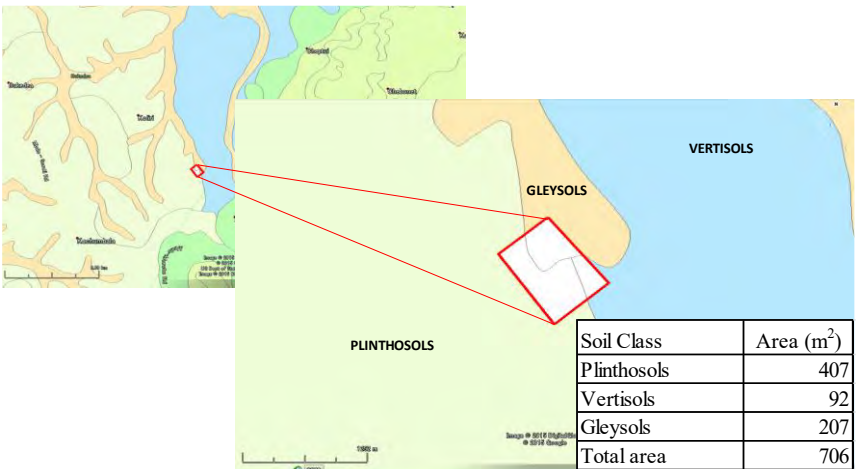
Subprojects		Outline
1	Ecosystem Assessment	The Braun-Blanquet floristic-sociological approach was applied primarily for the description of vegetation in the ecosystem assessment. The approach is known to be cost-effective, flexible and easy to learn, and widely accepted by ecological community for plant community classification, rare plant habitat characterization and impacts assessment on vegetation. Sample plots were chosen through reconnaissance survey as well as satellite image observation. The analysis of the plots, referred to as Relevé, was performed to compare anthropogenic impacts resulted from farming, grazing and sedimentation. To support the findings of the Relevé, complementary assessments of bird, fish and benthic invertebrate, water quality and soil were conducted in collaboration with government agencies and NGOs.
2	Wetland Use and Livelihood Assessment	The wetland use and livelihood assessment was an application of participatory approach in identifying wetland issues and measures to address them. For these purposes, resource mapping, historical review of wetland use was discussed with the communities. It also verified the wetland types and wetland use pattern; and quantified economic values of each land use pattern by means of interviews and analysis of available documents. The findings were fed into interpretation of findings in the ecosystem assessment, the national wetland information system and development of the Framework Management Plans.
3	Assessment of Flood Control Function	The component was to assess capacity of wetlands in controlling flood water by using the historical gauging data. The major prerequisites for undertaking the hydrological analysis included, among others: 1) there are two functional gauging stations, at minimum, located at an upstream and downstream point of a stream; 2) there is a wetlands area lying between the two gauging stations to exert flood control function measurable by the two gauging stations; and 3) the gauging data and other geo-reference data including elevation were satisfactory with respect to the reliability and validity.
4	Preliminary Assessment of Soil Erosion and Sediment Yield	The objective of the preliminary assessment was to identify erosion hazard zones and to estimate sediment yield for each sub-basins by using the Universal Soil Loss Equation. Sediment control may constitute key management measures to ensure that wetland resources are used sustainably. Kawanda Agricultural Research Institute of NARO engaged in this part of the study.
5	Sedimentation Monitoring in Awoja	The sediment monitoring was a preliminary examination to verify the extensive wetlands lying between Mt.Elgon and Lake Opeta, serving as a sediment reservoir and thus protecting the lake from abrupt habitat changes.
6	Water Quality Assessment	The water quality assessments included three thematic activities with different objectives and therefore required different sampling design. They are:1) Sediment and Paddy Sustainability, 2) Sediments Monitoring at existing gauging stations and 3) Nutrients in Lake Opeta and Bisina.
7	Rural Biomass Energy Assessment	This was to appreciate the magnitude of the pressure placed on Tisai Island and estimate how long the island would be able to sustain the energy source considering the fact that the majority (if not all) of households in Kumi District derives their source of firewood from Tisai Island. The assessment was deemed particularly important for maintenance of ecosystem of Opeta Lake because 1) Tisai Island, a wooded island contiguous to Opeta Lake, is now a supplier of firewood to Kumi District; and 2) the soil class of the island include Arenosls that is known for its high sensitivity to erosion. Removal of forest coverage of the island would result in subsequent top soil removal and consequently alteration of the ecosystem around the island and the livelihood of the people.

2.5 Update of data in the NWIS

Upon the completion of the assessment, collected data from the assessment activities were incorporated into the National Wetland Information System to update the wetland inventory.

2.6 Design of Decision Support System (DSS)

The Decision Support System, often cited as Decision Support Tool, was developed to allow extraction of information in an arbitrary designated area to provide information on desired management options on the top of NWIS. By using the tool, management options are drawn from the information on 1) Soil types found in wetlands, 2) Classification of wetlands adopted in NWIS and 3) Kampala Matrix.



Soil Class	Area (m^2)
Plinthosols	407
Vertisols	92
Gleysols	207
Total area	706

Figure2-4 Conceptual Illustration of DSS

Soil types found in wetlands: The major soil type found in wetlands generally include: Histosols, Gleysols and Vertisols. Each soil type has uniqueness in their chemical, biological and physical properties, which generally determine general management policies as summarised in Table 2-9. More details on the nature and management policies are provided in Annex 6 of this report.

Table 2-9 General management policy for each of the major soil types

Soil Class	General Properties	General Management Policy
Histosols	Histosols comprise soils formed in organic material. In Uganda, the soils are often found under the vegetation of papyrus, reeds and sedge in lowlands.	It is desirable to protect and conserve fragile peat lands because of their intrinsic value and because prospects for their sustained agricultural use are meagre.
Gleysols	Gleysols are wetland soils that are saturated with groundwater for long enough periods to develop a characteristic gleyic colour pattern. This pattern is essentially made up of reddish, brownish or yellowish colours at ped surfaces and/or in the upper soil layer or layers, in combination with greyish/bluish colours inside the peds and/or deeper in the soil.	Gleysols can be well used for wetland rice cultivation where surface water is managed. Supply of cation from upstream is often an advantage for paddy rice production.
Vertisols	Vertisols are churning, heavy clay soils with a high proportion of swelling clays. These soils form deep wide cracks from the surface downward when they dry out, which happens in most years.	These soils have considerable agricultural potential, but adapted management is a precondition for sustained production.

Source: IUSS Working Group WRB. 2007. World Reference Base for Soil Resources 2006, first update 2007. World Soil Resources Reports No. 103. FAO, Rome.

***Classification of wetlands adopted in NWIS*:** Histosols are soil found in rather deeper water body and mostly vegetated with papyrus or other types of vegetation such as Sedges. Therefore, if a Histosols area is covered with papyrus, the wetland may be judged "Not threatened". But if the area is converted into farmland, it must have been "Destroyed". Similarly, if the area is found vegetated with grassland, it indicates drainage of wetland area and conversion of wetlands, thus it indicates "Threatened" wetland. The same rule was applied to draw a matrix in Table 2-10.

Table 2-10 Soil Wetland Threat Matrix (Logical Design)

Wetland / Soil	Permanent Wetlands						Seasonal Wetlands				
	Bush/ Palm/ Thicket (6p)	Grassland (7p)	Papyrus (8a)	Sedges (8b)	Farmland (9p)	Floating Vegetation (8c)	Woodland/ Forest/ Swamp (5s)	Bush/ Palm/ Thicket (6s)	Grassland (7s)	Farmland (9s)	Built-up (11)
Histosols	1	1	2	2	3	2	1/2	2	2	1/2	3
Gleysols	1	2	2	2	1/2	2	1	2	2	1/2	3
Vertisols	1	2	2	2	1/2	2	2	2	2	1/2	3

Note: 1represents "Threatened", 2 represent "Not Threatened" and 3representes "Destroyed.
Source: Classification of wetland adopted those used in NWIS.

Kampala Matrix: Kampala Matrix is designed to prioritize wetlands for various management options as summarised in Table 2-11.

Table 2-11 Kampala Matrix

		Status		
		Threatened	Not threatened	Destroyed
Importance	Vital	Restore	Monitor strictly	Restore
	Valuable	Ensure wise use	Monitor	Restore
	Dispensable	Encourage wise use	Monitor	Forget for the time being

Source: Wetlands Management Department

2.7 Linking of DSS with NWIS and test applicability

The Decision Support System was built to Run on Esri ArcGIS for Desktop Software (ArcMap) and installed as an Addin on the desktop computer used for NWIS management at the Department of Wetlands Management.

2.3 OUTPUT 3 FOR PREPARING WETLAND MANAGEMENT PLANS

3.1 Organization of Wetland System Committees

The relevant officers of the WMD and the districts identified the stakeholders and the target area through workshops and sensitization activities on the ground. The Wetland System Committees were also identified at two levels namely; district and inter-districts to spearhead the implementation of the wetland system Framework Management Plan of Awoja and Doho-Namatala. Each district nominated members of Implementation Committee comprising of CAO, DEO, DPO, DCDO, DWO, DPU, Town Clerk, Clerk to Council and NGO. Interim members of Inter-District Implementation Committee were also selected. The roles and responsibilities of the committees were then discussed and recorded; the membership of the committee was also discussed in the subsequent period.

3.2 Review and update of existing plans

The Framework Management Plan for Doho-Namatala Wetland System was adopted in 2008 for the six (6) districts in the wetland system, namely Butaleja, Budaka, Mbale, Manafwa, Tororo and Pallisa. The plan was reviewed and updated under the Project with participation of the additional two (2) districts, namely Bududa and Kibuku. The review was done through a consultative process with the District Environment/Wetland Officers using the following template.

Table 2-12 Questionnaire for review of the plan

Issues	Operational Objectives	Key Activities	Outputs	Responsible person[s]	Level of Achievement	
					1	(If it is achieved) When? Where? Who? How?
					2	(If it is not achieved) Why?
Non -functional environment committees at all levels.	Create awareness.	Conduct Trainings.	Training Reports	DWO/DEO		
	Designate environment/ wetland focal point officers	Develop Terms of Reference	Terms of reference Focal point officer	DEO/DWO		
		Train Focal Point persons	Training Reports			

All the districts prepared and presented the required information during the workshop held on 3rd July 2013, the results were subsequently compiled in a process review report.

The process review report presents not only the key findings, but also the stakeholder analysis and major implications for the effective implementation of the plan. It reveals that during the past five years, the stakeholders in the wetland system witnessed various changes including population growth, economic growth, and decentralization. It also indicates that despite the enormous efforts and accomplishments by the relevant districts, many challenges still remain. The participants of the workshops for the review acknowledged that framework planning was a process that aims for gradual but continuous improvement in wetland use and conservation. The review report was prepared as a separate document from the main text of the Framework Management Plan.

3.3 Identification of key issues in the systems

During the planning process of Framework Management Plan, the issues on wetland management were captured and discussed through community consultations to come up with the measures for key issues. The issues and the measures are summarised and presented in Table 2-13, Table 2-14 and Table 2-15.

Table 2-13 Major issues and measures in institutional sub-system

Doho-Namatala	
Key Issues	**Measures / Objectives**
• Absence / non-functional wetland resource users groups • Internal and inter-tribal conflicts in relation to wetland boundary and use • Inadequate political involvement, will, and technical commitment. • Inadequate wetland management information • Inactive environmental committees at parish, sub-county, district and inter-district levels	• To promote community based management of Doho Namatala wetland resources • To create stakeholder and public awareness on the importance of the Doho Namatala wetland system • To empower environmental committees for effective management of Doho-Namatala wetland resources
Awoja	
Key Issues	**Measures / Objectives**
• Non-functional entities responsible for fish resource management • Conflict over wetland use between cattle keepers and cultivators • Non-compliance with the regulation on protection zones for river bank • Illegal ownership of wet lands by people around them • Lack of assigned officer in the sub-counties to control free entry to the wetlands	• To formulate and strengthen existing resource user groups to exert their roles in managing wetland resources • To enforce relevant laws and regulations for addressing diverse wetland issues; • To deliver timely and appropriate extension services to wetland users

Table 2-14 Major issues and measures in bio-physical sub-system

Doho-Namatala	
Key Issues	**Measures / Objectives**
• Deforestation • Reclamation of river banks • Soil erosion • Siltation of the wetland and the river/streams • Over flooding • Reduced water level in River Namatala • Pollution of the water in the river • Cultivation up to the stream/river • Settlements in the wetlands affects riverbank and soil • Loss of bio-diversity especially fish, birds and particular vegetation species	• To restore the wetlands and promote re-vegetation of the river banks • To promote soil and water conservation in the wetland • To protect and restore valuable biological resources in the Doho Namatala wetland system
Awoja	
Key Issues	**Measures / Objectives**
• Riverbank erosion • Encroachment of wetlands along rivers for crop cultivation • Soil erosion • Flooding in wetland areas • Seasonal shortage of water • Water pollution; rivers, dams and other water bodies by human activity upstream • Decreased forest coverage • Disappearance of wild birds and wild animals from the wetland	• To promote soil and water conservation practices • To restore water quality by applying avoidance, minimization and mitigation principles • To restore and protect unique biological resources considering regional diversity of issues and needs

Table 2-15 Major issues and measures in socio-economic sub-system

Doho-Namatala	
Key Issues	**Measures / Objectives**
• Low crop yields • Over cultivation in the wetlands • Over harvesting of wetland resources • High demand for food/food shortage due to over-population • Unemployment/lack of alternative income generation activities • Poor fishing methods, Poor farming practices • Lack of fuel wood and poles in the catchment • Conflicts of ownership of the wetland resource	• To promote sustainable utilization of the Doho - Namatala wetland resources • To design and implement measures to respond to diverse social needs in collaboration with other sectors
Awoja	
Key Issues	**Measures / Objectives**
• Inappropriate way of farming method and choice of crops in the wetland combined with encroachment /unplanned use of wetlands for cultivation • Underdevelopment of ecotourism resources • Over grazing in and around the wetlands which exposes the soil to agents of erosion and other issues • Indiscriminate fishing as a survival alternative mechanism for communities adjacent to the wetlands • Uncontrolled bush burning	• To promote sustainable wetland use practices that are compatible with conservation objectives responding to growing demands for foods and employment • To promote measures to respond to diverse social needs in collaboration with other sectors

3.4 Discussion of measures for key issues

For the purpose of identifying issues and discussing measures, community consultations were convened in May 2013 at the sub-county headquarters in close proximity to wetlands and involved the participation of parish representatives and wetland users. The findings of the community consultation were summarised by identifying issues and analysing their causes and suggested solutions. After the consultations, the measures for the key issues were discussed with the District Environment/Wetland Officers during the workshops held in June 2013. The results were then summarised according to the following sub-systems: 1) institutional, 2) bio-physical and 3) socio-economic subsystems as shown in Table 2-13, Table 2-14 and Table 2-15.

3.5 Development of framework management plans

The Project team confirmed the standard process to prepare Framework Management Plans with the counterparts (C/P) at the Wetland Management Department, who had already developed four (4) Framework Management Plans through support from BTC. The Project team followed the same process as shown below.

[1] Scientific Assessment on Wetlands
[2] Defining Target Area
[3] Identification of Stakeholders
[4] Situational Analysis
[5] Training Staff (for Officers)
[6] Community Consultation
[7] Synthesis and Draft FMP
[8] Presentation of the Draft FMP
[9] Approval of FMP

Based on the planning process above, the WMD in collaboration with the JICA Team convened several workshops and undertook other activities on the ground as shown in the table below. During the period between each workshop, the district officers tried their best to consult with their stakeholders (sub-counties, parishes and so on) about the Plan.

Table 2-16 Workshops and activities for the preparation of FMP

Workshops and Activities		Doho-Namatala	Awoja
1st WS	March 2013	Prior consultation with District Environment/Wetland Officers - Confirmation of stakeholders - Confirmation of target areas (districts, sub-counties)	
2nd WS	April 2013	• Explanation on planning process of FMP and the Project outline to Districts' stakeholders	• Explanation on planning process of FMP and the Project outline to Districts' stakeholders • Review of existing FMP: explanation on outline of other plans, request of comments and consultation
Sensitization	End of April 2013	• Explanation by District Environment/Wetland officers concerning the planning process and the outline of the Project to Sub-county officers	
3rd WS for Training	May 2013	• Training of District Environment/Wetland officers and sub-county officers on community consultation and pilot project prioritization • Practical training (interview with parish representatives) in sub-counties	
Community Consultation	May 2013	• Discussion on problems, causes and solutions on wetland management between Districts/sub-counties' officers in charge in wetland, parish representatives and wetland users • Preparation of report on the community consultation and proposals of pilot projects	
4th WS	June 2013	• Presentation of the results of community consultation and the proposal of pilot projects by District Environment/Wetland Officers	
5th WS	July2013	• Discussion of draft FMP and confirmation of the approval process • Identification of Goal, Vision, Objective of the Plan and Action Plan	• Discussion on drafts FMP and confirmation of the approval process • Review of existing Wetland Management Plan: evaluation of the Action Plan • Identification of Goal, Vision, Objective of the Plan and Action Plan
6th WS	September 2013	• Presentation of draft FMP (Executive Summary) • Discussion on pilot project prioritization	

Upon completion of the Framework Management Plans, the Framework Management Plans of the Wetland Systems were formally launched on 22nd and 24th January 2014 for Doho-Namatala and Awoja Wetland Systems.

3-6 Develop Sub-County Wetland Action Plans with support from parish representatives.

The WMD supported the preparation of Sub-County Wetland Action Plans (SWAPs) and District Wetland Action Plans (DWAPs) in 11 districts with technical and financial assistance of the project. Other districts, however, were also supported technically by getting opportunities to attend training workshops. The process of developing SWAPs was consultative in order to ensure that all stakeholders involved in wetland management actively participated in the planning process. The below is the process in developing SWAPs.

[1] Confirmation of the planning process and participants

[2] Training of officers on SWAP development

[3] SWAP planning workshop at sub-county (consultation with parish representatives)

[4] Preparation of draft SWAP

[5] Approval of SWAP by Sub-County Council

Based on the process above, the WMD convened several workshops and undertook other activities on the ground as shown in the table below. During the workshops (WS3) which were held at one hundred twenty-four (124) sub-counties in total, the district officers together with sub-county focal point person on environment tried their best to consult with parish representatives (chief, chairperson, secretary for environment, resource users, etc.) and other sub-county officers about the plan. WMD counterparts limited their roles to monitoring and providing technical advice to district and sub-county officers.

Table 2-17 Workshops for Preparation of SWAPs

Workshop	Target districts	Major agenda	Date	Venue	Participants from Local Governments	Participants from WMD
WS 1	20 districts in the two wetland systems	Introductory workshops to present the general orientation and confirm the schedule	29th January	Mbale	District Environment/ Wetland Officers and another technical officer	Gokaka Geoffrey Matovu Robinah
			31st January	Soroti		Gokaka Geoffrey Matovu Robinah
WS 2	20 districts in the two wetland systems	Training workshop for the district and sub-county officers for preparing DWAP/ SWAP	3 days from 4th February	Mbale	District Environment/ Wetland Officers and another technical officer Sub-county focal persons on environment	Barugahare Vincent Gokaka Geoffrey Kabaalu Deo Matovu Robinah
			3 days from 11th February	Kumi		Barugahare Vincent Gokaka Geoffrey Kabaalu Deo Matovu Robinah
WS 3	11 districts with pilot projects	Planning workshops for preparing SWAPs in 124 sub-counties	2 days for each sub-county in the relevant district from 17th February until 1st April.	Sub-county office	District Environment/ Wetland Officers and another technical officer Sub-county focal persons on environment Parish representatives	(monitoring) Gokaka Geoffrey Kabaalu Deo

SWAPs were then structured in the following general table of content.

Chapter 1: General Description of Sub-county

Location, Historical Use of Wetlands, Population, Ethnic Group and Language, Gender, Land Use/ Land Ownership, Climate /Climate Change

Chapter 2: Wetlands in Sub-county

List of Wetlands, Current Use of Wetland by Gender

Chapter 3: Wetland Problems/Issues in Sub-county

Problem Analysis, Prioritization of Problems

Chapter 4: Sub-county Wetland Action Plan

Overall Goal, Specific Goals, Objectives

Chapter 5: Five Year Work Plan for Sub-County

Activities, Inputs, Outputs, Location, Responsible persons, Timeframe, Budget and Source of Funds

3-7 Organize District Technical Planning Committees.

Recognizing that wetland management often involves cross cutting issues and so requires

inter-sectoral approach, each district organized a technical planning committee for the preparation of DWAP, comprising of District Environment/Wetland Officer, District Natural Resource Officer, District Agriculture Officer, District Forest Officer, District Fishery Officer, District Community Development Officer, District Planner and Deputy/Assistant CAO. The committee aimed to prepare a quality document of DWAP and integrate it into the District Development Plan in order to ensure that wetland management activities are budgeted and implemented sustainably by each sector.

3-8 District Technical Planning Committees develop District Wetland Action Plans in each district.

DWAPs were prepared based on the needs and priorities which were presented in SWAPs. In other words, all SWAPs in a district were harmonized and consolidated into a DWAP. The workshop aimed at analysing, synthesising and summarising SWAPs by finding the commonalities of wetland uses and problems/issues among different sub-counties, and filling any gaps that may have been left out at sub-county level. One focal point person of environment from each sub-county also joined the workshop as well as the district officers to ensure that their issues and needs were incorporated into a DWAP.

Table 2-18 Workshops for Preparation of DWAPs

Workshop Codes	Target districts	Major agenda	Date	Venue	Participants from Local Governments	Participants from WMD
WS 4	11 districts with pilot projects	Integration of all SWAPs to prepare a DWAP in 11 districts	2 days for each district from 25th March to Mid-May	District Office	District Environment/ Wetland Officers and another technical officer Sub-county focal persons on environment	Gokaka Geoffrey Kabaalu Deo

DWAPs were structured in the following general table of content.

Chapter 1: Introduction

Background, Objectives, Methodology Used / Planning Process, Legal, Policy and Institutional Framework for Wetlands Management

Chapter 2: Description / State of Wetland

General Description (Location, Size, Population), Physical Features, Ecological Features, Socio-Economic Features

Chapter 3: Identification of Problems and Opportunities

Resource Analysis, Problem Analysis and Prioritization

Chapter 4: Management Goal, Objectives and Actions

Overall Goals, Objectives, Five Year Action Plan

Chapter 5: Implementation Strategy

Implementation Structure/Committees, Monitoring and Evaluation

3-9 Review and update Wetland System Management Plans, District Wetland Action Plans and Sub-County Wetland Action Plans

The relevant plans should be reviewed and updated in a formal manner every five years in accordance with the Ugandan's regular planning procedure. However, the Wetland Management Department assisted the relevant entities in reviewing and updating the plans during the project period. The followings are the summary of the activities.

After the launching of the plans, the fist framework management plan implementation committee meetings were convened on 12th November 2015 for Awoja and 19th November 2015 for Doho-Namatala Wetland Systems. The meetings were convened with the main aim of activating the committee and informing the progress and issues of the National Wetlands Management Project to the concerned officers in the two wetland systems. In the meeting for Awoja Wetland System, approximately 110 officers participated. They included the representative committee members of each of the districts, WMD and MAAIF. The status and issues of the project was presented and discussed among the participants. Further by reviewing the membership of the committee members, it was suggested that the members should be re-nominated through an accountable and transparent manner. Thus the participants discussed and nominated the new members. In the meeting for Doho-Namatala Wetland System, the municipal government of Mbale was additionally co-opted as the members of the implementation committee. The participants of the meetings have captured following issues, among others, to be settled by the members of the Inter-district FMP Implementation committee.

1) Needs of Inter-district coordination for management of some wetlands for instance those in Katakwi, Soroti, Ngora and Kumi for Bisina Lake Ramsar Site; and Pallisa, Budaka and Mbale for the pilot site in Pallisa.
2) Parallel implementation of similar projects in the same area including: 1) The Project on Irrigation Scheme Development in Central and Eastern Uganda and 2) Catchment Management Project.
3) The financial support by JICA will terminate at the end of the year 2016. Thus the Inter-district FMP Implementation committee should be operational before it.

In 2016, two meetings were convened for each wetland systems. The first meetings took place on 26th May for Awoja Wetland System and 27th May for Doho-Namatala Wetland System to inform the progress and issues in implementing the framework management plans, more specifically with a focus on the pilot activities under the National Wetlands Management Project, key issues and measures to address them in utilizing NWIS, the roles and responsibilities of the implementation committee in ecological monitoring plan, and the linkage of the implementation committees and Kyoga water management zone. The second meetings in the year 2016 took place for Awoja wetland system on 25th and 26th and for Doho-Namatala wetland system on 27th and 28th October 2016. Each gathering started with a field visit to selected pilot projects before actual meeting on the following day.

2.4 OUTPUT 4 FOR IMPLEMENTATION OF PILOT ACTIVITIES

4.1 Selection of pilot sites

Selection of pilot sites considered two aspects: 1) wetland status and 2) investment opportunity. This is because any wetland management intervention without income generation activities will not be sustained. Therefore, market-driven approach was adopted to enhance wetland management sustainability. The project leveraged the expertise and field experiences of the officers at district and sub-county levels by allowing them freedom of choice and the broad discretionary judgement, while adhering to the general guidelines to choose vital and threatened and/or valuable and threatened wetlands. For investment opportunity, the following major criteria were applied: 1) Readiness and preparedness of the project participants; 2) Consistency with project design / Wise-Use Concept; 3) Financial / Economic viability; 4) Technical feasibility; and 5) Environmental impacts. Details of a set of evaluation criteria for prioritization are presented in Annex 7.

A hands-on training was provided to the district officers on the occasion of the workshop in May 2013 to equip them with site selection and prioritization criteria. Each district officer then convened workshops at least two sites in each of the districts to identify wetland issues and measures to address them; and recommend sites for pilot projects. They eventually identified sixteen (16) sites for Doho-Namatala Wetland System and thirty-one (31) sites for Awoja Wetland System.

From the long list of the project sites, further prioritization was performed by avoiding projects that were common, similar or overlapping. Projects with limited maturity were also given lower priority. As a result, eight projects sites in Doho-Namatala and five project sites in Awoja Wetland Systems were chosen. Maturity of the proposed pilot projects was still in an infant level so that the National Wetlands Management Project further continued to support the district officers in defining the approach to ensure the concept of wise use was appropriately translated into actions. Readers of this report are reminded that the thematic issues, approach and methodology had been reviewed repeatedly throughout the planning and implementation process, which has therefore resulted in some changes in them the subsequent periods. Thus the information provided in Table 2-19 and Table 2-20 are original proposal made by the community members.

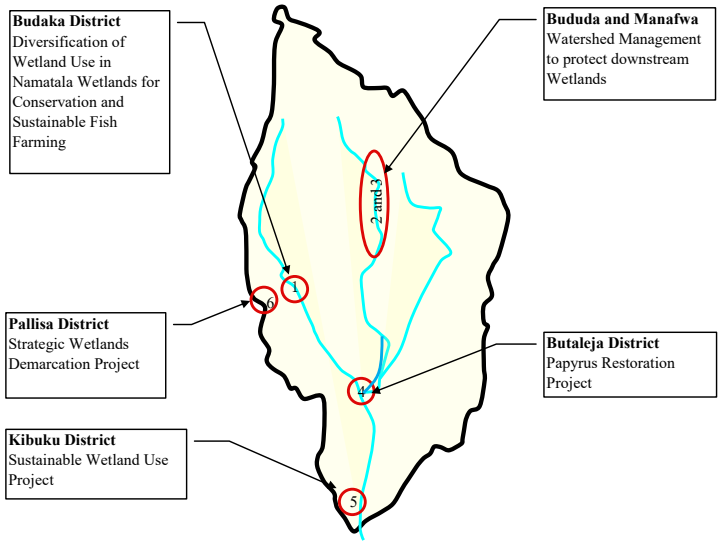


Figure2-5 Pilot Sites in Doho-Namatala Wetland System

Table 2-19 Proposed pilot sites in Doho-Namatala wetland system

No.	Site	Thematic issues	Approach and methodology to address the issues
1	Budaka Kamonkoli S/c	Diversification of Wetland Use in Namatala Wetlands for Conservation and Sustainable Fish Farming	Overreliance on rice production in the wetlands along the River Namtala has compromised the integrity of wetland ecosystem. The management plan set forth a general direction to diversified use of wetlands. Freshwater aquaculture provides a means to realize the vision of the people. Nyanza fish farmers association is an upcoming entity with an aim of expanding aquaculture activities to provide a sustainable livelihood measure. The pilot project will help them in integrating appropriate management measures to ensure conservation of wetlands.
2	Bududa Bukigai S/C	Watershed Management to protect downstream Wetlands	Riverbank degradation accelerates bank erosion, rapid sedimentation of the wetlands along the river Manafwa. The project will support them in setting aside a protection zone so as to minimize downstream impacts of soil erosion. The participants will be provided with tree nursery to increase forest coverage along the river. Dairy cattle and bee keeping components will also be integrated to support the livelihood of the community.
3	Manafwa Kaato and Bwagogo	Watershed Management to protect downstream Wetlands	Encroachment to the river bank for agricultural production has increased sediment loads to the downstream wetlands. The project is designed to support wetland users in setting aside protection zone in line with the relevant regulation; while increasing income base by integrating agro forestry and other alternative measure such as apiculture.
4	Butaleja Kachonga, Butaleja	Papyrus Restoration Project	Intensification of rice production without appropriate planning and management has devastated the unique and important ecosystem of papyrus, which has also resulted in narrower income base of the people who now depend largely on rice cropping. The project will be designed to restore papyrus vegetation, while support wetland users in initiating alternative income basis mainly by increasing fish production.
5	Kibuku Kirika	Sustainable Wetland Use Project	The use of wetland resources as rice growing area has not been optimized to balance between sustainable use and improved livelihoods. This is partly due to use of rice varieties that are not fit to the wetland environment and inappropriate application of lowland rice cultivation practices. The project will support identification of best combination of technique of rice production and fish cultivation where applicable. Collaboration with other rice growers and projects will be sought.
6	Pallisa Kabwangasi	Strategic Wetlands Demarcation Project	The project will support implementation of wetland policy to conserve biodiversity by demarcating the wetlands from upland area; promoting tree planting having commercial value along wetlands and thus broaden income basis of wetland users. Apiculture will also be considered.

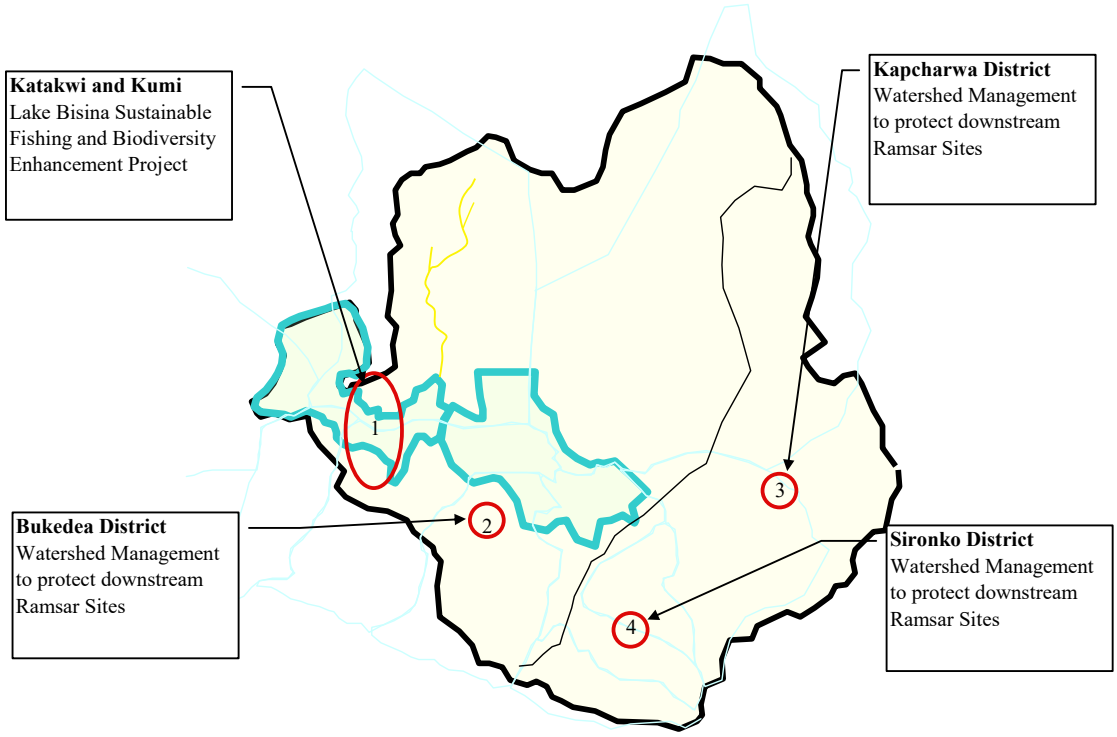


Figure2-6 Pilot Sites in Awoja Wetland System

Table 2-20 Proposed pilot sites in Awoja wetland system

No.	District	Project title	Issues to be addressed
1	Bukedia Malera	Watershed Management to protect downstream Ramsar Sites	The vegetation coverage of the district is generally poor due to the nature of the soil that is classified as Plinthosols. This has exposed the land surface to increased risk of soil erosion that have affected wetland edge cultivation. The wetlands of the area also play an important function to capture soil particles transported from the upper stream. The project would support the community to minimize erosion by promoting tree planting. Other measures to support livelihood improvement will also be considered.
2	Kapchorwa Kaptanya	Watershed Management to protect downstream Ramsar Sites	The district is generally endowed with fertile soil, Nitisols, which may have accelerated increased use of river bank for crop production. Kapchorwa was, however, identified as a district involving a higher soil risk in the assessment. The project will support the community in setting aside protection zone by promoting tree planting. Other measures to support livelihood improvement will also be considered.
3	Katakwi Kapjan	Lake Bisina Sustainable Fishing and Biodiversity Enhancement Project	Diminishing fish resources in Bisina Lake is a result of use of inappropriate fishing gears; lack of mechanism to control fishing activities and uncontrolled grazing in spawning ground along the coastal part. The project will support the community in undertaking management measures of the fisheries resources such as zoning for wetland users, assessment of appropriate fishing net size, enforcement of fish net regulation, registration of fishing boats and monitoring of the Fishing activity for wise use of Wetlands.
4	Kumi Ongino	Lake Bisina Sustainable Fishing and Biodiversity Enhancement Project	
5	Sironko Bukise	Watershed Management to protect downstream Ramsar Sites	Sironko District is identified a hot spot of soil erosion that may affect sustainable use of two Ramsar site. Encroachment to the river bank for crop production will be regulated; pump irrigation for upland crop at a distant area from the river bank will be supported to produce horticulture crops.

4-2 Organize community based wetland planning and management committees.

Participatory Wetland Management Planning Teams were organized at an early part of the planning process for preparation of the Community Wetland Management Plans. The district officers initially called upon approximately one hundred (100) people in the concerned villages and parishes in the proximity to the target wetlands; and subsequently chosen fifty (50) among them to represent the

community with the consideration on the experience and interaction with wetlands, hence involvement of key resource users. They included at least three core members, a full time team leader, who led the facilitation of the whole process, and members from the district and the WMD. This process was commenced after the training workshop as described in the activity 4-3.

4-3 Develop community based wetland management plans with pilot communities.

To develop Community Based Wetlands Management Plans, training workshops were convened in Mbale and Kumi for a period of six (6) days from 26th May and 9th June 2014 respectively to equip the participants with knowledge and skills on wetland management planning. The training comprised of topics such as integrated water resources management, gender issues, climate changes, conflict management, economic valuation and stakeholder analysis. The participants were composed of technical officers from the districts that undertook a pilot project and two officers from sub-counties expected to host the pilot projects and one officer from the district where pilot project were not supported by the project. After a preparatory period, preparation of Community Wetlands Management Plans commenced following major seven steps: 1) Reconnaissance, 2) Stakeholder Analysis, 3) Resource Analysis, 4) Vision and Strategy, 5) Implementation Arrangement, 6) Reporting and 7) Approving signing of the CWMP. The planning process adopted in the project is presented in Annex 8.

4-4 Identify sustainable livelihood options together with the pilot communities.

Sustainable livelihood options were identified in a participatory manner initially though selecting pilot sites under Activity 4.1. At this stage, the communities that have already engaged in business activities were prioritized. Other communities were chosen based on the proposals made by the community members. The sustainable livelihood options identified in the project is presented in Table 2-21.

Table 2-21 Sustainable Livelihood Options

District	Sustainable Livelihood Options	
Bududa	Bee keeping and sale of honey	Improvement of post-harvest processing of honey products was supported to enhance the market competitiveness by maximizing value-addition of bee products to respond to growing needs on bee products.
Manafwa	Improved livestock production	The community was provided with incalf heifer of a 75 per cent cross-breed of locally bred Holstein-Friesian cattle that may produce a calf within 3 to 5 months to be delivered to other project participants.
Butaleja	Enhanced inland fishery	Inland fishery cultivation was supported taking advantage of their engagement in fish cultivation in geographical proximity to the markets in Mbale.
Pallisa		
Budaka		
Kibuku	Rice Demonstration	A demonstration farm of rice cultivation was established to support use of best mix of technique in producing rice in the vicinity of papyrus area through a participatory research and decision making process.
Kapchorwa	Forestry	Acceleration of tree planting activity was supported to prevent significant soil erosion that has affected the downstream wetlands by obstructing stream and drainage channels, filling in reservoirs and degrading water quality.
Sironko	Horticulture production	Production of high value horticulture crops was supported by expanding farm land through provision of an irrigation pump.
Katakwi	Lake fishery	Beach management units were strengthened to enforce fishing regulation.

4-5 Support the communities in implementing the Pilot Projects.

All the pilot projects adopted a common approach that had combined 1) creation of protection zones and 2) integration of Income Generation Activities; but they were tailored to the setting of each site.

1) Creation of Protection Zones: The communities have undertaken wetland demarcation to set aside protection zone generally in accordance with Article 29 of the National Environment (Wetlands, River banks and lakeshore management) Regulations, 2000. It is, however, noted that the distance from the river bank up to the edge of protection zone was determined through consultative process with the community members considering respective locational circumstances and resultant practicability to conserve the protection zones at each pilot site. Further they have determined a boundary where only regulated activities are permitted. The following illustration provides a concept of wetland demarcation exercise supported under the project.

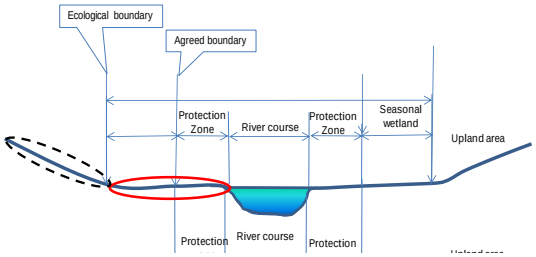


Figure2-7 Conceptual Illustration of Wetland Demarcation

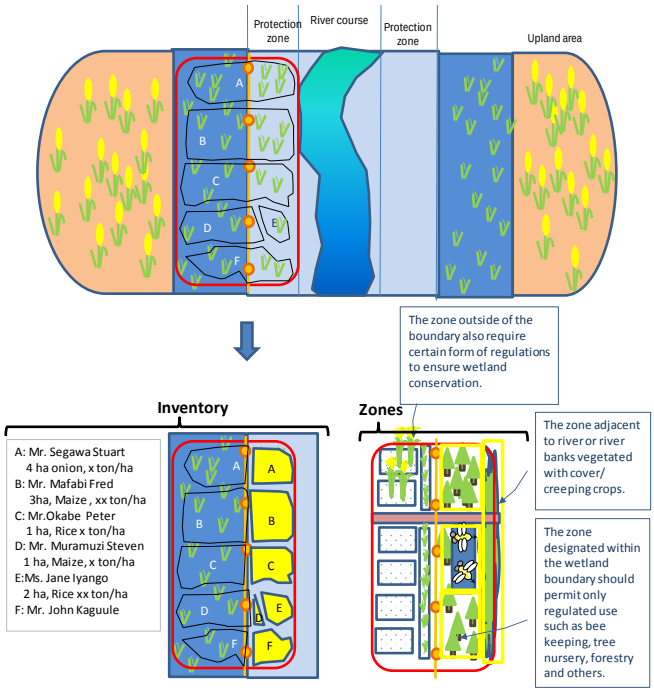


Figure2-8 Conceptual Illustration of Zoning

Practically the configuration of protection and ecological zones differs among the pilot sites. The officers also collected a wide range of information through the demarcation process: 1) a map(s) of entire project area with GPS coordinate, 2) identification of zones with GPS coordinate and 3)

designated/regulated use within each of the zones. An example of demarcation exercise by using GPS is presented in Figure2-9. They also prepared an inventory of users if there are people who use the land within the agreed boundary for agricultural purpose etc. The inventory included the information on 1) name of the users, 2) contact address and phone number if any, 3) educational background and skills, 4) intention on participation in other project activities, 5) area to be covered by the protection zones, 6) crops grown in one single year (average), 7) average yield of the crops grown and 8) prices of the crops. Upon the completion of the demarcation exercise, the districts have drawn-up Memorandum of Understanding (MOU) agreed between each of the districts and the community. The MOU included, wherever applicable, articles on 1) a grace period for evacuation agreed with the community, 2) zones accompanied by IDs, 3) an estimated surface area of each zones and 4) regulated or granted activities in each of the zones.

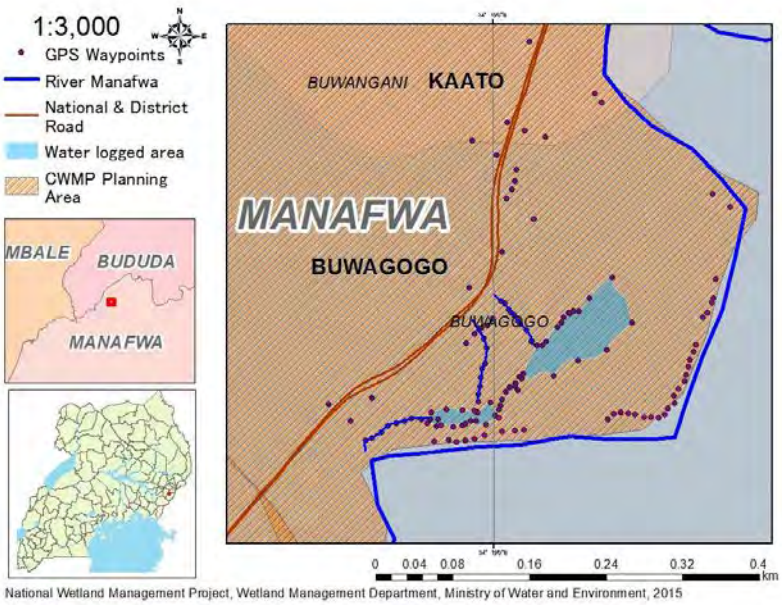


Figure2-9 An example of demarcation exercise by using GPS

2) Integration of Income Generation Activities: All the pilot projects have integrated at least one Income Generation Activity as summarised in Table 2-21. More details of the activities are provided in Annex 9.

4-6 Develop and implement ecological monitoring plan.

The project is designed to test feasibility of the monitoring and to establish a mechanism to track ecological changes by linking Districts, the Implementation Committee of Framework Management Plan and the officer in charge of NWIS at the Wetlands Department through the regional coordinator in the Eastern Region. The implementation committee of FMP is able to trace changes in ecological character; and make decisions for interventions when a significant change is identified. A conceptual setting of the monitoring is illustrated in Figure 2-10.

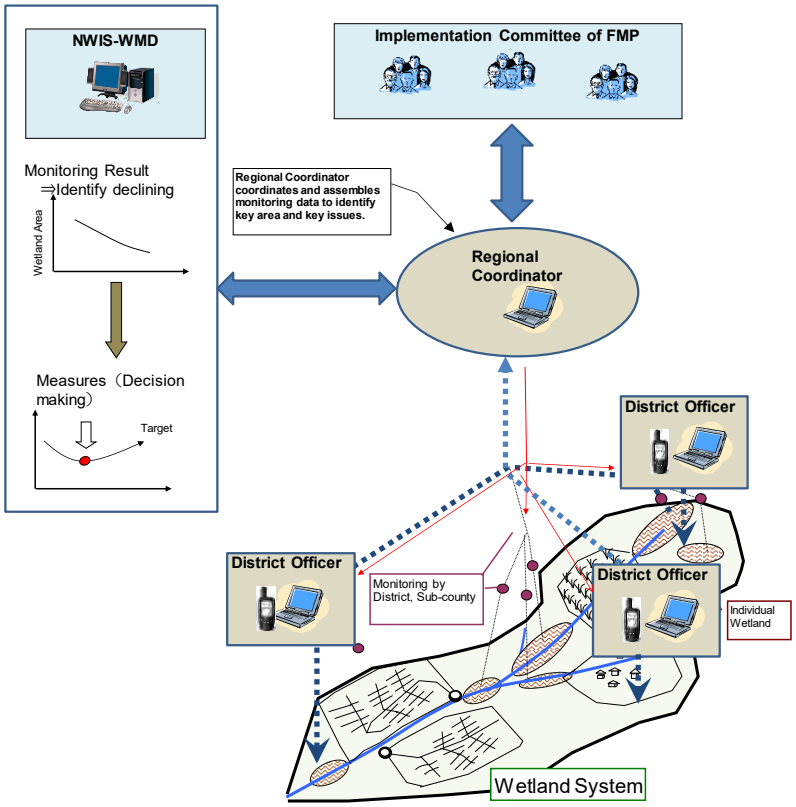


Figure 2-10 Conceptual Illustration of FMP Monitoring Mechanism

Roles and functions of each Institution/officer is summarised in Table 2-22.

