

1. BACKGROUND AND CONTEXT

1a. Table 1: Summary of background information on demonstration site.

Name	The Hadejia Nguru Wetlands (HNWs)
Size (hectares)	3,500 Km ² .
Location (grid reference)	Longitudes 10°00' to 11°00'E, and Latitudes 11°08' to 11°55'N
Principal wetland features	The Hadejia Nguru Wetlands (HNWs) are located in the Sahel zone of north-eastern Nigeria. The area is a floodplain wetland comprising permanent water bodies and seasonally flooded areas. About 40% of the wetlands remain wet throughout the year, resulting in mats of <i>Echinochloa</i> , <i>Nymphae</i> , <i>Limnophyton</i> and <i>Typha</i> (now extensive: over 200sqkm, compared to 550ha in 1999) species at such sites, which constitute important feeding grounds for waterfowl; <i>Mitragyna</i> , Doum palm (<i>Hyphaene thebaica</i>), and Tamarinds (<i>Tamarindus indica</i>) are dominant among the larger plants of the area
Bird species of principal importance under the AEWA agreement and Ramsar Convention	The HNWs are of great international significance to Palaearctic and Afrotropical migratory water birds, with counts of up to 423,166 water birds of 68 species. Some of the more important species under the AEWA agreement include Garganey (<i>Anas querquedula</i>), Ruff (<i>Philomachus pugnax</i>) (with over 20,000 or more than 1% West African Population regular presence) and Spur-winged Goose (<i>Plectropterus gambensis</i>). Others include White Stork (<i>Ciconia ciconia</i>), Glossy Ibis (<i>Plegadis falcinellus</i>), and Common Teal (<i>Anas crecca</i>).
Protective status of the site.	About 34% of the HNWs, comprise a component of the Chad Basin National Park. A Ramsar site and three forest/game reserves are legally protected. Laws protecting these areas are in place, but not effectively enforced. The remaining areas are under state controlled Open-Area-Protection status.
Summary of wetland uses	The area supports about 1.5 million farmers, herders and fishermen, who also gather wild products. Flood rice, irrigated onions and pepper from the wetlands are sold in national markets. Over 300,000 cattle spend the peak of the dry season here. About 6% of Nigeria's inland fresh water fish catch is from here. The water in the wider basin is most important for drinking and agriculture, and is shared with the Niger Republic.
Summary of wetland threats	The main threats include irregular annual floods as a result of dam operations, and certain resource user groups that are apathetic to wetlands conservation and management. The former results in blockage of water-ways and floodplains by the native invasive <i>Typha</i> species. <i>Typha</i> has now colonized a substantial portion of the wetlands and is posing a serious threat to the survival of migratory waterbirds which use the wetlands as wintering ground. The latter is causing over-harvesting of wetlands resources, causing flooding that displaces communities and challenging local resource use management systems.
Agencies responsible for site management and their roles.	The Federal Ministry of Environment (FME); The Hadejia Jama'are River Basin Development Authority (HJRBDA); The Chad Basin National Park (CBNP); The Departments of Conservation and Wildlife of Jigawa, Yobe and Bauchi states and the Hadejia-Nguru Wetlands Conservation Project (HNWCP) of the Nigerian Conservation Foundation (NCF). Also the Komadugu-Yobe Basin Wetlands Development Initiative (KYB-WDI) an NGO created and managed by the wetlands communities to co-ordinate and execute resource use management interventions.

NOTE: The activities described in the present project description are indicative only and may be subject to revision as a result of a project launching workshop to be held on site at the outset of the project. The workshop will ensure participation of all project stakeholders in the review and update of the project objectives, workplan and budget. Subject to prior approval by UNOPS, the results of the workshop and associated revised workplan will be incorporate in the project Inception Report.

1b. Relevance and importance of the site and proposed activities in the national biodiversity strategy.

The Nigerian National Biodiversity Conservation Action Plan identifies wetlands as a unique biome for biodiversity conservation. To this end, the HNWs have been identified as a premier wetland, and a sector of it has been designated as a Ramsar site.

1c. Role and status of the site in other relevant national policies and initiatives

A proposed national wetland policy is awaiting government action. A draft revision of Nigeria's water resources policy has a special provision for the conservation of wetlands. An inventory of Nigeria's wetlands is ongoing. A process of developing an Integrated Water Resource Management (IWRM) is on-going and a Water Charter will soon be signed by the concerned state governors within the wetlands. In the Sahel region, wetlands are extremely important due to the natural dry nature of the area and desert encroachment. Thus Nigeria is signatory to the Convention to Combat Desertification. Nigeria is also a signatory to the Ramsar Convention and the Convention on Biodiversity.

