Terminal Evaluation Report

2013 June

Final

Project Title:

Conservation and Sustainable Use of Wetlands in Nepal (CSUWN)

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Implementing Agency:	UNDP
Executing Agency:	Ministry of Forestry and Soil Conservation (MFSC)

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ACRONYMS

APR	Annual Progress Report
BPF	Basanta Protection Forest
BZ	Buffer Zone
BZDC	Buffer Zone Development Committee
BZFUC	Buffer Zone Forest User Committee
BZMC	Buffer Zone Management Council
CBD	Convention on Biological Diversity
CBO	Community-based Organization
CEPA	Communication, Education, Participation, and Awareness
CFUG	Community Forest User Group
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CSUWN	Conservation and Sustainable Use of Wetlands in Nepal
DDC	District Development Committee
DFO	District Forest Officer
DFSCC	District Forest Sector Coordination Committee
DG	Director General
DNPWC	Department of National Parks and Wildlife Conservation
DoA	Department of Agriculture
DoF	Department of Forests
DoI	Department of Irrigation
DSCWM	Department of Soil Conservation and Watershed Management
ED	Environment Division
FAC	Field Advisory Committee
FMC	Field Management Committee
FMU	Field Management Unit
GEF	Global Environment Facility
GLA	Ghodaghodi Lake Area
GoN	Government of Nepal
HH	Household
IAS	Invasive Alien Species
ICIMOD	International Centre for Integrated Mountain Development
INGO	International Non-governmental organization
IUCN	International Union for Conservation of Nature
JVC	Joint Venture Company
KT	Koshi Tappu
KTWR	Koshi Tappu Wildlife Reserve
KTWRMP	Koshi Tappu Wildlife Reserve Management Plan
LDO	Local Development Officer
LFA	Logical Framework Approach
LRP	Local Resource Person
LSGA	Local Self Governance Act
MDG	Millennium Development Goals
M&E	Monitoring and Evaluation
MFSC	Ministry of Forests and Soil Conservation
MoAD	Ministry of Agricultural Development
MoE	Ministry of Energy
MoLRM	Ministry of Land Reform and Management

MoLD	Ministry of Local Development
MoSTE	Ministry of Science, Technology and Environment
MoWR	Ministry of Water Resources
MTE	Mid-Term Evaluation
NBS	Nepal Biodiversity Strategy
NGO	Non-governmental organization
NIGC	National Indigenous Groups Committee
NPC	National Planning Commission
NPD	National Programme Director
NPM	National Project Manager
NPR	Nepalese Rupee
NWC	National Wetland Committee
NWP	National Wetland Policy
PA	Protected Areas
PAMEB	Participatory Monitoring and Evaluation of Biodiversity
PCP	Participatory Conservation Program
PDF	Project Development Fund
PEB	Project Execution Board
PES	Payments for Environmental Services
PIR	Project Implementation Report
PMU	Project Management Unit
POB	Project Outcome Board
PPP	Parks and People Program
TAC	Technical Advisory Committee
TAL	Terai Arc Landscape
TE	Terminal Evaluation
TOT	Training of Trainers
UG	Users Group
UN	United Nations
UNDP	United Nations Development Programme
UNDAF	United Nations Development Assistance Framework
UNEP	United Nations Environment Programme
USD	United States dollar
VDC	Village Development Committee
WA	Wetlands Act
WIAM	Wetlands Inventory, Assessment and Monitoring Toolkit
WPSE	Women, Poor and Socially Excluded
WTLCP	Western Terai Landscape Complex
WWF	World Wildlife Fund

1. EXECUTIVE SUMMARY

1.1. Project Summary Table

Table 1-1: Project Summary Table

Project Title:	***Conservation and Sustainable Use of Wetlands in Nepal***			
GEF Project ID:	PIMS 1822		*at endorsement (Million US$)*	*at completion (Million US$)*
UNDP Project ID:	00042939	GEF financing:	**2.215**	**2.038**
		PDF-B	0.250	0.250
Country:	Nepal	Project Grant	1.965	1.788
		IA/EA own:	0.534	0.497
Region:	Asia and Pacific	Government:	1.14	1.14
Focal Area:	Wetland Biodiversity Conservation	Other:	0.424	0
FA Objectives, (OP/SP):	BD FSP: Wetlands	Total co-financing:	2.097	1.637
Executing Agency:	MFSC	Total Project Cost:	**4.312**	**3.675**
Other Partners involved:	Department of Forests (DoF) And Department of National Parks & Wildlife Conservation (DNPWC)	GEF Agency Approval Date (date project began):		14 March 2007
		(Operational) Closing Date:	***Proposed:*** 31December 2012	***Actual:*** 30 June 2013

1.2. Project Description

Conservation and Sustainable Use of Wetlands in Nepal (CSUWN) is a joint undertaking of the Government of Nepal/Ministry of Forests and Soil Conservation, Global Environment Facility (GEF) and United Nations Development Programme (UNDP). The Project was designed to address policy gaps, build technical and institutional capacity and promote collaborative management of wetland resources to ensure the maintenance and enhancement of wetland biodiversity and environmental goods and services for improved local livelihoods. The project also aimed toward the replication of its good practices and the application of lessons learned to other wetlands in Nepal. The project was implemented in two important Ramsar sites: Koshi Tappu Wildlife Reserve in the east and Ghodaghodi Lake Area in the west.

The project aimed to strengthen national and local capacity in ecosystem management and sustainable use of wetlands biodiversity in Nepal.

The project intended to achieve the following Outcomes:

- Wetland biodiversity conservation values integrated into national policy and planning framework
- Strengthened national institutional, technical and economic capacity and awareness for wetland biodiversity conservation and sustainable use
- Enhanced collaborative management of wetland resources for conservation and sustainable livelihood

1.3. Conclusions

Major Project Strengths and Achievements

Significant advances made toward meaningful wetlands policy and legislation.

The project facilitated a comprehensive update of the National Wetlands Policy, which was approved in December 2012. Drafting, debating, and overseeing the cabinet-level approval process of this policy required collaboration across sectors and included high-level officials in key line ministries.

Following a critical review of relevant national legislations, the project formulated recommendations on how to incorporate wetlands issues into cross-sectoral legislation. This review led to a high-level decision to draft the Wetlands Act and Wetlands Regulations. By the time of project closure, the Wetlands Act and Regulations had been prepared in draft form and the consultation process has started with the NWC as the facilitating body. Eventual passing of the Wetlands Act and Regulations will represent a very important achievement, toward obligating regulatory officials to include wetlands issues in development and conservation plans in the future. Formulation of the Wetlands Act and Regulations has been taken very positively within the MFSC and NGO sector working in the conservation field of Nepal.

Wetlands issues mainstreamed through comprehensive public awareness efforts

In parallel with the advances in policy making, the project succeeded in generating public awareness and support for wetland conservation, through media campaigns, field visits, etc. The media outreach efforts resulted in a four-fold increase of media coverage regarding wetland conservation in the national dailies. Many audio and audio visuals as well as local and regional newspapers also extensively covered issues related to wetland. These concerted efforts helped raise public awareness on wetlands and also created a firm foundation for wetland conservation work moving forward.

Strong country ownership and close alignment with GEF Biodiversity Strategy

Country ownership has been significant throughout both the design and implementation of the project. The project was designed to support the implementation of the Nepal Biodiversity Strategy (NBS) recommendations on wetland ecosystems, including management of wetland habitats; clarification of institutional responsibilities for resolving land-use conflicts and co-ordination of wetland wise-use and conservation; adoption of a bio-regional approach to wetland habitat and resource management; promoting the participation of user groups and community-based organizations in collaborative management of resources; conducting demonstration projects to promote the wise use of wetlands; and raising awareness on wetland conservation.

Under the GEF-5 Biodiversity Strategy, the project is relevant with respect to Objective No. 1 of the GEF-5 Biodiversity Strategy: *Improve the sustainability of protected area systems.* The recommendation of expanding the KTWR was positively received by government stakeholders during the TE debriefing meeting, and if eventually realized, this would result in increased coverage of this protected area. Also, the project results have led to the decision by the NWC to declare the 9 lakes of the Pokhara valley as a new Ramsar Site. The project is also relevant in terms of Objective 2 of the GEF-5 Biodiversity Strategy: *Mainstream biodiversity conservation and sustainable use into production landscapes/seascapes and sectors*. One of the knowledge base products developed by the project is a Wetlands Economic Valuation Toolkit. This toolkit has already been adopted and applied to other wetlands in the country, thus increasing the

number of land-use plans that incorporate biodiversity and ecosystem services valuation. Also, the project was successful in demonstrating control of IAS at both pilot sites, and IAS control activities under wetland management have been included in the updated management plans for KTWR and GLA.

Demonstration of how limited habit restoration interventions can lead to increases in the number of indicator species over a relatively short timeframe.

The project implemented targeted interventions to improve the habitat quality of indicator species in GLA and KTWR. Populations and area coverage of each of the five indicator species have increased over the project timeframe. In both project sites, fringe benefits of such restoration activities have been shown to affect also other species, e.g., breeding of Common Moorhen and Spotbill Duck at GLA and dramatic increase in the population of Bengal Florican and other grassland birds at KTWR.

Provided a broader understanding of the connections between conservation and livelihoods, and working examples of approaches that link public participation, empowerment, and income generation in Wetland Dependent Communities.

The project spent 3-1/2 years testing diverse livelihood improvement programs for 463 tagged WPSE households within wetland dependent communities at two pilot sites, with the aim of demonstrating strategies for increasing income and reducing poverty through collaborative management and sustainable use of wetland resources. Implemented through group-lending financing mechanisms, livelihood programs included fish farming, livestock rearing, organic vegetable growing, pater and munj based enterprises, leaf plate making, vocational skill development, etc. Income levels within the tagged households increased by 21% in the KTWR pilot area and 36% in GLA. This participatory approach proved successful in empowering the WPSE sector and increasing awareness of conservation and sustainable use schemes.

Collaborative management demonstrated through strengthened institutions.

Formation of the National Wetlands Committee (NWC) is another important achievement facilitated by the project. Launched in 2010, the NWC is a cross-cutting, legal body. The NWC and the Technical Advisory Committee operating under the NWC, address national level wetland policy issues, professionally backed by a network of Nepal's wetland specialists represented through different forums. Also from a national level, the National Planning Commission (NPC) has incorporated wetland issues into their planning for the first time, within the timeframe of the project. During the third National Wetland Committee meeting, the MoAD, MoLRM, and MoE decided to allocate resources for managing at least one wetland site from FY2013/14 (2070/71). The decision was made in the same meeting to designate the nine lakes of Pokhara as a new Ramsar site.

For more grass-roots level concerns, the collaborative management model promoted by the project includes formation of multi-stakeholder forums (MSFs). The project helped facilitate the establishment of a MSF in the Kailali District, targeting conservation of Ghodaghodi Lake Area, and the concept was replicated in the Kapilvastu District targeting Jagadishpur Reservoir, another Ramsar site. The MSFs are engaging representatives of DDCs, VDCs, CBOs, NGOs, CFUGs, ethnic group leaders, and other local beneficiaries of wetland resources and has a proven track record operating as a functional and effective entity. Some examples of how these collaborative management models are functioning include provisions for wetland issues into the operational plans of DDCs in VDCs in both of the project sites.

Adaptive management reflected the needs of the project beneficiaries.

The project was effective in adapting to the needs of the beneficiaries as implementation progressed. For example, the suggestion to draft the Wetlands Act was made after the NWC and TAC held consultative meetings and recognized how the value of such an act would be especially important to ensure effective implementation of the National Wetlands Policy.

Another notable adaptive management result was the financial support extended for the solar fence in the KTWR area. The need for the solar fence was very much driven by the local population, and there has been a high level of local ownership on maintaining the fence after construction. An ample amount of funds jointly contributed by the project and the local people (approximately 0.8 million NPR) have been kept under endowment savings towards maintenance and upkeep of the solar fence.

The project demonstrated that relatively small investments and input into livelihood interventions can have positive and immediate impact. The scope of the livelihood programs was expanded in response to these observations; this is evidenced in comparing the amount allocated for grants in the project design (297,235 USD) versus how much money is expected to have been spent on grants by project closure (533,718 USD).

An effective implementation modality enhanced the likelihood of sustainable of project outcomes.

The project implementation modality proved to be very effective. Government officials were included in nearly all decision-making components of the project, from the NPD level to the field level, e.g., the KTWR Warden and officers at Koshi and District Forest Officer at Kailali District. The PMU was kept as a separate unit headed by a person with proven skills for delivering outcomes. This modality resulted in effective implementation, awareness raising and ownership on both at national and local level. The likelihood that the benefits realized through the project will be sustained was enhanced through this modality.

A strengthened knowledge base on wetlands issues provides an enduring contribution to sustainable management of wetland ecosystems in Nepal.

Some valuable technical studies and guidelines were developed by the project; including an economic valuation toolkit, wetlands assessment toolkit, ecological monitoring protocol, etc. Many of these tools were developed for the first time in the country. The economic valuation toolkit has already been used for valuations of two different wetlands in the country, and there has been international interest to replicate it outside Nepal. The ecological monitoring protocols developed for both the KTWR and GLA are incorporated into the management plans of these two areas and have been regularly followed to monitor the indicator species.

Linkage with Department of National Parks and Wildlife Conservation has built national capacity on wetlands knowledge and reporting (e.g., Ramsar Convention requirements).

The project assisted the DNPWC in completing Ramsar Convention obligations and Nepal became only the 8th country in the world to have prepared a Ramsar CEPA strategy. The project also assisted the department in the completion and reporting of the revised Ramsar Information Sheet (RIS) for KTWR and GLA. Through the support and intervention of the project, KTWR was also saved from being on the Montreux Record (Ramsar Site in problem). During the life of the project, various anti-poaching sweep operations at KTWR were supported, and equipment such as bicycles and a rubber boat were provided to help increase the efficiency of part staff's efforts in fighting against illegal activities in the reserve.

Weaknesses

Project results would have been enhanced by developing a wetlands management strategy and wetland management guidelines, based upon the knowledge and experiences gained.

The project successfully demonstrated certain wetland management interventions, including manual removal of invasive plants, construction of earthen bunds to increase water retention, construction and replacement of sluice gates, soil erosion control, etc. These experiences could have been used as the basis for developing a wetlands management strategy and wetlands management guidelines, for all wetland sites in Nepal.

More extensive biological assessment at project inception and near project closure would have provided a more meaningful status on biodiversity of the two pilot ecosystems.

Monitoring of indicator species has shown recovery trends, and the monitoring protocol developed offers a cost-effective approach for assessing a targeted segment of the ecosystem. However, carrying out more detailed baseline and follow-up ecosystem health assessments would have provided robust and scientific justification for evaluating project results, and would have contributed to the long-term monitoring of these ecosystems.

A comprehensive biological survey at the beginning of the project should have been done together with the choosing of the indicator species representing the ecosystem health. Although it is clear that the project interventions have led to increases in population and coverage of indicator species, the status of overall biodiversity at both project sites remains largely unknown. While indicator species gains are likely coupled with growth of many other species, status of species' which may not have been represented by the growth of the indicator species would have been clear. And this would have given new insights on further management of the wetlands to ensure that all biota are equally managed.

Detailed baseline surveys should have been made at the project formulation stage, possibly allowing more focused design and more effective implementation

The terminal evaluation team feels that it would have been more beneficial to carry out ecosystem and livelihood baseline surveys at the formulation stage, rather than at the beginning of the implementation phase. The implementation design, including formulation of performance indicators, would have been more meaningful if the baseline information was collected first. For a 5-year duration implementation project, the effectiveness of achieving the intended outcomes might have been bolstered in this case.

The delay between project inception and start of implementation (more than 1 year) weakened the effectiveness of the project outcomes.

The implementation delay did impact the sustainability of the project outcomes to some degree. For example, the advances made toward the Wetlands Act could have been increased with the time lost due to the implementation delay. An additional year of monitoring data would have better supported assessment of how the ecosystems had responded to some of the demonstration interventions. And, due to the limited capacity and scarce resources of the ultra-poor communities, the additional time would have helped ensure that some of the interventions were more self-sustaining at project closure.

The project logical framework should have been updated to reflect the adaptive management changes made.

A comprehensive revision of the logical framework was made in June 2008 as part of a management review. Although this revision succeeded in stream-lining the framework and rationalizing many of the performance targets, there were still some inconsistencies that should have been clarified after implementation started in 2009. Also, significant adaptive management changes, including the drafting of the Wetlands Act, decision to focus on tagged HHs, and financial support for the solar fence in Koshi, were not reflected in the logical framework.

1.4. Evaluation Rating Table

Aspect	Rating	Comments
Monitoring and Evaluation		
Overall quality of M&E	**Satisfactory**	Design encouraged participatory M&E, and this was mostly accomplished through implementation of the M&E plan. The LFA/results framework could have been better utilized as a M&E tool.
M&E design at entry	**Satisfactory**	The M&E plan was robust, sufficient funds allocated, and responsibilities extended to relevant stakeholders.
M&E plan implementation	**Satisfactory**	Reporting and project controls were effective, and stakeholders proactively engaged in M&E tracking and management response. LFA/results framework should have been revised to reflect adaptive management changes.
Implementing Agency and Executing Agency Execution		
Overall Quality of Project Implementation / Execution	**Satisfactory**	The implementation modality proved very effective, and sustainability is enhanced due to high level of country ownership.
Quality of UNDP Implementation	**Satisfactory**	The UNDP comparative advantage led to tactical implementation support.
Quality of Execution	**Satisfactory**	The EA remained proactively engaged in strategic and project management issues.
Outcomes		
Overall Quality of Project Outcomes	**Satisfactory**	The project was successful in achieving satisfactory results in terms of policy reform, institutional strengthening, and demonstration of collaborative conservation and sustainable use of wetland resources. National and local level ownership notably increased over the course of the project, and the tagged

Aspect	Rating	Comments
		WPSE sector in the wetland dependent communities were empowered and capacitated to augment their livelihoods through wise resource utilization.
Relevance	**Relevant**	Project outcomes are consistent with the GEF Biodiversity Strategy, also complementary alignment with UNDP country priorities, and wetland issues mainstreamed into national policy and local development plans.
Effectiveness	**Satisfactory**	Project outcomes were satisfactorily achieved. The implementation delay did have some negative impacts on effectiveness and sustainability, e.g., consultation on Wetlands Act would have further benefited from project support and livelihood programs could have been further developed toward self-reliance.
Efficiency	**Highly Satisfactory**	Cost effectiveness concluded to be highly satisfactory. Financial delivery rates averaged 95%; financial controls and reporting consistently executed; and open lines of communication resulted in effective and transparent utilization of funds.
Sustainability		
Overall likelihood of risks to sustainability:	**Likely**	Enhancing the likelihood of sustainability of project outcomes was consciously incorporated into project design, implementation, and closure (e.g., exit strategy and plan). Verification is difficult over the limited project implementation timeframe, so continued monitoring will be important to substantiate sustainability.
Financial resources	**Likely**	Financing mechanisms have been institutionalized, both at the national and local levels. But, sufficiency and continuity of funding streams remain concerns.
Socio-economic/political	**Likely**	Awareness outreach was effective and local interventions strongly driven by local communities. Monitoring of socio-economic gains is important, in order to provide local and national decision makers information on how to best scale

Aspect	Rating	Comments
		up activities.
Institutional framework and governance	**Likely**	Strong institutional structures are in place, with inclusion of cross-sectoral stakeholders. Institutions strengthened with participation from NGOs, CBOs, and local ethnic group leaders.
Environmental	**Likely**	Organizations responsible for resource management aware of environmental threats, and provisions incorporated into management plans. Potential unsustainable resource extraction requires further monitoring; lack of sanitation presents continued environmental pressure on water quality; and infrastructure development plans require critical analysis.
Overall Project Results		
Overall Project Results	**Satisfactory**	The project was successful in facilitating meaningful and long-lasting policy reform, developing high quality knowledge base products, mainstreaming wetland issues among a wide spectrum of stakeholders, and demonstrating how community driven initiatives can effectively link conservation and sustainable use of wetland resources with empowered local communities and augmented livelihood opportunities.

1.5. Recommendations, Good Practices and Lessons

Recommendations

The mandate of the National Wetlands Committee should be expanded to include the responsibility for ensuring the Wetlands Act and Wetlands Regulations are eventually passed by Parliament or equivalent body.

The Wetlands Act and eventual regulations will be long-lasting achievements of the project. The project is soon to be closed and it is important that the draft of the Act and regulations be handed over to the most relevant body. We recommend that the mandate of the National Wetland Committee be expanded to include stewardship of the National Wetlands Act and regulations until passed by the appropriate legislative body. Possible partnership linkages, e.g., with the policy advisory structure linked with the MFSC that the WTLCP TE recommended, or through the UNDP ecosystem-based adaptation (EBA) program, should be explored for providing policy level support.

***Maintain inter-ministerial collaboration by creating a rotating chair post for the Technical Advisory Committee reporting to the National Wetlands Committee*.**

TAC is the second-tier of the NWC consisting of joint secretaries and under-secretaries from various relevant ministries and government departments. We recommend that a post of chair should be provisioned for the TAC on a yearly rotational basis, in order to ensure that wetland issues remain high on the agenda of participating agencies, not only the MFSC. Once a member is given the task of chairing such committee the responsibility will be increased and wetland issues will be prominent feature for the concerned officer, department, and his/her ministry. The TAC chair will be reporting to the NWC on a regular basis regarding the outcomes from its meetings and actions and will be automatically compelled to know about wetland issues and be sympathetic on wetland issues. This may have linked-effects within the department or ministry irrespective of its core issues.

Carry out a national wetlands inventory, so that management decisions and resource allocations can be more efficiently directed.

IUCN Nepal completed a comprehensive initial inventory of lowland wetlands in Nepal in 1996. This work was based on a rapid assessment of lowland wetlands and far from complete. There is, therefore, a dire need to start a comprehensive survey of wetlands in Nepal. Such work should record the state of wetlands in the country, prioritize management actions, help mitigating climate change threats and associated actions, provide background information for declaring additional Ramsar sites, etc.

Furthermore, the information generated from the inventory would form a baseline for future monitoring and conservation and water-use activities in these areas.

Develop a wetlands management strategy and wetlands management guidelines that can be applied at all wetland sites in the country.

The CSUWN has been a great example in terms of the various knowledge base products it has delivered and how adaptive the project has been in taking up pressing issues into the project framework. One important omission, however, has been the lack of a strategy framework on wetland management and a manual for implementation. Small restoration interventions carried out by the project have shown positive results and all these activities are important to document for future management. Therefore, we recommend developing a Wetlands Management Strategy Framework for the entire country and Guidelines to deal with ecologically distinct lakes and rivers situated at different elevations.

Carry out a more extensive biological assessment of the two pilot ecosystems in order to gain a better understanding of biodiversity status

The biological assessments that exist for the two pilot sites are old and outdated except for waterbird fauna which has been updated through the annual mid-winter waterbird count. There are however more than waterbirds in these two areas. An extensive biological assessment of both the sites is needed to better allow assessment of overall gains in biodiversity.

Continue monitoring the socio-economic and conservation benefits realized through project outcomes

The CSUWN has been exceptional in generating various measurable outcomes during its relatively short life at both of the pilot sites. Through the existing institutional mechanism, it is

recommended that some of the benefits in terms of biodiversity and livelihoods should be monitored and technical advice should be provided. We recommend that in case of Koshi, KTWR/DNPWC and in case of GLA, District Forest Office Kailali/Department of Forest should take the lead responsibility.

- With respect to the livelihood programs, it would be useful to monitor whether the local people are reverting back to earlier unsustainable habits, e.g., unauthorized livestock grazing, poaching, etc., and try to determine the reasons why.
- It would also be advisable to further monitoring gains in household income levels among those households that received support. The ultra-poor sector particularly emphasized the concern of access to capital/finance, and it would be useful to monitor whether group-lending mechanisms facilitated during the project are able to meet the continued needs of these people.
- Monitoring of operational issues associated with the biogas installations would also be helpful for developing management guidelines for dealing with livestock feeding and dung supply challenges for other similar initiatives.
- Monitoring the operation of aquaculture activities, in conjunction with people who are fishing in the natural water courses, should be made, in order to determine if the mentioned concerns of biological pollution or other consequences have occurred.
- Further monitoring of indicator species and dissemination of results will be critical in evaluating whether biodiversity are sustainable, and what factors are affecting the outcomes, whether positive or negative.

Further develop linkages that would help insure sustainability of project outcomes.

The project has effectively fostered linkages with partners during the implementation of the project. With the MFSC taking lead responsibility, continued and new linkages should be made:

- Linkage within the MFSC with regard to continuing to monitor the project sites according to the Ministry's gender strategy.
- Linkage with the AEPC for fund raising and technical support for the energy related interventions. Also, sharing AEPC knowledge regarding maintenance of the solar fence in KTWR, including life-cycle management of the batteries.
- Linkage with the UNDP micro-enterprise development program, for possible support for some of the enterprises and cottage industries that were assisted by the project.
- Linkage with the UNDP EBA program, for possible policy level support.
- Linkage with PES interventions in Nepal should also be explored.

Further share project results with interested national and international stakeholders, such as those managing similar projects, including those in the GEF portfolio.

- The results of the project should be further shared with national and international stakeholders, such as those managing similar projects, including those in the GEF portfolio. The International Wetland Symposium sponsored by the project in 2012, attended by 81 participants from 13 countries, is a good example of a mechanism for disseminating project results and sharing experiences.

In order to achieve meaningful biodiversity improvements in the Koshi Tappu Wildlife Reserve, the spatial coverage of the protected area should be increased to include connectivity with other complimentary ecosystems.

Although the baseline information does not exist for comparative study, it is likely that the wildlife populations of KTWR has been in decline since as early as 1976, when it was set up as a wildlife reserve. The decline has been more prominent and rapid since the mid-1990s and also after the flood impact at Koshi in the year 2008. In order to ensure that KTWR acts as a long-term sustainable and functional unit of ecosystems, the spatial coverage should be expanded to include corridor connectivity, more of the same ecosystems, and complementary ecosystems. In order to ensure that KTWR acts as a long-term sustainable protected area, the spatial coverage should be expanded to include corridor connectivity, more of the same ecosystems, and complementary ecosystems.

For up-scaling similar livelihood programs, a broader landscape perspective should be addressed, ensuring that ecosystem functions and values of local wetland resources are sustainable.

Scaling up conservation and sustainable use interventions at the two pilot sites or at other areas should be made in the context of a broader, landscape level perspective. There are a number of issues that should be critically analyzed to ensure ecosystem functions and values of wetland resources are sustainable, e.g.:

- Sustainable extraction rates of certain wetland resources should be evaluated, so that replenishment can keep up with demand if larger scale programs are implemented.
- Deployment of a high number of biogas installations should be carried out only after management guidelines are in place for ensuring reliable supply of dung and sustainable livestock feeding practices.
- The compatibility of aquaculture with native fish populations should also be carefully assessed, and strict management guidelines implemented to safeguard against biological pollution and other unintended consequences.
- From an ecosystem approach perspective, it would be advisable to carry out an environmental flows assessment in conjunction with an expanded biological assessment. Environmental flows are defined as the quantity, timing, and quality of water flows required to sustain ecosystems and the human livelihoods and well being that depend them.
- Potential increases in wildlife numbers should also be considered, and appropriate management guidelines implemented to reduce the chance for human-wildlife conflict. The DNPWC should carry out a study on the carrying capacity of the KTWR and other protected areas for various key animals. These species could be threatened, indicator and species that are prone to cause HWCs. Potential increases in wildlife numbers should therefore be considered in advance, and appropriate management guidelines should be implemented to reduce the chance for human-wildlife conflict. The Compensation Policy 2069 approved by the MFSC targeting HWCs should be implemented in a pragmatic way so that relief and compensation to the needed can be provided immediately.

- Evaluate how payment for ecosystem services (PES) approaches could be utilized to achieve conservation and livelihood improvement goals. The DNPWC should take lead in PAs and DoF and other stakeholders outside PAs to promote sustainable financing of the forest and wildlife management. This remains an unexplored area but potentially benefitting all stakeholders concerned.
- Consider expanding inclusion of all income level groups in training and other capacity building activities, to avoid alienating particular sectors of the communities, and possibly enabling community-level economic benefits.

Good Practices and Lessons

Some good practice and lessons noted by terminal evaluation team are summarized below.

Baseline Conditions

For such a conservation and sustainable use project, it is advisable to collect information on baseline conditions, both in terms of biodiversity and livelihoods, at the project formulation stage. This allows for a more targeted design and, accordingly, more effective implementation. For the CSUWN project, biological baseline data were a bit outdated and livelihood baseline surveys were made in 2009, after an approximate one year delay in project implementation.

Participation

Ensuring local community participation is essential in enhancing sustainability of project outcomes. The project provided working examples of a wetlands livelihoods approach that links public participation, empowerment, and income generation. Participation was directed mainly to the group level, e.g., community forest user groups, thus better enabling group level consensus. The project took an advisory role, wisely allowing local community institutions to make decisions and facilitate implementation. A good example is the KTWR solar fence, which the local communities participated in all aspects, ranging from design, construction, inspection, and maintenance. The sustainability of the benefits realized through the solar fence is greatly enhanced by the high level of local ownership. Also, the Participatory Monitoring and Evaluation of Biodiversity concept was adopted by the project for monitoring and evaluating the five key indicator species. This concept encourages participation among local communities and further strengthens the enabling environment.

Institutional Structure

It is more effective to utilize existing institutional arrangements rather than creating new ones. The livelihood improvement programs were mostly implemented through existing institutions, e.g., community forest user groups, and group-lending financing mechanisms that were also in place.

Governance

Institutional arrangements should be reflective of local circumstances and priorities. The project was successful in facilitating clarification of institutional arrangements in the National Wetlands Policy 2012, including the District Forest Sector Coordination Committee (DFSCC), which is a nation-wide structure that exists in many districts as a government-recognized institutional mechanism. The DFSCC institution will play a critical role in the governance of wetland management programs in the country.

Income-generation activities

The linkages between environment and livelihood issues (health, income, and education) are increasingly being recognized as integral for achieving sustainable ecosystem conservation; however, relationships between resource management and poverty are complex. The project was successful in demonstrating a diversified range of livelihood programs, including alternative ones aimed at reducing pressures on wetland resources, and particularly focusing on empowering disadvantaged sectors of the wetland dependent communities. More critical review is required to improve the quality of outcomes and enhance sustainability, and to ensure the programs are compatible with conservation goals. It is also important to reach sufficient segments of communities in order to avoid discrimination, for example, among groups of different income levels, and against those communities that live inside or outside the buffer zones or other designated areas.

Communication

Sharing and dissemination of information at all stages of the project encourages participation in decision-making processes and other activities. The communication, education, participation, and awareness strategy was implemented in all activities of the project, from facilitation inter-ministerial collaboration on the National Wetland Committee to engaging local communities in the two project sites. This stakeholder involvement plan was successful in mainstreaming wetlands issues and inspiring high level governmental officials to move forward with policy reforms.