Table 2-22 Roles in Monitoring Activity

Institutions/officers	Roles in the monitoring
Implementation Committee of Framework Management Plan	✓ On the basis of the recommendations by the regional coordinator, design and secure budget for needed actions for managing wetlands within the wetland system.
Regional Coordinator	✓ Collect, assemble and analyze ecological monitoring data of the relevant districts; ✓ Advise district officers in collecting monitoring data; ✓ Coordinate with NWIS-WMD to send and keep the monitoring data; ✓ Assess changes in ecological conditions in collaboration with District Officers; ✓ Recommend measures to manage wetland ecology to Implementation Committee of FMP ✓ Coordinate with Implementation Committee of FMP
NWIS-WMD	✓ In coordination with the regional coordinator, assemble, store and manage ecological monitoring data.
District Officers/Sub-county Officers	✓ Collect ecological monitoring data under the supervision of the regional coordinator ✓ In close consultation with the regional coordinator and the community, assess and analyze the cause of changes in ecological conditions.

4-7 Select Priority Pilot sites for Scaling Up

The activities in Katakwi district were selected for scaling up because the intervention in the riparian area of Katakwi would not have meaningful impacts on the biodiversity of the ecosystem and resultantly on the livelihood of the community. This is because the lake is shared by Ngora, Kumi and Soroti districts in addition to Katakwi district.

4-8 Assist Communities in Scaling Up

The activities in Akurao parish in Toroma S/C and Kokorio parish in Kapujan S/C of Katakwi District were extended over the entire lake as a lake wide activity among the riparian communities in Soroti, Ngora and Kumi Districts with a total distance of over 100 km. The activities in the year 2016 composed of major three components: 1) Activation of the wetland committees, 2) Demarcation of wetlands, and 3) Implementation of enforcement.

Activation of the wetland committees: The component included the activities for activation of wetland management committees to function as entities in formulating and enforcing community rules and regulation for sustainable fishing activity. The members are expected to adhere to and for which they are liable for punishment in case of disobedience. The rules and regulations were designed to regulate use of smaller mesh size of nets. Through the consultation process with the communities, other regulations such as fishing holidays were put into place.

Demarcation of wetlands: The component was a series of activities for demarcating wetlands and riparian zoning for conservation of wetland resources. The activity in the year 2015 for the two landing sites in Katakwi completed approximately 10 km of demarcation along the beach of the Bisina Lake in a matter of a few months. The previous riparian land use was unplanned and uncontrolled, which has thus brought about physical destruction of fish habitat, including spawning grounds, and intensified potential conflict over the wetland resources between fishermen and cattle grazers. Farming activity, on the other hand, had been practiced in the proximity to the shoreline, which had increased sedimentation of the riparian zone and consequently changed the vegetation composition that were not favourable for increasing fish resource base. The project supported the communities in setting aside a protection zone and demarcating user zones for landing site, grazing land, fish spawning ground, and seasonal fishing area particularly for women in Ngora, Katakwi, Soroti and Kumi district.

Implementation of enforcement: A motorized boat was provided for undertaking patrol activity to Katakwi district among the four districts as its owner. But the roles and function for patrol was commissioned to a wetlands users' association. The community is allowed to use the boat for income generation activities such as passenger transport to cover the fuel cost for patrol operation.

4-9 Review and update wetland management plans based on monitoring results.

By implementing the monitoring, the configuration of zones were reviewed especially location of trees planted for marking purposes. The Wetland Management Department will assist the communities through District Government in reviewing and updating the plans in a formal manner every five years in accordance with the Ugandan's regular planning procedure.

2.5 OUTPUT 5 FOR HARMONIZATION OF ACTIVITIES

5-1 Review of policies, laws and regulations

In conducting a review of sectoral policies, laws and regulations, a focus was given to the Guidelines for Paddy Rice Cultivation in Seasonal Wetlands that was prepared as WETLAND BOOKLET NUMBER 4 and revised and reprinted in 2014. The review of the guideline was conducted to identify major issues and ensure implementation of wise use principle and rice resolution. The revision process of the previous guideline identified the following issues, among others:

1. The previous guideline was not clear if it is designed to assist either large-scale irrigation investment for rice production or small and medium scale rice farmers.
2. It was recognized that appropriate level of emphasis was not placed on biodiversity conservation and wise use in the previous guideline.

5-2 Recommend measures for strengthening policy framework and instruments

Recommendations were drawn to address the issues. They include, among others:

1. The guideline should be designed to support small and medium scale rice farmers recognizing the fact that large-scale irrigation investment for rice production should be subject to environmental impact assessment process.
2. The revised guideline should emphasize on such aspects as biodiversity conservation and wise use. The recommendation was integrated into the guidelines as evidenced by the facts that 1) the guideline clearly states that one of the purposes is to achieve wetland biodiversity conservation and wise use; 2) use of organic materials is emphasized to minimize disruption on biodiversity; 3) agronomic practices were also dwelled on in the guidelines to ensure appropriate balance between conservation and livelihood improvement.

2.6 OUTPUT 6 FOR STRENGTHENING CAPACITY

6.1 Conduct of capacity and training assessment

Capacity and training assessment was conducted at various occasions and means to identify major issues in implementing the project. It was initially conducted through formal questionnaire survey followed-up by and face-to-face dialogue. They are summarised in the table below.

Table 2-23 Major Capacity and training assessment

Output	Objectives	Assessment means	Capacity Gaps Identified
Output 1	NWIS/database management capacity at WMD	Face-to-face dialogue and observation	Majority of the officers of WMD are not adequately exposed to NWIS operation. They are not able to extract intended data from NWIS. They are not aware on the content of database and relational linkage of data table in the Access formatted data. The output of the assessment was integrated into the design of training program on NWIS.
	Information accessibility/NWIS at district offices	Questionnaire and observation	It was confirmed that all the officers in charge of wetland management in the two wetland systems were not provided with any formal means of internet connection from the office. Majority of them use personal modem or access the internet from nearby internet café. Some of the districts do not have an internet café in the district so that they have to travel to a nearby district to reach an internet café. Further, connectivity of modem to the internet differs among the service providers depending on the location of districts. This meant that each district had a preferred service provider to have faster internet connection.
	Office environment at district offices	Face-to-face dialogue, observation and Questionnaire	Majority of the district officers in charge of wetlands have desktop computers. However, some of officers, particularly at newly created districts, do not have personal computers. The majority of the offices have printers, but they appeared not to have funds for purchasing printer cartridge.
Output 2	Baseline survey on wetland assessment at District offices	Questionnaire	It revealed that majority of the district officers in the two wetland system were familiar with participatory methodology; though there were variations among the extent of previous exposure. By contrast, they are not, in general, familiar with technical assessment methodologies such as flood control function and soil erosion equation.
	Ecosystem Assessment and Livelihood assessment at WMD and Districts	Face-to-face dialogue and observation	The output of the assessment was not specifically documented but integrated into the design of 1) the work plan/manual and 2) the Train the Trainers Field School for Ecosystem Assessment.
Overall	Design of training program in Japan	face-to-face dialogue	The output of the assessment was integrated into the design of training program in Japan. The findings were reflected into the programme design of the training in Japan. For details, please refer to Section 2.5.3 on Development and implementation of training programmes and Section 2.5.4 Conduct of evaluation of training programmes.

6.2 Development of Wetland Management Manual

A work plan for detailed resource assessment was developed in December 2012. The work plan set forth methodology of the assessment attached with reporting format, and thus may serve as an assessment manual. The document was provided to the officers of the WMD along with the district wetland officers in the two wetland systems. Under the project, various guidelines and manuals were developed as shown in Table 2-27. Among the fourteen publications, the Implementation Guideline is

the fundamental one by summarising all the key dimensions of the project. It is attached to this report as Annex 10.

6.3 Development and implementation of training programmes

The training programme under the Project involves mainly 1) nation-wide training and 2) counterpart training.

Nation-wide training: The nation-wide training was developed and implemented three times until the end of the project with the participation of the district officers in charge of wetlands management over the country. In implementing the nation-wide training, the participants were grouped into four (4), namely, Central, Western, Eastern and Northern Regions. Thus each training session was participated by about 30 district officers. Brief overviews of each training session are provided in Table 2-24. The lists of participants are attached to this report as Annex 11.

Table 2-24 Implementation of Nation-Wide Training

Year	Major Issues	Brief overviews	Number of Participants
2013	NWIS	The program was so designed that the district officers became able to download, upload and thus share data on wetlands in the country: 1) Maps and geographic information are shared through ArcGIS Online; 2) Data in access format will be exchanged through Dropbox, a file hosting service. In addition, NWIS has become a highly versatile data-handling system which now allows conversion of 1) the wetland polygon data into KML format and 2) Access formatted section survey and monitoring site data into Excel format vice versa. Thus, the data may be handled and manipulated by Google Earth and Microsoft Excel. Content and linkage of data in NWIS were expounded during the training, as well as how to access and handle data online.	1. Central :26 2. North :25 3. West :27 4. East :35 Total :113
2015	Planning process	For the officers in the two wetland systems, a six-days training workshop was convened from 26th to 31st May in Mbale and subsequently from 9th June until 14th June in Kumi to equip them with knowledge and skills on wetland management planning. The training comprised of topics such as integrated water resources management, gender issues, climate changes, conflict management, economic valuation and stakeholder analysis. The participants were composed of technical officers from the districts that will undertake a pilot project and two officers from sub-counties expected to host the pilot projects and one officer from the district where pilot project will not be supported by the project. For the Nation-wide Training: From the latter part of September, the training program on planning process was programed as a four-day workshop and implemented in Mbarara, Seeta, Gulu and Mbale for the officers nation-wide.	1. Central :20 2. North :25 3. West :27 4. East :35 Total :87
2016	Pilot project on wise use	The nation-wide training was convened for all the officer in charge of wetland over the country with the major purposes 1) To provide opportunities to witness the pilot sites' experience, 2) to share key lessons learned in preparing Community Wetlands Management Plans and 3) to identify key challenges in implementing the wetlands management project at community level at each of the districts. The participants will visit 3 sites for each wetland system of Doho-namatala and Awoja to include up, mid and down streams. More specifically, they are Bududa, Butaleja and Kibuku for Doho-Namatla Wetland System and Kapchorwa, Sironko and Katakwi for Awoja Wetlnad system. Before visiting the sites, the pertinent district officers will give a presentation that would include the project description, key challenges and measure to manage them, key lessons learned. At each	1. Central :23 2. North :26 3. West :24 4. East :31 Total :114

		site, the participants will observe the sites and speak to the community members. After the visitation, they will discuss applicability, key challenges in implementing such projects at each district.	

Training program in Japan: The counterpart training was designed each year to address major issues of each year. A general description of the Counterpart Training in Japan is provided in Table 2-25. The participants of the training is presented in Table 2-26

Table 2-25 Implementation of Counterpart Training in Japan

Year	Description
2012	The first counterpart training in Japan was designed and implemented in the early part of September for a two-week period in 2012. The major objectives of the training were to draw lessons, from Japan's experiences in managing wetlands, applicable to wetlands management in Uganda, particularly to the project activities, with focuses on community participation, linkage among communities, NGOs and governments, and opportunity and limitation of scientific research.
2013	The second counterpart training in Japan was designed and held for a two-week period from the latter part of July. The major objectives of the training remained the same with the previous one in 2012. The major destinations included 1) Kushiro Wetlands, 2) Kiritappu Wetland, 3) Kabukurinuma, 4) Lake Izunuma-Uchinuma, 5) Yatsu Higata (Yatsuhigata tidalflat) and 6) CTI Engineering International. In addition to the practical aspects of wetland management, theoretical aspects on wise-use concept was lectured at Kushiro Public University of Economics; and an academic research method was introduced focusing on peat land management in Asian counties at Chiba University.
2014	The third counterpart training in Japan was designed and conducted for a period of two weeks from 20th July until 1st August 2014. The major objectives of the training were to draw lessons and best practices applicable to wetlands management in Uganda, particularly to the project activities, with focuses on community participation, linkage among community, NGOs and governments, rice fields for biodiversity conservation, and opportunity and limitation of scientific research. The major destinations included 1) Kushiro Wetlands, 2) Kiritappu Wetland, 3) Kabukurinuma, 4) Lake Izunuma-Uchinuma, 5) Yatsu Higata (Yatsuhigata tidalflat) and 6) CTI Engineering International. In addition to the practical aspects of wetland management, theoretical aspects on wise-use concept was lectured at Kushiro Public University of Economics; and an academic research was introduced focusing climate change resulted from GHGs emission from wetlands in Asian counties at Chiba University.
2015	The fourth counterpart training in Japan was designed and conducted for a period of one week from 2nd August to 8th August 2015. This training under the title "Landscape and biodiversity of Paddy, its potential for Uganda's Wetlands Wise Use" was designed to acquire knowledges as follows: 1) Wetland conservation policy in Japan; 2) The activity of biodiversity and conservation for wetland in Japan; 3) Conservation of paddy landscape and regional development by residents; 4) Irrigated agriculture and environmental protection. The major destinations included 1) Yatsu Higata (Ramsar site), 2) Sanbanze (Tidal flat), 3) Ooyamasenmaida (Terraced rice fields) and 4) Inbanuma (Irrigation zone).
2016	The fifth counterpart training in Japan was conducted for a period of two weeks from the early part of September in 2016. The training under the title "GIS and Remote Sensing Technical Training for Wetland Conservation" was designed to focus on acquiring knowledge and skills on: 1) Wetland conservation in Japan, 2) Establishment of data base for Wetland management, 3) Analysis method of QGIS and 4) Basic knowledge of Remote sensing. In addition, for the purpose of making comparison between real situation and analytic results, field visits were conducted at Ramsar sites as follows: 1) Senjogahara, 2) Watarase Yusuichi and 3) Yatsu Higata.

Table 2-26 Participants of Counterpart Trainings in Japan

Year	Participants	Positions of participants
2012	1) Barugahare Vincent	Senior Wetlands Officer, WMD
	2) Kabaalu Deo	Regional Wetland Coordinator of the WMD
2013	1) Afai Silvano	Regional Wetland Coordinator of the WMD
	2) Kijali Kamwada Cyprian	Environment officer, Budaka District Local Government.
2014	1) Kyambadde Richard	Senior Wetlands Officer, WMD
	2) Samuka Muhamed	Natural Resources Officer, Pallisa District Local Government.
2015	1) Lucy Iyango,	Assistant Commissioner
	2) Tindamanyire Teddy	Principal Environment Officer
2016	1) Kagaba Carol	Senior Wetlands Officer
	2) Owor Aloysius	Wetland Officer Monitoring &Enforcement

6-4 Evaluation of training programmes

At each of training workshop, assessment of the training was conducted. For the training on planning process for the pilot districts, the assessment was conducted on a daily basis so as to fine-tune the training programmes on the subsequent days to capture the issues and problems identified in the assessment. In the Nation-wide training, an assessment was conducted before and after the training on the planning process and wetland issues. The findings of the training programmes were reflected in the activity 6.3.

6-5 Publish project deliverables

As of 15 November 2016, the WMD decided to publish the following project as summarised in Table 2-27.

Table 2-27 Wetlands assessment manual

PDM	Title		Description
Project Purpose	1	Implementation Guideline	The publication pertains to the Project Purpose as defined in the PDM. Key dimensions of managing wetlands in Uganda are descried. The main users of the guidelines include the regional coordinators and district officers.
Output 1	2	NWIS Hand book	The handbook is developed to assist the user of NWIS.
Output 2	3	Guideline for Wetland Assessment	The publication compiled the methodology of wetland assessment.
	4	Ecosystem Assessment Report	The report presents the results of the Ecosystem assessment.
	5	Livelihood assessment Doho-Namatala Wetland System	The report presents the result of the Livelihood assessment for Doho-Namatala Wetland System.
	6	Livelihood assessment Report Awoja Wetland System	The report presents the result of the Livelihood assessment for Awoja Wetland System.
Output 3	7	Framework Management Plan – Doho-Namatala Wetland System	The Framework Management Plan of Doho-Namatala Wetland System that was formally launched on 22nd January 2014.
	8	Framework Management Plan – Awoja Wetland System	The Framework Management Plan of Awoja Wetland System that was formally launched on 24th January 2014.
	10	Sub-County and District Wetland Action Plans Development Manual	A general process of preparing Sub-County and District Wetland Action Plans is described to assist mainly the regional coordinators and district officers.
	11	Sub-county Wetland Action Plans	The publication is the Wetland Action Plans at sub-county level which were integrated into District Level Wetland Action Plans.
Output 4	12	Wetland Management Planning Process Manual	A general process of preparing Community-Based Wetlands Management Plan is described to assist mainly the regional coordinators and district officers.
	13	Community Based Wetland Management Plan	The publication is the Wetland Management Plans at community level.
Output 5	14	Guideline for Paddy Rice	The publication is prepared by reviewing and revising the Guidelines for Paddy Rice Cultivation in Seasonal Wetlands.

2.7 OTHER IMPORTANT ACTIVITIES

a) Equipment Formally Handed-Over

The list of equipment provided to the Ministry of Water and Environment is shown in Table 2-28. On the occasion of the launching ceremony of the Framework Management Plans, the

following set of equipment procured during the Phase 1 of the project was formally handed over to the twenty districts in the two wetland systems. The districts are Bududa, Manafwa, Butaleja, Palisa, Budaka, Kibuku, Mbale, Tororo, Kapchorwa, Kween, Napak, Ngora, Nakapiripiriti, Bulambuli, Katakwi, Kumi, Soroti, Sironko, Bukedea and Amuria.More details of the equipment provided are presented in Table 2-29.

- Lap Top Computer
- Internet Modem
- GPS with camera
- Voltage regulator

Table 2-28 Equipment Provided to the Ministry of Water and Environment

Category	Description of items		Quantity
Vehicle	1.	Nissan Patrol GL 4x4	2
Desktop Computer	2.	DELL Optiplex 780 (inc. software)	2
Laptop computer	3.	DELL Vostro (inc. software)	3
Printer	4.	Canon iR-ADV C2020/C2020F color laser	1
	5.	Canon imageRUNNER 2525 monochrome laser	1
UPS	6.	UPS for Desktop Computer	3
	7.	UPS for Laptop Computer	2
	8.	UPS for multifunctional printer	3
Others	9.	Extension cable	
	10.	Orange huawei ce 0682 modem	3
	11.	Inverter-Battery System	1

Table 2-29 Equipment Provided to the Districts in the Two Wetland Systems

Equipment	Quantity	Specification
Laptop Computer	20	Intel Core i3 Processor (1.8GHz) Windows7 32-bit or 64-bit, Memory: 4GB, HD: 500GB DVD drive
		MS Office Professional (2010)
		Antivirus software 1 year contract
Modem	20	✓ 6 sets of MTN's modems for Manafwa, Bududa, Kapchorwa, Kween and Napak ✓ 6 sets of Airtel modems for Ngora, Nakapiripiriti, Bulambuli, Kibuku, Butaleja and Budaka ✓ 8 sets of Orange modems for Mbale, Tororo, Palisa, Katakwi, Kumi, Soroti, Sironko, Bukedea and Amuria
GPS	20	Garmin GPS Map 62sc
Voltage regulator	20	5 KVA

b) Support to preparation of Japan's ODA Status Report

The Ministry of Foreign Affairs of Japan publishes an annual status report on Official Development Assistance, formally known as Japan's ODA White Paper[3]. The Project was

[3] The term White Paper is used in different purposes in different countries. For instance, most English speaking countries, it is used as a means of presenting government policy and policy instruments. However, the White Paper in Japan is used to inform the status of policy to its citizens. The report is a legally mandated publication and subject to cabinet approval.

chosen in 2014 as a case among the large number of the ODA projects in the world provided by the Government of Japan; and a brief introduction on wetland management was presented and a wetland user who engages in an inland fishery business was also introduced to the Japanese readers of the paper. A website[4] of the Ministry provides more information.

c) Coordination with the team for Rice Irrigation Project

Coordination with the team for rice irrigation project was periodically carried out during the project. There were however special occasions where the meetings were convened in a formal manner. They include JCC meetings and a workshop on rice resolution.

A workshop was convened on 17th October 2014 to ensure appropriate coordination with the Project on Irrigation Scheme Development (PISD). The following four presentations were given.

1. Rice Paddy Resolution of the Ramsar Convention: A Potential Tool for Sustainable Development in Uganda
2. Wetland Management Legal and Institutional Framework
3. The National Wetlands Management Project -Wise use of Wetlands in the Eastern Region-
4. The Project on Irrigation Scheme Development in Central and Eastern Uganda (PISD) – Proposed Demarcation of Irrigation Development Area in Wetland Area

After the presentation, there was an open discussion, general consensus reached on the following key aspects.

Table 2-30 Issues and Consensus in Workshop

Issues	Consensus
Application of the Rice Paddy Resolution of the Ramsar Convention for sustainable Agriculture in Uganda	The participants agreed that the Rice Paddy Resolution can be applied in Uganda in principle. They agreed to use the irrigation study to effect these resolutions.
Expectation on synergy effects between the wetlands management project of MWE and irrigation feasibility study (F/S) of MAAIF	The participants expressed expectation on the synergy effects between the projects.
Possibility of dissemination of the actions at the Ramsar Conference (COP 12 in Uruguay in June 2015) as an example of the practice of the Resolution in Uganda (Africa)	The participants agreed to disseminate the actions at the Ramsar Conference as an example of the practice of the Resolution in Uganda. The ministries expect more specific information to be availed by March 2015 based on the outcomes of Phase I of the feasibility study.
Needs on a better/authorized network to practice wetland management and farming irrigation	The participants recognized the need for the networks .
Appropriateness of the policies to accommodate wetland conservation and sustainable agriculture in Uganda	The participants recognized the need to review the two policies in order to identify areas of synergies and gaps with a view of harmonization.

[4] Stories from the field 05, A Japanese attempt to bring back an African wetland, Residents of Uganda place high hopes on a wetlands management project, Accessed 3rd November <http://www.mofa.go.jp/policy/oda/white/2014/html/column/column05.html>

Table 2-30 Issues and Consensus in Workshop

Issues	Consensus
Expectation on the Ramsar Regional Centre to profile the implementation of the Rice Paddy Resolution in East Africa (organize a regional symposium at the time of Ramsar COP 113 in 2018).	The participants agreed to build a case in next COP 2018. Details will be discussed.

d) Participation of COP 12 of Ramsar Convention

The 12th Meeting of the Conference of the Contracting Parties to the Ramsar Convention on Wetlands (COP12) was held in Punta del Este at the Conrad Resort, Uruguay, from 1st to 9th June 2015. The officers of WMD and an officer of MAAIF attended the conference. They are: 1) Mafabi Paul, 2) Oloya Collins, 3) Iyango Lucy, 4) Barugahare Vincent and 5) Kagaba Carol from the WMD. From MAAIF, Kato Ronald attended the meeting. Yasuhiko Muramatsu of the JICA Team also accompanied the government delegates. In the side event on 3rd June titled "Implementation of the Ramsar-JICA Memorandum of cooperation, past, Present and Future", Mafabi Paul made a presentation on the National Wetlands Management Project. On the other hand, Kato Ronald gave a presentation on the Rice Resolution in the side events convened by the Ministry of Environment of Japan on Follow-up of rice paddy resolution.

Salient points of side events that may have direct relevance with eh project are summarised in Table 2-31.

e) Regional Symposium on Wetlands Management

The fundamental purpose of the symposium was to encourage cross-project knowledge transfer in managing wetlands so that lessons learnt in the National Wetlands Management Project are used by other part of Africa as well as the best practices in managing wetlands in other countries, instead, will be presented and discussed on its applicability to Eastern Region of Uganda. Participants were drawn from a wide range of interest institutions across Eastern Africa representing both public and private sectors. Technical resource persons came from the Ramsar secretariat, Nile Basin Initiative, JICA, Bird Life International, Ministries and Departments. More details of the symposium are provided in the Annex 12.

Table 2-31 Follow-up of Ramsar COP12 Side Events

Side Events		Issues	Lessons / Recommendations
1	The Peatlands, Climate regulation and biodiversity in a Ramsar perspective.	Peatlands are discussed from the viewpoints of carbon stock by highlighting only 3 % coverage of the surface land but more carbon stock than the entire forest biomass of the world. Drainage and inappropriate management of peatland accelerate emission of GHGs.	Papyrus wetlands have been seen mainly from a view point of flood control and provision of habitat for specialized biodiversity. However global warming would give another perspective on wetland management in Uganda that is endowed with a large area of papyrus containing abundant quantity of carbon. Conversion of papyrus to rice cultivation should also be discussed in the same line based on scientific basis.
2	Implementation of the Ramsar-JICA Memorandum of cooperation , past, Present and Future	The side event demonstrated synergy effects of the Memorandum of Understanding between JICA and Ramsar Secretariat. An officer from Iran gave a presentation in addition to the Ugandan one. In his presentation, he emphasized river basin approach for wetland restoration to address negative impacts in the vicinity of wetlands; and support by a multi-stakeholders Wetland Management Committee that have been established with a legal basis.	The side event paved a way for the Ramsar COP 13 in 2018 with a view of expected outputs delivered by the next COP. JICA intends to explore enhancement of impacts to other countries in each the regions by leveraging MOC with the secretariat. The National Wetlands Management Project may also be geared to the general direction.
3	Case studies on wetland management and restoration: Environmental watering in the Murray-Daling basin Australia and contribution to Iran wetland management and restoration(Lake Urmia)	Lake Urmia, a national park, is Iran's most famous lake but now it is disappearing due most likely to diversion of water at upper streams. It is well-known that the relevant local governments in the catchment have limited cooperative management efforts of water resources.	Catchment management approach to water resources would be an essential element in managing wetlands downstream. Considering the message by the Iran's project in the Side Event 2, Uganda's wetland management committee at basin level should also have legal basis.
4	Wetland and Disaster Risk Reduction: resilient communities	The side event pertains to the Draft Resolution on wetlands and disaster risk reduction submitted by the Philippines where Typhoon Haiyan has killed at least 6,300 people. Deforestation of mangrove forests mainly due to coastal development, land conversion and reclamation is said to have increased the impact of the typhoon. The incidents demonstrated their significant contribution to mitigation of climate change.	The dimensions of disaster prevention may be integrated in wetland management policy in the context of climate change. The Government of the Philippines has realized mobilization of other departments responsible for public infrastructure and, thus, some of the coastal management projects have already integrated a component on restoration of mangrove forest. Applicability to Uganda should be carefully assessed considering the causal linkage between wetlands and disaster, cooperative relationship with other Ministry.
5	Follow-up of rice paddy resolution	Seven presentations were given from a wide perspective. The speakers included: 1) Ramsar Network Japan, 2) Ministry of Environment, Japan, 3) Ministry of Agriculture,. Forestry and Fisheries, Japan, 4) National Wetland Centre of Korea, 5) a private firm in Japan, 6) MAAIF, Mr. Kato, and 7) Regional autonomous corporation orinoquia in Colombia.	It was seen that data on biodiversity loss in Japan as a result of rice cultivation is not readily available because majority of wetlands has been converted to rice land in the long past. It was also recognized that development stage of Japan in rice production and wetland conservation are not directly applicable to Uganda. Uganda is in a rather advantageous position to conserve and monitor changes of biodiversity by rice production.

Chapter 3. EVALUATION OF PROJECT ACHIEVEMENT

3.1 OVERVIEW

Overall the project is judged achieved all the targets defined in the sixteen (16) Objectively Verifiable Indicators. Details of the evaluation and monitoring are provided in Annex 13.

3.2 ACHIEVEMENT OF OUTPUT

Achievement of the project's outputs is evaluated as part of the terminal evaluation of the project. Summary of the evaluation is presented in Table 3-1.

Table 3-1 Indicators and Evaluation on Project Outputs

ID	Objectively Verifiable Indicators	Evaluation
1.1	Data categories necessary for wetland management are added in the National Wetland Information System.	Data categories necessary for wetland management have been added in the National Wetland Information System. They include, among others, wetland section observation, wetland monitoring site, hydrograph (river), hydrology (lake), protected area, soil map and land cover map.
1.2	Relevant institutions and organizations are able to access the National Wetland Information System.	The data on NWIS is accessible to the public through ArcGIS Online. Thus, external users of NWIS, including those who do not have GIS software, have access to the released information.
2.1	Detailed Resource Assessment report is developed and shared by relevant institutions and organizations.	Wetland assessment has been conducted and thus the information on the two wetland systems is available based on the Detailed Resource Assessment reports. The findings of the assessment were integrated into the Framework Management Planning process. The information on the assessment was also shared with the Ministry of Agriculture, Animal Industry and Fisheries in undertaking the Project on Irrigation Scheme Development In Central and Eastern Uganda (PISD).
2.2	Relevant institutions and organizations can utilize the data collected by the Detailed Resource Assessment for wetland management.	District governments used the assessment reports to prepare the Framework Management Plans and District Wetland Action Plans. Relevant district officers in collaboration with Sub county officers supported the communities in the preparation of the Community Based Wetland Management Plans on the basis of the reports.
3.1	Framework management plans for two wetland systems are prepared.	The Framework Management Plans of the Doho-Namatala and Awoja Wetland Systems were prepared and formally launched on 22nd and 24th January 2014 respectively with participation of the relevant government officers.
3.2	District wetland action plans consistent with the framework management plans are prepared for at least 50% of districts in charge of managing pilot sites.	District wetland action plans consistent with the framework management plans were prepared at all the districts in charge of managing pilot sites. They are Bududa, Manafwa, Butaleja, Pallisa, Budaka and Kibuku Districts for Doho Namatala Wetland System and Kapchorwa, Sironko, Bukedea, Kumi and Katakwi Districts for Awoja Wetland System
4.1	Community based wetland management plans that reflect communities' voices and are consistent with district wetland action plans are prepared.	The communities in the pilot sites prepared site specific Community Based Wetland Management Plans that have reflected communities' voices and are consistent with District Wetland Action Plans.
4.2	Communities' awareness toward wetland conservation is enhanced.	The community's awareness on wetland conservation is judged enhanced as evidenced by the incremental changes of positive response by 18 % between the year 2015 and 2016 to a series of questions on the community's appreciation on wetlands conservation.
4.3	At least 50% of pilot activity participants are satisfied with local government officers' technical	Overall the project achieved the numerical target of the indicator as evidenced by the questionnaire survey conducted for the 110 pilot activity participants. The survey indicated 89 and 71% satisfaction with district and Sub-county

ID	Objectively Verifiable Indicators	Evaluation
	instructions on sustainable livelihood options.	officers respectively on their technical instruction.
5.1	Issues identified in the relevant policy, laws and regulations	The revision process of the previous guideline for paddy rice cultivation identified the following issues, among others: 1. In the previous guideline, it was not clear whether it was designed to assist large-scale irrigation investment for rice production or small and medium scale rice farmers. Following the review, it was agreed that the design of the guideline be tailored to address the needs of small and medium scale rice farmers in recognition of the fact that large-scale irrigation investment for rice production are subject to Environmental Impact Assessments. 2. It was recognized that enough emphasis had not been placed on biodiversity conservation and wise use in the previous guideline. Therefore the revised guideline took into account those aspects as evidenced by the facts that 1) the guideline now clearly states that one of the purposes is to achieve wetland biodiversity conservation and wise use; 2) use of organic materials is emphasized to minimize loss of biodiversity; 3) agronomic practices are clearly highlighted in the guidelines to ensure appropriate balance between conservation and livelihood enhancement.
5.2	Minutes of Workshop/Symposium	The minutes of the meeting for the development of guidelines for Paddy rice cultivation Uganda held on 27th/9/2016 at Afrique suites hotel, Kampala recorded the said issues indicated under Indicator 5.1.
6.1	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.	It was evident that more than 50% of the WMD officer and local government officers in charge of managing pilot sites can understand and utilize wetland management manuals following a questionnaire survey. 1. NWIS handbook For the level of comprehension, 67% of the WMD officers stated either “Very Well” or “Well”. On the other hand, more than 90% of the district officers in the two wetland systems responded either “Very Well” or “Well”. 2. SWAP/DWAP manual All the officers at central and district levels responded positively on their level of comprehension either by stating “Very Well” or “Well”. They responded positively on their application to their daily job either by stating “Very Well” or “Well”. 3. Wetland Management Planning Process Manual For the level of comprehension as well as application, all the WMD officers responded positively by stating either “Very Well” or “Well”.
6.2	At least 50% of the district officers in charge of wetland management over the country can understand and can use the wetland management manual.	In a questionnaire survey, more than 50% of the district officers in charge of wetland management across the country stated that they understood and use the three major wetlands management tools developed in the project i.e. 1) NWIS handbook, 2) SWAP/DWAP Manual and 3) Wetland Management Planning Process Manual. Thus it is envisaged that the numerical target of the indicator was achieved. 1. NWIS handbook 62% of the district officers responded positively by stating either “VERY WELL” or “WELL” among the five rating scheme for both questions on comprehension and application. 2. SWAP/DWAP manual 86% of the district officers responded positively by stating either “VERY WELL” or “WELL” among the five rating scheme for the question on comprehension; and 87 % of the district officers responded positively for the question on application. 3. Wetland Management Planning Process Manual 76% of the district officers responded positively by stating either “VERY WELL” or “WELL” among the five rating scheme for the question on comprehension; and 74 % of the district officers responded positively for the question on application.

3.3 ACHIEVEMENT OF PROJECT PURPOSE

Achievement of the project's purpose is evaluated as part of the terminal evaluation of the project. Summary of the evaluation is presented in Table 3-2. The model of conservation and wise use of wetlands is compiled into a guideline as Annex 10.

Table 3-2 Indicators and Evaluation on Project Outputs

ID	Indicators	Evaluation
1	Ecological character of the pilot sites shows no changes or improvement in pilot sites based on the ecological monitoring plans of each site.	The ecological monitoring plans adopted a combination of three tools: photo point monitoring, water quality monitoring and description and recording of plant community by using Relevé data sheets. At the catchment level, significant impacts on ecology have not emerged since the pilot activities began in 2015 for demarcating wetlands and setting out rules for management and tree planting activities were commenced in 2016 which does not provide adequate time to generate visible impacts. However the ecological monitoring activity has identified the improvement of ecological character as a result of the project intervention through the creation of protection zones and tree planting along the important water bodies in the pilot sites.
2	At least 50% of the pilot activity participants adopt sustainable livelihood options introduced by the project.	All the targeted communities supported under the project have adopted the sustainable livelihood options introduced by the project, which were achieved in a participatory manner, specifically in preparing the plans and identifying the preferred livelihood options
3	Wetland Management Manual is approved as one of the WMD's official document.	As of 15 November 2016, the WMD agreed to print the following project outputs. 1 Implementation Guideline 2 NWIS Hand book 3 Guideline for Wetland Assessment 4 Ecosystem Assessment Report 5 Livelihood assessment Doho-Namatala Wetland System 6 Livelihood assessment Report Awoja Wetland System 7 Framework Management Plan – Doho-Namatala Wetland System 8 Framework Management Plan – Awoja Wetland System 10 Sub-County and District Wetland Action Plans Development Manual 11 Sub-county Wetland Action Plans 12 Wetland Management Planning Process Manual 13 Community Based Wetland Management Plan 14 Guideline for Paddy Rice

Chapter 4. KEY LESSON LEARNED

4.1 KEY LESSONS OF EACH OUTPUT

Key lessons drawn from the experience in implementing the National Wetlands Management Project (NWMP) are presented in this chapter. In this section, lessons of each project output are provided.

For Output 1 on operationalization of NWIS, collection of relevant GIS data requires a lengthy step-by-step process. It is worthwhile to develop a data sharing protocol to enable NWIS's data regularly updated recognizing that it is only useful so long as the data is periodically updated. It was also reaffirmed that NWIS must be well financed for sustainable information management.

For Output 2 on assessment and DSS, pertinent information is scattered and thus requires a long process to compile them for assessment. As for DSS, it was developed by integrating various existing decision support tools such as Kampala Matrix and would be progressively expanded and elaborated by combining other management tools.

As for Output 3 on planning process, it was recognized that it requires careful mapping of stakeholders involving in planning process; and policy makers and communities are the important stakeholders. The wetlands management plans should integrate existing resource management plans. Similarly, the wetland management plans should also be integrated into other resource management plans such as catchment management plans. At the same time, it is also needed to integrate the plans into the District and Sub-county Development Plans. The framework management plans requires an institutional arrangement that should be integrated into local government stricture to make it operational. It is reaffirmed that DWAP is a useful process to make the actions taken in a short term and quickly fed into relevant government programmes.

Regarding Output 4 on community management, setting-up viable livelihood activities requires an adequate consultation with communities on priorities, assessment of feasibility and social impacts and institutional arrangement. The participating community members should be sensitized on the linkage between the use/conservation of wetlands and the community activities.

Concerning Output 5 on rice guidelines, it was reaffirmed that policy integration requires a long term to take actions and realized that such activities goes beyond project scope. However the process leading to policy reform was supported through development of the guideline.

With respect to Output 6 on capacity development, it was recognized that harmonization of relevant on-going activities generate synergy effects on capacity development. The membership of JCC meeting was co-opted, which has contributed, particularly, to capacity development of the relevant ministries. It also ensured that the project principles are integrated into other on-going projects.

4.2 Lessons Drawn from Planning Process

Recognizing the value of the planning process in the project, eighteen (18) lessons drawn from the planning process are presented in Table 4-1. Some of the lessons presented in the previous sections are also expounded in the table.

Table 4-1 Key Lessons in Wetland Management Implementation

Key Lessons		Applicability	Description
1	Identification and involvement of key stakeholders minimize overall cost of wetlands management.	General	Wetlands management needs involvement of all key stakeholders directly or indirectly benefiting from the wetland in order to reach a consensus. One single wetland is often used by various groups of people. They may include crop growers, animal grazers, fishermen, water collectors, sand collectors, papyrus harvesters, etc.. Exclusion of major wetland users in the planning stage may result in delay in overall planning and implementation of wetlands management and increase risks by involving potential conflicts of interests that would emerge at a later stage.
		District and Sub- county level	District and Sub-county technical officers should identify key stakeholders critical for the planning process on the ground. All local residents may have a direct or indirect stake in wetlands management, but may not all be involved in the consultative process. Therefore, at least key stakeholders (local representatives such as chiefs, chairpersons, and Secretary for Environment and selected wetland users) that are with and knowledge about wetlands may be consulted while ensuring a representative.
		Community level (Involvement of "assumed" land owners)	At the early stage of the planning process, not only wetland users but also land owners adjacent to wetlands have to be identified and involved. Some of them are "assumed" land owners since they believe that they can extend their boundaries into the wetlands and assume ownership. Without proper sensitization on the difference between ownership use and access to wetlands, more conflicts are likely to occur during the implementation of community plans. To avert this, a lot of awareness must be done.
		Community level (In selecting Wetland Management Committee members)	Wetland Management Committee (WMC) members have to be selected from the community while considering gender balance, generation balance, area representativeness and different categories of wetland users such as fishermen, papyrus harvesters, water collectors and animal grazers. In addition, some influential stakeholders in the community such as large-scale land owners should be selected as members since they often determine the use of wetlands adjacent to their property. Many wetland users often rent the land from the owners and do not have decision-making power. It is important that the project respects the power balance and protocol in the community and does not break social relationships.
2	Gender balance should be considered from the early planning stage.	Throughout the planning stage	The use of wetlands may be different by gender. In most cases it is women and children who collect water from wetlands. The current use of the wetlands by gender has to be discussed including gender roles and benefits analysis done during the early stage of the planning workshop. It is recommended to categorise wetland users into women, men, girls, boys, youth, and elderly. So that opinions from each category is captured.
3	Involvement of CAO in the planning process especially at an early stage is a key for success.	Throughout the planning stage	Involvement of Chief Administrative Officer (CAO) in the planning process improves efficiency by allowing timely adjustment of schedule of other prospective events at districts/central level and limits interference with the planning activities. This is important for the management of district staff, since they are critical participants in different meetings through early delivery of information on the planning process. Participation of district leadership in the planning process also improves district staff's participation across various sectors (water, environment, agriculture, forestry, fisheries, community development, etc.) and consolidates orientation, commitment and output delivery.

Key Lessons		Applicability	Description
4	A planning area/unit should be designed and determined for a group of people with shared resources and a common interest and vision.	General	River Basin Approach is the fundamental approach in planning and implementing wetlands management in Uganda. However this physical condition for determining a planning area/unit should be applied cautiously to minimize the risk arising from lack of social cohesion of the group of people participating in planning and management of wetlands. In addition it should be informed by community knowledge of their locality. In circumstances wherein inclusion of all groups of people who have common interest, the planners may consider to phase our implementation into two phases over a longer period (as determined and agreed to during the initial consultations) adopting a step-by-step approach in order to ensure that implementing entities gradually gain confidence and later embark on a much wider and active participation.
		In preparing Framework Management Plan	"Lowest Appropriate Level" is a concept often cited in debate on Integrated Watershed Management. It is the level at which significant environmental issues are experienced. If, for example, a specific issue only has a possible impact within a local community, then the community level is the preferred management level because of the ownership and commitment assured. On the basis of the concept on Lowest Appropriate Level, planners may decide to exclude some parts from the planning process if relative impacts on the common resources are limited or negligible. This arrangement would maximize the efficiency and efficacy of the intervention.
		Community level (Planning stage)	A community may be defined as a group of people with shared resources, a common interest and vision. Once the area to be covered becomes large, different interests should therefore be taken into consideration while planning and be addressed. For instance, the District Officer for Kumi delineated a land area of approximately 97 km^2 with fishing communities along with the inland upland farming communities, almost an of half of Kampala city. The same was observed in Budaka District with inland fishing community and rice growers with a total land area of approximately 34 km^2. Both of the communities in Kumi and Budaka faced conflict of interests during the implementation stage. On the other hand, in the Bududa district, the area focused has a land area of approximately 20km^2 in a mountainous region. In addition to being relatively small land area, the planning area was characterized by much smaller focus area for planning on wetland management.
5	Observations by District Environment Officers are vital but have to be verified.	Throughout the planning stage, but more specifically during the framework management planning stage	District environment officers have in-depth local knowledge on environmental issues, wetlands and biodiversity. Their knowledge and experiences have to be integrated into the planning process in order to maximize the resource efficiency. However it is also recommended to verify through field observation, scientific measurement/analysis and questionnaire survey wherever the available resources allow doing so. For example, during the Framework Management Planning for Awoja Wetland System, many of the district officers noted that the rapid sedimentation of Opeta Lake would affect the lake capacity to provide some of the services. A field visit and ocular observation of the entry point of the lake from the upper mountainous streams indicated that only very fine particles can reach the lake due to sieving effects, which did not indicate any imminent needs for intervention.
6	Close interaction with relevant Water Management Zone officers is strongly recommended.	Throughout the planning and implementation stage	The Ministry of Water and Environment has designated four Water Management Zones over the country: 1) Victoria, 2) Kyoga, 3) Albert and 4) Upper Nile Water Management Zone. Since the wetland management is part of water resource management, seamless interaction with relevant Water Management Zone officers is strongly recommended. During the preparation of the wetland management in Doho-Namatala and Awoja Wetland System, the Wetland Management Department had kept close liaison with the Kyoga Water Management Zone.