1d. Current conservation status and threats to site

The construction of dams outside the HNWs represents a major impact upon the natural functioning of the wetland system. Presently, there exists the Tiga Dam, completed in 1974; Challawa Gorge Dam, 1992; and a barrage across the Hadejia River that feeds HNWs. A plan for the construction of a third large dam, at Kafin Zaki on a tributary of the Jama'are River is, however, on hold. The Nigerian Conservation Foundation (NCF) and HNWCPC has over the years provided detailed hydrological and economic analyses to argue for the protection of the wetlands at seminars and high level meetings with Federal and State Government since 1992. As a result, there exists an understanding that the bulk of the groundwater recharge on which all communities in the entire basin depend for their survival will not take place once flooding ceases. Although recharge continues, the dams are creating other problems that are impacting the wetland and the lives and security of the people who live there. Typha, a local invasive, is perceived to have established itself because of the recent changes in water regime in the basin from seasonal to all-year-round flows (caused by dry season dam releases), making traditional water level manipulation for farming purposes very difficult.

The extent of typha invasion has undergone an exponential increase in the past 5-10 years, accompanied and exacerbated by increased silting of channels caused by the slow all-year-round flows. Smaller river channels and ponds have become shallower and are now blocked by silt and/or Typha, inundating normally seasonal floodplains. This has enabled Typha to spread into prime wetlands farmlands, grazing areas and fish-ponds, impacting negatively on local agricultural production – to the extent that a sizable proportion of the local population have been forced to out-migrate seasonally or permanently to pursue their livelihoods. In addition, some villages were forced to relocate into upland areas due to Typha induced flooding. To put this in perspective, Typha invasion of the HNWs has increased from 550ha to over 200sqkm in the last 5 years.

As a result of these changes caused by water resource management in the wider catchment, the integrity of the HNWs has also been degrading under pressure from local resource users. The wetlands communities have in the past been apathetic to the conservation of the wetlands, with few of them perceiving any direct benefit from sustainable management. As their farmlands, grazing areas and fish ponds have gradually either dried up along blocked channels or been taken over by flooding and Typha grass along inundated channels, local farmers and grazers have been forced into over-harvesting the remaining resources and encroaching some protected areas. Resource use conflicts have resulted, with local systems of land and water management breaking down, due to inefficient/excessive water resource allocation. There is constant and often intensive hunting of waterfowl, primarily by professional hunters from outside the area (i.e. from other parts of Yobe, Jigawa and Bauchi states, but also from Sokoto and Kano state), but increasingly also by the local population as they struggle to make ends meet. Side-effects of the Typha problem have further exacerbated the impoverished situation of the local communities, as

Quelea birds, which are notorious as a crop pest, roost in the Typha, and water-borne diseases such as bilhazia, malaria and liver fluke (in livestock) have increased due to deterioration in watercourse quality.

These problems have eroded the tangible values of the wetlands to local people, presenting major obstacles to successful farming, fishing and navigation. Since 1968 the HNWs have been the only wetland remaining in the region that can counter the threat posed by desert encroachment to local farmers and pastoralists. As a result the intensity of human pressure has until late been steadily increasing. With recent developments this has stabilised or even dropped. However, as these problems are addressed and water management improves, these same pressures are likely to return and may be even greater than before because communities which have out migrated due to these problems are likely to return to their land.

1e. Details of current/past management activities, the organisations involved and current status of management in the site.

The Federal Ministry of Environment (FME) is taking the lead in the management of the Ramsar site within the HNWs, with the active participation of Jigawa and Yobe States. The Hadejia Jama'are River Basin Development Authority (HJRBD) regulates dam water releases. The Chad Basin National Park (CBNP) manages the national park sector. The Departments of Conservation and Wildlife of Jigawa, Yobe and Bauchi states manage the state forest/game reserves, as well as the protected Open-Areas. Until it closed in 2002, the HNWC under the NCF, concerned with conserving the integrity of the wetland and its wider basin, was working closely with all these organisations. The Hadejia Nguru Wetlands Centre established through the HNWC has continued to provide resources for research and other related activities especially to the academic communities around the Wetlands in addition to other skeletal conservation actions.

HNWC previously developed a management plan for the protected areas within the wetland, as well as options for the sustainable management of the water resources of the basin. Building on the latter, stakeholders from across the basin have developed a basic plan for addressing the basin's short, medium and long term water management problems. The FMWR, through the FMWR/IUCN/NCF-KYB project is another on going effort which has carried out a water audit and thus developed a catchment management plan for the basin. The KYB-WDI has also developed a basic plan for addressing the wetlands' immediate livelihood problems, and in preparing local communities to confront similar problems in the future. The CBNP effectively polices its own sector, while the policing of the state forest/game reserves needs revamping. The FME is currently developing a management plan for the Ramsar site.

Local communities exploit the wetlands for a wide variety of benefits (mostly agriculture, fishing, transport, timber and fuel wood) through different rights and access regimes, complicated by uncomplementary statutory rules and guidelines introduced by local and state governments.

1f. Synthesis of the current management needs of the site, emphasising the gaps that need to be filled.