Strengthening cultural integrity

Empowering indigenous people to manage biodiversity in their own localities can result in more sustainable and effective conservation. The project deliberately engaged indigenous ethnic groups in the livelihood improvement programs. Inclusion of the *bhalmansha* (a traditional Tharu leader) on the MSF in GLA was very insightful, demonstrating cultural awareness and respect. Some of the radio outreach programs were broadcasted in local languages; this also increases the sense of ownership by indigenous communities.

2. INTRODUCTION

2.1. Purpose of the Evaluation

The objectives of the evaluation were to assess the achievement of project results, and to draw lessons that can both improve the sustainability of benefits from this project, and aid in the overall enhancement of UNDP and GEF programming. Specific objectives include:

- Assessment of achievements of projects outputs and results including the implementation of Mid-Term Evaluation recommendations.
- Examination of impact and sustainability of results, including the contribution to policy and planning framework, institutional capacity and awareness and collaborative management for wetland resources.
- Documentation of lessons learned and recommendations that will maximize the impact of the project and also to provide evidences to improve design and implementation of similar projects in near future.
- Contribution of the overall assessment of results in achieving GEF strategic objectives aimed at global environmental benefit.
- Evaluation of project convergence with other priorities with the UNDP country program, including poverty alleviation, reducing disaster risk and vulnerability, and cross-cutting imperatives on empowering women and supporting human rights.

2.2. Scope and Methodology

The terminal evaluation was an evidence-based assessment and relied on feedback from persons who have been involved in the design, implementation, and supervision of the project, and upon review of available documents and records.

The evaluation was made by a team of three independent evaluators: a national consultant specializing on biodiversity conservation issues, a national consultant focusing on sustainable livelihoods and gender inclusion, and an international consultant/team leader responsible for overall direction of the evaluation. The evaluation was carried out during the period May-June 2013 and included the following activities:

- An evaluation mission from 27 May to 9 June 2013 (the itinerary is compiled in **Annex 2**), including field visits to the two pilot sites to the Koshi Tappu Wildlife Reserve and Ghodaghodi Lake Area. Consultative meetings were held with the following organizations and individuals at both center and the field: (UNDP, Ministry of Forests and Soil Conservation, Department of Forests (DoF), Department of National Park and Wildlife Conservation, Reserve Warden, District Forest Officer, Concerned Partner Organizations, Project's beneficiaries (local communities in the pilot areas), and project staff. The complete list of persons interviewed is indicated in **Annex 3**. Survey questions (see **Annex 4**) were sent to the stakeholders prior to the interviews.
- A desk review of relevant sources of information, including the project document and project's reports including Annual Progress Reports/PIR, Mid Term Evaluation, Progress Reports, GEF focal area tracking tools, project files, national strategic and legal documents, and any other materials that the evaluator considers useful for this evidence-based assessment. A list of documents reviewed is included in **Annex 5**.

- An evaluation matrix was adapted to the context of the project and used as an analytical tool for ensuring thorough analysis (see **Annex 6**). The project LFA/results framework was also used as an evaluation tool, in assessing attainment of project outcomes (see **Annex 7**).
- At the end of the evaluation mission, the team drafted a set of initial findings and presented them to key project stakeholders at a debriefing meeting held on 9 June 2013. The meeting minutes from this debriefing are compiled in **Annex 8**.

For quality assurance, evidence gathered during the evaluation mission was cross-checked between as many sources as practicable, in order to validate the findings.

The PMU and FMUs provided the evaluation team with support to obtain necessary and requested documentations and logistical assistance during the evaluation mission.

2.3. Structure of the Evaluation Report

The terminal evaluation was carried in accordance with the requirements outlined in the Terms of Reference (see **Annex 1**) and the monitoring & evaluation guidelines and policies of the UNDP and GEF.

The following evaluation criteria were analyzed:

Relevance:	Extent to which a development initiative and its intended outputs and outcomes are consistent with national and local policies and priorities and the needs of intended beneficiaries.
Effectiveness:	Extent to which the initiative's intended results have been achieved.
Efficiency:	Measure of how economically resources or inputs (such as funds, expertise and time) are converted to results.
Sustainability:	Measure of the extent to which benefits of initiatives continue after external development assistance has come to end. Factors such as establishment of sustainable financial mechanisms, mainstreaming project objectives into the broader development policies, and sectoral plans and economies or community production were assessed.
Impact:	Actual or anticipated, positive or negative changes in global environmental benefit, as verified by environmental stress and/or status change, and also taking into account sustainable development impacts, including changed livelihoods.

The risks to sustainability of Project outcomes were also rated. The following aspects of risks to sustainability were assessed:

- Financial Risks
- Socio-Economic and Political Risks
- Institutional Framework and Governance Risks
- Environmental Risks

All risks aspects of sustainability are critical, so the overall rating is not higher than the lowest rated aspect.

The evaluation also assessed whether the project has been fulfilling the minimum monitoring & evaluation (M&E) requirements for project design and implementation.

In evaluating project performance and results, the following considerations were also taken into account:

- Country Ownership/Drivenness
- Stakeholder Involvement
- Financial Planning
- IA and EA Modalities

Finally, the evaluation summarizes the major achievements and weaknesses of the project, presents recommendations for reinforcing and following up on initial benefits, and identifies lessons and good and best practice.

2.4. Evaluation Ratings

Project performance was rated according to the 6-point GEF scale, ranging from Highly Satisfactory (no shortcomings) to Highly Unsatisfactory (severe shortcomings). Relevance was evaluated to be either relevant or not relevant. The Project results were compared against the strategic framework indicators, but also were evaluated with respect to the particular local circumstances.

Sustainability was rated according to a 5-point scale, ranging from Likely (negligible risks to sustainability, with key outcomes expected to continue into the foreseeable future) to Highly Unlikely (expectation that few if any outputs or activities will continue after project closure).

2.5. Ethics

The terminal evaluation was conducted in accordance with the UNEG Ethical Guidelines for Evaluators, and the evaluation team has signed the Evaluation Consultant Code of Conduct Agreement form (see **Annex 9**). In particular, the team ensures the anonymity and confidentiality of individuals who were interviewed and surveyed. In respect to the UN Declaration of Human Rights, results were presented in a manner that clearly respects stakeholders' dignity and self-worth

3. PROJECT DESCRIPTION AND DEVELOPMENT CONTEXT

3.1. Project Start and Duration

Key project dates are listed below:

Pipeline Entry Date	01 February 2001
PDF-B Approval Date	19 July 2001
Approval Date	27 September 2004
CEO Endorsement Date	18 May 2006
GEF Agency Approval Date	14 March 2007
Inception date	March 2008
Independent Management Review	June 2008
Implementation start date	March 2009
Mid-term evaluation date	November 2011
Project completion date	30 June 2013
Terminal evaluation date	June 2013
Expected Project closing date	30 June 2013

The project entered the GEF pipeline in 2001, under the Biodiversity focal area and Operational Program 2. The total project cost at the time of the PDF-B approval was estimated to be 9-12 million USD, with the GEF providing 3-4 million USD and co-financing totaling 6-8 million USD. At this time, the IUCN was slated as the implementing agency.

When the GEF agency (UNDP) approved the project in 2007, the total cost had been reduced to approximately 4 million USD. At the inception meeting in March 2008, the parties concluded that the project scope and LFA/results framework were not adequately adjusted according to the reduced total project. As a result of an independent management review in June 2008, the scope and log frame were significantly rationalized and IUCN was recommended not to participate in the implementation of the project. The recommendations were effected, and the project effectively started implementation in March 2009, approximately one year after the inception meeting.

The 5-year duration project was envisioned to be completed in December 2012, but due to the delay in starting implementation, the closure date was extended 6 months to 30 June 2013. A mid-term evaluation was completed in November 2011.

3.2. Problems that the Project Sought to Address

The project sought to address the major threats to wetland biodiversity in Nepal such as habitat destruction and degradation; loss of ecosystem integrity; and depletion of species abundance and diversity. The project took an approach to address these issues by (i) strengthening national policy and capacity on wetland conservation; (ii) linking national actions with work at two demonstration wetland sites of international importance: the Koshi Tappu Wildlife Reserve and its buffer zone and the Ghodaghodi Lake Area (outside the protected area system), both identified as Ramsar sites (see **Exhibit 3-1**); and (iii) enhancing capacity and awareness on wetland issues at all levels thereby influencing policy and plans of the four districts, to integrate wetland conservation values, where the two demonstration sites are located.

Exhibit 3-1: The Ramsar Convention

The Ramsar Convention is an intergovernmental treaty that embodies the commitments of its member countries to maintain the ecological character of their Wetlands of International Importance and to plan for the "wise use", or sustainable use, of all of the wetlands in their territories.

www.ramsar.org

3.3. Immediate and Development Objectives of the Project

The overall project goal is to ensure the maintenance and enhancement of wetland biodiversity and environmental goods and services for improved local livelihoods, while the immediate objective is to strengthen national and local capacity in ecosystem management and sustainable uses of wetland biodiversity in Nepal. As outlined in the Project Document, the national development benefits anticipated from the project include:

- *Improved inter-sectoral coordination and strengthened policy for wetland conservation. Policy makers more aware of wetland values and are more supportive towards wetland conservation.*
- *Awareness of, information about, and capacity on wetland conservation improved, and*

integrated into both development and conservation planning Long-term institutional, policy and financing mechanisms for wetland management in Nepal in place and functioning.

- *Loss of direct and indirect benefits curbed, on- and off-site wetland values maintained or improved. Economic development opportunities from sustainable land and water-based development.*

In terms of global benefits, the development expectations described in the Project Document are further extended as follows:

The global community will benefit significantly from the protection of direct and indirect use values associated with biological diversity in wetlands and from increased carbon storage as well. The Project provides a vehicle for managing biodiversity at the ecosystem scale (including protected and unprotected areas) and translating integrated ecosystem management into action. It also seeks to promote transboundary wetland management, and the lessons learnt are expected to be of interest and relevance globally.

3.4. Baseline Conditions

Baseline conditions documented in the project document were as follows:

1. *Wetland conservation and wise use remained low priority in national policy and planning frameworks and budgets.*
2. *Weak institutional, technical and financial capacity for wetland biodiversity conservation and sustainable use.*
3. *Fewer economic incentives for wetland biodiversity conservation, continued disincentives and perverse incentives at macroeconomic and sectoral policy levels, and market and price distortions discriminating against wetlands.*
4. *Lack of replicable models of collaborative wetland management models linked to local and national capacity and policy strengthening.*

Baseline surveys were completed for the two pilot sites in September 2009. Some of the conclusions and recommendations of these surveys included the following:

- Potential diversified livelihood opportunities could be realized through farm, off-farm, service and trade based IGAs and enterprise development based sustainable management and effective management of the forest and wetlands products.
- Focus should be on the developing pro-poor activities and targeting interventions for poor and ultra-poor HHs by providing technical and financial support through existing institutions and strengthening them.
- Energy saving devices should be promoted to reduce stress on fuel wood and also improving the household environment thereby contributing to MDGs.
- Conservation education should be provided, with focus on natural resources management;
- Strengthen communication, coordination and linkages with other stakeholders should be strengthened.

The surveys also identified institutional capacity building needs for BZ institutions and CFUGs:

- Institutional capacity of CFUGs should be strengthened, in the areas of planning, management and implementation of programs. Support should also be extended for monitoring of program implementations.
- The capacity of BZ institutions should be enhance by internalizing the practices the principles of good governance.
- Capacity building for local communities should also focus on increasing community participation in bio-resource management and conservation;
- Leadership capacity should be strengthened among poor and ultra-poor sectors of wetland dependent communities (WDCs).

The terminal evaluation team feels that baseline surveys, both in terms of biological assessment and livelihood circumstances, should have been completed for the two pilot sites during the project formulation stage, so that the project design could have been more focused and the strategic results framework made more representative of baseline conditions. For a 5-year duration conservation and sustainable use project, implementation time should not have been spent on collecting baseline information.

3.5. Main Stakeholders

The key stakeholders for this project included traditionally wetland dependent communities, farmers, local government agencies, community-based organizations, non-governmental organizations, research agencies and government agencies. Within the government ministries, MFSC was the key stakeholder and joint implementer for this project. The MFSC delegates its responsibilities for wetland conservation mainly under four separate departments, namely the Environment Division, as the focal unit for the Convention on Biological Diversity (CBD); the Department of National Parks and Wildlife Conservation (DNPWC), responsible for management of wetlands within protected areas and their buffer zones, responsible for some of the key programs in the captive-breeding and reintroduction of aquatic fauna and the focal unit with respect to the Ramsar Convention and CITES implementation; the Department of Forests (DoF), responsible for wetlands that fall within the national forest areas, some of which have been handed over for community management as community forests; and, the Department of Soil Conservation and Watershed Management (DSCWM), whose role is to support land-use planning (including watershed and sub-watershed management planning and technical service for land use development), land productivity conservation and infrastructure protection, and natural hazard prevention.

At the field level other key stakeholders included the District Development Committees (DDCs) and Village Development Committees (VDCs) under the Ministry of Local Development. These have growing influence over conservation and sustainable development through a systematic shift towards decentralization of power under the Local Self Governance Act (1999) (LSGA).

In addition to above the National Planning Commission and the Ministry of Finance that formulate economic policies and allocate budgets, Chief District Officers, under the jurisdiction of the Home Ministry, whose duties include among others the enforcement of the Aquatic Life Conservation Act (1961), under the provisions made in its amendment in 1999 were also involved as stakeholders in this project.

4. FINDINGS

4.1. Project Design / Formulation

4.1.1. Analysis of LFA/Results Framework (Project logic/strategy; indicators)

One of the major achievements of the June 2008 management review was a thorough rationalization of the project LFA/results framework. Project activities were streamlined and performance indicators clarified. Even though this management review resulted in a significant improvement of the LFA/results framework, there remained inconsistencies that were not revised during project implementation.

On an outcome level, the LFA/results framework was evaluated against SMART criteria (see **Exhibit 4-1**).

Exhibit 4-1: SMART Criteria

S	Specific: Outcomes must use change language, describing a specific future condition
M	Measurable: Results, whether quantitative or qualitative, must have measurable indicators, making it possible to assess whether they were achieved or not
A	Achievable: Results must be within the capacity of the partners to achieve
R	Relevant: Results must make a contribution to selected priorities of the national development framework
T	Time- bound: Results are never open-ended. There should be an expected date of accomplishment

Source: UNDP Evaluation Guidance for GEF Funded Projects (2011)

A summary of the evaluation is presented below and the complete log frame is compiled in **Annex 8**.

Outcome 1: Wetland biodiversity conservation values integrated into national policy and planning framework

Indicators of Achievement:

1. National Wetland Committee established & functional

2. Wetland issues integrated in national periodic plan & sectoral plans & policies

Targets:

1. By 2009, National Wetland Policy 2003 reviewed and forwarded for endorsement by 2010

2. By 2011, NWC established as consultative /decision making body for wetland related issues

3. By 2011, wetland issues integrated into national periodic plan & programme

The performance indicators and targets for this outcome were well designed, and meet SMART criteria. The log frame should have been revised during project implementation, after a management decision was made to facilitate drafting of the Wetlands Act.

Outcome 2: Strengthened national institutional, technical and economic capacity and awareness for wetland biodiversity conservation and sustainable use

Indicators of Achievement:

1. Trained Human Resources & increased wetland management programs in place

2. Community involvement increased by 50% in wetland conservation & management at demo sites & media coverage increased at national level

Targets:

1. By 2010, sustainable management practices of wetland resources promoted

2. By 2012, 35% of the critically degraded wetlands of demo sites restored

The first target is not sufficiently specific and, thus, difficult to measure. This target also does not reflect the strengthened institutional and technical capacity strengthened through the project activities. The target date of 2010 should have also been revised, as project implementation effectively only started in 2009.

The relevance of the second target is questioned. Why limit restoration efforts to 35% of the critically degraded wetlands. If indeed critically degraded, why not target 100% of these areas. Restoration of these areas was useful in terms of demonstrating good practice, but the relevance of the project outcomes would have been enhanced if project resources were also directed at formulating national a wetland management strategy and management guidelines, which could be applied at other wetland sites.

The indicator of increasing community involvement by 50% is difficult to measure and is not time-bound. Furthermore, although the expected awareness raising results were specified in the outputs under this outcome, the performance targets on the outcome level should have reflected these expectations.

Outcome 3: Enhanced collaborative management of wetland resources for conservation and sustainable livelihood

Indicator of Achievements:

1. Wetland issues are integrated into district level plans by local bodies (DDC's and VDC's), line agencies (DFO, Reserve, Irrigation, Agriculture offices) & conservation partners (BZMC, CFUG, local NGOs, etc.)

2. Average HH income of wetland dependent communities increased by 20%

Targets:

1. By 2009, livelihood strategies prepared & implemented in 2 demo sites by 2010

2. By 2010, major wetland issues to be addressed by local bodies are identified & forwarded to respective district development committees (DDCs)

3. By 2012, more than 90% of recommended wetland issues are incorporated into district periodic plans

For Target No. 2 under this outcome, definition of “major wetland issues” was not defined and thus performance against this target is difficult to measure. Similarly, “recommended wetland issues” is not defined, and could not be measured to evaluate performance against the 90% target.

Following the livelihood baseline survey made in 2009, a decision was made to tag certain households within the wetland dependent communities (WDCs). The performance indicator of achieving an increase of 20% in HH income is for the tagged HHs, not the WDCs as a whole. This should have been specified in a revised log frame. Also, one of the indicators under Output 3.3 is to achieve a minimum increase in HH income of 15% of at least 75% of WDCs; this represents approximately 11% of the entire WDCs. It is unclear how this target relates to the 20% increase goal outlined for Outcome 3.

4.1.2. Assumptions and Risks

Assumptions

The assumptions indicated in the Project Document proved to be largely well-founded:

Wetlands and aquatic biodiversity remain a priority of GoN and required funds are forthcoming after the project's completion as identified in the financing strategy.

- High level government engagement was realized throughout the project. The NWP 2012 was approved, the Wetlands Act has been drafted, and wetland issues are included in the budgets of both national and local level organizations.

Macro-economic and sectoral planners are open to developing pro-wetland economic and development policies and instruments.

- The National Planning Commission has included wetland issues in their planning for the first time.

National Financial Strategy is feasible and identifies diverse options for financing of wetlands conservation.

- Wetland conservation financing strategies demonstrated during the project implementation phase have been taken up by the relevant stakeholders. For example, the 5-year KTWR management plan includes specific wetland conservation provisions resulting from the work of the project.

GoN remains open to the participation of civil society in wetland management.

- The civil society proved important stakeholders in terms of wetland management. COBs and NGOs are important stakeholders in wetland management, e.g., through biodiversity management (monitoring, anti-poaching, etc.) and also through support of livelihood programs. At both of the project pilot sites, the role of CBOs and NGOs has been incorporated into the respective management plans.

Sectoral departments adopt the guidelines and ensure their use.

- The NWC has broad cross-sectoral representation, helping to ensure that wetland policy and guidelines are adopted across line ministries and other involved government stakeholders.

GoN counterpart funding and staff are provided in a timely manner.

- The KTRW and the GLA management plans include specific plans and budget allocations for wetland management issues.

Environment division (or another appropriate department in MFSC) maintains responsibility for biodiversity.

- The DNPWC is the main department of the MFSC solely dedicated to biodiversity conservation and is the main regulatory body of the National Parks and Wildlife Conservation Act 2029. It looks after the biodiversity only in the PAs. The DoF looks after forests that are not included within the main protected area network, and it is also the main regulatory body of the Forest Act. The Environment Division within MFSC is the division that is the focal point for biodiversity conservation, especially linking the DNPWC to the MFSC in wildlife conservation issues. If wildlife issues are affecting also

other departments of the MFSC or the DNPWC needs to coordinate with other divisions of the MFSC, then the Environment Division can also play a lead role.

Field activities are not unduly hampered by the political situation.

- At the district and village level, certain decisions would have likely been more efficient if there were elected governments in place. That said; the field activities of the project were carried out more or less unaffected by the political situation.

Incentives (social & economic) demonstrated in the two project sites are replicable to other sites and sufficient to cause changes in resource use practices within life of the project.

- Livelihood enhancement programs and habitat conservation/restoration interventions demonstrated did result in measurable improvement. For example, household income of the tagged households increased on average more than 30% during the project timeframe. Following installation of the solar fence in Koshi Tappu, noticeably more crops were planted within the buffer zone, thus reducing grazing pressure within the reserve. The sustainability of these gains will largely depend upon efficient maintenance of systems that were put in place, and also on the social and economic conditions of the local communities.

Risks

Risks were broadly outlined in the original project document, and specific risks and adaptive management measures were outlined in Annex 5 of the revised project document, following review comments. The terminal evaluation team concluded that the following risks should have been also considered at the planning stage:

- The enabling environment of the tagged HHs of the tagged households might be insufficient to sustain realized livelihood achievements after project closure. Even with up-front financial support and capacity building through training, the socio-economic conditions of these HHs are disadvantaged.
- The unintended consequences of increased wildlife as a result of some of the project interventions, e.g., habitat restoration, pose risks to the local communities. The risk of these consequences should have been considered and management provisions put in place.

4.1.3. Lessons from Other Relevant Projects Incorporated into Project Design

Prior the CSUWN project, there were a few other programs that lasted from three to 10 years; for example, the Park and People Program (PPP) and Participatory Conservation Program (PCP) both funded by the UNDP. Through these projects, interventions in the Buffer Zones were strengthened with the passage of the Buffer Zone management regulations in 1992 and guidelines in 1996. The DNPWC initiated formulation of a conservation strategy and integrated management planning of KTWR and its vicinity in 1998. The buffer zone of KTWR was declared in August 2004, incorporating 77950 people, 10693 household, 215 settlements, and 108 wards among 16 VDCs. More recently, from 2006 to 2009, a Darwin Initiative grant (UK government) funded and jointly implemented by the Wildfowl and Wetland Trust UK and Bird Conservation Nepal worked on sustainable livelihood issues on a few selected areas. CSUWN has taken up lessons learnt and key issues identified through these past projects, notably those that included engaging local communities in improving their livelihoods and consequentially reducing pressure on the depleting biodiversity of the reserve.

In GLA, IUCN has had a long-term association and documented the status of GLA in 1996 through its publication *An inventory of Nepal's Lowland Wetlands*. Since then a lose connection to the site was maintained by IUCN, mainly through encouraging the local youth community to be involved in biodiversity conservation of the lake area. Since the running of the TAL program, IUCN has provided additional support for capacity building of the local people for biodiversity monitoring and also came up with a lake-level management plan. At much larger spatial scale and with financial resources, the WTLCP worked in the western Terai and lessons and good practice from this program were taken into the project design. Based on the experiences of IUCN and WWF as well as WTLCP, CSUWN's interventions were multi-faceted, facilitating cooperation among District level stakeholders for GLA management issues, revising and enlarging the scope of management plan to a catchment level and getting it approved by the Department of Forest, capacity building and various trainings for local people, and also funding various livelihood interventions.

At both of the CSUWN demonstration sites, the project took advantage of people trained during earlier projects. These people included social mobilizers, LRPs, and local leaders.

4.1.4. Stakeholder Involvement

Stakeholder involvement during project implementation was evaluated to be highly satisfactory, resulting in a high level of ownership and an enhanced likelihood for sustainability of project outcomes.

Public Involvement

The project significantly contributed to the wetlands knowledge base, through production of several technical reports, an economic valuation toolkit, and a wetland assessment toolkit, ecological monitoring protocols, etc. These outputs were widely disseminated, and the toolkits, for example, have been already adopted for other wetland sites in the country.

The project also directed considerable efforts on public awareness and outreach campaigns. Based on interview discussions during the TE field mission, the radio broadcasts financed by the project were effective in reaching a large number of people in the local communities, as radio is the most important form of media in these areas. The outreach endeavors also extended to the local youth communities, including formation and support of Wetland Clubs in 29 local secondary schools in the WDCs within the 4 involved districts.

The project also organized and helped sponsor the 2012 Wetlands Symposium, attended by more than 80 professionals. Several scientific articles published about the project results also increased awareness among the professional community.

Stakeholder Consultation

Inclusion of the major water sector line ministries in the NWC and the TAC was effective in raising awareness and wetland importance on the agendas of these agencies. From a field perspective, the livelihood programs and conservation demonstrations were very much implemented on the grass roots level. A baseline livelihood survey consulted with the local communities on what issues are most important to them, and numerous consultations were made with CFUGs, BZUGs, cooperatives, and other local bodies. NGOs and CBOs were also effectively engaged and mobilized to further participate in biodiversity conservation efforts, including biological monitoring, anti-poaching surveys, etc.

The government agencies responsible for management of the KTWR and GLA also effectively consulted with concerned stakeholders. The programs of the KTWR are closely linked with CFUGs and other local level organizations, and there are open lines of communication within the communities, particularly the ones within the buffer zone. In the GLA, the MSF includes a wide spectrum of stakeholders and the DoF consults with this body in preparation and implementation of their management plans. Inclusion of the *bhalmansha* (a traditional Tharu leader) on the MSF was very insightful, and demonstrates cultural awareness and respect. Tharu is the predominant ethnic group among the WDCs in the GLA, consultation with the *bhalmansha* will be critical in gaining community-level support for decisions of the MSF and making them effective.

Stakeholder Participation

The project successfully implemented the stakeholder involvement plan, taking into account the most relevant stakeholders and their expertise. Involved stakeholders have taken full responsibility and have effectively implemented or supported their part of the program. The MFSC, DoF and DNPWC are the main stakeholders at the central level. Other national level stakeholders included NPCS, DoI, and MoLD.

At the field level, KTWR and DoF Kailali were the main stakeholders, and also including DDC, VDC, NGOs, FUGs and CBOs, financial saving and credit groups, etc. Roles and responsibilities of the stakeholders were clearly defined and the participation ensured that some of the project activities will be sustained even after the closure of the project.

The community members in all project sites were very receptive of the work done by the project, which is a major change in the attitude of the locals as compared to some development programs. Such changes are also important for NGOs and CBOs, for increasing their chances of securing support to assist in alleviating the livelihood status of some sectors of the local communities, as well as for biodiversity management. The DFSCC and MSF are relevant institutions that will help ensure that resources for wetland issues are allocated and directed appropriately.

4.1.5. Replication Approach

Replication of various products and outcomes is one of the major strengths of the project.

The institutional structure of the MSF was successfully replicated by the Kapilvastu District, targeting Jagadishpur Reservoir, a Ramsar Site, and also in the Ilam District, targeting Mai Pokhari, another Ramsar site. The MSF in Kapilvastu has already prepared a management plan for Jagadishpur Reservoir and initiated several wetland related activities including the national level celebration of the World Wetlands Day on 2 February 2013.

Replication of knowledge base products and expert training have also been important replication accomplishments realized. For example, the Wetland Inventory, Assessment and Monitoring (WIAM) Tool developed by the project resources has been used by the NLCDC to assess wetlands in 43 districts (18 in 2012, and 25 in 2013), the ICIMOD has adopted the Economic Valuation (EV) Toolkit, Himalayan Nature has adopted the ecological monitoring protocol for surveying some of the indicator species. The wetland restoration approach demonstrated by the project was replicated at the Chitwan National Park.

With respect to livelihood initiatives, as compared to other initiatives implemented by earlier programs, including the PPP and PCP, the project further institutionalized the interventions was

well as capacitating them through establishing a revolving fund mechanism. There is a high potential for replicating this approach on other projects.

The Project made sufficient provisions and allocated substantial amounts of funding for capacity building at all levels, as well as cross-sectoral institutional strengthening with respect to wetland management. The Project demonstrated successful wetland management models, supporting soft activities such as awareness creation and capacity building for wise use of wetland resources to support the livelihood and institutionalizing market based instruments for sustainable wetland management. Such models could be replicated at other areas.

4.1.6. UNDP Comparative Advantage

In examining the UNDP comparative advantage, one issue that was frequently mentioned by interviewed stakeholders was the long-term presence of the UNDP in Nepal, since 1963. This has allowed the UNDP to gain a strategic perspective on national policies and how to best support the country.

The UNDP policy on the national execution (NEX) modality is also positively appreciated, in generating higher levels of country drivenness and ownership for the program activities supported by the UNDP.

Some of the interviewed stakeholders also indicated that the grant nature of UNDP funds leads to tangible and proactive development, demonstrating how limited funds can make significant impacts and encouraging co-financing and eventual self-reliance.

The evaluation team also concluded based upon interview discussions, that UNDP is perceived as independent and objective, compared to certain bilateral donors, without conflicts regarding proprietary methodologies, etc. This perception generally led to a higher degree of willingness to cooperate with the UNDP.

4.1.7. Linkages between Project and Other Interventions within the Sector

The Project complemented the GEF full size Western Terai Landscape Complex Programme (WTLCP) (Nep/00/G41, Nep/99/030). WTLCP and CSUWN had a geographic link at the Ghodaghodi Lake Area, which fell within the overall geographic working area of the Western Terai Landscape Complex, but not fully under the targeted areas of work within the WTLCP project. There were therefore great opportunities to undertake joint planning and action, particularly on capacity building of key stakeholders in Kailali district. The Terai Arc Landscape programme that partially covered the GLA was also fully taken into account and interventions were coordinated.

CSUWN took full advantage of streamlining its activities for similar interventions within the sector. For example, the DNPWC utilized the economic valuation toolkit produced by the project for two different Ramsar sites in Nepal.

4.2. Project Implementation

4.2.1. Adaptive Management

The project implemented adaptive measures to address changing circumstances since project inception and in response to a better understanding of the needs of the beneficiaries, while at the same time managing to keep the overall project objective in focus. Examples of adaptive management on the project include the following:

Significant Restructuring in 2008

Project steering committee members (POB) realized at the project inception that the project activities were too extensive and the performance indicators did not adequately represent the pared down 5-year program. An independent management review was completed in June 2008, with a restructured LFA/results framework and a rationalization of project outcomes in the context of the project timeframe and budget. It was fortunate that the restructuring occurred at the beginning of the project implementation phase, avoiding potentially wasteful spending and weak effectiveness if shortcomings were identified later.

Devastating Flood of 2008 in Koshi Tappu: Impacts and Management Response

Following the devastating flood in 2008 in Koshi Tappu, UNDP wanted to have an assessment on the impacts and accordingly revision of the management plan was undertaken. In response to the assessment facilitated by the CSUWN project, some pertinent issues on Wild Buffalo monitoring and wetland habitat conservation were included in the revised management plan. A paper published on the flood impact assessment (Khatri et al. 2010) recommended following: (i) the entire stretch of the Koshi River from Chatara to Koshi barrage should be given due attention and priority; (ii) the existing feral cattle should be removed to create and provide enough space for wild herbivores; (iii) the translocation of Wild Buffalo to a similar habitat elsewhere should also be a priority from a management perspective; (iv) since dolphins feed upon smaller fishes and shrimps, the mesh size of fishing nets can be regulated so that the fisherman catch only larger fishes and allow smaller fishes to escape; (v) the existing tourism potentials should also be harnessed in order for the local people to benefit from biodiversity conservation so that they can appreciate the values of conservation and take stewardship towards the reserve.