Key Lessons		Applicability	Description
7	Flexibility in working with district and sub-county officers is recommended in order to timely and prompt completion of the planning process.	District level Planning stage	District officers are always multi-tasked. Throughout the planning process, they may face challenges in managing the planning process; because of other urgent sector commitments. A focal person at the district level should be flexibly selected considering the project portfolio at hand. Furthermore delay of one district or one sub-county may require additional cost at a later stage that may arise as a result of additional follow –up activity.
8	A wide range of participatory planning tools should be used to enhance openness of the community members.	Development of DWAP, SWAP and CBWMP	Resource mapping is one of the effective methods to visualize the location of wetlands and other important resources. It can be the basis for discussion on issues, problems and opportunities of wetland resources. During the exercise it is important to give participants time to draw the map, let them discuss and agree on the boundaries with neighbouring communities. This exercise can bring the people together and build confidence and trust among them.
9	SWAP and DWAP should be integrated into the relevant development plans to ensure budget allocation and close monitoring of impacts.	Upon completion of DWAP and SWAP	To integrate the approved SWAP into Sub-county Development Plan, the Sub-county Wetland Focal Point Person together with Sub-county Chief should ensure that the interventions proposed in the SWAP are integrated into their development plan with clear budgets and funding sources. This does not only promote commitment by the Sub-county leadership, but also gives them an opportunity to mobilize resources to finance such interventions from different available funding sources. The same procedures are applied for the integration of DWAP into District Development Plan (DDP).
		Approval of DWAP	After DWAP development, the document is presented to the line sectoral committee of the Council and subsequently presented to the District Council for approval as a policy working document. Unless these processes are fulfilled, the DWAP is incomplete. After this process, the DWAP should then be endorsed by both the District Chairperson and Chief Administrative Officer (CAO) and a copy submitted to Wetlands Management Department (WMD), Ministry of Water and Environment (MWE) to provide support in monitoring implementation. It is also recognized that the schedule of the planning process determines the budget for the planning process. It is recommended carefully to schedule of the planning process and to ensure there is approval by the relevant committee and Council through regular meetings.
10	A set of objective criteria should be used for prioritization of IGAs to be supported in the community.	Planning and pre-investment stage	Financial resources are always inadequate to support the needs for conservation and management. Support of communities among others requires more resources due to the large number of sites requiring budget. Therefore prioritization of communities is an essential process for the successful management of wetlands. On the other hand, integration of Income Generating Activities is of great importance. However support of communities in implementing IGA is not straightforward. It is apparent that a new IGA has more risks; an IGA requiring a large scale physical investment bears more risks; and an IGA necessitate complex technical intervention entails more risks[5]. At the planning stage, it is also advised to undertake a rapid assessment of feasibility and sustainability. This may be done through availability of maintenance service of proposed facility and equipment if any, looking at past experiences in the region or its neighbour. Prior to physical investment, it is recommended to undertake economic appraisal wherever possible.
11	A protection zone along a water body should be demarcated considering ecological significance and potential positive and	Community level (demarcation exercise)	Demarcation in general means the process where the ecological boundary between wetlands and uplands are identified in a linear alignment. It requires local knowledge on water availability over years. However, the Project recommends further demarcation exercise within the wetland to decide the boundary between the protection zone and regulated zone. This boundary is determined and agreed to by the community based on

[5] The risks may include those arising from the changes in market price of project inputs that may have more impacts on the overall project cost than smaller scale projects, delay of fund disbursement also have significant impacts on overall economic efficiency; and mobilization of skilled labour would be required for operation and management, which would also have a long term impacts on overall project efficiency.

Key Lessons		Applicability	Description
	negative socio-economic impacts.		the prevailing and previous of wetland use. The communities supported under the Project have undertaken wetland demarcation to set aside protection zone generally in accordance with Article 29 of the National Environment (Wetlands, River banks and lakeshore management) Regulations, 2000. Furthermore they have determined the boundary where regulated activities are permitted to be performed. Practically the configuration of protection and regulated zones differs among the pilot sites. The officers also collected a wide range of information through the demarcation process: 1) a map(s) of entire project area with GPS coordinate, 2) identification of zones with GPS coordinate and 3) designated/regulated use within each zone. They also prepared an inventory of users within the agreed boundary for agricultural purpose etc. The inventory included the information on 1) name of the users, 2) contact address and phone number if any, 3) educational background and skills, 4) intention on participation in other project activities, 5) area to be covered by the protection zones, 6) crops grown in one single year (average), 7) average yield of the crops grown and 8) prices of the crops. Upon the completion of the demarcation exercise, the districts have drawn-up Memorandum of Understanding (MOU) agreed between each of the districts and the community. The MOU includes articles on 1) a grace period for exit agreed with the community, 2) zones accompanied by identification numbers, 3) an estimated surface area of each zones and 4) regulated or granted activities in each of the zones.
12	Clear information on wetlands management should be given to the community to avoid resistance and conflict.	Community level (resistance and conflict during demarcation exercise)	Resistance and conflict by some community members towards the Project especially during demarcation exercise should be foreseen even where the planning process goes on smoothly. Most of them are afraid of land grabbing by the Project or loss of their land. In such instances, it is important to have regular dialogues and meetings with the community where you give clear information on the exercise. The communities should understand the purpose of the Project and how it is linked to the wise use principles for wetland management. It is also recommended to withdraw from those areas where strong resistance is expected. But the planners may find a time at a later stage to mobilize the community through continuous sensitization activities. In consultation with the community, the planners should first build rapport and trust with communities rather than forcing them in in the conservation effort.
13	District Forestry Officer (DFO) or National Forest Authority (NFA) should be consulted in selecting appropriate tree species in wetlands.	Community level (demarcation and tree planning)	When trees are planted in wetlands for conservation purpose, appropriate wetland species should be selected with advice from District Forestry Officer (DFO) or National Forest Authority (NFA). Normally, communities prefer commercial species for income generation purpose, but some of the species do not grow well in wetlands. Moreover, there were cases that some seedlings of commercial species like mahogany were uprooted by neighbours after planting and re-planted at their homesteads.
14	Replacement of boundary makers with other seedlings by either community or district team is important as agreed zones and buffer zone to be maintained.	Community level (demarcation and tree planning)	In some project areas, there are no clear boundaries between the protection zone and regulated zone since the boundary markers such as trees and sticks were uprooted by neighbours or destroyed by livestock. In such cases, it is necessary to replace the boundary markers with other seedlings by either community or district team as agreed zones and buffer zone to be maintained. This should be mentioned in MoU before the implementation of the pilot project.
15	District Implementation Committee and Inter-district Implementation Committee of FMP should be empowered to enable evaluation and monitoring.	Throughout the implementation stage	District Implementation Committee and Inter-district Implementation Committee are responsible for periodical monitoring and evaluation to measure the progress and achievement of action plans of FMP. The committees identify cross cutting wetland issues and advocate for harmonized inter-district interventions.
16	Sensitization of communities on	Throughout the implementation	It is necessary to continue to sensitize local residents on the sustainable use of wetlands, especially the difference between protection zone and

Key Lessons		Applicability	Description
	sustainable management of wetlands and its catchment should be continued to ensure that the agreements by the communities are exercised.	stage	regulated zone which was agreed in the MoU or bye-law. Protection zone should not be used by anyone (no go area). Regulated zone may be used only for wise use purpose such as tree planting, bee-keeping, fish pond, rice and vegetable production and agroforestry. Other productive activities should be conducted in production zone in upland area. In some cases, re-entering and encroachment on the demarcated areas by the residents to cultivate rice and other crops were observed. Enforcement of the agreements are crucial for wetland conservation. Regular reviews of MoUs and other key agreements are also necessary to keep the achieved outputs.
17	District officers should always work hand in hand with the Environmental Police Officers during monitoring and enforcement on wise use of wetlands.	Throughout the implementation stage	The District Environment Officer should always work together with the Environmental Protection Police Officers in order to secure the benefits of wetlands of the stakeholder and the entire ecosystem. Continued interface with the community members to respect the established zones is necessary to improve the wetland ecological functions. Enforcement of wetlands laws, policies, regulations and bye-laws are also crucial for wetland conservation because these involve fines and penalties.
18	Integration of the Project into other government programs such as NUSAF3 and CDD funds is recommended to ensure sustainable ownership funding and continuity.	Throughout the implementation stage	Wetlands management is a gradual process. One project may have a limited budget and period. It cannot therefore cover all planned activities in DWAP, SWAP and CBWMP. It is recommended to link the Project to other government programs within the district and sub-county such as NUSAF3 and Community Driven Development (CDD) funds. This will enable the community members to continue their activities of wetland conservation through wise use concept in order to achieve sustainable development. It all promotes ownership by the recerpiot district local government

Chapter 5. RECOMMENDATIONS

The recommendations outlined herein were developed to ensure continued benefit delivery to the project beneficiaries for an extended period after the assistance by the Government of Japan has been terminated.

To ensure that NWIS is used continuously, it is recommended that:

1 The WMD should secure a sufficient budget for maintenance services of ArcGIS at UGX 4.4 million per annum.

2 The WMD should integrate and broaden use of QGIS in managing wetlands information as a contingency measure in the event of failing in budget allocation for ArcGIS.

3 The WMD should secure budget for the FY 2017/2018 estimated at UGX UGX417,900.as a short-term measure for maintaining the NWIS Homepage.

4 The WMD should transfer the NWIS Homepage to the formal Website of the Ministry or coordinate with IT officers of MWE to link the website of the ministry to the NWIS site as a mid to long term measure for maintaining the NWIS Homepage.

For support of relevant districts, it is recommended that:

5 The WMD should enhance inter-departmental network and collaboration with the Directorate of Water Resource Management, among others, to exchange the latest information and regularly report on progress in drawing up strategies to ensure continued operation of Inter-district Implementation Committee of the two wetland systems.

6 The WMD through the Regional Coordinator for the East should liaise with the Kyoga Water Management Zone to facilitate integration of wetland management into the river basin approach.

To ensure sustainability of the initiatives by the communities, it is recommended that:

7 The WMD should secure a budget to continue supervision and monitoring of implementation of pilot activities for at least one year period.

8 The Local Government Administration should seek additional external grants such as Third Northern Uganda Social Action Fund (NUSAF 3) to support the communities and also work with existing civil society to move forward on-going initiatives and unfunded areas arising out of the project. These negotiations may be done in close collaboration with the Wetlands Management Department.

9 The district officers should integrate the community plans into the district development plans to ensure allocation of conditional grant to communities' pilot projects.

10 The WMD should work closely with the Kyoga Management Zone and JICA Uganda Office to ensure that the synergy of the relevant projects[6] is exerted.

For achieving the overall goal, it is recommended that:

11 The WMD should consolidate future direction and concrete policy to achieve the overall goal by formulating approaches, designing measures and securing budget for upscaling the pilots and use of the wetland management tools developed and upgraded by the project.

[6] The Project on Irrigation Scheme Development in Central and Eastern Uganda and the National Wetlands Management Project

Annex

ANNEX 1 PROJECT DESIGN MATRIX (ORIGINAL)

Project Name: National Wetlands Management Project
Duration: 2012 - 2016 (5 years)
Implementing Agency: Wetland Management Department (WMD), Ministry of Water and Environment Date: April **, 2011

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.

[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.

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.

Activities		
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. 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.	**Inputs:** *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. Preconditions: No drastic changes in wetland management policy occur. Project activities are accepted by relevant districts and sub-counties. Ugandan project staffs are assigned.

[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.

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

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.		

ANNEX 2 PROJECT DESIGN MATRIX (REVISED) ON DATE: 19TH JUNE 2014

Project Name: National Wetlands Management Project
Duration: 2012 - 2016 (5 years)
Implementing Agency: Wetland Management Department (WMD), Ministry of Water and Environment Date: 19th June 2014

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.	3. Ecological character of the pilot sites shows no changes or improvement in pilot sites based on the ecological monitoring plans of each site. 4. At least 50% of the pilot activity participants adopt sustainable livelihood options introduced by the project. 3. Wetland Management Manual[5] 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[6] 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'[7] capacity is strengthened.	1. 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. 2 At least 50% of the district officers in charge of wetland management over the country can understand and can use the wetland management manual.	− Project's periodical reports − Interviews and/or tests to relevant personnel	− No personnel changes occur. − Will of district wetland management officers is maintained.

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

Activities		
1-7 Consult with relevant institutions and organizations to identify scientific data and information gaps. 1-8 Review and redesign the National Wetland Information System. 1-9 Procure and install the best option of software and hardware. 1-10 Streamline the inventory format in line with the newly designed National Wetland Information System. 1-11 Test applicability of National Wetland Information System at relevant institutions and organizations. 1-12 Provide training on National Wetland Information System to staffs of relevant institutions and organizations.	**Inputs:** ***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 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 Develop Sub-county Wetland Action Plans with support from parish representatives. 3-7 Organize District Technical Planning Committees. 3-8 District Technical Planning Committees develop District Wetland Action Plans in each district. 3-9 Review and update Wetland System Management Plans, District Wetland Action Plans and Sub-county 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 Support the communities in implementing the Pilot Projects. 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.		

who work in other wetland systems.

ANNEX 3 PROJECT DESIGN MATRIX (REVISED) ON DATE: 21ST JULY 2015

Project Name: National Wetlands Management Project
Duration: 2012 - 2016 (5 years)
Implementing Agency: Wetland Management Department (WMD), Ministry of Water and Environment Date: 21st July 2015

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.	5. Ecological character of the pilot sites shows no changes or improvement in pilot sites based on the ecological monitoring plans of each site. 6. At least 50% of the pilot activity participants adopt sustainable livelihood options introduced by the project. 3. Wetland Management Manual[8] 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[9] 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. Relevant policy reviewed for harmonized for implementation of wise use principle	1. Issues identified in the relevant policy, laws and regulations 2. Minutes of Workshop/Symposium 3. TOR for the next actions	− Project's periodical reports − Interviews and questionnaires to relevant community members	− Cooperation by other departments under MWE − Cooperation by MAAIF

[8] A manual that describes proper methodology of wetland assessment, wetland management planning, sustainable livelihood options, etc.
[9] Ministry of Water and Environment, Ministry of Agriculture, Animal Industry and Fisheries, National Environment Management Authority, Districts in charge of managing pilot sites.

6. Wetland management officers'[10] capacity is strengthened.	1. 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. 2 At least 50% of the district officers in charge of wetland management over the country can understand and can use the wetland management manual.	− Project's periodical reports − Interviews and/or tests to relevant personnel	− No personnel changes occur. − Will of district wetland management officers is maintained.

Activities			
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. 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[11]. 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 Develop Sub-county Wetland Action Plans with support from parish representatives. 3-7 Organize District Technical Planning Committees. 3-8 District Technical Planning Committees develop District Wetland Action Plans in each district. 3-9 Review and update Wetland System Management Plans, District Wetland Action Plans and Sub-county Wetland Action Plans 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 Support the communities in implementing the Pilot Projects. 4-6 Develop and implement ecological monitoring plan. 4-7 Select Priority Pilot sites for Scaling Up 4-8 Assist Communities in Scaling Up 4-9 Review and update wetland management plans based on monitoring results. 5-1 Review of relevant laws, regulation and guidelines to identify key issues; 5-2 Propose institutional adjustment for wise use 5-3 Develop TOR for the next actions 5-4 Convene workshop/Symposium to review and harmonize wetland policies	**Inputs:** ***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*** 4) Ugandan Project Staffs: -Project Director -Project Manager -Project Coordinator -GIS/Database -Ecosystem Management -Sustainable Rural Development -Local Government Staffs 5) Furnished office in or near the WMD and relevant district government buildings 6) 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. Preconditions: No drastic changes in wetland management policy occur. Project activities are accepted by relevant districts and sub-counties. Ugandan project staffs are assigned.

[10] 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.

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

6-1	Conduct capacity and training needs assessment.		
6-2	Develop a Wetland Management Manual.		
6-3	Develop and implement training programs.		
6-4	Conduct evaluation of training programs.		
6-5	Publish project deliverables		

ANNEX 4 PROJECT DESIGN MATRIX (UPDATED) ON 9ST DECEMBER 2015

Project Name: National Wetlands Management Project
Duration: 2012 - 2016 (5 years)
Implementing Agency: Wetland Management Department (WMD), Ministry of Water and Environment Date: 9st December 2015

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.	7. Ecological character of the pilot sites shows no changes or improvement in pilot sites based on the ecological monitoring plans of each site. 8. At least 50% of the pilot activity participants adopt sustainable livelihood options introduced by the project. 3. Wetland Management Manual[12] 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[13] 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. − The District Officers in charge of Pilot Projects support the community and promote wise use principle in wetland management through self-initiative and self-help efforts.

[12] A manual that describes proper methodology of wetland assessment, wetland management planning, sustainable livelihood options, etc.
[13] Ministry of Water and Environment, Ministry of Agriculture, Animal Industry and Fisheries, National Environment Management Authority, Districts in charge of managing pilot sites.

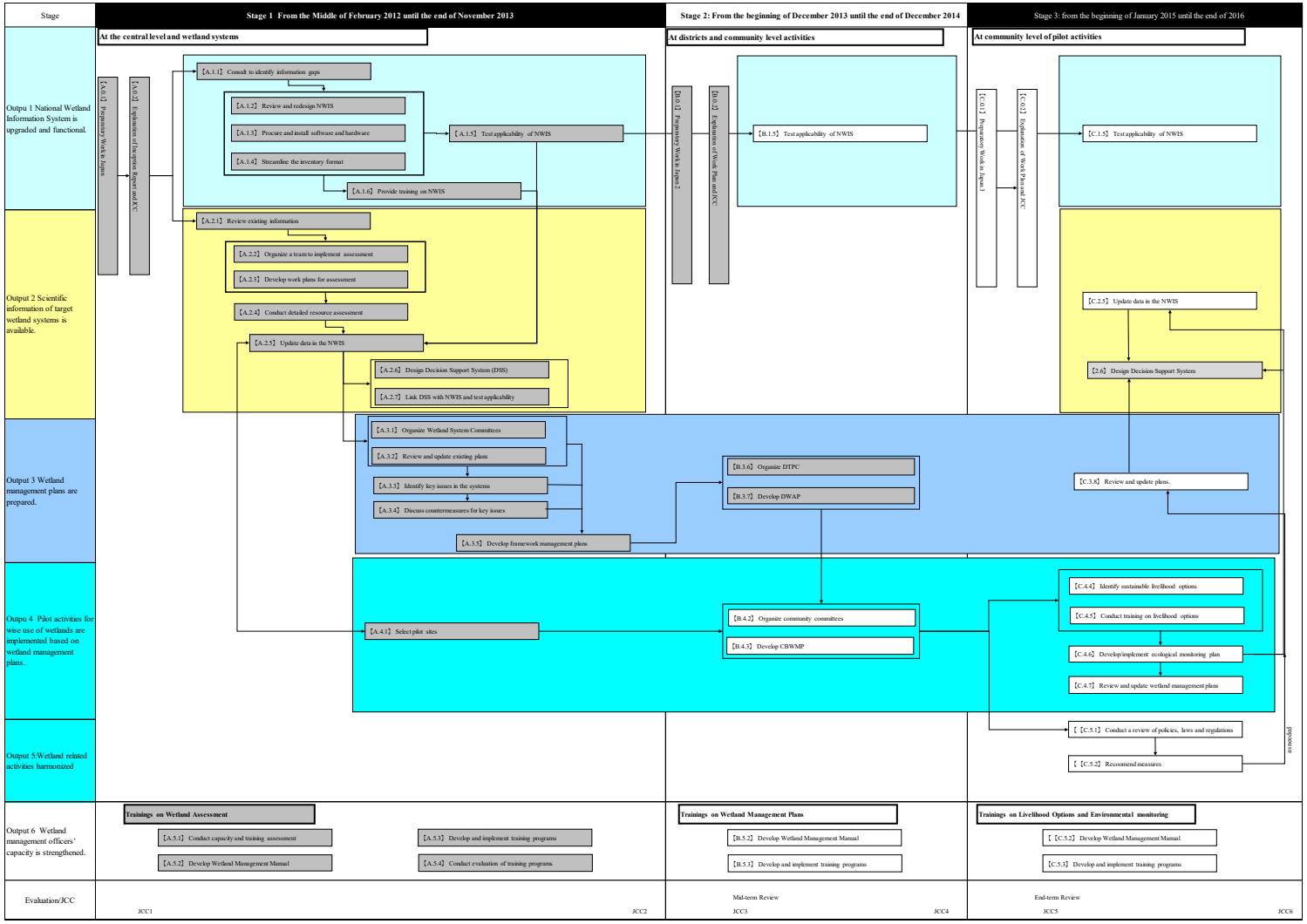
5. Wetland related activities harmonized	1. Issues identified in the relevant policy, laws and regulations 2. Minutes of Workshop/Symposium	− Project's periodical reports − Interviews and questionnaires to relevant community members	− Cooperation by other departments under MWE − Cooperation by MAAIF
6. Wetland management officers'[14] capacity is strengthened.	1. 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. 2 At least 50% of the district officers in charge of wetland management over the country can understand and can use the wetland management manual.	− Project's periodical reports − Interviews and/or tests to relevant personnel	− No personnel changes occur. − Will of district wetland management officers is maintained.

Activities		
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. 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[15]. 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 Develop Sub-county Wetland Action Plans with support from parish representatives. 3-7 Organize District Technical Planning Committees. 3-8 District Technical Planning Committees develop District Wetland Action Plans in each district. 3-9 Review and update Wetland System Management Plans, District Wetland Action Plans and Sub-county Wetland Action Plans 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 Support the communities in implementing the Pilot Projects. 4-6 Develop and implement ecological monitoring plan. 4-7 Select Priority Pilot sites for Scaling Up 4-8 Assist Communities in Scaling Up 4-9 Review and update wetland management plans based on monitoring results. 5-1 Conduct a review of sectoral policies, laws and regulations 5-2 Recommend measures for strengthening policy framework and instruments 6-1 Conduct capacity and training needs assessment. 6-2 Develop a Wetland Management Manual. 6-3 Develop and implement training programs. 6-4 Conduct evaluation of training programs. 6-5 Publish project deliverables	**Inputs:** ***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*** 7) Ugandan Project Staffs: -Project Director -Project Manager -Project Coordinator -GIS/Database -Ecosystem Management -Sustainable Rural Development -Local Government Staffs 8) Furnished office in or near the WMD and relevant district government buildings 9) 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. Preconditions: No drastic changes in wetland management policy occur. Project activities are accepted by relevant districts and sub-counties. Ugandan project staffs are assigned.

[14] 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.

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

ANNEX 5 PROJECT FLOWCHART



ANNEX 6 GENERAL MANAGEMENT POLICY FOR EACH OF THE MAJOR SOIL TYPES

Soil Class	Overview	General Management Policy
1. Histosols	Histosols comprise soils formed in organic material. In Uganda, the soils are often found under the vegetation of papyrus, reeds and sedge in lowlands.	It is desirable to protect and conserve fragile peat lands because of their intrinsic value (especially their common function as sponges in regulating stream flow and in supporting wetlands containing unique species of animals) and because prospects for their sustained agricultural use are meagre. Where their use is imperative, sensible forms of forestry or plantation cropping are to be preferred over annual cropping, horticulture or, the worst option, harvesting of the peat material for power generation or production of horticultural growth substrate, active carbon, flower pots, etc.
2. Gleysols	Gleysols are wetland soils that are saturated with groundwater for long enough periods to develop a characteristic gleyic colour pattern. This pattern is essentially made up of reddish, brownish or yellowish colours at ped surfaces and/or in the upper soil layer or layers, in combination with greyish/bluish colours inside the peds and/or deeper in the soil.	Gleysols can be well used for wetland rice cultivation where surface water is managed. Supply of cation from upstream is often an advantage for paddy rice production. In riverine wetlands, some parts of Gleysols are not water saturated in dry season and provide farm land for dairy farming and horticulture as groundwater table lowers. However, soil structure will be destroyed for a long time if soils are cultivated when too wet. Therefore, Gleysols in depression areas with unsatisfactory possibilities to lower the groundwater table are best kept under a permanent grass cover or swamp forest. For upland crop production, the main challenge is its high water table that prevents most of upland crop production. Adequately drained Gleysols can be used for arable cropping, dairy farming and horticulture. Liming of drained Gleysols that are high in organic matter and/or of low pH value creates a better habitat for micro- and meso-organisms and enhances the rate of decomposition of soil organic matter. Gleysols can be put under tree crops only after the water table has been lowered with deep drainage ditches. Alternatively, the trees are planted on ridges that alternate with shallow depressions in which rice is grown.
3. Vertisols	Vertisols are churning, heavy clay soils with a high proportion of swelling clays. These soils form deep wide cracks from the surface downward when they dry out, which happens in most years. The name Vertisols (from Latin vertere, to turn) refers to the constant internal turnover of soil material.	These soils have considerable agricultural potential, but adapted management is a precondition for sustained production. The comparatively good chemical fertility and their occurrence on extensive level plains where reclamation and mechanical cultivation can be envisaged are assets of Vertisols. Their physical soil characteristics and their difficult water management cause problems. Buildings and other structures on Vertisols are at risk, and engineers have to take special precautions to avoid damage. The agricultural uses of Vertisols range from very extensive (grazing, collection of fuelwood, and charcoal burning) through smallholder post-rainy season crop production (millet, sorghum, cotton and chickpeas) to small-scale (rice) and large-scale irrigated agriculture (cotton, wheat, barley, sorghum, chickpeas, flax, noug [Guzotia abessynica] and sugar cane). Cotton is known to perform well on Vertisols, allegedly because cotton has a vertical root system that is not damaged severely by cracking of the soil. Tree crops are generally less successful because tree roots find it difficult to establish themselves in the subsoil and are damaged as the soil shrinks and swells. Management practices for crop production should be directed primarily at water control in combination with conservation or improvement of soil fertility. The heavy soil texture and domination of expanding clay minerals result in a narrow soil moisture range between moisture stress and water excess. Tillage is hindered by stickiness when the soil is wet and hardness when it is dry. The susceptibility of Vertisols to waterlogging may be the single most important factor that reduces the actual growing period. Excess water in the rainy season must be stored for post-rainy season use (water harvesting) on Vertisols with very slow infiltration rates. One compensation for the shrink–swell characteristics is the phenomenon of self-mulching that is common on many Vertisols. Large clods produced by primary tillage break down with gradual drying into fine peds, which provide a passable seed bed with minimal effort. For the same reason, gully erosion on overgrazed Vertisols is seldom severe because gully walls soon assume a shallow angle of repose, which allows grass to become re-established more readily.

Source: IUSS Working Group WRB. 2007. World Reference Base for Soil Resources 2006, first update 2007. World Soil Resources Reports No. 103. FAO, Rome.

ANNEX 7 SELECTION CRITERIA FOR PILOT PROJECTS

Dimensions		Rate	Criteria
Readiness and preparedness of the project participants	Project ownership is an important aspect to be considered. The project participants shall be ready to implement the activities. Presence of relevant entities and their capacity to implement the activities should be evaluated.	1	The beneficiaries haven't thought of the idea of the project.
		2	The project was proposed by the beneficiaries. The project was subsequently designed and guided by the officers/JICA or other entities.
		3	The beneficiaries have already prepared a consensus on the proposed project/activities.
		4	The beneficiaries have already organized a project entity to implement the project.
		5	The beneficiaries have already initiated the relevant activities by either their own initiative or support from external entities.
Consistency with project design / Wise-Use Concept	The conservation and sustainable use of wetlands and their resources, for the benefit of humankind.	1	The project would aggravate wetland ecosystem integrity or biological diversity.
		2	The project does not have any components that contribute to conservation of the wetlands.
		3	The project is designed to contribute to improvement of livelihood of the wetland users but not to contribute to the conservation and sustainable use of wetlands.
		4	The project is designed to contribute directly to livelihood improvement of the wetland users but indirectly to conservation of wetlands or biodiversity.
		5	The project is designed to contribute both to 1) the conservation and sustainable use of wetlands and their resources and 2) for the benefit of humankind.
Financial / Economic viability	JICA is able to support only small scale project as pilot activity under the project. 100 million shillings is not definite value but should be viewed as a guide. Smaller is better.	1	The initial investment cost goes beyond 100 million shillings at one site.
		2	Either one of the following conditions: 1) The project does not include any mechanisms to ensure sustainability, or 2) the project requires external financial support for long-term operation of the proposed activity.
		3	The project requires external financial support for long-term operation of the proposed activity. But sustainability mechanisms are already in place.
		4	The project is financially feasible and economically viable with a certain level uncertainty.
		5	The project is believed to be promising in term of economic and financial aspects. No uncertainty is so far identified.
Technical feasibility	Venture activity should be avoided. If technical feasibility is not demonstrated, the projects may include small scale feasibility study components.	1	Applicable technology is not available.
		2	There is applicable technology but not demonstrated to be feasible.
		3	There is applicable technology that is demonstrated to be feasible elsewhere in the world. But its efficacy is uncertain in the specific case.
		4	There is applicable technology that is demonstrated to be feasible in the Eastern African Countries. But its efficacy is uncertain in the specific case.
		5	The technology adopted is already demonstrated in the area.
Environmental impacts	The project shall not have significant impacts particularly in the internationally important sites. Introduction of alien species should be carefully avoided.	1	The project has significant environmental impacts that are not avoidable.
		2	The project impact is uncertain.
		3	The project has adverse environmental impacts but they are to be avoided and/or minimized.
		4	No adverse impact is identified.
		5	No adverse impact is identified and the project has positive impacts on the environment.

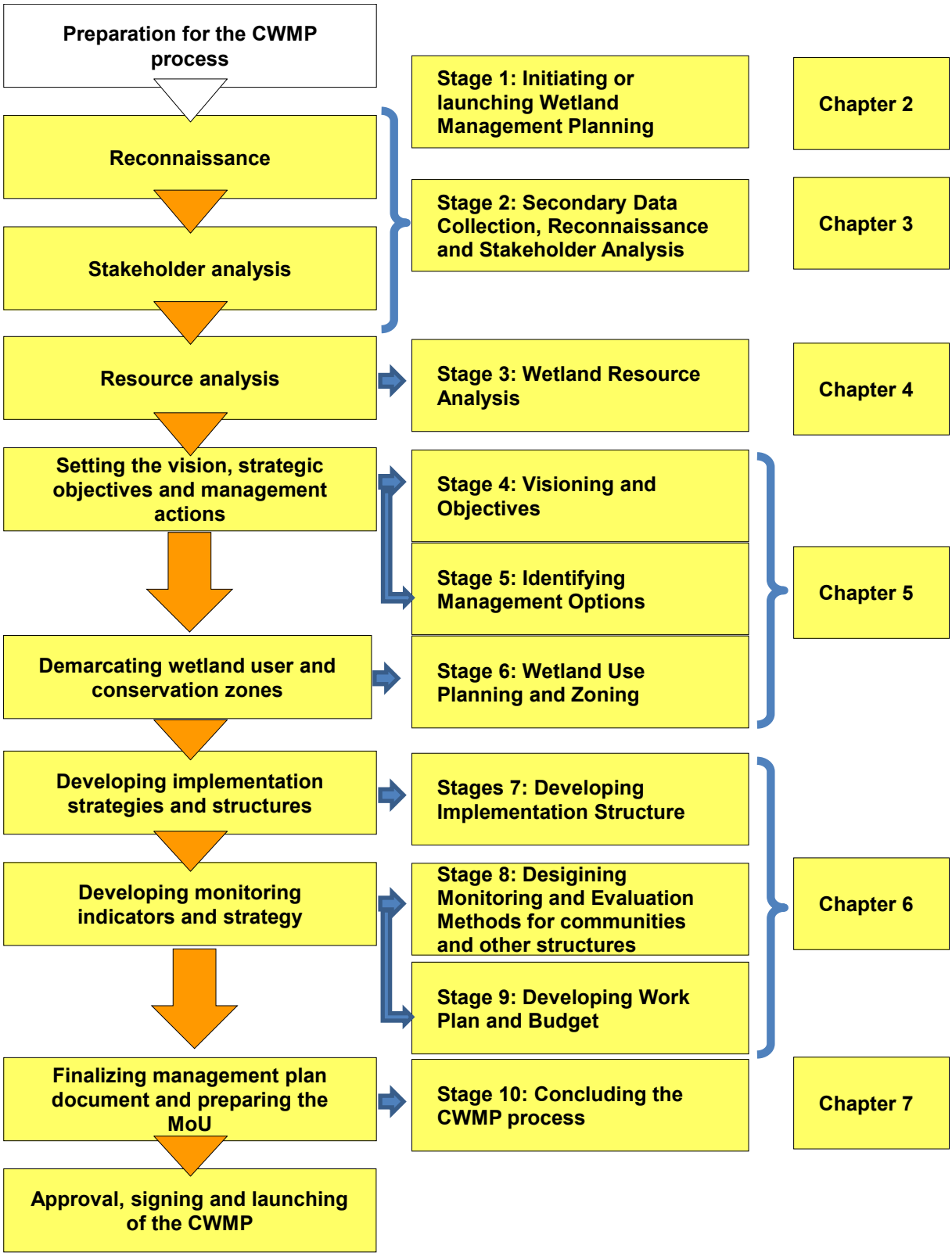
Some Terminology in Environmental Impact Assessment

Positive impacts - the effect of the given project activity will be to improve the condition and integrity of the environmental resource.
No Impact - there is no impact of the given project activity on the environmental resources. This assessment would be made if the project activity is to be spatially or temporally removed from the environmental resource.
Insignificant - There is an impact of the given project activity on the environmental resource but it is assessed to be too negligible to require intervention in the form of either mitigation or monitoring. This type of impact would occur under at least one of three following conditions: the time scale of the impact is shorter than the life span or time scale of the environmental resource; the area which the impact may occur is smaller than the area over which the environmental resource occurs; or the magnitude of the impact is small relative to the abundance or quality of the environmental source.

Significant and Unavoidable impact - There is an impact of the given project activity on the environmental resource, it is assessed to be sufficiently large that mitigation intervention is desirable, but there are no mitigation measures available or there effectiveness is uncertain. Monitoring would almost certainly be required and monitoring activities would need to be specified and costed. This type of assessment would occur under the following conditions:
* any one of:
- the time scale of the impact is equal to or longer than the life span or time scale of the resource of concern
- the area over which the impact may occur is equal to or larger than the area over which the resource of concern occurs
- the magnitude of the impact is equal to or larger relative to the abundance or quality of the resource of concern
- the resource f concern has international or global significance,(e.g.a n endangered species or interactional waterway)

* and any one of the following:
- there are no known mitigation measures
- it is uncertain whether the significant impact can be effectively mitigated

ANNEX 8 BASIC STEPS IN THE COMMUNITY WETLAND MANAGEMENT PLANNING PROCESS



ANNEX 9 DESCRIPTION OF INCOME GENERATION ACTIVITY

BUDUDA DISTRICT

Bumatanda Women Group in Bukigai Subcounty was supported in improving post-harvest processing of honey products to enhance the market competitiveness by maximizing value-addition of bee products to respond to growing needs on bee products in the districts, Mbale and other consumers' markets in Kenya. A certain range of the incremental earnings from the investment would be set aside for two major purposes: 1) saving for business operation to ensure the operation sustainable and thus reduce dependence on external assistance and 2) reallocate fund for increasing forest coverage of the bank area and thus promote good floral diversity to enhance the productivity of bees.

The members of the community have engaged in the bee keeping activity in a forested bank of the river Manafwa and have been the major contributor to the wetland demarcation and mapping activities to ensure bank protection of the river. It currently holds 108 bee hives to produce approximately 726 kg honey, 1,080 kg wax, 21.6 kg propolis in two consecutive harvest seasons of a single year.

They will be trained on skills and techniques on handling and processing of products. Some of the representatives will participate in a training program to familiarize themselves to fundamentals and essentials on bookkeeping and accounting. They will further be provided with a minimum set of equipment for improvement of honey quality. A set of bee veils and overalls were also provided

The members will also contribute to increasing production of honey, wax and propolis by additionally hosting honeybee hives in the vicinity of the current operation ground. Each member will have additionally two bee hives with locally available materials. However the approach in boosting the production would adopt a step-by-step process over 10 years to ensure that implementing entities gradually gain confidence and later embark on a much wider and thorough application.

MANAFWA DISTRICT

Nabaloosi wetland lies on a mountainous area at an elevation of approximately 1,230 m a.s.l., which provides favourable conditions for livestock farming with limited exposure to any critical cattle diseases[16]. The wetland also provides a mineral lick supplementing their diet with nutrients and minerals; and cattle bathing sites to control ticks, an external parasite, and manage emergence of trypanosomiasis.

For livelihood improvement, the community was provided with incalf heifer of a 75 per cent cross-breed of locally bred Holstein-Friesian cattle that may produce a calf within 3 to 5 months to be delivered to other project participants. It is assumed that the average sex ratio is expected to be 1.06 males per every female born in large populations of cattle[17].

The plan initially selected one or two farm household(s) from each of the five (5) villages within the community to be provided with one incalf heifer. At this stage, the district veterinarian selected farmers by using predetermined criteria on 1) availability of fodder, 2) availability of shelter, 3) technical competence and 4) willingness to learn. Upon the delivery of a calf, it will be delivered to additional one or two selected farm households. The selected farm household will be also provided with a full technical package of contour farming and grass strip and use of manure in addition to the incalf heifer. Artificial insemination service will be provided by a district veterinarian. Although the current cows in the district are dominantly 45% Holstein Friesian cattle; the breeding with 75% Holstein Friesian cattle will be realized to increase milk production from 5-6 L/day to 10-15 L/day. Dissemination of sustainable agricultural practices over the hilly slope area would be also supported to conserve soil and water. According to the district veteran, a cow is able to produce milk for every 9 months each year for a period of five years; and may produce 6 L/day of milk for sale at UGX 1,000/L in the area. After five years, a cow can be sold at UGX 700,000 locally. A bull can be sold at UGX 1.5 to 2.0 million at 2 years old. These information will be used for economic analysis of the component.

[16] They include : Mastitis, Food rot, Helminthiasis and anaplasmosis.
[17] Rupert Amann & George Seidel, Jr., <http://beefmagazine.com/mag/sex_ratio_riddle> [Accessed 25th November, 2015]

BUTALEJA DISTRICT, PALLISA DISTRICT and BUDAKA DISTRICT

The communities in the three districts choose fish farming as the livelihood option considering the fact that the areas have been devoted to rice cultivation and diversification of production is a critical issue.

In Butaleja district, Bughajji wetland lies in the proximity to the confluence of three rivers of Manafwa, Nakwasi and Namatala. It had been previously extensively covered by papyrus. The members of the Wetland Management Committee had used the wetlands for agricultural purposes up the very edge of the river bank. However they participated in the planning process and subsequently demarcation exercise to set a side of protection and regulated zones.

In Pallisa District, the community of Doko wetland in Kabwangasi Sub-county in Pallisa District took up activities to enhance inland fishery cultivation. The advantage of their engagement in fish cultivation is geographical proximity to the markets in Mable. However it must be bear in mind that the previous exposure of the community in inland fish cultivation is limited. The Wetlands Management Department has minimized the risk by narrowing down the scope of the investment and closely monitor the implementation process to maximize the probability for success.

The community has set a goal of the first year to commence the production; and to increase its production and sales throughout the project life of 10 years. The members previously proposed to commence the activity to produce and sell 20,000 fishes in the initial year by excavating two ponds. However it was scaled down to a half of the proposal though a consultation process to start with one pond that is capable of growing 5,000 fishes in one season and 10,000 fishes in one single year. It is generally believed that fish products in Mbale and elsewhere in the wetland system has been scanty due to limited accessibility to major fishing communities in and around the Kyoga. Most people in the area therefore believe that the market is in high demand of fish and absorbable any incremental production by small scale fish ponds. However the project will take a cautious approach in increasing production accompanied by close monitoring and supervision. In the initial year, the district will support the community by providing a survey and engineering service to identify the best site for fish pond in the wetlands. This component was seen as a critical factor because the wetland area is prone to flood occurrence. District fishery officers carried out training to the members on production and management of inland fish culture. Community members were mobilized to excavate 1 pond of 1000 square meter. Fingerlings, feed and fuel for the initial operation was also supported by the project. However, the community will shoulder such operation cost from the second year by setting aside a certain amount of earnings from the sales of the initial year.

In Budaka district, the wetland management committee in Nyanza has engaged in inland fish culture with the technical support of Swisscontact, an NGO operating in Budaka. The members of the community have been the major player to the wetland demarcation and mapping activities. The community was supported in a way to increase the income by operation of the fish culture. However the approach of the Nynza community in improving the livelihood is different from those in Butaleja and Pallisa because they have already reached a certain level of production and sales. The support provided under the project is improvement of marketing side rather than the production side. In the livelihood improvement component under the project, the community was supported in undertaking a market survey. The output of the survey would serve as basis for further decision on investment for water control structure, purchase of marketing equipment. In this project, representatives of the community collaborated with the district officers in undertaking a series of interview of vendors at Mbale Central Market, street vendors, retail markets and hotels in Mbale on the sales and purchase of fish products.

KIBUKU DISTRICT

The Kirika Wetland Association has recently engaged in rice production at the edge of papyrus wetlands. It is desirable to protect and conserve fragile papyrus lands because of their intrinsic value especially their common function as sponges in regulating stream flow and in supporting wetlands containing unique species of animals. It is noteworthy that the wetland edge they have used has a shallower water table than the area vegetated with papyrus. The one of the key challenge in wetland management of the community has been limited planning process in planting and technical support on production of rice and other crops grown in the area. The project has supported the community in

demarcating the wetlands to have broad category of zones: protection zones and regulated zone. The regulated zones are permitted to serve for a certain group of activities that have a limited impacted on papyrus vegetation as agreed by the community members in its MOU.

The livelihood option of the community is thus designed to identify best mix of technique in producing rice in the vicinity of papyrus area through a participatory research and decision making process. It is expected eventually to replace the varieties currently grown, namely China, Super and Buyu with K85, Wita 9 and IR 16. The benefit of the project include: increased yields and price of rice as a result of better farm management and the proposed replacement of varieties. To this end, the community will have a demonstration farm where three rice varieties will be tested on its adaptability to such environment, yield and economies to the households along with environmental impacts.

SIRONKO DISTRICT

The fundamental objective of this project is to minimize accelerated stream bank erosion that has led to a disproportionate sediment supply, stream channel instability, land loss, habitat loss and other adverse effects by setting aside a buffer zone along the River Nalugugu in line with the National Environmental Regulations. The community has already undertaken the demarcation to set aside the protection zones along with the regulated zones along the river.

The proposed component is to provide irrigation pump to increase irrigation service area. With the project scenario, it was assumed that one household will be able to expand 25 % of farm land (25m x 50m) at a distant place from the previous cultivated land area with irrigation equipment. Farm productivity will also be increased as a result of provision of a pump by means of stabilized and equitable supply of irrigation water over the farm land during the dry season and supplemental supply of irrigation water during the two rainy seasons that are characterized by more erratic and unpredictable precipitation pattern due to global warming affecting the entire region. Organizational aspects of the pump operation were also designed as follows: 1) a pump is jointly operated by 7 households having farms in a contiguous land area; 2) they reach a mutual agreement on timing and a rental charge.

KAPCHORWA DISTRICT

To contribute to the socio economic well-being of the community of Tartar wetland catchment, the community has proposed tree planting activity. The wetland lies in the proximity to high gradient areas in the micro-catchment that have been converted to farm land without any soil and water conservation measures. The proposed tree planting activity is to prevent significant soil erosion that has affected the downstream wetlands by obstructing stream and drainage channels, filling in reservoirs and degrading water quality. The community intends to have the top of the mountainous covered with *Grevillea*, a fast-growing evergreen tree, and *Sesbabania*, often used in alley cropping to increase the soil's nitrogen content. The hill side will be used for crop production such as matoke; though, they will be combined with contour band by using nepia grass with a 15 meters interval along the slope. The plan is designed to start with the critical area for demonstration purpose. Thus identification of critical area will be an integral part of the activities. A tree nursery association will be supported and would be registered to the district government as a Community Based Organization for purchasing and sales of tree seedlings. The tree seedlings would include pine trees, eucalyptus, grandis in addition to Grevillea and sesbania. Other fruits trees such as avocado, jackfruits and mango will also promoted to enhance livelihood of the community.

BISINA LAKE Wetland Management – Katakwi, Soroti, Ngora and Kumi

The activities in Akurao parish in Toroma S/C and Kokorio parish in Kapujan S/C of Katakwi District will be extended over the entire lake as a lake wide activity among the riparian communities in Soroti, Ngora and Kumi Districts with a total distance of over 100 km. The activities in the year 2016 will be composed of major three components:

Component 1) Activation of the wetland committees,

Component 2) Demarcation of wetlands, and
Component 3) Implementation of enforcement.

The component 1: The component will include the activities for activation of wetland management committees that will function as entities to formulate and enforce community rules and regulation for sustainable fishing activity. The members are expected to adhere to and for which they are liable for punishment in case of disobedience. The rules and regulation will be designed to regulate use of smaller mesh size of nets. Through the consultation process with the communities, other regulations such as fishing holidays will be put into place.

The component 2: The component is a series of activities for demarcating wetlands and riparian zoning for conservation of wetland resources. The activity in the year 2015 for the two landing sites in Katakwi has completed approximately 10 km of demarcation along the beach of the Bisina Lake in a matter of a few months. A total of 100 km demarcation is thus considered to be feasible. The current riparian land use is unplanned and uncontrolled, which has thus brought about physical destruction of fish habitat, including spawning grounds, and intensified potential conflict over the wetland resources between fishermen and cattle grazers. Farming activity, on the other hand, has been practiced in the proximity to the shoreline, which has increased sedimentation of the riparian zone and consequently changed the vegetation composition that were not favourable for increasing fish resource base. The component will support the communities in setting aside a protection zone and demarcate user zones for landing site, grazing land, fish spawning ground, and seasonal fishing area particularly for women.

