

# GOVT OF GILGIT-BALTISTAN GILGIT-BALTISTAN FOREST, PARKS & WILDLIFE



### **DEPARTMENT, PARKS & WILDLIFE CIRCLE GILGIT-BALTISTAN**

# PARTICIPATORY ADOPTIVE MANAGEMENT PLAN FOR KHUSHHO WETLAND, SKARDU DISTRICT, GILGIT-BALTISTAN



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# **List of Acronyms**

CBO Community Based Organization

NGO Non -Governmental Organization

PWD Public Works Department

IUCN-P International Union for the Conservation of Nature, Pak

WWF-P World Wide Fund for Nature, Pakistan

MAB Man and Biosphere

AKRSP Aga Khan Rural Support Program

DCC District Conservation Committee

PTDC Pakistan Tourism Development Corporation

EPA Environments Projection Agency

UNDP United Nation Development Programme

DFO Divisional Forest Office

FD Forest Department

RD Research Department

L& F livestock and Fisheries Department

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#### **Executive Summary**

Khusho Lake is a valuable wetland ecosystem that supports local livelihoods and contributes to long-term ecological sustainability. Khushho Lake holds great significance for the surrounding communities. The water from the lake is vital for the irrigation needs of nearby Hoto and Pakora villages, supporting agricultural activities in the area. Additionally, the lake serves as a crucial water source for drinking purposes, ensuring the well-being of the local population. The tranquil beauty of Khushho Lake, with its crystal-clear waters and flourishing greenery, offers a serene and enchanting landscape amidst the rugged terrain. It stands as a testament to the harmonious coexistence of nature and human life in this region, where the precious resource of water sustains both agricultural livelihoods and community well-being. The region around Khushho Lake is sparsely populated, primarily inhabited by local communities engaged in traditional livelihoods. Living conditions in this high-altitude environment are challenging, characterized by extreme temperatures with cold winters and mild summers

The Khushho Lake Management Plan is a comprehensive strategy aimed at promoting the sustainable use of wetland resources while ensuring the long-term ecological integrity of the Khushho Lake area. The plan recognizes the importance of balancing local livelihoods with the need for environmental conservation and presents a set of strategies and activities to achieve this goal. The management plan emphasizes the importance of community engagement and participation in wetland conservation efforts. It proposes regular awareness campaigns and educational programs to increase the understanding of local communities regarding the ecological value of Khushho Lake and its associated benefits. By highlighting the significance of wetland conservation, the plan aims to foster a sense of stewardship and promote sustainable practices among the local population.

The core objective of the Khushho Lake Management Plan is to promote the sustainable use of wetland resources in the Khushho Lake area while ensuring the long-term ecological integrity of the ecosystem. This objective acknowledges the importance of striking a balance between supporting local livelihoods and conserving the wetland environment. By implementing a range of strategies and activities, the plan aims to protect and restore the ecological balance of Khushho Lake, preserve biodiversity, and enhance the well-being of local communities. The plan also recognizes the significance of community engagement, capacity building, and incorporating traditional knowledge in decision-making processes to ensure the active participation and ownership of local stakeholders in wetland conservation efforts. Through the implementation of the core objective, the Khushho Lake Management Plan strives to achieve a harmonious and sustainable coexistence between human activities and the natural environment. By implementing the Khushho Lake Management Plan, it is anticipated that the sustainable use of wetland resources will be promoted, local livelihoods will be supported, and the long-term ecological sustainability of the Khushho Lake area will be ensured. The plan's emphasis on community engagement, capacity building, and monitoring and evaluation will foster a sense of ownership and collaboration among stakeholders, ultimately leading to the successful conservation of Khushho Lake and its surrounding ecosystem.

#### Introduction

#### **General Information**

The Skardu District is bounded on the east by the Ghanche District, on the south by the Kharmang District, on the west by the Astore District, on the north by the Shigar district and on the north-west it touches Gilgit District. With land area of about 7,290 sq. kms, Skardu ecology is mostly dry alpine zones & glaciers, montane grasslands and shrublands mainly in Deosai area. The district also has sub-alpine scrub consisting of small deciduous plant species. Valleys in the northern parts of the district have some temperate coniferous forests. Overall the district has about 1% land under forest or tree cover (including farm forests and plantations), with 27% of the land comprising of alpine and winter pastures. Only half a percent of the land is used for agricultural and settlement purposes. The remaining 71% of the land area is either barren or permanently snow covered. Nestled amidst the majestic Karakoram mountain range, Khushho Lake is a pristine alpine gem located in the scenic Skardu district of Pakistan. Situated at an elevation of approximately 4,875 meters (16,000 feet) above sea level, the lake is surrounded by snow-capped peaks, with the iconic Masherbrum Mountain dominating the skyline. Khushho Lake, a spring-fed system nestled on the hillside opposite Skardu airport and near Cadet College, is a captivating oasis in the region. The lake is formed by a small stream that meanders through the landscape, creating picturesque peatlands and lush vegetation along its path. Despite its relatively small size, Khushho Lake holds great significance for the surrounding communities. The water from the lake is vital for the irrigation needs of nearby Hoto and Pakora villages, supporting agricultural activities in the area. Additionally, the lake serves as a crucial water source for drinking purposes, ensuring the well-being of the local population. The tranquil beauty of Khushho Lake, with its crystal-clear waters and flourishing greenery, offers a serene and enchanting landscape amidst the rugged terrain. It stands as a testament to the harmonious coexistence of nature and human life in this region, where the precious resource of water sustains both agricultural livelihoods and community well-being. The region around Khushho Lake is sparsely populated, primarily inhabited by local communities engaged in traditional livelihoods. Living conditions in this high-altitude environment are challenging, characterized by extreme temperatures with cold winters and mild summers.

#### Climate

The climate of Khushho Lake is defined by its high altitude and harsh alpine conditions. Winters in this region are extremely cold, with temperatures frequently plunging below freezing. Sub-zero temperatures are a regular occurrence, and the area is often blanketed in snow during the winter months. Summers, on the other hand, bring relief from the biting cold, but the temperatures remain cool to moderately warm. The region receives limited precipitation, owing to the rain shadow effect caused by the towering Karakoram Range. As a result, rainfall is relatively low, and the area can be quite dry. The climate of Khushho Lake reflects the challenging environment of the high-altitude alpine region, where the beauty of the snow-capped peaks and glacial surroundings is juxtaposed with the harshness of the weather conditions.

#### Rainfall

Khusho Lake experiences limited rainfall, owing to the rain shadow effect caused by the towering Karakoram Range. The annual precipitation is generally lower compared to other regions, resulting in a drier climate. The high-altitude setting contributes to lower humidity levels, adding to the unique characteristics of the area. The average rainfall in region is 89.13mm-3.51mm.

