

ARTICLE

REVIEW OF ENVIRONMENTAL POLICIES AND OTTER CONSERVATION IN NEPAL

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Abstract: Nepal has several policies and legal provisions for species conservation, but no specific protection for otter species. This study aims to identify the legal provisions of Nepal. Protecting riverine animals, including otters, by analyzing legal documents and publications describing environmental policies as they apply to the conservation of riverine species. The review suggests that development projects in the country are not following the provisions of environmental impact studies during project formulation, implementation, or monitoring. Established policies emphasize the conservation, restoration, and effective management of wetlands for biodiversity and environment conservation. Minimal effective implementation of the unified Wetland Acts and regulations and a lack of coordination among related agencies are the major gaps in the conservation of otters in Nepal.

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INTRODUCTION

Wildlife habitat has degraded rapidly in the last few decades in Nepal, with a heavy loss of wildlife. Rapid human population growth and infrastructure development has meant the gradual elimination of many large mammals from their historical ranges.

The weakness of legal provisions for otter conservation in Nepal has led to uncertainty for long-term conservation of the three species said to inhabit the country. Both Eurasian and Smooth-coated otters are protected under the Aquatic Life Protection Act, 1961 (Acharya and Rajbhandari, 2011a), which prohibits the catching, killing and harming of certain aquatic animals. Small-clawed otters have no protective provisions. Success in conserving threatened species depends on an understanding of their basic

biology, including distribution, abundance, genetic diversity, and environmental variables affecting their survival, in addition to legal protections (Kruuk, 2006; Lee and Hung, 2007; Acharya and Rimal, 2007). However, the successful application of scientific knowledge is affected by choices made for the overall interests and welfare of society (Gutleb, 2007). In this study, we systematically review the legal protections afforded otter species in Nepal.

Three species of otter are reported to inhabit Nepal: the Eurasian otter (*Lutra lutra*), Smooth-coated otter (*Lutrogale perspicillata*) and Small-clawed otter (*Aonyx cinereus*) (Acharya and Rajbhandari, 2011b), although knowledge of the status of these species is uneven and limited.

The status of these three species is not well established in Nepal, but it is clear that there have been continuous population declines (Acharya, 1997, 2006; Acharya and Rajbhandari, 2011b; Basnet et al., 2020 a,b). The Eurasian otter has been documented in Begnas and Rupa Lakes (Acharya and Gurung, 1994) and more recently in the West Seti, Berekot, Tubang, Utterganga, and Pelma Rivers (Shrestha et al. 2021a; b) and is thought to be widely distributed in mountain rivers and wetlands (Acharya and Gurung, 1994; Yonzon, 1998). The Smooth-coated otter inhabits mainly protected areas in major lowland river basins of the Terai region. Small-clawed otters were last recorded in 1839 (Hodgson, 1839), and are perhaps extirpated from Nepal.

METHODOLOGY

Nepal laws and regulations were systematically reviewed with relevance to environmental policies directly or indirectly influencing the conservation of aquatic species, as well as literature in relevant databases (Table 1). Both published and unpublished case studies and reports were reviewed, and experts and stakeholders were directly engaged.

Table 1. Nepal laws and relevant literature that were reviewed.

Legal frameworks reviewed	Thematic literature reviewed
Three Treaties	Water: relevant pollution and its effect on otter conservation
Seven Acts	Forests: Forest fragmentation and vegetation loss
Twenty-two	Climate Change: Ecological alterations
Policies (Rules and Regulations, Guidelines and Manual)	Human activities: Human encroachment such as settlements, sand and gravel mining, industrial and municipal pollution, noise and infrastructural development

The following four steps were taken in the review:

Step 1: Framing the questions

Research questions were specified via expert discussion and the research committee.

Step 2: Identifying relevant laws

A search for laws pertinent to conservation of otters was undertaken, on government agency websites and published policy documents including relevant treaties, and discussed with experts for relevancy.

Step 3: Identifying appropriate literature

A literature review pertaining to water issues (relevant pollution and its effect to otter conservation), forests (forest fragmentation and vegetation loss), climate change, ecological alterations, and human activities (encroachment, settlement, mining, industrial and municipal pollution, noise and infrastructural development) were reviewed in consultation with experts and stakeholders.

Step 4: Summarizing the outcome of the study

A synthesis was developed, consisting of links among reviewed legal documents, identifying otter conservation gaps, and likely reasons for these gaps and suggestions for mitigation.