Component 3: A motorized boat will be provided for undertaking patrol activity to one district among the four districts as its owner. But the roles and function for patrol will be commissioned to a wetlands users' association. To this end, a Lake-wide association of the wetland users' committee shall also be designed and established. The community will be allowed to use the boat for income generating activities such as passenger transport to cover the fuel cost for patrol operation.

ANNEX 10 IMPLEMENTATION GUIDELINES

THE REPUBLIC OF UGANDA
MINISTRY OF WATER AND ENVIRONMENT

WETLAND MANAGEMENT IMPLEMENTATION GUIDELINE

MANAGEMENT MODEL

SEPTEMBER 2016

CHAPTER1 INTRODUCTION

This is the guideline for implementation of wetland management in Uganda. Key lessons were drawn from the implementation of the National Wetlands Management Project.

The target audience of this guideline comprises mainly officers in charge of wetlands at district level as well as the Ministry of Water and Environment in Uganda. Readers of this guideline are advised to refer to the following guidelines as well to capture general flow and some skills and detailed technical aspects. The manuals and this guideline should be used in tandem to maximize its benefit.

- ✓ WETLAND MANAGEMENT PLANNING PROCESS MANUAL
- ✓ SUB-COUNTY AND DISTRICT WETLAND ACTION PLANS DEVELOPMENT MANUAL

The following chapter provides fundamentals in managing wetlands in Uganda first recognizing diversity of wetlands in Uganda. Five key elements in Managing Wetlands were identified. They are 1) River Basin Approach, 2) Setting up Protection Zones along Water Bodies. 3) Use and Management of Information, 4) Problem Solving Approach integrated with IGA and 5) Monitoring and Assessment.

Chapter 3 provides lessons in wetlands management in Uganda. Fifteen (15) key lessons drawn from the field experience are compiled into a matrix. The annex provides additional information such as conceptual illustration of wetland demarcation and its application and evaluation criteria for prioritization of community's IGAs.

CHAPTER2 Wetlands Management In Uganda

2.1 Diversity in Ugandan Wetlands

Wetlands in Uganda are, at first glance, predominantly riverine wetlands that are found along flowing waters - from headwaters to large rivers downstream. In fact, however, there occur diverse wetland classes ranging from slope wetlands[18] found throughout mountainous regions especially in the circumstances where there is a discharge of groundwater to lacustrine fringe wetlands lying adjacent to lakes. Along the course of waterway, mineral soil flats are developed as a result of long-term deposition of sediments from the upper streams; and organic soil flats often developed in association with papyrus vegetation.

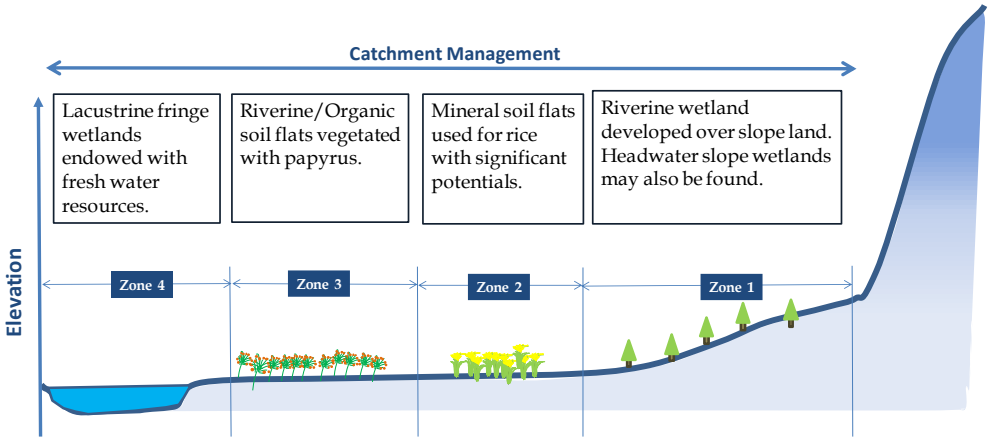


Figure 1 Diversity in Ugandan Wetlands

2.2 Five Key Elements in Managing Wetlands in Uganda

2.2.1 River Basin Approach

For management of wetlands, river basins are important geographical units. This is because wetlands play critical roles acting as a sponge and aiding in flood protection and groundwater recharge, by absorbing water during the wet season and slowly releasing it during the dry season. Wetlands also help keep the river clean, by acting as a filtration system, trapping nutrients, like phosphorus and nitrogen, as well as sediments[19].

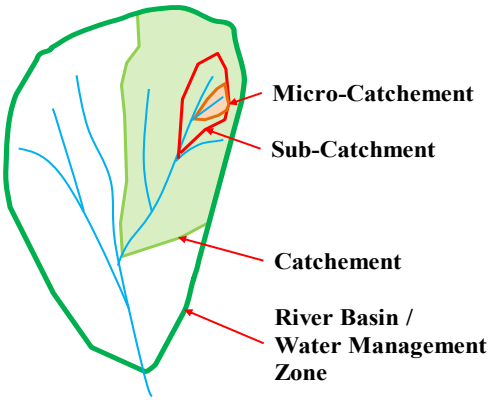


Figure -2 General Terminology in River Basin Approach in Uganda

[18] Slope wetlands are the wetlands often found in mountainous areas. They are more specifically found where there is a discharge of groundwater to the land surface. They normally occur on sloping land; elevation gradients may range from s steep hillsides to slight slopes. Please refer to Figure A 4 for more details.

[19] Integrated River Basin Management (IRBM), A holistic approach, Retrieved on 9th August 2016, from http://wwf.panda.org/about_our_earth/about_freshwater/rivers/irbm/

Conversely, land and water-related human activities within river basins can have very significant influences on the ecological character of wetlands in those basins[20]. Wetlands in Uganda should be planned and managed by the river basin approach wherever the circumstances allow doing so. It may be carried out at catchment, sub-catchment or micro-catchment levels in accordance with the terminology[21] generally used in Uganda. However this does not mean that all planning and management process must adopt such physiographic units. Instead, they should be carried out with due consideration on the upstream and downstream activities, communities and impacts with a certain extent of flexibility to maximize resource use.

2.2.2 Setting up Protection Zones along Water Bodies

Protection zone for river banks as mandated by the National Environment (Wetlands, River banks and lakeshore management) Regulations, 2000, is a fundamental and effective measure for protection of downstream wetlands from accelerated sedimentation and conservation of biological diversity by connecting increasing connectivity of fragmented habitats.

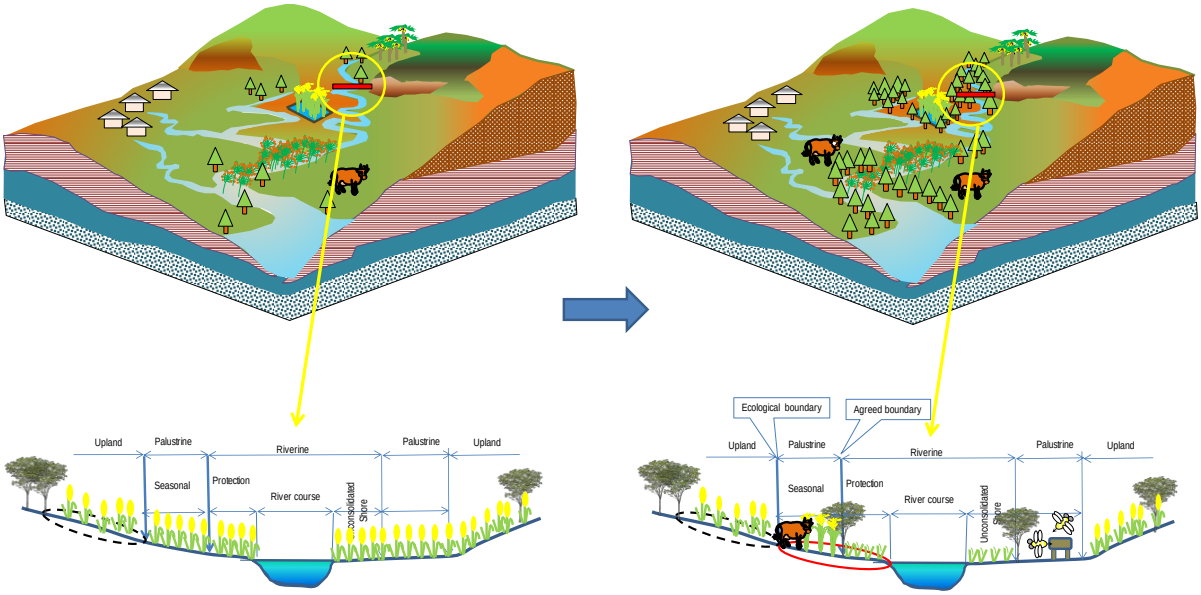


Figure -3 Bank protection - a key contributor to protect downstream wetlands

A strip of land along river bank may have been used for intensive crop production without any appropriate plan and protection. Article 29 of the regulation set forth protection zone. Community based wetland planning process constitute a prerequisite for determining the size of the protection zone, which would be integrated with land use planning process.

[20] Ramsar Convention Secretariat, 2010. River basin management: Integrating wetland conservation and wise use into river basin management. Ramsar handbooks for the wise use of wetlands, 4th edition, vol. 9. Ramsar Convention Secretariat, Gland, Switzerland.

[21] Louis Mugisha, Catchment Management and Water Source Protection, Kyoga WMZ Directorate of Water Resources Management, Retrieved on 8th September 2016, from http://www.ircwash.org/sites/default/files/catchment_management_and_water_source_protection-_for_irc.pdf

Use and Management of Information

Objective information is crucial in managing natural resources in a wise manner. The Wetlands Management Department has developed National Wetlands Information System, NWIS, to allow users to access fundamental wetland information. NWIS contains information at national and regional scale on wetlands coverage, monitoring sites, rivers, lakes, road network, protected area, soil map and land cover map. Anyone who has internet access is able to access wetlands information at https://dl.dropboxusercontent.com/u/159531982/sample7/index.html .

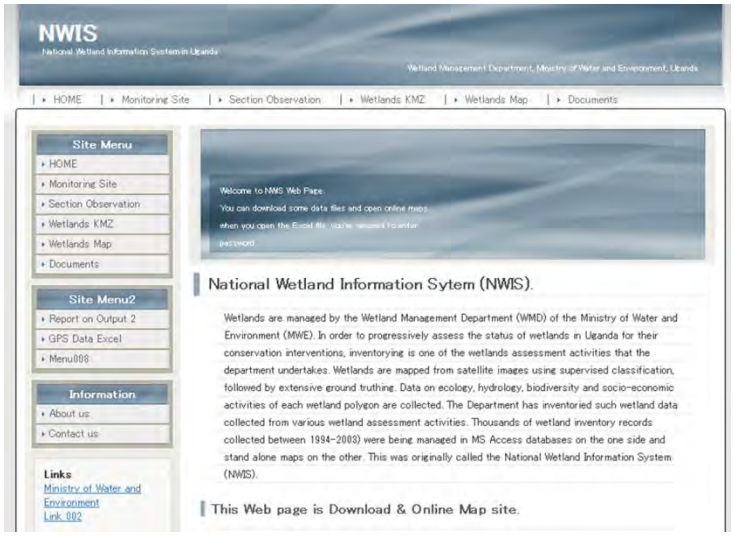
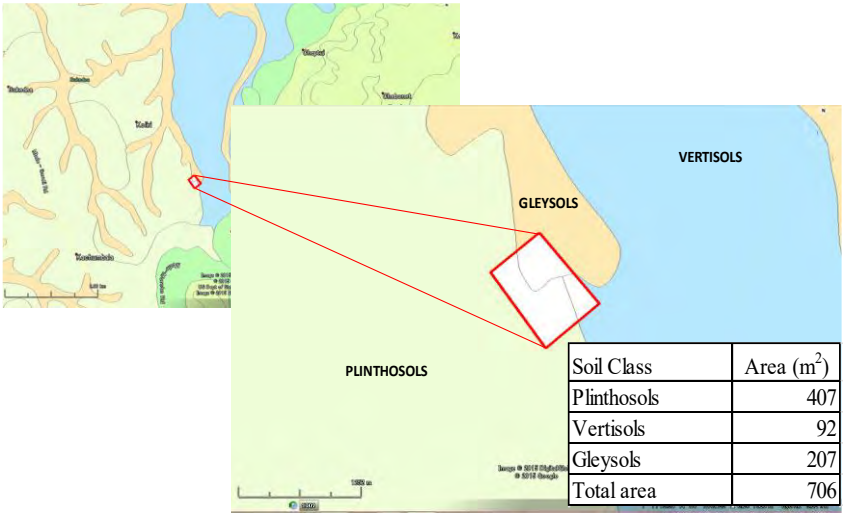


Figure -4 Wetland Information in Uganda accessible on Internet

NWIS is also equipped with a Decision Support System for wetland management. The DSS is able to extract information in an arbitrary designated area to provide information on desired management options. The area may include those categorized as wetland(s) in combination with upland area contiguous to the wetland(s).



Soil Class	Area (m^2)
Plinthosols	407
Vertisols	92
Gleysols	207
Total area	706

Figure 5 Conceptual Illustration of DSS

The DSS would be used to derive information on management option in a proposed development area.

The DSS is developed through a few consecutive stages to start with soil types that would provide management options as exemplified in the table below. It will further integrated with other decision process such as wetland type and status as defined in the Kampala Matrix. Development of NWIS is evolving process and will be updated when new information becomes available. Full-fledged access is granted only for information system analysts of the Assessment and Data Management Section of the department. However

2.2.4 Problem Solving Approach integrated with IGA

Diverse wetlands may be found along the catchment from the upstream to downstream as illustrated in the figure below. Key issues and approaches to address them in managing wetlands should be unique and specific according to local physical and socioeconomic settings and, which would not allow overgeneralization and does not have any panacea. However there are often common issues and challenges in similar ecological settings. In the case of Doho-Namatala and Awoja Wetland Systems, the wetlands system may be categorized into five major geographical zones depending mostly on elevation which is linked to landforms such as floodplains and alluvial fans, and geomorphic processes such as stream erosion and deposition. Each zone has unique wetland management issues that are not found and comparable in other zones of the same wetland systems, which would also require unique approach to solve the problems. The wetlands management plans should be therefore designed to solve such specific issues and challenges of each area based on the information that will become available through planning process.

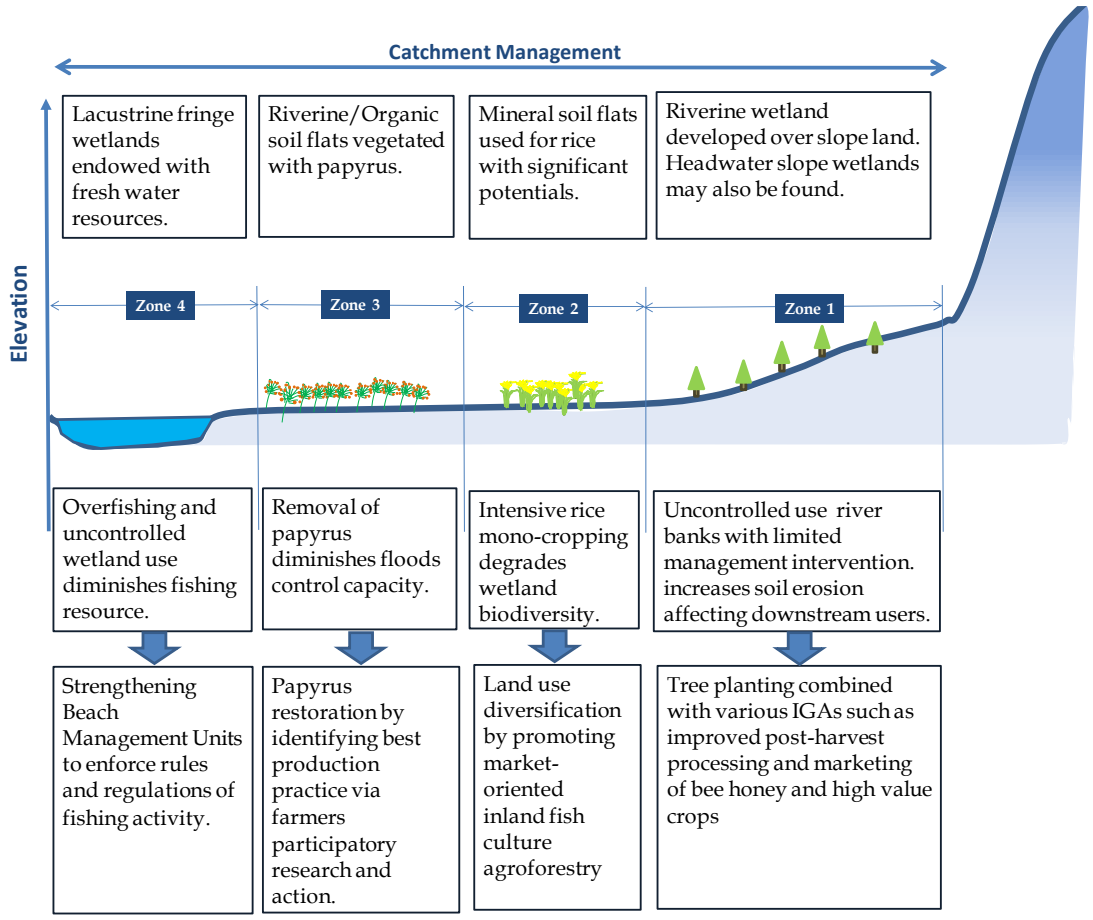


Figure 6 Integration of wetland conservation and wise use into river basin management

Integration of Income Generation Activities (IGA) is of vital importance in realizing financial sustainability especially at community level. The management plans that are not integrated with any income generation activities will soon confront financial challenges.

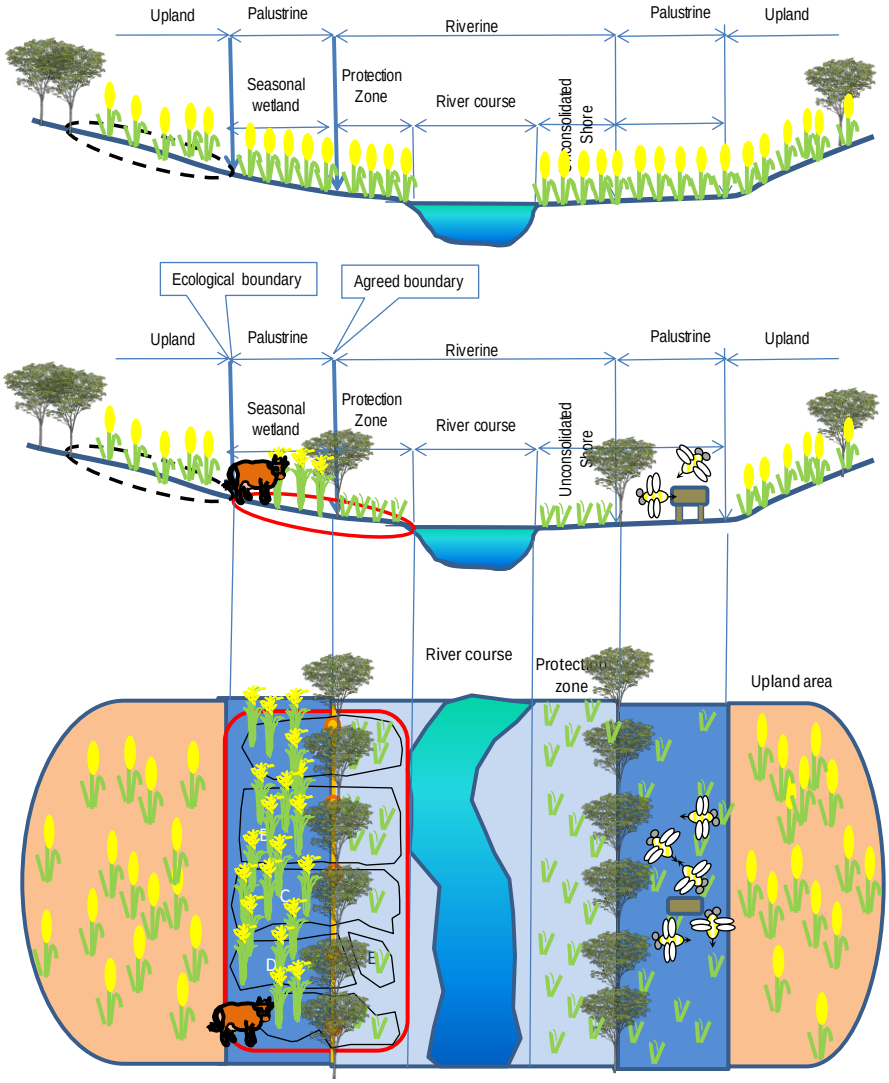


Figure 7 Integration of wetland conservation and wise use into river basin management

There are various IGAs that are compatible with wetland wise use principle. For instance, a community group in Bududa District chose apiary to enhance probability of financial sustainability. The community in Butaleja District chose inland fishery to diversify wetland use in a sustainable manner. The community members were previously users of riparian area that are inherently regulated under the Article 29 of the National Environment (Wetlands, River banks and lakeshore management) Regulations, 2000. The community set aside the area to generate protection zone in the vicinity to the water body.

A conceptual illustration of demarcation and its application to various wetland types are provided in the annex attached to this guideline.

2.2.5 Monitoring and Assessment

Wetland system is an ecological unit wherein changes in upstream land use pattern may have sequential effects on downstream wetland integrity. The ecological monitoring plan should be thus formulated to keep track of changes in ecological character over a wetland system to identify any alterations resulted from the wetland development in general and, thus, to provide earlier warning on wetland degradation before the impacts become unavoidable and irreversible. The ecological monitoring has the following specific objectives: 1) Collect baseline information on the ecological character of the wetland system to provide a benchmark for comparison; 2) Collect information on ecological character of the wetland system to identify, if any, changes in ecological character over the wetland systems with particular focuses on the pilot sites; and 3) Collect information to determine possible causes of water-related problems.

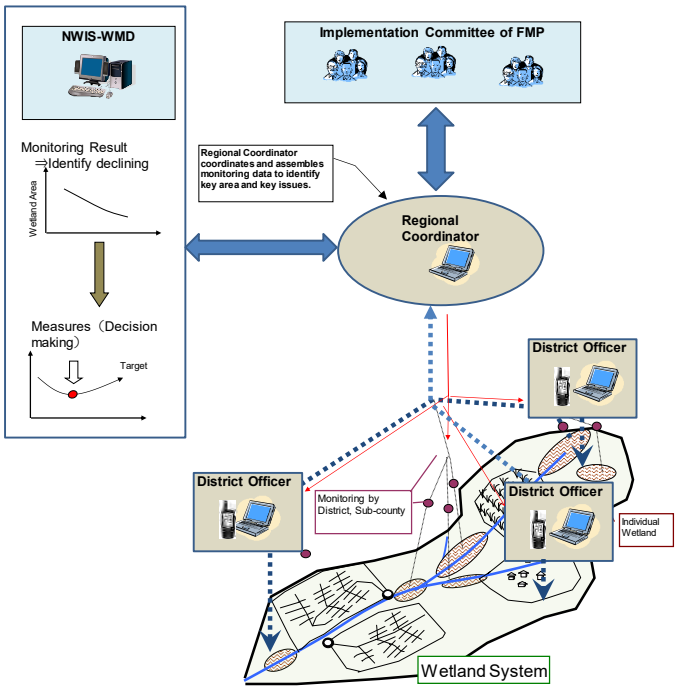


Figure -8 Monitoring and Assessment

The monitoring of the ecological character may be implemented by the wetland department of the ministry and the relevant district governments by forging a network for monitoring and actions. The district officers in charge of wetlands are at the frontline of monitoring and implementation of the pilot activities. They will have more chances of visiting the pilot sites. They will conduct photo point monitoring at selected sites of each pilot project area twice a year for dry and rainy seasons over a period of five years by using the digital cameras that have a built-in GPS.

The regional coordinator will describe and record plant community by using the Relevé data sheet at selected point(s) at each pilot site once a year for a period of five years in collaboration with the district officers. He will also undertake water quality monitoring by using Horiba Multi-parameter water quality checker at selected sampling points over the two wetland systems twice a year for dry and rainy seasons. The regional coordinator will collect and assemble all the monitoring data over the two wetland systems in a designated data entry template and analyse changes of the ecological character to find any issues that require interventions for corrective actions. Upon completion of field analysis, the data will be transferred to the Wetland Department for the entry into the National Wetland Information System. The officer in charge of NWIS will coordinate the regional coordinator to ensure immediate data entry.

Key Lessons in Wetlands Management

3.1 Overview of Key Lessons

In this section of the guideline, key lessons drawn from the experience in implementing the national wetlands management project were extracted, summarised and presented.

3.2 Matrix of Key Lessons

Fifteen (15) key lessons are compiled into a matrix as presented in Table -1.

1. Identification and inclusion of all the stakeholders minimize overall cost of wetland management.
2. Involvement of CAO in the planning process especially at an early stage is a key for success.
3. A planning unit should be designed and determined for a group of people with shared resources and a common interest and vision.
4. A protection zone along a water body should be demarcated considering ecological significance and potential positive and negative economic impacts.
5. A set of objective criteria should be used for prioritization of community support.
6. Gender balance should be considered in the early planning stage.
7. Observations by district environmental officers are vital but have to be verified.
8. Seamless interaction with relevant Water Management Zone officers is strongly recommended.
9. Flexible mobilization of district officers is recommended for timely and prompted planning process.
10. Assumed land owners should also be mobilized and used for effective and efficient implementation.
11. District forestry officer or National Forest Authority should be consulted in selecting tree species.
12. A wide range of participatory planning tools should be used to enhance openness of the community members.
13. SWAP and DWAP should be integrated into the relevant development plans to ensure budget allocation.
14. District Implementation Committee and Inter-district Implementation Committee should be empowered to enable evaluation and monitoring.
15. Sensitization of community should be repeated to ensure agreements are exercised.

Table -1 Key Lessons in Wetland Management Implementation

Key Lessons		Applicability	Description
1	Identification and inclusion of all the stakeholders minimize overall cost of wetland management.	General	One single wetland is often used by various groups of people. They may include crop growers, cattle keepers, water fetchers who are mostly women and children. Exclusion of major group of users in the planning stage may result in delay in overall planning and implementation of wetland management intervention and increase risks by involving potential conflicts of interests that would emerge at a later stage.
		District and Sub county level	District and Sub-county technical officers should identify the key stakeholders that are critical for the planning process on the ground. Every local resident has a stake in wetland management, but due to resource constraints, not everybody in the Sub-county can be consulted. Therefore, only key stakeholders (Parish representatives such as Parish Chief, Chairperson, and Secretary for Environment and resource users) that are presumed relevant and knowledgeable about wetlands at Sub-county level are consulted.
		Community level	There are often opponents in demarcation stage even when the planning process goes on smoothly. In such occasion, it is recommended to skip those areas where strong opposition is expected. But the planners may find a time at a later stage to mobilize them in planning process through various sensitization activity. In consultation with the community, the planners should first build trustworthy with them rather than forcing them in offering land for protection.
		In selecting Wetland Management Committee members	Wetland Management Committee (WMC) members have to be selected from the community by considering gender balance, generation balance, area representativeness and types of wetland users such as fishermen, papyrus harvesters, water collectors and animal grazers. In addition, some influential stakeholders in the community such as large scale land owners should be selected as members since they often decide how to use their lands adjacent to wetlands. Many wetland users just rent the land from owners and do not have decision-making power. It is important that the project respects the power balance and protocol in the community and does not break social relationship.
2	Involvement of CAO in the planning process especially at an early stage is a key for success.	At an early stage in preparing Framework Management Plan	Involvement of CAO in the planning process improve planning efficiency by allowing timely adjustment of schedule of other prospective events at districts/central level and avoid interference with the planning activities. Participation of top managers in the planning process would also improves district's staff productivity and consolidate orientation and commitment. This is especially important when there is need for standardized payment for travel allowance and per diem; and time management of district, sub-county officers are critical in attending relevant meetings by early delivery of information on the planning process.
3	A planning unit should be designed and determined for a group of people with shared resources and a common interest and vision.	General	As discussed in Section 0 in page 3, River Basin Approach is the fundamental approach in planning and implementing wetland management in Uganda. However this physical condition for determining a planning unit should be applied cautiously to minimize a risk arising from limited social cohesion of the group of people participating in planning and management of wetlands. In circumstances wherein inclusion of all the group of people who have limited common interest due to, for instance, the planners may consider to phase the implementation into two stages over a longer period adopting a step by-step process to ensure that implementing entities gradually gain confidence and later embark on a much wider and thorough application.

Key Lessons		Applicability	Description
		In preparing Framework Management Plan	The districts participating in the Framework Management Plan of Doho-Namatala Wetland System are those having a stake in rice production in the Namatala wetlands. The districts in the Framework Management Plan of Awoja Wetland System are those closely relevant to the two Ramsar sites, namely, Bisina and Opeta Lakes. "Lowest Appropriate Level" is a concept often cited in debate on Integrated Watershed Management. It is the level at which significant environmental issues are experienced. If, for example, a specific issue only has a possible impact within a local community, then the community level is the proper management level. On the basis of the concept on Lowest Appropriate Level, planners may consider some area to be excluded from the planning process if its relative impacts on the common resources are limited or negligible. This arrangement would maximize the efficiency and efficacy of the intervention.
		Community level Planning stage	A community may be defined as a group of people with shared resources and a common interest and vision. Once the area to be covered becomes large, two or more interests have to be addressed. For instance, the District officer in Kumi delineated a land area of approximately 97 km^2 with fishing communities along with the inland upland farming communities. Note that the land area is nearly equivalent to a half of Kampala city. The same was observed in Budaka District to have a inland fishing community and rice growers with a total land area of approximately 34 km^2. Both of the communities in Kumi and Budaka faced conflict of interests during the implementation stage. On the other hand, in the Bududa district, the area focused has a land area of approximately 20km^2 in a mountainous region. In addition to a relatively small land area, the planning area was characterized by much smaller focus area for planning on wetland management.
4	A protection zone along a water body should be demarcated considering ecological significance and potential positive and negative economic impacts.	Implementation stage of the community plan	Demarcation in general means the process where the ecological boundary between wetlands and uplands are identified in a linear alignment. It requires local knowledge on water availability over years. However, the Project recommends more demarcation exercise within the wetland to decide the boundary between protection zone and restricted zone. This boundary is determined and agreed by the community based on the reality of wetland use. The communities supported under the project have undertaken wetland demarcation to set aside protection zone generally in accordance with Article 29 of the National Environment (Wetlands, River banks and lakeshore management) Regulations, 2000. Further they have determined ecological boundary where regulated activities are permitted to be performed. The following illustration provides a concept of wetland demarcation exercise supported under the project. Practically the configuration of protection and ecological zones differs among the pilot sites. The officers also collected a wide range of information through the demarcation process: 1) a map(s) of entire project area with GPS coordinate, 2) identification of zones with GPS coordinate and 3) designated/regulated use within each of the zones. They also prepared an inventory of users if there are people who use the land within the agreed boundary for agricultural purpose etc. The inventory included the information on 1) name of the users, 2) contact address and phone number if any, 3) educational background and skills, 4) intention on participation in other project activities, 5) area to be covered by the protection zones, 6) crops grown in one single year (average), 7) average yield of the crops grown and 8) prices of the crops. Upon the completion of the demarcation exercise, the district have drawn-up Memorandum of Understanding (MOU) agreed between each of the districts and the community. The MOU includes articles on 1) a grace period for evacuation agreed with the community, 2) zones accompanied by IDs, 3) an estimated surface area of each zones and 4) regulated or granted activities in each of the zones. The MOUs are currently being finalized at each of the pilot sites. Four districts namely: Kibuku,

Key Lessons		Applicability	Description
			Manafwa, Pallisa and Sironko, have developed Constitutions of community wetland management committees to strengthen their capacity.
5	A set of objective criteria should be used for prioritization of community support.	Planning and pre-investment stage	Financial resources are always in short as against the needs for conservation and management. Support of communities among others requires more resources due to large number of sites requiring budget. Therefore prioritization of communities is an essential process for successful management of wetlands. On the other hand, as emphasized in the Section 0 of page 6, integration of income generation activities is of great importance. However support of communities in implementing IGA is not straightforward. It is apparent that a new IGA has more risks; an IGA requiring a large scale physical investment bears more risks; and an IGA necessitate complex technical intervention entails more risks. At the planning process, it is also advised to undertake a rapid assessment of feasibility and sustainability. This may be done through availability of maintenance service of proposed facility and equipment if any, looking at past experiences in the region or its neighbour. Prior to physical investment, it is recommended to undertake economic appraisal wherever possible. An example of prioritization criteria used in the National Wetlands Management Plan is presented in Table A 1 in page Annex 21.
6	Gender balance should be considered in the early planning stage.	Throughout the planning stage	The use of wetlands may be different by gender. The current use of the wetlands by gender has to be discussed during the workshop. It is recommended to include women, men, girls, boys, and elderly as major users.
7	Observations by district environmental officers are vital but have to be verified.	Throughout the planning stage, but more specifically during the framework management planning stage	District environmental officers have in-depth local knowledge on environmental issues, wetlands and biodiversity. Their knowledge and experiences have to be leveraged in the planning phase to maximize the resource efficiency. However it is also recommended to verify by field observation, scientific measurement/analysis and questionnaire survey wherever the available resources allow doing so. During the Framework Management Planning for Awoja Wetland System, many of the district officers emphasized rapid sedimentation of the Opeta Lake would diminishes lake capacity. A field visit and ocular observation of the entry point of the lake from the upper mountainous streams has indicated that only very fine particles can reach the lake due to sieving effects.
8	Seamless interaction with relevant Water Management Zone officers is strongly recommended.	Throughout the planning and implementation stage	The Ministry of Water and Environment has designated four Water Management Zones over the country: 1) Victoria, 2) Kyoga, 3) Albert and 4) Upper Nile Water Management Zone. Since the wetland management is part of water resource management, seamless interaction with relevant Water Management Zone officers is strongly recommended. During the preparing of the wetland management in Doho-Namatala and Awoja Wetland System, the Wetland Management Department had kept close liaison with the Kyoga Water Management Zone.
9	Flexible mobilization of district officers is recommended for timely and prompted planning process.	In the planning stage	District officers are always multi-tasked. Throughout the planning process, they may face challenges in managing the planning process; while he/she is handling other urgent sector issues. A focal person at the district level should be flexibly selected by considering his/her project portfolio at hand. Delay of one district or one sub-county may require additional cost at a later stage that may arise as a result of additional follow –up activity.
10	Assumed land owners should also be mobilized and used for	At the community level	At the early stage of the planning process, not only wetland users but also land owners adjacent to wetlands have to be identified and involved. Some of them are “assumed” land owners as they believe that they can extend their boundaries into the wetlands and assume their ownership. Without proper

Key Lessons		Applicability	Description
	effective and efficient implementation.		sensitization on the difference between ownership and access to wetlands, more conflicts will occur during the implementation of Community Plans. How to select Wetland Management Committee (WMC) members
11	District forestry officer or National Forest Authority should be consulted in selecting tree species.	At the community level	When trees are planted in wetlands for conservation purpose, appropriate wetland species should be selected with advice from District Forestry Officer or National Forest Authority. Normally, communities prefer commercial species for income generation purpose, but some of the species do not grow well in wetlands. Moreover, there were cases that some seedlings of commercial species like mahogany were uprooted by neighbors after planting and re-planted at their homesteads.
12	A wide range of participatory planning tools should be used to enhance openness of the community members.		Resource mapping is one of the effective methods to visualize the location of wetlands and other important resources. It can be the basis for discussion on issues, problems and opportunities of wetland resources. During the exercise it is important to give participants time to draw the map, let them discuss and agree on the boundaries with neighbouring communities. This exercise can bring the people together and build confidence and trust among them.
13	SWAP and DWAP should be integrated into the relevant development plans to ensure budget allocation.	Upon completion of DWAP and SWAP	To integrate the approved SWAP into Sub-county Development Plan, the Sub-county Wetland Focal Point Person together with Sub-county Chief should ensure that the interventions proposed in the SWAP are integrated into their development plan with clear budgets and funding sources. This does not only promote commitment by the Sub-county leadership, but also gives them an opportunity to mobilize resources to finance such interventions from different available funding sources.
			After DWAP development, the document is presented to the line sectoral committee of the Council and subsequently presented to District Council for approval as a policy working document. Unless these processes are fulfilled, the DWAP is incomplete. After this process, the DWAP should then be endorsed by both the District Chairperson and Chief Administrative Officer (CAO) and a copy submitted to Wetlands Management Department (WMD), Ministry of Water and Environment (MWE) to help in monitoring implementation. It is also recognized that schedule of planning process is also a matter to control the budget of the planning process. It is recommended to schedule of the planning process to have approval by the relevant committee and Council through regular meetings.
14	District Implementation Committee and Inter-district Implementation Committee should be empowered to enable evaluation and monitoring.	Throughout the implementation stage.	District Implementation Committee and Inter-district Implementation Committee are responsible for periodical monitoring and evaluation to measure the progress and achievement of action plans of FMP. The committees identify cross cutting wetland issues and advocate for harmonized inter-district interventions.
15	Sensitization of community should be repeated to ensure agreements are exercised.		It is necessary to sensitize local residents on the difference between protection zone and restricted zone in wetlands. Protection zone should not be used by anyone (no entry area). Restricted zone can be used only for wise use purpose such as tree planting, bee-keeping, fish pond, rice and vegetable production and agroforestry. Other productive activities should be conducted in production zone in upland area.
16			DWAP development aims at analysing, synthesising and summarising the SWAPs by finding the commonalities of wetland uses and problems/issues

Key Lessons		Applicability	Description
			among different sub-counties, and filling any gaps that may have been left out at Sub-county level. While the SWAPs comprise all wetlands in a specific Sub-county, in DWAP development those wetlands are grouped into systems from which they are either tributaries or linked by drainage. This means that the volume of wetlands identified in one SWAP is condensed into one or two systems in DWAP depending on the topographic and hydrological formation.