#### **Temperature**

This Region experiences extremely cold winters with temperatures dropping well below freezing point. Sub-zero temperatures are common during winter, creating a cold and frosty environment. Summers are relatively cooler compared to lower altitudes, with temperatures ranging from cool to moderately warm. The average temperature of the region is -10.2 °C-13.64°C.

#### **Economic status of Local Communities**

The economic status of the local communities in the region surrounding Khushho Lake is influenced by various factors. Agriculture and livestock play a significant role in the local economy, with communities engaging in subsistence farming of crops like wheat, barley, potatoes, and vegetables. Livestock rearing, including sheep, goats, and yaks, provides food, milk, wool, and income through the sale of livestock products. The region's natural beauty and proximity to tourist attractions offer opportunities for tourism and hospitality-related businesses. Local communities may provide accommodation, guiding services, and sell handicrafts and local products to cater to tourists. Traditional handicrafts also contribute to the local economy, with skilled individuals producing carpets, rugs, woodwork, and embroidered textiles. These crafts hold cultural and economic value, providing income through local sales and participation in regional markets. However, formal employment opportunities are limited due to the remote and rugged nature of the region. Job opportunities primarily revolve around government positions, education, health services, and a few local businesses. Many individuals rely on seasonal work in agriculture, tourism, or laborintensive projects. The economic well-being of the local communities is closely tied to the utilization of natural resources such as water, land, and forests. Access to and sustainable management of these resources are vital for economic stability and livelihoods. Efforts by local authorities, non-governmental organizations, and development agencies are aimed at supporting sustainable economic growth, improving livelihood opportunities, and enhancing the overall economic status of the communities surrounding Khusho Lake.

In terms of human presence, organizations are actively working in the region to support local communities and promote sustainable development. However, due to its remote location and challenging terrain, the area faces deficiencies in terms of infrastructure, access to basic services, and limited opportunities for economic growth. Efforts are being made to address these gaps and enhance the well-being of the communities residing around Khushho Lake, while also ensuring the preservation of its pristine natural beauty.

#### **Socio-Culture Condition**

The socio-cultural conditions of the region surrounding Khushho Lake are characterized by a rich heritage, traditional values, and close-knit community dynamics. The area is home to diverse ethnic groups, each with its own distinct cultural practices, languages, and traditions. This cultural diversity contributes to a vibrant social fabric, where individuals from different backgrounds coexist and share their customs and beliefs. The local communities in the region hold deep-rooted connections to their traditional practices and rituals. These traditions are passed down through generations, preserving a sense of identity and heritage. Festivals play a significant role in the socio-cultural life of the communities. Colorful celebrations and gatherings mark important occasions, providing opportunities for people to come together, express their cultural pride, and strengthen social bonds. Religious practices also hold a significant place in the socio-cultural life of the communities. Mosques, shrines, and religious gatherings serve as focal points for spiritual devotion, fostering a sense of belonging and providing spaces for communal worship and reflection.

It is important to note that the socio-cultural conditions may evolve over time as communities adapt to changing circumstances and influences from the outside world. However, the preservation of cultural heritage and the strong social fabric remain integral to the identity and well-being of the communities in the region surrounding Khusho Lake.

#### **Education and Tourism**

#### **Education:**

Access to quality education is vital for the social and intellectual development of the local communities. Schools and educational institutions in the region provide opportunities for children and young adults to acquire knowledge, skills, and values. Education helps in fostering a sense of empowerment, opening up avenues for personal growth, and enabling individuals to contribute to their communities and beyond. Efforts are being made to improve educational infrastructure, promote enrollment, and enhance the quality of education in the region. This, in turn, contributes to the overall socio-economic development of the communities.

#### **Tourism:**

The natural beauty and cultural richness of the region make it a potential tourist destination. The presence of Khushho Lake and other nearby attractions attracts visitors from within the country and abroad. Tourism brings economic benefits to the local communities by creating job opportunities and generating income through the provision of accommodation, food, transportation, and other services. It also provides opportunities for cultural exchange and interaction between tourists and the local population, fostering a deeper understanding and appreciation of the region's heritage and traditions.

Efforts are being made to promote sustainable tourism practices that respect the environment and local culture. This includes the development of eco-friendly accommodations, responsible tourism initiatives, and the preservation of cultural sites and practices. Tourism contributes to the preservation and promotion of local arts, crafts, and cultural traditions, enabling the communities to showcase their heritage to a broader audience.

Education and tourism are interconnected, as education plays a role in creating a skilled workforce in the tourism sector, while tourism offers opportunities for cultural learning and experiential education. The development of educational programs and vocational training related to tourism can further enhance the socio-cultural development of the region, providing avenues for employment and skills development among the local population. Overall, education and tourism have the potential to positively impact the socio-cultural fabric of the region surrounding Khushho Lake, contributing to the empowerment of individuals, preservation of cultural heritage, and economic well-being of the communities.

#### **Ecology of the region**

The region surrounding Khushho Lake is blessed with diverse wildlife, contributing to its ecological richness. Here are some key aspects of the wildlife in the area:

#### Wildlife

About 198 bird species are found in the district, with the highest number (107 species) being Passeriformes (perching birds). This group mainly consist of corvids, finches, pipits and finches, some warblers, buntings, flycatchers, redstarts and larks. Waterfowl species increase significantly during spring and autumn passage, with 16 ducks & geese species, 12 waders, 9 gulls & terns, with additional 11 species of crakes, grebes, egrets and herons. In terms of predatory birds there are up to 14 hawks & eagles, 3 vultures, 1 owl and 4 falcon species in the region. Other birds in the region include 3 pheasant and 4 pigeon & dove species, with some woodpeckers, swifts and others.

#### <u>Fauna</u>

The region is home to a variety of animal species, ranging from small mammals to larger predators. Common wildlife species include Himalayan ibex, markhor, snow leopard, red fox, marmots, and various bird species such as golden eagles, lammergeiers, and Himalayan snowcocks. These animals thrive in the rugged terrain, alpine meadows, and rocky slopes surrounding Khushho Lake.

#### **Flora**

The flora in the region provides habitat and sustenance for the wildlife. The area is characterized by a mix of vegetation types, including alpine meadows, scrublands, and coniferous forests. Common plant species include juniper, willow, birch, rhododendron, and various grasses and herbs. This diverse vegetation supports a healthy ecosystem and provides food and shelter for the wildlife species. The flora of the Khushho Lake region is adapted to the extreme high-altitude conditions, with sparse vegetation consisting of hardy alpine plants and grasses. Some areas are home to unique floral species, including certain medicinal plants that have significance for traditional herbal remedies. The fauna in the area includes various bird species, with migratory birds making an appearance during the summer season, adding to the biodiversity of the region.