The first recommendation has been included in the **Wetland and corridors between the Reserve and Koshi Barrage** in the management plan. In 2011/2012, KTWR also conducted a rapid study on the links between areas that lie outside the KTWR and the reserve. The recommendation on feral cattle/domestic buffaloes has been fully internalized in the plan. As part of the action, part of the population of feral cattle and domestic buffaloes were removed. Regarding translocation of Wild Buffalo to another site, a ***Wild Water Buffalo monitoring and translocation*** technical team comprising of NTNC, DNPWC and WWF Nepal visited KTWR in 2013 for assessing logistics to transfer them to Chitwan National Park, the nearest suitable habitat as per the management plan. Regarding the mesh size regulations, the management plan mainly talks about reducing the pressure on the fish stocks within the reserve, reviving a working fish-ladder in the Koshi Barrage area, and providing or encouraging alternative in the form of cage fishery or fish farms. On issues related to dolphins, the management plan recognizes the need to do further research, prepare an action plan, and highlights that they have become rare. There is no indication of activities that have resulted direct visible impact in the matters of dolphin conservation. Eco-tourism potentials have been realized and programs to enhance the tourism potentials by way of collecting various information and marketing have been proposed.

Refining the Focus of Sustainable Livelihood Programs

At the time of project formulation, the designers rightly focused sustainable livelihood programs on the wetland dependent communities. However, detailed information on these communities was only obtained after completing a baseline survey in 2009, in the first stage of project implementation. With limited time and budget, the livelihood interventions were

targeted for tagged households (HHs). With the ultra-poor making up the majority of the WDCs, the tagged HHs addressed this socio-economic layer, with particular focus on the WPSE sector, which is the most disadvantaged. This adaptive management approach to the livelihood programs provided a high degree of clarity for the field management team, and allowed the project resources to be more efficiently directed toward achieving the intended result of demonstrating sustainable income-generating activities and WPSE inclusion that are complementary to biodiversity conservation in the two pilot sites.

The Wetlands Act: Capitalizing on the Momentum of Policy Advances

After succeeding in obtaining government approval of the updated and reworked National Wetlands Policy, stakeholders urged the project to facilitate drafting of a Wetlands Act, which will provide much a stronger regulatory framework for conservation and sustainable use of national wetlands. Several of the interviewed ministry representatives indicated that the Wetlands Act could be the most significant legacy of the project. As only few countries have specific acts focusing on wetlands, passing of the Wetlands Act would not only be a significant accomplishment in Nepal, but could also offer good practice guidance for other countries.

Solar Fence in Koshi Tappu: Responsive to the Needs of the Beneficiaries

The project has demonstrated that development interventions have a high chance of success if local communities are driven and assume ownership. The solar fence at the eastern side of KTWR is a good example of this. After enduring extensive crop and property damage, the local community beneficiaries pushed the reserve to help keep wildlife off their properties by specifically lobbying for a solar-powered electric fence. There were some earlier, failed attempts with simple barbed-wire fences, so the local people had knowledge of the basic principle required and also the limitations. The project provided financial support to Community Forest User Groups (CFUGs), who in turn managed the construction themselves and also have assumed responsibility for future maintenance, with the help of some additional funds deposited into CFUGs bank accounts and to be only used for such purposes. Overwhelmingly, interviewed local beneficiaries, on the eastern side of the KTWR, indicated the solar fence as the most important result of the project.

Proactive Response to Mid-Term Evaluation Recommendations

The mid-term evaluation completed in November 2011 provided some insightful recommendations and was well received by the project stakeholders. There were specific management responses to the recommendations made, including:

- Completion of an Exit Strategy and Plan in May 2012
- Further efficient use of project resources during the second half of project implementation, particularly for measures that enhance the likelihood of sustainability of project outcomes.

The terminal evaluation team also supports the recommendations set forth in the mid-term evaluation report for future directions, including maintaining monitoring of socio-economic benefits, carrying out more comprehensive biological monitoring, considering more of a landscape-level perspective in scaling up wetland conservation and sustainable use interventions, and linking wetland conservation with broader natural resource management issues.

4.2.2. Project Finance

Materialization of project co-financing was roughly 78% of the expected amount (see **Table 4-1**). The main difference between the expected and actual amount of co-financing was the 0.424 MUSD of funding envisioned from the IUCN. As a management decision was made after project inception to not include IUCN in the implementation of the project, this co-financing source was not realized.

Table 4-1: Project Co-Finance

Co-financing (type/source)	UNDP own financing (million US$)		Government (million US$)		Partner Agency (IUCN) (million US$)		Total (million US$)	
	Planned	Actual	Planned	Actual	Planned	Actual	Actual	Actual
Grants	0.534	0.497			0.424	0	0.958	0.497
Loans/Concessions								
• In-kind support			1.140	1.140			1.140	1.140
• Other								
Totals	**0.534**	**0.497**	**1.140**	**1.140**	**0.424**	**0**	**2.097**	**1.637**

The project outcomes and outputs were rationalized during a June 2008 management review, and the IUCN co-financing contributions were not considered in the revised LFA/results framework. Thus, the lower amount of co-financing compared to the value listed in the project document does not adversely impact the effectiveness or sustainability of project outcomes.

The contribution in kind and logistic support from the government for programme implementation was provided by GoN through the NPD. The working time of line agency staff both at central and district level (particularly Koshi Tappu Warden Office and Ghodaghodi District Forest Office) and local government staff who implemented the program was calculated as part of the government co-funding. The time of government staff at the central level for participating in the project meetings; workshops and visits as well as their time spent in co-ordination and monitoring was also considered as in-kind contribution from the government. The MFSC provided office space to the exclusive use to the program staff in Kathmandu for the duration of the project.

Strong project controls were maintained throughout the implementation phase of the project. Financial delivery rates averaged 96% for UNDP funds and 94% for GEF funds. There were no major findings identified in annual audits carried out for each of the years of project implementation.

Approximately 68% of the total project expenditures were incurred during the three year period from 2010 to 2012 (see **Table 4-2**). Even with the approximate one year delay following project inception, implementation was quickly ramped up once IA and EA execution arrangements were agreed upon.

Table 4-2: Total Project Expenditure, Annual Breakdown

Year	UNDP	GEF	Total	% Alloc	UNDP	GEF	Total	% Alloc
2007	856.00	-	856.00	0%	856.00	-	856.00	0%
2008	30,563.62	137,119.48	167,683.10	7%	19,756.65	97,995.79	117,752.44	5%
2009	124,953.00	272,387.00	397,340.00	16%	129,416.67	224,445.01	353,861.68	15%
2010	136,038.07	423,017.14	559,055.21	22%	87,287.23	402,326.11	489,613.34	21%
2011	160,763.00	409,741.00	570,504.00	22%	133,624.06	363,463.80	497,087.86	22%
2012	88,000.00	508,382.00	596,382.00	23%	85,695.80	475,051.47	560,747.27	25%
2013	40,225.78	224,524.14	264,749.92	10%	40,225.78	224,524.14	264,749.92	12%
Total	**581,399.47**	**1,975,170.76**	**2,556,570.23**		**496,862.19**	**1,787,806.32**	**2,284,668.51**	
% Alloc	23%	77%	100%	100%	22%	78%	100%	100%

Notes: Cost figures are in United States dollars (USD).
Expenditures for 2013 are assumed to be the same as the budged figures.

Costs incurred for project support services were accounted separately from the three outcomes. In the budget breakdown included in the project document, there is no separate line item for project management (or support services). The expected total cost of project support services amounts to approx. 34% of the total project cost (see **Table 4-3**).

Table 4-3: Total Project Expenditures, Outcome Breakdown

Outcomes	AWP - Budget Available : Years 2008-2013			% Alloc	Expenditure : Years 2008- 2013 (Govt. Disb.)			% Alloc
	UNDP	GEF	Total		UNDP	GEF	Total	
Outcome1	38,508.86	245,687.96	284,196.82	11%	47,149.77	160,829.87	207,979.64	9%
Outcome2	278,454.64	362,253.27	640,707.91	25%	209,138.52	393,188.47	602,326.99	26%
Outcome3	138,182.36	618,020.15	756,202.51	30%	120,364.48	574,196.26	694,560.74	30%
Support	125,397.61	749,209.38	874,606.99	34%	119,353.42	659,591.72	778,945.14	34%
Total	**580,543.47**	**1,975,170.76**	**2,555,714.23**	**100%**	**496,006.19**	**1,787,806.32**	**2,283,812.51**	**100%**

Note: Expenditures for 2013 are assumed to be the same as the budged figures.

Project support services include costs for the PMU and FMUs. Some of the costs for the PMU and most of the costs for the FMUs should have been allocated under the individual outcomes. Based upon internal account project records, the PMU costs account for 19% of total costs and the two FMUs (KTWR and GLA) amount to a combined 15% of total project costs. The FMU costs should be fully allocated under Outcome 3. The NPM and the PMU professional staff were not only involved in project management tasks, but also coordinated the outputs under each of the three outcomes. If the PMU costs are duly spread among the outcomes where appropriate, the actual project management costs are likely approx. 10% of total project costs.

Comparison of actual project costs against the planned costs indicated in the project document is difficult to do on an outcome basis, as project support services have been broken out separately. For evaluation purposes, field management costs were fully allocated under Outcome 3 and PMU costs were equally allocated among the three outcomes. The results of this cursory breakdown indicate that costs for Outcome 1 amount to a bit more than 15% of the total costs, as compared to approx. 23% in the project document. More funds were directed to Outcome 2 during implementation; the expected actual costs for this outcome are roughly 33% of the total cost, compared to 22% indicated in the design.

A few of the cost categories were verified during the terminal evaluation, to compare actual expenditure with planned cost at the project design stage. For Atlas category 71600 (travel costs), the planned expenditure was 231,652 USD and the expected actual is 224,361 USD. Travel costs are sometimes under-estimated for such a project, but in this case, the actual

travel costs are in line with the design estimations and do not exceed 10% of the total project cost.

Another cost category that was evaluated was Atlas 72600 (Grants). The estimated amount for grants in the project document was 297,235 USD, while the expected total cost for grants is 533,718 USD. This is a significant increase, and is considered an adaptive management response to the needs of the beneficiaries, e.g., including the decision to financially support construction of the solar fence in KTWR.

4.2.3. Monitoring and Evaluation (M&E)

The overall quality of M&E is rated as **satisfactory**.

M&E Design

The M&E plan was robust, roles and responsibilities were identified, and adequate budget was allocated. The budget for implementing the M&E plan was 212,000 USD, approx. 8.5% of the total project implementation cost. Tracking progress toward achieving project outcomes was sufficiently articulated.

The M&E design at entry is considered **satisfactory**.

M&E Plan Implementation

Implementation of the M&E plan was also observed to have been **satisfactory**. Progress reports were consistently prepared according to implementation work programming, and there was considerable evidence demonstrating that project stakeholders remained informed of M&E results, through frequent meetings and management responses. The mid-term evaluation (MTE) was well received, and specific actions were implemented in response to the MTE recommendations.

The PIR self-evaluations were more or less consistent with the MTE and TE findings; project progress toward achieving outcomes was self-rated as satisfactory in most cases. After experiencing an approximate one year delay after project inception, the satisfactory rating indicated in the 2009 PIR seems to be an overly optimistic assessment.

Not updating the LFA/results framework to reflect the adaptive management changes implemented is considered an M&E shortcoming. The project document indicates the following:

As part of the project's adaptive management approach, the LFA will be revisited annually during results-oriented performance assessments and revised based on agreement of all stakeholders according to the changing context. Indicators and targets have been set based on current best estimates according to situation analysis, field realities and available budget. These will be confirmed or revised and specified in year one based on a participatory process to develop both the site level demonstration plans and the overall project monitoring plan/ performance measurement plan.

There was no evidence indicating that the LFA was revised according to change circumstances. The LFA/results framework was used as an M&E tool, but the effectiveness is considered only moderately satisfactory, as there were several adaptive management changes implemented that were not represented in the log frame.

4.2.4. Implementation and Execution Modalities

The rating for execution and implementation modalities is **Satisfactory**.

The Project was implemented under NEX modality as per the UNDP Results Management Guide (RMG). The UNDP was the implementing agency and the MFSC was the designated implementing partner (executing agency) for the execution of the project.

The NPD on behalf of MFSC bore the prime responsibility to ensure project activities were implemented in accordance with the agreement stipulated in the project document. A Project Management Unit (PMU) was constituted at the center to support the implementing partner.

By designating the MFSC as EA, government officials were included in nearly all decision-making components of the project, from the NPD level to the field level, e.g., KTWR Warden and officers at Koshi and District Forest Officer at Kailali District. This modality resulted in effective awareness raising and ownership on both at national and local level. The likelihood that the benefits realized through the project will be sustained is also enhanced by this modality.

The share of responsibilities between the IA and EA was clear in their agreement. Both agencies have devoted considerable amounts of time on project supervision, and communication and collaboration between the agencies has been constructive.

Recognizing early on that changes needed to be made to the implementation arrangements, the UNDP ordered a management review in June 2008. This review recommended streamlining the scope of the project and nominating the UNDP as implementing agency, which was determined to be better suited as IA than the IUCN, considering the circumstances at the time. The recommended changes were proactively realized, but this structural adjustment resulted in a significant implementation delay. Project implementation was effectively only started in mid-2009, after requisite adjustments were made. This delay did somewhat weaken the effectiveness of the project outcomes, but it was fortunate that the IA changes were made early on, avoiding more significant effects that might have occurred otherwise.

UNDP was proactive in ensuring the project achieved the intended objectives, through regular monitoring and oversight, making significant changes in the structure and log-frame through conducting management review in 2008 and regular follow up with the ministry to implement the review recommendations. This way some of the design faults were rectified in 2008 the project was brought to the right track with more clarity about the intended outcomes and ownership of the government institutions. The UNDP, in its role as IA, was proactive through regular monitoring (e.g., through regular PEB meetings) and oversight. During the regular PEB meetings, the UNDP provided extensive comments and guidance to direct the project activities towards best achieving the targeted results.

Critical project risks were reported on in the Annual Performance Reviews/Project Implementation Reports (APR/PIRs). Such risks were shared in the PEB meetings and suggestions were taken forward by the PMU. There was no evidence of any other risk management mechanism in place during project implementation.

In terms of financial planning, there were strict procedures in place, e.g., the NPD approved all project expenditures. With respect to financial reporting, there should have been more IA-EA guidance extended to the PMU on how to allocate project management related costs. The project support services costs amount to 34% of total project costs, but this sum includes all costs associated with the PMU and the two FMUs.

4.2.5. Coordination and Operational Issues

The project management unit (PMU) was found to be well managed, and the staff highly qualified, motivated, and dedicated to the project objective. Coordination between the PMU and the NPD was frequent and efficiently implemented.

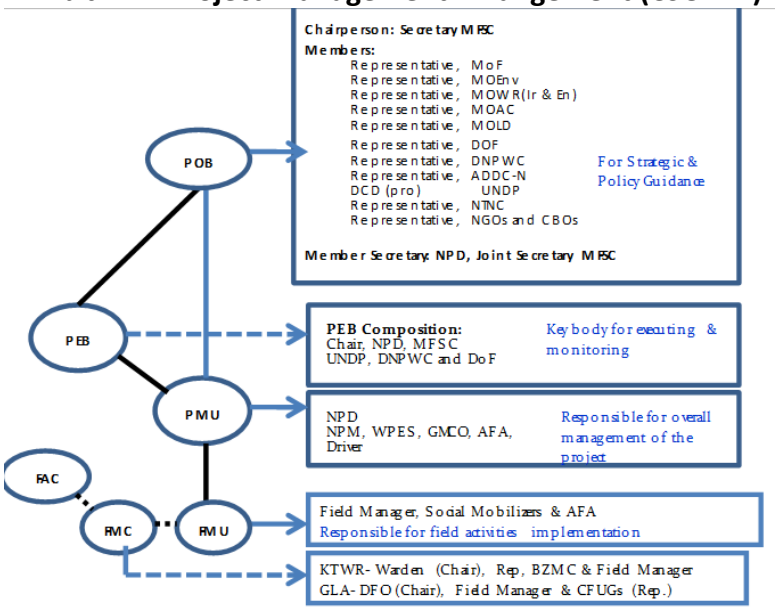
The NPM and other PMU staff effectively coordinated the two field management units (FMUs), each staffed by a field manager, accounts manager, administrative assistants, and social mobilizers. The dedication of the field staff was observed to be high, and the social mobilizers were active and very engaged among the local communities. Communication was effective between the PMU and FMUs. The evaluation team did record a shortcoming with respect to training of field staff. Training was offered to the field staff to some degree, but in some cases delivered late (e.g., report writing) and also technical capacity building on wetland scientific and resource management topics was scarce.

The Project Steering Committee envisioned in the project document was replaced with a Project Outcome Board (POB), which was chaired by the Secretary of the MFSC and met twice a year to discuss strategic level project implementation issues. At a slightly lower level, a Project Execution Board (PEB) was formed in order to help make necessary executive decisions required for the implementation of project activities. The PEB more or less has the same role as that of the Project Management Committee indicated in the project document.

The PEB was the key body assigned to closely monitor and review project activities, make decisions on changes proposed by the NPM. The PEB also regularly brought to the notice of POB of matters concerning changes or adjustments that needed to be made in the project. The UNDP Programme Officer responsible for the biodiversity sector was the Assurance Officer who conducted independent regular oversight and monitoring activities for the PEB on the achievement of the key milestones and implementation challenges experienced.

Project management organizational arrangements are outlined in the chart compiled below in **Exhibit 4-2**.

Exhibit 4-2: Project Management Arrangement (CSUWN)



Source: CSUWN

4.3. Project Results

4.3.1. Effectiveness: Achievement of Outcomes

The effectiveness of the project in attainment of project outcomes is rated as **satisfactory**.

Table 4-4: Evaluation of Project Outcomes

Outcome	Achievement of Project Outcomes
Outcome 1: Wetland biodiversity conservation values integrated into national policy and planning framework	
Targets 1. By 2009, National Wetland Policy 2003 reviewed and forwarded for endorsement by 2010 2. By 2011, NWC established as consultative /decision making body for wetland related issues 3. By 2011, wetland issues integrated into national periodic plan & programme	**Comments:** Wetland policy has been thoroughly revised and endorsed by the cabinet. As an adaptive management decision, the project has also facilitated the drafting of a national Wetlands Act. The NWC was established and is a legal, functioning body made with inter-ministerial representation. The national periodic plan for the period 2014-2017, under the sustainable forest management system, specifically includes (1) identification of locally, nationally, and internationally important wetland sites, (2) their prioritization based on environmental services, social, and economic importance, (3) these sites should be conserved restored, and managed. **Achievement of Outcome 1: Highly Satisfactory**
Outcome 2: Strengthened national institutional, technical and economic capacity and awareness for wetland biodiversity conservation and sustainable use	
Targets 1. By 2010, sustainable management practices of wetland resources promoted 2. By 2012, 35 % of the critically degraded wetlands of demo sites restored	**Comments:** Awareness raising campaigns reached a wide-spectrum of stakeholders, and wetland issues were proactively mainstreamed. Knowledge base products, e.g., wetlands economic valuation toolkit, successfully prepared and already adopted for some other wetlands in the country. Restoration activities implemented at areas defined as critically degraded. The basis of delineating critically degraded areas was not fully clear, and some restoration activities are short-term, e.g., removal of IAS. Although resource management plans and CFUG operation plans include wetland restoration related activities, the coordination and financing are not fully worked out. **Achievement of Outcome 2: Satisfactory**
Outcome 3: Enhanced collaborative management of wetland resources for conservation and sustainable livelihood	
Targets 1. By 2009, livelihood strategies prepared & implemented in 2 demo	**Comments:** Diversified livelihood programs were successfully deployed at the two pilot sites among 463 targeted households. Partly due

Outcome	Achievement of Project Outcomes
sites by 2010 2. By 2010, major wetland issues to be addressed by local bodies are identified & forwarded to respective district development committees (DDCs) 3. By 2012, more than 90% of recommended wetland issues are incorporated into district periodic plans	to the implementation delay, some of the interventions were initiated only in 2012, allowing insufficient time in some cases to monitor performance. Income levels of tagged households have increased more than the 15% target in over a two year period. These income gains should be adjusted to inflation, however. At the district level, wetland issues have been included in operational plans. Due to the uncertainty of which issues were recommended, it is difficult to measure the 90% target rate. **Achievement of Outcome 3: Satisfactory**

Project results are further discussed in the following sections, 4.3.2 on the biodiversity conservation issues, and 4.3.3 on sustainable livelihood programs.

4.3.2. Discussion of Biodiversity Conservation Results

The two project pilot sites Koshi Tappu Wildlife Reserve and Ghodaghodi Lake Area represent two different wetlands of lowland Terai ecosystems. Koshi Tappu lies within protected area network centrally administered by the DNPWC and Ghodaghodi lies within the Basanta Protection Forest centrally administered by the DoF. Koshi Tappu represents a lentic ecosystem and Ghodaghodi Lake Area represents a lotic ecosystem. Both lie within the Global 200 Ecoregions Terai-Duar Savannas and Grasslands as outlined by the WWF, partially occurring in east Himalayan hotspots as identified by the Conservation International, Ramsar Sites by Ramsar Secretariat and Important Bird Area by BirdLife International. GLA is the largest natural lake of the lowland Nepal and Koshi River is the largest river of Nepal and is also the largest tributary of the river Ganges. Koshi Tappu is Nepal's first Ramsar Site, declared in the year 1987. The two pilot areas have high biodiversity, e.g., Ghodaghodi area has 226 species of birds and Koshi Tappu has more than 500 species of birds. Furthermore, GLA forms an important north-south corridor for migrating large animals, and the Koshi River valley forms perhaps the most important bird flyway for long-distance migratory birds.

A list of globally threatened species for major vertebrates found in the two pilot areas is presented below in **Table 4-5**.

Table 4-5: List of Globally Threatened Major Vertegrate Species at Pilot Sites

Species	Global IUCN Status	Status in project sites
Herpetofauna		
Gharial *Gavialis gagenticus*	Critical	KT
Red-crowned Roofed Turtle *Kachuga kachuga*	Critical	KT and GLA
Elongated Tortoise *Indotestudo elongata*	Endangered	KT
Three-striped Roof Turtle *Kachuga dhongka*	Endangered	GLA
Three-keeled Land Tortoise *Melanochelys tricarinata*	Vulnerable	KT
Crowned River Turtle *Hardella thurjii*	Vulnerable	KT
Marsh Mugger *Crocodylus palustris*	Vulnerable	Breeding resident, GLA and KT
Birds		

Species	Global IUCN Status	Status in project sites
Swamp Francolin *Francolinus gularis*	Vulnerable	Fairly common breeding resident in tall wet grassland and marshes, KT
Baer's Pochard *Aythya baeri*	Endangered	Uncommon winter visitor and passage migrant on the river and on pools, KT
Ferruginous Pochard *Aythya nyroca*	Near-threatened	Frequent winter visitor and passage migrant on the river and on pools, Kt and GLA
Bengal Florican *Houbaropsis bengalensis*	Critical	Rare visitor to grasslands, KT
Lesser Florican *Sypheotides indica*	Endangered	Very rare wet season visitor to grasslands, KT
Black-bellied Tern *Sterna acuticauda*	Endangered	Resident and partial visitor, KT
Indian Skimmer *Rynchops albicollis*	Vulnerable	Rare wet season visitor; there have been a few unsuccessful breeding attempts , KT
Great Hornbill *Buceros bicornis*	Near-threatened	Rare Spring Visitor, GLA
Pallas's Fish Eagle *Haliaeetus leucoryphus*	Vulnerable	Rare winter visitor and passage migrant, KT
White-tailed Eagle *Haliaeetus albicilla*	Near-threatened	Rare winter visitor and passage migrant, KT
Grey-headed Fish Eagle *Ichthyophaga ichthyaetus*	Near-threatened	Very rare, KT and GLA
White-rumped Vulture *Gyps bengalensis*	Critical	Rare resident in open country, KT and GLA
Slender-billed Vulture *Gyps tenuirostris*	Critical	Rare resident in open country, KT and GLA
Egyptian Vulture *Nephron percnopterus*	Endangered	Rare visitor, KT and GLA
Cinereous Vulture *Aegypius monachus*	Near-threatened	Rare winter visitor to open country, KT and GLA
Red-headed Vulture *Sarcogyps calvus*	Critical	Rare winter visitor to open country, KT
Pallid Harrier *Circus macrourus*	Near-threatened	Rare winter visitor and passage migrant in open country
Indian Spotted Eagle Aquila hastata	Vulnerable	Rare visitor to open country
Greater Spotted Eagle *Aquila clanga*	Vulnerable	Rare winter visitor and passage migrant
Imperial Eagle *Aquila heliaca*	Vulnerable	Rare winter visitor and passage migrant
Lesser Kestrel *Falco naumanni*	Near-threatened	Uncommon winter visitor and passage migrant
Laggar Falcon *Falco jugger*	Near-threatened	Rare visitor
Darter *Anhinga melanogaster*	Near-threatened	Uncommon resident on the river, pools and marshes
Black-headed Ibis *Threskiornis melanocephalus*	Near-threatened	Fairly common resident on pools, marshes and the river
Painted Stork *Mycteria leucocephala*	Near-threatened	Uncommon summer visitor to pools and marshes
Black-necked Stork *Ephippiorhynchus asiaticus*	Near-threatened	Frequent breeding resident found on the river, pools and marshes
Lesser Adjutant *Leptoptilos javanicus*	Vulnerable	Fairly common resident in marshes, pools and wet fields, KT and GLA
Greater Adjutant *Leptoptilos dubius*	Endangered	Very rare visitor to marshes, KT
Spot-billed Pelican *Pelecanus philippensis*	Near-threatened	Uncommon non-breeding visitor to the river and marshes, KT
*Kashmir Flycatcher *Ficedula subrubra*	Vulnerable	Rare passage migrant, KT
Hodgson's Bushchat *Saxicola insignis*	Vulnerable	Rare winter visitor and passage migrant in tall grasses along river, KT
Grey-crowned Prinia *Prinia cinereocapilla*	Vulnerable	Very rare resident or visitor to grasslands; no recent records, KT
Bristled Grassbird	Vulnerable	Fairly common summer visitor to grassland, KT

Species	Global IUCN Status	Status in project sites
Chaetornis striatus		
Yellow Weaver *Ploceus megarhynchus*	Vulnerable	Very rare visitor, KT
Yellow-breasted Bunting *Emberiza aureola*	Vulnerable	Fairly common; mainly a passage migrant, also a winter visitor, KT
* also restricted-range species		
Other restricted-range species:		
Yellow-vented Warbler *Phylloscopus cantator*		Rare winter visitor, KT
Mammals		
Gaur *Bos gaurus*	Vulnerable	Rare visitor
Asiatic Wild Buffalo *Bubalus arnee*	Endangered	Common breeding resident in KT
Hog Deer Hyelaphus porcinus	Endangered	KT
Fishing Cat *Prionailurus viverrinus*	Endangered	KT, GLA?
Gangetic Dolphin *Platanista gangetica*	Endangered	KT
Asian Elephant *Elephas maximus*	Endangered	KT and GLA

Policy Reforms

One of the most important achievements of the project has been at the policy level intervention and simultaneous actions to increase the much-needed awareness on wetland conservation issues. The revised National Wetland Policy 2012 (NWP 2012) is a fully functional document with incorporation of important issues that are essential for meaningful conservation and sustainable use of wetlands. The inclusion of the revised structure of the NWC and DFSCC in the NWP 2012 provides a firm basis for execution of the policy. The NWC and DFSCC reflect inter-sectoral coordination on wetland management. MoAD, MoLRM, and the MoE have allocated resources for managing one wetland site in fiscal year 2013/14 (FY2070/71). The NWC has decided to declare the nine lakes of Pokhara valley as a Ramsar Site and the DNPWC has taken up this decision for the process of official recognition.

The NPCS in its three year periodic plan (NPC 2014) has categorically mentioned wetland issues. This plan indicates that local, national and international importance of wetlands will be identified and based on environmental, social and economic importance these will be prioritized for conservation, restoration and sustainable management. The plan further states that multi-stakeholder forums' capacity will be enhanced and strengthened for integrated management of wetland resources. The expected outcomes of such actions are mentioned as "*within three years at least 10 wetlands of national and international importance will be conserved, restored and sustainably managed. Also conduct economic valuations will be conducted for at least two wetlands of national or international importance*."

At the district level as well as the field level, the project has made important contributions toward ensuring inclusion of wetland biodiversity conservation related activities within the plans and programs of other stakeholders. Examples include the DDC of Kailali including in their plans several activities related to wetland conservation and management specifically mentioning also the biodiversity conservation of Ghodaghodi Lake. Setting up a MSF is an example of how to deal effectively with the current political crisis ensuring wetland conservation initiated at the district level. The LDO is the coordinator of the MSF in the GLA, as there have been no elected DDC chairs in the country for a long time.

Wetland conservation issues were identified for GLA and KTWR and were forwarded to Kailali DDC and Sunsari DDC. The Tapeshwori VDC in Sunsari leveraged 330,000 NPR (approx. 3,700 USD) for wetland management in the buffer zone of KTWR and Sukhad VDC in Kailali leveraged 15,000 NPR (approx. 170 USD) at GLA for wetland conservation activities. The issues and concerns of wetlands were partially addressed in periodic plans of Kailali (GLA) and Sunsari Districts (KTWR).

The International Wetland Symposium organized by the project in November 2012 in Pokhara was important opportunity for sharing the project's conservation efforts to wider community working in the same field at the global level. The Symposium came up with nine-point Pokhara declaration which is of immense value for wetland conservation. Among the nine action points highlighted, it mentions PES mechanism and wetlands and their linkage to climate change issues prominently

Conservation Awareness and Outreach

Awareness level on wetlands has significantly increased in the country through the media campaigns supported by project. In addition, to the media reports compiled by the PMU, there have several other news on wetlands through regional/local print media and also via audio and audio-visual media, so the outreach has been more widespread than the data reported by the project.

The CSUWN newsletter and other materials produced have also been important sources for raising awareness on wetlands. Other activities supported by the project, including World Wetlands Day, Environment Day, Warden Seminar, etc., further ensure that wetlands remained as a focal point for conservationists and related stakeholders at the local level.

The Nepal Forum for Environmental Journalists (NEFEJ) was identified as one of the most important media partners. In collaboration with NEFEJ, four Public Service Announcements (PSAs) were produced and aired using Radio Sagarmatha FM, sensitization for six women journalists was organized and policy dialogue on wetland issues was organized with the then members of Constituent Assembly (CA) organized together with the Center for Constitution Dialogue (CCD). The CCD is an initiative started by the UNDP to foster dialogue among members of the CA on relevant issues. As a result of the partnership, a Wetland Watch Group was formed and became operational at the NEFEJ.