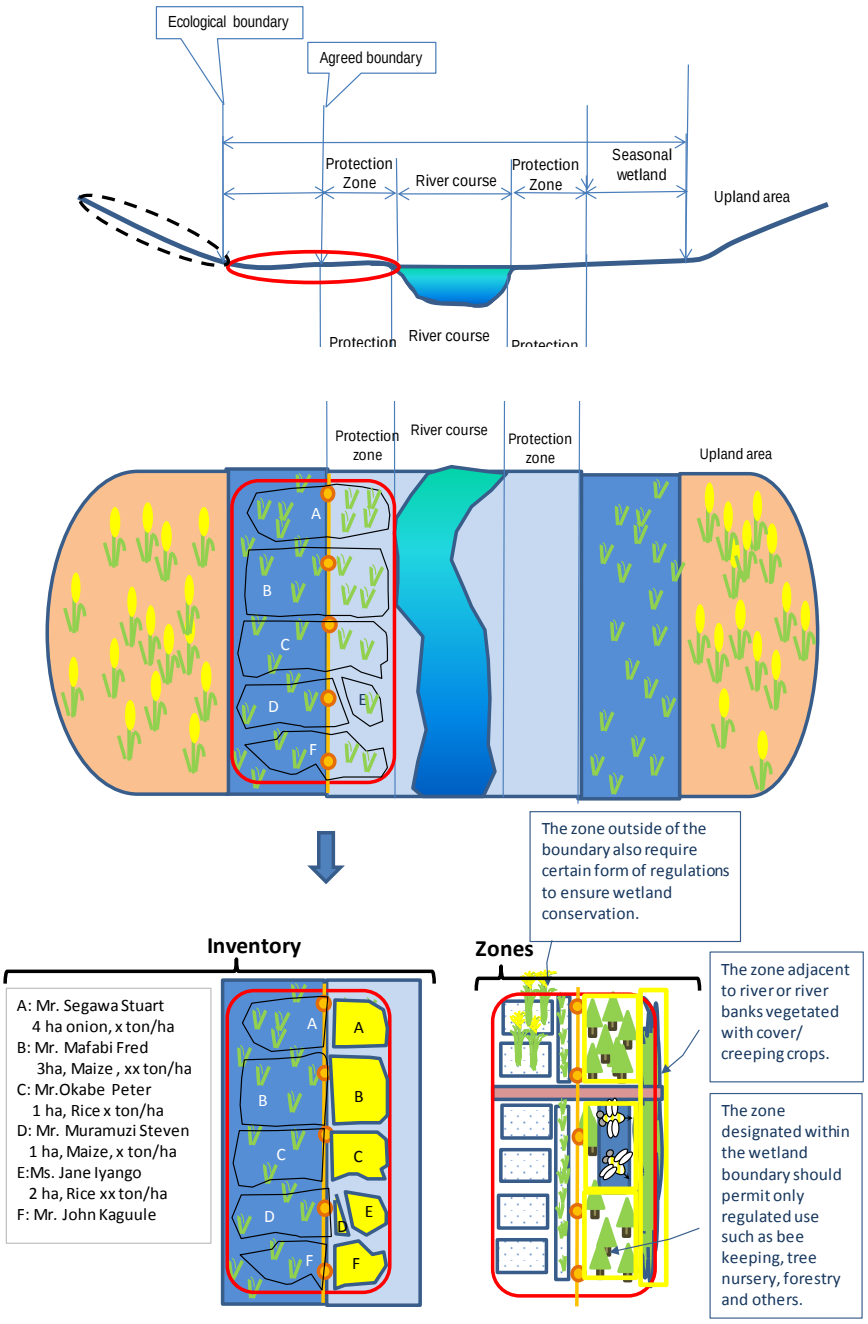


Figure -9 Conceptual Illustration of Wetland Demarcation

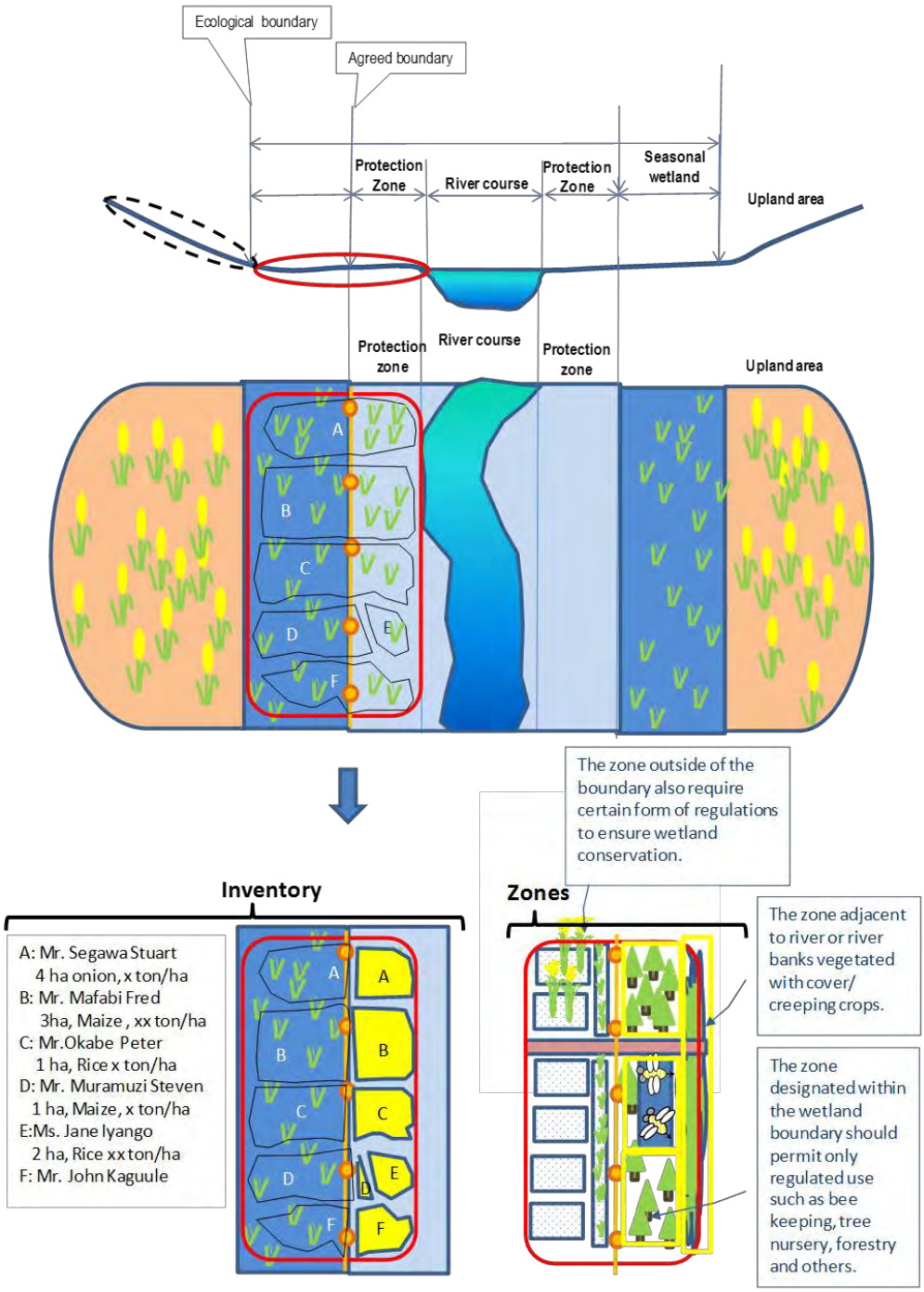


Figure -10 Application of the Concept to Riverine Wetlands 1

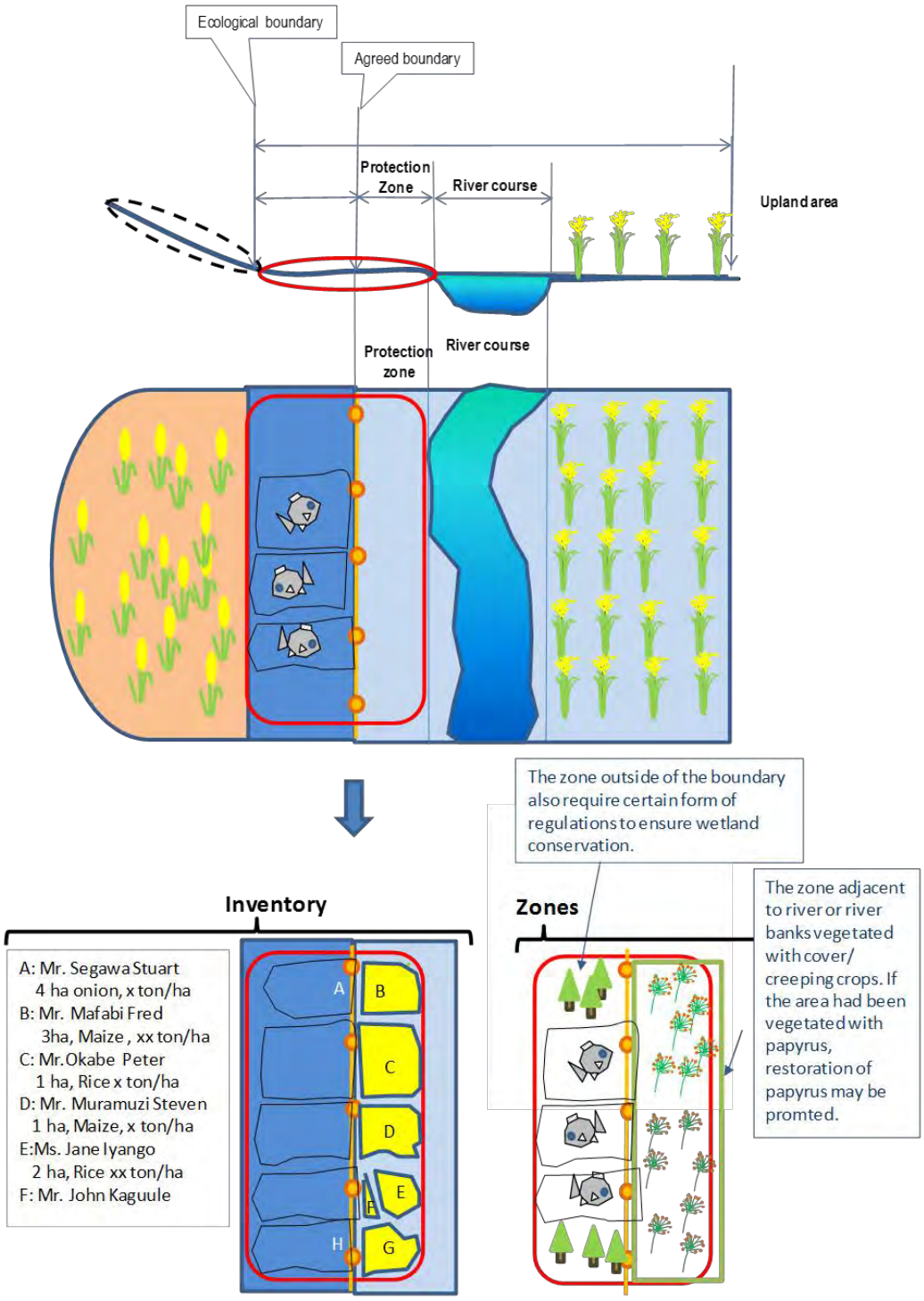


Figure -11 Application of the Concept to Riverine Wetlands 2

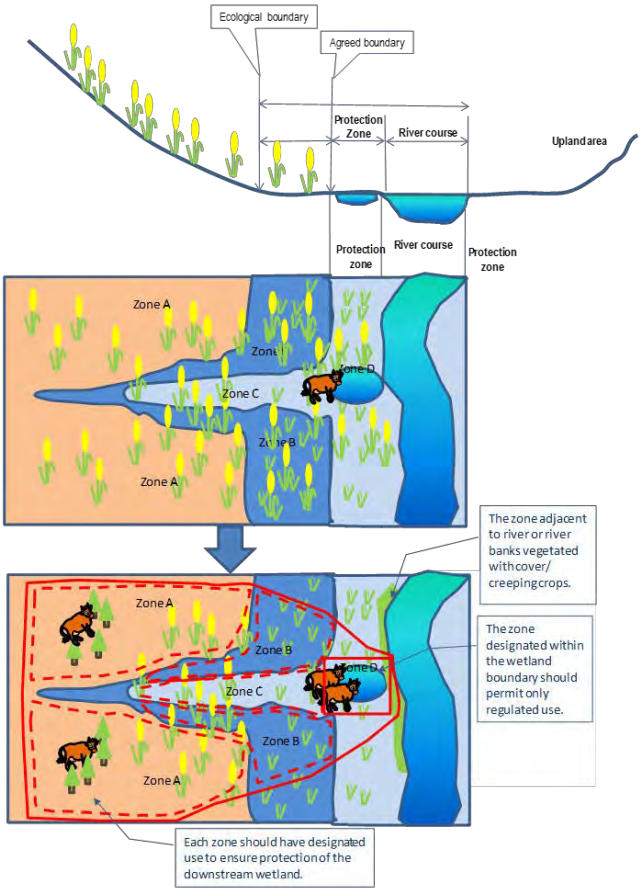
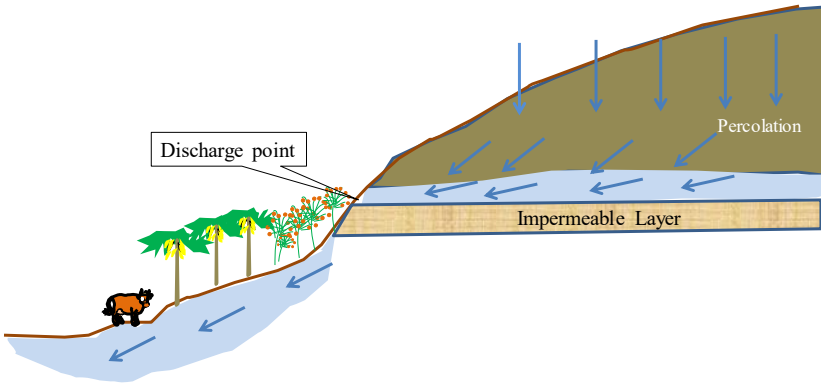


Figure -12 Application of the Concept to Slope Wetlands 1

Note: Slope wetlands[22] normally are found where there is a discharge of groundwater to the land surface. They normally occur on sloping land; elevation gradients may range from steep hillsides to slight slopes. Principal water sources are usually groundwater return flow and interflow from surrounding uplands as well as precipitation. Hydrodynamics are dominated by downslope unidirectional water flow. Slope wetlands can occur in nearly flat landscapes if groundwater discharge is a dominant source to the wetland surface. Slope wetlands lose water primarily by saturation subsurface and surface flows and by evapotranspiration. Slope wetlands may develop channels, but the channels serve only to convey water away from the slope wetland.



[22] Smith, R. D., Ammann, A., Bartoldus, C., and Brinson, M. M. (1995).“An approach for assessing wetland functions using hydrogeomorphic classification, reference wetlands, and functional indices,” Technical Report WRP-DE-9, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

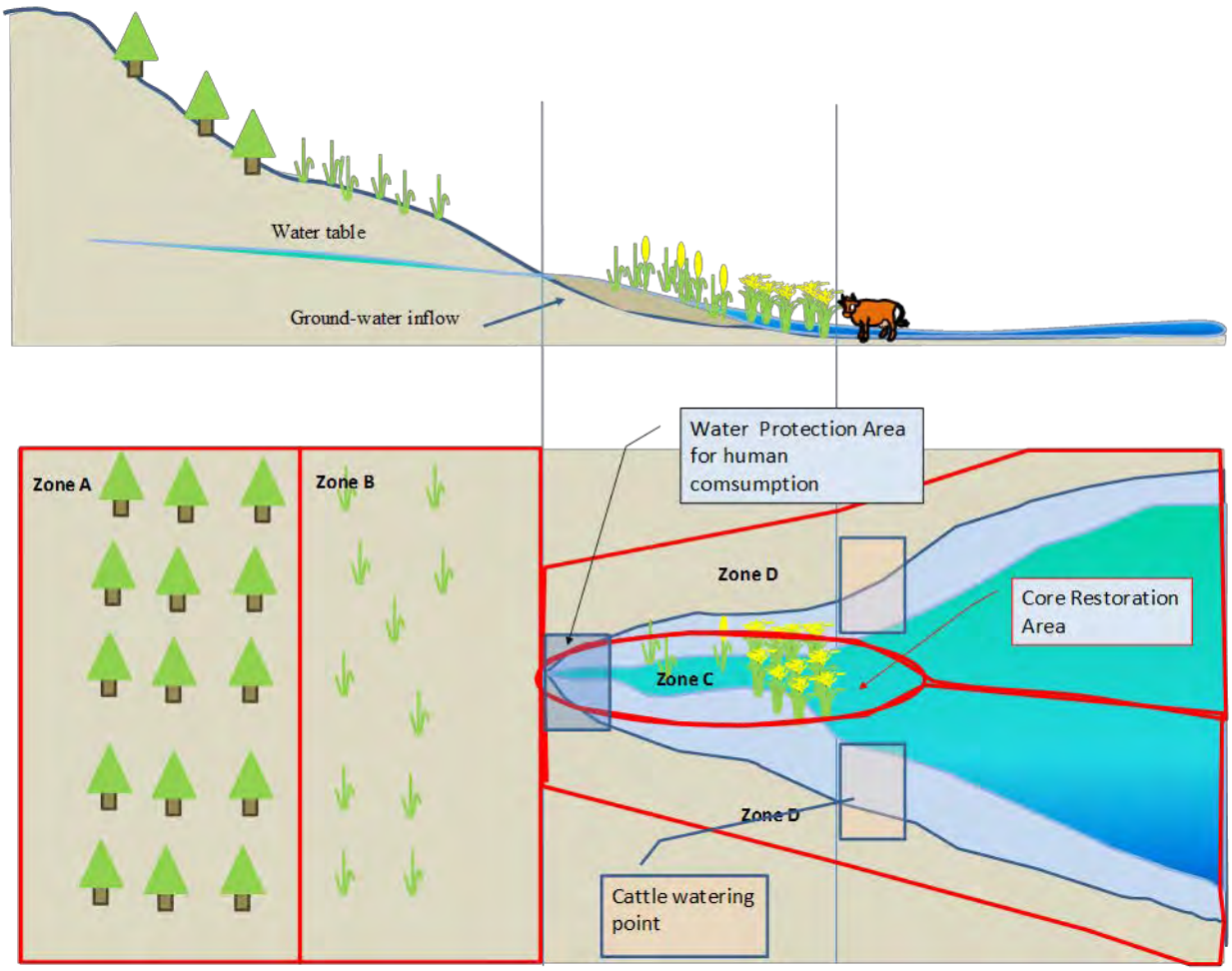


Figure -13 Application of the Concept to Slope Wetlands 2

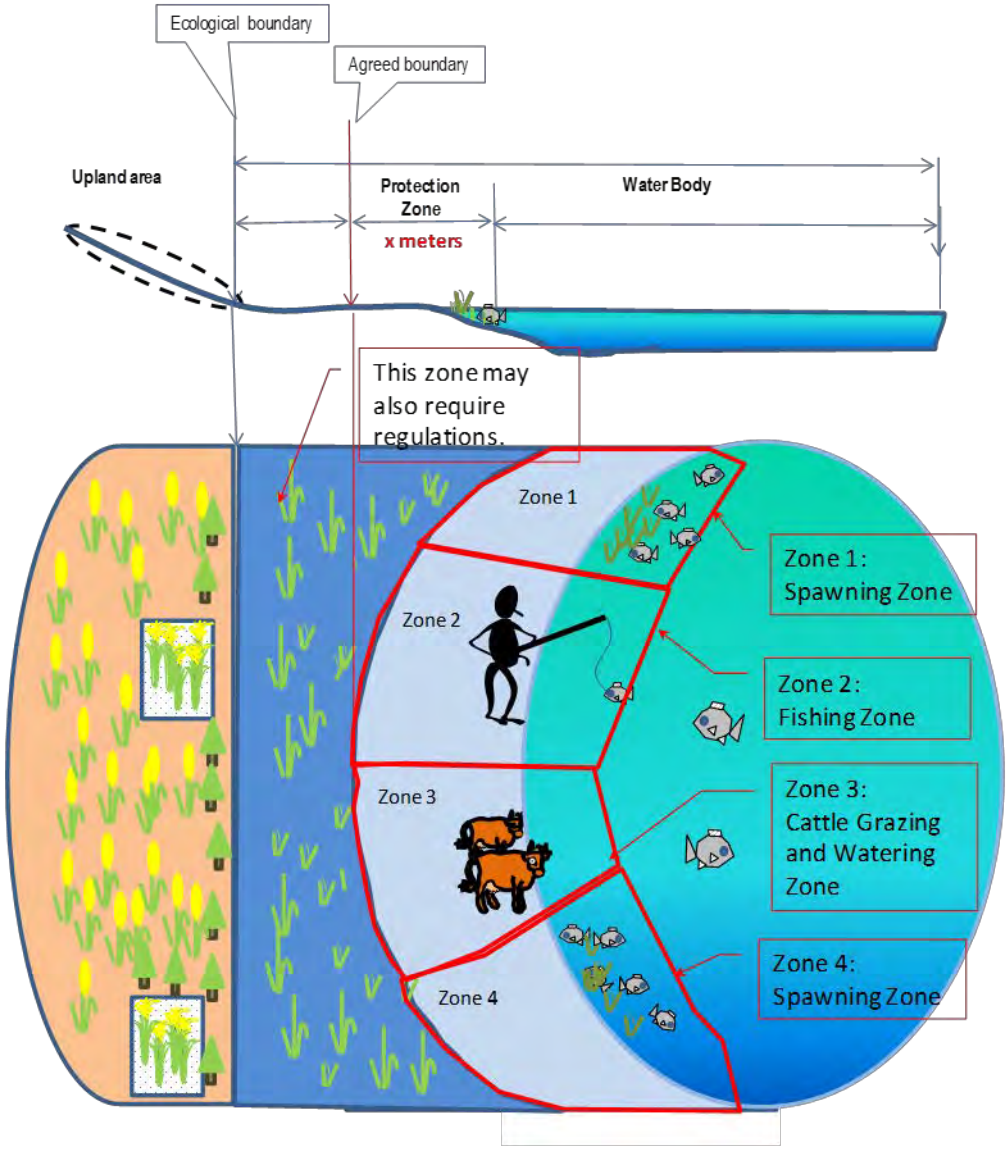


Figure -14 Application of the Concept to Lakes

Table A 1 Evaluation Criteria for Prioritization of Community's IGAs

Dimensions		Rate	Criteria
Readiness and preparedness of the project participants	Project ownership is an important aspect to be considered. The project participants shall be ready to implement the activities. Presence of relevant entities and their capacity to implement the activities should be evaluated.	1	The beneficiaries haven't thought of the idea of the project.
		2	The project was proposed by the beneficiaries. The project was subsequently designed and guided by the officers/JICA or other entities.
		3	The beneficiaries have already prepared a consensus on the proposed project/activities.
		4	The beneficiaries have already organized a project entity to implement the project.
		5	The beneficiaries have already initiated the relevant activities by either their own initiative or support from external entities.
Consistency with project design / Wise-Use Concept	The conservation and sustainable use of wetlands and their resources, for the benefit of humankind.	1	The project would aggravate wetland ecosystem integrity or biological diversity.
		2	The project does not have any components that contribute to conservation of the wetlands.
		3	The project is designed to contribute to improvement of livelihood of the wetland users but not to contribute to the conservation and sustainable use of wetlands.
		4	The project is designed to contribute directly to livelihood improvement of the wetland users but indirectly to conservation of wetlands or biodiversity.
		5	The project is designed to contribute both to 1) the conservation and sustainable use of wetlands and their resources and 2) for the benefit of humankind.
Financial / Economic viability	JICA is able to support only small scale project as pilot activity under the project. 100 million shillings is not definite value but should be viewed as a guide. Smaller is better.	1	The initial investment cost goes beyond 100 million shillings at one site.
		2	Either one of the following conditions: 1) The project does not include any mechanisms to ensure sustainability, or 2) the project requires external financial support for long-term operation of the proposed activity.
		3	The project requires external financial support for long-term operation of the proposed activity. But sustainability mechanisms are already in place.
		4	The project is financially feasible and economically viable with a certain level uncertainty.
		5	The project is believed to be promising in term of economic and financial aspects. No uncertainty is so far identified.
Technical feasibility	Venture activity should be avoided. If technical feasibility is not demonstrated, the projects may include small scale feasibility study components.	1	Applicable technology is not available.
		2	There is applicable technology but not demonstrated to be feasible.
		3	There is applicable technology that is demonstrated to be feasible elsewhere in the world. But its efficacy is uncertain in the specific case.
		4	There is applicable technology that is demonstrated to be feasible in the Eastern African Countries. But its efficacy is uncertain in the specific case.
		5	The technology adopted is already demonstrated in the area.
Environmental impacts	The project shall not have significant impacts particularly in the internationally important sites. Introduction of alien species should be carefully avoided.	1	The project has significant environmental impacts that are not avoidable.
		2	The project impact is uncertain.
		3	The project has adverse environmental impacts but they are to be avoided and/or minimized.
		4	No adverse impact is identified.
		5	No adverse impact is identified and the project has positive impacts on the environment.

Some Terminology in Environmental Impact Assessment

Positive impacts - the effect of the given project activity will be to improve the condition and integrity of the environmental resource.
No Impact - there is no impact of the given project activity on the environmental resources. This assessment would be made if the project activity is to be spatially or temporally removed from the environmental resource.
Insignificant - There is an impact of the given project activity on the environmental resource but it is assessed to be too negligible to require intervention in the form of either mitigation or monitoring. This type of impact would occur under at least one of three following conditions: the time scale of the impact is shorter than the life span or time scale of the environmental resource; the area which the impact may occur is smaller than the area over which the environmental resource occurs; or the magnitude of the impact is small relative to the abundance or quality of the environmental source.

Significant and Unavoidable impact - There is an impact of the given project activity on the environmental resource, it is assessed to be sufficiently large that mitigation intervention is desirable, but there are no mitigation measures available or there effectiveness is uncertain. Monitoring would almost certainly be required and monitoring activities would need to be specified and costed. This type of assessment would occur under the following conditions:
* any one of:
- the time scale of the impact is equal to or longer than the life span or time scale of the resource of concern
- the area over which the impact may occur is equal to or larger than the area over which the resource of concern occurs
- the magnitude of the impact is equal to or larger relative to the abundance or quality of the resource of concern
- the resource f concern has international or global significance,(e.g.a n endangered species or interactional waterway)

* and any one of the following:
- there are no known mitigation measures
- it is uncertain whether the significant impact can be effectively mitigated

ANNEX 11 LIST OF NATION-WIDE TRAINING PARTICIPANTS

Nation-wide training participants 2013 (Central Region)

No.	Name	District	Position
1	Nsimiire William	Masindi DLG	SEO
2	Kyobutungi R. Winnie	Gomba DLG	SEO
3	Byarugaba Francis	Sembabule DLG	SEO
4	Bbira Yasin	Mityana DLG	SEO
5	Nabbika Mildred	Mpigi DLG	Ag. DEO
6	Vvube Richard	Kalungu DLG	EO
7	Nakiri Jasira	Buikwe DLG	EO
8	Nankya Dorothy	Kyankwanzi DLG	SEO
9	Gateese Teopista	Luweo DLG	SEO
10	Nalunkuma Gladys	Buvuma DLG	NRO
11	Nalumansi Stella	Wakiso DLG	WO
12	Sekagya Moses	Nakaseke DLG	EO
13	Mubiru Farok	Butambala DLG	Ag. DNRO
14	Nampeera Esther	Kiboga DLG	EO
15	Nyangoma Joseline	Hoima DLG	EO
16	Lotet Ronald	Mubende DLG	EO
17	Wakisa Sarah	Nakasongora DLG	EO
18	Byaruhanga Joseph	Kalangala DLG	EO
19	Musaazi Patrick	Kayunga DLG	SEO
20	Namulema Mary Jude	Lwengo DLG	EO
21	Anne Nakimbugwe	Mukono DLG	EO
22	Ssekamatte John	Lyantonde DLG	DEO
23	Kiyingi Jamil	Rakai DLG	DNRO
24	Katamba Fred	Mukono	For CAO
25	Najib B. Lukooya	Kampala	Manager E.
26	Kinobere James	Nakasongola	SEO

Nation-wide training participants 2013 (Northern Region)

No.	Name	District	Position
1	Olar David C	Agago DLG	DEO
2	Kiyonga Joseph	Kotido DLG	DEO
3	Giyaya Charles	Adjumani DLG	DEO
4	Businge Zalfa	Kiryandongo DLG	DEO
5	Kawawa Serbet	Yumbe DLG	DEO
6	Otike Pabious	Lira DLG	DEO
7	Wany Oyok David	Kitgum DLG	SEO
8	Andiandu Joackim	Arua DLG	DEO
9	Achia Charles	Koboko DLG	DEO
10	Komakech Richard	Lamwo DLG	EO
11	Okola Isaac	Dokolo DLG	Ag. DNRO
12	Apollo Omara	Amolatar DLG	EO
13	Uwor Martin	Zombo DLG	EO
14	Okethwerigu O.R	Nebbi DLG	Ag. EO
15	Philip Kutegeka N	Bulisa DLG	DEO
16	Atto Francisca K	Gulu DLG	DEO
17	Acca Everline	Nwoya DLG	DEO
18	Atalla Joan Angom	Allebtong DLG	DEO
19	Otimoi Jasper	Apac DLG	DEO
20	Opio Moses	Oyam DLG	DFO
21	Ogwal Abraham	Kole DLG	DEO
22	Edema Maurice	Moyo	HNR/SEO
23	Onen George	Amuru	RO
25	Okello Martin	Pader	DEO

List of Nation-wide training participants

Nation-wide training participants 2013 (Western Region)

No.	Name	District	Position
1	Mwesigye Joseph	Isingiro DLG	DEO
2	Musingwire Jeconious	Mbarara DLG	DEO
3	Birungi Clemencia	Buhweju DLG	DEO
4	Kiyingi Jamil	Rakai DLG	DNRO
5	Kasango William	Kamwenge DLG	DNRO
6	Tumwebaze Dinnah	Ntungamo DLG	EO
7	Murungi Ritah	Rubirizi DLG	Ag. DNRO
8	Akakimpa Joab	Mitooma DLG	For DNRO
9	Maate Jockus	Bundibugyo DLG	DNRO
10	Vvube Richard	Kalungu DLG	EO
11	Arinaitwe Patrick	Mbarara DLG	DWO
12	Muja Judith	Kisoro DLG	SEO
13	Nuwagira Tom	Ibanda DLG	DNRO
14	Turyatunga Patrick	Sheema DLG	SEO
15	Mugyenyi Cyril	Bushenyi DLG	DNRO
16	Bigabwa Julius	Kyenjojo DLG	SEO
17	Namara Deborah	Kiruhura DLG	DEO
18	Kooli Augustine	Kasese DLG	SEO
19	Ssekamatte John Mary	Lyantonde DLG	DEO
20	Agaba George	Kanungu DLG	DEO
21	Ruyonga Godfrey	Kabalore DLG	SEO
22	Ategeka Nicholas	Kyegegwa DLG	DNRO
23	Kamuhanda Herbert	Ntoroko DLG	DEO
24	Byarugaba Francis	Sembabule DLG	SEO
25	Namulema Mary Jude	Lwengo DLG	EO
26	Kawooya Michael	Bukomansimbi	DEO
27	Behwera Wilson	Masaka	EO

Nation-wide training participants 2013 (Eastern Region)

No.	Name	District	Position
1	Bakaki Samuel	Kamuli DLG	DEO
2	Achibu Ekwilu JP	Serere DLG	Ag. DEO
3	Najjuma Sarah	Iganga DLG	DEO
4	Kauma Benadet	Bugiri DLG	DEO
5	Kyebogola Juliet	Mayuge DLG	DEO
6	Mweene John Paul	Buyende DLG	DEO
7	Busagwa Alex	Namayingo DLG	DEO
8	Musenero Benard	Luuka DLG	DNRO
9	Ikaaba Dauda	Namutumba DLG	DEO
10	Kawekwa Gideon	Jinja DLG	For DEO
11	Scovia Nakawuma	Kaliro DLG	DEO
12	Erienyu Johnson	Busia DLG	DEO
13	Chemutai Olive	Bukwo DLG	DEO
14	Ariong Deborah	Amudat	DEO
15	Lotyang Joh	Moroto	DEO

List of Nation-wide training participants

Nation-wide training participants 2013 Pilot District

1	Anguti Silas	Tororo DLG	DWO
2	Otim Charles	Amuria	DNRO
3	Wagoli Geofrey	Sironko	DWO
4	Odeng Emmanuel R	Nakapiripirit	DEO
5	Wakube Charles	Mbale	DEO
6	Were Lamula	Butaleja	DWO
7	Apolot Elizabeth	Katakwi	DEO
8	Madanda H.S	Bulambuli	SEO
9	Kijali K. C	Budaka	EO
10	Bisikwa Sarah	Manafwa	DEO
11	Kaugule Joseph	Kibuku	EO
12	Okalang Emmanuel	Kumi	SEO
13	Awekonimungu Margeret	Ngora	DEO
14	Apolot Francis	Soroti	DEO
15	Galya Muhamad	Palisa	SEO
16	Ojangule Silvesta	Kapchorwa	EO
17	Chemusto Samuel	Kween	DNRO
18	Namono Marrion	Bududa	DEO
19	Lolong Paulina P	Napak	SEO
20	Malinga P.J	Bukedea	SEO

List of Nation-wide training participants

Nation-wide training participants 2014 (Central Region)

No.	Name	District	Position
1	Nsimiire William	Masindi DLG	SEO
2	Kyobutungi R. Winnie	Gomba DLG	SEO
3	Bbira Yasin	Mityana DLG	SEO
4	Nabbika Mildred	Mpigi DLG	DEO
5	Nankya Dorothy	Kyankwanzi DLG	SEO
6	Gateese Teopista	Luweo DLG	SEO
7	Nalunkuma Gladys	Buvuma DLG	NRO
8	Nalumansi Stella	Wakiso DLG	WO
9	Sekagya Moses	Nakaseke DLG	EO
10	Mubiru Farok	Butambala DLG	Ag. DNRO
11	Nampeera Esther	Kiboga DLG	EO
12	Nyangoma Joseline	Hoima DLG	EO
13	Kinene Vincent	Mubende DLG	SEO
14	Kunobere James bond	Nakasongora DLG	EO
15	Byaruhanga Joseph	Kalangala DLG	EO
16	Musaazi Patrick	Kayunga DLG	SEO
17	Anne Nakimbugwe	Mukono DLG	EO
18	Najib B. Lukooya	Kampala	Manager E.
20	Kashemeire Animate	Kibaale	SEO

Nation-wide training participants 2014 (Northern Region)

No.	Name	District	Position
1	Olar David C	Agago DLG	DNRO
2	Kiyonga Joseph	Kotido DLG	DEO
3	Giyaya Charles	Adjumani DLG	DEO
4	Businge Zalfa	Kiryandongo DLG	DEO
5	Kawawa Serbet	Yumbe DLG	DEO
6	Otike Pabious	Lira DLG	DEO
7	Wany Oyok David	Kitgum DLG	SEO
8	Andiandu Joackim	Arua DLG	DEO
9	Kenyi Desmonds	Koboko DLG	DEO
10	Okola Isaac	Dokolo DLG	DEO
11	Apollo Omara	Amolatar DLG	DEO
12	Uwor Martin	Zombo DLG	EO
13	Okethwengu O.R	Nebbi DLG	WO
14	Philip Kutegeka N	Bulisa DLG	DEO
15	Atto Francisca K	Gulu DLG	DEO
16	Acca Everline	Nwoya DLG	DEO
17	Atalla Joan Angom	Allebtong DLG	DEO
18	Otimoi Jasper	Apac DLG	DEO
19	Opio Moses	Oyam DLG	DFO
20	Ogwal Abraham	Kole DLG	SEO
21	Letaru Leah	Moyo	DEO
22	Onen Pope	Amuru	DNRO
23	Awony Michael	Pader	DEO
24	Avako Nolah	Maracha	DEO
25	Ebong Bonaface	Otuke	DEO

List of Nation-wide training participants

Nation-wide training participants 2014 (Western Region)

No.	Name	District	Position
1	Mwesigye Joseph	Isingiro DLG	DEO
2	Musingwire Jeconious	Mbarara DLG	DEO
3	Birungi Clemencia	Buhweju DLG	DEO
4	Kiyingi Jamil	Rakai DLG	DNRO
5	Kasango William	Kamwenge DLG	DNRO
6	Tumwebaze Dinnah	Ntungamo DLG	EO
7	Murungi Ritah	Rubirizi DLG	Ag. DNRO
8	Akakimpa Joab	Mitooma DLG	For DNRO
9	Maate Jockus	Bundibugyo DLG	DNRO
10	Vvube Richard	Kalungu DLG	EO
11	Arinaitwe Patrick	Mbarara DLG	DWO
12	Muja Judith	Kisoro DLG	SEO
13	Nuwagira Tom	Ibanda DLG	DNRO
14	Turyatunga Patrick	Sheema DLG	SEO
15	Mugyenyi Cyril	Bushenyi DLG	DNRO
16	Bigabwa Julius	Kyenjojo DLG	SEO
17	Namara Deborah	Kiruhura DLG	DEO
18	Kooli Augustine	Kasese DLG	SEO
19	Ssekamatte John Mary	Lyantonde DLG	DEO
20	Agaba George	Kanungu DLG	DEO
21	Ruyonga Godfrey	Kabalore DLG	SEO
22	Ategeka Nicholas	Kyegegwa DLG	DNRO
23	Kamuhanda Herbert	Ntoroko DLG	DEO
24	Byarugaba Francis	Sembabule DLG	SEO
25	Namulema Mary Jude	Lwengo DLG	EO
26	Kawooya Michael	Bukomansimbi	DEO
27	Behwera Wilson	Masaka	EO

Nation-wide training participants 2014 (Eastern Region)

No.	Name	District	Position
1	Bakaki Samuel	Kamuli DLG	DEO
2	Achibu Ekwilu JP	Serere DLG	Ag. DEO
3	Najjuma Sarah	Iganga DLG	DEO
4	Kauma Benadet	Bugiri DLG	DEO
5	Kyebogola Juliet	Mayuge DLG	DEO
6	Mweene John Paul	Buyende DLG	DEO
7	Busagwa Alex	Namayingo DLG	DEO
8	Musenero Benard	Luuka DLG	DNRO
9	Ikaaba Dauda	Namutumba DLG	DEO
10	Kawekwa Gideon	Jinja DLG	For DEO
11	Diogo Paul	Kaliro DLG	DEO
12	Erienyu Johnson	Busia DLG	DEO
13	Chemutai Olive	Bukwo DLG	DEO
14	Leese Denis	Amudat	For DEO
15	Lotyang Joh	Moroto	DEO

List of Nation-wide training participants

Nation-wide training participants 2014 Pilot District

1	Anguti Silas	Tororo DLG	DWO
2	Otim Charles	Amuria	DNRO
3	Wagoli Geofrey	Sironko	DWO
4	Odeng Emmanuel R	Nakapiripirit	DEO
5	Nyaribi Rhoda	Mbale MC	MEO
6	Were Lamula	Butaleja	DWO
7	Apolot Elizabeth	Katakwi	DEO
8	Madanda H.S	Bulambuli	SEO
9	Kijali K. C	Budaka	EO
10	Bisikwa Sarah	Manafwa	DEO
11	Kaugule Joseph	Kibuku	EO
12	Okalang Emmanuel	Kumi	SEO
13	Awekonimungu Margeret	Ngora	DEO
14	Apolot Francis	Soroti	DEO
15	Galya Muhamad	Palisa	SEO
16	Ojangule Silvesta	Kapchorwa	EO
17	Chemusto Samuel	Kween	DNRO
18	Namono Marrion	Bududa	DEO
19	Lolong Paulina P	Napak	SEO
20	Malinga P.J	Bukedea	SEO

List of Nation-wide training participants

Nation-wide training participants 2016 (Central Region)

No.	Name	District	Position
1	Olivia Nabukenya	Masindi DLG	Wetland Officer
2	Kyobutungi R. Winnie	Gomba DLG	SEO
3	Byarugaba Francis	Sembabule DLG	SEO
4	Bbira Yasin	Mityana DLG	SEO
5	Kiggundu John	Mpigi DLG	Ag. DEO
6	Vvube Richard	Kalungu DLG	EO
7	Nakiri Jasira	Buikwe DLG	EO
8	Nankya Dorothy	Kyankwanzi DLG	SEO
9	Gateese Teopista	Luweo DLG	SEO
10	Nalunkuma Gladys	Buvuma DLG	NRO
11	Nalumansi Stella	Wakiso DLG	WO
12	Sekagya Moses	Nakaseke DLG	EO
13	Mubiru Farok	Butambala DLG	Ag. DNRO
14	Nampeera Esther	Kiboga DLG	EO
15	Nsita Gertrude	Hoima DLG	EO
16	Lotet Ronald	Mubende DLG	EO
17	Wakisa Sarah	Nakasongora DLG	EO
18	Byaruhanga Joseph	Kalangala DLG	EO
19	Musaazi Patrick	Kayunga DLG	SEO
20	Namulema Mary Jude	Lwengo DLG	EO
21	Masengere Willy	Mukono DLG	EO
22	Ssekamatte John	Lyantonde DLG	DEO
23	Kiyingi Jamil	Rakai DLG	DNRO

Nation-wide training participants 2016 (Northern Region)

No.	Name	District	Position
1	Olar David C	Agago DLG	DEO
2	Kiyonga Joseph	Kotido DLG	DEO
3	Eseru James	Adjumani DLG	DEO
4	Businge Zalfa	Kiryandongo DLG	DEO
5	Kawawa Serbet	Yumbe DLG	DNRO
6	Otike Pabious	Lira DLG	DEO
7	Inziku Collins	Maracha DLG	DEO
8	Wany Oyok David	Kitgum DLG	SEO
9	Andiandu Joackim	Arua DLG	DEO
10	Kenyi Desmonds	Koboko DLG	DEO
11	Nambozo Josephine	Amudat DLG	For DEO
12	Komakech Richard	Lamwo DLG	EO
13	Okola Isaac	Dokolo DLG	Ag. DNRO
14	Apollo Omara	Amolatar DLG	EO
15	Ebong Bonaface	Otuke DLG	EO
16	Uwor Martin	Zombo DLG	EO
17	Okethwerigu O.R	Nebbi DLG	Ag. EO
18	Philip Kutegeka N	Bulisa DLG	DEO
19	Atto Francisca K	Gulu DLG	DEO
20	Acca Everline	Nwoya DLG	DEO
21	Lotyang John	Moroto DLG	DEO
22	Atalla Joan Angom	Allebtong DLG	DEO
23	Otimoi Jasper	Apac DLG	DEO
24	Opio Moses	Oyam DLG	DFO
25	Ogwal Abraham	Kole DLG	DEO
26	Lomongin Emmanuel	Kaabong DLG	DEO

List of Nation-wide training participants

Nation-wide training participants 2016 (Western Region)

No.	Name	District	Position
1	Kamoga Abdu	Isingiro DLG	AEO
2	Byoona Gerald	Kagadi DLG	DEO
3	Birungi Clemencia	Buhweju DLG	DEO
4	Asiimwe Evas	Rubanda DLG	DEO
5	Kasango William	Kamwenge DLG	DNRO
6	Tumwebaze Dinnah	Ntungamo DLG	SEO
7	Monday Lwanga	Rubirizi DLG	DNRO
8	Akakimpa Joab	Mitooma DLG	DNRO
9	Maate Jockus	Bundibugyo DLG	DNRO
10	Baguma Christopher	Kakumiro DLG	DNRO/EO
11	Arinaitwe Patrick	Mbarara DLG	DWO
12	Muja Judith	Kisoro DLG	SEO
13	Nuwagira Tom	Ibanda DLG	DNRO
14	Turyatunga Patrick	Sheema DLG	SEO
15	Mugyenyi Cyril	Bushenyi DLG	DNRO
16	Bigabwa Julius	Kyenjojo DLG	SEO
17	Namara Deborah	Kiruhura DLG	DEO
18	Judith Bwenge	Kasese DLG	WO
19	Tushabe Mulangira	Kabale DLG	DEO
20	Agaba George	Kanungu DLG	DEO
21	Ruyonga Godfrey	Kabalore DLG	SEO
22	Ategeka Nicholas	Kyegegwa DLG	DEO
23	Kamuhanda Herbert	Ntoroko DLG	DEO
24	Animate Kashemire	Kibale DLG	DEO

Nation-wide training participants 2016 (Eastern Region)

No.	Name	District	Position
1	Bakaki Samuel	Kamuli DLG	DEO
2	Opio Sam	Serere DLG	DEO
3	Najjuma Samali	Iganga DLG	DEO
4	Kauma Benadet	Bugiri DLG	DEO
5	Mutalya Ivan	Mayuge DLG	For DEO
6	Mweene John Paul	Buyende DLG	DEO
7	Muganza Emmanuel	Namayingo DLG	DNRO
8	Musenero Benard	Luuka DLG	DNRO
9	Samanya Paul	Namutumba DLG	Physical . Planner
10	Maganda Moses	Jinja DLG	SEO
11	Diogo Paul	Kaliro DLG	For DEO
12	Wanyama Paul	Busia DLG	SEO
13	Chemutai Olive	Bukwo DLG	DEO

List of Nation-wide training participants

Nation-wide training participants Pilot Districts

1	Egeru Paul	Amuria	DFO
2	Nabukwasi Teddy	Sironko	DEO
3	Odeng Emmanuel R	Nakapiripirit	DNRO
4	Wakube Charles	Mbale	DEO
5	Were Lamula	Butaleja	DEO
6	Apolot Elizabeth	Katakwi	DEO
7	Magomu Charles O	Bulambuli	WO
8	Kijali K. C	Budaka	EO
9	Bisikwa Sarah	Manafwa	DEO
10	Kaugule Joseph	Kibuku	EO
11	Okalang Emmanuel	Kumi	SEO
12	Awekonimungu Margeret	Ngora	DEO
13	Adutu George	Soroti	DEO
14	Galya Muhamad	Palisa	SEO
15	Ojangule Silvesta	Kapchorwa	SEO
16	Makwata Moses	Kween	DFO
17	Namono Marrion	Bududa	DEO
18	Lochoro Simon	Napak	EO

ANNEX 12 REPORT ON REGIONAL SYMPOSIUM

Report on
Regional Symposium
On
Wetlands Management
BIODIVERSITY AND HUMAN WELFARE IN EASTERN AFRICA
IMPLEMENTATION OF WISE USE PRINCIPLES AND RICE RESOLUTION

Mt Elgon Hotel
4th and 5th October 2016

A collaborative effort between the
Ramsar Centre for Eastern Africa (RAMCEA), Japan International Cooperation Agency (JICA)

Preamble

This Symposium on wetland management held from 4th and 4th October, 2016 was designed to encourage cross-project knowledge transfer in managing wetlands so that lessons learnt in the National Wetlands Management Project are used by other part of Africa.

The symposium familiarized participants with the principles biodiversity conservation and human welfare in Eastern Africa with special focus on the implementation of the wise use principles and rice resolutions. These principles are regarded as important strategies particularly in food-scarce countries.

The symposium brought together two project initiatives that are being implemented by the Ministry of Water and Environment and Ministry of Agriculture, animal industry and Fisheries. They are the National Wetland Project, and the Project on irrigation scheme Development in Central and Eastern Uganda with support from Japan International Cooperation Agency. The former focuses on two wetland systems in the Eastern region: Doho-Namatala which is known for rice production since 1976, and Awoja Wetland Systems, rich in pristine environment with two Ramsar designated sites: Bisina and Opeta Lakes.

PURPOSE OF THE SYMPOSIUM

The fundamental purpose of the symposium was to encourage cross-project knowledge transfer in managing wetlands so that lessons learnt in the National Wetlands Management Project are used by other part of Africa as well as the best practices in managing wetlands in other countries, instead, will be presented and discussed on its applicability to Eastern Region of Uganda.

Participation

Participants were drawn from a wide range of interest institutions across Eastern Africa representing both public and private sectors. Technical resource persons came from the Ramsar secretariat, Nile Basin Initiative, JICA, Bird Life International, Ministries and Departments.

The Workshop Agenda and List of Participants are contained in Annexes 1 and 2.

Day 1 Proceedings

Opening Ceremony

The first day of the Regional Symposium on wetland commenced with an Opening Ceremony by the Minister of Water and environment.
Also present were the Senior Advisor for Africa- Ramsar convention, Ramcea Regional Coordinator, JICA Representative among others.

The Resident District Commissioner, Kumi who represented the Guest of Honour welcomed the participants to the symposium. He noted that this symposium provides a great opportunity to take stock on the wetland management and Ramcea countries to share experiences. He further emphasized these options/ strategies; resettlement of people in sensitive

natural resources, diversifying sources of livelihood to reduce pressure on ecosystem and institutional support especially local Governments.

Opening Ceremony (L to R): Dr. Paul Ouedraogo, Senior Advisor for Africa-Ramsar Convention, Dr. Motohiro Hasegawa-JICA Representative, Resident District commissioner-Kumi District.

Mr. Paul Mafabi, the Regional Coordinator RAMCEA also noted the roles and strategic objectives of the Ramcea Centre and underscored the fact that sustainable wetland management requires a multi-sectoral, multi- disciplinary approach. He noted that the Centre has registered several achievments that include; adopting strategic framework for Ramcea, carried capacity needs assessment and trained Ramcea site managers among others.
He ended his welcome address by thanking the Government, and partners such as ARCOS, IUCN, BirdLife, JICA, WWF among others for supporting activities geared towards wetland management in the country.

Dr. Motohiro Hasegawa noted that the need to implement the Paddy rice Resolution of the Ramsar Convention and the desire to mainstream agriculture in Environmental management practices. He also stated that JICA would be seeking to mobilize additional technical resources to conduct relevant assessments in the Project areas, in support of environmental and economic development in this country.

Dr. Paul Ouedraogo emphasized the commitment of the Ramsar convention secretariat to assist the contracting parties and this symposium was timely organized to provide indicators for the strategic plan for the convention.

The Chief Administrative Officer, Mbale District Local Government welcomed all participants. He also lauded the involvement of all partners in efforts to improve wetland management across the region. He noted that while the District is very concerned over the safety and contributions from wetlands, this cannot be divorced from conservation of the resource clearly illustrating the need for a multi-sectoral, integrated approach to wetland management

He noted that the symposium on wetland management highlighting the principles of wise use is "an essential approach that needs to be adopted by our food-stressed country in order to sustain our enviable development.
He highlighted the need for greater involvement of all stakeholders, both in the planning for and conservation of wetland resources. He noted that civil society participation is essential in grappling with these important wetland management issues.

He applauded the organizers of the symposium, looked forward to ongoing dialogue and collaboration in order to advance the process of improving wetland resources management and promoting the principles of wise use and implementation of the Paddy Resolution of the Ramcea Convention.