It is imperative to develop a comprehensive management plan for the whole of the HNWs. This plan has not been written to date mainly because of the complex nature of political jurisdiction over the wetlands and its water resources. Thus dams controlling rivers flowing to the wetlands are in one state, the rivers flow through other states, and the wetland itself straddles three states. The wetlands and their tributaries are not even within one River Basin Management Authority. However, even without such a plan (and even because such a whole-wetland plan is lacking) there are local water resource management issues that can be resolved through local action and development of local resource use management plans. Such plans and actions need to engage as many local stakeholders as possible. Much has been done in this direction through the work of the JWL project and the KYB-WDI, but more still need to be done. There is a need to raise awareness of alternative approaches to management of sites livelihoods which will lead to cooperative and sustainable conservation effort. This may be necessary through focused Site Support Groups (SSGs) but also taking into consideration other established and relevant groups. Wise use techniques to tackle the invasive species problem at the community level need to be provided –

while medium and long term measures are being taken at the wetlands and basin level respectively – to empower local people to take control of the problems affecting their local people at their own level. The major sources of their livelihoods need to be restored and diversified to reduce over-exploitative pressure on the wetlands natural resources.

Development of local strategies to cope with conflicts over access to water in the wetlands is also critical, and should form part of any community level wise-use planning process. Preemptive conflict resolution process is also imperative to address the aftermath of effective resource management and restoration. Likewise, relevant Nigerian authorities have to be persuaded to accept, in real terms, responsibility for supporting local stakeholders in managing the wetlands, and harmonising the institutions (rules and norms) that govern their management.

2. DEMONSTRATION PROJECT RATIONALE, IMMEDIATE OBJECTIVES AND SUB-OBJECTIVES

2a. Demonstration project rationale

The rationale of the demonstration project is to get local communities, who are in the best position to control the immediate causes of wetlands degradation, to play leading roles in managing the wetlands. There is significant potential for achieving this. Through the KYB-WDI, there are now organisational structures and resources capable to develop and implement wise use initiatives, with some additional capacity building support. This is hoped to be effectively harnessed to support effective conservation efforts that will improve on the integrity of the wetlands and by effect the routes of the migratory waterbirds. The project will therefore adopt a participatory approach to engage the local population through a conservation-focused community based organisations and empower them to implement appropriate wise use techniques.

The project will not address the entire HNWs in terms of wise-use; the site is too large and it is important that the approach is demonstrated before a wider implementation. In this way lessons can be learned and the technique refined based on this. It will rather focus on two sample clusters of communities, which live near two major bird sanctuaries. The sanctuaries are Dagona Ox Bow lake (the lake itself fluctuates between about 15 ha in the dry season and 150 ha following replenishment by the annual flood - associated fadamas cover a much larger area) and Punjumu Lake (at maximum flood the site merges with the floodplain, becoming separated and diminishing as the floods recede and the dry season progresses; area about 300 ha but variable. Dagona Ox Bow Lake has Dagona village as its closest settlement with current population estimates of about 12,500, while Punjumu Lakes has about four communities around it with an estimated population of about 18,000 people. These locations which capture all the threats outlined above and the cultural diversity that typifies HNWs are presently threatened with siltation, weed infestation, and encroachment of thick Acacia tree growth along some of its flanks as well as an all-year-round flood. Addressing the issues of the Typha weed problem causing blockage and dessication in some channels and excessive flooding of others has already made the local people more aware and appreciative of the values of wetlands and their associated resources. Restoration of seasonal flooding and flow patterns, farmlands, grazing lands and fish-ponds, accompanied by site-specific wise resource use planning and, in due course, also small-scale enterprise aimed to capture economic benefits from visitors to the wetland will provide further incentives for reducing over-exploitation of wetlands resources and disturbance to waterfowl on lakes around these communities. The lessons learned from these demonstrations will then be used to raise the awareness of other communities in HNWs and encourage the adoption of these wise use practices elsewhere.

2b. Immediate objective

To reduce the degradation of the HNWs due to unsustainable use of the natural resources through greater community participation in wetland resource management.

2c. Sub-objectives

Sub-objective 1. To increase the proportion of resource users around the two sites who adopt wise use techniques to over 30% by the end of the project.

Many households undertake unsustainable activities due to a lack of viable options and ignorance of the implications of their actions. The same applies to policy makers who influence livelihood decisions. The project activities will thus package and disseminate awareness materials, which highlight the consequences of ongoing activities, wise use options, and how they may be adopted. The principle tool for adoption will be community-based resource use planning (RUP) in anticipation of restoration of seasonal flows and flooding patterns and recovery of the land and water resources in each site. By working with the local communities, the Wetlands Development Initiative (WDI), and concerned authorities to develop plans for how the wetlands resources will be used and managed in each site, before and as they are restored to use, issues of resource competition, conflict and conservation (wise-use) can be effectively addressed, agreements reached and institutional arrangements for ensuring they are adhered to (harmonisation of local statutory and customary rules and norms relating to rights and access regimes). Although focused principally on the communities in the two sites that form the focus of the project, these awareness materials and associated RUP activities will also address other settlements in the HNWs and national level decision makers who are involved in the management of HNWs and other sites across the country.

Sub-objective 2. To increase the number of researchers and academic communities' effort around the Wetlands that will further enhance conservation actions around the wetlands

Through the previous HNW Conservation Project a great measure of interest was generated among schools and researchers around the Wetlands. Many students have visited and are still visiting the Resource Centre for reference and research purposes. This interest has not been sustained for some reasons including inaccessibility due to further degradation of the wetlands and the lack of requisite resources to keep the Centre more relevant to researchers. This project will support the restoration and upgrading of the Resource Centre in Nguru, allowing the deployment of full-time NCF staff on site for an initial period of two years. This is expected to allow the NCF team on site to actively encourage fresh research on the wetlands for its management and also provide extensive scientific information that will enhance decision-making on the wetlands. Establishment of active conservation clubs among students is also expected to further stir up interests for wetlands conservation. A Ph D Research student will be based at the centre and will work on a project topic with relevant field application into supporting conservation and improved knowledge of both the ecology of the wetlands and its characteristics in supporting migratory birds populations.