To familiarize the environmental journalists reporting for various media house, familiarization trips to field sites were undertaken. These included four trips to field sites with 15 journalists from different print media (Gorkhapatra, Nepali times, Samacharpatra, and others). Feature articles on wetland conservation and awareness were encouraged though these journalists.

To promote wetland education and its conservation, 29 School Wetlands Clubs were established and made operational with funding support from the project. Similarly, teachers' network one each was established at GLA and KTWR. Conservation trainings and learning visits for teachers were conducted. The teachers' network meets regularly for monitoring wetland clubs.

Two Community Based Anti-Poaching Networks were established and made functional at GLA. Regular support was provided for sweep operation, joint monitoring and patrolling at KTWR.

As many as eight large billboards were erected at strategic locations at both the sites. A four-fold increase of media-coverage was recorded by the project.

With no specific wetland-focused projects in the pipeline, maintaining the awareness level will be a challenge. Teachers interviewed at two of the schools having Wetland Clubs, also stressed skepticism regarding the sustainability of the programs, without further financial support.

Capacity Building and Institutional Strengthening

National level capacity has been strengthened significantly with briefings and involvement facilitated by the project. The capacity has been further enhanced through the establishment of the NWC, revision of the NWP, and the formulation of the Wetland Act.

Capacity building was delivered both at the national as well as field level. As part of this program, 350 officials were sensitized on wetland related issues and concerns representing various ministries. Similarly 16 national exposure visits were conducted for policy, planners and media personnel. As many as 28 government officials participated in international learning visit during the life of the project. The TOT Manual on Wetland Management was imparted and altogether 26 LRPS were developed at the project sites.

The project at the request of the DNPWC, produced various documents related with the CEPA. These included a national CEPA strategy, CEPA materials on Wetlands such as Posters, FAQs, TOT Manual, Wetlands Resource Book, etc. The DNPWC is the Ramsar Site management authority in the country and as a party to the Ramsar Convention, and the country is obliged to produce such strategy. Nepal was one of the eight countries to produce such strategy under the Ramsar Convention. Furthermore, the project also supported revision of the Ramsar Information Sheet (RIS) of the GLA and KTWR, again a mandatory activity for the member country of the Ramsar treaty.

National level workshop training was conducted for a large network of bird watchers, contributing to the nationally coordinated mid-winter waterbird count in Chitwan in September 2012. A total of 32 participants representing various parts of the country and wetlands received training.

Another important achievement at the field level has been the implementation of the DFSCC, as set out in the NWP. The structure of the DFSCC includes relevant district-level stakeholders necessary for management and conservation of wetland biodiversity. Making the LDO or elected DDC chair as the chair of the DFSCC enhances the credibility and sustainability of the DFSCC body. MSF is very similar to the DFSCC but with inclusion of the DoI. In the future it is recommended that some DFSCC should have MSF as their sub-committee so that issues related to wetlands remain prioritized.

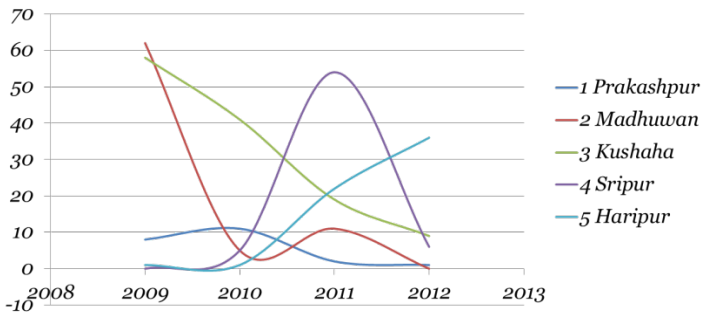
Participatory Monitoring and Evaluation of Biodiversity (PAMEB) concept was adopted by the project for monitoring and evaluating the five key indicator species established through stakeholders' meetings in Kathmandu. Repeated trainings were given using national level expert to the local communities eventually replacing the national level experts by the able local communities.

For KTWR, one rubber boat was financed to ensure more efficient monitoring and law enforcement. Similarly to increase the mobility of the reserve staff for monitoring four bicycles were purchased. A total of 10 high-range deterrent flash lights were also purchased to deter wild animals coming to villages and for patrolling purpose.

Human-Wildlife Conflict (HWC) Regulation

During the project phase, activities targeted towards increasing wildlife have worked very well. This has resulted in some cases increased frequency of crop damage and human-wildlife conflicts. An electric fence established at eastern section of the KTWR has worked very well to minimize loss of properties and lives of people. However, there are concerns on the western side of the KTWR as well as in GLA where animals have increased and have started crop damage. A record of HWCs in the eastern section of the KTWR is shown in the graph below in **Exhibit 4-3** indicates that northern section of the reserve saw reduced HWCs as the solar fence was sequentially erected. As the southern end of the eastern section does not have solar fence for approximately 3 km, the graph shows increased incidences of the HWC in these areas.

Exhibit 4-3: Status of HWCs at KTWR



Source: CSUWN

Through the community meetings held during the field mission, the terminal evaluation team was informed that the recently established Bhagalpur Army Post at the northwestern section of the KTWR has led to an increase in the number of wild animals at this area and thus increasing the changes for HWC incidents.

Eco-tourism Promotion

Eco-tourism at the two pilot areas is in the early stages of development, but increases in visitor numbers was recorded at both sites over the course of the project. Eco-tourism promotion was done through home stay, watch tower construction, vantage points, etc. Necessary preparation and knowledge, e.g., sanitation facilities, hospitality, and cooking training were also provided to both project sites.

Payment for Environmental Services (PES)

A study was conducted for implementing a PES mechanism in GLA. A local committee was set up for possible implementation of mechanism. Such a direct payment approach was successfully demonstrated as part of the WTLCP project; however, that project was a landscape scale intervention.

Wetland Technical Knowledge Base

A total of 15 wetland technical knowledge base products were produced and disseminated. Some of the products developed include the following:

- Economic Valuation Toolkit & Training Manual
- Wetland Inventory, Assessment and Monitoring (WIAM) Tool
- Invasive Alien Species (IAS) Management Guidelines
- Wetlands Indigenous Knowledge (WIK) Documentation Methodology

- Monitoring protocol & Ecological Monitoring Protocol for indicator species
- Planning Guidelines for Wetland Management
- Resource Use Plan for KTWR.

The US Library of Congress requested for copies of the project's knowledge products, showing global biodiversity benefits in terms of knowledge sharing and circulation to a wider audience.

Habitat Management and Restoration

The project was successful in piloting habitat restoration interventions, and demonstrating through monitoring that fairly limited actions can lead to measurable improvements.

The delineation of critical degraded wetland areas was a bit unclear, and the terminal evaluation team is uncertain regarding the basis for selecting only two sites, especially at KTWR. The two sites selected at KTWR have been said to be important for waterfowls on previous years; however, why were only 35% of these areas targeted for restoration, if indeed they were critically degraded?

As many of the restoration interventions carried out, such as removal of IAS, provide temporary improvements, it is important that the entities responsible for long-term resource management incorporate restoration activities into their plans and budgets. With the practical examples and the high level of expertise among the pool of project professionals, development of a wetland management strategy and wetland management guidelines that could be used at other areas in Nepal would have provided increased benefits.

Ghodaghodi Lake Area

Significant improvements have been made on the wetland management at GLA. These include participatory removal of the IAS *Ipomea carnea* as well as other natural/alien vegetation that had been choking the lake area. Snags on the fringes of the lake were given additional protection as nesting habitat for birds and other animals. Sun-bathing and breeding sites were established and given additional protection by guarding and fencing sites important for Marsh Mugger and other animals. During this course, seven different sites were restored and managed to promote breeding and sun basking by the Marsh Mugger. In GLA alone, out of 128 ha of degraded wetlands, 27 ha were restored for biodiversity conservation. Aquaculture for livelihood improvement was restricted only to adjoining smaller wetlands ensuring that other bigger wetlands were left for natural state for biodiversity conservation. Many floating islands were managed in GLA to ensure breeding of waterbirds.

To ensure that water is regulated with maximizing biodiversity maintenance, three sluice gates were constructed at Nakhrod Lake, Tendi Lake and Tengnuwa Lake. In addition to this one sluice gate was renovated at Ghodaghodi Lake. In addition to these, earthen bund (303 m combined length) at Nakrod, Tendi and Tinchatiya Lakes were constructed.

The DFO supported the Nursery establishment at Sukhad Range Post where CSUWN was also involved. A total of 155,000 seedlings were produced aiming to plant trees in community forests, public and private lands.

Koshi Tappu

The biggest habitat management results at Koshi are from the removal of feral herbivores (livestock) from the core area of the Reserve. In 2010, feral buffaloes and cattle were removed from the reserve. In addition to this, activities have been carried out to restore riparian vegetation, plantation of indigenous plants in mid-western of the Reserve area which was

encroached by local people previously, maintenance and restoration of wetland habitats in various places.

Biological Monitoring and State of Biodiversity

Through consultation with national experts, five indicator species were selected to represent overall wetland ecosystem health. These included various taxa, specifically Wild Rice, Marsh Mugger, Swamp Francolin, Cotton Pygmy-goose, and Wild Buffalo. These were chosen based on their significance at national and international level and also to ensure participatory monitoring by public.

The number of Wild Buffalo at the KTWR is monitored periodically on a three-year interval and the population there reached 259 in 2012, compared to 219 in 2009. Other indicator species were monitored twice a year. The population of Swamp Francolin has steadily increased during the project period; the number at the end of the project had doubled to 71 pairs (2012) compared to the 35 pairs in the beginning (2009). Similarly, Marsh Mugger numbers increased to 13 (2013) individuals, compared to only three when the project began (2009). Cotton Pygmy-goose made a remarkable comeback at GLA from 129 in 2009 to 290 in 2012, more than 100% increase during the life of the project. GLA holds more than 80% of Nepal's Cotton Pygmy-goose population, one of the smallest duck species in the world. Evidence was also collected of Cotton Pygmy-goose breeding in GLA, making the GLA the only the second place where the species is known to breed in the country. Wild Rice coverage has also significantly increased from 3.6 to 14.7 ha at GLA, as shown below in **Table 4-6**.

Table 4-6: Monitoring Results of Indicator Species at the Two Pilot Sites

Indicator Species	Year 2009	Year 2010	Year 2011	Year 2012
Wild water buffalo	**219**	-	-	**259**
Swamp Francolin	**33** breeding pairs	**36** breeding pairs	**57** breeding pairs	**71** breeding pairs
Cotton Pygmy-goose	**139**	**188**	**243**	**290**
Marsh Mugger (adult)	**3**	**12**	**12**	**13**
Wild Rice Area	**3.6 ha**	**12.42 ha**	**15.27 ha**	**14.7 ha**

Source: CSUWN

Management interventions initiated by the project have resulted in unexpectedly good results in the population of some grassland species including the large number of the critically threatened Bengal Florican population (Baral et al. 2012, 2013). Koshi Tappu now holds 10% of the world's Bengal Florican populations which put the Reserve again as a priority site for future investment. In GLA, according to the mid-winter waterbird count data the overall number of waterbirds remained more or less stable. Habitat management activities and reduced disturbance in GLA further resulted in the breeding of Common Moorhen Gallinula chloropus. A pair was noted with three chicks during the summer count of indicator species in the lake led by the locals in the year 2010. Similarly, Spotbill Duck was found breeding in the GLA. Both these were the first breeding records of the species in the country; all sighted by local birders trained as part of the capacity building programme of local institutions through the CSUWN. GLA now is the only place in the country where all four species of resident ducks of lowland Nepal are known to breed. Comb Duck Sarkidiornis melanotos bred in the Nakhrod Lake area in the year 1992 and Lesser Whistling Duck Dendrocygna javanica is breeding every year. In KTWR, a small herd of Wild Elephants have taken refuge since last year as resident animal. This is said to be the first time that the elephants have become resident in KTWR.

Notwithstanding the results outlined above, the terminal evaluation team raises the question of whether the indicator species monitoring results provide a representative characterization of the overall biodiversity health of the ecosystems. For example, there is only limited information available regarding the status of the biodiversity of aquatic resources at the two pilot sites. Implementing aquaculture interventions as a means to reduce stress on native fish stocks has sound implications, but could potentially lead to threats to native species from introduced commercial stocks, or potential spread of disease and other unintended consequences to native fish. Recognizing that carrying out an extensive biological assessment requires considerable time and resources, a more focused biological assessment should have been made to provide information on the ecosystem status before project implementation started and at closure.

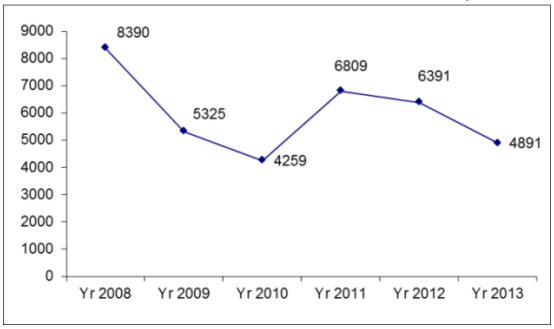
Also, from an ecosystem approach perspective, it would be advisable to carry out an environmental flows assessment in conjunction with an expanded biological assessment. Environmental flows are defined as the quantity, timing, and quality of water flows required to sustain ecosystems and the human livelihoods and well being that depend them. In several ecosystems, biodiversity loss has been correlated to decreases in environmental flows. Environmental flows assessments have mostly been applied to river basins (there are a number of examples among the GEF International Waters portfolio). Increasingly, this methodology is being applied to wetlands (e.g., see **Exhibit 4-4**).

Exhibit 4-4: Excerpt from *Environmental Water Requirements to Maintain Wetlands of National and International Importance* (Davis et al. 2001)

Approaches to determining the environmental water requirements of wetlands can be divided into hydrology-driven and ecology-driven methods. Hydrology-driven approaches involve first the description then the restoration or partial restoration of the historic (pre-disturbance) water regime of the wetland. It is assumed that the biota is adapted to the pre-disturbance water regime and that the restoration of this regime will result in a healthy ecosystem. Ecology-driven approaches involve the determination of the water regime requirements of the existing or preferred biota, and the provision of that regime. Ecology-driven approaches may lead to more defensible allocations than those determined by hydrology-driven approaches.

Despite the biodiversity gains documented by the project at the KTWR, the population of waterbirds has been in steady decline for years, thus the overall biodiversity of the reserve can be considered to be deteriorating. The national mid-winter waterbird count has been ongoing for the past 27 years, and the Koshi count indicates a general decline of waterbird numbers especially coinciding with the breaching of Koshi dyke in August 2008. In spite of projects efforts, the overall population of waterbird remains very low 4891 (2013) compared to 8390 in the year 2008 (see **Exhibit 4-5**).

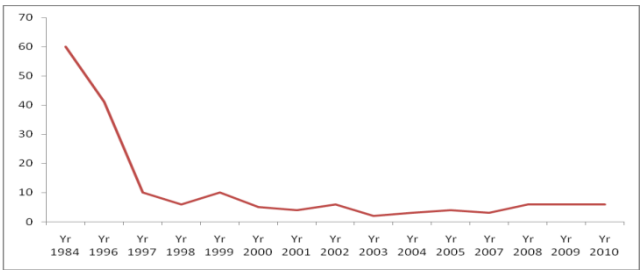
Exhibit 4-5: Mid-winter waterbird count, KTWR



Source: National mid-winter bird count database

The waterbird population decline in Koshi is further illustrated below in **Exhibit 4-6**, for the numbers of the Endangered Black-bellied Tern.

Exhibit 4.-6: Population of Endangered Black-bellied Tern in Koshi wetlands



Source: BCN and DNPWC 2011

The waterbird population decline at Koshi is beyond the scope of the project, but should be addressed before larger-scale projects are considered for reversing some of these biodiversity losses. A specific recommendation for expanding the KTWR is outlined in **Exhibit 4-7**, as a framework for improving connectivity and overall ecosystem habitats in the reserve.

Exhibit 4-7: KTWR expansion recommendation

There has been steady decline in the population of many birds in KTWR. Net gains have been recoreded for only a few bird species, but there are minimal and most ofthem are for common birds. Similarly, populations of other animals, including Hog Deer, Spotted Deer, Gangetic Dolphin, Nilgai, Common Leopard, Gaur, and fish stocks have declined gradually from the reserve, and the Gharial crocodile has been declared extirpated from the Reserve.

The aim of setting up a protected area to maintain, or in many cases to increase, populations of wild animals. In the case of KTWR, the experience has been the oppoiste, i.e., popultions of many animals have been in decline since the reserve was established.

Population decline and human-wildlife conflicts (HWCs) are not new topics at the KTWR. There habe been many projects and programmes launched at KTWR, including at least three UNDP-funded projects under different names and for different durations, a Darwin Initiative UK grant for three years (2006-2009), and few other smaller projects for shorter periods. The CSUWN is the only project so far which has been successful in monitoring an increase of two indicator species and a dramatic increase of some grassland birds due to the management activities initiated by the project. However, these activities alone are not sufficient to ensure overall increase or maintenence of animal populations within the KTWR. There are certain species which have witnessed a long-term decline and they will continue to do so without implementing ecosystem-level management actions.

The main reason for the decline is in fact associated with the spatial layout of the Reserve, specifically it is small, lacks climax types of vegetation and much needed elevation gradient, there is no safe place for the spill over effects of the conservation benefits (in another words dispersal grounds), no safe place to move for animals that

migrate through the seasons, etc. Therefore, the reserve needs to be expanded north and south to include approximately 150 km² of area, in order:

i) to ensure that KTWR acts as a self-sustaining long-term unit of complimentary ecosystems;

ii) to ensure corridor connectivity for migrating animals, for mixing up with 'other populations' minimising risk of inbreeding and depressions;

iii) to maintain current levels of wild animal populations / or increasing populations of selected priority species;

iv) to ensure that the endemic subspecies **Nepal Rufous-vented Prinia** *Prinia burnesii nepalicola* (subspecies known to occur only in the KTWR grasslands) continue to persist; and

v) to increase livelihood opportunities by diversifying tourism and other income generating activities and maximise benefits to a greater number of people.

A competent team headed by a Conservation Ecologist should conduct studies on the reserve expansion issue. The team should analyze available past data and should make use of current information on animals in and around the KTWR. A workable plan with the proposed reserve boundary should be produced at the end for implementation by the MFSC/DNPWC/DoF.

Local people should be consulted widely as some may oppose the idea of reserve expansion, while others may see it beneficial as it brings not only HWCs but also opportunities for diversifying their IGAs. In areas where village translocation is involved, detailed consultation should be made. Cultural values and coherence of certain tribes and ethnic communities should be duly considered while resettling them. This study should also outline what will be the financial implications of the expansion.

DNPWC/MFSC should review the recommendation and implement them with revisions if necessary, but not distorting the technical view and business plan associated with it.

Current knowledge on the status of habitat outside the KTWR suggests that the reserve should be primarily extended north and south. The Reserve will need to be expanded sligthly beyond the river floodplains in its proposed norther extensions to include permanent patches of Sal forests that exist on either side of the river banks as soon as the floodplains end. First the northernmost areas should be secured and then the southern part.

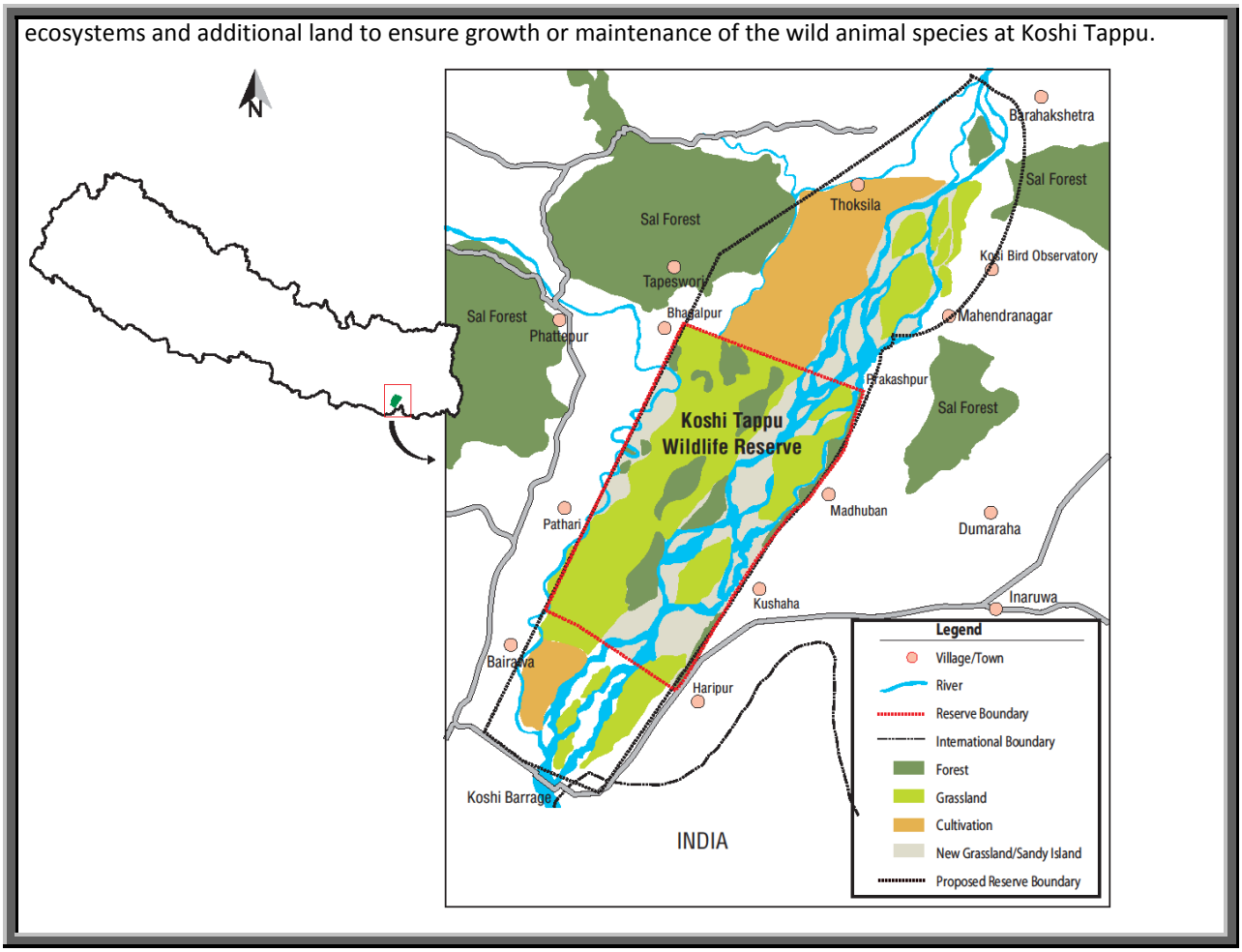
Most of the proposed expansion area will fall towards the north, which includes grassy islands that harbour critically threatened Bengal Florican populations, 100s of breeding Small Pratincoles, terns, nationally theatened Indian Courser and Yellow-wattled Lapwing populations. The proposed northward extension should touch the climax primary forests of Sal vegetation of Udayapur districts (eg Trijuga Forests and Tapeshwari forests). These forests will provide links to animals that require seasonal movements to complete their life cycle. The reserve should be also extended to touch the Dharan Forests at the northeastern end of the proposed extension. The Dharan Forest is identified as an Important Bird Area by BirdLife International (Baral and Inskipp 2005) and provides a safe passage to many migrating animals including the annual march of Asiatic Elephants to and from India. This forest represents a patch of tropical evergreen forests of Nepal closest to a protected area. Further it is a forest type considered to be poorly represented in the existing protected area network of Nepal (Inskipp 1989).

The reserve should be extended towards south to include Koshi Barrage area which will include congregation of migratory waterbirds, and provide additional protection to depleting fish-stock of the Koshi river and help save dwindling popualtions of the the Gangetic Dophins *Platanista gangetica*. There may be issue of keeping the army in close border with India which may be resolved by simply keeping only the posts for administrative staff of the reserve.

Simultaneous with expansion, the reserve authority should work with local communities in the buffer zones as the buffer zones have acted as important wildlife refuges. Within the current framework of the KTWR, there is not much food for many waterbirds. Many of these birds and some other animals (e.g., the Fishing Cat, an Endangered species) depend on farmlands and fish-ponds that lie adjacent to the reserve's buffer zone. The change in land-use patterns and the shift of crop species have large implications to the conservation of the waterbirds. Some traditional farmlands, flooded wetlands, and foraging grounds for waterbirds should be maintained for animals that are dependent on these resources. Active habitat management measures should be applied in the reserve as well as in the buffer zones in a participatory way to maximise biodiversity and economic benefits.

The proposed map below more or less captures our recommendations touching the various complimentary

ecosystems and additional land to ensure growth or maintenance of the wild animal species at Koshi Tappu.



4.3.3. Discussion of Sustainable Livelihoods Results and WPSE Inclusion

The "sustainable use" component of the project, specifically Outcome 3, focused on a wetlands livelihoods approach that linked public participation, empowerment, and income generation. With regard to wetlands conservation projects, sustainable use has sometimes been limited in scope, e.g., concentrating on craft activities and eco-tourism. Wetland resources offer a wide-range of potential benefits to local communities, and in fact, may represent the main livelihood support during cyclical agricultural periods or times of diminished household income from other sources. This project tested a wide-range of livelihood activities, and worked on strengthening both individual and institutional capacity.

The design implementation period for the project was 5 years. After the 2008 inception, the project was successful in assembling the project team, setting up the field offices, and starting to develop linkages. However, the restructuring of the project did result in a significant delay. Even with a 6-month extension from December 2012 to June 2013, the effective time of implementation was 3-1/2 years. Livelihood baseline and strategy formulation were carried out in 2009, further reducing the time available for field implementation. The terminal evaluation team feels that the baseline and strategy should have been developed at the project formulation stage, thus resulting in a more focused design and increasing the potential effectiveness of implementation.

Achieving sustainable livelihood benefits in conjunction with ecosystem level conservation requires many years of collaborative work among resource managers and local communities.

While the project targets regarding increases in income levels were largely fulfilled for the tagged households, the livelihoods program is mostly judged as a capacity building endeavor.

Strategy

The baseline surveys made in 2009 were comprehensive and provided valuable support in development of the livelihood improvement plans for the two pilot sites. The local communities were divided among the following income groups:

- ***Ultra-poor:*** *Per capita income of HHs below the national poverty line (NRs national poverty line (NRs 10,065) adjusted to inflation and food sufficiency from own food production was up to 3 months.*
- ***Poor:*** *HHs below the national poverty line and food sufficiency between 4 to 6 months.*
- ***Moderately well - off:*** *(a) Per capita income of HHs above the national poverty line and food sufficiency from own food production was up to 6 months or (b) Per capita income below national poverty line and food sufficiency from own farm production was above six month.*
- ***Well off:*** *Per capita income of HHs above the national poverty line (Rs 10065) and food sufficiency from own food production was more than 6 months.*

Among buffer zone communities at the KTWR, 60% are within the ultra-poor group, and there were large differences with respect to the number of poor among the different ethnic groups. For example, 85.7% of the Terai-Dalit fall within the ultra-poor income group, whereas 15.6% of the Brahman/Chhetri. In GLA, the situation was a bit different, with approx. 44% of the population categorized as poor, and 15.5% ultra-poor. Based upon the results of the baseline surveys, the livelihood improvement plans rightly focused on the poor and ultra-poor:

Priority I: *Poor and Ultra Poor WDC*

Priority II: *Poor and Ultra Poor HHs belonging to different marginalized caste group such as Terai, Dalit Hill-Dalit, Hill-Janajati, Terai-Janajati, Other Terai Caste and Muslim*

The surveyed ultra-poor HHs unequivocally indicated that access to capital/finance was their most pressing requirement, followed by skills development training (see survey results for KTWR in **Exhibit 4-8**).

Exhibit 4-8: Nature of Livelihood Support Required, KTWR

Respondent categories	Capital/ Finance	Machinery/ Equipment	New/improved technology	Training/Skill	Business skill/ knowledge	Small infrastructure	Market linkage development	No of response
WDC	66.0	13.4	14.4	56.7	16.5	9.3	3.1	97
Hill-Dalit	100.0	12.5	-	37.5	12.5	25.0	12.5	8
Terai-Dalit	78.0	10.0	15.0	50.0	16.0	4.0	9.0	100
Hill-Janajati	73.1	3.8	26.9	46.2	19.2	-	3.8	26
Terai-Janajati	65.1	7.0	20.9	69.8	11.6	-	11.6	43
Brahman/Chhetri	72.4	3.4	37.9	41.4	24.1	3.4	3.4	29
Other Terai Caste	83.1	8.5	22.0	54.2	10.2	-	10.2	59
Muslim	65.4	26.9	19.2	57.7	13.5	1.9	3.8	52
Overall	**78.3**	**12.0**	**14.9**	**51.0**	**13.3**	**6.0**	**6.8**	**414**
Ultra poor	77.8	9.3	29.6	44.4	22.2	1.9	3.7	249
Poor	58.6	13.8	18.4	67.8	14.9	1.1	5.7	54
Moderately well off	54.2	4.2	41.7	58.3	20.8	-	16.7	87
Well-off	72.7	11.6	19.1	54.1	15.2	4.1	6.8	24

Source: KTWR Baseline Survey, NARMA, 2009, Table 3.6

In fact, access to capital/finance and skills development training were the primary needs indicated by each of the four income groups. During one of the community group meetings during the TE field mission at the KTWR, some of the local people in the poor and moderately well-off sectors complained that they were not included in the project livelihood programs, and stressed that they would have liked to have received skills development training. This feedback is in a way a positive indicator of how effective the delivered trainings were, but also reinforces the capacity needs on a more community-level scale, as these people who rely mostly on agricultural for income, are also struggling to provide supplemental HH income during cyclical harvest periods.

Recognizing that the project resources were limited, an adaptive management decision was made to work with a representative population of the ultra-poor and poor sections of the wetland dependent communities. Trying to achieve increased income generation for the entire population WDCs would not have been practicable with the budget, timeframe, and field personal allocated for the project. For example, considerable more social mobilizers would have been required, and it is critical that these individuals are effective in developing positive rapport with the local community and knowledgeable of the subject matter, so that they can convince local participation. It is difficult to recruit these people, and the project was fortunate to have qualified social mobilizers, some of whom worked on former development projects, e.g., PPP and PCP.

The financing modality implemented for the livelihood programs centered on CFUGs, cooperatives, and other local institutions. Funds were deposited into accounts of these institutions, who then distributed the support or co-financing to the tagged HHs. This allowed a strong degree of community participation, thus more closely addressing the needs of the beneficiaries. Consistent with the strategy of the livelihood programs to increase participation, the baseline surveys revealed that participation in community forest groups and other institutions is indeed lowest for the ultra-poor sector.