Presentations
Presentation: Country Reports
Presenters: Evariste Rufuguta NFP Ramsar- Burundi Convention and Vincent Barugahare-NFP CEPA Uganda.

Mr. Evariste presented the principles of best practices on wetland management projects in Burundi. He described the details a country's actions and activities toward to sustainable management of its wetland resources. He provided background on the global effort at committing to the sustainable management of wetland resources, noting the ongoing conservation projects that include; 1. Lake Victoria Environment Management Project « LVEMPII) in the ramsar site the "North protected aquatic landscape" 2. Biodiversity Protected Area Project in the Ramsar site of « Ruvubu National Park », in the East of Burundi 3.Best on the Dododogo wetland in the West of Burundi, province of Cibitoke.

He also provided insights as to how the ongoing conservation projects fit within existing policy frameworks that guide national development agendas. The 50 metre protection of the buffer zone was of interest to all participants.

Mr. Barugahare presented the Country report for Uganda that highlights efforts to promote best practices that include; developed the communication and awareness strategy, increased awareness of the importance of wetlands and need for tools to conserve them, institutional strengthening, legal framework and community involvement. However, challenges such as inadequate resources and information management and sharing account for slow adoption of the best management practices in the country. He provided the following recommendations; promoting technical innovations, better documentation of successful practices and wetland BMPs education and awareness training.

Discussion.

Participants expressed interest in knowing whether there has been enough sensitization and awareness in the country. It was observed that target awareness and well packaged information is not always done to address specific emerging issues/ drivers. The protection zone of 50 metres in Burundi that significantly differ across the region called for harmonization and sharing of experiences and lessons in implementing the 50 metres buffer zone in the region.
Other issues of concern that have immensely contributed to wetland loss in the region were; greed, land tenure system, institutional mandates, gaps in baseline information, inadequate financial resources and capacity building to effectively handle issues of trans boundary management. It was noted that financial support is very important in developing institutional capacities to develop and implement the wise use principles

Presentation 2: Local Government Report: What skills have the National Wetland Project/ lessons in managing wetlands?

The District Environment officer, Butaleja District Local government on behalf of others officers in the project area, highlighted a number of skills acquired in different fields such as mapping, demarcation, management plans among others. She acknowledged the financial and technical support from JICA. She noted that communities are organized into groups and make contributions to ensure the sustainability of the project activities.

Day 2 Proceedings

The second day of the symposium focused on implementation of the Resolution X.31 for Enhancing biodiversity in rice paddies as wetland systems of the

Ramsar Convention. A key note address was given on an experience in Japan where history and development context are significantly different from those in Uganda. It covered these strategic areas;

a) Demonstrating wise use- the National Wetland Project key outcomes and lessons;
Dr.Yasuhiko Muramatsu gave a presentation on the outputs of the National Wetlands Management Project. He emphasized the River Basin approach adopted in the project; participation of community n planning process to set aside protection zones in line with the relevant regulations; separate demarcation of protection zone and buffer zone; and information management. In his final part of presentation, he discussed and presented eighteen (18) key lessons drawn from the project.
Discussion
The contributions of the National wetlands Project to achieving 3.2% as indicated in the National Development Plan11 remain unclear. This information would be used to solicit for funding from other Development Partners.

b) Biological Diversity in Mexico – COP 13
Dr. Motohiro Hasegawa from JICA provided an overview of the agenda and preparation highlighting strategic objectives and striking the balance between paddy rice growing and conservation of wetlands. The paddy rice resolution aimed at increasing food production without compromising the functions of the wetlands.
Rice fields are included in the Ramsar Classification system and in many parts of the world Rice paddies support important wetland biodiversity. Aquatic biodiversity associated with rice paddies can make an important contribution to the nutrition health and wellbeing to rural communities. However, agricultural practices relating to inappropriate water management and change of natural flow and use of high levels of harmful agricultural chemicals are threats to rice paddies and entire wetland ecosystems.
Some of the recommendations in ensuring sustainable biological diversity as well as promoting paddy rice are detailed in Rio Conventions Pavilion (RCP) as a platform that calls for raising awareness and sharing information about the latest practices and scientific findings linking biodiversity, climate change and sustainable land management.
The full presentation is contained in Annex 4.3.
Discussion

There was concern over the extent and intensity of wetland development and the degree to which surface and ground water supplies are being affected paddy rice cultivation, pollution and contamination. Dr. Hasegawa noted that studies have been done with results indicating minimal negative effects and emphasized that the project design does cover the current existing intact wetland ecosystem.

Studies on how paddy rice cultivation can increase the incomes of the farmers and its impacts on the already existing income sources. It was noted that a detailed biodiversity assessment will be carried highlighting the impacts on the ecosystems and all the major stakeholders need to become involved to ensure the implementation of the ecological monitoring plan.

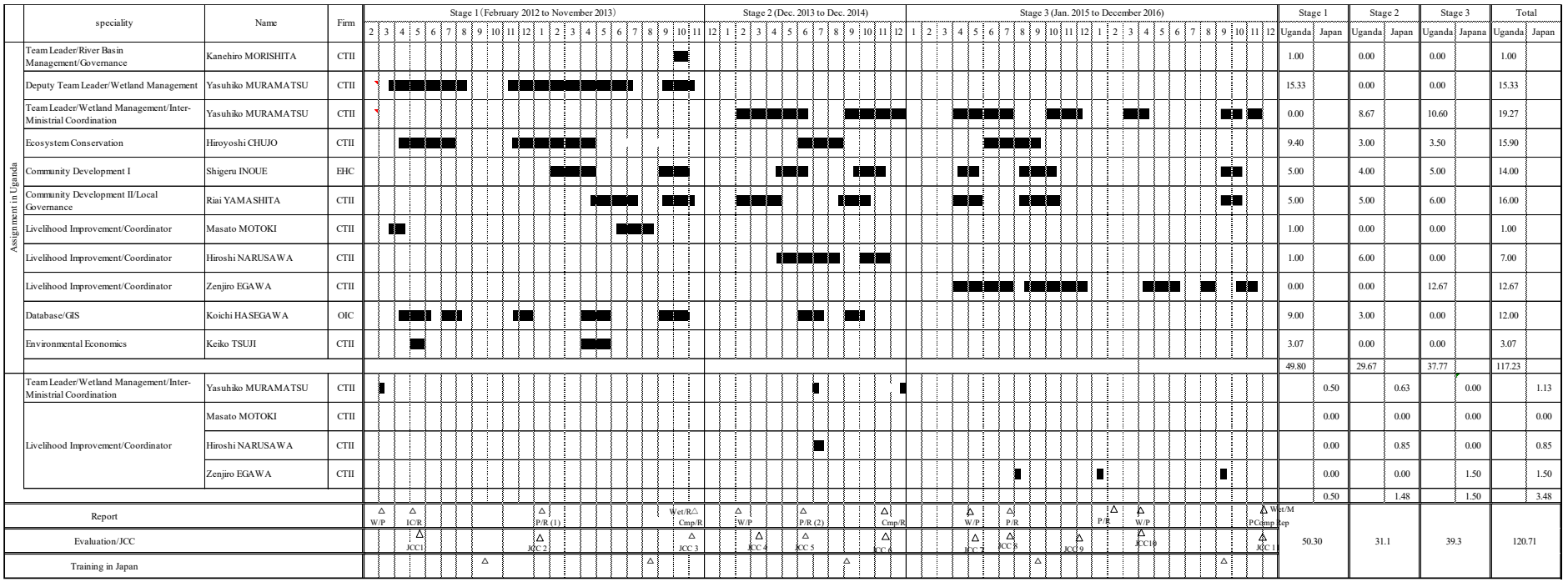
Closing Remarks.
The JICA representative called upon all participants to ensure sustainable

management of all the projects activities after the end of National Wetland Project. Mr. Paul Mafabi noted that the symposium provided sharing experiences opportunities such as COP13 to showcase the implementation of the wise-use principle as required by Ramsar Convention. He urged participants to take actions now for the recommendations of the symposium such as; Better documentation of information of all the wetland sites; Professionalizing Wetland management; Harmonization of the buffer zones in all the Ramsar sites and Promote eco-tourism that is balance tourism locally and internationally.

He acknowledged the support from different development partners such as JICA, Birdlife and Local Governments.

ANNEX 13 ASSIGNMENT OF JAPANESE EXPERTS

	speciality	Name	Firm	Stage 1 Uganda	Stage 1 Japan	Stage 2 Uganda	Stage 2 Japan	Stage 3 Uganda	Stage 3 Japana	Total Uganda	Total Japan
Assignment in Uganda	Team Leader/River Basin Management/Governance	Kanehiro MORISHITA	CTII	1.00		0.00		0.00		1.00	
	Deputy Team Leader/Wetland Management	Yasuhiko MURAMATSU	CTII	15.33		0.00		0.00		15.33	
	Team Leader/Wetland Management/Inter-Ministrial Coordination	Yasuhiko MURAMATSU	CTII	0.00		8.67		10.60		19.27	
	Ecosystem Conservation	Hiroyoshi CHUJO	CTII	9.40		3.00		3.50		15.90	
	Community Development I	Shigeru INOUE	EHC	5.00		4.00		5.00		14.00	
	Community Development II/Local Governance	Riai YAMASHITA	CTII	5.00		5.00		6.00		16.00	
	Livelihood Improvement/Coordinator	Masato MOTOKI	CTII	1.00		0.00		0.00		1.00	
	Livelihood Improvement/Coordinator	Hiroshi NARUSAWA	CTII	1.00		6.00		0.00		7.00	
	Livelihood Improvement/Coordinator	Zenjiro EGAWA	CTII	0.00		0.00		12.67		12.67	
	Database/GIS	Koichi HASEGAWA	OIC	9.00		3.00		0.00		12.00	
	Environmental Economics	Keiko TSUJI	CTII	3.07		0.00		0.00		3.07	
				49.80		29.67		37.77		117.23	
	Team Leader/Wetland Management/Inter-Ministrial Coordination	Yasuhiko MURAMATSU	CTII		0.50		0.63		0.00		1.13
	Livelihood Improvement/Coordinator	Masato MOTOKI	CTII		0.00		0.00		0.00		0.00
		Hiroshi NARUSAWA	CTII		0.00		0.85		0.00		0.85
		Zenjiro EGAWA	CTII		0.00		0.00		1.50		1.50
					0.50		1.48		1.50		3.48



Works in Uganda
Works in Japan

W/P : Work Plan
IC/R: Inception Report
P/R: Progress Report
Cmp/R: Task Completion Report
Wet/R: Wetland Assessment Report
PCmp/R: Project Completion Report
Wet/M: Wetland Management Manual

CTII: CTI Engineering International Co.,Ltd.
OIC: OYO International Corporation
EHC: Earth & Human Corporation

ANNEX 14 MINUTES OF THE JOINT COORDINATION COMMITTEE MEETING

MINUTES OF THE FIRST MEETING OF THE JOINT COORDINATION COMMITTEE

Ministry of Water and Environment
10:00 AM – 1:00 P.M., May 30, 2012

A G E N D A

1. Adoption of Agenda
2. Introduction of the participants
3. Opening Remarks
4. Presentation on the Project Design
5. Presentation on the Inception Report
6. Open Forum
7. Approval of TOR for the Joint Coordination Committee
8. Closing Remarks and Adjournment of the meeting

Attendance list

Institution	Name	Designation
MWE	1. Paul Mafabi	Commissioner, Wetland Management Department
	2. Lucy Iyango	Assistant Commissioner
	3. Florence E Adongo	Commissioner, Water Quality Management
	4. Lwanga Eva	Senior Hydrologist, Department of Water Resource Management
	5. Imalingat Agnes Nyangan	Analyst/Directorate of Water Resource Management
NEMA	6. Herbert Nabaasa	District Support Officer
MAAIF	7. Muyaka Zakayo	Soil and Water Conservation, Department of Farm Development
MOLG	8. Atim Joel	Senior Inspector
MGLSD	9. Chanty Rufalem	Assistant Commissioner, Family Affairs
MFPED	10. Angella Rwabutomize Matsiko	Senior Economist
JICA Uganda	11. Tetsuo Seki	Chief Representative
	12. Hiroyuki Egashira	Representative
	13. Kyobe Eva N. Kiwanuka	Programme Officer
JICA TAT	14. Yasuhiko Muramatsu	Deputy Team Leader
	15. Hiroyoshi Chujo	Ecosystem Conservation
	16. Koichi Hasegawa	Database/GIS
	17. Keiko Tsuji	Environmental Economist

Highlights/Proceedings of the Meeting:

1. The meeting started at 10:30 a.m., chaired on behalf of the Permanent Secretary by the acting Director, Mr. Paul Mafabi. He welcomed participants to the meeting and apologized for the inconveniences incurred by the change of the venue He also apologised for the failure of take off of the first meeting. Before proceeding the agenda was reviewed, and approved.
2. After a brief introduction by each of the participants, Mr. Mafabi gave his opening remarks. In his remarks he welcomed the participants on behalf of the Permanent Secretary of the MWE. He emphasized the importance of the project and the need for appropriate timing of the project commencement. He also mentioned that the project contributes to the ministry's mandates and more specifically to the achievement of the Wetlands Sector Strategic Plan 2011 - 2020. He acknowledged that were still a lot of challenges including 1) capacity gaps at national Local Governments and community levels in which the project is focused, 2) information gap in managing wetlands because it was still a relatively a new area, with limited scientific knowledge and 3) strengthening wetland management system itself in which project supports the effort to manage wetland system and community.
3. Mr.Seki, Chief Representative of JICA Uganda also made remarks. First, he expressed disappointment in the failure to take off of the first JCC meeting convened in the early part of May. He observed that the participation then could not form quorum for substantial discussion. Subsequently, he emphasized the importance of the JCC meeting, and reminded the participants that the meeting would provide the forum to build consensus on the direction and framework of the project. He particularly noted the need for strong inter-agency coordination and collaboration as stated in paragraph[23] in the Record of Discussion for the project. He further emphasized the need for full partnership between the Ugandan Government and JICA in implementing the project, also noting that this was the distinctive nature of the technical cooperation scheme of JICA. It was also pronounced that the MWE should assume the main responsibility; and the success of the project was largely dependent on commitment of the Ugandan side. He also requested the Government of Uganda (GOU) to make an effort garner funds for the project. He further reiterated that inter-agency coordination and collaboration would become imperative in undertaking the project activity recognizing that wetland management requires broad knowledge and expertise that can not be adequately handled by limited number of people in one department and ministry, and further referred to the fact that lack of coordination with other relevant organization in implementing projects frequently results in failure.
4. Having confirmed that no issues were raised at this point, Mr. Mafabi gave a presentation on the project design recalling the brief history of the project formulation that dates back to 2009 initiated in response to a request for a proposal by the Ministry of Finance. He further mentioned that it was followed by initial contact mission on the project, which was followed by a series of consultative meetings and project formulation mission in 2011. The R/D was eventually signed between the Ministry and JICA in the subsequent period.
5. Mr. Muramatsu, deputy JICA Team Leader, made a presentation focusing on the project design, purpose and overall goal of the project. He also expounded the progress and status of the project and presented its general view and orientation. Mr. Muramatsu was requested by Mr. Seki to distribute the

[23] "Both parties agreed that MWE will be responsible for the implementation of the Project in cooperation with JICA, coordinate with other relevant organization 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."

PowerPoint presentation.

6. After the presentation, two JCC members, NEMA and MOLG, were also introduced. They took part in the JCC meeting during the presentation, which registered full attendance of all the representatives.

7. After a brief tea break, the meeting was resumed with an open forum and discussion. Ms. Florence of MWE raised a question on how multi-disciplinary participation would be ensured, especially in line with training and assessment. Her question pertained to the specialized training that will be extended to headquarter and district staff. The concern raised is on the issue of consistency on data and approaches to be used in the project execution. In his response, Mr. Muramatsu brought to the attention of the meeting intention of the original framework of the project that focused on the aforementioned category officers. Despite this, he concurred with the proposal, noting that multi-disciplinary participation in training programmes was important. It was further proposed that stakeholders outside the original training plan could also be brought on board through tailored made capacity enhancement programme.

8. Additional input on the training was made as follows: It was generally understood that consideration should be given both to the principle and practicability in undertaking additional training outside the original plan can be handled by reallocating resources within the current budget to cater for multi-disciplinary training. In turn, Mr.Muramatsu emphasized that 1) any specific area of needs for capacity development was not yet identified at this stage and may therefore require further assessment; and 2) the training component should be in line with the original project design. It was finally concluded by Mr. Mafabi that the JICA team would incorporate the training of the multi-disciplinary team in the course of the project as appropriate.

9. Mr. Zakayo of MAAIF discussed the need for appropriate funding in implementing the project by inquiring how to mitigate the issues that may confront in the implementation of the project.

10. Mr. Mafabi proceeded to the second issue of counterpart funding, raised by Mr. Zakayo of MAAIF. He also mentioned that the MWE has made the contribution by providing the office space and registering the vehicles provided by JICA. Mr.Muramatsu explained specific cases wherein budget expenditure is required from the GOU, in which he mentioned 1) travel expenses for the Local Government, on the other hand, 2) equipment for the resource assessment funded by the project. He also mentioned the principle embedded in the Record of Discussion as well as importance of flexibility in managing and implementing the project. Mr. Mafabi subsequently asked to Ms. Angella, MFPED, if counterpart funding is factored into the budgeting process in the coming fiscal year. After deliberation, it was understood that it was impractical to assume it takes place in the coming fiscal year (2012/130 that was starting soon. In this regard, Mr.Mafabi mentioned that the Ministry of Water and Environment would work with the MFPED to obtain additional budget in the fiscal year 2013/2014.

11. Mr. Herbert of NEMA asked if project would incorporate activities pertaining to wetland demarcation, which is becoming pertinent for wetland management. Mr.Muramatsu recognized that demarcation would take place as part of Output 3 and 4 in the community level activities. It was also mentioned that demarcation would have impacts on the project activities. Mr. Mafabi added that zoning would be part of the project activities, and demarcation may be considered in such context. Mr.Muramatsu proposed to take note of the issue at this stage for further consideration. Mr. Mafabi also suggested that the project integrate the demarcation exercise by supporting the delineation process by using GIS in the project area as a starting point. Mr. Mafabi mentioned that we can discuss the demarcation in the medium term.

Mr.Muramatsu responded that the final decision should be made at the time of preparing the management plans.

12. Ms. Florence of WMD suggested that JICA TAT should meet the Water Management Zone Staff in Mbale immediately because a catchment management plan is to be developed, which would ensure complementary linkage between them.

13. Having discussed all the issues in the Inception Report, Mr. Mafabi moved to approve the Inception Report. The motion was seconded by Ms. Chanty of MGLSD and thus the inception report was approved.

14. The meeting proceeded to the discussion on the proposed TOR of JCC. The proposed TOR of the JCC was presented and major issues discussed as follows:

15. The session initially centered on the frequency of the JCC meeting that was proposed as annually. After deliberation, it was agreed that 1) quarterly briefs should be forwarded electrically to all the JCC members to ensure timely updates ahead of the scheduled meetings, sort out emerging issues and also for adequate information sharing and 2) the JCC meeting should be convened twice a year and will deliberate on biannual progress reports. It was also agreed that the timing of the meeting would accommodate the needs of project progress and assignment schedule. Based on the deliberation, the proposed TOR was revised to reflect this. At this point, Mr. Seki of JICA Uganda confirmed that the quarterly briefs were important, and also emphasized the need for WMD counterpart staff to jointly prepare progress reports with the JICA TAT.

16. Deliberations were also made on the composition of the JCC, with a proposal to include the Ministry of Lands, Housing and Urban Development as a permanent member. However member suggested that a provision be made to co-opt new members based on the technical bneed at hand. In addition it was proposed and agreement reached that each JCC member has an Alternate, for continuity. A request to this effect will be made to respective institutions. After the deliberation, Mr. Mafabi asked if the TOR of JCC as amended could be approved. Mr. Herbert of NEMA moved the adoption of the TOR as amended. Mr. Atim of MOLG seconded the motion. (The amended TOR for the JCC is attached to the minutes.)

17. Having confirmed that all the issues were deliberated, Mr. Mafabi proposed to proceed to The last agenda item.

18. Mr.Seki of JICA Uganda in his closing remarks requested that the JCC build consensus on the direction and framework of the project;. He also noted the current budgetary needs for the [project, observing that Government of Uganda needed to corporate this in the budget for the next financial year. In the meantime JICA would backstop as is feasible.

19. Mr. Mafabi on his part expressed gratitude to Mr.Seki for his participation and once again apologised for the failure of the previous meeting. He called on the need for information sharing with all partners in the project execution, and then adjourned the meeting at around 1:00 PM.

Terms of Reference for the Joint Coordination Committee
National Wetlands Management Project

1. A Joint Coordination Committee (hereinafter referred to as JCC) is hereby established as a body of major stakeholders at the national level to ensure effective and efficient implementation of the captioned project.

2. The functions of the JCC shall include, *inter alia*:
   1. approving the annual work plan of the project;
   2. reviewing quarterly briefs and bi-annual progress reports;
   3. exchanging opinions on major issues that arise during the implementation of the Project;
   4. taking necessary actions that are required for smooth implementation of the project;
   5. facilitating the avoidance and settlement of disputes; and
   6. promoting inter-institutional co-ordination of project related activities.

3. The JCC shall be composed of representatives of the following Ugandan and Japanese parties and headed by the Permanent Secretary of the Ministry of Water and Environment (MWE), or their designees, as the Project Director who will be responsible for the overall administration and implementation of the Project.

   Ugandan Side

   1. Wetland Management Department
   2. Directorate of Water Resource Management
   3. Directorate of Environmental Affairs
   4. National Environment Management Authority
   5. Ministry of Agriculture, Animal Industry and Fisheries
   6. Ministry of Finance, Planning and Economic Development
   7. Ministry of Tourism, Wildlife and Heritage
   8. Ministry of Local Government
   9. Ministry of Gender, Labour and Social Development

   Japanese Side

   1. Japanese Experts
   2. JICA Uganda Office
   3. Others concerned as appointed by JICA

4. Other Ministries, directorates, organizations and experts may be invited as needed depending on the issues deliberated to assist the JCC in executing its mandates and functions.

5. The following general procedures are proposed and may be adjusted by the JCC when deemed necessary:
   1. The meetings of JCC shall be held twice a year or whenever deemed necessary;
   2. The timing of the meeting would accommodate the needs of project progress and assignment;
   3. Quarterly reports will be sent to electrically to the JCC members;
   4. The decisions of the Committee shall be taken by consensus;
   5. The Joint Committee may establish and delegate responsibilities to ad hoc and standing committees or working groups, and seek the advice of nongovernmental persons or groups;
   6. The Secretariat of JCC will be with the head of the Wetlands Management Department;

7. Facilitation for JCC activities will be provided in accordance with GoU and donor agreed rates; and
8. Each Party shall designate an office to serve as the contact point with regard to this Agreement. That office shall receive official correspondence related to the activities of the JCC.
9. Each party shall designate an alternate to ensure continuity of the JCC.

MINUTES OF THE 2nd JOINT COORDINATION COMMITTEE MEETING (JCC) HELD ON THE 31ST JANUARY 2013 11:00AM IN THE CONFERENCE ROOM OF THE MINISTRY OF WATER AND ENVIRONMENT.

MEMBERS PRESENT

1.	Mrs. Paul Mafabi	Commissioner Wetlands (Chairman)
2.	Ms. Lucy Iyango	Assistant Commissioner Wetlands
3.	Mr. Hiroyuki Egashira	JICA Uganda Office
4.	Mr. Yasuhiko Muramatsu	JICA TAT
5.	Mrs. Eva Kyobe	Administrator JICA Uganda Office
6.	Mr. Nabasa Herbert	District Support officer
7.	Mr. Muyaka Zakayo	Soil & Water Conservation, Dept. of Farm Dev'pt
8.	Ms Charity Bekunda Rutaremwa	Assistant Commissioner, Family Affairs
9.	Angella Rwabutomize Matsiko	Senior Economist (MFPED)
10.	Lwanga Eva	Senior Hydrologist, Department of Water Resource Management
11.	Mrs. Muhenda Jane M	Secretary JICA /CTII Project

ABSENT WITH APOLOGY

1.	Mr. Obong David	Permanent Secretary (MWE)
2.	Mr. Esim Okuraja	Undersecretary (MWE)
3.	Mr. Atim Joel	Senior Inspector (MOLG)

AGENDA

1. Opening prayer
2. Introduction of the participants
3. Opening Remarks
   a. Chairman
   b. JICA Representative
4. Minutes of the previous meeting and follow up actions
5. Overview and Presentation of the progress report
6. Open Forum
7. Closing Remarks and Adjournment of the meeting

	MIN 1/2013/JCC2 OPENING PRAYER	
No	**Key Issues**	**Action**
	The meeting started at 11:00 am with an opening prayer led by Mrs.Jane Muhenda who invoked God's guidance for fruitful deliberations and to grant wisdom to all stakeholders for implementing the project.	
	MIN 2/2013/JCC2 SELF INTRODUCTION	
	All the members around made self introduction with an aim of knowing each other.	
	MIN 3/2013/JCC2 OPEN REMARKS	

A	The chairman who is the Director of the Environment Affairs in the Ministry of Water and Environment (MWE) represented the Permanent Secretary MWE. He welcomed members and informed them that the Permanent Secretary was unable to attend because he was on leave and the Undersecretary was occupied with other ministry assignments but assured the participants that the absent officers were fully represented by him.The chairman called for well reflected budgetary provisions concerning the wetland project implementation by the Ministry of Finance. The budgetary allocations must be clearly shown if the project is to be properly implemented.	
B	Recalling the opening remark delivered by the former chief representative, the representative of JICA in his remark emphasized that inter-agency coordination and collaboration would become imperative in undertaking the project activity. He subsequently noted the issue of counterpart funding with particular reference to the maintenance cost of software for NWIS recognizing it as fundamental and essential element for sustainably of the project.	
	Participant's reactions on the two communications ***Training of central government staff*** Training of central government staff was initially raised to ensure that relevant organizations are able to fulfil each responsibility in the project. Members observed that there is need for institutional interagency collaboration in implementing the project which will involve all institutions concerned such as Ministry of Agriculture Animal Industry and Fisheries (MAAIF), Ministry of Gender Labour and Social Development, Ministry of Local Government, National Environment Management Authority etc. A lesson drawn from other projects was introduced, in which it was assumed that the project activity would be integrated into government programs or partners are able to get counterpart funding for continuation of the activities. It was recommended that the project should have a mechanism or plan to ensure sustainability. ***Involvement of local Governments*** Participants expressed the need to involve local Governments and local leaders to enhance project support and ownership. Members emphasised that the planning strategy for the project implementation should seriously seek support from Local Government appreciated members concerns and promised to review the implementation plan. ***World Bank Rice Irrigation Project*** The JICA representative raised a concern on a planed project by the World Bank for rice production to assist 10 districts in the Eastern region, which might affect the pilot activities under the wetland project; though the information is unconfirmed. If so he requested that information should be shared between Ministry of Agriculture and Wetland Management.Participants called for proper wetland Management procedures in place whether the World Bank brings in money or not. **Counterpart funding;** The chairman referred that budget has remained same but in real term it was reduced. Only way to handle the matter is to be funded by the government under the development budget. We may not have specific line for counterpart funding for the project. But the Ministry will factor in some of those activities, especially, NWIS, to have some fund for the next fiscal year. He further requested that JICA and MFPEF push from their side for budgeting, particularly from the higher level. Also we have through discussion with Local govermnet financing commission to increase conditional grant to bring it to the level of 1 billion. The district will receive little bit more money. Of couese, it will split amng	Mr.Muyaka will follow the WB project. MFPED/JICA

	the districts. We would use the criteria to support the district under the project. The management plans will be the criteria. **Resolution on Counterpart funding;** JICA to discuss with Ministry of Finance at higher level for funds allocations, the way it was done when they planned to provide NWIS programme to help link with the Districts. The Assistant Commissioner suggested that additional five staff be trained to build capacity in the project implementation process. The chairman also informed members that there will be transfer of staff and he hoped these transfers will not interfere with project implementation process.	Uganda Office will discuss it.

MIN 4/2013/JCC2 MINUTES OF THE PREVIOUS MEETING AND FOLLOW UP ACTIONS.

NO	Key Reactions	Action
	The previous minutes were read and approved with some amendments. **Reactions to the previous minutes;** In the amendments members suggested that the institutions' names be written in full with abbreviations at the end.At this point, JICA representative suggested for changing the venue in the subsequent meetings to allow members participate at designated time. He also requested members to always observe time for such meetings. The Assistant Commissioner expected a report on a multidisciplinary implementation team. Clarification was also made that Ms Florence is from the Water Quality Management (WQM). **Counterpart funding ;** On clarification of counterpart funding, a representative from Ministry of Finance promised to make a follow-up with officers concerned with a budget to establish whether counterpart funding was provided for in the next financial year and she wished to know whether it was part of the agreement between JICA and the Government of Uganda. **Resolutions;** • Ministry of Finance and JICA Uganda reviews the agreements to ensure there is counterpart funding within the next two weeks since this is the planning and budgeting. • The action progress report should be on a separate page. • The minutes should have a provision for signing by the chairman and the secretary. • After correction of the minutes, the printout for the chairman and secretary to sign should be done.	Mr. Muramatsu will consider it as an option. All participants will observe time from the next meeting. MFPED/JICA Secretary

MIN 5/2013/JCC2 OVERVIEW AND PRESENTATION OF THE PROGRSS REPORT

No	Key Issues and Comments	Action
A	Mr. Muramatsu Yusuhiko the Project Deputy Team Leader presented the progress report where he initially reviewed the project design; major events since the first JCC in May. In his presentation, he specifically emphasized the need of continued budgetary allocation by the government for sustainable use of NWIS.	

MIN 6/2013/JCC2 OPEN FORUM

No	Issues /Comments discussed	Action
A	The plenary observed that there is need for participation of focal ministries staff and the staff should be trained for sustainability. Members of the plenary observed that there is need to intensify	

	mobilisation of focal point persons and should also participate in the training. Members inquired from the chairman whether restructuring of the staff will not affect the project implementation process. The chairman clarified that restructuring will only affect the office of the commissioner and that the trained staff will ensure the project sustainability. There was a concern on how the project implementation will proceed especially where the wetland users were not cooperative. Members observed the need for coordination between concerned focal ministries during the training to ensure joint ministerial ownership. The chairman however informed members that it may not be possible to train everybody in the ministry but what can be done is the orientation of the stakeholders including NEMA. The project deputy team leader suggested that involving other ministries should be done in due course as the project is being implemented and be brought on board as and when necessary.	
A	**Resolution;** The members resolved that the Namatala wetland has been used for a long time and people see it as the only source of livelihood that is why there is need to involve District participation early enough. The project deputy team leader will make arrangement to involve the LC chairpersons for local project ownership at an appropriate timing. **District community development officers involvement** Since the project involves community's support and participation there is need to involve community Development officers in the training and mobilisation of the local people for easy project acceptance. On this note the Project deputy team leader frankly stated that involving community development officer has not been automatic but some districts such as Ngora has been involved. He promised that community development officers will be selected and be brought on board according to the project level implementation more especially at the second stage. Members re-echoed their concern for the district lack of internet services prompting wetland officers to use their personal modems or internet cafes. In response the project deputy team leader found it necessary to provide internet services to the districts wetland officers but this requires a review of terms of contract. JICA was requested by members to set up initial project internet funding as part of the counterpart funding project.	Project Deputy team leader Project Deputy team leader Project Deputy team leader

MIN 7/2013/JCC1 CLOSING REMARKS

In his concluding remarks the chairman reiterated that the issue of counterpart funding be quickly addressed, institutional collaboration be improved and more commitment is needed by the staff to participate in the project implementation and activities.

He concluded by wishing the participants a safe journey back home at 01:00pm

MINUTES OF THE 3rd JOINT COORDINATION COMMITTEE MEETING (JCC) ON NATIONAL WETLANDS MANAGEMENT PROJECT HELD ON THE 6TH NOVEMBER 2013 10:00AM IN THE CONFERENCE ROOM AT FAIR WAY HOTEL.

MEMBERS PRESENT

1.	Mr. Paul Mafabi	DEA-MWE (Chairman)
2.	Ms. Lucy Iyango	AC/AIM
3.	Mr. Yasuhiko Muramatsu	JICA TAT
4.	Mrs. Eva Kyobe	Programme officer (JICA)
5.	Mr. Nabasa Herbert	District Support officer (NEMA)
6.	Mr. Muyaka Zakayo (MAAIF)	Soil & Water Conservation, Dept. of Farm Dev'pt
7.	Ms Charity Bekunda Rutaremwa	Assistant Commissioner, Family Affairs(MGLSD)
8.	Mrs. Muhenda Jane M	Secretary JICA /CTII Project
9.	Ms. Norah Namakambo	Principal Wetland Officer (WMD)
10.	Mr. Afai Silvano	Regional Wetland Coordinator –Northern (WMD)
11.	Mr. Gokaka Geofrey	Wetland officer (WMD)
12.	Ms. Carol K. Kairumba	Senior Wetland Officer (WMD)
13.	Mr. Kabaalu Deo K.	Regional Wetland Coordinator – Eastern (WMD)
14.	Mr.Hirofumi Hoshi	Chief Representative (JICA)
15.	Mr. Kizito Simon	SI/DI (MoLG)
16.	Ms. Namakula Regina C	WMD/MWE
17.	Mr. Kyambadde Richard	Senior Wetland Officer – RD (WMD)

ABSENT WITH APOLOGY

1.	Mr. David O. Obong	Permanent Secretary (MWE)
2.	Mr. Esim Okuraja	Undersecretary (MWE)
3.	Mr. Atim Joel	Senior Inspector (MOLG)
4.	Angella Rwabutomize Matsiko	Senior Economist (MFPED)
5.	Lwanga Eva	Senior Hydrologist, Department of Water Resource Management

AGENDA

1. Opening prayer
2. Introduction of the participants
3. Opening Remarks
   a. Chairman
   b. JICA Representative
4. Minutes of the previous meeting and follow up actions
5. Overview and Presentation of the progress report
6. Open Forum
7. Closing Remarks and Adjournment of the meeting

	MIN 1/2013/JCC 3 OPENING PRAYER
No	**Key Issues**
	Meeting was called to order at 10:00 am by the Chair Mr. Paul Mafabi. He invited Ms. Norah Namakambo to lead us in an opening prayer and thereafter all the members around made self introduction with an aim of knowing each other.
	MIN 3/2013/JCC3 COMMUNICATION FROM THE CHAIR

A	In his opening remarks the chairperson welcomed all the members for their turning up for the meeting despite their busy schedules and appreciated the support from the Government of Japan through JICA and the involvement of Local Governments in project implementation. He sent his apology for failure to conduct the meeting last week due to circumstances beyond his control. The chairperson called for evaluation of the first phase of the project implementation especially handling issues that influenced its implementation. He asked members to mention the challenges and achievements realised so far in the course of project implementation. He said the meeting was also aiming at enhancing capacity of Local Governments and other stakeholders in Environment protection He reiterated that local governments as project implementers needed to take the next implementation stage very serious but with technical support for the ministry of water and environment. The chairperson emphasized the need to look at the collected information and how it could be used in the project implementation. Another issue to look at was the project's Ownership by the community. Members in the meeting wanted to know whether there is full involvement of communities where the project is managed and they also wanted to know whether the tool for information collection had been established. The chairperson inquired whether the baseline information survey concerning ecological as well as impact assessment of the project and its effects on socio economic wellbeing of the communities had been put into consideration especially in Namatala. Members were also concerned about the provisions of the legal framework by other stakeholders such as NEMA, NFA etc. That has direct impact in the project implementation processes. The chairman looked forward to other stakeholders to guide in project implementation especially on policy matters, and concluded by thanking the members for their action and wished them fruitful deliberations.
B	**JICA REPRESENTATIVE PRESENTATION:** The JICA representative expressed great pleasure and privilege for having participated in this joint coordination committee meeting that constituted a project milestone of the National Wetland management project. He thanked members for their participation amidst their busy schedules. He also thanked the Ministry officials especially the Permanent Secretary and the Director of Environmental Affairs in the Ministry of Water and Environment for their continued committement in the implementation of the project in its first phase. He said that without their support it could not have been easy to implement the first phase of the project. The JICA representative expressed his gratitude for the successful results accomplished in the 1st phase of the project. He informed members that it was the last JCC meeting of the first phase of the project implementation. He further informed them that it was a very important milestone where we needed to review the project plan and identify any problem in the project schedule before proceeding to the second phase. Members were informed that the task completion report from the wetland Management Department showed that major tasks were successfully carried out during the 1st phase of the project. He was delighted to know that the National wetlands Information system {NWIS} is now operational and accessible through internet. He was impressed by the department which considered the aspect of the project sustainability in redesigning the NWIS. The JCC representative was pleased to know that seven out of the eight sub- projects

	on the assessment were completed as was proposed by the department in the second JCC meeting convened in January 2013. He was informed that the remaining sub-project and the policy review is a continuous process to be pursued in the subsequent phase of the project through implementation of pilot activities. The JICA representative was informed that the Framework Management Plans for the two wetland systems were completed and the launching ceremony was scheduled to take place in the mid of November 2013. He appreciated the efforts and the committeemen exhibited by officers of the Wetland Department as well as the relevant district officials in assembling the visions and objectives among the diverse stakeholders in preparing the framework management plans. He was also grateful to know that Wetland Department had completed the training on the wetland information system for all the district officials nationwide. He was hopeful that the district offices all over the country are now able to access the information of NWIS. Mr. Hoshi recognised that there were several issues that had not yet been addressed in the project implementation processes. However he was satisfied with the accomplishments of the efforts of the staff of the Wetland Department. In his closing remark, he mentioned that the project had reached its mid-point amidst challenges. He however stated that there are enormous tasks to be talked ahead that calls for more committement by all stakeholders. He concluded by thanking the Ministry for hosting this JCC meeting and expressed his appreciation to all the participants who were present and wished them fruitful deliberations.

MIN 4/2013/JCC3 MINUTES OF THE PREVIOUS MEETING AND FOLLOW UP ACTIONS.

NO	Key Reactions
	Minutes of the previous meeting were approved as the correct document of what transpired in the 2nd JCC meeting held on 31st January 2013, after some corrections were made. **Matters arising from the previous minutes:** The chairman wanted to have information from Ministry of Finance regarding the budget provisions for the next Financial year. One of the members informed the meeting that the officer from Ministry of finance had apologised for not attending the meeting due to some other activities she was finalising upcountry. **Recommendation:** He expressed his concern as being the challenge of the limited budgetary allocation to all people concerned with the project implementation. Arising out of that the meeting recommended as follows; a) JICA to link up with Ministry of Finance Planning and Economic Development MFPED to streamline the issue of budgetary allocation so as to handle effectively the business in wetland Management Department. b) The budget should also focus on counterpart financing clearly shown in the financing agreement. c) Members recommended that since the project is to run for four years, and since JICA has done its supportive role, the government of Uganda should also commit it resources towards the project implementation. **Regarding World Bank Project.** Members inquired to know whether the rice production project funded by the world Bank areas of Amuria, Nwoya, Iganga, Palisa, Soroti, Hoima, Serere, Bugiri, Tororo and Butaleja were not encroaching on wetland. Members observed that the Directorate of Water Department be invited to form part of the JCC because of its hydrological concerns. The officer from MAAIF clarified that

	the study will be carried out in areas of rice production with the possibility of helping the communities to grow rice without affecting the wetlands. He also informed members that the World Bank requirements be studied and emphasized because they value environment conservation greatly and that World Bank cannot fund any project which is not environment friendly. Members wanted to know whether communities in Local Governments are supportive to the project/JICA representative said that some participants were not cooperative at the start e.g. Mbale district but however later they showed willingness to cooperate when sub-county leaders sensitised them. Members further inquired whether district development plans included support of wetland management plan and whether district community development officers were involved at district level. **Resolutions:** ➢ In the next meeting action progress report should accompany the minutes. ➢ Institutional involvement by including Community Development officers. **Clarifications and updates from the JICA Team Leader;** ➢ JICA representative clarified that the first JCC meeting was to seek for political support in the districts. ➢ Several activities were conducted including conducting a pilot project, wetland assessment etc. ➢ Health sector has also been incorporated to help provide information to help in the project. ➢ Information on wetland maps has also been obtained and website established e.g. lake kyoga and Doho Namatala. ➢ The project provided GPS with camera, computers and modems to 20 districts and data can now be accessed by these districts at any time. ➢ The website through NWIS has been set to help people access information and the methodology of assessment on eco systems can be found on that website.

MIN 5/2013/JCC3 OVERVIEW AND PRESENTATION OF THE PROGRSS REPORT

No	Key Issues and Comments	Action
A	The Project Deputy Team Leader presented the Task Completion report which detailed the four chapters; Chapter 1 comprised of the project background, Chapter 2 summarised the major accomplishments within the first phase. Chapter 3 presented key issues of the project and lastly Chapter 4 identified the activities in the second phase of the project. The detailed report booklet was presented to all members who attended the 3rd Joint coordination committee (JCC) meeting on the 6th November 2013.	

MIN 6/2013/JCC3 OPEN FORUM

No	Issues /Comments discussed	Action
A	During the general discussion members wanted to know from the JICA representative, the extent of community based organisations involvement initiatives in the project implementation and whether they can be supported. Also members wanted to know whether the Directorate of Water Development (DWD) management is involved to identify water catchment areas. Members suggested that there is need to increase membership of JCC to include a focal person for gender. Members observed that there is a need to control soil erosion towards	

	Doho – Namatala and Bukedea District to protect water catchments. Members wanted to first address the reason why people are encroaching on wetlands majorly for livelihood. **Clarification** The JICA deputy team leader clarified that the information on integrated data is available and will be circulated to key stakeholders involved in the project implementation process. Regarding the soil erosion concern, he explained that pilot projects included management intervention for controlling soil erosion in Bududa and Manafwa in Doho-Namatala and Sironko and Bukedea in Awoja Wetland systems. Members further inquired if wetland staff were adequately trained on the application of the NWIS tool for information gathering and wondered whether there is any plan for training them. **JICA Team leader s response** The project deputy team leader informed members that in the month of September and October 2013 training was done initially for the wetland department staff and thereafter for the district officers nation-wide. Members were concerned to know whether the project goal and objectives was clearly shown to the people and whether their knowledge, skills and attitude turned positive towards project implementation, involvement and ownership. Members suggested that there is need to come out with a strategy at community based management level to sustain the wetlands. They also wanted to know whether the stakeholders such as Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), National Environment and Management Authority (NEMA) are involved in using National Wetlands Information System (NWIS). **Recommendations** After the lengthy discussion members came out with the following recommendations: ➢ That the scope of the current project be widened to include more stake holders i.e. Ministry of Gender Labor and Social Development (MGLSD), Ministry of Local Government (MoLG) etc. ➢ There is need to monitor and evaluate the information on the website to know who to access it and for what reason. ➢ There is need to get an independent review of the project different from the staff by involving an independent consultant. On this note JICA explained that the department staff can ably handle the exercise. ➢ The relevant ministries to initiate other projects to sustain livelihood so that people are diverted from using wetlands for cultivation. ➢ Government of the Republic of Uganda through relevant inter-ministerial committees and JICA be contacted to provide resources to sensitize the people on dangers of wetland encroachments since MAAIF has limited resources to handle the tasks. ➢ The wetland management project implementation requires multi-sectoral approach. **Clarification from JICA Team Leader** The deputy team leader explained that efforts have been done to involve other multi-sectoral areas such as MoLG, NEMA, MAAIF etc. and that he looked forward for concerted effort to have the project	JICA JICA & WMD JICA JICA Government of Uganda Government of Uganda JICA members JCC members

	implemented successfully. He reiterated that the citizens of Uganda should take the lead at both levels national and local to ensure wetlands are protected against any destruction.	

MIN 7/2013/JCC3 CLOSING REMARKS

The chairman concluded by thanking the technical team for their fruitful deliberations and looked forward to the smooth implementation of the project and wished the participants a Merry Christmas and a Prosperous New 2014. Having no any other business, the meeting was closed at exactly 1:00 PM.

MINUTES OF THE 4th JOINT COORDINATION COMMITTEE MEETING (JCC) ON NATIONAL WETLANDS MANAGEMENT PROJECT HELD ON THE 19TH MARCH 2014 10:15AM IN THE CONFERENCE ROOM AT FAIR WAY HOTEL.