Sub-objective 3. An increase in the number of tourists to the wetlands resulting in an increase in income (over baseline at project start) from tourism-related activities at the two sites.

The HNWs was, until recent, a popular tourist resort with Nigerian elite, as well as resident and visiting expatriates. It is also of significant research interest to tertiary institutions nationwide. About 700 tourists used to visit the HNW every year without any active encouragement. Bus-loads of university students from Kano, Bauchi, Maiduguri, Zaria, Kaduna, and even as far away as Lagos used to visit the HNW on a regular basis. Figures are not currently available for the numbers that now visit the two pilot sites specifically, but this will be established in the first six months of the project and a target increase in numbers established to act as one of the indicators of success. Given the current predicament of communities at these two sites, progress on this sub-objective is not likely to be realised until late in the project, after their fundamental water allocation problems are effectively addressed and efforts are made to disseminate information on the ecotourism potentials of the wetlands are supported by an effective and fully operational Resource Centre in Nguru, where advocacy, education and awareness activities can take place during the course of the project

Sub-objective 4. To encourage efforts to reduce the extent of invasive Typha on channels at specific sites by 30% by the end of year 2, thereby increasing the flow of water and thereby improving the areas' suitability as both habitats for waterfowl and for floodplain crop production.

The reduction of Typha cover along the channels and surrounding areas is expected to increase the flow of water to the floodplains and thereby improve the habitat of waterbirds hitherto taken over by the Typha reeds. Current levels of Typha infestation in the concerned channels and floodplains is extensive and well beyond the capacity of this project alone to address. The project, in collaboration with the WDI, will support ongoing efforts by local communities, state governments and the RBDAs to facilitate and mobilize collective community efforts to execute a community-led plan to implement this activity alongside contracted mechanised clearance. Overall in the HNWs, Typha has colonised over 200sqkm. The local people view it as an extremely negative attribute of wetlands, because it diverts flows, expands floodplains, colonises farmland, grazing land and fish ponds, and harbours destructive Quelea birds and water-borne diseases. Several communities have been clearing Typha especially in the channels that supply them with irrigation water for the past ten years. On a small scale this has been ineffective when it is uncoordinated and not based on any scientific understanding of the species. Available evidence indicates that it is better to clear it wholesale, cut it below water or dig it out, and to cultivate fadamas (seasonally flooded areas) abutting channels so that farmers clear it regularly along with other weeds. It also helps if the channels are kept dry for a few months every year. For the past three years the communities, under the umbrella of the KYB-WDI, have facilitated and co-ordinated clearance work along the channels – manual and mechanical – based to some extent on these principles. This has been successful in partially restoring flows and reducing inundation of floodplains, but is not sustainable without upstream water management to proportion seasonal flows and control seasonal flood patterns between channels to facilitate regular drying out and reflooding of channels. The project will support ongoing communal channel clearance and flow proportioning activities and pilot efforts to sustain any reduction in the cover of Typha from selected localities around Dagona and Pinjumu through additional local control techniques. This will provide a model of how this might be achieved in other affected sites in the HNWs.

Sub-objective 5. To ensure smooth implementation and management of the project.

The implementation of the project and the sustainable development of the area require close collaboration between different stakeholders, especially the local communities, conservation and livelihood NGOs, state and federal government environment and water management authorities, the RBDAs, and NCF. Staff will be in place by the 1st month after the project starts. They will be responsible for all aspects of local project management including coordination of activities under sub-objectives 1-4, financial administration and reporting on progress using data collected from monitoring.

2d. Demonstration value of the project

The project will provide valuable demonstration at the local, national, regional and flyway levels. Locally, the project activities will be used to demonstrate the effectiveness of participatory approaches to other communities in the HNWs; this will be achieved through the awareness component and an increased capacity of the local wetlands Resource Centre to be upgraded by the project. Furthermore, line institutions with responsibility for the HNWs will not only be targets of awareness building, they will be partners in project execution (i.e. WDI). This should facilitate the replication of good initiatives in other parts of the wetlands. It is also expected that when awareness levels in the communities are further increased this will equally further empower them to participate in decision making over broader matters affecting the sustainability of the wetlands, especially water management planning at the wetlands and basin level.

Nationally, the Federal Ministry of Environment, which is a senior partner in the execution of this project, and has plans for the sustainable management of other major wetlands in Nigeria, will replicate the management practices, if proven to be viable.

The problem of invasive species control is not just limited to the HNWs or Nigeria. There are many examples where such species are adversely affecting the integrity of wetlands and local livelihoods, as evidenced by the Programme of work tackling this problem under the Ramsar Convention. The lessons learned from the Typha weed

control initiative in HNWs will demonstrate to AEWA partners how to strengthen social structures and promote local mobilisation in order to address a common threat.