#### **Biodiversity Conservation**

Efforts are being made to protect and conserve the wildlife in the region. Various organizations, including governmental and non-governmental entities, are involved in initiatives aimed at preserving the natural habitat, preventing poaching, and raising awareness about the importance of wildlife conservation. Protected areas and wildlife sanctuaries are established to safeguard the biodiversity and ensure the long-term survival of the region's wildlife.

#### Wildlife Tourism

The presence of diverse wildlife in the area has also led to the development of wildlife tourism. Visitors have the opportunity to observe and appreciate the unique flora and fauna through guided tours and wildlife safaris. Responsible wildlife tourism practices are encouraged to minimize disturbance to the animals and their habitats while providing educational and recreational experiences for visitors.

#### **Conservation Challenges**

The region faces challenges in wildlife conservation, including habitat fragmentation, human-wildlife conflict, and illegal hunting. Encroachment of human settlements and infrastructure development can disrupt natural habitats and impact wildlife populations. Efforts are being made to address these challenges through community engagement, research, and the implementation of conservation strategies.

Overall, the wildlife in the region surrounding Khushho Lake adds to the ecological value and natural beauty of the area. Conservation efforts, coupled with responsible tourism practices, contribute to the preservation of the region's biodiversity and create opportunities for people to appreciate and learn about the fascinating wildlife that inhabits the area.

#### **Current Management Deficiencies in the area**

While efforts are being made to manage and conserve the region surrounding Khushho Lake, there are several management deficiencies that need attention. These deficiencies include:

**Limited Resources**: The area faces a lack of financial and human resources for effective management and conservation. Insufficient funding and limited staff hinder the implementation of comprehensive management strategies and the enforcement of conservation measures.

**Inadequate Monitoring and Research**: There is a need for improved monitoring and research to gather accurate data on wildlife populations, habitat conditions, and the impact of human activities. Insufficient monitoring hampers the ability to make informed management decisions and assess the effectiveness of conservation efforts.

**Lack of Stakeholder Engagement**: The involvement of local communities, governmental agencies, non-governmental organizations, and other stakeholders is crucial for successful management. There is a need for better coordination and collaboration among these stakeholders to ensure a unified approach towards conservation and address the challenges collectively.

**Limited Awareness and Education:** There is a need for increased awareness and education programs to foster a greater understanding of the importance of conservation and sustainable practices among local communities, visitors, and other stakeholders. Lack of awareness can lead to unsustainable practices and inadvertent damage to the environment and wildlife.

**Human-Wildlife Conflict**: Encroachment of human settlements into wildlife habitats can result in conflicts between humans and wildlife. The management plan should address these conflicts through the implementation of effective mitigation measures and community engagement programs.

**Enforcement of Regulations**: The enforcement of regulations and laws related to wildlife protection and habitat conservation needs to be strengthened. Illegal activities such as poaching, encroachment, and unsustainable resource extraction should be actively monitored and addressed to ensure the long-term sustainability of the region's biodiversity.

Addressing these management deficiencies requires a multi-faceted approach that involves increased investment in resources, enhanced stakeholder engagement, improved monitoring and research, targeted awareness and education programs, effective conflict resolution strategies, and strengthened enforcement of regulations. By addressing these deficiencies, the management of the area can be improved, leading to better conservation outcomes and the long-term sustainability of the region's natural resources.

#### Current and Potential threats to the Wetland and surrounding area

The wetland and its surrounding area in Khusho Lake face various current and potential threats that pose challenges to their ecological integrity and long-term sustainability. These threats include:

**Habitat Degradation**: The wetland and its surrounding habitats are vulnerable to degradation due to human activities. Unsustainable agricultural practices, deforestation, and land conversion for infrastructure development can lead to the loss and fragmentation of critical habitats, disrupting the natural balance of the ecosystem. Increased visitor numbers and recreational activities in wetland areas can lead to habitat disturbance. Trampling of vegetation, nesting sites, and sensitive habitats can disrupt the natural balance of the ecosystem, affecting the breeding and feeding patterns of wetland species.

**Water Pollution**: Pollution from agricultural runoff and improper waste disposal contaminates the water in the wetland. This pollution poses a significant threat to the aquatic life, including fish, amphibians, and invertebrates, and can also impact the water quality for human use and consumption. Tourism-related activities such as boating, swimming, and waste disposal contributes to water pollution in wetlands. Improper sewage management, the use of harmful chemicals, and littering can contaminate the water, impacting water quality and the health of aquatic organisms

**Wildlife Disturbance:** Uncontrolled tourism activities disturb wildlife in wetland areas. Noise, excessive human presence, and direct interaction with wildlife disrupt their natural behavior and breeding patterns. This disturbance lead to stress, abandonment of nesting sites, and a decline in population numbers.

**Invasive Species**: The introduction of invasive plant and animal species can negatively impact the wetland ecosystem. Invasive species outcompete native species for resources, alter habitat conditions, and disrupt the natural balance of the ecosystem, leading to a decline in biodiversity.

**Climate Change**: The region is susceptible to the effects of climate change, including rising temperatures, altered precipitation patterns, and increased frequency of extreme weather events. These changes can have significant impacts on the wetland and surrounding habitats, affecting water availability, vegetation composition, and wildlife populations.

**Human-Wildlife Conflict**: As human settlements encroach upon wildlife habitats, conflicts between humans and wildlife can arise. This conflict can lead to the destruction of crops, livestock predation, and even threats to human safety. It is important to implement effective measures to mitigate human-wildlife conflicts and promote coexistence.

**Lack of Awareness and Enforcement**: Limited awareness about the importance of wetland conservation and inadequate enforcement of regulations can undermine conservation efforts. Increased awareness and education programs, along with strict enforcement of laws and regulations, are necessary to ensure the protection and sustainable management of the wetland and its surroundings.

**Cultural Impacts**: Tourism can influence local communities and traditional practices in wetland areas. Cultural values, traditional knowledge, and social dynamics may be affected by changes in the local economy, social structures, and lifestyle patterns due to tourism development.

Addressing these threats requires a comprehensive approach that involves sustainable land and water management practices, the control of invasive species, the development of climate change adaptation strategies, and the promotion of community engagement and awareness. Collaboration among stakeholders, including local communities, government agencies, and non-governmental organizations, is crucial for implementing effective conservation measures and ensuring the long-term resilience of the wetland and its surrounding area.