Livelihood Improvement Programs

The total number of HHs tagged for the livelihood programs was 463, which included 368 HHs among the ultra-poor WDCs in KTWR and 155 HHs in GLA. Some of the programs, such as fish farming and some of the livestock interventions, were cross-cutting with reached out to more HHs. A breakdown of the HHs involved among the two sites is listed below in **Exhibit 4-9**.

Exhibit 4-9: Breakdown of CSUWN Livelihood Programs

Activity	GLA (HHs)	KTWR (HHs)
Fish farming support	387	595
Natural Fibers	22	25
Piggery support	24	170
Goat rearing support	162	102
Leaf plate making	86	24
Blacksmith Support	5	-
Carpentry support	8	-
Radio/TV maintenance	7	-
Vegetable Farming	-	63
Mushroom farming	-	10
Poultry Farming	-	91
Village Animal Health Workers	-	5 HHs
Total	701 HHs	1049 HHs

Source: CSUWN

Over a two year period, increases in HH income among the tagged HH averaged 21% in the KTWR HHs and 36% in the GLA HHs. These estimations of income level gains were not adjusted for inflation, so the real incremental improvements are somewhat lower, but nevertheless exceed the 15% performance target. These gains represent on average more than 2 months of annually averaged income, demonstrating how livelihoods can be supplemented when other income sources are restricted, e.g., due to agricultural cycles. Self-employment has increased through these initiatives. The livestock based income-generating activities ensured animal health support by linking the beneficiaries with the local veterinarians as well as the provision of seed money for initial health care expenses.

Professional training on a broad range of topics, ranging from leadership development to skills training was facilitated by the project, based upon a local needs based assessment. During TE field mission interviews, the terminal evaluation team noted that the capacity of the local institutional leaders makes a significant difference in terms of how benefits can be distributed among their members and to the local communities as a whole, in terms of management of funds, prioritizing activities, and maximizing benefits delivered. This was especially apparent when speaking with the people who participated in the leadership trainings.

Gender Inclusion

The project adopted the gender and social inclusion strategy developed by the MFSC. Necessary trainings have been provided for its field staff; to ensure that the approach was practiced throughout the project cycle the target groups and the different institutes involved the project have been capacitated for exercising it effectively. Benefits attained by the targeted women would have better validated if the project carried out annual gender audits.

During the TE field mission interviews, it seems that youth employment was not emphasized in the livelihood programs. With changing demographics, the baseline surveys indicated that harvesting of wetland products is primarily carried out by youth and the elderly. Addressing wise-use opportunities for the youth sector would have better enhanced the sustainability of programs initiated.

As indicated earlier the micro-financing scheme was based on group lending. The project outcomes helped increase access to such funding for women, poor, and the socially excluded. The approximate average lending rate, based on TE field mission interviews ranges between 22-24 percent (annual), which is comparable to other micro-financing institutions.

Livelihood enhancement was further developed for two groups of women, focusing on making marketable products from wetland resources. In KTWR, 25 Indigenous Bantar women operate Pater processing JVC enterprise, and 22 Tharu women operate a munj based cottage industry in GLA. Both of these operations are viable, however, with slightly different experiences. The Pater JVC has created partnerships with Kathmandu-based wholesale traders, but due to still limited capacity among the women in the enterprise, further oversight will be necessary to help them develop into a more self-sufficient operation. The munj based enterprise in GLA focuses on selling to local markets, thus they are more comfortable in meeting demand among familiar circumstances and cultural context.

Alternative Energy Interventions

The project also provided financial support for alternative energy interventions, not only for the tagged livelihood HHs, but for a wider spectrum of the local communities. A total of 323 biogas

plants (133 in KTWR and 190 in GLA) and 1092 improved cooking stoves (92 in KTWR and 1000 in GLA) were installed during the 3-1/2 years of project implementation.

The biogas plants were facilitated in partnership with the Alternative Energy Promotion Center (AEPC), part of the Ministry of Science and Technology, and followed up on experiences gained during the PPP and PCP projects. The produced biogas is used for cooking, thus reducing the dependency on fire wood extracted from forests. Most of the interviewed HHs with biogas installations indicated that they still are collecting fire wood, for cooking animal feed, but the amount of fire wood used per HH has significantly reduced and time saved from not having to collect so much wood is considerable, up to 4-5 hours per day in some cases.

Biogas is produce through the anaerobic digestion of a mixture of livestock dung and waste from household toilets. In some cases, vegetation waste is added in multi-feed installations. As experienced in other projects, biogas is not always accessible for the ultra-poor, as they require an adequate supply of dung. For the ultra-poor, who are often land-poor or landless, securing this dung supply is not viable. The project experienced this in one of the HHs in KTWR, and needed to provide some additional support to maintain the operation of the biogas installation.

The biogas is also not always compatible with conservation of wetland resources, as there could be more pressure on grasslands from grazing of livestock. Stall feeding livestock is preferred for supporting biogas installations, but this is not accessible in some cases. The 2009 baseline survey indicated that the majority of livestock are fed by free grazing, and approximately 30% are exclusively stall fed. Sufficient management oversight needs to be in place to ensure that habitat conservation criteria are congruent with livestock demands.

The improved cooking stoves were also well appreciated among the interviewed HHs during the TE field mission. Reducing smoke inside homes represents an immediate health benefit, and fuel consumption is also more efficient in these units.

The partnership with the AEPC and the group-lending financing strategy both enhance the likelihood that further investment will be made in the alternative energy interventions after the project closes.

Millennium Development Goals

Sensible management of wetland resources can lead to improvement of economic conditions and human health, as for many communities, wetlands are the source of food security, nutrition, and drinking water. Through successful implementation, sustainable use of wetland resources can contribute to poverty alleviation. With this context in mind, the interventions facilitated by the project address several of the millennium development goals (MDGs):

GOAL 1: ERADICATE EXTREME POVERTY & HUNGER. Improved livelihood opportunities, and improved nutrition through increased income.

GOAL 3: PROMOTE GENDER EQUALITY AND EMPOWER WOMEN. Promoting gender inclusion through strengthened capacity in leadership and skill development, and increasing access to alternative income-generating activities and financing sources.

GOAL 4: REDUCE CHILD MORTALITY. Improved nutrition from supplemental income-generating activities and access to organic vegetables; increased awareness of water-borne disease; etc.

GOAL 5: IMPROVE MATERNAL HEALTH. Reduced exposure to indoor air pollution from inefficient cooking stoves; reduction in the drudgery of collecting fuel wood; etc.

GOAL 7: ENSURE ENVIRONMENTAL SUSTAINABILITY. Collaborative management of wetland resources; increased awareness of conservation issues; etc.

Scaling Up Considerations

While the project was successful in demonstrating a number of viable alternative livelihood options for WDCs and enhancing individual and institutional capacity among parts of the local communities, scaling up the income-generating activities and/or the energy interventions would require a broader, more ecosystem level analysis, e.g.:

- Considering that access to capital/finance is the predominant requirement for the ultra-poor, will people in this sector have the wherewithal to co-fund and/or pay back microcredits taken for expanding or initiating livelihood enhancement efforts?
- Are institutions sufficiently enabled to maintain a participatory approach toward wetlands management and livelihood enhancement programs?
- Will sufficient resources be directed to monitoring, in order to validate the viability and sustainability of the initiated livelihood programs?
- For deployment of a large number of bio-gas installations, will local people have sufficient resources to stall feed livestock?
- Can the aquaculture operations be run compatibly with respect to conservation of native fish stocks in the wetland ecosystems?
- How can payment for ecosystem service (PES) schemes be effectively implemented to promote biodiversity conservation and enhance livelihoods of wetland dependent communities?

4.3.4. Unintended Consequences

The unintended consequences of the project interventions are limited, but are important when considering allocation of resources for similar conservation and sustainable use programs.

Human-Wildlife Conflicts (HWCs)

Improvements to ecosystem habitats by removing feral livestock, active habitat management work, increased patrolling against poaching and illegal activities (by army, reserve staff and community members) have contributed to general increase of animals in the Reserve. Although the number of HWCs has measurably decreased at the eastern side of Koshi following erection of the solar fence, in the long-term, conflicts might increase on the western side, where there is no wildlife barrier. Some of the interviewed local community individuals in Koshi indicated there has been a notable increase in the number of wildlife especially the Wild Boar, deer species, Wild Buffalo and Wild Elephants observed in the buffer zone near the northwest quadrant of the reserve, after the army post was set up there only a year back. This is probably due in a reduction of poaching, as a result of the army post there, and thus an increase in wildlife numbers.

The increased number wildlife is not a negative consequence, as long as HWCs do not increase. In fact, high numbers of wildlife is considered a positive result in terms of ecosystem conservation. It will be up to local resource managers to ensure that there are sufficient monitoring and mitigation provisions put in place to minimize HWCs.

Deployment of bio-gas alternative energy units should consider a wider socio-economic and conservation context

The project has support the financing of bio-gas alternative energy units in several HHs in both pilot sites, and the beneficiaries are generally satisfied with quality of cooking gas supplied and the time savings realized from not needing spend as much time collecting fire wood. The interviewed recipient HHs still collect some fire wood, mainly for fueling cooking of animal feed.

As experienced with one HH in Koshi, coming up with co-financing and maintaining bio-gas units are not always feasible for the ultra-poor HHs, as a sufficient and regular supply of dung is required and this implies that the HH has ownership or access to livestock that can produce the manure. In order to restrict possible increased grazing on unauthorized lands, including in protected areas or forests, bio-gas units require HHs to stall-feed their cattle. This also requires some access to capital for both installation and supporting the stall feeding.

These potential shortcomings with respect to bio-gas units were highlighted in both the WTLCP terminal evaluation and the mid-term evaluation for this project. In scaling up bio-gas initiatives, the potential negative consequences outlined above should be carefully factored into the planning, to ensure sustainable operation of these alternative energy sources.

Potential impacts to native aquatic species from aquaculture activities

Although the intention is to reduce pressure on native fish stocks, constructed fish ponds could potentially result in unintended consequences. For example, nuisance non-native aquatic species and diseases can easily be introduced to adjacent natural water courses through drainages from commercial fish ponds, and potentially rendering extensive damage to native aquatic species. This potential problem was also highlighted in the Mekong Wetlands Biodiversity Conservation and Sustainable Use Programme (2007).

Invasive non-native species are recognized as one of the main causes of global biodiversity loss. Recent reports suggest that this is a problem which is increasing. Aquaculture has benefitted from the farming of alien species, but without proper management this can lead to altered ecosystems and biodiversity loss.

The local community members operating the aquaculture activities should be made aware of these risks and trained in how to adequately avoid such problems through prudent management. General aquaculture management guidelines should also be prepared and disseminated among the relevant operators and other concerned stakeholders.

4.3.5. Efficiency

In terms of cost effectiveness, the project has satisfactorily achieved the intended outcomes within the allocated funding. Efficiency is rate as **highly satisfactory**.

As discussed in Section 4.2.2. (Project Finance), the 34% of total costs spent on project support services is a bit misleading. This amount includes all of the costs for the two FMUs, which should have been accounted under Outcome 3. The Project support services line item also includes PMU costs, which is a combination of project management and technical and programmatic coordination. In short, there does not seem to have been a disproportionately high level of project management expenditures.

Procurement for goods and services was found to have been well managed, with competitive bidding and approval of more or less all expenditures by a procurement board and finally by the NPD.

Financial and control was also efficient, and financial deliver rates averaged approximately 95% in the 5 years of implementation. Independent financial audits were carried out each year, with consistently good results.

Results-based management was proactive, with frequent PEB meetings, thorough progress reporting, and open lines of communication with the NPD and IA regarding project resource management. The project managed to implement significant adaptive management changes, improving overall project performance and remaining within the agreed level of funding.

The project also used, more or less exclusively, local capacity for implementation. The delivered products by national consultants were of high quality, and a considerable amount of capacity building was achieved through the various outputs completed by the project.

4.3.6. Relevance

With respect to the GEF Biodiversity Strategy, UNDP country objectives, and national priorities, the project is considered **relevant**.

The issue of relevance is evaluated with the perspective of whether the objective and intended outcomes of the project remain appropriate with respect to current circumstances.

Under the GEF-5 Biodiversity Strategy, *the goal of the biodiversity focal area is the conservation and sustainable use of biodiversity and the maintenance of ecosystem goods and services*. The project is relevant with respect to Objective No. 1 of the GEF-5 Biodiversity Strategy: *Improve the sustainability of protected area systems.* The recommendation of expanding the KTWR was positively received by government stakeholders during the TE debriefing meeting, and if eventually realized, this would result in increased coverage of this protected area. Also, the project results have led to the decision by the NWC to declare the 9 lakes of the Pokhara valley as a Ramsar Site.

The project is also relevant in terms of Objective 2 of the GEF-5 Biodiversity Strategy: Mainstream biodiversity conservation and sustainable use into production landscapes/seascapes and sectors. One of the knowledge base products developed by the project is a Wetlands Economic Valuation Toolkit. This toolkit has already been adopted and applied to other wetlands in the country, thus increasing the number of land-use plans that incorporate biodiversity and ecosystem services valuation. Also, the project was successful in demonstrating control of IAS at both pilot sites, and IAS control activities under wetland management have been included in the updated management plans for KTWR and GLA.

Under the UNDAF for Nepal 2013-2017, there are complementary outcomes, including Outcome 2: *Vulnerable groups have improved access to economic opportunities and adequate social protection*; Outcome 7: *People living in areas vulnerable to climate change and disasters benefit from improved risk management and are more resilient to hazard-related shocks*; and Outcome 10: *Nepal's institutions are strengthened for more effective integration of policy and the economy into intergovernmental economic and normative processes, and international policy and legal regimes*.

The project also remains relevant in terms of local and national priorities and requirements. The National Biodiversity Strategy outlines the importance of wetlands in Nepal in terms of

biodiversity conservation, and the project has facilitated improved mainstreaming of wetland issues into government and local level policy and planning.

4.3.7. Country Ownership

Country ownership has been significant throughout both the design and implementation of the project. The project was developed to support Nepal's key national and sectoral development plans, policies, and strategies. The Project was designed to support the implementation of the Nepal Biodiversity Strategy (NBS) recommendations on wetland ecosystems, including management of wetland habitats; clarification of institutional responsibilities for resolving land-use conflicts and co-ordination of wetland wise-use and conservation; adoption of a bio-regional approach to wetland habitat and resource management; promoting the participation of user groups and community-based organizations in collaborative management of resources; conducting demonstration projects to promote the wise use of wetlands; and raising awareness on wetland conservation. Similarly during the project design phase, the National Wetland Policy 2003 was fully taken into account so that many of the issues, such as documentation and utilization of indigenous and scientific knowledge, skill, practices and innovations; participation of women and implementation of international commitments and obligations, identification of different modalities for community wetland management approaches, reduction of threats to wetlands, awareness raising and capacity building were taken up by this project. The National Wetland Policy was at the heart of the project design since it promoted collaborative management of wetlands and wise-use of wetland resources through meaningful participation of local people, and successfully completed coordination and harmonizing of appropriate institutional arrangement for wetland management, and capacity development.

The project incorporated activities that encouraged local development authorities to promote wetland management within their wider district and village development plans, particularly at the demonstration sites. Thus, District Development Committees and Village Development Committees, entities responsible for local development and natural resource management, were actively engaged by the project. Another sectoral strategy taken into account included *The Water Resources Strategy*, Nepal (2002), which guides water sector activities towards sustainable use of the resources through 5-year, 15-year and 25-year strategies under the *Management of Watershed and Aquatic Ecosystems*. Demonstration of wetlands resources management for conservation and sustainable livelihoods under which activities for collaborative management of wetland areas, restoration and management of wetland protected areas, and control of invasive alien species are consistent with goals of the *Water Resources Strategy*.

The MFSC was the designated executing agency for execution of the project. At national level, the PEB was the guiding body that periodically reviewed project progress and actively directed the PMU through the NPD. The NPD on behalf of MFSC bore the primary responsibility to ensure project objectives and outputs were achieved and activities were implemented in accordance with the agreement stipulated in the project document and periodical advice received from PEB meetings. The PMU with NPM at the center and the FMU at the field level were responsible to support implementation. The District Forest Office at GLA and Koshi Tappu Wildlife Reserve worked in the field as representatives of the executing agency, the MSFC.

The GoN co-financed the project with in-kind contributions during the project period, and also allocated funding for wetland issues among the various government agencies, including the MFSC and other line ministries, in order to help ensure the sustainability of the project

outcomes. At the District level, the project facilitated the formation of a MSF to ensure that concerned stakeholders considered wetland conservation issues in their development and conservation plans and programs.

One of the main achievements of the project was the approval of the National Wetland Policy 2012 (NWP 2012) by the GoN. The policy incorporates many valuable wetland issues and provides a framework for management and sustainable use of the wetland resources, integrates the revised structure of the NWC, and also of DFSCC. The former is the supreme national body established through the project with clear mandates on wetland management for biodiversity and sustainable use. The DFSCC in turn is a nation-wide structure that exists in many districts as a government-recognized institutional mechanism which has been legalized through the NWP 2012. The roles and responsibilities of the DFSCC are clearly stated in the NWP 2012. Finally, in response to government level interest, the project has facilitated the drafting of the Wetlands Act, which is being advanced toward the final stages of preparation, and will be one of the long-lasting legacies of the project once approved by the Nepali legislative body.

4.3.8. Mainstreaming

Mainstreaming results are evaluated as **highly satisfactory**.

The approved Wetland Policy 2012 is seen to give new impetus for building meaningful partnerships among relevant stakeholders, including those responsible for managing assets such as land, forest, soil and watershed, agriculture, tourism and environment, industry, and water resources (irrigation, energy and other uses). With sensitization and awareness creation throughout a wide spectrum of society, ranging from the grass-roots level to concerned central government officials, the importance of wetlands has been emphasized in local and national level plans and programs is an important result; allocation of funds for these programs has also been realized.

There have been clear and measurable income generation increases among the tagged HHs in the WDCs of the two pilot sites. Improved natural resource management has been realized through consultation facilitated by the project with CFUGs, local cooperatives, DDCs, VDCs, and other local organization. Resource management improvements include a reduction of feral herbivores in protected areas, reduction in extraction of wood resources, wise-use of resource products for livelihood programs, removal of IAS, and restoration of degraded wetland areas.

The project objective also is in conformance with the UNDP country programme priorities, including support to vulnerable groups through employment creation and social inclusion; addressing challenges of dealing with the effects of climate change; and institutional strengthening for more effective integration of policy and economic development.

The project livelihoods program deliberately targeted the WPSE sector of the wetland dependent communities. The baseline assessments of the socio-economic conditions at the two pilot sites were made by surveying the communities and stratifying households according to social composition. Out of the more than 35,000 HH in the four districts in the pilot areas, 463 HHs (308 in KTWR and 155 in GLA) were tagged among the wetland dependent sector of the communities, and provided with different program to strengthen livelihood opportunities and improve household income by 15% by the end of project period. This is line with the government's gender equity and social inclusion (GESI) as well as poverty reduction strategy.

Besides this diversified livelihood approaches further supports the conservations strategies in both project areas.

Considerable outreach was made to women's groups, in the form of delivering training in skills development and leadership, financial support for starting up income-generating activities, training and co-funding for alternative energy systems, and awareness raising and inclusion into how wetland conservation can be linked to sustainable use of wetland resources. There was majority women leadership representation among the engaged CFUGs and local cooperatives, four of the six social mobilizers hired by the project were women, and the Gender, Monitoring and Communication Officer for the PMU was a woman.

Livelihood enhancement based on use of diversified wetland resources has been planned to reduce stress on wetland resources and to engage local communities in collaborative resource conservation. Livestock, poultry farming pater, leaf-plate, fishing, and vegetable gardening have demonstrated an acceptance amongst the community as well as displayed the possibilities of variant livelihood activities for others in the community as well.

4.3.9. Impact

Achievement of impacts often require more time than allotted for project implementation. In this case, the project implementation timeframe was 5 years, a relatively short duration for verifying ecosystem improvements. However, habitat improvements made at the two project sites, including removing of IAS, erection of a solar fence in KTWR, removal of some of the feral herbivores, awareness outreach, etc., measurable increases in the selected indicator species were recorded over the 5-year project implementation period (see Table **4-6**).

These interventions also resulted in reduction of stress on ecological systems, in the form of significant decreases in poaching, fewer feral domestic animals grazing in restricted areas, restoration of infrastructure that in turn allows for more efficient regulation of water levels, etc. The solar fence also reduces human-wildlife conflict and in turn might lead to a lessening of ecosystem stress. Income-generating activities linked to sustainable resource use will also likely improve respect and promote conservation among the local community residents.

4.3.10. Sustainability

The likelihood of sustainability of project outcomes is considered **likely.**

Sustainability issues are discussed below separately for the following four risk aspects: financial, social-economic/political, institutional framework and governance, and environmental

Financial Risks

The sustainability of this aspect is rated as **likely.**

At the local and national levels, the likelihood for financial sustainability seems to be fairly high. The sufficiency and continuity of funding, however, are questionable at this stage. The NWC or other body should maintain effective monitoring mechanisms for providing timely information on funding needs and streams with a focus on Ramsar sites. Below NWC, at the department level, the DNPWC and DoF and at the field level KTWR and District Forest Office, Kailali should ensure that activities as planned in the management plans are effectively carried out.

The NWC is a legal body, with its mandate structured in the NWP 2012. At the district level, the DFSCC has been extremely active and now exists in more districts than just the four that this

project mainly touched. Elsewhere in the districts it is functioning purely through government mechanisms.

At the field level, the interventions that provide tangible benefits to the local communities are likely to be sustained for longer periods of time. For example, maintenance of the solar fence at Koshi Tappu is likely to continue, as there are reserve/endowment funds set up. Similarly, the fish hatchery center will likely continue serving the local fish farmers of the Koshi Tappur area.

The BPF MP has allocated an annual budget of over 75 million NPR (approx. 830,000 USD) for the area for five years. The BPF is given a separate budget line for its management in addition to the main budget of the District Forest Office. The BPF MP outlines a number of income sources at the site level, e.g., sale of timber, ensuring sustained income for the management of the BPF. The GLA MP is now considered a smaller sub-unit of the BPF MP and has kept a budget of over 70 million NPR (approx. 780,000 USD) for implementation of their five year plan, with an annual average of 14 million NPR (approx. 155,000 USD). The GLA catchment plan covers significant portion of the BPF.

Many other activities are likely to be sustained through the activities of the Basanta Protection Forest Council (BPFC) which gives ample emphasis in the role of the.

In terms of biological monitoring, counts of Swamp Francolin and Wild Buffalo are ensured through the allocation of the budget within KTWR's annual plans of activities, strengthening the local bird club, Kosi Bird Society (KBS) and participation of private sector, e.g., Koshi Camp. Furthermore, the project developed good links with Kosi Bird Observatory (KBO) run by Himalayan Nature (HN), a permanent institution based north of Koshi for ensuring continuation of some of the activities. In GLA it is envisioned that the GLA MP, BPF MP, CBOs and NGOs working in the area are likely to take on some of the biological monitoring activities. Ghodaghodi Sarankshan Manch and Bird Conservation Network – Kailali are active NGOs in the GLA and are likely to take up most of the biological monitoring activities within GLA and beyond.

There is a history of various projects in Koshi Tappu and Ghodaghodi Lake taking on some of the activities as part of their activities. In this regard, future projects in both these sites may carry on with some of the activities started by this project.

Some of the NGOs and few FUGs are capable of generating funds locally through the Department of Forests, DDC, VDC, and various on-going activities in the area. The more qualified ones are also able to access funds that are available at the central level or from funding sources outside Nepal. The sustainability of many NGOs and some CBOs are ensured through institutional strengthening, leadership training, etc. The likelihood for sustainably securing support for their activities largely depends upon the capacity of the leaders of the organizations.

With respect to the livelihood programs, the likelihood for sustainability is variable. The pater enterprise also has a good chance for sustaining their business, as they are being linked up with more market access. There are, however, concerns about the limited management capacity of the enterprise employees, as compared to the more experienced business partners they are trading with. Some of the other income-generating interventions, such as livestock rearing, are more sensitive to possible short-term needs of the HHs and general limited access to capital.

Monitoring of these interventions will be important in terms of evaluating which activities had higher levels of sustainability and what are the factors involved in sustaining benefits gained.

Socio-Economic Risks

The sustainability rating for this aspect is **likely**.

Government level ownership of wetland issues is high, both from a national and local perspective. The project also did a good job in raising awareness, through effective media campaigns and facilitation of professional meetings and dialogue.

The focus on the poorest of the poor, their inclusion in projects is one of the major outcomes. The formation of committees in each of the livelihood intervention ensures group support in terms information sharing, enhancing output and access to finance (revolving fund and inculcating the practice of savings). However, as these activities are still in the preliminary stages there are risks of their continuity. This concern rises from the fact that though the project has promoted local governments and rural communities' ability to integrally share responsibility and authority to plan and produce, there is yet the question of their ability to finance the goods and services they may require to sustain the different interventions introduced by the project. This question lingers as it is too early to assess these elements of the project.

The sustainability of project supported income-generating activities is also exposed to socio-economic dynamics. For example, the pater JVC enterprise in KTWR has forged partnerships with wholesale traders based in Kathmandu. However, the benefit sharing between these partners, with varying capacities in the form of business skills, literacy, and access to facilities, seems rather uneven. The low-level of confidence and reluctance amongst the pater enterprise women was visible during the TE field mission, in their request for continued support in dealing with their larger partner. On the other hand there was full confidence amongst the basket weavers in GLA who were marketing their products closer home, within the locality.

When considering scaling up similar livelihood enhancement programs, for example, to a community level scale, inclusion people in other income brackets should be considered to possibly increase the likelihood for sustainability. Although there are no guarantees that economic gains realized in the better off sectors of the communities will trickle down to the disadvantaged households, there could be favorable economies of scale realized and higher likelihood for securing financing, as well as maintaining a higher degree of harmony within the community.

Although there are continued delays in realizing elected local governments, the district and village level institutions are functioning reasonably well. There are socio-economic factors, e.g., poverty, that threaten the sustainability of some of the interventions made at the two field sites. For example, payment for ecosystem services might not offset local household needs, and resource use could revert to unsustainable extraction. Also, efforts to reverse encroachment are sometimes complicated by insufficient compensation schemes, cultural issues, or other externalities.

Institutional Framework and Governance Risks

The sustainability of this aspect is rated as **likely.**

The institutional frameworks, policies, and governance structures in place ensure further sustainability of the project outcomes. These include establishment of a functional NWC at the

national level headed by the Secretary of the MFSC as the Chair and with Environment Division Chief of the same ministry as the Member-Secretary. The NWC has cross-sectoral representation of line ministries ensuring line ministries active participation in the wetland related issues. The TAC and Wetland Specialists' Network Committee are the permanent institutions supporting the work of NWC. It will be important to be proactive in maintaining the current high level of interest among key line ministries without the facilitation assistance from the project.

At the District level, the MSF and DFSCC are in place for field level work. The NWP 2012 outlines many issues on wetland management and conservation and also formalizes the structure of NWC and DFSCC, giving both entities legal recognition. In addition to these, the BPFC is recognized by government decision and presents another institutional framework that is envisioned to sustain some of benefits realized by the project initiatives.

Department of Forest in Kailali District and Koshi Tappu Wildlife Reserve in Sunsari/Saptari and Udayapur Districts are further examples of permanent institutions established especially to safeguard the biodiversity and livelihood aspects of the project sites.

Environmental Risks

The sustainability of this aspect is rated as **likely.**

Notable environmental risks at KTWR include annual flooding and changes in the course of the Koshi River which might pose threat to the biodiversity gains, including increases in the number of indicator species and grassland birds including the Critically Threatened Bengal Florican. Other environmental pressures include impacts to water quality as result of the lack of sanitation infrastructure, and increased siltation of the Koshi River due to hydro-morphological changes in the ecosystem. There are also risks associated with the proposed high voltage lines and Sapta Koshi multi-purpose project with a high dam, north of the KTWR. The work of the Koshi Project operated in agreement with Indian government may also pose risks to the biodiversity of Koshi Tappu mainly through disturbance and attempts to straighten the river course directing to the Koshi Barrage.

At GLA, use of water resources by farmers and lack of coordination between the sluice gate management authority and farmers may pose threats to the environmental gains. The lack of sanitation infrastructure also impairs local water quality. Possible inefficient management of lake area including effective control of IAS, preparation and maintenance of safe sun basking sites for crocodiles, removal of snags and over extraction of wetland products, e.g., lotus leaves and seeds, and poorly managed tourism are additional risks.

The above mentioned environmental risks are considered to be reasonably well mitigated at each of the two demonstration sites through the management plans that are in place, and the fact that government level agencies have been assigned responsibility and allocated funding for implementing the management plans.

As demonstrated after the devastating flood in Koshi in 2008, damaged habitats have an immediate and potentially long-lasting effect on biodiversity. Adaptation to climate change should be taken into consideration in the management of the reserve moving forward.

5. CONCLUSIONS, RECOMMENDATIONS, GOOD PRACTICES AND LESSONS

5.1. Actions to follow up or Reinforce Initial Benefits from the Project

The mandate of the National Wetlands Committee should be expanded to include the responsibility for ensuring the Wetlands Act and Wetlands Regulations are eventually passed by Parliament or equivalent body.

The Wetlands Act and eventual regulations will be long-lasting achievements of the project. The project is soon to be closed and it is important that the draft of the Act and regulations be handed over to the most relevant body. We recommend that the mandate of the National Wetland Committee be expanded to include stewardship of the National Wetlands Act and regulations until passed by the appropriate legislative body. Possible partnership linkages, e.g., with the policy advisory structure linked with the MFSC that the WTLCP TE recommended, or through the UNDP ecosystem-based adaptation (EBA) program, should be explored for providing policy level support.

Maintain inter-ministerial collaboration by creating a rotating chair post for the Technical Advisory Committee reporting to the National Wetlands Committee.

TAC is the second-tier of the NWC consisting of joint secretaries and under-secretaries from various relevant ministries and government departments. We recommend that a post of chair should be provisioned for the TAC on a yearly rotational basis, in order to ensure that wetland issues remain high on the agenda of participating agencies, not only the MFSC. Once a member is given the task of chairing such committees the responsibility will be increased and wetland issues will be prominent feature for the concerned officer, department, and his/her ministry. The TAC chair will be reporting to the NWC on a regular basis regarding the outcomes from its meetings and actions.

Carry out a national wetlands inventory, so that management decisions and resource allocations can be more efficiently directed.

IUCN Nepal completed a comprehensive initial inventory of lowland wetlands in Nepal in 1996. This work was based on a rapid assessment of lowland wetlands and far from complete. There is, therefore, a dire need to start a comprehensive survey of wetlands in Nepal. Such work should record the state of wetlands in the country, prioritize management actions, help mitigating climate change threats and associated actions, provide background information for declaring additional Ramsar sites, etc.

Furthermore, the information generated from the inventory would form a baseline for future monitoring and conservation and water-use activities in these areas.

Develop a wetlands management strategy and wetlands management guidelines that can be applied at all wetland sites in the country.