MEMBERS PRESENT

1. Mr. Paul Mafabi	Director, DEA-MWE (Chairman)
2. Mr. Hirofumi Hoshi	Chief Representative (JICA, Uganda Office)
3. Ms. Lucy Iyango	Assistant Commissioner/WMD
4. Mr. Yasuhiko Muramatsu	Deputy Team Leader, JICA TAT
5. Mrs. Eva Kyobe	Programme officer (JICA, Uganda Office)
6. Mr. Nabasa Herbert	District Support officer (NEMA)
7. Mrs. Muhenda Jane M	Secretary JICA /CTII Project
8. Mr. Ekadu Silas	Senior Engineer (MAAIF)
9. Ms. Eva Lwanga	Senior Hydrologist (MWE)
10. Mrs. Angella Rwabutomize Matsiko	Senior Economist (MFPED)
11. Mr. Kizito Simon	Senior Inspector (MOLG)
12. Ms. Florence Grace Adongo	Commissioner (WOM) DWRM/MWE
13. Ms. Emi Sunohara	Representative (JICA)
14. Ms. Imalingat Agnes Nyangan	Analyst (DWRM)
15. Ms. Riai Yamashita	JICA, TAT

ABSENT WITH APOLOGY

Mr. David O. Obong	Permanent Secretary (MWE)

AGENDA

Opening prayer and self introductions

Opening Remarks

Chairman

JICA Representative

Minutes of the previous meeting and follow up actions

Overview and presentation of the Work plan

Closing Remarks and Adjournment of the meeting

MIN 1/2014/JCC 4: OPENING PRAYER AND SELF INTORDUCTIONS

The Chairperson called the meeting to order at 10:15 and welcomed members to the meeting and the Chief Representative of Japan International Cooperation Agency {JICA}. He invited the Team Leader National Wetland Management Project Mr.

Yasuhiko Muramatsu to lead the opening prayer which was followed by self introductions of the members.

MIN 2/2014/JCC4: COMMUNICATION FROM THE CHAIR

The Chairperson welcomed members to the meeting and thanked them for finding time to attend despite their busy schedules. He apologised for the absence of the Permanent Secretary who was supposed to chair this 4th Joint coordination committee meeting but in vain due to other un avoidable official duties

He appreciated the support from Government of Japan through Japan International Cooperation Agency {JICA} and the continued involvement of Local Government in the project implementation. He was pleased by the commendable work that has been done so far on the project implementation.

The chairperson informed members that around mid April 2014 or on an agreed date, an arrangement would be made for the JICA Chief Representative to pay a curtsey visit to the Permanent Secretary Ministry of Water and Environment to brief him on the progress of the implementation of the project and also discuss on other emerging issues that require the attention of the Permanent Secretary.

The chairperson informed members that the project had made considerable progress to be appreciated by the members in that meeting, considering all challenges that were faced in the first phase of the project implementation.

The Chairperson requested members to use that forum to discuss the work plan of the 2nd phase for the implementation of the project. Given the short time remaining for the project implantation, members were urged to expedite the planning process to ensure the smooth implementation of the remaining part of the project.

On behalf of the Ministry the chairperson regretted the incident that happened on 22nd Jan 2014 during the launch of the Framework Management Plan of Doho – Namatala wetland Management System. He gave a brief explanation of what transpired in Mbale where the community around Doho- Namatala wetland area violently attacked the project launching team of key stakeholders headed by the Minister of State for Environment Hon. Flavia Munaba.

That community mistook the project launching team to be investors who had gone to grab their land.

He informed members that the Government at the cabinet level is discussing a paper intended to cancel all land titles issued within the wetlands in the country.

In his concluding remarks the chairperson once again extended his sincere thanks to the Government of Japan through Japan International Cooperation Agency {JICA} for the support provided to the Ugandan Government through the project both in form of technical assistance and financial support.

He was grateful for the visit of Dr. Hasegawa to him two weeks ago and for a fruitful discussion the two held concerning the project progress review which will be held later this year.

In their discussion they debated on the possibility of calling for a symposium on wetland management for Africa similar to that of Asia wetland symposium that is held once every three years.

He further said that they are in the process of preparing a concept paper which would be shared with Ramsar secretariat and JICA to go through so as to mobilize for funds to support the symposium and to participate in the RAMSAR convention which is to take place in Uruguay next year.

He noted that it is relevant for the project to share some of the lessons learnt through this process with other African courtiers. There after he invited the JICA representative for the presentation

a. JICA Representative Presentation

The JICA representative in his communication expressed great pleasure and privilege for being once again part of important Joint Coordination Committee (JCC) meeting that constituted a project milestone of the National Wetland Management Project. On behalf of Japan International Cooperation Agency (JICA) the JICA representative thanked all members for taking time to be part of the meeting amidst their busy schedules and offering their contribution to the successful implementation of the project.

He communicated the following:

Thanked the Ministry of Water and Environment particularly the Permanent Secretary and the Director of Environmental Affairs for their continued commitment of playing a decisive role in implementing the project. That without their enthusiasm and passion, the project could not have reached this point with the major deliverables.

He celebrated the successful project results accomplished during the first phase.

Informed members that the 4th JCC meeting was to mark the beginning of the second phase; and as we prepare for the mid- term review and proceed to the second phase we needed to re-visit our project plan and identify pertinent issues and challenges to the project.

He appreciated the efforts and commitment of the Wetland Management Department and that of the relevant district officers in implementing the project.

He congratulated them upon the achievements made within the first phase and for the successfully carrying out majority of the tasks. He was also glad to know that the second phase had commenced and is proceeding as scheduled.

He was delighted to know that the National wetlands Information system {NWIS} was now operational and accessible through internet and that it would be tested on its operationalization and functionality at the various districts. He was further grateful to know that the Wetland Management Department has completed training of district officers nationwide on the National Wetland Information System. He therefore believed that the district officers all over the country are now able to access information from National Wetland Information System using the relevant equipments received under the project.

He urged the various ministries to access the National Wetland Information System (NWIS) and identify gaps in the system for improvement during the project phase.

He was happy to note that the Wetland Department had completed the training on the National Wetland Information System for Wetland Management Department and project implementation

In concluding his remarks, the JICA, Uganda Country Representative acknowledged that the project had managed to attain a lot of progress despite experiencing some challenges. He however reiterated the fact that enormous tasks remained, calling for more commitment by all stakeholders. He then thanked the Ministry for hosting the JCC meeting and expressed his appreciation to all the participants who were present and wished them fruitful deliberations.

Issues arising from the communication

MIN 3/2014/JCC4: MINUTES OF THE PREVIOUS MEETING AND FOLLOW UP ACTIONS

Minutes of the 3rd JCC meeting held on 6th November 2013 were confirmed as a true record of what transpired.

MIN 4/2013/JCC34: OVERVIEW AND PRESENTATION OF THE WORKPLAN

The Project Team Leader presented the National Wetland Management project work Plan phase II report. The framework of his work plans divided in three chapters; the first chapter identifies the key tasks to be performed highlighting the overview of the activities, Description of activities and other important events. The second chapter presents the project time line showing the schedule of the activities and the mobilisation plan while the third chapter presents the project reports and key deliverables.

MIN 5/2013/JCC4: OPEN FORUM

Matters arising from the open discussion:

- Members inquired to know whether these project activities are catered for in the next year's Ministry budget.
- Members were concerned of the missing budget in the project work plan. The team leader clarified that some emerging issues in the course of the project implementation will have to be funded by the Uganda Government.
- Members wanted to know what those emerging issues are and they wanted to know whether their funding gaps would not affect the project implementation. The project team leader promised to discuss case by case with other JICA Members and in order to establish whether the funding can be secured.
- Participants were interested to know whether the Directorate of water management plan would not conflict with that one of the Ministry of Water and Environment since all are targeting the same wetland areas.
- The team leader responded by saying that wetland project management is more interested in supporting activities that will protect river banks and tree planting.
- A member asked whether the remaining project areas will not attract a similar violence like that one of Mbale on Doho- Namatala wetland system and they wanted to know if there are other emerging risks and how they can be mitigated.
- The chairperson said that to mitigate risks of violence there is a need to involve political leaders and sociologists to talk the people to own the project. In addition to that the team leader also clarified that the Mbale Kamonkoli communities needed to have a pilot project first to enable them accept it. Violence came in as a result of lack of sensitisation and the community approached the project team with a lot of fear and suspicion.

Resolutions arising from discussion

- ✓ Commissioner of water management zone to work with commissioner wetland management and come out with a harmonised stand regarding the project implementation to avoid role conflict.
- ✓ Local communities be involved in project implementation in every sub county.

- ✓ The project team leader however said that communities will be involved at pilot level involving sub county chiefs and Parish chiefs but not all communities because they seem to be expecting a lot than what the project can handle.
- ✓ Priority environmental activities at parish, sub county and district level be integrated in a bigger national wetland management frame work plan.
- ✓ A team comprised of commissioner for water management and commissioner for wetland management should study the plan and come out with a list of activities which are done in areas of Manafwa and Mbale and thereafter the terms of reference on what they should do be exactly drawn out.
- ✓ There is need to clarify on the time frame since consultancy services are given four years and the project is to run for five years.
- ✓ The team leader emphasized on the urgent step needed to do irrigation by the government so that people destroying wetlands can have the alternative water source.
- ✓ There is need to do a midterm review to evaluate the project implementation.

MIN 6/2013/JCC4 CLOSING REMARKS

After a lengthy deliberation a member moved the motion seeking to approve the project work plan, the members agreed anonymously to approve the project work plan as presented by the team leader of the project. The Chairperson thanked all the members together with the team leader for their fruitful discussion and wished them the glad tidings of Easter season.

There being no other business the meeting was adjourned at 1:00 p.m.

No	Action Point	Action By
1	Commissioner Water Management together with Commissioner Wetland Management work hand in hand to harmonise stand regarding the project implementation to avoid role conflict	WMD,
2	Local communities be involved in project implementation in every sub county	JICA/Local Governments
3	Priority environmental activities at parish , sub county and district level be integrated in a bigger national wetland management framework management plan	JICA/WMD
4	Need by the government to do irrigation so that people destroying wetlands can have an alternative source of water	Ministry of Water and Environment Inter-Ministerial Committees and JICA
5	There is need to do midterm review to evaluate the project implementation	JICA/ WMD

MINUTES OF THE 5th JOINT COORDINATION COMMITTEE MEETING (JCC) ON NATIONAL WETLANDS MANAGEMENT PROJECT HELD ON THE 19TH JUNE 2014 10:15AM IN THE CONFERENCE ROOM AT FAIR WAY HOTEL.

MEMBERS PRESENT

1.	Mr. Paul Mafabi	Director, Directorate of Environmental Affair, Ministry of Water and Environment, Chairman
2.	Ms. Lucy Iyango	Assistant Commissioner, Wetland Management Department, Ministry of Water and Environment
3.	Mr. Byanguye Moses	Senior Inspector, Ministry of Local Government
4.	Mr. Nabasa Herbert	District Support officer, National Environmental Management Authority
5.	Ms. Eva Lwanga	Senior Hydrologist, Ministry of Water and Environment
6.	Mr. Ekadu Silas	Senior Engineer, Ministry of Agriculture, Animal Industry and Fisheries
7.	Mr. Oloya Collins	Commissioner, Wetland Management Department, Ministry of Water and Environment
8.	Mr. Kyambadde Richard	Senior Wetland Officer-Research and Development, Ministry of Water and Environment
9.	Mr. Gokaka Geoffrey	Wetland Officer, Ministry of Water and Environment
10.	Eng. Ronald Kato Kayizi	Principle Agricultural Officer, Irrigation and Drainage, Ministry of Agriculture, Animal Industry and Fisheries
11.	Mr. Hirohito Takata	Team Leader of the monitoring mission, Director, Forestry and Nature conservation Division 2, Japan International Cooperation Agency, Tokyo
12.	Mr. Motohiro Hasegawa	Senior Advisor, JICA Tokyo
13.	Mr. Naoki Tanaka	Planning and Coordinator, JICA Tokyo
14.	Ms. Emi Sunohara	Representative, JICA Uganda
15.	Ms. Eva Kyobe K	Programme officer, JICA Uganda
16.	Mr. Yusuke Haneishi	Planning Advisor to Ministry of Agriculture, Animal Industry and Fisheries, JICA
17.	Mr. Yasuhiko Muramatsu	Team Leader, JICA Team
18.	Mr. Hiroyoshi Chujo	Ecosystem Survey Expert, JICA Team
19.	Mr. Koichi Hasegawa	GIS/Database, JICA Team
20.	Mr. Hiroshi Narusawa	Livelihood Improvement/Coordinator, JICA Team
21.	Ms. Muhenda Jane M	Secretary JICA team

ABSENT WITH APOLOGY

Mr. David O. Obong	Permanent Secretary, Ministry of Water and Environment
Ms. Florence Grace Adongo	Commissioner, Water Quality Management Department, Ministry of Water and Environment

AGENDA

1. Adoption of Agenda
2. Opening prayer and self-introductions
3. Opening Remarks
    a. Chairman
    b. JICA Representative
4. Review of Minutes of the previous meeting and follow up actions
5. Presentation of the Mid- term Monitoring
6. Open Forum
7. Closing Remarks and Adjournment of the meeting

MIN 1/2014/JCC 5: ADOPTION OF THE AGENDA, OPENING PRAYER AND SELF-INTRODUCTIONS.

The Chairman called the meeting to order at 10:15 and he then welcomed members to the meeting at 10:15 and invited the Team Leader National Wetland Management Project Mr. Yasuhiko Muramatsu to lead the opening prayer which was followed by self-introductions of the members.

MIN 2/2014/JCC5: COMMUNICATION FROM THE CHAIR.

(a) Remarks by the Director of Environmental Affairs

In his opening remarks, the Chairman thanked members for finding time to attend the meeting despite their busy schedules. He apologised for the absence of the Permanent Secretary who was supposed to chair this 5th Joint Coordination Committee meeting but could not due to other official duties.

He then extended his sincere thanks to the Government of Japan for the support to the wetlands management project through Japan International Cooperation Agency (JICA). He requested the team leader of the JICA monitoring mission to extend his appreciation to the Government of Japan for her technical assistance and financial support. The chairman also appreciated the role played by the Joint Coordination Committee specifically the strategic guidance provided in the project monitoring.

Salient issues to note:

The chairman requested members in their deliberations to consider salient issues such as project sustainability, counterpart funding, possibility of project extension and collaboration between Ministry of Agriculture and Animal Industry and Ministry of Water and Environment in the project implementation process.

In his concluding remarks, the chairman thanked the Team Leader National Wetland

Management Project Mr. Muramatsu and the project technical team for their efforts and input which is reflected in timely execution of planed output. He then invited Mr. Takata from JICA Headquarter in Tokyo to make his remarks.

(b) JICA Representative Remarks

The JICA representative in his communication expressed great pleasure and privilege in participating in the 5th JCC meeting, a key milestone of the National Wetland Management Project. On behalf of JICA, the representative expressed their appreciation to all members of the JCC for their contributions towards the successful implementation of the National wetland Management Project.

He appreciated the efforts of the Ministry of Water and Environment, particularly the Permanent Secretary and the Director, Environment Affairs, for their continued support and commitment towards the timely implementation of the project. He further commended the technical counterparts from the Wetland Management Department and the Local Government Officers for their enthusiastic and diligent participation in implementing the Project.

Informed members that in the last couple of days, JICA in collaboration with Ministry of Water and Environment and selected Local Governments had participated in the mid-term monitoring of the project in the Awoja and Doho - Namatala Systems to assess the project progress, identify issues and challenges to the project. He further informed members that the 5th JCC meeting would discuss the progress of the project and the emerging issues from the mid-term monitoring process.

He congratulated the project team on the achievements made within the first phase of the project and hoped that the second phase would proceed as scheduled. Members were informed that the project was now preparing for the 4th output involving the development of the Community Based Wetlands Management Plans which would inform the selected pilot activities.

Members were informed that the Government of Japan through Japan International Cooperation JICA would provide assistance to Government of Uganda through the Ministry of Agriculture, Animal Industry and Fisheries to implement a project on Rice Irrigation Scheme development in Central and Eastern Uganda. He also indicated that potential sites of this project may be in the National Wetlands Management Project area and therefore required strong cooperation and coordination between the two projects stakeholders since interference is anticipated to avoid negative impacts on the involvements made by the National Wetlands Projects. He informed to members that the past phase of the project had been successful although with some challenges which should be jointly tackled in the next phase through continued cooperation and dialogue to ensure the fulfilment of the project goal.

He concluded by informing members that Japan International Cooperation Agency (JICA) was glad to be part of Uganda's development efforts and was looking forward to continually working together with the Ministry of Water and Environment.

He thanked the Ministry of Water and Environment (MWE) for hosting the 5th Joint Coordination Committee meeting and once again expressed his appreciation to all participants who were present and wished them fruitful deliberations.

MIN 3/2014/JCC5: MINUTES OF THE PREVIOUS MEETING AND FOLLOW UP ACTIONS

Minutes of the 4th JCC meeting held on 19th March 2014 were read, reviewed and confirmed as a true record of what transpired during the deliberations.

Matters arising from the previous minutes:

Members sought clarification from the two Commissioners of Water Resource Regulations and Planning and Wetlands Management Department on the harmonisation and collaboration between the two departments regarding the wetland project and the catchment management zone activities. The Commissioner of Wetland Management Department informed that the two departments were working closely and complemented each other in the process of project implementation and execution of catchment management zone activities.

The National Wetlands Management Project Team Leader clarified that collaboration from the two departments already existed, and hoped that it would continue for the smooth implementation of the project.

Resolution:

The meeting resolved that the two Commissioners prepare a report to the Joint Coordination Committee members about the collaboration and the role of each department in the project processes and give feed back to the next JCC meeting.

(a) Involvement of the Local Governments:

Members sought clarification on whether the local Governments were involved in the process of the project implementation. In his response to the members the Team Leader of the project clarified that already the District officials have been involved in the information exchange.

In addition, the Technical staff and local council leaders of 124 sub-counties were involved during the preparation of the Sub county Wetland Management Action Plans (SWAPS).

(b) Irrigation

Members were updated that the Joint Coordination Committee was going on with its work but they needed to co-opt the Director of Water Resource Regulations and Planning and the Director, Environment Affairs.

It was observed that there is need for the Ministry of Water and Environment (MWE) to designate the counterpart members to be part of the scheduled Joint Coordination Committee meeting for the Rice Irrigation Scheme Development Project.

MIN 4/2014/JCC5: PRESENTATION OF THE OVERALL PROJECT PROGRESS REPORT

The Project Team Leader National Wetland Management project, presented the overall project progress report jointly with the three other Wetland Department technical staff namely Mr. Kyambadde Richard Senior wetland officer Research

(SWO/R), Mr. Gokaka (Geoffrey, Wetland Officer(WO) and Ms. Iyango Lucy, Assistant Commissioner Wetland Department highlighting the key five project outputs as follows;

Output 1: National Wetland Information System is upgraded and functional

Output 2: Scientific information on target wetland systems is available

Output 3: Wetland management plans are prepared

Output 4: Pilot activities for wise use of wetlands are implemented based on wetland management plans

Output 5: Wetland management officers' capacity is strengthened

MIN 5/2014/JCC5: PRESENTATION ON THE MID – TERM MONITORING

The Eight Japanese experts of JICA Project Monitoring Team represented by Mr. Hasegawa presented a summary of the monitoring activity for the National Wetland Management Project (NWMP). The summary focused on the following areas of expertise; Wetland Management/Governance, Watershed Management, Eco-system conservation, Community development, Local Governance, Livelihood improvement, Environmental economics and Database/GIS.

Six Japanese experts were assigned to undertake the activities during phase 2 of the project implementation. Their expertise were 1) Wetland Management/Governance, 2) Ecosystem Conservation, 3) Community Development I, 4) Community Development II/Local Governance, 5) Livelihood Improvement/Coordinator and 6) Database/GIS. On the other hand, the Wetlands Management Department mobilized nine officers in the 1) Planning and 2) Research and Development.

Logistical support and capacity building;

The report highlighted the equipment provided to Ugandan Government by the Government of Japan at Wetland Management Department and the 20 Project Districts that participated in the phase 1 of the project implementation. Equipment including Vehicles, Desktop computers, Laptop computers, Printers, Global Positioning System with cameras, Stabilizers, internet modems, National Wetlands Information System software and for technical training in Japan for Ugandan selected project staff has been done.

The report provided details on project progress activities, Achievements on Outputs, Achievements on the project purpose, changes of risks and actions for mitigation, progress of actions undertaken by JICA, Progress of actions undertaken by Government of Uganda, Progress of environmental and social considerations, Progress of considerations on Gender/Peace building/Poverty reduction and other related factors affecting the project such as JICA's projects, activities of counterparts, other donors, private sectors, and NGOs.

Further the report presented the modification of the project design document (PDM). The summary of the modification is as follows:

In the previous PDM, activities for preparation of SWAPs were not itemized; though they were prerequisites for DWAPs preparation. Thus the phrasing of activities for Sub-county Wetland Action Plans were clarified and modified.

Activity 3.6 Develop Sub-county Wetland Action Plans with support from parish representatives.

Activity 3.9 Review and update Wetland System Management Plans, District Wetland Action Plans and Sub-county Wetland Action Plans

The activities for support of pilot project had been narrowly defined as training. However it was modified to broaden the scope of support as follows.

Activity 4.5 Support the communities in implementing the Pilot Projects.

Performance indicators for Output 5 on Nation-wide training were clarified and modified.

- At least 50% of the district officers in charge of wetland management over the country can understand and can use the wetland management manual.

Indicator of Project Purpose was rephrased to make it practical.

- Ecological character of the pilot sites shows no changes or improvement in pilot sites based on the ecological monitoring plans of each site.

MIN 6/2014/JCC5: OPEN FORUM

Matters arising from the open discussion:

- Members inquired on the exact duration and when it winding up.
- Members were appreciative of equipment provided by JICA, software with the related gadgets, but wanted to know their life span after the winding up of the project. It was not also clear from members whether the districts' plans and budgets would provide for the gadget's maintenance.
- On the assets life span the team leader informed members that computers and UPSs life span is 5-6 years and thereafter can be replaced.
- Regarding project areas where clashes had been experienced and the misreporting by the media, members wondered whether the media chose to go with anybody they wished and report anything they felt like reporting.
- On the media misrepresentation, the team leader clarified that apart from reporting the correct date for the project framework management plan launching ceremony of Doho-Namatala wetland system the rest of the reported information was wrong.
- Members were urged to reignite harmony between the project team leaders and the community around Doho–Namatala area, the Mbale District chairperson convened a meeting and apologised to the minister of Environment on behalf of the chaotic community for their grave misconduct after being misguided by the people with selfish motives.

Summary of Presentation from the Senior Advisor (JICA HQ)

The Senior Advisor JICA presented a report on the project sustainability and monitoring. The following were the salient issues.

He emphasised rice irrigation scheme development would enhance conservation of

water resources; pinpointed the need to integrate agriculture and environmental sectors more specifically wetlands management through open forum to harmonise development with conservation. This harmonization process should be rendered both by the government and the communities. He further suggested enhanced use of NWIS in the project implementation process through a formal manner.

He recognized the need to organise a regional symposium in Asia and Africa to enhance rice growing studies; and suggested a resolution by Africa on rice studies by year 2018 to be proposed.

He further requested the project team together with the Wetland Management Department present a proposal in the next Joint Coordination Committee meeting so as to enable members guide them on what should be included in the project extension; recognized the need for series of joint workshops and dialogues necessary for this project to all those communities using the wetland and National level.

He suggested that JICA together with Ministry of Water and Environment (MWE) monitor the progress of the project regularly i.e. every 6 months.

He concluded his report by emphasising the needs for exerting synergistic effects though collaboration between the Wetlands Management Department and the Ministry of Agriculture ,Animal Industry and Fisheries.

MIN 6/2014/JCC5 CLOSING REMARKS

In his closing remarks, the chairman thanked the technical team together with the team from JICA Headquarters for the guidance provided towards the project implementation. He wished the JICA monitoring team safe journey.

There being no other business for discussion the meeting was adjourned at 1:30 p.m.

Following action points will be presented and discussed during the next Joint Coordination Committee meeting.

No	Action Point	Action By	Status
1	JICA together with Ministry of Water and Environment (MWE) monitor the progress of the project regularly i.e. every 6 months.	MWE and JICA	After the last JCC in June, JICA sent Dr. Motohiro Hasegwa to participate in the workshop on 17th October for harmonization between wetlands and rice projects.
2	Need to harmonise rice growing project and wetland management by the government and the communities	JICA/Local Governments	The workshop convened on 17th October was the first coordination meeting between the two projects. It is expected to become a periodic meeting to ensure wetland – rice issues are adequately managed and addressed in a timely manner. Further harmonization activities will be proposed and implemented throughout the projects implementation.
3	A proposal on the project extension to be presented to the next JCC.	JICA project Team/WMD	It was proposed in Chapter 3 of this report. The activities proposed would be refined and further detailed through progressive elaboration.
4	Need to merge agriculture sector and environmental sector with open forum to harmonise nature conservation.	Ministry of Water and Environment, MAAIF and JICA	The workshop convened on 17th October was the first coordination meeting between the two projects.
5	There is need to organise a regional symposium in Asia and Africa to enhance rice growing studies.	JICA/ WMD	The issue was discussed and generally agreed to convene such meeting. It is presented in Chapter 3 of the report.

MINUTES OF THE 6th JOINT COORDINATION COMMITTEE MEETING (JCC) ON THE NATIONAL WETLANDS MANAGEMENT PROJECT, HELD ON THE 19TH NOVEMBER 2014 ATFAIR WAY HOTEL, KAMPALA

JCC MEMBERS PRESENT

1.	Mr. Paul Mafabi	Director, DEA-MWE (Chairman)
2.	Mr. Yasuhiko Muramatsu	Team Leader, JICA TAT
3.	Ms. Eva Kyobe K	Programme officer (JICA, Uganda Office)
4.	Mr. Nabasa Herbert	District Support Officer (NEMA)
5.	Ms. Eva Lwanga	Principal Hydrologist (MWE)
6.	Ms. Florence Grace Adongo	Commissioner (WQM) DWRM/MWE
7.	Ms. Angella Rwabutomize Matsiko	Principal Economist (Ministry of Finance Planning and Economic Development (MOFPED)
8.	Ms. Imalingat Agnes	Analyst-Water Quality Mgt Department
9.	Ms. Charity Rutaremwa	Asst. Commissioner (MGLSD)
10.	Mr. Atim Joel	Senior Inspector (MOLG)
11.	Mr. Kyosuke Kawazumi	Chief Representative JICA Uganda
12.	Mr. Yasumichi Araki	Senior Representative JICA Uganda

MEMBERS IN-ATTENDANCE

1)	Mr. Narusawa Hiroshi	JICA/TAT Wetland Project
2)	Mrs. Muhenda Jane M	Secretary JICA /CTII Project/Recording
3)	Mr. Kasaga Wegishi	PISD JICA Study Team
4)	Mr. Inoue Shigeru	Expert JICA/NWMP

ABSENT WITH APOLOGY

1.	Ms. Lucy Iyango	Assistant Commissioner Wetlands Management
2.	Ms. Norah Namakambo	Principal Wetlands Officer (MWE)
3.	Mr. Silas Ekadu	Senior Engineer (MAAIF)
4.	Mr. Oloya Collins	Commissioner Wetlands Management

AGENDA

1. Opening prayer, self introductions and adoption of the agenda
2. Opening Remarks
   a. Chairman
   b. JICA Representative
3. Review of Minutes of the previous meeting and follow up actions
4. Presentation of the Task Completion Report
5. Open Forum
6. Closing Remarks and Adjournment of the meeting

MIN 1/2014/JCC6: OPENING PRAYER, SELF INTRODUCTIONS AND ADOPTION OF THE AGENDA

The Chairman welcomed members to the meeting at 10:30am and invited a volunteer to lead in the opening prayer which was followed by self introductions by members. The Agenda was read to the members and was adopted as presented

MIN 2/2014/JCC6: Opening Remarks

(a) Chairman's Opening Remarks

- In his opening remarks, the Chairman warmly welcomed the members and thanked them for finding time to attend the meeting despite their busy schedules.
- He also warmly welcomed Mr. Kawazumi the new Chief Representative JICA Uganda Office to the 6th Joint Coordination Committee (JCC) meeting.
- He expressed his gratitude to the Government of Japan through the Chief Representative of Japan International Cooperation Agency (JICA) for the technical and financial support provided to the Ugandan Government through different programmes being implemented.
- The Chairman called for formation of synergies and modalities to achieve the objectives of this project, and to be mindful of other economic projects already taking place such as the irrigation rice scheme project and other projects of high economic values that have strong impact on the economic development of the country.
- Regarding counterpart funding the Chairman called for the need for innovative ways to look for counterpart funding in order to ensure project sustainability. This strategy should be included in the budget if more financial resources are to be raised
- Looking at the two years left to end the project,
- The Chairman concluded his remarks with appreciation for the support of conditional grant given to the project Districts and thanked the Team Leader for the technical backstopping work and support supervision in the field. He also applauded the three trainings on wetland management planning so far achieved as well as the smooth progress of the project execution to date. He then invited the Chief Representative JICA Uganda Mr. Kyosuke Kawazumi to give his remarks.

(b) The Chief Representative JICA Uganda – remarks

- The Chief Representative JICA Uganda Mr. Kyosuke Kawazumi expressed his gratitude to participate in the 6th Joint Coordination Committee (JCC) meeting on behalf of Japan International Cooperation Agency (JICA).
- He expressed his heartfelt thanks to all members of JCC and other participants for honoring the invitation to the meeting and commended the Ministry of Water and Environment, for the continued support and commitment in the implementation of the project.
- Mr. Kyosuke Kawazumi informed members that JICA focuses on the following four priority areas in Uganda;

(1) Economic infrastructure,
(2) Agricultural development,
(3) Basic human needs and
(4) Northern Uganda reconstruction programme.

He informed members that through efforts of cooperation, JICA wishes to contribute to the development of Uganda, as envisioned by the "Uganda Vision 2040", the "National Development Plan", and the initiatives of Tokyo International Conference on African Development (TICAD).

He reminded members that, the National Wetlands Management Project had entered its next phase which involves the implementation of the selected pilot projects; on the other hand, the Project on Irrigation rice Scheme Development Project under the Ministry of Agriculture Animal Industry and Fisheries was conducting a feasibility phase and the potential irrigation sites are relatively within the National Wetlands Management Project geographical location. As such it is important that synergies and areas of collaboration between the two projects are identified in order to ensure effective implementation as well as balance between conservation and development.

In this same regard, the Chief Representative informed members that a symposium had been held between the Ministry of Agriculture Animal Industry and Fisheries (MAAIF) and Ministry of Water and Environment (MWE) in order to streamline collaboration. He hoped that the agreed action plan from the symposium would be implemented in line with wetland management principles and the wise use concept.

He further informed members that the Ministry of Foreign Affairs of Japan would publish an annual status report on Official Development Assistance, formally known as Japan's ODA White Paper in which the National Wetlands Management Project will be featured.

Once again he commended the Ministry of Water and Environment (MWE) for setting aside a budget to cater for the National Wetland Information System (NWIS) for the next one year, and hoped that this would follow for other project activities contributing to project continuity and sustainability both at national and district level.

Members were informed that so far 80% of the project activities had been successfully completed although, with some challenges.

He advised the Project Team to take on the remaining tasks with the same commitment and then concluded by once again appreciating the efforts and commitment of the Wetland Management Department, the Project Team and the Local Government district officers in implementing the project. He congratulated them upon the achievements and for successfully carrying out the majority of the tasks. HE then pledged JICA's commitment to cooperate with all stakeholders in ensuring that the project achieves its objectives.

He concluded his remarks by wishing all members fruitful deliberations.

MIN 3/2014/JCC6:MINUTES OF THE PREVIOUS MEETING AND FOLLOW UP ACTIONS

Minutes of the 5th JCC meeting held on 19th June 2014 were read, reviewed and confirmed as a true record of what transpired during the deliberations.

Matters arising from the previous minutes:

- Under the open forum members sought clarification on the exact period when the project is winding up. They were informed that the Project would wind up in two years time.
- It was recommended that future attendance list should specify members of JCC and others in attendance.

- It was recommended that the National Wetland Project and the Rice Irrigation Project ensure that their activities are harmonized.
- It was proposed that a six monthly Joint Project Evaluation and Monitoring of Japan international Cooperation Agency (JICA) and Ministry of Water and Environment (MWE) be conducted after JICA has confirmed its Head Quarter on the interval of monitoring period.
- The Commissioner Wetland Management was tasked to analyse the 2 policy documents and establish whether there are variances and/or harmony that needed members' attention.

MIN 4/2014/JCC6:PRESENTATION OF THE TASK COMPLETION REPORT

The Project Team Leader of the National Wetland Management Project then presented the Task Completion report which covered the period from January to December 2014 and comprised of four Chapters as follows;

Chapter one covered the Project background focusing the project description, project development objectives and performance indicators, the project sites and duration.

Chapter two focused on the tasks completed during the phase of the project. It was in this chapter that the project report indicated 81% complete as of 31st October 2014 as per the activities planned to be complete by the end of the project. The five major accomplishments summarized in task completion report included the following;

(a) Upgrading NWIS.
(b) Wetland resource assessment
(c) Preparing wetland management plans
(d) Implementing pilot activities and
(e) Strengthening institutional capacity

Chapter three of the report provided a summary of the five key issues and challenges of the project.

Chapter four gave an overview of the activities for the next phase, project reports, key deliverables and the mobilization plan.

MIN 6/2014/JCC6: OPEN FORUM

Matters arising from the open discussion:

- Members were concerned about the post 2016 period and the project sustainability, and raised the following questions;
  - How will the Integration of Sub County Wetland Management Plans (SWAPS) and the Districts and the Ministry of Local government development plans be harmonized?
  - Members also asked for clarification on the Sub-county Wetland Action Plan (SWAP) structures in sub counties. .
- Will the closure of the project at the end have an impact on SWAPs?
- Members urged JICA to work on few activities and complete them rather than spreading thin given the remaining two years to project completion.
- Members were informed that the overall goal of the project is to ensure wetlands are conserved and protected by assessing the progress of the project looking at the performance indicators and expected outputs.
- Members observed that the Wetland Management Project activities should also aim at changing people's attitudes and practices since extensive knowledge in form of trainings have been provided to them.
- Members also wanted to know whether Ministry of Local Government has a budget provision for implementing the SWAPs.
  - Members were informed that on the issue of sustainability of funding is there may be need to adjust resources internally; advantage should also be taken of the ongoing planning process which provides the opportunity to set priorities including budgeting for initiatives such as the National Wetland Management activities.
- Members were concerned that Ministry of Finance budget had as yet not integrated the National Wetland Management Project, this needs serious consideration.
  - He promised to follow up the matter of instituting as a sustainable funding mechanism in close consultation with the two governments of Japan and that of Uganda.
- Another concern raised was whether Community Development Officers had been involved in the development of SWAPs, as a way of promoting project ownership among recipient communities.
  - The Team Leader clarified that Community Development Officers had participated in the different workshops and the emphasis was given on sensitizing the communities to own the project.
  - In addition, the 5 years activity had started in areas around Bududa and Manafwa rivers and the project had been designed to ensure sustainability. In Manafwa district discussions and consultations had been made with cattle grazers for purposes of empowering them as well as creating ownership.

MIN 6/2014/JCC6: CLOSING REMARKS

The Chairman concluded the meeting and advised the project stakeholders to engage relevant institutions in the ministries and Ministry of Local Governments in particular in participatory planning and implementation of the project.

There being no other business the meeting was adjourned at 1:00 p.m.

SUMMARY OF ACTION POINTS

NO	ACTION POINT	ACTION BY	STATUS
1	Six months of the project joint evaluation and monitoring of Japan international Cooperation Agency (JICA) and Ministry of Water and Environment (MWE) be effected after JICA consulting its Head Quarter on the interval of monitoring period.	JICA Uganda and the JICA Headquarters	The next monitoring will take place in the latter part of June or the early July 2015. It will be conducted by the project team, the WMD and the JICA Project Team. Upon the completion of the monitoring, a JCC will be convened to discuss the evaluation.
2	The two ministries advised to collaborate harmoniously for the smooth project implementation process.	MAAIF/MWE	This is an on-going process which will be harnessed and strengthened as implementation rolls out.
3	The Commissioner Wetland Management tasked to Analyze the 2 policy documents and establish whether there are variances and/or harmony that needed members' attention.	MWE	Process is on-going and areas of discrepancy will be highlighted in the course of execution of both projects, which will all be guided by the Ramsar wise use principle on wetlands
4	Ministry of Local Government to set aside funds to contribute to implementation of Sub County Wetland Management Plans (SWAPS)	MWE/MoLG	**Report from MoLG**
5	Establish findings on how funding mechanism can be supported by the two governments i.e. Government of Japan and Government of Uganda.	Team Leader	Funding arrangement discussion is currently on-going. As the general strategy, the team initially identifies primary beneficiaries of specific project activities and coordinate and seek possible arrangement for co-funding with the prospective beneficiaries. In Pallisa District, the team discussed contribution by the district government for tree planting for those to indicate wetland boundary.

MINUTES OF THE 7TH JOINT COORDINATION COMMITTEE MEETING (JCC) ON THE NATIONAL WETLANDS MANAGEMENT PROJECT, HELD ON THE 6TH MAY 2015 ATFAIR WAY HOTEL, KAMPALA

JCC MEMBERS PRESENT

1. Mr. Yusuke Haneishi	Advisor /MAAIF
2. Ms. Lucy Iyango	Asst. Commissioner/Chairperson
3. Mr. Yasumichi Araki	Senior Representative JICA
4. Ms. Emi Sunohara	JICA representative
5. Mr. Yasuhiko Muramatsu	Team Leader, JICA TAT
6. Ms. Eva Kyobe N	Programme officer (JICA, Uganda Office)
7. Mr. Nabasa Herbert	District Support Officer (NEMA)
8. Ms. Eva Lwanga	Ag. Principal Hydrologist (MWE)
9. Mr. Obubu J. Peter	DWRM/MWE
10. Ms. Imalingat Agnes	Water Analyst Quality Mgt Department
11. Mr. Wetaya Paul	SCDO- MGLSD
12. Mr. Atim Joel	Senior Inspector (MOLG)

MEMBERS IN-ATTENDANCE

1. Eng. Ronald Kato Kayizi	Assistant Commissioner (MAAIF)
2. Ms. Riai Yamashita	JICA Team
3. Mr. Zenjiro Egawa	JICA Team
4. Mr. Kabaalu Deo	RWC –E/WMD/MWE
5. Mrs. Muhenda Jane M	Secretary JICA /CTII Project/Recording
6. Mr. Inoue Shigeru	Expert JICA/NWMP
7. Paul Oyella	Sen. Eng. MAAIF

ABSENT WITH APOLOGY

1. Mr. Oloya Collins	Commissioner Wetlands Management
2. Mr. Paul Mafabi	Director (DEA/MWE)

AGENDA

1. Opening prayer, self-introductions and adoption of the agenda
2. Opening Remarks
   a. Chairman
   b. JICA Representative
3. Review of Minutes of the previous meeting and follow up actions
4. Presentation of the Work Plan III
5. Open Forum
6. Closing Remarks and Adjournment of the meeting

MIN 1/2015/JCC7: OPENING PRAYER, SELF INTRODUCTIONS AND ADOPTION OF THE AGENDA

The Chairperson welcomed members and the meeting was called to order at 10:15am and invited a volunteer to lead in the opening prayer which was followed by self-introductions by members. The Agenda was adopted without amendment.

MIN 2/2015/JCC7: Opening Remarks

(c) Chairperson's Opening Remarks

In her opening remarks, the Chairperson warmly welcomed the members and thanked them for finding time to attend the meeting despite their busy schedules.

In a special way the chairperson welcomed Mr. Kyosuki the Senior Representative JICA Uganda Office to the 7th Joint Coordination Committee (JCC) meeting.

The chairperson looked at the following key issues that formed the discussion in the 7th Joint Coordination Committee (JCC) meeting.

Output 4: which looked at strengthening capacities of both at local community level, district level and National level. She also addressed the issue of strengthening capacities of Framework Management Plans implementation at different levels not to be just left in the shelves but put to use.

She informed members that in August 2015 two people from the Wetland Management Department will be traveling to undertake wetland management capacity development plan in Japan.

The chair person was concerned with the implication of the project implementation process where there is cancelling of land titles in wetlands.

She also brought to the attention the of members the implication of the president's directive of restoring wetlands and improvement of irrigation programmers where he showed concern on how most of the wetlands are being degraded

She stated that in the next one year members needed to be sure from the Team leader whether the physical outputs will be in place i.e. resource user guidelines, Manuals to guide different process and the National Wetland Information System (NWIS) manual which are expected to be used as a management guiding tools for the road map of the project.

The chairperson was concerned with the sustainability measures to be taken after the project exit.

She was also concern with how the project management by-laws are harmonized with present legislation

She informed participants that 8 delegates from Uganda will participate in the 12th conference of parties which is scheduled to take place in Uruguay from the 1st - 9th June 2015. 7 out of 8 delegates will come from the Ministry of Water and Environment MWE) and one from Ministry of Agriculture Animal Industry and Fisheries (MAAIF) to attend a relevant side event on the Rice Resolution.

She was pleased to inform members that so far the project is going on as scheduled and that looking at the progress made, capacity has been build and strengthened in the Wetland Management Department. And that she hoped that this capacity be translated into other projects but not to end with the JICA project

She also informed them that so far the project is moving on as planned, and happy to note that the synergies between MAAIF which is a member of advisory group and National Ramsar Convention committee is also being strengthened.

The chairperson said that members needed to harmonize the operations to avoid to duplication efforts of either party or that member should work within the government programme which is the National guiding plan of Vision 2040 to which all are activities are contributing to.

She concluded by thanking the Government of Japan for its initiative in providing technical and financial support to the Government of Uganda in as far as the implementation of the project is concerned. She finally called for participants to be candid to ensure the project is well concluded and invited the Senior Representative JICA (U) Mr. Yasumichi Araki to give his remarks.

(d) The Senior Representative JICA Uganda – remarks

The Chief Representative JICA Uganda Mr. Yasumichi Araki conveyed his sincere condolence to the Minister of Water and Environment upon the loss of his dear wife.

He expressed his heartfelt thanks to all members of JCC and other participants for their direct and indirect support in the implementation of the project. He thanked in a special way the Wetland Management Department (WMD) and the Project team, Ministry of Local Government (MoLG) and Ministry of Agriculture Animal Industry and Fisheries (MAAIF) for their cooperation and participation in the implementation of the project.

The JICA representative informed participants that the RAMSAR conference will be held in Uruguay and Ugandan delegates will attend. He looked forward that the joint activity plan between JICA and MAAIF will result into fruitful outcome

He concluded his remarks by wishing all members fruitful deliberations.

Matters arising from the chairperson's communication:

- For clear distinction between JCC members and other participants in a meeting, chairperson requested for self-introduction from the members who joined when the meeting had started.
- She continued requesting the secretariat to clarify on the attendance list by identifying the JCC members and other participant in attendance.

MIN 3/2015/JCC7:MINUTES OF THE PREVIOUS MEETING AND FOLLOW UP ACTIONS

Minutes of the 6th JCC meeting held on 19th November 2014 were read, reviewed and confirmed as a true record of what transpired during the deliberations.

Matters arising from the previous minutes:

- Members wanted to know whether the project monitoring team will involve other stake holders. The JICA representative clarified that the monitoring of the project was carried out jointly in the previous monitoring exercise. But the next monitoring in July will be carried out mainly by the MWE and the JICA Team and endorsed by the JCC members.
- Members wanted to know whether the project policy documents were distributed up to lower level. Clarification was made to members that the policy documents were prepared and distributed to lower local governments leading to the formation of SWAPS in the local governments. While at national level MWE has integrated it in its annual work plan.
- The SWAPS & DWAPS are supposed to be integrated in the five years district development plans.
- Members wanted clarification whether the co-funding between the government of Uganda and Japan has been effected. The chairperson clarified that Ministry of Finance has no specified budget on those planned activities which are to do with project sustainability in the districts. However, she called upon districts to be creative by devising means of the project sustainability by integrating the wetland management project plans in their regular planning programmes.

MIN 4/2015/JCC7:PRESENTATION OF THE WORK PLAN III

The Project Team Leader of the National Wetland Management Project then presented the Work Plan III report which covered the period from March 2015 to March 2016 and comprised of four chapters as follows;

Chapter one covered the Project background focusing the project description which included project development objectives and performance indicators, the project sites project duration and phasing, and the scope of work.

Chapter two focused on the project approach and methodology which comprised of the overview of the project activities, major changes made in year 3 of the project and the description of the activities in year 3 which majorly looked at the five project outputs namely;

1. The National Wetlands Information System (NWIS) which is upgraded and is now functioning.
2. Scientific information of target wetlands systems
3. Wetland management plans which are prepared.
4. Pilot activities for wise use of wetlands Implemented based on wetland management plans
5. Wetland Management official‘s capacities strengthened.

Chapter three of the report focused on the project timeline which described schedules of the project activities and the mobilization plan.

Chapter four provided the project reports and key deliverables.