#### **Management Goals and Objectives**

#### **Management Approach and Goals**

The management approach for Khushho Lake and its immediate catchment area will prioritize collaborative efforts involving local communities and various stakeholders. The objective is to safeguard the rich flora and fauna of the lake, enhance its significance as a habitat for both local and migratory wildlife, and establish it as a model site for demonstrating the Ramsar principle of wise-use of natural resources. Key stakeholders involved in the management process will include the WWF-P, relevant government departments, the Northern Areas administration, concerned local communities, and any non-governmental organizations operating in the region. By fostering active participation and coordination among these stakeholders, the management approach seeks to ensure the sustainable conservation and responsible utilization of Khushho Lake's resources while also promoting the ecological and socio-economic well-being of the area.

The long-term management goals of this five year Participatory Adoptive Management Plan are:

- Protect the ecological integrity and biodiversity of Khushho Lake and its surrounding area by implementing conservation measures, preserving critical habitats, and mitigating threats to the wetland ecosystem.
- Promote sustainable resource utilization by fostering responsible practices for activities such as
  fishing, agriculture, and tourism, ensuring the long-term productivity of the wetland while
  minimizing negative impacts on the environment.

#### Management structure

The overall responsibility for the successful implementation of the management plan will lie with a The Northern Areas Forest Department, including the Wildlife Division, and the Fisheries Department will also play crucial roles as stakeholders in implementing the management plan. They will collaborate with the CBO to execute various activities outlined in the plan, leveraging their expertise and resources to support wetland conservation efforts. However, the WWF-P and the Northern Areas administration will provide technical expertise and capacity-building support to the CBO for a specified period of one year. This support will involve developing an implementation strategy, conducting workshops and trainings on technical and management aspects, raising community awareness about wetland conservation, and establishing an endowment fund to support plan implementation.

Furthermore, a Joint Advisory Group will be established within the District Conservation Committee (DCC), comprising representatives from the WWF-P, local communities, concerned line departments, administration officials, and other NGOs operating in the area. This group will be led by a Chairman with a strong background in biodiversity and wetland issues. Its primary responsibilities will include providing technical and legal assistance as needed and conducting periodic evaluations to assess the progress of the plan's implementation. To ensure efficient on-ground execution, the CBO will have a managerial position, an assistant, and two field supervisors who will be responsible for overseeing the day-to-day activities related to wetland management, conservation, and community engagement.

The following sections set forth the responsibilities of each group.

#### **Community Based organization (CBO)**

It will be responsible for:

- Executing the activities outlined in the management plan, including wetland conservation, habitat restoration, and sustainable resource utilization.
- Engaging and mobilizing the local community to actively participate in wetland conservation efforts.
- Facilitating workshops, trainings, and awareness campaigns to build the capacity of community members in wetland management and conservation practices.
- Collaborating with relevant government departments, NGOs, and other stakeholders to ensure effective coordination and cooperation in plan implementation.
- Monitoring and evaluating the progress of the management plan, and making necessary adjustments or improvements based on feedback and data collected.
- Establishing and managing an endowment fund to support the financial sustainability of wetland conservation initiatives.
- Advocating for the protection and wise use of natural resources, and promoting the importance of wetland conservation to the wider community.
- Serving as a liaison between the community and other stakeholders, facilitating communication, and addressing any concerns or challenges that may arise during the implementation process.

#### **Forest and Wildlife Department**

It will be responsible for:

- Conservation and protection of biodiversity, including wildlife species and their habitats.
- Monitoring wildlife populations and implementing measures to ensure their sustainable management.
- Enforcing wildlife protection laws to prevent illegal hunting and poaching activities.
- Conducting surveys and assessments to gather data on the biodiversity of the Khushho Lake area.
- Implementing habitat restoration and conservation programs to preserve and enhance critical habitats.
- Collaborating with the CBO in identifying forest sites in need of rehabilitation and
- supervising sowing of seeds in identified sites
- Collaborating with other stakeholders to develop and implement sustainable land-use practices.
- Providing technical expertise and support in the development and implementation of the management plan.
- Promoting community awareness and participation in biodiversity conservation efforts.
- Undertaking research and monitoring activities to assess the effectiveness of conservation measures.

#### **Fisheries and Livestock Department**

It will be responsible for:

- Responsible for managing the fisheries resources in the lake. This involves monitoring fish
  populations, regulating fishing activities, and implementing sustainable fishing practices to ensure
  the long-term viability of the fishery.
- Providing guidance on proper animal husbandry, promoting sustainable grazing practices, and addressing any issues related to livestock health and welfare.
- Will assess the potential environmental impacts of fisheries and livestock activities on the lake and its ecosystem. This will help in developing strategies to minimize negative impacts and promote sustainable resource use.
- To conduct training programs and workshops for local communities and fishermen to enhance their knowledge and skills in sustainable fisheries and livestock management practices.
- Collaborate with other stakeholders, including the CBO, local communities, and relevant government departments, to ensure effective coordination and cooperation in the management of fisheries and livestock activities in the area.
- Monitor compliance with fisheries and livestock regulations, enforce relevant laws, and take
  appropriate actions against illegal practices or violations to ensure the sustainability of fisheries
  and livestock resources.
- Conduct research and collect data on fish populations, livestock productivity, and related ecological factors to inform management decisions and policies.
- Promoting sustainable livelihood opportunities related to fisheries and livestock, supporting local communities in generating income and improving their socio-economic well-being.

#### WWF-P

It will responsible for:

- Engage with local communities, government departments, NGOs, and other stakeholders to
  foster collaboration and ensure the involvement of all relevant parties in the management
  process. This includes conducting consultations, organizing workshops, and facilitating
  participatory decision-making processes.
- Provide technical expertise and capacity-building support to local communities, government
  officials, and other stakeholders involved in wetland management. This may include training
  programs, workshops, and knowledge-sharing initiatives to enhance their understanding of
  wetland conservation and sustainable management practices.
- Advocate for the protection of the Khushho Lake and its ecosystem at the policy level. This
  involves working with relevant government authorities to develop and implement policies and
  regulations that support the conservation and sustainable use of the wetland.

#### **NGOs**

It will responsible for:

- Engage with local communities, empowering them to actively participate in the management and
  conservation of the lake. They will work closely with communities to understand their needs,
  concerns, and traditional knowledge, ensuring that community voices are heard and incorporated
  into decision-making processes.
- Capacity-building support to local communities, government agencies, and other stakeholders involved in wetland management. This may include training programs on sustainable resource management, conservation practices, and alternative livelihood options to promote community resilience and reduce dependency on unsustainable practices.
- Raising awareness among local communities and the general public about the importance of wetland conservation. They will conduct awareness campaigns, workshops, and educational programs to promote a better understanding of the ecological significance of Khushho Lake and the benefits of its conservation.
- Collaborate with other organizations, including government agencies, academic institutions, and international conservation bodies, to leverage resources, share knowledge and experiences, and promote collaborative approaches to wetland management.