The CSUWN has been a great example in terms of the various knowledge base products it has delivered and how adaptive the project has been in taking up pressing issues into the project framework. One important omission, however, has been the lack of a strategy on wetland management and a manual for implementation. Small restoration interventions carried out by the project have shown positive results and all these activities are important to document for future management. Therefore, we recommend developing a Wetlands Management Strategy and Guidelines for the entire country.

Carry out a more extensive biological assessment of the two pilot ecosystems in order to gain a better understanding of biodiversity status

The biological assessments that exist for the two pilot sites are old and outdated except for waterbird fauna which has been updated through the annual mid-winter waterbird count. There are however more than waterbirds in these two areas. An extensive biological assessment of both the sites is needed to better allow assessment of overall gains in biodiversity.

Continue monitoring the socio-economic and conservation benefits realized through project outcomes

The CSUWN has been exceptional in generating various measurable outcomes during its relatively short life at both of the pilot sites. Through the existing institutional mechanism, it is recommended that some of the benefits in terms of biodiversity and livelihoods should be monitored and technical advice should be provided. We recommend that in case of Koshi, KTWR/DNPWC and in case of GLA, District Forest Office Kailali/Department of Forest should take the lead responsibility.

- With respect to the livelihood programs, it would be useful to monitor whether the local people are reverting back to earlier unsustainable habits, e.g., unauthorized livestock grazing, poaching, etc., and try to determine the reasons why.
- It would also be advisable to further monitoring gains in household income levels among those households that received support. The ultra-poor sector particularly emphasized the concern of access to capital/finance, and it would be useful to monitor whether group-lending mechanisms facilitated during the project are able to meet the continued needs of these people.
- Monitoring of operational issues associated with the biogas installations would also be helpful for developing management guidelines for dealing with livestock feeding and dung supply challenges for other similar initiatives.
- Monitoring the operation of aquaculture activities, in conjunction with people who are fishing in the natural water courses, should be made, in order to determine if the mentioned concerns of biological pollution or other consequences have occurred.
- Further monitoring of indicator species and dissemination of results will be critical in evaluating whether biodiversity are sustainable, and what factors are affecting the outcomes, whether positive or negative.

Further develop linkages that would help insure sustainability of project outcomes.

The project has effectively fostered linkages with partners during the implementation of the project. With the MFSC taking lead responsibility, continued and new linkages should be made:

- Linkage with the MFSC with regard to continuing to monitor the project sites according to the Ministry's gender strategy.
- Linkage with the AEPC for fund raising and technical support for the energy related interventions. Also, sharing AEPC knowledge regarding maintenance of the solar fence in KTWR, including life-cycle management of the batteries.
- Linkage with the UNDP micro-enterprise development program, for possible support for some of the enterprises and cottage industries that were assisted by the project.

- Linkage with the UNDP EBA program, for possible policy level support.
- Linkage with PES interventions in Nepal should also be explored.

Further share project results with interested national and international stakeholders, such as those managing similar projects, including those in the GEF portfolio.

- The results of the project should be further shared with national and international stakeholders, such as those managing similar projects, including those in the GEF portfolio. The International Wetland Symposium sponsored by the project in 2012, attended by 81 participants from 13 countries, is a good example of a mechanism for disseminating project results and sharing experiences.

5.2. Proposals for Future Directions Underlining Main Objectives

In order to achieve meaningful biodiversity improvements in the Koshi Tappu Wildlife Reserve, the spatial coverage of the protected area should be increased to include connectivity with other complimentary ecosystems.

Although the baseline information does not exist for comparative study, it is likely that the wildlife populations of KTWR has been in decline since as early as 1976, when it was set up as a wildlife reserve. The decline has been more prominent and rapid since the mid-1990s and also after the flood impact at Koshi in the year 2008. In order to ensure that KTWR acts as a long-term sustainable and functional unit of ecosystems, the spatial coverage should be expanded to include corridor connectivity, more of the same ecosystems, and complementary ecosystems. In order to ensure that KTWR acts as a long-term sustainable protected area, the spatial coverage should be expanded to include corridor connectivity, more of the same ecosystems, and complementary ecosystems.

For up-scaling similar livelihood programs, a broader landscape perspective should be addressed, ensuring that ecosystem functions and values of local wetland resources are sustainable.

Scaling up conservation and sustainable use interventions at the two pilot sites or at other areas should be made in the context of a broader, landscape level perspective. There are a number of issues that should be critically analyzed to ensure ecosystem functions and values of wetland resources are sustainable, e.g.:

- Sustainable extraction rates of certain wetland resources should be evaluated, so that replenishment can keep up with demand if larger scale programs are implemented.
- Deployment of a high number of biogas installations should be carried out only after management guidelines are in place for ensuring reliable supply of dung and sustainable livestock feeding practices.
- The compatibility of aquaculture with native fish populations should also be carefully assessed, and strict management guidelines implemented to safeguard against biological pollution and other unintended consequences.
- From an ecosystem approach perspective, it would be advisable to carry out an environmental flows assessment in conjunction with an expanded biological assessment. Environmental flows are defined as the quantity, timing, and quality of water flows required to sustain ecosystems and the human livelihoods and well being that depend them.

- Potential increases in wildlife numbers should also be considered, and appropriate management guidelines implemented to reduce the chance for human-wildlife conflict. The DNPWC should carry out a study on the carrying capacity of the KTWR and other protected areas for various key animals. These species could be threatened, indicator and species that are prone to cause HWCs. Potential increases in wildlife numbers should therefore be considered in advance, and appropriate management guidelines should be implemented to reduce the chance for human-wildlife conflict. The Compensation Policy 2069 approved by the MFSC targeting HWCs should be implemented in a pragmatic way so that relief and compensation to the needed can be provided immediately.
- Evaluate how payment for ecosystem services (PES) approaches could be utilized to achieve conservation and livelihood improvement goals. The DNPWC should take lead in PAs and DoF and other stakeholders outside PAs to promote sustainable financing of the forest and wildlife management. This remains an unexplored area but potentially benefitting all stakeholders concerned.
- Consider expanding inclusion of all income level groups in training and other capacity building activities, to avoid alienating particular sectors of the communities, and possibly enabling community-level economic benefits.

5.3. Good Practices and Lessons

The project has produced a comprehensive document in 2013 outlining good practices and lessons learned. Some good practice and lessons noted by terminal evaluation team are summarized below.

Baseline Conditions

For such a conservation and sustainable use project, it is advisable to collect information on baseline conditions, both in terms of biodiversity and livelihoods, at the project formulation stage. This allows for a more targeted design and, accordingly, more effective implementation. For the CSUWN project, biological baseline data were a bit outdated and livelihood baseline surveys were made in 2009, after an approximate one year delay in project implementation.

Participation

Ensuring local community participation is essential in enhancing sustainability of project outcomes. The project provided working examples of a wetlands livelihoods approach that links public participation, empowerment, and income generation. Participation was directed mainly to the group level, e.g., community forest user groups, thus better enabling group level consensus. The project took an advisory role, wisely allowing local community institutions to make decisions and facilitate implementation. A good example is the KTWR solar fence, which the local communities participated in all aspects, ranging from design, construction, inspection, and maintenance. The sustainability of the benefits realized through the solar fence is greatly enhanced by the high level of local ownership. Also, the Participatory Monitoring and Evaluation of Biodiversity concept was adopted by the project for monitoring and evaluating the five key indicator species. This concept encourages participation among local communities and further strengthens the enabling environment.

Institutional Structure

It is more effective to utilize existing institutional arrangements rather than creating new ones. The livelihood improvement programs were mostly implemented through existing institutions, e.g., community forest user groups, and group-lending financing mechanisms that were also in place.

Governance

Institutional arrangements should be reflective of local circumstances and priorities. The project was successful in facilitating clarification of institutional arrangements in the National Wetlands Policy 2012, including the District Forest Sector Coordination Committee (DFSCC), which is a nation-wide structure that exists in many districts as a government-recognized institutional mechanism. The DFSCC institution will play a critical role in the governance of wetland management programs in the country.

Income-generation activities

The linkages between environment and livelihood issues (health, income, and education) are increasingly being recognized as integral for achieving sustainable ecosystem conservation; however, relationships between resource management and poverty are complex. The project was successful in demonstrating a diversified range of livelihood programs, including alternative ones aimed at reducing pressures on wetland resources, and particularly focusing on empowering disadvantaged sectors of the wetland dependent communities. More critical review is required to improve the quality of outcomes and enhance sustainability, and to ensure the programs are compatible with conservation goals. It is also important to reach sufficient segments of communities in order to avoid discrimination, for example, among groups of different income levels, and against those communities that live inside or outside the buffer zones or other designated areas.

Communication

Sharing and dissemination of information at all stages of the project encourages participation in decision-making processes and other activities. The communication, education, participation, and awareness strategy was implemented in all activities of the project, from facilitation inter-ministerial collaboration on the National Wetland Committee to engaging local communities in the two project sites. This stakeholder involvement plan was successful in mainstreaming wetlands issues and inspiring high level governmental officials to move forward with policy reforms.

Strengthening cultural integrity

Empowering indigenous people to manage biodiversity in their own localities can result in more sustainable and effective conservation. The project deliberately engaged indigenous ethnic groups in the livelihood improvement programs. Inclusion of the *bhalmansha* (a traditional Tharu leader) on the MSF in GLA was very insightful, demonstrating cultural awareness and respect. Some of the radio outreach programs were broadcasted in local languages; this also increases the sense of ownership by indigenous communities.

6. ANNEXES

Annex 1: Terms of Reference for Terminal Evaluation

INTRODUCTION

In accordance with United Nation Development Programme (UNDP) and Global Environment Facility (GEF)Monitoring and Evaluation (M&E) policies and procedures, all full and medium-sized UNDP support GEF financed projects are required to undergo a terminal evaluation upon completion of implementation. These terms of reference (TOR) sets out the expectations for a Terminal Evaluation (TE) of Conservation and Sustainable Use of Wetlands in Nepal (PIMS 1822)

The essentials of the project to be evaluated are as follows:

PROJECT SUMMARY TABLE

Project Title	***Conservation and Sustainable Use of Wetlands in Nepal***			
GEF Project ID:	PIMS 1822		*at endorsement (Million US$)*	*at completion (Million US$)*
UNDP Project ID:	00042939	GEF financing:	1.96	1.96
Country:	Nepal	IA/EA own:	1.13	1.13
Region:	Asia and Pacific	Government:	1.13	1.13
Focal Area:	Wetland Biodiversity Conservation	Other:	0.533	0.407
FA Objectives, (OP/SP):	BD FSP: Wetlands	Total co-financing:	1.67	1.54
Executing Agency:	MFSC	Total Project Cost:	3.63	3.51
Other Partners involved:	Department of Forests (DoF) And Department of National Parks & Wildlife Conservation (DNPWC)	Pro-Doc Signature (date project began):		14 March 2007
		(Operational) Closing Date:	***Proposed:*** 31December 2012	***Actual:*** 30 June 2013

OBJECTIVE AND SCOPE

Conservation and Sustainable Use of Wetlands in Nepal (CSUWN) is a joint undertaking of the Government of Nepal/Ministry of Forests and Soil Conservation, Global Environment Facility (GEF) and United Nations Development Programme (UNDP). The Project has been designed to address policy gaps, build technical and institutional capacity and promote collaborative management of wetland resources to ensure the maintenance and enhancement of wetland biodiversity and environmental goods and services for improved local livelihoods. The project also aims towards the replication of its good practices and the application of lessons learned to other wetlands in Nepal. The project is being implemented in two important Ramsar sites: Koshi Tappu Wildlife Reserve in the east and Ghodaghodi Lake Area in the west.

The project aims to strengthen national and local capacity in ecosystem management and sustainable use of wetlands biodiversity in Nepal. ***Annex 1*** presents project log-frame.

The project intends to achieve the following Outcomes:

- Wetland biodiversity conservation values integrated into national policy and planning framework
- Strengthened national institutional, technical and economic capacity and awareness for wetland biodiversity conservation and sustainable use
- Enhanced collaborative management of wetland resources for conservation and sustainable livelihood

Evaluation should cover direct funding of the project from GEF and TRAC/UNDP. Evaluation will be conducted according to the guidance, rules and procedures established by UNDP and GEF as reflected in the UNDP Evaluation Guidance for GEF Financed Projects.

The objectives of the evaluation are to assess the achievement of project results, and to draw lessons that can both improve the sustainability of benefits from this project, and aid in the overall enhancement of UNDP programming. Specific objectives include:

- Assessment of achievements of projects outputs and results including the implementation of Mid-Term Evaluation recommendations
- Examination of impact and sustainability of results, including the contribution to policy and planning framework, institutional capacity and awareness and collaborative management for wetland resources
- Documentation of lessons learned and make recommendations that will maximize the impact of the project and also to provide evidences to improve design and implementation of similar projects in near future

EVALUATION APPROACH AND METHOD

An overall approach and method[1] for conducting project terminal evaluations of UNDP supported GEF financed projects have developed over time. The evaluator is expected to frame the evaluation effort using the criteria of **relevance, effectiveness, efficiency, sustainability, and impact,** as defined and explained in the UNDP Guidance for Conducting Terminal Evaluations of UNDP-supported, GEF-financed Projects.
A set of questions covering each of these criteria have been drafted and are included with this TOR (Annex 2) The evaluator is expected to amend, complete and submit this matrix as part of an evaluation inception report, and shall include it as an annex to the final report.

The evaluation must provide evidence-based information that is credible, reliable and useful. The evaluator is expected to follow a participatory and consultative approach ensuring close engagement with government counterparts, in particular the GEF operational focal point, UNDP Country Office, project team, UNDP GEF Technical Adviser based in the region and key stakeholders. The evaluator is expected to conduct a field mission to Nepal, includingthe following project sites in KoshiTappu Wildlife Reserve and Ghodaghodi Lake Area, especially wetlands and natural resources management. Consultative meetings will be held with the following organizations and individuals at both center and the field: (UNDP, Ministry of Forests andSoil Conservation, Department of Forests (DoF), Department of National Park and Wildlife Conservation, Reserve Warden, District Forest Officer, Concerned Partner Organizations, Project's beneficiaries and project staff).

The evaluator will review all relevant sources of information, such as the project document and project's reports including Annual Progress Reports/PIR, Mid Term Evaluation, Progress Reports, GEF focal area tracking tools, project files, national strategic and legal documents, and any other materials that the evaluator considers useful for this evidence-based assessment. A

[1] For additional information on methods, see the Handbook on Planning, Monitoring and Evaluating for Development Results, Chapter 7, pg. 163

list of documents that the project team will provide to the evaluator for review is included in ***Annex 3*** of this Terms of Reference.

EVALUATION CRITERIA & RATINGS

An assessment of project performance will be carried out, based against expectations set out in the Project Logical Framework/Results Framework (see ***Annex 1***), which provides performance and impact indicators for project implementation along with their corresponding means of verification. The evaluation will at a minimum cover the criteria of: **relevance, effectiveness, efficiency, sustainability and impact.** Ratings must be provided on the following performance criteria. The completed table must be included in the evaluation executive summary. The obligatory rating scales are included in***Annex 4***.

Evaluation Ratings:			
1. Monitoring and Evaluation	***rating***	**2. IA& EA Execution**	***rating***
M&E design at entry		Quality of UNDP Implementation	
M&E Plan Implementation		Quality of Execution - Executing Agency	
Overall quality of M&E		Overall quality of Implementation / Execution	
3. Assessment of Outcomes	**rating**	**4. Sustainability**	**rating**
Relevance		Financial resources:	
Effectiveness		Socio-political:	
Efficiency		Institutional framework and governance:	
Overall Project Outcome Rating		Environmental :	
		Overall likelihood of sustainability:	

PROJECT FINANCE / CO FINANCE

The Evaluation will assess the key financial aspects of the project, including the extent of co-financing planned and realized. Project cost and funding data will be required, including annual expenditures. Variances between planned and actual expenditures will need to be assessed and explained. Results from recent financial audits, as available, should be taken into consideration. The evaluator(s) will receive assistance from the Country Office (CO) and Project Team to obtain financial data in order to complete the co-financing table below, which will be included in the terminal evaluation report.

Co-financing (type/source)	**UNDP own financing (million US$)**		**Government (million US$)**		**Partner Agency (million US$)**		**Total (million US$)**	
	Planned	**Actual**	**Planned**	**Actual**	**Planned**	**Actual**	**Actual**	**Actual**
Grants								
Loans/Concessions								
• In-kind support								
• Other								
Totals								

MAINSTREAMING

UNDP supported GEF financed projects are key components in UNDP country programming, as well as regional and global programmes. The evaluation will assess the extent to which the project was successfully mainstreamed with other UNDP priorities, including poverty alleviation, improved governance, the prevention and recovery from natural disasters, and gender.

IMPACT

The evaluators will assess the extent to which the project is achieving impacts or progressing towards the achievement of impacts. Key findings that should be brought out in the evaluations include whether the project has demonstrated: a) verifiable improvements in ecological status, b) verifiable reductions in stress on ecological systems, and/or c) demonstrated progress towards these impact achievements.[1]

CONCLUSIONS, RECOMMENDATIONS & LESSONS

The evaluation report must include a chapter providing a set of **conclusions**, **recommendations** and **lessons**.

IMPLEMENTATION ARRANGEMENTS

The principal responsibility for managing this evaluation resides with the UNDP CO in Nepal.The UNDP CO will contract the evaluators and ensure the timely provision of per diems and travel arrangements within the country for the evaluation team.

The Project Team will be responsible for liaising with the Evaluators team to set up stakeholder interviews, arrange field visits, coordinate with the Government etc.

EVALUATION TIMEFRAME

The total duration of the evaluation will be *20*working days according to the following plan: **Annex 5** presents schedule of detailed time frame of evaluation.

Activity	Timing	Completion Date
Preparation	*1* day	1 May, 2013
Evaluation Mission	*12* days(7 field days)	13May, 2013
Draft Evaluation Report	*5*days	18May, 2013
Final Report	*2*days	20May, 2013

EVALUATION DELIVERABLES

The evaluation team is expected to deliver the following:
For International Consultant

Deliverable	Content	Timing	Responsibilities
Inception Report	Evaluator provides clarifications on timing and method	No later than 1 week before the evaluation mission.	Evaluator submits to UNDP CO
Presentation	Initial Findings	End of evaluation mission	To project management, UNDP CO
Draft Final Report	Full report, (per annexed template) with annexes	Within 2 weeks of the evaluation mission	Sent to CO, reviewed by RTA, PCU, GEF OFPs
Final Report*	Revised report	Within 1 week of receiving UNDP comments on draft	Sent to CO for uploading to UNDP ERC.

*When submitting the final evaluation report, the evaluator is required also to provide an 'audit trail', detailing how all received comments have (and have not) been addressed in the final evaluation report. ***Annex 6*** presents tentative outline of evaluation report.

[1]A useful tool for gauging progress to impact is the Review of Outcomes to Impacts (ROtI) method developed by the GEF Evaluation Office: ROTI Handbook 2009

For National Consultants:
Wetland Conservation Specialist

- An assessment of effectiveness of wetland biodiversity conservation and sustainable use of wetland resources approach taken by CSUWN
- An assessment of the national capacity and awareness built towards the promotion of collaborative management of wetland resources in Nepal

Livelihoods and Gender Social Inclusion Specialist

- An analysis of environment friendly and sustainable livelihood opportunities produced by CSUWN
- An analysis of approaches undertaken by CSUWN for making wetland conservation gender responsive and inclusive

TEAM COMPOSITION

The evaluation team will be composed of (1 international and 2 national evaluators).International evaluator will lead the team and will be responsible for ensuring overall quality and finalizing the report. The evaluators shall have prior experience in evaluating similar projects. Experience with GEF financed projects is an advantage. The evaluators selected should not have participated in the project preparation and/or implementation and should not have conflict of interest with project related activities.

The team is required to combine international caliber evaluation expertise, in the areas of biodiversity including wetland and their wise use in the regional context. The consultant will be hired by UNDP directly, following UNDP rules and procedures.

International Consultant/Team leader should have following qualification:

- At-least Master degree in natural resource management or relevant subjects
- Minimum 10 years of relevant professional experience in NRM related issues in general and wetlands in particular
- Knowledge of UNDP and GEF monitoring and evaluation policy
- Demonstrated ability to work with developing country, government agencies and NGOs. Previous work experience in South Asia, working experience in Nepal would be an asset
- Familiarity with GEF programming and procedures, as well as its evaluation policies and guidelines, will be a useful asset
- Previous work experience with United Nations or other multilateral/bilateral development assistance agencies is a useful asset.
- Experience leading multi-disciplinary, multi-national teams in high stress. Ability to meet short deadlines

Competencies:

The team should ideally have the following competencies and attributes:

Corporate Competencies:

- Demonstrates integrity by modeling the UN's values and ethical standards;
- Promotes the vision, mission, and strategic goals of UNDP;
- Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability
- Treats all people fairly without favoritism;
- Fulfills all obligations to gender sensitivity and zero tolerance for sexual harassment

Functional Competencies:

- Competence in Adaptive Management, as applied to conservation or natural resource management;
- Ability to plan and organize his/her work, efficient in meeting commitments, observing deadlines and achieving results
- Openness to change and ability to receive/integrate feedback

Two National Consultants, A Wetland Conservation Specialist and a Livelihoods/Gender and Social Inclusion Specialist will be hired to support the international expert/Team leader. The Team members must have the following qualifications:

- At-least a Master degree in wetland conservation and management, social sciences or relevant subjects
- At least 7years of professional working experience in their relevant field
- Experience of project evaluation and clear understanding wetland management sector, environment-poverty nexus, wetland management based livelihood and gender issues and holistic and integrated planning approach
- Previous experience with results-based monitoring and evaluation methodologies;
- Familiarity with GEF programming and procedures, as well as its evaluation policies and guidelines, will be a useful asset
- Technical knowledge and competences in the targeted focal area(s)
- Demonstrated analytical skills, ability to assess complex situations, to succinctly and clearly distill critical issues, and to draw practical conclusions

Competencies:

The team should ideally have the following competencies and attributes:

Corporate Competencies:

- Demonstrates integrity by modeling the UN's values and ethical standards;
- Promotes the vision, mission, and strategic goals of UNDP;
- Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability
- Treats all people fairly without favoritism;
- Fulfills all obligations to gender sensitivity and zero tolerance for sexual harassment

Functional Competencies:

- Competence in Adaptive Management, as applied to conservation or natural resource management;
- Ability to plan and organize his/her work, efficient in meeting commitments, observing deadlines and achieving results

Timeframe

The evaluation team shall conduct a debriefing at the end of evaluation mission. The international consultant shall lead the presentation on a draft review of the findings and recommendations with the national level stakeholders, planned at the end of the evaluation mission. Likewise, s/he should lead drafting and finalization of the terminal evaluation. The allocation of tasks in the execution of this TOR shall be decided mutually between the international and National consultants. Table below presents tentative person days of involvement of national and international evaluators.

Activity	Team leader (International Evaluator)	Wetland Conservation Specialist (National Evaluator)	Livelihood/Gender and Social Inclusion Specialist (National Evaluator)
Preparation	*1* days	*1*days	*1*days
Evaluation Mission	*12* days including 7 days for field visit	*12* days including 7 days for field visit	*12* days including 7 days for field visit
Draft Evaluation Report	*5*days	*5*days	*5*days
Final Report	*2* days	*2 day*	*2 day*
Total	*20*days	*20* days	*20* days
Home based input	*8*days		
Evaluation mission	*12*days		

EVALUATOR ETHICS

Evaluation consultants will be held to the highest ethical standards and are required to sign a Code of Conduct (**Annex 7**) upon acceptance of the assignment. UNDP evaluations are conducted in accordance with the principles outlined in the UNEG 'Ethical Guidelines for Evaluations'

Annex 2: Itinerary of Field Visits

Itinerary of Terminal Evaluation team to Koshi Tappu Wildlife Reserve (KTWR)

30th May 2013, Day 1

- Team fly to Biratnagar at 5:00 PM
- Arrive Biratnagar at 5:45 PM
- Arrive KTWR at 07:00 PM
- Welcome by the field team at CSUWN's office, Tea/Coffee
- Briefing on the project field activities including achievements made till the project period by Dr. V. N Jha, Field Manager, CSUWN/KTWR
- At 8:15 PM, drive to Koshi Camp (KC) and overnight stay at KC

31st May 2013, Day 2

- At 6:45 AM, breakfast at KC
- At 7:15 to 08:15 AM, visit Fish Hatchery Center supported by the project, interaction with the members of Ramsar Fish Cooperatives & Mallha Majhi network
- Arrive Community Veterinary Center at 08:30 AM, interaction with the management committee
- At 09:00 AM, arrive Mohan Madhamik Vidhyalaya at Sukrabare VDC and interaction with Wetland Club members, teacher network members about conservation awareness and outreach programme
- At 09:30 AM, observe Diary Cooperatives at Madhuwan VDC
- At 09:45-10:15 AM, drive to Shukraware village, Madhuwan VDC to observe solar fence impact in agriculture farming, observe alternative energy Village, pig farming, biogas & ICS and interaction with beneficiaries.
- At 10:15-11:00 PM, arrive at Janajagaran CFUG's hall, interaction with UGs and UCs members about sustainability mechanism of Solar fence
- At 11:15 to 12:05 PM, depart to Prakashpur to observe livelihood initiatives (Pig rearing) at Prakashpur VDC and interaction with wetland dependent community
- At 12:10 to 12:30 PM, arrive Dharhara Tappan, Prakashpur to observe Solar electric fence, interaction with Dharahara & Saptakoshi Community Forest User Group, also interaction with BZUGs members (local farmers) and BZUCs Chairperson (Mr. Amar Gurung)
- Lunch at KTWR 01:00 to 02:00 PM
- At 2:15 PM, visit Pater Enterprise run by Bantar Women and interaction with the female groups
- At 3:15 PM, observe vegetable farming, goat farming in Rajdhov Women UG, a flood affected Wetland Dependent Community, observe wetland restoration initiatives including fish pond and interaction with the local beneficiaries
- At 4:00 PM, visit to Multi fed biogas plant and interact with the beneficiary
- At 4:30 PM, Visit poultry farm run by wetland dependent women groups at Kushaha and interaction with the members
- At 5:15 PM, at CSUWN office interaction with local bird watching groups and other CBOs members on the biological monitoring of indicator species
- At 5:45 to 6:00 PM, Tea/Coffee at CSUWN Office
- At 6:00 PM, observe road side plantation, afforestation area along the dike
- At 6:30 PM, Return back to Koshi Camp

1st June 2013, Day 3:

- Breakfast at 6:15 AM at Koshi Camp
- At 7:15 AM, team departs to Tapeshwori VDC, Udaipur district
- At 09:15 AM, arrive Tapeshwori VDC
- Observe Poultry enterprise and Pig farming supported by CSUWN at Pragati Mahila Samuha and interaction with the beneficiaries (WDCs) about their income
- At 10:00 AM, observe Leaf Plate making enterprise and Fish pond run by Female members of Janachetana Mahila Samuha and interaction with the members
- At 11:00 AM, observe newly formed CFUG and afforestation area in block fencing
- At 11:30 AM, Interaction with Tapeshwori BZUC and BZ Cooperative members
- Nepali Lunch at Tapeshwori VDC at 12:30 PM
- Drive to Kamalpur, Saptari
- 01:30 PM, observe fish pond run by Mallaha group and interaction with the group members
- Interaction with the KTWR BZ Chair
- 02:15-02:45 PM Drive to Pathari, Saptari
- Observe community fish pond and Poultry farm run by female groups and interaction with UG and UC chairpersons
- Also observe afforestation block at Pathari, Saptari
- Leave Pathri site to return back to Biratnagar airport by 3:15 PM
- Fly back to Kathmandu by 6:00 PM flight

Itinerary of Terminal Evaluation team to Ghodaghodi Lake Area (GLA)

2nd June 2013, Day 1:

- Team fly to Dhanghadi at 12:30 PM
- Arrive Dhanghadi at 2:30 PM
- Drive to Sukhad, arrive GLA Field Office at 3:30 PM
- Welcome by the field team
- At 3:45 PM, briefing of the field activities and progress and achievements made till date by Mr. Raj K. Paudel, Field Manager, GLA
- Tea/Coffee & Snacks at GLA Office
- At 4:30 PM, leave for Ghodaghodi Lake to observe sluice gate, view tower, Picnic and parking spot and interaction with Tengnuwa CFUG, also observe information center
- At 5:30 PM, visit Brinda CFUG, Ramshikharjhala to observe leaf plate making enterprise and interaction with the female CFUG
- At 6:30 PM, team depart to Dhanghadi
- Overnight stay at Dhanghadi

3rd June 2013, Day 2:

- Breakfast at 6:45 AM at hotel
- Move from Dhanghadi to Sukhad at 7:00 AM
- Arrive Ghodaghodi Lake at 8:00 AM, observe wetland habitat management and restoration interventions at the lake site (one way boat and one way walk), also observe basking sites, vantage points and other restored sites
- 10:00 AM, drive to Rastriya Ma VI at Ramsikharjhala and interaction with the school wetland club and teachers' network
- At 11:00 AM, arrive to Komal Hariyalu CFUG, Darakh VDC and interaction with Dhakiya group
- At 11:30 AM, observe Community hall and interaction with Hariyali CFUG, Ramsikharjhala
- At 12:05 PM, arrive Janaki & Triveni CFUG, Darakh VDC, observe biogas plants and ICS at wetland dependent household , interaction about collaboration for development
- At 12:30 PM till 1:00 PM, lunch at CSUWN's office, Sukhad
- At 1:00 PM, drive to Nakhrod lake and observe the wetland restoration initiative and interaction with Janahit CFUG, Sadepani
- At 2:00 PM, drive to Kharkhatla CFUG and Janaki CFUG to observe the fish farming initiatives and interaction with beneficiaries about the income
- At 2:30 PM, observe river training work at Kauwa khola, Hariyali CFUG and interaction about public partnership
- Also observe pig & goat rearing initiatives at the members of Hariyali CFUG and interaction with the beneficiaries
- At 3:45 PM to 4:45 PM, interaction with Sunita Chaudhari and Ram Lal BK (beneficiaries of skill development training)
- At 4:45 PM to 5:15 PM, Tea & Snacks at GLA Sukhad
- At 5:15 PM, interaction with community based anti poaching groups, bird watching clubs at CSUWN's office
- At 6:00 PM, wrap up meeting with the field team
- At 6:30 PM, team depart to Dhanghadi
- At 7:30 PM, arrival and overnight stay at Dhanghadi

4th June 2013, Day 3:

- Breakfast at 7:00 AM at Dhanghadi
- From 8:00 AM to 11:00 AM, meeting with RD, Far- Western Region Forest Directorate, DFO and LDO, Kailali
- Lunch at hotel with RD, DFO and LDO from 12:05 PM till 1:00 PM
- Return back to Kathmandu via 2:30 PM flight

Annex 3: List of Persons Interviewed

Name	Organization	Position
Dr. Krishna Chandra Paudel, PhD	MFSC	Secretary
Mr. Krishna Prasad Acharya	MFSC	Chief, Planning and Human Resources Division
Mr. Bishwa Nath Oli	MFSC	Director General, Department of Forests
Dr. Annapurna Nand Das	MFSC	Director General, Department of Plant Resources and former NPD for CSUWN
Mr. Megh Bahadur Pandey	MFSC	Director General, Department of National Parks and Wildlife Conservation
Mr. Bhawa Krishna Bhattarai	NPCS	Joint Secretary, National Planning Commission Secretariat
Mr Harihar Sigdel	MFSC	National Project Director, CSUWN, Monitoring and Evaluation Division, MFSC, GoN
Bissu Babu Tiwari	MFSC	Regional Director, Far Western Development Region
Mr. Jorn Sorensen	UNDP-Nepal	Deputy Country Director
Mr. Vijaya P. Singh	UNDP-Nepal	Assistant Country Director, Environment, Energy, and Climate Change Unit
Mr. Vijay Prasad Kesari	UNDP-Nepal	Environmental Programme Analyst, Environment, Energy, and Climate Change Unit
Mr. Top B. Khatri	CSUWN	National Project Manager
Dr. Shalu Adhikari	CSUWN	Gender, Monitoring and Communication Officer
Mr. Saurav Shrestha	CSUWN	Wetland Planning & Evaluation Specialist
Mr. Prem Biswakarma	CSUWN	Finance Officer
Dr Viveka Nanda Jha	CSUWN	Field Officer, Koshi Tappu Wildlife Reserve
Mr. Raj Kumar Paudel	CSUWN	Field Officer, Ghodaghodi Lake Area, Kailali
Mr. Rajendra Singh Bhandari	DoF	District Forest Officer, Kailali
Mr. Rajendra Dhungana	DNPWC	Conservation Officer, KTWR
Major Anil Upadhyaya	Nepal Army	Army Camp, Kushaha
Mr. Bal Ram Majhi	Chairman	Simsar Fish Hatcher Centre, Madhuban, Sunsari

Name	Organization	Position
Mr Bhisma Adhikari	Member	Simsar Fish Hatcher Centre, Madhuban, Sunsari
Vice Chairman		Teachers' Network Wetland Club, Koshi Tappu Buffer Zone School Network
Mr. Devi Prasad Chaulagain	Chairman	Jana Jagaran Buffer Zone User Committee, Shukrabare, Koshi Tappu
Chairperson		Magar Tole Women Group, Koshi Tappu
Mr. Jung Bahadur Khadka	Chairman	Tapeshwor Cooperative Group, Koshi Tappu
Mr. Nandi Lal Chaudhary	Ex VDC Vice Chair	Tapeshwari VDC, Udayapur District
Mr. Budheshwor Mallaha	Chairman	Mallaha Community Fish Ponds
Mrs. Maina Dhakal	Chairperson	Tenuguwa Women Forest User Group, Sukhad VDC, Kailali
Group members		Sakhiya Dhakiya Bunia Group, Kailali
Ms. Bishna Chaudhary	Chairperson	Janahit Women Forest User Group, Sukhad VDC, Kailali
Mr. Karan Singh Bohara	Forest Watcher	Janahit Women Forest User Group, Sukhad VDC, Kailali
Mr. Khadak Kadayat	User Member	Hariyali Forest User Group, Ramshikharjhala VDC, Kailali
Mr. D R Chaudhary	Chairman	Bird Conservation Network, Kailali, Sukhad
Mr. Ram Kumar Chaudhary	Member	Community-based Anti-poaching Unit, Sukhad
Mr. Dilli Sawad	Member	Bird Conservation Network, Kailali, Sukhad
Mr. Padam Nepal	Assistant Forest Officer	Basanta Protection Forest, Pahalmanpur Unit Forest Office, Kailali
Mr. Lal Bahadur Bishwakarma	Ranger	Sukhad Range Post, Kailali
Field Staff	CSUWN	Koshi Tappu
Field Staff	CSUWN	Ghodaghodi

Annex 4: Questionnaire Used

Evaluation Questions for Kathmandu and other Government or donor level stakeholders

Has there been any wetland economic valuations made of other wetlands, using the tool kit developed during Project implementation? If yes, please provide details.