3. DEMONSTRATION PROJECT OUTCOMES AND ACTIVITIES

3a. Outcomes and activities

Outcome 1: There is increased awareness on the importance of sustainable management of the wetlands and their natural resources amongst all stakeholders both within the floodplain and 'upstream', as well as decision makers.

There remains a need to raise awareness on issues relating to management of the environment and in particular water resources amongst a variety of groups. These include schools (the users of tomorrow), present wetland inhabitants, people living upstream of the wetlands (and using/impacting upon tributary rivers), and all levels of decision-makers ranging from local, state and Federal government. This background of environmental awareness in the context of community-based resource use planning and management is an important context for other project outputs, more directly related to resource management.

The following specific activities will be undertaken:

Activity 1.1 Renovation of the existing Hadejia_Nguru Wetlands Conservation Centre (HNWCC) which is owned and managed by NCF and provision of infrastructures, equipment and other project enhancement materials at the Centre to be able to carry out extensive conservation activities associated with the project.

There exists a well stocked Wetlands Information Centre in Nguru, the major town in the HNWs, not far from the demonstration sites. This Centre requires renovation and good maintenance for it to continue to serve its various functions such as attracting and complement site visits by university students and researchers from within and outside the country; provide information to other visitors and act as a conservation resource centre to the communities. The project will support the upgrading of the Centre's building, procurement of essential equipment and means of transportation, and the deployment of a full-time NCF team on site. This is expected to bring the centre back into full operation, in all its main educational, community involvement and research functions, after its quasi-abandonment in recent years due to lack of funding.

Activity 1.2 Undertake biodiversity and socio-economic surveys to establish baseline and monitoring indicators.

A rapid biodiversity and Participatory Rural Appraisal (PRA) will be carried out in collaboration with the WDI to establish baseline data, assess the potential for eco-tourism development, encourage community mobilisation and create focused Site Support Groups (SSGs). This will help to establish specific indicators for success as the project progresses.

Activity 1.3 Prepare and disseminate awareness materials (posters, resource maps, pamphlets, articles, dramas and a documentary) using available information and results from the demonstration project for schools, resource users and government institutions.

These materials will be produced locally and distributed/used during and after project, through the NCF Nguru Conservation Centre and its resident team, as well as by the WDI.

Activity 1.4 Execute two stakeholder awareness/consultative workshops on wetland resource use planning and management and follow-up support for communities in the project demonstration sites.

The impact of awareness creation and ecological research programme will be assessed through a monitoring programme that will be coordinated by NCF in collaboration with the WDI, and will involve participatory techniques

for data collection wherever possible (i.e. involving the local communities themselves) with collation, analysis and feedback coming from project staff.

Activity 1.5 Execute an annual training on identification and monitoring of waterfowl and water related birds for representatives of communities, local and state government officials. This is expected to lead to the establishment of focus SSGs that will be directly involved with wetlands conservation for migratory birds habitat.

Activity 1.6 Lobby the FME to include the awareness raising activities in the planned Nigerian wetland management programme through the existing National Wetlands Committee.

Outcome 2: There is an increase in community-supported ecological research projects and information on ecotourism potentials at the two sites.

Activity 2.1 Establish a workplan between major academic and research institutions around the wetlands such that students are encouraged to carry out wetlands-based research activities to further provide information for planning and management decision for the wetlands.

NCF already has established relationship with relevant academic institutions around the wetlands many of which have indicated their desires to send students to the wetlands for research activities. This avenue would be employed to promote research activities in the areas, rotating around the Conservation Centre being upgraded with project support.

Specifically, NCF through collaboration with RSPB is situating a PhD Research student at the NCF Wetlands Conservation Centre- Nguru to consolidate all other efforts on field research and education in the area.

Activity 2.2 Encourage the promotion of ecotourism potential by the principal line agencies in charge of ecotourism.

NCF through its activities will encourage principal line agencies involved in the establishment and promotion of ecotourism. The agencies involved are CBNP, which manages Dagona Bird Sanctuary and has guest chalets; Jigawa and Yobe State Tourism Boards and Nigerian Tourism Board who are tourism promoters. NCF will provide necessary assistance and information materials to enhance the potentials of this industry by providing links with the international bird-tourism market (through its partnership with BirdLife, RSBP and the WOW project. The Conservation Centre will also organise awareness and training activities to encourage the production of crafts and souvenirs etc by the community which may be displayed at the HNWCC.

Outcome 3: Invasive Typha on channels to the sites is reduced in extent by 30% by the end of year 2, thereby improving the areas' suitability as both habitats for waterfowl and for floodplain crop production.

Activity 3.1 Extend the understanding of Typha's ecology within the HNWs and establish a baseline for monitoring the success of efforts to reduce its cover in specific sites.