#### **Operational Objectives of the Plan**

Operational objective 1: Enhance biodiversity conservation through the protection and restoration of wetland habitats in the Khusho Lake area.

Management Target 1: Increase the extent of protected areas within the Khusho Lake area by designating specific zones for conservation, including critical habitats and areas of high biodiversity value.

Management Target 2: Implement habitat restoration projects to enhance the quality and functionality of wetland habitats, focusing on the restoration of degraded areas, the creation of nesting sites for migratory birds, and the reintroduction of native plant species.

Management Target 3: Develop and implement a comprehensive monitoring and assessment program to regularly evaluate the status of biodiversity in the Khusho Lake area, including the abundance and distribution of key species, and use the findings to inform adaptive management strategies for conservation and restoration efforts.

Operational objective 2: Promote sustainable use of wetland resources, including fisheries and livestock, to support local livelihoods while ensuring long-term ecological sustainability.

Management Target 1: Establish sustainable fishing practices and regulations in the Khusho Lake area, including catch limits, gear restrictions, and seasonal closures, to ensure the long-term viability of fish populations and maintain ecological balance.

Management Target 2: Promote sustainable livestock grazing practices in the wetland area, such as rotational grazing and the implementation of buffer zones, to minimize the negative impacts of overgrazing on wetland vegetation and water quality.

Management Target 3: Facilitate the development and implementation of alternative livelihood options for local communities, such as eco-tourism initiatives, handicraft production, or sustainable agriculture, to reduce dependence on wetland resources while enhancing income-generating opportunities in a sustainable manner.

Operational Objective 3: Foster community engagement and participation in wetland conservation efforts through awareness-raising, capacity building, and active involvement in decision-making processes.

Management Target 1: Conduct regular awareness campaigns and educational programs to increase community understanding of the importance of wetland conservation, highlighting the ecological value of the Khusho Lake area and its associated benefits to local communities.

Management Target 2: Provide capacity building opportunities, such as training workshops and skill development programs, to empower local communities with the knowledge and tools needed to actively participate in wetland conservation activities, including monitoring, restoration, and sustainable resource management.

Management Target 3: Establish a platform for community participation in decision-making processes related to wetland management, including the formation of community-based committees or forums, to ensure that local perspectives and traditional knowledge are considered in the development and implementation of conservation strategies and policies.

#### **Management Scenarios**

Operational objective 1: Enhance biodiversity conservation through the protection and restoration of wetland habitats in the Khusho Lake area.

Management Target 1: Increase the extent of protected areas within the Khusho Lake area by designating specific zones for conservation, including critical habitats and areas of high biodiversity value.

#### Activity: Expansion and Designation of Protected Areas

This activity aims to increase the extent of protected areas within the Khusho Lake area to enhance biodiversity conservation. It involves the careful identification and designation of specific zones for conservation, focusing on critical habitats and areas of high biodiversity value. The activity includes the following tasks:

**Conduct a comprehensive biodiversity assessment**: Assess the existing biodiversity in the Khusho Lake area, identifying key habitats and species that require protection.

**Identify priority areas for conservation**: Analyze the assessment results and consult with relevant experts and stakeholders to determine priority areas for protection based on ecological significance and vulnerability.

**Develop a protected area management plan**: Design a management plan that outlines the boundaries, regulations, and conservation objectives for the newly designated protected areas. This plan should consider the specific needs and requirements of the identified habitats and species.

**Engage local communities and stakeholders**: Involve local communities, government authorities, NGOs, and other relevant stakeholders in the process to ensure their participation, support, and ownership of the protected area designation.

**Establish monitoring and enforcement mechanisms**: Develop monitoring protocols and enforcement strategies to ensure compliance with the designated protected area regulations. This includes establishing a system for regular monitoring of biodiversity, addressing threats, and implementing necessary conservation measures.

**Implement awareness and education programs**: Conduct awareness campaigns and educational activities to inform local communities and visitors about the importance of protected areas, biodiversity conservation, and the role they can play in preserving the Khushho Lake ecosystem.

Management Target 2: Implement habitat restoration projects to enhance the quality and functionality of wetland habitats, focusing on the restoration of degraded areas, the creation of nesting sites for migratory birds, and the reintroduction of native plant species.

#### Activity: Habitat Restoration and Enhancement

This activity aims to implement habitat restoration projects within the Khushho Lake area to enhance the quality and functionality of wetland habitats. The focus is on restoring degraded areas, creating nesting sites for migratory birds, and reintroducing native plant species. The activity includes the following tasks:

**Habitat assessment and planning**: Conduct a detailed assessment of degraded areas within the Khusho Lake wetland to identify priority sites for habitat restoration. Develop a comprehensive restoration plan that outlines specific actions and targets for each site.

**Wetland vegetation restoration**: Implement measures to restore and enhance wetland vegetation by reintroducing native plant species, such as reeds, sedges, and water lilies. This may involve propagating and planting native vegetation, controlling invasive species, and improving soil quality through appropriate management practices.

**Creation of nesting sites**: Design and install artificial nesting structures, such as bird platforms, floating islands, or nesting boxes, to provide suitable nesting sites for migratory birds and enhance their breeding success. Consider the specific requirements and preferences of different bird species.

**Monitoring and adaptive management**: Establish a monitoring program to assess the effectiveness of habitat restoration efforts. Regularly monitor key indicators, such as vegetation cover, bird populations, and breeding success, to evaluate the success of the restoration projects. Adjust management strategies and techniques as necessary based on monitoring results.

**Collaboration with local communities and stakeholders:** Engage local communities, relevant government departments, NGOs, and experts in habitat restoration initiatives. Foster collaboration and community involvement through awareness campaigns, capacity building workshops, and volunteer programs to ensure long-term sustainability and community ownership of restoration projects.

**Evaluation and documentation**: Conduct regular evaluations of the habitat restoration projects to assess their ecological impact and identify lessons learned. Document the restoration process, including techniques used, challenges faced, and successful outcomes, to share knowledge and experiences with other wetland conservation initiatives.

Management Target 3: Develop and implement a comprehensive monitoring and assessment program to regularly evaluate the status of biodiversity in the Khushho Lake area, including the abundance and distribution of key species, and use the findings to inform adaptive management strategies for conservation and restoration efforts.