Please provide information on how the following national strategy has been monitored and tracked since published in 2010: *DNPWC (2010) National Strategy, Communication, Education, Participation and Awareness (CEPA) Strategy and Dissemination Framework for the Conservation and Wise Use of Wetlands in Nepal (2011-2015). Department of National Parks and Wildlife Conservation, Kathmandu*.

Please provide information regarding how the following tool has been adopted in Nepal since publication in 2011: *CSUWN (2011) Wetlands Inventory, Assessment and Monitoring Tool. Ministry of Forests and Soil Conservation, Nepal*.

Please provide information regarding how the following management guidelines have been adopted since published in 2011: *CSUWN (2011) Wetlands Invasive Alien Species Management Guidelines. Ministry of Forests and Soil Conservation, Nepal*.

Please provide evidence of how the Project has collaborated with other UNDP country projects having complimentary objectives.

Please provide evidence on how the Project has contributed to the UNDP Development Assistance Framework, for 2013-2017

Please provide the following for review:

- National Periodic Plan
- Annual Report of the Dept of Forests
- Annual Report of the National Park Service
- Annual Report of the MFSC
- NWC Meeting Minutes
- Sampling Survey Report (Outcome 2)
- Recommendations made to the following Acts:
    - Aquatic Life Conservation Act
    - National Parks and Wildlife Conservation Act
    - Water Resources Act
    - Agricultural Policy
    - Self-Governance Act
- Training Reports
- Focal Desk (?)
- District Forest annual plan and budget allocation, for each year
- Basanta Protected Forest management plan or document related to management
- Annual budget allocations of sectoral ministries
- Media coverage surveys
- Household income surveys
- Collaborative Action Plan
- GT Management Plan
- Livelihood and Financing Strategy
- Evidence applying Livelihood and Financing Strategy

Evaluation Questions for Field Visits

1. Has the implementation of the Project been inclusive of all relevant Stakeholders in the local communities, including Buffer Zone User Committees/ Buffer Zone User Groups, Community Forest User Groups and Wetland Dependent Communities living in the area?

2. Has the length of the project been sufficient to achieve local level objectives, including improved conservation of wetland areas and enhanced livelihood sustainability?

3. Do you have any suggestions on how the project could have better targeted and addressed the priorities and development challenges of targeted local beneficiaries?

4. Have there been any unintended negative impacts of the project, on wetland biodiversity and local livelihoods? And, if yes, how has the project been effective to address un-intended consequences or impact of intervention?

5. Is there evidence that Project partners will continue their activities beyond project support? Are there sufficient human and financial resources available to continue some of the Project related activities, such as monitoring and reporting?

6. Please indicate some examples of social or political risks that may threaten the sustainability of the project outcomes?

7. What on-going issues pose an environmental threat to the sustainability of the project objectives; such as, poor water quality, increased intensity and frequency of storms, etc?

8. Did the Project contribute to citizens' acceptance of the new products or practices?

9. VDCs: Please provide the annual plans, budget allocations, and revenue reports for the five years of the Project implementation: 2008, 2009, 2010, 2011, 2012

10. DDCs: Please provide the annual plans, budget allocations, and revenue reports for the five years of the Project implementation: 2008, 2009, 2010, 2011, 2012

11. KTWR: Please provide the annual plans, budget allocations, and revenue reports for the five years of the Project implementation: 2008, 2009, 2010, 2011, 2012

12. District Forest Office-Kailali: Please provide the annual plans, budget allocations, and revenue reports for the five years of the Project implementation: 2008, 2009, 2010, 2011, 2012

13. What were the most important results from this project? Biodiversity related?

14. What mechanism is in place to ensure that biological monitoring of indicator species that was started by the project?

15. Have the animals increased in numbers since the project has been implemented? Has that caused any problems with you?

16. What were the best results that the project did in terms of wetland/biodiversity protection?

17. What are the suggestions for wetland biodiversity conservation for future projects?
18. Why should we conserve wetland biodiversity? Can you tell us its link with livelihood aspects of people?
19. What was the role of the Wetland Dependent Community (WDC) at the project design level? How they are still involved in the management of the project?
20. How does the livelihood strategy and lining up with UNDP livelihood sustainable agenda?
21. What is the representation of WPSE in the different committees established in the course of the project; those led by women and what do they focus on?
22. Scenario of income generation activities and enterprises; what else could be done to promote the growth of entrepreneurs
23. Co-ordination/access to financial institutes; constraints barriers and supportive initiatives; roles of the project in its promotion; and perception on the continuity
24. Adoption of lessons learnt from previous projects in terms of livelihood activities, PCP and PPP?
25. Existence (pre-project and new ones), participation and role of WPSE-based local organizations
26. WPSE, livelihood, sustainability indicators for monitoring , reports
27. Contribution to health, education, reduced mortality – provide cases
28. Any activities taken up in addition to those listed in the project document in favour WPSE?
29. Record of incidence/cases of negative impact on livelihood? Reason, measures taken if any?
30. What are the changing livelihood patterns in the two pilot site areas?

Annex 5: List of Documents Reviewed

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District Forest Office (2012?) Ghodaghodi Lake Area Catchment Level Management Plan (BS 2069 - 2073). District Forest Office, Kailali, Nepal.

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GoN/UNDP/GEF (2009) Conservation and Sustainable Use of Wetlands in Nepal. Revised Project Document. Pp. 196.

MFSC (2012) National Wetland Policy 2012 (Rashtriya Simsar Niti 2069).Ministry of Forest and Soil Conservation, Government of Nepal.

MoFSC/CSUWN (2010) Review of Wetland Impacting Cross Sectoral and Economic Policies. Ministry of Forests and Soil Conservation and Conservation and Sustainable Use of Wetlands in Nepal. Pp.87.

MoFSC/CSUWN (2011) A report on Gender and Social Inclusion Audit of Conservation and Sustainable Use of Wetlands in Nepal (CSUWN) Project. Ministry of Forests and Soil Conservation and Conservation and Sustainable Use of Wetlands in Nepal. Pp. 16 and Anexes.

MoFSC/CSUWN (2011) Training for Wetlands Economic Valuation Tool. Ministry of Forests and Soil Conservation and Conservation and Sustainable Use of Wetlands in Nepal.

MoFSC/CSUWN (2012) Exit Strategy and Plan of CSUWN. Ministry of Forests and Soil Conservation and Conservation and Sustainable Use of Wetlands in Nepal. Pp. 32.

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MoFSC/CSUWN (2013) Good Practices and Lessons Learned from CSUWN Project. Ministry of Forests and Soil Conservation and Conservation and Sustainable Use of Wetlands in Nepal.

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Three Year Periodic Plan 2010/2011-2012/2013 pp 99-107

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Annex 6: Evaluation Matrix

Evaluative Criteria	Evaluation Questions	Indicators	Sources	Methodology	Comments	Overall Rating
Relevance: How does the project relate to the main objectives of the GEF focal area, and to the environment and development priorities at the local, regional and national levels?						**Relevant**
Is the Project relevant to GEF biodiversity focal area?	• How does the project support GEF biodiversity focal area and strategic priorities?	• Existence of a clear relationship between the project objectives and GEF biodiversity focal area	• Project documents • GEF focal areas strategies and documents	• Documents analyses • GEF website • Interviews with UNDP and project team	Yes	
Is the Project relevant to UNDP objectives?	• How does the Project support on achieving UNDAF outcome of sustainable livelihoods in general and energyandenvironment in particular?	• Existence of a clear relationship between project objectives and sustainable livelihoods outcomes of UNDP (UNDAF). • Existence of a clear relationship between	• Project documents • UNDP strategies and programmes • Key government officials and other partners	• Documents analyses • Interviews with government officials and other partners • Interviews with UNDP	Yes	
Is the Project relevant to Nepal's bio-diversity conservation and development objectives?	• How does the Project support objectives of biodiversity conservation? • How country-driven is the Project? • Does the Project adequately take into account the national realities, both in terms of institutional framework and programming, in its design and its implementation? • How the project has been effective to influence national policy and planning processes?	• Degree to which the project support national conservation objectives • Degree of coherence between the project and nationals priorities, policies • Appreciation from national stakeholders with respect to adequacy of project design and implementation to national realities and existing capacities?	• Project documents • National policies and strategies (NBS, TALS, TYIP, TYP) • Key government officials and other partners • National policies and strategies to protect and manage the environment	• Documents analyses • Interviews with government officials and other partners	Very much so.	
Is the Project addressing the needs of target beneficiaries?	• How does the Project support the needs of target beneficiaries; including the Buffer Zone User Committees/ Buffer Zone User Groups, Community Forest User Groups and Wetland Dependent Communities leaving in the area? • Is the implementation of the Project been inclusive of all relevant Stakeholders?	• Strength of the link between expected results from the Project and the needs of target beneficiaries • Degree of involvement and inclusiveness of beneficiaries and stakeholders in Project design and implementation	• Beneficiaries and stakeholders • Needs assessment studies	• Document analysis • Interviews with beneficiaries and stakeholders	Yes. Inclusin of key stakeholders, Yes, but not "all" stakeholders	

Annex 6: Evaluation Matrix

	• Are local beneficiaries and stakeholders adequately involved in Project design and implementation?		• Project documents			
Is the project internally coherent in its design?	• Are there logical linkages between expected results of the project (log frame) and the project design (in terms of project components, choice of partners, structure, delivery mechanism, scope, budget, use of resources etc)? • Is actual Project implementation coherent with Project design? • Is the length of the project sufficient to achieve project outcomes?	• Level of coherence between project expected results and project design internal logic • Level of coherence between project design and project implementation approach	• Program and project documents • Key project stakeholders	• Document analysis • Key interviews	Generally yes. OUTCOME 3 will require more time for evaluating impact.	
How is the Project relevant in light of other donors?	• Does the GEF funding support activities not addressed by other donors? • How do GEF-funds help to fill gaps (or give additional stimulus) that are crucial but are not covered by other donors? • Is there coordination and complementarities between donors?	• Degree to which program was coherent and complementary to other donor programme	• Other Donors' policies and programming documents • Other Donor representatives • Project documents	• Documents analyses • Interviews with other Donors	This GEF project has filled an important gap in focusing on wetlands, which are the most critical natural systems in Nepal in terms of biodiversity. Also, significant policy advances were achieved on this project on wetlands issues. WWF has projects focusing on biodiversity and livelihoods. The WWF livelihood programs are mostly aimed at reducing pressure on natural resources. The proporation of funds on the CSUWM project allocated to livelihood issues is higher than that of the WWF project. The TAL and WTLCP have wider geographic coverage. There is a comparative advantage taken by the CSUWN implementation modality, in terms of effectiveness.	
Does the project provide relevant lessons and experiences for other similar projects in the future?	• What lessons have been learnt and what changes should have been made to the Project in order to strengthen the alignment between the Project and the Partners' priorities and areas of focus?	• Lessons learned	• Data collected throughout evaluation	• Data analysis	The selection of livelihood tagged HHs should have been made based firstly on wealth and then ethnic group. The WDC term is too broad.	

Annex 6: Evaluation Matrix

	• How could this type of project better target and address the priorities and development challenges of targeted beneficiaries?					
Effectiveness: To what extent have the expected outcomes and objectives of the project been achieved?						**Satisfactory**
Has the project been effective in achieving the expected outcomes and objectives?	• Is the Project being effective in achieving its expected outcomes: • Wetland Biodiversity conservation values integrated into National Policy and Planning Framework; • National institutional, technical and economic capacity and awareness for wetland biodiversity conservation and sustainable use strengthened; • Collaborative management of wetland resources for conservation and sustainable livelihood enhanced.	• See indicators in project log frame (Annex 1)	• Project documents • Project team and relevant stakeholders • Data reported in project annual and quarterly report s	• Documents analysis • Interviews with project team • Interviews with relevant stakeholders	Yes, see LFA	
How was risk and risk mitigation being managed?	• How well are risks and assumptions being managed? • What was the quality of risk mitigation strategies developed? Were these sufficient? • Are there clear strategies for risk mitigation related with long-term sustainability of the project?	• Completeness of risk identification and • Quality of existing information systems in place to identify emerging risks and other issues? • Quality of risk mitigations strategies developed and followed	• Project documents and evaluations • UNDP staff and Project Partners	• Document analysis • Interviews	OK	
Did Project effectively addressed the Midterm Evaluation recommendations	• Are the midterm recommendations are relevant and adequate to achieve project results? • Did the project made any operational and strategic changes after midterm recommendation? • Are the project efforts adequate and effective to address midterm evaluation recommendations?	• Relevancy and adequacy of midterm evaluation recommendation • Strategic and operational changes of project implementation after midterm evaluation • Project efforts on addressing midterm evaluation recommendations	• UNDP staff and Project Partners • MFSC officials • Project staff	• Document analysis • Interviews	Generallly yes. Exit stragegy. Rationalizing the remaining resources.	

Annex 6: Evaluation Matrix

How was level of participation and support from implementing/ executing agency for effective implementation of project?	• Did Implementing/Executing Agency staff identify problems in a timely fashion and accurately estimate its seriousness? • Did Implementing/Executing Agency staff provide quality support and advice to the project, approved modifications in time and restructured the project when needed? • Did the Implementing/Executing Agencies provide the right staffing levels, continuity, skill mix, and frequency of field visits for the GEF projects?	• Timely support and advice from implementing agency	• Project team and relevant stakeholders • Data reported in project annual and quarterly report s	• Document analysis • Interviews	Yes	
What lessons can be drawn regarding effectiveness for other similar project in the future?	• What lessons have been learned by project to achieve its outcome? • What changes could have been made (if any) to the design this type of project in order to improve the achievement of the projects expected results? • How could the Project have been more effective in achieving its results?	• Lessons learned from project implementation	• Data collected throughout evaluation	• Data analysis	See lessons learned ...	
Efficiency: Was the project implemented efficiently, in-line with international and national norms and standards?						**Highly Satisfactory**
	• Was adaptive management used or needed to ensure efficient resource use? • Did the Project logical framework and work plans and any changes made to them use as management tools	• Availability and quality of progress reports • Timeliness and adequacy of reporting	• Project documents and evaluations • UNDP, MFSC Officials and Project personnel	• Document analysis • Key Interviews		

Annex 6: Evaluation Matrix

Was project support provided in an efficient way?	• Were progress reports produced accurately, timely and respond to reporting requirements including adaptive management changes? • How was Result Based Management used during program and Project implementation? • Was there an institutionalized or informal feedback or dissemination mechanism to ensure that findings, lessons learned and recommendations pertaining to Project design and implementation effectiveness are shared among Project stakeholders, UNDP and GEF Staff and other relevant organizations for ongoing Project adjustment and improvement? • Did the Project mainstream gender considerations into its implementation?	• Adequacy of Project choices in view of existing context, infrastructure and cost • Quality of RBM reporting (progress reporting, monitoring and evaluation) • Occurrence of change in Project design/ implementation approach (i.e. restructuring) when needed to improve Project efficiency • Existence, quality and use of M&E, feedback and dissemination mechanism to share findings, lessons learned and recommendation on effectiveness of Project design. • Gender disaggregated data in Project documents	• Beneficiaries and Project partners		Yes, generally	
How delays on project implementation have affected outcomes and sustainability?	• Do project completed as planned?What are the reasons for delays in project implementation and completion?	• Reasons for delay on project implementation	• UNDP, MFSC and Project personnel	• Key Interviews	Project inception was March 2008 and implementation started June 2009. Delay was partly due to agreement on implementing agency. The delay certainly affected the sustainability of outcomes, e.g., the livelihood programs could have been taken a bit further, more temporal	

Annex 6: Evaluation Matrix

and sustainability?					have been taken a bit further, more temporal data on bio monitoring would have been useful, and policy advances could have been more developed.	
	• Did the delay affect the project's outcomes and/or sustainability? How did itaffect outcomes and sustainability then in what ways and through what causal linkages?	• Effect on delay on achieving project outcomes and sustainability	• Beneficiaries and			
Were financial resources utilized efficiently?	• Were the accounting and financial systems in place adequate for Project management and producing accurate and timely financial information? • Was Project implementation as cost effective as originally proposed (planned vs. actual) • Did the leveraging of funds (co-financing) happen as planned? • Were financial resources utilized efficiently? • Could financial resources have been used more efficiently?	• Availability and quality of financial reports • Level of discrepancy between planned and • Planned vs. Actual funds leveraged • Cost in view of results achieved compared to costs of similar Projects from other organizations • Cost associated with delivery mechanism and management structure compare to alternatives	• Project documents and evaluations • UNDP, MFSC and Project personnel • Beneficiaries and Project partners	• Document analysis • Key Interviews	Generally yes Tracking of costs did not consider so much the breakdown in the Project Document (by Atlas code)	
How efficient were partnership arrangements for the Project?	• To what extent were partnerships/ linkages between institutions/ organizations being encouraged and supported? • Which partnerships/linkages were facilitated? Which one can be considered sustainable? • What is the level of efficiency of cooperation and collaboration arrangements? (between local actors, UNDP-GEF and the MFSC) • Which methods were successful or not and why?	• Specific activities conducted to support the development of cooperative arrangements between partners, • Examples of supported partnerships • Evidence that particular partnerships/linkages will be sustained • Types/quality of partnership cooperation methods utilized	• Project documents and evaluations • Project Partners • Beneficiaries	• Document analysis • Interviews	CFUGs were engaged in a major way, and this institution is permanent, thus ensuring sustainability. Including wetland issues in the plans of the DDCs, KTWR, GL, etc., also ensure sustainability.	
	• Was an appropriate balance struck between utilization of international expertise as well as local capacity?	• Proportion of total expertise utilized taken from Nepal	• Project documents and evaluations	• Document analysis		

Annex 6: Evaluation Matrix

Did the Project efficiently utilize local capacity in implementation?	• Did the Project take into account local capacity in design and implementation of the Project? • Was there an effective collaboration between institutions responsible for implementing the project?	• Number/quality of analyses done to assess local capacity potential and absorptive capacity	• UNDP and Project partners • Beneficiaries	• Interviews	Yes	
What lessons can be drawn regarding efficiency for other similar projects in the future?	• What lessons can be learnt from the project on efficiency? • How could the Project be more efficient in achieving its results? • How could the project more efficiently address its key priorities (in terms of management structure and procedures, partnership arrangement etc.)? • What changes should be made (if any) to the Project in order to improve its efficiency?	▪	• Data collected throughout evaluation	• Data analysis	Implementation modality of this project has been very efficient.	
Impact: Are there indications that the project has contributed to, or enabled progress toward, reduced environmental stress and/or improved ecological status?						**Significant**
How is the Project effective in achieving its long term goal and objectives?	• Is the Project achieving its goal of ensuring the maintenance and enhancement of wetland biodiversity and environmental goods and services for improved local livelihoods in Nepal? • Is the Project achieving its objectives to strengthen national and local capacity in ecosystem management and sustainable use of wetland biodiversity in Nepal?	• See indicators in project log frame (Annex 1)	▪ Project documents ▪ Key Stakeholders ▪ Research findings; if available	▪ Documents analysis ▪ Meetings with UNDP and Project Partners and MFSC Officials ▪ Interviews with Project beneficiaries and other stakeholders	Significant impact is mostly due to policy advances made. Revised NWP, draft Wetlands Act Management plans at both sites. Institutional structure (e.g., NWC, DFSCC, MSF) Considerable awareness raising. Inclusion of wetland issues in local level planning.	
	• What are the positive impacts or likely impacts of the Project (both intended and unintended) • Policy and Planning framework • Institutional capacity and awareness	• Provide specific examples of impacts, as relevant	• Project documents • Key Stakeholders • Research findings	• Data analysis • Interviews with key stakeholders	In terms of MDGs, MDG7: ensure env sustainability MDG1: eradicate extreme poverty and hunger	

Annex 6: Evaluation Matrix

What are positive impacts of the project?	• Collaborative management for wetland resources; • How project has contributed on achieving Millennium Development Goal (MDGs)?	▪ Contribution of project on MDGs			MDG1: eradicate extreme poverty and hunger MDG3: empower women MDG5: improve matenal health MDG4: reduce child mortality MDG8: global partnership	
Are there any likely negative impacts or consequences of project?	• What are the negative impacts of the project on wetland biodiversity and local livelihoods? • How project has been effective to address un-intended consequences or impact of intervention?	• Negative impact of the project • Measures taken to address negative consequences	• Project documents • Key Stakeholders • Research findings	• Data analysis • Interviews with key stakeholders	Possible increased number of wildlife-human conflicts. Wild elephants have become resident in KTWR, this is positive in terms of biodiversity but negative in terms of livelihoods (e.g., crop damage).	
What lessons can be drawn regarding impact for other similar projects in the future?	• How could the Project build on its apparent successes and learn from its weaknesses in order to enhance the potential for impact of ongoing and future initiatives? • What changes should be made (if any) to the Project in order to improve its impact?	• Lesson learned	• Data collected throughout evaluation	• Data analysis	Weakneses: Livelihood: insufficient capacity of income generating activities in linking with markets. Conservation: determination of critical sites is unclear Conservation. No baseline on overall wetland ecosystem health Conservation. Restoration strategy should have been made, would have enhanced sustainability and replication.	
Sustainability: To what extent are there financial, institutional, social-economic, and/or environmental risks to sustaining long-term project results?						**Likely**
Were sustainability issues adequately integrated in Project design?	• Were sustainability issues integrated into the design and implementation of the Project? • Are there any delays in project implementation and completion, then what were the reasons? • Did the delay affect the project's outcomes?	• Evidence/Quality of sustainability strategy • Evidence/Quality of steps taken to address sustainability	• Project documents and evaluations • UNDP personnel and Project Partners • Beneficiaries	• Document analysis • Interviews	Yes Yes, the delay has affected sustainability	
Financial Sustainability	• Did the Project adequately address financial and economic sustainability issues? • Are the recurrent costs after Project completion sustainable?	• Level and source of future financial support to be provided activities after termination of project? • Evidence of commitments from government or other stakeholder to financially support relevant sectors of activities after project end • Level of recurrent costs after completion of Project and funding sources for those recurrent costs	• Project documents and evaluations • UNDP personnel and Project Partners • MFSC officials • Beneficiaries	• Document analysis • Interviews	Key activiities sustainability likely, but not at the same cost level.	Likely
Socio-economic sustainability	• Are there social or political risks that may threaten the sustainability of the project outcomes? • Did the Project contribute to citizens' acceptance of the new products or practices?	• Example of contributions to sustainable political and social change in support of the biosphere	• Project documents and evaluations • UNDP personnel and Project Partners	• Interviews • Documentation review	Yes	Likely

Annex 6: Evaluation Matrix

	• Is there sufficient public/stakeholder awareness of long-term project objectives?	in support of the biosphere reserve	• Beneficiaries			
Institutional Framework and Governance Risks	• Are the legal framework, policies, and governance structures in place to support the long-term project objectives? Are the requisite systems of accountability and transparency in place, and do the responsible institutions have the technical know-how for effective implementation?	• Evidence of policy reform, local adoption of policies, committed funding for training and implementation.	• UNDP personnel and Project Partners, and beneficiaries	• Interviews, document review, observations in the field	Yes	Likely
Environmental Risks	• Are there ongoing activities that pose an environmental threat to the sustainability of project outcomes?	• Evidence of environmental pressures.	• UNDP personnel and Project Partners, and beneficiaries	• Interviews, document review, observations in the field	Sanitation issues are current environmental pressures.	Likely
Organizations arrangements and continuation of activities	• Were the results of efforts made during the Project implementation period well assimilated by organizations and their internal systems and procedures? • Is there evidence that Project partners will continue their activities beyond Project support? • What degree is there of local ownership of initiatives and results?	• Degree to which Project activities and results have been taken over by local counterparts or institutions/ organizations • Level of financial support to be provided to relevant sectors and activities by in-country actors after Project end	• Project documents and evaluations • UNDP personnel and Project Partners • MFSC officials • Beneficiaries	• Document analysis • Interviews	Yes	Likely
Enabling Environment	• Were laws and policies frameworks being addressed through the Project, in order to address sustainability of key initiatives and reforms? • Were the necessary related capacities for lawmaking and enforcement being built? • What is the level of political commitment built on the results so far?	• Efforts to support the development of relevant laws and policies • State of enforcement and law making capacity • Evidences of commitment by the political class through speeches, enactment of laws and resource allocation to priorities	• Project documents and evaluations • UNDP personnel and Project Partners • Beneficiaries	• Document analysis • Interviews	Yes	Likely
Institutional and individual capacity building	• Is the capacity in place at the national and local levels adequate to ensure sustainability of the results achieved to date?	• Elements in place in those different management functions, at the appropriate levels (national, district and local) in terms of adequate structures, strategies, systems, skills, incentives and interrelationships with other key actors	• Project documents and evaluations • UNDP personnel and Project Partners • Beneficiaries • Capacity assessments available, if any	• Interviews • Documentation review	Yes	Likely
Replication	• Are Project activities and results being replicated elsewhere and/or scaled up? • What was the Project contribution to replication or scaling up of innovative practices or mechanisms?	• Number/quality of replicated initiatives • Number/quality of replicated innovative initiatives • Volume of additional investment leveraged	• Other donor programming documents • Beneficiaries • UNDP personnel and Project Partners	• Document analysis • Interviews	Valuation toolkit, assessment toolkit have been adopted. Revolving funds, MSF was conceived on the project and later merged into the DFSCC. The JVC in KTWR scaled up from a cottage industry to an JVC.	
Challenges to	• What are the main challenges that may hinder sustainability of efforts?	• Challenges in view of building blocks of sustainability as presented above	• Project documents and evaluations	• Document analysis	Insufficient allocation of funds. Unfavorable land use changes.	

Annex 6: Evaluation Matrix

sustainability of the Project	• Have any of these been addressed through Project management? • What could be the possible measures to further contribute to the sustainability of efforts achieved with the	• Recent changes which may present new challenges to the Project	• Beneficiaries • UNDP personnel and Project Partners	• Interviews	The support provided to livelihood programs was limited and maybe not sufficient enough to ensure long-term sustainability.	
What lessons can be drawn regarding sustainability for other similar projects in the future?	• Which areas/arrangements under the Project show the strongest potential for lasting long-term results? • What are the key challenges and obstacles to the sustainability of results of the Project initiatives that must be directly and quickly addressed?	•	• Data collected throughout evaluation	• Data analysis	MSF (DFSCC) KTWR and Basanta Forest plans, incorporating wetland issues NWC Wetlands Policy and Act+H89 CFUGs (access to funding, awareness, cooperatives, revolving funds, strengthended social groups, legalization/registration, diversified services/skills).	
Implementing Agency (IA) and Executing Agency (EA) Execution: What was the overall quality of IA & EA execution?						**Satisfactory**
Adequacy and Effectiveness of IA & EA Execution	Was there sufficient focus on results by the IA and EA? Was the supervision and technical support by the IA & EA adequate? Was the responsiveness to implementation problems proactive and sufficient?	Evidence of effective IA&EA supervision and backstopping	• Review of meeting memorandums, project document, progress reports; interviews with UNDP personnel, Project Partners, and beneficiaries	• Interviews, document review	Yes	
Project Monitoring and Evaluation (M&E): Was the design and implementation of the Project M&Eplans and activities effective?						**Satisfactory**
Adequacy and Effectiveness of Project M&E	Was the Project M&E plan well conceived and resourced? Do the Project indicators provide a good means of evaluating Project progress? Have follow-up actions been implemented in response to progress reports (e.g., PIRs), the MTE, etc.?	Meeting memorandums, evaluations, progress reports, etc.	• UNDP personnel and Project Partners, and beneficiaries	• Interviews, document review	The LFA was not updated to reflect the adaptive management measures undertaken by the project.	