To enable a scientifically based strategy to tackle the Typha problem, a team of consultants have carried out a study along with input from several Nigerian Universities. This was designed to clarify aspects of the species ecology and response to the hydrological fluctuations being imposed by water resource management in the HNWs catchment. Maps for estimating the extent of Typha across the entire HNWs have already been produced using satellite imagery. From these, a map of the extant distribution of Typha will be made in the areas of the two focal communities. Follow-up studies will be needed and will be encouraged by the project through the provision of site support to interested Universities and students (at the Wetlands Conservation Centre in Nguru). This is expected to increase the science base for the establishment of a baseline data-monitoring scheme to enable evaluation of the initiatives success. Indicators to be monitored will include Typha cover and the populations of key indicator waterbird species.

Indicator species will include:

- ⇒ Quelea (uses Typha beds for roosting and nesting) decline in the project area, will be a key indicator of success
- ⇒ Egret species (prefer open water; frequents rice fields; favoured by farmers as it preys on pest species such as grasshoppers etc.) returning to the sites
- ⇒ Extent of Echinochloa (this grass species is characteristic of fairly open water) used by a variety of bird species (e.g. grey headed gulls may nest on beds of Echinochloa) and also important grazing for cattle) returning to the sites
- ⇒ Increase winter count record of Palaearctic migrant population in the area

Activity 3.2 Define and adopt a site-specific community-based Typha Control Action Plan based on local stakeholder consultation.

The results of the follow-up study and mapping exercise will be made available to local stakeholders who will use it to support the development of site-specific Typha Control Action Plans for each of the demonstration sites, in line with the local communities resource use management plans. This Action Plan will take cognisance of and work closely with other initiatives by both the government and non-government institutions. NCF, KYB-WDI, local community representatives, dam operators, concerned Local Government Authorities (LGAs) and state wildlife departments will constitute a committee that will be responsible for helping the local communities to develop their own Action Plans. The Action Plan will include details of techniques and protocols to remove the Typha, locations around the communities where removal activities should be concentrated, and a plan to mobilise the local community to carry out the activities. A strategy of co-ordinating activities with LGAs and dam operators towards developing an effective monitoring system will be implemented, to enable evaluation of the project progress and success. The plan will be drafted by the local communities with supervision and guidance from this Committee; this will give it local ownership. The final versions will be developed based on feedback between the Committee and communities in both sites.

Activity 3.3 Implement the community based Typha Control Action Plan.

The activities in the Typha Control Action Plan will relate to experimental / pilot initiatives aimed at site-specific control of Typha. Communities will be supported in measures to clear local river channels, floodplains and fish-ponds of Typha, at appropriate times and in a well co-ordinated way. Essential tools for clearance of the Typha will be provided to the local community who in turn will provide much of the labour for this activity. Tools include hoes, machetes, spades and handcars. The project will encourage the building of small dykes to facilitate typha control measures for the restoration and recultivation/restocking of fadamas adjacent to channels.. There will be liaising with upstream channel clearers and barrage/dam operators to regulate dry season releases. The activities of the riparian LGAs towards this will also be co-ordinated along with those of the communities.

Outcome 4: The project is smoothly implemented and managed.

Activity 4.1 Creation of project team and steering committee.

Supervision and Coordination of the project activities will be carried out by a National Project Coordinator (NCF), and a site Project Manager based in the Nguru Conservation Centre. Detailed terms of reference for project staff will be developed in collaboration with the overall GEF project coordinator this will include lines of management and responsibilities for project activities and output. Staff will be engaged and be in place by the third month after the project starts. A Project Steering Committee with the Project manager as its secretary, develop a term of reference for the project and staff.

Activity 4.2 Supervision and financial administration of implementation.

The project team will be responsible for day-to-day technical, financial and administrative supervision of the project. Work plans will be developed for the implementing team every six months with each team member allocated specific tasks to be completed over the reporting period. These will be prepared by the project team and submitted to the Project Steering Committee for approval. Work plans will be developed to fit within the external project-reporting schedule for the GEF project overall, so that review of the previous six months can be integrated.

Activity 4.3 Reporting.

The Project Manager will be responsible for maintaining an overview of the project progress and success. Regular periodic reports need to be submitted to the GEF Project Chief Technical Advisor (based in the Project Coordination Unit at Wetlands International, The Netherlands) and UNOPS, through the National Project Coordinator. Evaluation of progress and success of project activities will be made against the indicators provided in the log frame, using data collected through monitoring activities carried out as outlined in Activities under Outcomes 1-3.

3b. Project Sustainability

In terms of Typha control, it is anticipated that the limited pilot activities supported by the project, through extensive consultations, collaboration and practical clearing efforts will contribute to the development of locally-adapted and low-cost (therefore more sustainable) means of controlling typha invasion – in coordination with broader basin-scale initiatives. This will provide already organised local community groups with additional motivation to continue implementation in these and other sites. It would thus lead to an extension of the typha control action plan, as well as mobilisation of other communities who can provide the necessary labour. NCF and WDI will use the various fora in which the LGAs take part during project activities and their representation on the Project Steering Committee to lobby for its adoption. The continued efforts to raise awareness of the importance of wetlands and their wise use will become the responsibility of the established local community groups. The FME will also be lobbied by the NCF to include this in the forthcoming Nigerian Wetlands Management Programme through the National Wetlands Committee, towards providing financial support for communities in the HNWs to continue this process and promote its replication in other Nigerian wetlands.