#### Activity: Biodiversity Monitoring and Assessment Program

This activity aims to develop and implement a comprehensive monitoring and assessment program to regularly evaluate the status of biodiversity in the Khusho Lake area. The program will focus on key species and their abundance, distribution, and ecological dynamics to inform adaptive management strategies for conservation and restoration efforts. The activity includes the following tasks:

**Designing the monitoring program**: Develop a robust and scientifically sound monitoring framework that identifies key biodiversity indicators, sampling protocols, and monitoring frequency. Consider the specific needs of different species and their habitats within the Khusho Lake area.

**Data collection and analysis**: Implement field surveys, including species inventories, population assessments, and habitat assessments, to collect relevant data on biodiversity. Utilize appropriate sampling methods, such as transect surveys, camera trapping, and acoustic monitoring, to gather accurate and representative data. Analyze the collected data using appropriate statistical and analytical techniques.

**Establishing baseline data**: Conduct initial assessments to establish baseline data on the abundance, distribution, and ecological status of key species within the Khusho Lake area. This baseline data will serve as a reference for future monitoring and enable the evaluation of conservation efforts over time.

**Regular monitoring and reporting**: Implement regular monitoring activities as per the designed monitoring program. Collect data on key species, their population trends, habitat conditions, and any changes observed over time. Generate periodic reports summarizing the findings and recommendations for adaptive management strategies.

**Stakeholder engagement and capacity building**: Engage local communities, relevant government departments, NGOs, and experts in the monitoring and assessment program. Provide training and capacity building workshops to stakeholders involved in data collection and analysis, ensuring their active participation and contribution to the program.

Adaptive management and decision-making: Utilize the monitoring data and assessment findings to inform adaptive management strategies for conservation and restoration efforts. Identify emerging threats, evaluate the effectiveness of existing conservation measures, and adjust management approaches accordingly. Promote evidence-based decision-making for the sustainable management of biodiversity in the Khusho Lake area.

Operational objective 2: Promote sustainable use of wetland resources to support local livelihoods while ensuring long-term ecological sustainability.

Management Target 1: Implement sustainable resource management practices in wetland areas to support local livelihoods while preserving the long-term ecological integrity.

#### Activity: Sustainable Resource Management Practices in Wetland Areas

This design activity aims to implement sustainable resource management practices in wetland areas to support local livelihoods while preserving the long-term ecological integrity.

#### **Resource Assessment and Monitoring**

- Conduct a comprehensive assessment of the wetland resources, including fisheries, vegetation, water quality, and other relevant components.
- Establish a monitoring system to regularly track the status and trends of these resources, including their ecological health and availability.

#### **Stakeholder Engagement and Collaboration**

- Engage with local communities, resource users, and relevant stakeholders to understand their resource needs, concerns, and traditional knowledge.
- Foster collaboration and partnerships with community-based organizations, government agencies, NGOs, and researchers to collectively address resource management challenges.

#### **Development of Resource Management Plans**

- Develop resource management plans that integrate ecological sustainability with the needs and aspirations of local communities.
- Identify appropriate and feasible strategies for sustainable resource use, conservation, and restoration, considering ecological, social, and economic factors.

Management Target 2: Promote sustainable livestock grazing practices in the wetland area, such as rotational grazing and the implementation of buffer zones, to minimize the negative impacts of overgrazing on wetland vegetation and water quality.

#### Activity: Sustainable Livestock Grazing Practices in Wetland Areas

This design activity focuses on promoting sustainable livestock grazing practices in the wetland area to minimize the negative impacts of overgrazing on wetland vegetation and water quality.

#### **Baseline Assessment of Grazing Practices**

- Conduct a baseline assessment of current livestock grazing practices in the wetland area.
- Assess the number of livestock, types of animals, grazing patterns, and their impacts on wetland vegetation and water quality.
- Identify areas prone to overgrazing and degradation.

#### **Stakeholder Engagement and Education**

- Engage with local livestock farmers, herders, and community representatives to raise awareness about the importance of sustainable grazing practices.
- Organize workshops, meetings, and training sessions to educate stakeholders about the negative impacts of overgrazing on wetland ecosystems and the benefits of sustainable grazing practices.
- Provide information on rotational grazing techniques and the establishment of buffer zones to protect sensitive wetland areas.

#### **Development of Grazing Management Plans**

- Collaboratively develop grazing management plans with input from stakeholders.
- Designate rotational grazing areas to allow for rest and recovery of vegetation in certain sections of the wetland.
- Determine appropriate stocking rates based on the carrying capacity of the wetland ecosystem.
- Identify and establish buffer zones around wetland vegetation and water bodies to protect them from excessive grazing.

#### **Incentive Programs and Support**

- Develop incentive programs to encourage and reward livestock farmers and herders who adopt sustainable grazing practices.
- Provide support in the form of technical assistance, training, and access to alternative livestock feed sources during periods of restricted grazing.
- Collaborate with local authorities, NGOs, or agricultural agencies to secure funding and resources for implementing the incentive programs

#### **Community Outreach and Education**

- Conduct awareness campaigns targeting the wider community to promote understanding and support for sustainable livestock grazing practices.
- Use various communication channels such as community meetings, pamphlets, and local media to disseminate information on the importance of wetland conservation and sustainable grazing.

Management Target 3: Facilitate the development and implementation of alternative livelihood options for local communities, such as eco-tourism initiatives, handicraft production, or sustainable agriculture, to reduce dependence on wetland resources while enhancing income-generating opportunities in a sustainable manner.

#### Activity: Development of Alternative Livelihood Options

This design activity aims to facilitate the development and implementation of alternative livelihood options for local communities in a sustainable manner, reducing their dependence on wetland resources while enhancing income-generating opportunities.

#### **Livelihood Assessment and Mapping**

- Conduct a comprehensive livelihood assessment to identify the existing skills, resources, and potential of the local community.
- Map out the available natural and cultural assets that can be leveraged for alternative livelihood options.
- Identify the community's interests, aspirations, and capacity for undertaking new ventures.

#### Stakeholder Engagement and Partnership Building

- Engage with community members, local businesses, relevant government agencies, NGOs, and other key stakeholders.
- Organize workshops and meetings to discuss the development of alternative livelihood options.
- Foster partnerships to leverage expertise, funding, and resources for sustainable livelihood initiatives.

#### **Feasibility Study and Planning**

- Conduct feasibility studies for potential alternative livelihood options, considering market demand, resource availability, and environmental sustainability.
- Evaluate the economic viability, social impact, and ecological implications of each option.
- Develop detailed business plans for the selected alternatives, outlining financial projections, marketing strategies, and implementation timelines.

#### **Capacity Building and Training**

- Provide capacity building and training programs to equip local community members with the necessary skills and knowledge for their chosen alternative livelihood options.
- Offer training in eco-tourism management, handicraft production techniques, sustainable agriculture practices, or other relevant fields.