Annex 7: LFA/Results Framework

Government of Nepal
Conservation & Sustainable Use of Wetlands of Nepal (CSUWN)
NEP 05/G01

Revised Logical Framework

Project Goal: To ensure maintenance and enhancement of wetland biodiversity and environmental goods and services for improved local livelihoods in Nepal
Project Objective: To strengthen national and local capacity in ecosystem management and sustainable use of wetland biodiversity in Nepal

Project Activities	Indicator of Achievements	Targets	Means of Verification	Baseline	Assumption	TE Review
OUTCOME 1: WETLAND BIODIVERSITY CONSERVATION VALUES INTEGRATED INTO NATIONAL POLICY AND PLANNING FRAMEWORK	1. National Wetland Committee established & functional 2. Wetland issues integrated in national periodic plan & sectoral plas & policies	1. By 2009, National Wetland Policy 2003 reviewed and forwarded for endorsement by 2010 2. By 2011, NWC established as consultative /decision making body for wetland related issues 3. By 2011, wetland issues integrated into national periodic plan & programme	1. Revised National Wetland Policy 2. National periodic plan	1. National Wetland Policy exists but does not reflect the field realities 2. No inter-sectoral coordination committee		Wetland policy has been thoroughly revised and endorsed by the cabinet. The 2014-2017 national periodic plan, under sustainable forest management system, they have specifically mentioned (1) identification of locallly, nationally, and internationally imporant wetland sites, (2) their prioritization based on environmental services, social, and economic importance, (3) these sites should be conserved restored, and managed. SMART: OK Achieved at closure: 100%
Output 1.1: MFSC supported to strengthen mechanisms for inter-sectoral coordination **Inter-sectoral co-ordination mechanism for wetland management strengthened**	1. National Wetland Committee (NWC) at MFSC in place 2. 2 National level networks of wetland stakeholders (wetland specialists & indigenous people) and technical committee in place 3. Project experiences from 2 demo sites are tested at least in 2 ecological zones	1. By 2009, concept paper & TORs of NWC prepared, discussed & finalized 2. By 2010, NWC formed, operational & supported by technical committee & 2 national networks of stakeholders 3. By 2012, collaborative management model tested	1. Detailed TORs 2. Progress reports	No inter-sectoral coordination mechanism in place	1. Wetland biodiversity remains GON priority 2. GON remains open to innovative approaches for collaborative management of wetland resources 3. Social, political and economic situation of the country does not deteriorate significantly	NWC has been formed and is functional. Technical Advisory Committee is formed and functional National Wetland Stakeholders Specialist Network formed, limitations with indigeous. Collaborative management refers to Multi-Stakeholder Forum (MSF) The 2 demo sites and the 2 ecological zones are the same. Achievement at project closure: 100%
Output 1.2: MFSC strengthened to integrate wetland values into national policy & planning frameworks **Wetland values & management principles integrated into national policy and planning frameworks**	1. Guidelines to support implementation of National Wetland Policy developed & disseminated 2. Framework to integrate wetland conservation issues into key sectoral planning developed	1. By 2009, National Wetland Policy (2003) reviewed & recommendations forwarded 2. By 2009, following policies & Acts: Aquatic Life Conservation Act, National Parks & Wildlife Conservation Act, Water Resources Act, Agriculture Policy and Local Self-Governance Act reviewed & recommendations provided 3. By 2009, policy disincentives & perverse incentives of 4 key sectors impacting wetlands reviewed 4. By 2010, economic policy guideline prepared & forwarded to respective Ministries	1. Reviewed sectoral policy documents 2. Economic policy guideline	Current sectoral plans do not reflect wetland issues		Policy was thoroughly revised. Key legislation was reviewed and the National Wetlands Act is under preparation to capture sustainable management of wetland resources. Achievement at project closure: 100%

Annex 7: LFA/Results Framework

Project Activities	Indicator of Achievements	Targets	Means of Verification	Baseline	Assumption	TE Review
OUTCOME 2: STRENGTHENED NATIONAL INSTITUTIONAL, TECHNICAL AND ECONOMIC CAPACITY AND AWARENESS FOR WETLAND BIODIVERSITY CONSERVATION & SUSTAINABLE USE	1. Trained Human Resources & increased wetland management programs in place 2. Community involvement increased by 50% in wetland conservation & management at demo sites & media coverage increased at national level	1. By 2010, sustainable management practices of wetland resources promoted 2. By 2012, 35 % of the critically degraded wetlands of demo sites restored	1. Annual progress report 2. Sample survey report	Baseline information on community involvement will be created in 2009		Targets are not sufficiently specific. Also, targets are difficult to measure. Target 1. This target is difficult to measure. What does the term promoted refer to. It might have been more clear to focus on demonstration rather than promotion. Target 2. The 35% restoration target is a bit unclear. Why not restore 100% of teh critical areas? It would have been more relevant to develop a long-term restoration strategy.
Output 2.1: Technical knowledge base of sectoral planners for wetland management enhanced	1. Technical knowledge base on indicator species, globally threatened species, alien invasive species (AIS) & indigenous knowledge available to address wetland issues/concerns 2. Toolkits on wetland inventory, assessment & monitoring methodology prepared & disseminated to sectoral planners 3. Wetland valuation techniques applied by planners of cross-sectoral Ministries (MoAC, MFSC, MoWR, MLD) 4. Improved wetland management tools & techniques available & used by cross-sectoral Ministries	1. By 2010, wetland related knowledge base generated 2. By 2010, toolkit on wetland valuation prepared & disseminated 3. By 2011, training/orientation materials on knowledge base prepared 4. By 2011, economic valuation guideline prepared & endorsed	1. Technical reports 2. Resources materials 3. Toolkits & techniques	Existing knowledge base not adequate to address current wetland issues		The targets have been achieved, and there is evidence that the valuation model and assessment toolkit have been adopted/used by cross-sectoral agencies.
Output 2.2: Institutional capacity of key sectoral Ministries on wetland management strengthened	1. Wetland focal desk in MFSC & key sectoral Ministries established 2. Focal desk officials trained on wetland management techniques & tools 3. Focal desk in MFSC & key sectoral Ministries operational with added responsibilities for wetland management	1. By 2010, focal desk of MFSC and key sectoral Ministries trained on wetland conservation 2. By 2011, sectoral planners selected & training provided 3. By 2011, major wetland issues are identified and forwarded to MFSC & key sectoral Ministries for endorsement 4. By 2011, wetland planning guidelines for protected areas & national forests prepared & endorsed	1. Project progress reports 2. Planning guidelines 3. Training reports 4. Focal desk	1. Focal desks do not exist currently 2. No separate budget for wetland conservation 3. No wetland planning guideline exists		The focal desk is made up of under secretaries and joint secretaries of the planning divisions of the ministeries particpating in the TAG. The focal desk is a national level body, not working on grass roots issues, which are taken by the MSF or DFSCC. What are the "major wetland issues"?
Output 2.3: Awareness on wetland values and issues amongst decision makers, local people and their representatives enhanced	1. Sectoral Ministries prioritize wetland related activities in respective plans & programs 2. MFSC & key sectoral Ministries allocate resources for wetland related activities MFSC & key sectoral Ministries prioritize wetland related activities & allocate more resources 2. 10 VDCs and all 4 DDCs of the project area allocate budget for wetland conservation 3. Three-fold increase in media coverage on wetland issues (base year = 2008)	1. By 2009, training package & information materials on wetland conservation developed 2. By 2010, 200 policy makers/decision makers/planners & by 2012, 2000 local people are made aware of wetland conservation	1. Training package 2. Resources materials 3. Press cuttings & news clippings	Wetland not a priority area for planning and budgeting		The targets under this output have ore or less been achieved.

Annex 7: LFA/Results Framework

Project Activities	Indicator of Achievements	Targets	Means of Verification	Baseline	Assumption	TE Review
OUTCOME 3: ENHANCED COLLABORATIVE MANAGEMENT OF WETLAND RESOURCES FOR CONSERVATION AND SUSTAINABLE LIVELIHOODS	1. Wetland issues are integrated into district level plans by local bodies (DDC's and VDC's), line agencies (DFO, Reserve, Irrigation, Agriculture offices) & conservation partners (BZMC, CFUG, local NGOs, etc.) 2. Average HH income of wetland dependent communities increased by 20%	1. By 2009, livelihood strategies prepared & implemented in 2 demo sites by 2010 2. By 2010, major wetland issues to be addressed by local bodies are identified & forwarded to respective district development committees (DDCs) 3. By 2012, more than 90% of recommended wetland issues are incorporated into district periodic plans	1. District Periodic Plans 2. HH income survey report	Baseline of HH income of project areas will be created by 2009		Target 1. A livelihood strategy was prepared and was implemented in the 2 demo sites. Target 2. Unclear what was defined as major wetland issues. Target 3. Difficult to evaluate the achievement of the 90% of recommnended wetland issues. Other: HH income increased in tagged HHs. Unrealistic to consider 20% increase in entire WDC.
Output 3.1: Model collaborative management system for conservation and sustainable use of wetland resources in two pilot sites developed & established	1. Multi-stakeholder forum established & functional as local consultative / decision making body for wetland related issues at 2 demo sites 2. BZMC/CFUGs have WPSE (Women, Poor & Socially Excluded groups) in at least 2 key positions in executive committee 3. More than 75% of BZ & 90% of CF institutions adopt and implement guideline ensuring equitable access to & benefit sharing among wetland dependent communities	1. By 2010, an inclusive multi-stakeholder forum with representation of 33% of WPSE group formed & operational 2. By 2010, BZ guideline & CFUG's constitution revised & endorsed with the provision of 50% representation of WPSE group in general member with at least 2 key positions in its executive committee	1. Annual reports 2. BZ guideline 3. CFUG constitution	1. No multi-stakeholder forum for collaborative management exists currently 2. Under representation of WPSE at institution & decision making levels		MSF is OK, and inclusion of WPSE seems to be on track with national priorities. Achievement 3. Difficult to measure the 75% and 90% equitable access criteria.
Output 3.2: DFO, Reserve & local partners implement collaborative conservation programs	1. Collaborative (Govt., NGOs, the Private Sectors, etc.) action plan for restoration of critically degraded wetlands in 2 demo sites implemented 2. Local bodies & local institutions allocate resources to rehabilitate critically degraded wetland sites 3. Integrated catchment plan of Ghodaghodi Tal (GT) implemented 4. Grazing pressure reduced inside Koshi Tappu Wildlife Reserve (KTWR)	1. By 2009, GT integrated catchment plan prepared 2. By 2010, critical wetland sites at 2 demo sites identified & mapped 3. By 2010, 50% reduction in number of feral cattle from KTWR 4. By 2011, participatory wetland management guidelines for local bodies prepared & forwarded for endorsement 5. By 2012, management actions implemented for restoration of 35% of identified critical wetland sites 6. By 2012, local bodies & local institutions allocate resources for wetland conservation	1. Collaborative action plan 2. GT management plan 3. Annual plans & reports of Reserve, DFO & DDCs/VDCs 4. Management guideline 5. Project annual reports	1. Inadequate protection & attention for wetland conservation 2. No integrated catchment management plan in GT 3. Intense pressure of feral cattle inside KTWR		The critical degraded wetlands and critical wetland sites are one in the same. Some type of baseline ecosystem health assessment might have been a better basis for delineating critical degraded sites. Development of a restoration strategy could have enhanced sustainabiliity and replication opportunities.
Output 3.3 BZMC & CFUGs implement sustainable development & livelihood programs contributing to wetland conservation	1. 15% increase in income of 75% of wetland-dependent households especially WPSE groups 2. Invasive species used by 10 piloted HHs 3. Sustainable financing strategy applied in 2 demo sites	1. By 2009, livelihood strategy & community action plan including harvesting calendar prepared & implemented in 2 demo sites by 2010 2. By 2009, use of invasive species for alternative energy source piloted at least in 10 HHs 3. By 2010, alternative energy schemes are introduced in collaboration with different agencies 4. By 2010, at least 4 types of income generating activities are planned & implemented for wetland dependent communities 5. By 2011, sustainable financing strategy prepared & implementation process initiated in 2 demo sites	1. Progress reports 2. Livelihood & financing strategy	1. Unsustainable resource use practices exist 2. No livelihood & financing strategy exist currently		Financing strategy: they have used the existing mechanisms in place, e.g., at the CFUG level, and they have contributed revolving funds for further support. The 15% of 75% of WDC is 11.25% overall. Unclear why this is different from the 20% in the Outcome 3 description.

Annex 8: Meeting Minutes of Terminal Evaluation Debriefing (2013 June 9)

Participants:

Name	Organization	Position
Dr Krishna Chandra Paudel	MFSC	Secretary
Mr Krishna Prasad Acharya	MFSC	Chief, Planning and Human Resources Division
Mr Bishwa Nath Oli	MFSC	Director General, Department of Forests
Dr Annapurna Nand Das	MFSC	Director General, Department of Plant Resources
Mr Megh Bahadur Pandey	MFSC	Director General, Department of National Parks and Wildlife Conservation
Mr Harihar Sigdel	MFSC	National Project Director, CSUWN, Chief, Foreign Aid Coordination Divison, MFSC
Ms Madhuri Karki	DoF	Under Secretary, DoF & Focal Point, CSUWN
Mr Vijaya P. Singh	UNDP-Nepal	Assistant Country Director, Environment, Energy, and Climate Change Unit
Mr Vijay Prasad Kesari	UNDP-Nepal	Environmental Programme Analyst, Environment, Energy, and Climate Change Unit
Mr Top B. Khatri	CSUWN	National Project Manager
Dr Shalu Adhikari	CSUWN	Gender, Monitoring and Communication Officer
Mr Saurav Shrestha	CSUWN	Wetland Planning & Evaluation Specialist
Mr Surya Khanal	CSUWN	NRME, CBDP Jhapa Component
Dr Indira Shakya	TE Evaluation Team	National Consultant, Sustainable Livelihoods
Dr Hem Baral	TE Evaluation Team	National Consultant, Biodiversity Conservation
Mr James Lenoci	TE Evaluation Team	International Consultant, Team Leader

A debriefing meeting was held on 2013 June 9 for presentation and discussion of the preliminary results of the terminal evaluation (TE) of the CSUWN project with the MFSC, UNDP, and other concerned stakeholders.

The meeting was chaired by Dr Krishna Chandra Paudel, Secretary of the MFSC, Government of Nepal.

Mr Harihar Sigdel

Mr. Sigdel welcomed all the participants including the members of the TE team.

Mr James Lenoci

Mr Lenoci presented the preliminary results of the evaluation.

Dr Hem Baral

Dr Baral outlined the recommendation of extending the spatial area of the Koshi Tappu Wildlife Reserve (KTWR).

Dr Krishna Chandra Paudel

After the presentation, the Chair opened the floor for discussion.

Mr Megh B Pandey

Mr. Pandey applauded the work of the project and the evaluation findings of the TE team. He was pleased that the issue of extension of KTWR was brought up by this TE report and shared in presence of the Secretary. He was optimistic now the issue of reserve extension will be seriously taken up. He also

passed positive remarks regarding how sustainability, biodiversity, poverty issues were covered through the project. At the end he remarked on the possibility of extending the good practices of this project to other PAs.

Dr Annapurna Das

Dr Das informed that the DDC of Udayapur has suggested extension of the reserve on the Udayapur side already and this is a positive note. He recommended that the boundary should be extended north to the Barahakshetra area as the area is very rich in birds and other wildlife.

According to him this project has brought out very good practices and lessons, and these should be replicated to other wetlands of Nepal. The national wetlands inventory is incomplete and should be completed and MFSC should take the lead on this. The Wetland Act should be completed at the earliest. Based on the lessons of this work, a project is needed to cover more sites than just the two pilot sites.

Livelihood packages developed through this project have shown effective results and are good examples; now these things should be included within the Multi Stakeholder Forestry / Hariyo Ban and other government programmes.

Dr Das applauded the PMU's work and further expressed that UNDP/MFSC should consider developing a new project based on the lessons and good practices of this project. Wetland projects should be designed for longer periods, e.g., at least for 10 years or so because such projects can deliver lasting effects and sustained results. Dr Das witnessed effective results of long term (10 to 20 years) project during his visit to Iran as an NPD of the project.

KTWR has some programs already which will ensure continuation of some of the activities started by this project. Increase of wild animals has brought out the human-wildlife conflict issues and such issues should be looked upon seriously.

Mr Krishna Prasad Acharya

Mr Acharya congratulated the team for bringing out the TE Report. He expressed that the lessons learnt were indeed good and must be replicated, and so were the management guidelines, tools developed, and the inventory. Selected activities should be scaled up and mainstreamed through government funding and others through MFSC

He also questioned about institutional sustainability of some of the activities at KTWR.

The KTWR for the first time has seen a growing number of wild elephants and five of them have become resident. From a human-wildlife conflict point of view, this has become problematic,as these elephants have caused damage to villages including loss of lives. How are we going to address these problems? The MFSC would also like to see recommendations on these as the Reserve expansion may not be the only solution to the problem.

Mr Vijaya Singh

Mr Singh was very happy that the project has been rated overall as satisfactory as the previous UNDP-funded WTLCP only scored moderately satisfactory. Within the UNDP, this project has been rated as one of the most important. Mr Singh said that UNDP would like to continue on this and requested the GoN to come up with proposals and plans.

He further questioned on the kind of measures that should have been included in the KTWR management plan to ensure biodiversity management especially after the flood impact of 2008. During the flooding there was considerable damage to both biodiversity and village infrastructure and land. After the 2008 flood in KT, UNDP wanted to have an assessment on the impacts of the floods and accordingly the revision of the management plan was undertaken. We would like to know how the recommendations from this assessment have been incorporated into the KTWR management plan.

Mr Singh also questioned on the kind of knowledge this project has contributed to global biodiversity. As this is a GEF project, it would be important to note specific gains achieved consistent with GEF strategic objectives, including biodiversity gains, knowledge base (e.g., economic valuation model, etc.).

Mr Singh also questioned about planned activities of the Ghodaghodi Lake Management Plan. He shared that during one of his visits he saw very low water level at Ghodaghodi. Who is responsible for managing water levels in the lake? We think that it would be important to engage the Ministry of Irrigation.

The Ghodaghodi Lake Management plan was prepared as part of the project and now the Basanta Protection Forest Council (BPFC) has encompassed a larger area than just the GLA. He further queried how the GLA management plan will be take into account by the BPFC.

Collaborative Management Models were started through this project and have been tested outside the demonstration sites, e.g., Kapilvastu District . The TE team should recommend how we can apply such models in other areas. And how sustainable and functionalwill such an entity be? How will the multi-stakeholder forums continue to operate?

He queried what have been the total livelihood benefits?What is the monetary gain? What are the specific improvements in livelihoods, in % income increased?

WTLCP has advised to have a policy advisory structure to be linked with the Ministry. Our policy recommendations should be connected to this Policy Advisory Group (see the WTLCP evaluation).

Dr Shalu Adhikari

Dr Adhikari mentioned that the project's work with WDCs should be highlighted as a major project achievement. She commented that it was not mentioned in the presentation of preliminary TE findings. She also commented that given the situation for the project implementation, and their inability to change the log-frame activities, the overall project rating was expected to be satisfactory.

Mr Vijay Kesari

Mr Kesari requested to elaborate the need for KTWR expansion in the TE report.

Mr Top Khatri

Mr Khatri clarified that the project has achieved both national and global biodiversity benefits. The gender strategy was made and implemented, MFSC's gender guidelines also taken into account. The bio-gas, solar fence, and some other activities impacted the entire communities, not only the poorest sector. The project's mandate was to work with the ultra-poor.

Dr Krishna Chandra Paudel

We have a number of questions. For example, how to best sustain the good activities/results of the project? How to maintain the legacy? How much money is needed to continue the priority activities?Best practices need financial resources, so the MFSC would like to know what activities need resources. What are our recommendations to ensure sustainability? How can the National Wetland Committee (NWC) best continue to function?

What role this project has given needs to be separated out from contributions from other projects in the past? Please consider this in the final report.

We would like the TE report to include a simple matrix of project achievements, including baseline conditions, which can be used for monitoring purposes.

The NWC is keen to take up some of the main issues of the project, possibly securing funding through the Innovative Fund (within the multi-stakeholder forestry program), e.g., for completing the national wetlands inventory, Wetlands Act, more extensive biological assessments.

We would like to follow up with some of the recommendations immediately, e.g.:

- Wetland Management Strategy and Guidelines will be taken up by the NWC.
- The DNPWC will take the lead in the issue of extending the KTWR; barrage, barahakshetra, tapeshwori, over 6000ha of land has been encroached by local people, over extraction of sand/earthquake are to be blamed for encroachment. The rise of Koshi River is a matter of worry, important to note that the KT hydrology was impacted as a result of the 1987 earthquake; the main river course shifted west to east.

We are interested to also know what the possible negative consequences were. Can we compare positive and negative results to other projects? The mid-term evaluation should be linked to this evaluation.

Basanta Protection Forest Council should report to the secretary of the DoF on how the GLA management plan can be taken forward.

Handing over the project assets should be done before hand-over from CSUWN to MFSC.

Dr KC Paudel closed the meeting and welcomed the participants for lunch

Annex 9: Ethics Statement signed by Evaluation Team

United Nations Code of Conduct for Evaluations

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded

2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.

3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and: respect people's right not to engage. Evaluators must respect people's right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.

4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.

5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.

6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study limitations, findings and recommendations.

7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

We confirm that we have abided by the United Nations Code of Conduct for Evaluation outlined above.

Signed on 2013 June 28.

Indira Shakya	**Dr. Hem Baral**	**James Lenoci**
National Consultant	National Consultant	International Consultant

Annex 10: Comments on draft TE report and Responses by TE Team

UNDP Comments

Comment	Response by TE Team
Section 1.1 Project Summary Table Project document budget summary $4,061, 969, why is there a difference?	The amount shown in the Project Summary Table includes the PDF-B grant (250,000 USD).
Section 1.5 Recommendations **TAC Chair** Classification on 'yearly rational basis' can help readers understand how this can be effective.	We have added the following clarification. TAC is the second-tier of the NWC consisting of joint secretaries and under-secretaries from various relevant ministries and government departments. We recommend that a post of chair should be provisioned for the TAC on a yearly rotational basis, in order to ensure that wetland issues remain high on the agenda of participating agencies, not only the MFSC. Once a member is given the task of chairing such committee the responsibility will be increased and wetland issues will be prominent feature for the concerned officer, department, and his/her ministry. The TAC chair will be reporting to the NWC on a regular basis regarding the outcomes from its meetings and actions and will be automatically compelled to know about wetland issues and be sympathetic on wetland issues. This may have linked-effects within the department or ministry irrespective of its core issues.
Section 1.5 Recommendations **Wetlands Management Guidelines** Beg to differ. I understand the need for national guideline, but it shouldn't be a prescriptive guideline because each wetland is ecologically different therefore one-size-fits all will not work. A framework rather than a guideline will be better, in my opinion.	We have rephrased this section as follows: One important omission, however, has been the lack of a strategy framework on wetland management and a manual for implementation. Small restoration interventions carried out by the project have shown positive results and all these activities are important to document for future management. Therefore, we recommend developing a Wetlands Management Strategy Framework for the entire country and Guidelines to deal with ecologically distinct lakes and rivers situated at different elevations.
Section 1.5 Recommendations **Further Develop Linkages** Since the project talks about managing resource extraction, a micro-enterprise linkage will be highly beneficial in sustainable, both ecological and financial, of the wetland conservation. Linkage with PES can also be explored.	Added a recommendation to explore linkages with PES interventions in Nepal.

Section 2.2 Scope and Methodology Local communities in the project area?	We added this clarification.
Section 4.1.1. LFA Analysis **Outcome 2 Targets** Recommendation on how to make it more measurable?	The fact that the target was not sufficiently specific made it difficult to measure. Adding measurable dimension to the target should have been made.
Section 4.2.3 M&E Design **Budget of M&E** What percentage of the project itself?	We added the following statement. The budget for implementing the M&E plan was 212,000 USD, approx. 8.5% of the total project implementation cost.
Section 4.2.4 Implementation and Execution Modalities Better to write" by excluding the role of IUCN from implementation	The following change was made to this statement. This review recommended streamlining the scope of the project and nominating the UNDP as implementing agency, which was determined to be better suited as IA than the IUCN, considering the circumstances at the time
Section 4.2.4 Implementation and Execution Modalities I would suggest to highlight the role of UNDP in ensuring the project achieved the intended objectives through regularl monitoring and oversight, making significant changes in the structure and log-frame through conductivng mgmt review in 2008 and regular follow up with the ministry to implement the review recommendations. This way some of the design faults were rectified in 2008 the project was brought to the right track with more clarity about the intended outcomes and ownership of the government institutions	The TE team agrees to this point. Recommended additions were added.
Section 4.3.3 Discussion of Sustainable Livelihoods Results and WPSE Inclusion Impact of Delay This is not fully correct. Despite delays in effective implementation, which actually started after March 2008, but the project got sufficient time to initiate initial activities such as set up the proejct team in the centre and in the field, open up offices and develop linkages. Actually these basic work done between helped the project to kick off.	The following modification was made. After the 2008 inception, the project was successful in assembling the project team, setting up the field offices, and starting to develop linkages. However, the restructuring of the project did result in a significant delay.
Section 4.3.3 Discussion of Sustainable Livelihoods Results and WPSE Inclusion Closing Remarks The title looks out of fashion here, suggest to rethink.	This heading was changed to "Scaling Up Considerations".
Section 4.3.4 Unintended Consequences Human-Wildlife Conflicts How patrolling and solar fence can increase human-	This section was modified as follows: Improvements to ecosystem habitats by removing feral livestock, active habitat management work,

wildlife conflict, it is confusing? Patrolling is a completely new dimension and does not seem relevant here.	increased patrolling against poaching and illegal activities (by army, reserve staff and community members) have contributed to general increase of animals in the Reserve. Although the number of HWCs has measurably decreased at the eastern side of Koshi following erection of the solar fence, in the long-term, conflicts might increase on the western side, where there is no wildlife barrier. Some of the interviewed local community individuals in Koshi indicated there has been a notable increase in the number of wildlife especially the Wild Boar, deer species, Wild Buffalo and Wild Elephants observed in the buffer zone near the northwest quadrant of the reserve, after the army post was set up there only a year back. This is probably due in a reduction of poaching, as a result of the army post there, and thus an increase in wildlife numbers.
Section 5. Conclusions and Recommendations Is there an opportunity for project managers and project stakeholders to collaborate and/or share knowledge with other countries where similar project have been carried out. Such interaction program can be highly beneficial to all project stakeholders.	The following separate recommendation was added. The results of the project should be further shared with national and international stakeholders, such as those managing similar projects, including those in the GEF portfolio. The International Wetland Symposium sponsored by the project in 2012, attended by 81 participants from 13 countries, is a good example of a mechanism for disseminating project results and sharing experiences.
Section 5.1 Actions to follow up or Reinforce Initial Benefits from the Project Wetland Management Guidelines Hope u have seen the CEPA materials produced by the project, but of course they are not wetland mgmt guidelines which is very valid recommendation.	The TE team did indeed review the CEPA materials.
Section 5.1 Actions to follow up or Reinforce Initial Benefits from the Project Monitoring Suggestions are good, but to make sure they are taken care of you should make the DNPWC and Park Office in Koshi to be responsible for and put under their regular programme of action. In case of GLC, it should be the responsibility of DoF/DFO.	The introduction of this recommendation was modified as follows: The CSUWN has been exceptional in generating various measurable outcomes during its relatively short life at both of the pilot sites. Through the existing institutional mechanism, it is recommended that some of the benefits in terms of biodiversity and livelihoods should be monitored and technical advice should be provided. We recommend that in case of Koshi, KTWR/DNPWC and in case of GLA, District Forest Office Kailali/Department of Forest should take the lead responsibility.

Section 5.1 Actions to follow up or Reinforce Initial Benefits from the Project **Further Develop Linkages** MFSC should take the responsibility	This point was added to this recommendation.
Section 5.2 Proposals for Future Directions Underlining Main Objectives **KTWR Expansion** Need to reformulate as an area itself cannot be sustainable or unsustainable?	This particular sentence was removed and replaced with the following: In order to ensure that KTWR acts as a long-term sustainable and functional unit of ecosystems, the spatial coverage should be expanded to include corridor connectivity, more of the same ecosystems, and complementary ecosystems.
Section 5.2 Proposals for Future Directions Underlining Main Objectives **Environmental Flows Assessment** I do not this has ever done in Nepal before. Please highlight more about this assessment methodology and where Nepal can learn more about this.	Environmental flows assessments have mostly been applied to river basins (there are a number of examples among the GEF International Waters portfolio). Increasingly, this methodology is being applied to wetlands; a reference to an Australian study has been included in Section 4.3.2.
Section 5.2 Proposals for Future Directions Underlining Main Objectives **Management Guidelines for HWCs** This looks quite ambitious recommendations for DNPWC to act upon so you may think of how to put it or not.. Ecosystem capacity habitat assessment requires a lot of scientific knowledge, capacity, financing and commitments to do that which is lacking. This may be recommended as something that DNPWC to think about in the long run as it is the problem across all the parks in Nepal.	This recommendation was amended with the following: The DNPWC should carry out a study on the carrying capacity of the KTWR and other protected areas for various key animals. These species could be threatened, indicator and species that are prone to cause HWCs. Potential increases in wildlife numbers should therefore be considered in advance, and appropriate management guidelines should be implemented to reduce the chance for human-wildlife conflict. The Compensation Policy 2069 approved by the MFSC targeting HWCs should be implemented in a pragmatic way so that relief and compensation to the needed can be provided immediately.
Section 5.2 Proposals for Future Directions Underlining Main Objectives **Payment for Ecosystem Services (PES)** My comments are very similar to the above. Further, unless you are referring to a particular area of environment service, it becomes a very general recommendation. May be you put it as something important for DNPWC to think about in the long run to promote sustainable financing in park mgmt.	This recommendation was elaborated as follows: Evaluate how payment for ecosystem services (PES) approaches could be utilized to achieve conservation and livelihood improvement goals. The DNPWC should take lead in PAs and DoF and other stakeholders outside PAs to promote sustainable financing of the forest and wildlife management. This remains an unexplored area but potentially benefitting all stakeholders concerned.