The team leader in detail, using diagrams, maps and tables, comprehensively explained the project progress summary, major changes made in the project plan, proposed livelihood options and monitoring activities, proposal on the project extension and Ramsar rice resolution, wetland management manuals, counterpart training in Japan, assignment schedules of the Japanese experts and concluded with the reporting schedule with supportive appendices

Matters arising from the Presentation of the Work Plan III:

Members observed that districts in group c have not done well in terms of project implementation and sought clarification from the following issues;

- How are the proposed pilot projects benefiting the process of implementing it?
- How does it influence the project outcome?
- How are we empowering the communities to own the project?
- How are the communities empowered to own the project?
- How are the District community development leaders involved in the project implementation?
- Are the district entomologists involved since there is a project model about bee keeping?

MIN 6/2015/JCC7: OPEN FORUM

- In the open forum members raised a number of issues as sited below;
- How are local governments supported in the enactment of by-laws, since it is a length process involving a series of meetings by the district councils?
- How is the issue of ownership and project sustainability addressed?

Recommendations:

- Members recommended that the proposals regarding the project proposal and sustainability be competitive, so that districts, who are interested write proposals, be veted and the winners get supported.
- That registration of wetlands be done and their numbers be established and the districts be known and location be clearly identified.

Issues of concern:

- **Tree planting**: Members raised concern that if people wanted to plant papyrus, would it be regarded as tree planting?
- **Legal framework**: Members also raised a question that what is the existing institutions and legal framework in the project implementation programme.
- **Facilitation at Districts**: Members sought clarification on the facilitation at the district level, and what would be the composition of the program implementers, and how will the pilot project tasks be shared.

- **Compliance**: Members questioned whether the problem of project implementation at the districts needed by-laws or it was just lack of enforcement at that level. Other members wanted if the skill enhancement of the people involved in the project implementation were given due attention.
- **Integration of other projects:** Members inquired how the integration of fish farming and rice farming would be easily done since all these projects are located within the same wetlands.
- **Community involvement in the project**: How are the communities involved in the project implementation so as to contribute to the conservation of wetlands?
- **Project harmonization with other government Projects**: Members were concerned on how the National Wetland Management project taking advantage of other government projects e.g. Youth and women project, promotion of Adult Functional Literacy (FAL), Community based services (CBs) groups that are functional.
- They also inquired whether the remaining time is enough for all stakeholders to do all that is required for the project implementation.

Project Awareness Creation:

- Members sought clarification whether the project Information, Education and Communication (IE&C) strategy has been thought about. It was not also clear whether the district leadership were given the program to include it in their planning and budgeting programmes.

The Project Team Leader's Responses to the above concerns;

The project Team leader made the following clarification that the components of the project will focus also on the legal framework of fish farming in the district especially Katakwi and some of the districts.

On the project sustainability, he said that the project components proposed have considered the districts endowments where Katakwi is proposed for fishing, Bududa for bee keeping and Sironko for horticulture.

Members recommended that some areas which epi-culture is practiced may not use by-laws but just use ground rules because there is less farming in those areas.

- The team leader informed members that other department officials such as forest officers were also involved in the implementation of the project.
- Regarding IE &C the team leader explained that 3 manuals were developed for National and district officials and for operation of NWIS; and they will be disseminated in due course.
- As we report to JCC we must be clear at strategic level, funding, Reg. F.W, value for money, community ownership,

MIN 6/2015/JCC7: CLOSING REMARKS

The project team leader called for maximum collaboration from all members of all members of JCC to ensure the project becomes a success.

The chairperson concluded the meeting stating that as members report to JCC there should be a clear position at strategic level, the funding program, the legal framework, value for money and community ownership programs if the project is to be implemented as per the intended objectives.

She was thankful to members of JCC for their commitment shown by turning up in such a big number when invited. She was grateful with JICA's support and was very hopeful that the project will meet its intended purpose.

The Chairperson eventually adjourned the meeting.

SUMMARY OF ACTION POINTS

NO	ACTION POINT	ACTION BY	STATUS
1	Tproject team leader called for maximum collaboration to ensure the project becomes a success.	All JCC members	The project will closely collaborate with relevant on-going projects. Such meetings often take place in the field with the rice irrigation team of MAAIF/JICA and the catchment management project team of MWE/GIZ.
2	How does it influence the project outcome?	Team Leader	All the findings and lessons learned will be integrated into the model of conservation and wise use.
3	Members sought clarification whether the project Information, Education and Communication (IE&C) strategy has been thought about. It was not also clear whether the district leadership were given the program to which would be included in their planning and budgeting programmes.	Team Leader/MoLG /MWE	According to the project monitoring sheet, an estimated 221 person-days of political leaders will have been mobilized before completion of the first work package. They included Resident District Commissioner, Chief Administrative Officer, District Chairperson, Secretary for Production, Area councillors and Secretary for Environment.
4	Members wanted to know whether the remaining time was enough for all stakeholders to do whatever is required for the project implementation.	MWE/MoLG/ Team Leader	We admit that the time allotted for pilot project implementation is short as compared with the project life. It is particularly true when the project proceeds to implementation of any form of farming activity that requires a rather longer period than the project timeline. But it is understood among the relevant officers at district level that they should also seek for other fund sources other than JICA to ensure continuation of intervention.
5	In terms of Project harmonization with other government Projects, how has the National Wetland Management project taking advantage of other government projects e.g. Youth and women project, promotion of Adult Functional Literacy (FAL), Community based services	Team Leader/MoLG /MWE	Most of the pilot projects sites have leverage the existing community based service groups that may have been dormant or inactive. The project geared to enhance their capacity in managing wetland when their purpose does not contradict each other. In the implementation stage, possibility of cofounding has been and will be explored though mobilizing fund or in kind such as tree nursery when

	(CBs) groups that are functional.		applicable from other on-going projects.
6	Members to be clarified on how the integration of fish farming and rice farming would be easily done since all these project are located within the same wetland.	Team Leader/MWE	It is technically challenging according to a rice farmer in Butaleja who once endeavoured to integrate them because the growing periods are different. On the other hand, there are many farmers in South China and Thailand who maximized the benefit by integration of rice, fish and azolla where sustainable nitrogen cycle was established due to the presence of symbiotic nitrogen fixation. It was also verified by IRRI in the Philippines. One of the challenges in Uganda would be the fact that there are limited numbers of farmers who dedicated to rice cropping to exercise meticulous management of rice field. The project, if it is introduced, will start with a small scale investment to assess the feasibility.
7	How are the communities involved in the project implementation so as to contribute to the conservation of wetlands?	Team Leader/MoLG	Planning team consisting of 50 members directly participated in the planning process to integrated their views and aspiration and thus to increase sense of ownership. Selected representatives of association formed in the planning process engaged in wetland zoning process.

MINUTES OF THE 8TH JOINT COORDINATION COMMITTEE MEETING (JCC) ON THE NATIONAL WETLANDS MANAGEMENT PROJECT, HELD ON THE 21ST JULY 2015 AT FAIR WAY HOTEL, KAMPALA

JCC MEMBERS PRESENT

1.	Mr. Paul Mafabi	Director (DEA/MWE)
2.	Mr. Collins Oloya	Commissioner WMD
3.	Mr. Ekadu Silas	MAAIF
4.	Ms. Imalingat Agnes Nyangan	Water Analyst
5.	Mr. Yasuhiko Muramatsu	Team Leader, JICA TAT
6.	Mr. Ebbu Emmanuel	Sr. Water Analyst. For COM (WQMD)
7.	Mr. Nabasa Herbert	District Support Officer (NEMA)
8.	Ms. Eva Lwanga	Ag. Principal Hydrologist (MWE)
9.	Mr. Shumichi Murakani	JICA
10.	Mr. Kyosuke Kawazumi	JICA Chief Representative
11.	Ms. Eunice Tumwebaze	ACC (MGLSD)

MEMBERS IN-ATTENDANCE

1.	Eng. Ronald Kato Kayizi	Senior Engineer (MAAIF)
2.	Mrs. Muhenda Jane M	Secretary JICA /CTII Project/Recording
3.	Ms. Hisako Sumi	JICAPISD Study Team
4.	Ms. Rosemary Nakaggwa	GIZ
5.	Eng. Andrew Katto	MAAIF

ABSENT WITH APOLOGY

1.	Ms. Eva Kyobe N	Programme Office (JICA (U) Office
2.	Angella Rwabutomize Matsiko	Principal Economist (MOFPED)

AGENDA

1. Opening prayer, self-introductions and adoption of the agenda
2. Opening Remarks
   a. Chairman
   b. JICA Representative
3. Review of Minutes of the previous meeting and follow up actions
4. Presentation of the Progress Report III
5. Extension of the Project
6. Open Forum
7. Closing Remarks and Adjournment of the meeting

MIN 1/2015/JCC8: OPENING PRAYER, SELF INTRODUCTIONS AND ADOPTION OF THE AGENDA

The Chairman called the meeting to order at 10:30am and welcomed all the members to the 8th Joint Coordination meeting despite their busy schedule.

He requested a volunteer to lead in an opening prayer which was followed by self-introductions by members. The Agenda was adopted with amendments.

MIN 2/2015/JCC8: OPENING REMARKS

(e) Chairperson's Opening Remarks

The Chairman welcomed the members and thanked them for finding time to attend the 8th Joint coordination Committee meeting.

In a special way he welcomed Mr. Kyosuke Kawazumi the Chief Representative JICA Uganda Office to the 8th Joint Coordination Committee meeting (JCC)

He thanked the Government of Japan through JICA for the continued support towards the Government of Uganda which is not only the National Wetland Management project but to many other programmes and development activities. He called upon the project committee to review what has so far been achieved in terms of project implementation since it in its ending stages.

The chairman briefed members on his participation of RAMSAR convention in Uruguay which had great implication to the project implementation. That RAMSAR convention drew a new 10 years strategic plan for a period between 2015 – 2025 which was made to address issues to do with wetland degradation worldwide.

He informed members that the National Wetland Management project together with other Ugandan delegates participated in the same RAMSAR convention which took place in Uruguay where several presentations were made and thereafter attended the Rice side event.

He underscored the fact that close 30% of the wetlands in South west and Eastern Uganda have been degraded which called for immediate attention if the environment is to be conserved.

He requested members to shed light on the harmonisation of other government programmes with wetland management.

The chairman briefed members and other countries participated in the rice growing scheme convention in Uruguay.

(f) The Chief Representative JICA Uganda – remarks

The Chief Representative JICA thanked the members of JCC for their support; in particular he thanked the Ministry of Water and Environment (MWE) for continued commitment to the implementation of the project.

He congratulated the chairman for the achievement so far reached looking at the project's out in its last phase and called for strong coordination between wetland conservation and other national programmes since all are vital to the people's livelihood.

The representative commended the MWE for supporting wetland Management project and participating in RAMSAR convention which is very critical to wetland management.

He informed members about the planed international conference which takes place every five years in Japan which will bring African countries and other stakeholders to discuss issues regarding environmental conservation.

He concluded his remarks by expressing his gratitude once again to the Ministry of Water and Environment for the support so far extended to the wetland management project and wished members fruitful deliberations.

MIN 3/2015/JCC8: MINUTES OF THE PREVIOUS MEETING AND FOLLOW UP ACTIONS

Minutes of the 7th JCC meeting held on 19th May 2015 were read, reviewed and confirmed as a true record of what transpired in the meeting.

Matters arising from the previous minutes:

- Members wanted to know whether the indicators of collaboration with other stakeholders and how they will be assessed.
- Members proposed to hold a high level meeting with Permanent Secretaries (PSs) of the Ministry of Agriculture and Ministry Energy in the upcoming JCC meeting in November 2015 for purposes of harmonisation of project activities.

The project Team Leader informed members that exchange of information with other stakeholders was already going on for the three projects within the Eastern part of the county.

Lessons drawn so far;

More sensitization of communities is needed and there is need for more Information, Communication and Education (ICE) strategy.

Some District leadership are not aware of many things taking place leading to lack support at Local Government level

Need to involve Resident District Commissioners (RDCs) in all project implementation processes.

Resolutions:

All District Leaders be regularly updated on project implementation.

Information, Communication and Education (ICE) be given attention including project outputs.

Talk shows using FM radio stations be used for quick and easy communication flow.

MIN 4/2015/JCC8: PRESENTATION OF THE PROGRESS REPORT III

The National Wetland Management Project Team Leader presented a progress report III which presents the status of the project as of 1st July 2015 and the way forward. The report comprised of five chapters as follows;

Chapter one was to keep the project authorities fully informed and ensure consistency of work with the overall coordination of project activities.

It also looked at the project status of 1st July 2015 and the way forward. It was in this chapter that the project was estimated at 84% as of 1st July 2015 and the remaining activities mostly those pertaining to Output 4 on community based wetland Management plans and pilot projects.

Chapter two focused on reviewing the project background which looked at project Description, Project Development Objectives and Performance Indicators, Project sites, Project Duration and Phasing and the Scope of work.

Chapter three of the report being the main body focused on the project major achievements within the past period.

Chapter four presented the key issues and challenges in implementing the project. And Chapter five was the finalizing chapter which presented the schedule of events in the subsequent period.

Matters arising from the Presentation of the Progress Report III:

Members sought clarification to be updated on the status of the project since it is in its final stage of completion.

The Team Leader responded by saying that;

- Community Wetland Management committees have been put in place
- Project activities clearly outlined but are awaiting implementation

MIN 6/2015/JCC8: OPEN FORUM

Matters arising from the Open Forum

a) **Project Evaluation;**

There is need to do project evaluation for members to ascertain where has the project reached, how much is remaining and what should be done.

b) **Functionality of NWIS**

Members inquired whether the scientific information tool has been applied, are stakeholders knowing its availability and does the National Wetland policy need to be reviewed?

c) **Review of Legal documentation**

Members inquired which environment laws are to be reviewed? Is it National laws or policy guidelines?

d) **Digging up of River banks**

Members were concerned of the farmers digging up river banks and rejecting the project programmes.

e) **Number of beneficiaries,**

Members inquired on who are the actual beneficiaries of the project and how many are they? What will the project change in people's livelihood?

f) **Project Extension**

Members inquired whether the project extension requires another budget and at what level should they approve the JCC report?

Team Leader's Responses;

- That the Wetland Management team begun by setting aside wetland management areas in Eastern Uganda in the four Districts of Manafwa, Bududa, Butaleja & Budaka.
- Some activities in Budaka District were suspended because some communities did not have enough information about the progress of the project but in other districts, the project is progressing on well.
- He also said that in Katakwi and Kumi District have been earmarked for the project activity, Manafwa river is already protected by tree planting.
- That project design and implementation Matrix shall be discussed in JICA/Ugandan dialogue meeting.
- The team leader clarified that the wetland Management policy has to work with other environmental laws and this will be done by end of November 2015.
- Members were informed that there was a plan to develop a guideline of the assessment to be used in other districts of the country which will assist district officials in developing their Community Wetland Management Plans.
- He said there is need to work together to work out the numbers of the beneficiaries from the districts where the project is being implemented.
- That the district officials should come out with major inventories on how many are benefiting from bee keeping and other related activities.
- That there is need to work out a buffer zone and members to bring together ideas on how the communities can be involved.

Resolutions;

- The project extension report be endorsed bearing in mind that the project is not operating in isolation to other stakeholders hence calling for the linkage to be enhanced
- The committees be facilitated to reach the project implementation areas especially in the four districts of Bududa, Manafwa, Butaleja and Budaka.
- The Commissioner Wetland Management Department be facilitated to reach in the field where the project is being implemented.
- JCC members be facilitated to reach in the field and see what takes place at the project implementation sites.
- A technical committee team to be set from Ministry of Agriculture, NEMA, MWE, MFEPD to guide JCC on what is feasible in as far as the project extension budget is concerned.
- Members proposed that a funding for the community known as community environmental conservation fund be put aside by the Kyoga Management zone

Team leader to allow the communities around to move away from wetlands which will help them start certain financial activities to support them.

Clarification from the JICA Chief Representative:

He stated that while the recommendations of JCC are respected he will first also contact JICA head quarter to seek their views on the project termination, variations and the related budget.

MIN 6/2015/JCC8: CLOSING REMARKS

In his concluding remarks the chairperson said that he was pleased to see the project going on well and to see the number of project out puts, such as NWIS hand book, ub County Wetland Action Plans (SWAPs) & (DWAPs) district manuals and 10 years project plan copies.

The Chairperson wished members journey mercies.

SUMMARY OF ACTION POINTS

NO	ACTION POINT	ACTION BY	STATUS
1	JCC members be facilitated to reach in the field and see what takes place at the project implementation sites.	Team Leader	The JCC would take place in Mbale to allow the members to visit some of the sites in December 2015.
2	A technical committee team to be set from different stakeholders to guide JCC on what is feasible in as far as the project extension budget is concerned.	Commissioner WMD/MWE/	The budget size for project extension will be eventually determined through a negotiation between the JICA HQ and the Joint Venture based on an estimated cost for implementing the proposed activities presented in the progress report. JICA will likely be able to fund those approved by JCC. However it should also be kept in mind that the budget proposal will be subject to review and modification depending on the availability of the entire budget for projects worldwide and needs and priority of JICA. In this context, it is recommended to discuss and consider how the JCC members should contribute to ensuring the project sustainability. Before the end of the project, it is advised to assess availability of fund for maintenance service of Arc GIS and to strategize measures for continuity of disbursement of such budget allocation. Once such arrangement is done, the JCC should discuss feasible arrangement for implementation of project activities. In the Year 2016, the pilot project activities will be further elaborated and identified to determine which specific components should be funded by other fund sources including community environmental conservation fund. The project members request further commitment of the JCC members to increase probability of sustainable wetland management intervention.
	Whether the project extension requires another budget and at what level should they approve the JCC report?	Team Leader	
	Need to set aside a fund known as community environmental conservation fund to support the community financially so as to allow them move away from wetlands.	Team Leader Kyoga Water Management basin	

NO	ACTION POINT	ACTION BY	STATUS
3	Need to do project evaluation for members to ascertain where the project has reached, how much is remaining and what should be done wetland.	Team Leader/MWE	The following document was provided as an annex of the previous progress report. Further it was also delivered together with the invitation letter to the JCC meeting. - Annex 28 Project Monitoring Sheet.pdf
4	Members inquired on who are the actual beneficiaries of the project and how many are they? What will the project change in people's livelihood?	Team Leader/MoLG	The pilot project implementation has just commenced and been reformulated through progressive elaboration of project design. The information on be beneficiaries will be compiled through further implementation of the project in collaboration with the district officers.

MINUTES OF THE 9TH JOINT COORDINATION COMMITTEE MEETING (JCC) ON THE NATIONAL WETLANDS MANAGEMENT PROJECT, HELD ON THE 9th DECEMBER 2015 AT MT. ELGON HOTEL MBALE

JCC MEMBERS PRESENT

1. Mr. Collins Oloya — Commissioner (WMD)
2. Mr. Kyosuke Kawazumi — JICA Uganda Chief Representative
3. Ms. Iyango Lucy — Assistant Commissioner (WMD)
4. Ms. Eva Lwanga — Ag. Principal Hydrologist (MWE)
5. Mr. Lwanga Benon — Senior Engineer (MAAIF)
6. Mr. Ekadu Silas — Senior Engineer (MAAIF)
7. Mr. Shunichi Murakani — JICA Uganda
8. Mr. Atim Joel — Senior Inspector - MoLG
9. Ms. Eunice Tumwebaze — ACC (MGLSD)
10. Mr. Yasuhiko Muramatsu — Team Leader, JICA TAT
11. Mr. Zenjiro Egawa — JICA – TAT
12. Mrs. Muhenda Jane M — Secretary JICA /CTII Project/Recording

MEMBERS IN-ATTENDANCE

1. Mr. Wandera Tom — Environment officer Butaleja
2. Ms. Andrea Schalla — TA-Kyoga Water/GIZ
3. Mr. Taisuke Onishi — PISD/JICA
4. Mr. Kabaalu Deo — Regional Wetlands Coordinator (Eastern)

ABSENT WITH APOLOGY

1) Mr. Mafabi Paul — Director, DEA-MWE
2) Ms. Imalingat Agnes — Analyst – Water Quality Mgt. Department
3) Mr. Nabasa Herbert — District Support Officer (NEMA)

AGENDA

1. Opening prayer, Adoption of Agenda and self-Introduction.
2. Opening Remarks
   a. Chairman
   b. JICA Representative
3. Reflection on the field trip
4. Review of Minutes of the previous meeting and follow up actions
5. Presentation of the Progress Report
6. Open forum
7. Closing Remarks and Adjournment of the meeting

MIN 1/2015/JCC9: OPENING PRAYER, SELF INTRODUCTIONS AND ADOPTION OF THE AGENDA

The Chairman called the meeting to order at 10:00a.m., and welcomed all the members to the 9th Joint Coordination meeting amidst their busy schedule.

He requested a volunteer to lead the opening prayer, which was followed by self-introductions by the members.

The Agenda was then adopted with amendments.

MIN 2/2015/JCC9: OPENING REMARKS

(g) Chairperson's Opening Remarks

The Chairman welcomed the members to the meeting; he then thanked members for making time to come for the meeting and also for keeping time. He acknowledged the presence of the JICA Chief Representative and representatives from different ministries, departments, Development Partners and agencies.; he the invited Mr. Kyosuke Kawazumi, JICA Chief Representative to make his opening remarks.

(h) The Chief Representative JICA Uganda – remarks

In his remarks the Chief Representative JICA thanked the Chairman for accepting to chair the meeting; and noted JICA's pleasure in being part. He also thanked JCC members for their participation and was appreciative of their contribution towards the success of the project.

He noted the great opportunity provided to members through the field trip to get on ground experience and knowledge about the project. He thanked the project team for arranging the field trip. He then observed that the project had only one year to the close, fortunately there are outputs to show. He further informed the members that the achievement of the project would go a long way in improving and sustaining the relationship with other regions of the country.

Regarding the sustainability of the project, there was need for various actions including; continuation of budget allocations, for sustainability to be realised there was need to ensure that the project contributes to the sustainability of livelihoods, he emphasized the need for JCC members to ensure that there is impact in the different regions where the project is being implemented. He concluded his remarks by wishing all fruitful deliberations.

The following are key points to note from the JICA Chief Representative's remarks;

1) The project will close at the end of the year 2016 and there will be no extension. JICA recognizes the need for project sustainability and this requires various measures and interventions. ;.
2) He was delighted to know that the budget for the software to operate GIS/NWIS was earmarked last year and emphasized the need for this to continue even after the project completion.
3) The department has made important achievements including 1) preparation of Framework Management plans; and 2) support of communities in implementing pilot activities, among others. These activities should not be project specific support, but, they should be Sustained and replicated as planned; with commitment from the government of Uganda.

MIN 3/2015/JCC9: REFLECTION ON THE FIELD TRIP

Two field sites were selected and visited during the field exercise; the first in Butaleja Local Government and the second in Sironko Local Government.

i. Butaleja

The main activity here was fish ponds and boundary demarcation. The meeting was informed that before the project intervention Farmers were being chased back and forth because of encroachment. But, with the project, there is alternatives have been proposed to advert, while ensuring livelihood at the same time.

In summary the following was noted about the site visited in Butaleja District Local Government:

- The need to monitor the quality of water, and also solicit for technical support from the production department of the Local government. It was further advised that the community of Butaleja should work as a group as this would enhance cohesion and could be assisted

easily when together. It was also recognized that there was some improvement on the perception of the community members.

- The location of the ponds close to the river was note; and the question on viability rose. In addition, the question as to the number of fish species and method of selection was raised given the location of the site downstream, its being flood prone. Moreover, besides floods sediments and other contaminants are carried downstream, this may impact negatively on the pilot activity; and needed to be addressed through a catchment based management approach.
- A member noted that gender and cultural aspects of fish consumption needed to be factored in order to ensure that there is no exclusion. In response, a member went on to say that, since there is need for sharing the fish, farming should be handled as purely commercial as possible. And that cat fish is consumed locally, and so the market is available. An option of studying more about tilapia was suggested.
- In response, a member went on to say that, since there is need for sharing the fish, farming should be handled as purely commercial as possible. In addition, cat fish is a daily menu that is widely acceptable hence there is ready market. A proposal was also made to carry out studies about tilapia.

Other comments centred around the viability of and replication of the project interventions, community involvement, the need for monitoring interventions, the need to factor in budgetary viability, communicating the project (e.g. sign posts at pilot project sites) and of the project (A clear communication strategy should be developed), the need for the involvement of all relevant departments in the respective Local Governments,

ii. Sironko

A member noted that the site in Sironko was a converted wetland, with visible streams, and was informed that the streams became larger during rainy seasons. It was observed that water was being lifted from different points to irrigate crops at this site and there was a plan to expand this system. However, caution was give to ensure due diligence throughout the process. Furthermore consideration of both upstream and downstream users was recommended for realisation of good results. A suggestion was made that the officials need to work closely with Ministry of Water and Environment (including the Directorate of Water Resources Management; users were advised to apply for permits, a requirement that fits well with the catchment zone approach.

Other observations included the need to maintain the river bank protection zone, ensure participatory bottom up approach in implementation, and encourage monitoring and evaluation of interventions at community, Local Government and national levels. Women were not visible during the field visit and recommendation made to actively involve them.

Before ending the field trip at this site, the Regional Wetland Coordinator provided the following information;

- Different types of wetlands exist in the project area, requiring unique interventions. For practical management at the Sironko Site, he proposed a surrogate indicator, instead of water level gauging, such as estimation of water use on the basis of frequency of operation, area to be irrigated, etc.
- Community management plans have been developed in all pilot site intervention areas, and they inform the type of pilot project. Implementation of the project is being joint done by the Ministry of Water and JICA Consultants, with financial support from JICA.
- Nalulugu Wetland Management Association was set up and it is in the process of developing a constitution to help the association move forward. In addition, community members agreed to leave 30m as a protection zone. Each pilot project is unique, but choice is guided by community inputs during the consultation and mobilisation

processes.

MIN 4/2015/JCC9: MINUTES OF THE PREVIOUS MEETING AND FOLLOW UP ACTIONS

Minutes of the 8th JCC meeting held on 21st July 2015 were read, reviewed and confirmed as a true record of what transpired in the meeting.

Matters arising from the previous minutes:

1. On the 9th JCC meeting to be held in December 2015, the members agreed that this had been done in a timely and effective manner.
2. The project team leader informed the members that there was need for deliberation on the sustainability of the project.
3. The team leader went ahead to say that the budget of the activities for the project extension period would be likely be funded by JICA head office and, thus, the focus of the deliberations needed to centre on continuity of the project afterlife period.
4. In regard to enhancing sustainability during the 2016-2017, the meeting was informed that a plan was in place to ensure completion of actives. Local government funds from PRDP, and funds from the Wealth Creation Fund provided opportunities to further harness project implementation must be taken up, this is because the funds provided at national level are not enough. Technical officers at local government level should factor this into the day to day activities. It's a lesson learnt from the eastern Uganda and part of southern Uganda COB WEB projects. The member went on to say that if activity budgets were factored into the district plans then sustainability would be achieved.
5. As for the scale of beneficiaries, the project team leader informed the members that the project will benefit the officers engaged at the districts; it will also in the long run benefit 560 direct beneficiaries in the wetlands.

In case of Bududa, Sironko the project was designed to minimise soil erosion, which would benefit the downstream wetland users such as fishing communities in the Bisina and Opeta Lake.

One member wanted to know about the beneficiaries of the project and the impact so far. He inquired about how many households are benefiting, what the number of beneficiaries is and what would be the impact on beneficiaries.

The Chairperson responded that the district officials should know the number of households or members to benefit indirectly and directly, and this should be in terms of social economics, cultural and Environmental.

As for the estimation of the beneficiaries and the economic impact of the pilot project, it was agreed that the statistics available at UBOS should be used as far as possible. The team leader informed to the members that the economic and financial appraisal of the livelihood components would be complete by April 2016.

It was emphasized that, in order for sustainability to take place, the community Development Officers, Fisheries Department, the district planners must be on board. The departments at the district thereby will ensure sustainability by taking on the project to the next level, which was to say that each department was to have their role to play

MIN 5/2015/JCC9: PRESENTATION OF THE PROGRESS REPORT

The National Wetland Management Project Team Leader presented a progress report V which was prepared to present the project status of the project as of 30th November 2015 and the way forward until December 2016. The report comprised of five chapters as follows;

Chapter one gave an over view of the project progress which were presented by the team leader as follows;

In the four districts of Kibuku, Manafwa, Palisa and Sironko constitutions of the community wetland management committees are in their last development process.

He went ahead to inform the members that in Bududa, Butaleja, Budaka, Kapchorwa and Katakwi community wetland management committees had proceeded to develop their constitutions

Wetland demarcations had been carried out at the pilot project sites in Bududa, Manafwa, Butaleja, Palisa, Budaka, Kibuku, Kapchorwa, Sironko and Katakwi and they had come up with memorandum of understandings between the communities and pertinent districts which are in their final stage.

Chapter two focused on the project description, Project development objectives and performance indicators, Project sites, Project duration, phasing and Scope of work, Chapter three of the report being the main body focused on the project major achievements within the past period.

Chapter three presented major achievements in the period; Support the communities in implementing the pilot projects, Overview of the status, implementation status, development of wetland management manual, draft model of conservation and wise use of wetlands, Wetland manuals, development of decision support systems and counterpart training in Japan.

Chapter four, presented key issues and challenges; Framework management plan implementation committee, Pilot project review meeting, plan of activities in the year 2016and Modification of PDM.

Schedule of events in the subsequent period being the fifth chapter highlighted the following;- Overview of the activities in the subsequent period, Project reports, key deliverables and Mobilisation plan.

Matters arising from the Presentation of the Progress Report III:

One of the members needed clarification on whether the Joint Coordination Committee members should go ahead with the project activities as prioritised next year or scale them down given the remaining six months.

Another member raised a question on how the NWIS which is the central information system of the Wetland Department for decision making, would be made functional by the end of the project period.

Furthermore, another question was raised on whether other WMD Regional Wetland Coordinators should be brought on board now or be mobilised through the Trainer of Trainees approach.

The Team Leader noted that the plan of activities had been ambitious because the scope of activities is broad, however the remaining time can only be used to windup activities and ensure that there were structures for handover and continuity of the project after close. He further clarified that there would be one week Nationwide training for each region. This would take place in Mbale, at which regional coordinators will be mobilized to participate.

The Assistant commissioner, Wetlands, also brought to the attention of the meeting the need to appreciate the number of commitments of the District officers on the project, noting that the same officers had to participate and deliver on other projects such as PRDP and NUSAF, notwithstanding this, substantial progress has been made. It was also noted that it was the responsibility of the Regional coordinators to follow up on the district officers but should not be a burden on the Team leader's side.

MIN 6/2015/JCC9: OPEN FORUM

Matters arising from the Open Forum

g) **Project ;**

One member wanted to understand if the Regional Coordinator were staying on until the end of project as a way of ensuring sustainability.

h) **Functionality of NWIS**

- Members inquired whether the scientific information tool is accessible to everyone or whether it was being hosted at a central point. In response the meeting was informed that the NWIS is accessible through internet but has not yet been devolved to project districts.

i) **Frame work management implementation committees**

Members sought clarification on the roles and responsibilities of the committees in the implementation of the project. Do they have the same members and how would they be financially supported for the project sustainability?

In response, one of the members replied that the committees are facilitated by different projects; however issues of sustainability have to be further discussed and clarified.

The Regional Wetlands Coordinator-Eastern summarised the roles and responsibilities of the committees, the framework and sustainability. He noted that because the wetlands systems were interconnected because wetlands do not follow into a specific district; they were put into two zones of Doho-Namatala comprising of 8 districts and Awoja wetland system comprising of 12 districts.

In this respect management plans cover specific wetland system and are in line with the water management catchment plans, inter district coordination committees exits to oversee and spearhead the implementation of the plans.

j) **Institutional Arrangements**

The Chairman informed members that there is need for harmonisation to ensure that there was no duplication and creating of many institutions to avoid same officers sitting on all the different committees. There is need to hold a meeting to harmonise the working of the committees members for Catchment management zones and those of wetland Framework Plans.

k) **Harmonisation of activities**

There was need to understand whether activities of irrigation being undertaken by Ministry of water and Environment are harmonised under the wetland management project. In response members were informed that this was being done by both the National Wetlands Management Project and the Catchment Management Zone.

l) **Inclusion of Local Governments in the projects meetings**

The representative from the Ministry of Local Government thanked the members for the deliberations and good work done. He went on to say that in order for his ministry to ensure the project implementation there is need for their involvement in the meetings for purposes of following up matters resolved with concerned Chief Administrative Officers.

Resolutions;

- Local Government representatives to be involved in the project committee meetings for the proper implementation of the project and easy follow-up.
- Fully operationalise the NWIS before the end of the project at Local Govern project level and to key stakeholders. There is need to hold meetings to harmon[is]e project activities to avoid duplication and ensure sustainability of the project.
- The Catchment Management Committee to convene a meeting to include Ministries of Agriculture Animal Industry and Fisheries, Local Government, Gender, Labour and Social Welfare and Water and Environment for better coordination and collaboration.

- Disseminate the Resource user guidelines, manuals and Hand books to the different stakeholders.

MIN 7/2015/JCC9: CLOSING REMARKS

In his concluding remarks the Chairman noted the project achievements to date and thanked the JCC members for their very valuable inputs throughout the project life to date, and also during the meeting.

He went ahead to thank the Government of Japan for identifying, planning and implementing the project. He also requested if funds are available this should be up scaled to the rest of the regions of the country.

He ended by wishing all members journey mercies, Merry Christmas and a Prosperous New Year 2016.

SUMMARY OF ACTION POINTS

NO.	ACTION POINT	ACTION BY	REMARKS
1)	Involve Local Government representatives in future project meetings (JCC)	NWMP Secretariat	To be effected during JCC meetings
	Fully operationalise the NWIS	Team Leader NWMP and WMD Team	The ecological monitoring plans of the pilot activities will utilize the linkage between the districts and the central office via the regional coordinator. The project will support them to upload the information of the protection zone boundaries and the ecological monitoring.
	Hold Harmonization meeting with the Kyoga Catchment Management Zone – liaise with the Catchment Management Zone leader. Involve relevant stakeholders	Team Leader NWMP and RWC Eastern	
4)	Finalise, prepare and Disseminate ear marked Resource user guidelines, manuals and Hand books to the different stakeholders.	Team Leader NWMP, RWC Eastern and WMD Head Office Team	Ongoing process (the different materials have been identified) The activities in the year 2016 will include finalization of the relevant manuals and guidelines to be published.
	Follow-up with project Local governments to ensure integration of the project into local planning and relevant running and new projects	Team Leader NWMP and RWC Eastern	Take advantage of the planning and budgeting cycles
6)	Capacity strengthening of the other three Regional coordinators on wetland management	Team Leader	The Work Plan of the year 2016 will integrate the program to mobilize the regional coordinators in convening the nation-wide training.

DRAFT MINUTES OF THE 10TH JOINT COORDINATION COMMITTEE MEETING (JCC) ON THE NATIONAL WETLANDS MANAGEMENT PROJECT, HELD ON THE 11th APRIL 2016 AT FAIR WAY HOTEL

JCC MEMBERS PRESENT

1.	Mr. Paul Mafabi	DEA, MWE
2.	Mr. Collins Oloya	Commissioner (WMD)
3.	Mr. Kyosuke Kawazumi	JICA Uganda Chief Representative
4.	Ms. Eva Lwanga	Ag. Principal Hydrologist (MWE)
5.	Mr. Shunichi Murakani	JICA Uganda
6.	Ms. Eunice Tumwebaze	ACC (MGLSD)
7.	Mr. Yasuhiko Muramatsu	Team Leader, JICA TAT
8.	Mr. Taigo Sasaki	JICA HQ
9.	Mr. Nabasa Herbert	District Support Officer (NEMA)
10.	Mr. Ronald Kato Kayizi	AC-WFAP
11.	Mrs. Muhenda Jane M	Secretary JICA /CTII Project/Recording

MEMBERS IN-ATTENDANCE

1.	Mr. Kabaalu Deo	Regional Wetlands Coordinator (Eastern)
2.	Mr. Barugahare Vincent C	Principal Wetland Officer
3.	Mr. Mabiya Joshua	CAO
4.	Ms. Mugoya Sonny	C/P DWMC – Eastern
5.	Mr. Toshimasa Kobayashi	Team Leader –PISD

ABSENT WITH APOLOGY

1)	Ms. Iyango Lucy	Assistant Commissioner (WMD)
2)	Mr. Ekadu Silas	Senior Engineer (MAAIF)

AGENDA

1. Opening prayer, Adoption of Agenda and self-Introduction.
2. Opening Remarks
   a. Chairman
   b. JICA Representative
3. Review of Minutes of the previous meeting and follow up actions
4. Presentation of the Work Plan
5. Open forum
6. Closing Remarks and Adjournment of the meeting

MIN 1/2016/JCC10: OPENING PRAYER, SELF INTRODUCTIONS AND ADOPTION OF THE AGENDA

The Chairman called the meeting to order at 10:30a.m., and welcomed all the members to the 10th Joint Coordination meeting amidst their busy schedule.

He then requested Ms. Jane to lead in the opening prayer, which was followed by self-introductions by all the members.

The Agenda of the day was adopted without any amendments.

MIN 2/2016/JCC10: OPENING REMARKS

(i) Chairperson's Opening Remarks

The Chairman welcomed the members to the meeting; and thanked them for finding time to come for the meeting and also for keeping time. He acknowledged the presence of the JICA Chief Representative and other representatives from different ministries, departments, Development Partners and agencies.

The chairman went ahead and informed members that this was a routine meeting of the committee to continuously review the project and ascertain to what extent they have achieved the project objectives and also check for any bottlenecks. He further said that there is need to consider the issue of sustainability and also whether the project would be extended.

Members were also informed the chairman that as per their own assessment the project has been a success.

He further informed members that there were still structures coming up, some of which were approved and others with no approvals. He continued by saying that it was a government's responsibility to put systems in place to protect the wetlands so that the resource is not depleted and more so this was a responsibility of all citizens to protect the natural resources.

He then invited Mr. Kyosuke Kawazumi, JICA Chief Representative to make his opening remarks.

(j) The Chief Representative JICA Uganda – remarks

In his opening remarks the Chief Representative JICA informed members that it was a great pleasure and privilege for him to participate in that day's Joint Coordination Committee meeting which constituted the project milestone of the National Wetlands Management Project.

On behalf of JICA he expressed their appreciation to all the JCC members and other stakeholders for the contribution made towards the successful implementation of the National Wetlands Management Project. He also thanked all the JCC members for their tireless efforts whose tangible outcomes have been achieved.

Members were informed that we were in the quite important stage towards the December 2016, the period in which the project will be ending. And since there would be no further extension of the project, members were urged to work harder continuously so as to make the achievements more consolidated and sustainable since both efforts are the key for the successful wrap up of the project.

With an emphasis on sustainability, the Chief Representative requested the ministry of Water and Environment to consider continuous supports to collaborative activities beyond the project period.

As for the current community activities, it was recognised that financial health would-be taken into consideration to the formulated plan for sustainable management. However, even in the situation, the community might be faced with challenges technically and financially. In such situation monitoring and supports from the government are key factors for long term success of the activities and was hopeful that the government would undertake necessary measures continuously to the communities even after the project period.

Backing to the when the project was formulated, he informed members that the project was initiated with the assumption that Ugandan Government would have full responsibilities to utilize and make the best use of outcome from the project for the development of wetland management.

In such a case JICA believed the government's further ownership would make the project's out come more prominent and sustainable.

He also appreciated if the members would immediately start considering how to continue with the current activities including the possibility of utilizing funds even from other organisations for the project's sustainability.

On behalf of JICA the Chief Representative concluded by reassuring members their commitment to playing their part in the execution of the project and look forward to continuous collaboration with the Ministry of Water and Environment and other stakeholders for the remaining period. Once again he thanked the Director and the Ministry of Water and Environment for hosting the 10th JCC meeting and expressed his high appreciation to all the day's participants by wishing them fruitful deliberations.

The following are key points to note from the JICA Chief Representative's remarks;

4) The project will be closing come December this year 2016 and there would-be no further extension.
5) The financial health taken to the formulated plan for sustainable management.
6) Ministry of Water and Environment to consider continuous supports to collaborative activities beyond the project period.
7) For challenges that might face the communities in the project sustainability, he was hopeful that the government would take necessary continuous measures to the communities even after the project period.
8) Members to immediately start considering how to continue with the project current activities including the possibility of utilizing the funds even from other organisations for sustainability.

Matters arising from the JICA Chief Representative

Issues of sustainability: The chairman informed members that the ministry was sourcing for funds for the restoration of all wetlands and to that effect a proposal had been submitted with support from UNDP.

He also went ahead to say that the ministry was preparing a National wetlands restoration program which is still at its conceptual stage with support from UNEP which would help to re-instate the wetlands to their original state.

MIN 3/2015/JCC10: MINUTES OF THE PREVIOUS MEETING AND FOLLOW UP ACTIONS

Minutes of the 9th JCC meeting held on 10th December 2015 were read, reviewed and confirmed as a true record of what transpired in the meeting.

MIN 4/2015/JCC10: PRESENTATION OF THE WORK PLAN

The National Wetland Management Project Team Leader presented a Work Plan which comprised of two chapters as follows;

Chapter one gave the project Background, Description, Project development objectives and performance indicators, Project sites, Project duration, phasing and Scope of work,

Chapter two focused on the overview of the activities in the subsequent period, Project reports and key deliverables and lastly the major Mobilisation Plan.

Matters arising from the Presentation of the Work Plan:

Encroachment on the demarcated areas:

- Members inquired why the community members had entered the wetland boundaries which had been demarcated. The regional coordinator responded that 1) the community members encroached in some districts in the dry seasons; however, 2) the community members are continuously being sensitised about respecting the bylaws.

- The chairperson emphasised on gazetting all the wetland areas, community involvement should be reassessed and MOUs be signed.
- One of the participants wanted to know when would the National training would take place and he was of the view that it should take place immediately in order to ensure all the district are covered.
- Members recommended that action points be shared with the MGSLD and involve CDOs at every stage to help in easy monitoring of project activities.

Publication of Project manuals,

One of the participants wanted to be clarified on how the various project guidelines and Manuals are going to be utilized. In response one member clarified that they are to be used at different levels by various stakeholders. Hence it is the role of the department to maintain standards and since this is a model project they can be used as a tool even in other districts.

MIN 5/2015/JCC10: OPEN FORUM

Matters arising from the Open Forum

One member suggested that there is need to interact with DLGs to ensure that they capture activities in their plans since the project is coming to an end.

m) **Ecological Monitoring and NWIS**

The team leader informed members that the ecological monitoring plan was to be uploaded and fed into the NWIS and that process would be discussed on what kind of data to be fed into the NWIS.

n) **Harmonisation Issues**

On the issue of policy harmonisation the chairperson informed members that it is a process where there is need to identify the different issues, do an analysis first, of the differences and similarities between issues and finally harmonise.

The chairperson emphasised that the key stakeholders should form a committee to identify issues to be harmonised.

o) **Regional Symposium**

Members were informed that there was a proposal to hold a symposium in October or beginning of November and the plan was to invite stakeholders from different countries in order to deliberate upon the successes, challenges and most importantly share lessons learnt during the implementation of the National Wetlands Management Project.

On the above issue the chairperson recommended that the project Team Leader together with the MWE prepare a concept.

MIN 6/2015/JCC10: CLOSING REMARKS

In his concluding remarks the Chairman noted that there was need to assess the project achievements to date and this was tasked to the Team Leader working hand in hand with the WMD. This was also to prepare the JCC members for project evaluation.

He finally thanked the JCC members and in a special way the Government of Japan through JICA for their very valuable inputs throughout the project life to date, and also during the meeting.

SUMMARY OF ACTION POINTS

NO.	ACTION POINT	ACTION BY	REMARKS
7)	Members should take time and identify issues from different stakeholders and organise forums for harmonisation	NWMP Secretariat	Stakeholders meetings have been convened under a contract. A guideline was finalized.
8)	There need to ensure that demarcations are clearly gazetted, Community involvement should be reassessed and MOUs be signed	Team Leader NWMP and WMD Team	MOUs were developed and assembled.
9)	There is need to interact with DLGs to ensure that they capture activities in their plans since the project is coming to an end.	Team Leader NWMP and RWC Eastern	
10)	Preparation of a concept paper on the symposium and share it with the JCC members in order to have an input	Team Leader/MWE	The concept paper was prepared. The symposium was successfully organized on 4th and 5th October 2016 with the participation of the representatives of the Ramsar secretariat among others.
11)	There is a need to ensure that all districts sign all the MOUs, demarcate all the protected zones, while emphasizing community involvement.	RWC Eastern, DLGs, CDOs, WMD	MOUs were developed and assembled.


JICA