• Facilitate workshops on entrepreneurship, marketing, and financial management to ensure the success and sustainability of the initiatives.

#### **Access to Resources and Funding**

- Facilitate access to resources, including land, equipment, and raw materials, for the implementation of alternative livelihood initiatives.
- Identify and secure funding sources, grants, or microfinance options to support the development and establishment of the chosen alternatives.
- Provide assistance with grant applications and help community members navigate relevant funding opportunities.

#### **Marketing and Promotion**

- Develop marketing strategies and promotional materials to raise awareness about the alternative livelihood options and attract visitors or customers.
- Utilize various marketing channels, such as online platforms, social media, local events, and collaborations with tour operators or retailers.
- Highlight the unique cultural and natural heritage of the area as part of the marketing efforts.

Operational Objective 3: Foster community engagement and participation in wetland conservation efforts through awareness-raising, capacity building, and active involvement in decision-making processes.

Management Target 1: Conduct regular awareness campaigns and educational programs to increase community understanding of the importance of wetland conservation, highlighting the ecological value of the Khusho Lake area and its associated benefits to local communities.

#### Activity: Awareness Campaign and Educational Programs for Wetland Conservation

This design activity focuses on conducting regular awareness campaigns and educational programs to increase community understanding of the importance of wetland conservation, highlighting the ecological value of the Khusho Lake area and its associated benefits to local communities.

#### **Community Needs Assessment**

- Conduct a needs assessment to understand the knowledge, attitudes, and perceptions of the local community regarding wetland conservation.
- Identify the specific information gaps, misconceptions, or areas where additional awareness is needed.

#### **Awareness Campaign Planning**

- Develop a comprehensive awareness campaign plan based on the needs assessment findings.
- Determine the key messages, target audience, communication channels, and timeline for the campaign.
- Identify suitable communication mediums such as posters, brochures, social media, community events, and local media outlets.

#### **Information Dissemination**

- Implement the awareness campaign by disseminating information about wetland conservation and the ecological value of Khusho Lake.
- Develop and distribute educational materials, such as brochures, pamphlets, and posters, highlighting the importance of wetlands and their benefits.
- Utilize social media platforms, local radio stations, and community gatherings to reach a wider audience and promote engagement.

#### **Educational Programs and Workshops**

- Organize educational programs and workshops to provide in-depth knowledge about wetland conservation and the specific ecological value of Khusho Lake.
- Collaborate with experts, researchers, and environmental organizations to deliver informative sessions on wetland ecology, biodiversity, and ecosystem services.
- Include interactive activities, demonstrations, and field visits to enhance community learning and engagement.

Management Target 2: Provide capacity building opportunities, such as training workshops and skill development programs, to empower local communities with the knowledge and tools needed to actively participate in wetland conservation activities, including monitoring, restoration, and sustainable resource management.

#### Activity: Capacity Building for Active Community Participation in Wetland Conservation

This design activity focuses on providing capacity building opportunities, such as training workshops and skill development programs, to empower local communities with the knowledge and tools needed to actively participate in wetland conservation activities, including monitoring, restoration, and sustainable resource management.

#### **Needs Assessment and Stakeholder Consultation**

- Conduct a needs assessment to identify the specific capacity building needs of the local communities regarding wetland conservation.
- Engage in stakeholder consultations with community members, local organizations, and experts to gather insights and perspectives on capacity building requirements.

#### **Training Workshop Design and Planning**

- Develop a comprehensive training workshop plan based on the identified needs and priorities.
- Determine the specific topics and skills to be covered, such as wetland monitoring techniques, habitat restoration methods, sustainable resource management practices, and community engagement strategies.
- Set clear learning objectives, session outlines, and activities for each workshop.

#### **Training Workshop Implementation**

- Conduct the training workshops in collaboration with relevant experts, organizations, or trainers.
- Deliver interactive and hands-on sessions to enhance learning and skills development.

• Provide participants with practical tools, resources, and materials to support their engagement in wetland conservation activities.

#### **Skill Development Programs**

- Develop skill development programs tailored to the specific needs and interests of the local communities.
- Offer training programs on topics such as wetland data collection and analysis, habitat restoration techniques, sustainable agriculture or fisheries practices, and environmental education.
- Provide opportunities for participants to practice and apply their newly acquired skills in real-world wetland conservation projects.

#### **Monitoring and Evaluation of Capacity Building Programs**

- Establish a monitoring and evaluation framework to assess the effectiveness and impact of the capacity building programs.
- Collect feedback from participants to evaluate their knowledge gained, skills developed, and confidence levels in engaging in wetland conservation activities.
- Use the findings to make improvements to future capacity building initiatives.

#### **Networking and Knowledge Sharing**

- Foster networking and knowledge sharing opportunities among participants and stakeholders involved in wetland conservation.
- Facilitate community exchanges, workshops, or forums where participants can learn from each other's experiences, share best practices, and build collaborative networks

Management Target 3: Establish a platform for community participation in decision-making processes related to wetland management, including the formation of community-based committees or forums, to ensure that local perspectives and traditional knowledge are considered in the development and implementation of conservation strategies and policies.

#### Activity: Community Participation in Wetland Management Decision-Making

This design activity focuses on establishing a platform for community participation in decision-making processes related to wetland management. The objective is to ensure that local perspectives and traditional knowledge are considered in the development and implementation of conservation strategies and policies.

#### **Stakeholder Mapping and Engagement**

- Conduct a stakeholder mapping exercise to identify relevant community members, local organizations, indigenous groups, and other stakeholders with a vested interest in wetland management.
- Engage with these stakeholders through consultations, meetings, and outreach activities to foster relationships and build trust.

#### **Formation of Community-Based Committees or Forums**

- Establish community-based committees or forums dedicated to wetland management and conservation.
- Facilitate the selection or election of representatives from the local community to serve on these committees or forums.
- Ensure diverse representation, including individuals with traditional knowledge, local experts, women, and marginalized groups.

#### **Capacity Building for Community Representatives**

- Provide capacity building opportunities for community representatives serving on the committees
  or forums.
- Offer training and workshops on topics such as wetland ecology, conservation principles, policy and governance, participatory decision-making, and conflict resolution.
- Empower community representatives with the necessary knowledge and skills to actively contribute to decision-making processes.

#### **Regular Meetings and Consultations**

- Schedule regular meetings and consultations with the community-based committees or forums.
- Create a safe and inclusive space for open dialogue, information sharing, and active participation in wetland management decision-making.
- Ensure that community representatives have access to relevant information, reports, and data to inform their decision-making process.