It is also anticipated that by promoting locally suited methods for reducing the typha invasion, the wetlands – on its way to restoration- would begin to attract increasing number of ecotourists and other visitors to the wetlands thereby creating new avenues for income generation for the communities and hence reduce pressure on the wetlands.

Several measures are being devised by the NCF (i.e. fund raising with local donors, provision of paid services for visitors and tourists, sale of books and locally made handicrafts, etc.) to ensure the long-term sustainability of the activities of the HNWCC in order for it to continue to support conservation efforts and provide information and resource materials to visitors and general public. Strong linkage opportunities between the Centre and more academic and research institutions would be encouraged.

4. BUDGET

Table 2: Project financing expenditure categories

Category	GEF	Co-financing	Total
Personnell	51,000	70,500	121,500
Renovation, Furniture & Equipment and vehicle	55,000	35,000	90,000
Subcontracts: Typha clearing	20,000	20,000	40,000
Workshops and training & information materials:	25,000	25,000	50,000
Travel: <i>(Local & International)</i>	10,000	5,000	15,000
Monitoring, Evaluation and Auditing:	5,500	30,000	35,500
Operational Costs for the Conservation Centre in Nguru	40,000	17,500	57,500
Community Contribution		45,000	45,000
TOTAL	206,500	248,000	454,500

NB: The travel budget has been calculated to allow the demonstration project to participate in two international WOW workshops

Co-Financing Source:

- NCF Core Funding 50,000
- RSPB 10,000
- Community Contribution 45,000
- KYB-WDI 43,000
- ExxonMobil 12,539
- AP Leventis Foundation 20,000
- NCR Other Co-financing 67,461

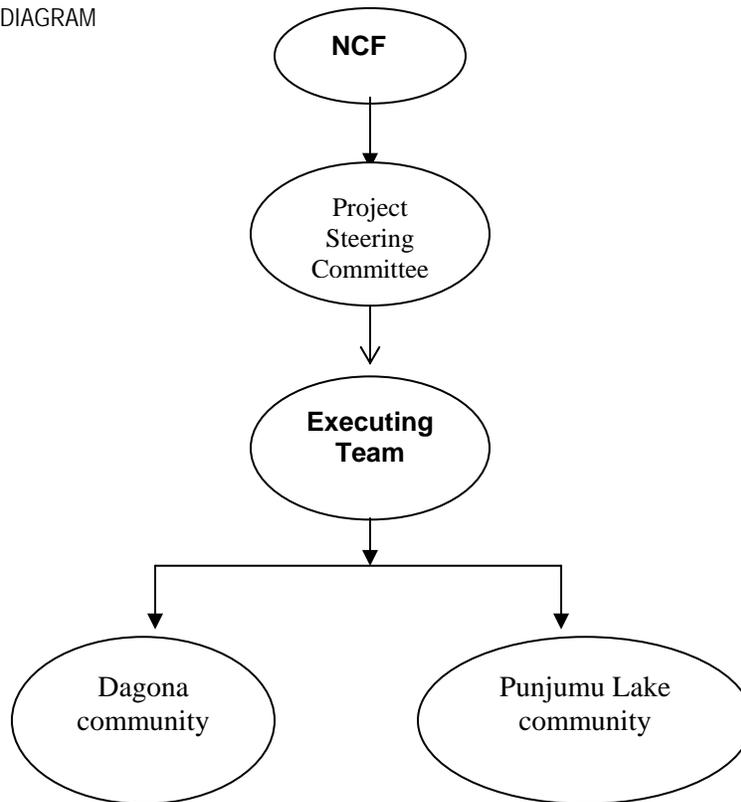
Table 3: Disbursement Projection

Budget Category	Link to Project Outcomes & Activities	Total GEF	Year 1		Year 2		GEF Total
			S1 GEF	S2 GEF	S3 GEF	S4 GEF	
Personnel & Exe. Agency Support	All	51,000	12,750	12,750	12,750	12,750	51000
Renovation, Furniture & Equipment and vehicle	All	55,000	25,000	30000	0	0	55000
Subcontracts: Typha clearing	1.2, 3.1, 3.2, 3.3	20,000	10,000	5000	5,000	0	20000
Workshops and training & information materials:	1.3; 1.4; 1.5	25,000	5,000	7,500	7,500	5,000	25000
Travel: (<i>Local & International</i>)	1.2; 1.3; 1.4; 1.5; 2.1; 3.1;	10,000	4,000	3,250	2,500	250	10000
Monitoring, Evaluation and Auditing:	4.1; 4.3	5,500	0	2,500	1,000	2,000	5500
Operational Costs for the Conservation Centre in Nguru	All	40,000	10,000	10,000	10,000	10,000	40000
		206,500	66,750	71,000	38,750	30,000	206,500