#### **Incorporation of Traditional Knowledge and Local Perspectives**

- Recognize and value the traditional knowledge and local perspectives of community members.
- Encourage community representatives to share their traditional knowledge, insights, and experiences related to wetland management.
- Ensure that traditional knowledge and local perspectives are considered alongside scientific research and expertise in the decision-making process.

#### **Collaboration with External Experts and Agencies**

- Facilitate collaboration between community-based committees or forums and external experts, government agencies, NGOs, and academic institutions.
- Foster knowledge exchange, joint research initiatives, and capacity building partnerships to support informed decision-making and enhance the effectiveness of conservation strategies.

#### **Plan Monitoring and Evaluation**

#### 1. Monitoring and evaluation

#### a) Monitoring

Evaluation will be based on monitoring mechanisms carried out on the following levels:

#### Monitoring by management:

Project staff will formulate biannual work plans in consultation with concerned line departments. Project progress will be monitored against these work plans and will be reported in bi-annual and annual reports and submitted to management. Copies will also be submitted to concerned line departments and WWF-P. There will also be a final project completion report explaining the achievements and impacts at the end of the project and to what extent the project objectives were met. Project management will review each of these reports.

**Monitoring by communities**: Community based monitoring is important in determining the progress of the project. When communities monitor the progress of the project it leads to further participation and interest in the project. The CBO will organize and train local communities into conducting this monitoring. Therefore communities would be involved in monitoring:

- Re-forestation and rehabilitation of pastures
- Harvesting levels of timber and fuel wood
- Grazing pressure in pastures in the immediate catchment of the wetland
- Usage of lake and stream water for various purposes such as irrigation, washing, bathing
- Agricultural practices such as farming near the wetland

#### **Annual and Final Evaluations**

These independent evaluations will be carried out to assess the thoroughness of the information provided through the above mentioned monitoring mechanisms. For this purpose the Joint Advisory Group will be requested by the CBO to independently evaluate the plan on an annual and final basis. The evaluations will determine the progress being made towards achieving management targets and review any problems encountered during the implementation. The Joint Advisory Group will also make suggestions for modification and/or revisions to the management plan. This will help in achieving synchronization and conformity between the management plan and on-the-ground situation. The Joint Advisory Group will also appoint an expert to modify and revise the management plan based on its evaluation report. The revised management plan will be implemented after review and adoption by the management. This process will be repeated each subsequent year.

# Appendix I

# Work Plan for the Five-Year Management Plan

S.No	Activities	Responsibility	Duration		
			Immediate	Mid-Term	Long- Term
1.	Expansion and Designation of Protected Areas				
1.1	Conduct a comprehensive biodiversity assessment	FD,RD	X	-	-
1.2	Identify priority areas for conservation	FD,RD	X		
1.3	Identify priority areas for conservation	FD,RD, WIILDLIFE	Х		
1.4	Develop a protected area management plan	FD,RD	Х		
1.5	Engage Local Communities and Stakeholders	CBOs	X		
1.6	Establish monitoring and enforcement mechanism	FD,EPA,RD	X		
1.7	Implement awareness and education program	CBOs	Х		
2	Habitat Restoration	and Enhancement			
2.1	Habitat Restoration and Enhancement	FD,L&F, WILDLIFE	X		
2.2	Habitat assessment and planning	FD,RD		X	
2.3	Wetland vegetation restoration	FD,RD,CBOS	Х		
2.4	Creation of nesting sites	FD,CBOS	Х		
2.5	Monitoring and adaptive management	FD,EPA	Х		

2.6	Collaboration with	CBOS	Х			
	local communities					
	and stakeholders					
2.7	Evaluation and	FD,RD	X			
	documentation					
3	Biodiversity Monitoring and Assessment Program					
3.1	Designing the	FD,RD,EPA	X			
	monitoring					
	program					
3.2	Data collection and	FD,RD,WWF-P	Х			
	analysis	== ==	.,			
3.3	Establishing	FD,RD	Х			
2.4	baseline data	ED DD CDOC				
3.4	Regular monitoring and reporting	FD,RD,CBOS	X			
3.5	Stakeholder	CBOS	Х			
3.3	engagement and	СБОЗ	^			
	capacity building					
4	Sustainable Resource	e Management Pra	ctices in	Wetland A	reas	
4.1	Resource	FD,RD,WWF-P	X			
	Assessment and	15,115,11111	^			
	Monitoring					
4.2	Stakeholder	Livestock	and		Х	
	Engagement and	Fisheries				
	Collaboration	Department,				
4.3	Development of	L &F, CBOS	Х			
	Resource					
	Management Plans					
4.4	Resource	FD,RD,L&F,EPA	X			
	Assessment and					
	Monitoring					
5	Sustainable Livestoc				I	
5.1	Baseline	FD,CBOS	X			
	Assessment of					
	Grazing Practices					
5.2	Stakeholder	FD,CBOS,L&F	Х			
	Engagement and					
	Education					
5.3	Development of	FD,L&F	X			
	Grazing					
	Management Plans					
5.4	Development of	FD,L&F			X	
	Grazing					
	Management Plans	manding the little of	0			
6	Development of Alte	ernative Livelihood	<b>options</b>			

6.1	Livelihood Assessment and Mapping	FD,RD	X			
6.2	Stakeholder Engagement and Partnership Building	FD,CBOS,RD	X			
6.3	Feasibility Study and Planning	RD,FD,CBOS	Х			
6.4	Capacity Building and Training	RD,FD	Х			
6.5	Access to Resources and Funding	RD,FD,WWF		X		
6.6	Marketing and Promotion	FD,CBOS			X	
7	Awareness Campaig	n and Educational	Programs for W	etland Conserv	ation	
7.1	Community Needs Assessment	FD,CBOS,RD	X			
7.2	Awareness Campaign Planning	CBOS		Х		
7.3	Information Dissemination	FD,RD,EPA	Х			
7.4	Educational Programs and Workshops	EPA,FD	Х			
7.5	Community Needs Assessment	CBOS,FD	Х			
8	Capacity Building fo	Active Community	y Participation	in Wetland Con	servation	
8.1	Needs Assessment and Stakeholder Consultation	FD,RD	Х			
8.2	Training Workshop Design and Planning	CBOS,FD	X			
8.3	Training Workshop Implementation	FD,RD		Х		
8.4	Skill Development Programs	FD,RD,EPA	Х			
9	Community Participation in Wetland Management Decision-Making					
9.1	Stakeholder Mapping and Engagement	FD,EPA,RD	Х			
9.2	Formation of Community-Based	CBOS	Х			

	Committees or Forums				
9.3	Regular Meetings and Consultations Incorporation of Traditional	FD,RD,CBOS		X	
9.4	Knowledge and Local Perspectives Collaboration with External Experts and Agencies	CBOS,WWF,FD	X		