5. TIMETABLE

Activity	Months											
	2	4	6	8	10	12	14	16	18	20	22	24
Upgrade and equip HNW Conservation Centre	**	**	**	**								
Identification and Consultation with Partners & line agencies Local Communities	**											
Advocacy and open Village meetings	**	**										
Execute stake holders workshops		**										
Produce and disseminate Awareness Materials		**	**	**	**	**	**	**	**	**	**	**
Execute training on identification and monitoring				**					**			
Survey Socio-Economic indicators	**											
Conduct PRAs around Project Area.	**											
Project management Team meeting		**		**		**		**		**		**
Map Typha extent	**			**			**			**		
Consultant Study Typha ecology	**	**	**	**								
Develop Community-Based Typha control Action Plan		**	**	**	**	**	**					
Consultative Workshop on Typha Control	**					**						
Catalyze & Mobilize Communities to execute plan	**						**					
Survey Ecosystem indicators	**		**		**		**		**		**	
Establish Management systems & structures	**	**										
Project Review and Monitoring			**			**			**			**

6. ORGANISATIONAL DIAGRAM



Keys:

NCF:

National Executing Agency

Project Steering Committee:

FME - Federal Ministry of Environment

Birdlife - Birdlife International

WI - Wetlands International

CBNP - Chad Basin National Park,

HJRBDA - Hadejia Jama'are River Basin Development Authority

CBDA - Chad Basin Development Authority

ADP - Agricultural Development Authority

KYB-WDI – Komadugu Yobe Basin Wetlands Development Initiative

CBO – Community Based Organisations

JWL – Joint Wetlands Livelihoods project

LCBC – Lake Chad Basin Commission

Representatives of Local & State Environment Agencies

Project Executing Team:

Project Manager

Project Officer

Project Assistants

Note:

- The Project Manager will report to the Project Coordinator (Director Technical Programmes) of NCF.
- The NCF project manager will coordinate the field project at the sites and act as the secretary of the project steering committee.
- The Project Coordinator will be responsible for reporting to the WOW Project Coordination Unit / Project CTA, BirdLife International and WI and will liaise with FME & other partners where necessary.

7. LOCAL EXECUTING AGENCY CONTACT DETAILS

Contact Person: **Professor Emmanuel Asuquo OBOT**

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Intervention Logic	Indicators of Performance	Means of Verification	Risks and Assumptions
OVERALL OBJECTIVE			
Immediate Objective			
Significantly improve the ecological integrity of the HNWs as a wildlife habitat by promoting community participation in wetlands resources management	Stability or increase in the population of indicator species	Ecological survey reports;	No climatic downturns/natural disaster. Line Institutions co-operate and communities directly involved.
Outcomes			
Outcome 1: There is increased awareness of the important of sustainable management of the wetlands and their natural resources amongst all decision makers, stakeholders within the floodplain and, 'upstream'.	Number of individuals incorporating 'wise-use' principles into their use of wetland resources reaches 30% by year 2 of the project.	Monitoring report on project execution.	Partners collaborate.
Outcome 2 There is an increase in community-supported ecological research projects and information on ecotourism potentials at the two sites.	Evidence of effective collaboration with academic and research institutions as well as line agencies concerned with ecotourism promotion. Increase in research interests and number of ecological researches within the wetlands. Production of basic information on ecotourism potentials within the wetlands. awareness Increase in ecotourism awareness	Report of research activities and additional number of academic institutions engaged in wetlands research Report on activity of line agencies to promote ecotourism potentials of the wetlands	Continued interest in research activities. Line agencies are interested in promotion of ecotourism
Outcome 3: Invasive Typha on channels to the sites is reduced in extent by 30% (within the project focal areas) by end year 2 thereby improving the area's suitability as both habitat for waterfowl and for floodplain crop production.	Proportion of community-members participating in Typha-clearance operations Agriculture and fishing are being practised on areas of land/waterway previously rendered unsuitable for such activities Increase in the numbers of waterfowl and Egret species using Dagona and Pinjumu area, and the length of their stay there. Decline in Quelea bird population in the project area. Extent of Echinochloa (this grass species) Comparative Winter count record of Palearctic migrant population in the area.	Monitoring report on Typha clearance programme Report of the winter count of Palearctic migrants. Ecological monitoring report	Communities remain committed to Typha clearance.
Outcome 4: The project is smoothly implemented and managed	Establishment of effective project steering committee and management Timely reporting and financial management by project team	Report of committee's activities and project implementation	Low rate of staff turn over to ensure work progresses without hinderance.

ACTIVITIES

- 1.0 upgrade and equip the HNW Conservation Centre
- 1.1 Prepare and disseminate Awareness Materials
- 1.2 Execute an annual training on identification and monitoring
- 1.3 Execute two stakeholder awareness/consultative workshops
- 1.4 Consultation, Advocacy and open Village meetings
- 2.1 *Establish a workplan between the principle line agencies involved in ecological research in the HNWs.*
- 2.2a Conduct PRAs with Communities around Project Area
- 2.2b Execute two Local capacity building workshops
- 2.5 Survey socio-economic indicators
- 3.1a Consult with partners and line institutions to develop *Typha* control action plan,.
- 3.1b Map *Typha* extent
- 3.1c Consultant Study *Typha* ecology
- 3.2a Develop Community-Based *Typha* control Action Plan
- 3.2b Consultative Workshop on *Typha* Control
- 3.3 Mobilise and Catalyse communities to execute plan
- 4.1 Establish Management systems & structures
- 4.2 Monitor progress in project implementation
- 4.3 External mid-term and terminal project review