LEGAL ASPECTS OF OTTER CONSERVATION IN NEPAL

Nepal joined the Convention on Biological Diversity (CBD) in 1993. Aichi Biodiversity Targets (ABT) were also incorporated into national actions through national indicators, integration of biodiversity across sectors, and legal and institutional preparedness (GoN/ MoFE, 2018a). The Nepal Biodiversity Strategy Implementation Plan (NBSIP) prioritizes wetland ecosystems for conservation. Focused sectoral strategies of wetland management have been implemented, for example, in internationally significant Ramsar sites, but the NBSIP has not prioritized a conservation strategy for otter species (HMGN/MoFSC, 2006). The Nepal Biodiversity Strategy and Action Plan (NBSAP) (2014-2020) focuses on priority actions such as controlling mining of sands and gravels from the rivers, conserving the threatened dolphin, crocodile and native fish (GON/MoFSC, 2014). Wildlife conservation outside protected areas is normally the responsibility of the Department of Forests and Environment, which manages most of Nepal's public lands. As the national authority of biodiversity conservation, this Department has been engaging in biodiversity conservation under the framework of the Biodiversity Strategy and Action Plan. The Department of National Parks and Wildlife Conservation is responsible for protected area management and biodiversity conservation.

The Government of Nepal also formulated the National Water Resources Policy in 2020 (NWRP 2020). The NWRP has 11 strategies, of which two are relevant to conservation (GoN/MoEWRI, 2020):

1. Develop appropriate institutional arrangements for conservation, development, management, and regulation of water resources,
2. Promote the participation of the private sector and concerned stakeholders in the conservation and development of water resources.

The Water Resources Strategy (WRS, 2002) in Section 6.3 focuses on the management of watersheds and aquatic ecosystems (HMGN/WECS, 2002). Similarly, the Water Resources Act (WRA, 1992) requires an environmental study for water resource and electricity projects (HGN, 1992). The Water Resources Rules (WRR, 1993) requires an environmental impact analysis, and measures to be taken to minimize the adverse effect of a project on the environment, and for the conservation of aquatic animals and the environment (HMGN, 1993).

Sections 8.4 and 8.5 of National Forest Policy (NFP 2018) emphasize the in-situ and ex-situ conservation and management of vulnerable, endangered and protected wildlife and plants (GoN/MoFE, 2018b). They emphasize the conservation, management and sustainable use of wetlands. The following are biodiversity specific

policies: the Soil and Watershed Conservation Act (SWCA 1982), which prohibits activities on land that generate vulnerabilities (GoN/MoLJPA, 2020 b), the Forest Act (2019), and the Forest Regulation (1995) which prohibits the capture or killing of wildlife in violation of prevailing law and to extract or transport rocks, soil, boulders, pebbles, and sand from a river flowing through a forest (HMGN, 1995; GoN/MoLJPA, 2020 b). The Hydropower Development Policy (HDP) 2001 enforces hydropower projects to release water at least 10% of the minimum monthly average discharge of the river or the minimum required amount as identified in the environmental impact study report (GoN/MoLJPA, 2001). Poor enforcement of laws and of effective implementation of these provisions, together with lack of specific programs focused on conservation of aquatic vertebrates in the 2019 Forest Act outside protected areas, are considered important gaps in otter conservation.

An Environmental Impact Study (EIA) is mandatory in the Environment Protection Act (EPA) (GoN/MoLJPA, 2020 b), whose rules require a brief environmental study and an environmental impact assessment in connection to extraction of sands, stones and soil from river banks. The construction of hydroelectric projects of more than 1-25 megawatts and > 25 megawatts capacity in a forest conservation area, conservation area, buffer zone, environment conservation area or Ramsar sites require an Initial Environmental Examination and Environmental Impact Assessment respectively (GoN/MoLJPA, 2020a; Nepal Gazette, 2020). However, these laws and monitoring lack strict enforcement.

The Aquatic Life Protection Act (ALPA 1961) provides for some legislative protection of the habitats of aquatic species. Section 3 of the ALPA punishes any party introducing poisonous or explosive materials into a water source, or destroying any dam, bridge, fish ladder or water system with the intent of catching or killing aquatic life. Although both noxious and explosive materials are increasingly used in Nepal, there is no reported case of a person being persecuted under the Act (Belbase, 1999). Nor has there ever been a reported case of prosecution for a breach of ALPA. Similarly, Section 4 of the ALPA prohibits closing the doors of or destroying a fish ladder, dam, bridge or water system with intent to catch or kill aquatic life. Under Section 4(a), the government is empowered to prohibit catching, killing and harming certain kinds of aquatic animals by notification in Nepal Gazette, and further empowers the government to prohibit catching, killing, and harming certain kinds of aquatic animals in a specified season and condition. Section 5 of ALPA also empowers the government to prohibit catching, killing and harming aquatic animals in certain specified water bodies by publishing a notification in the Nepal Gazette, without written permission of the Government or local authority, and the government has authority over aquatic animals in these water bodies. However, a notice under this Section has never been published by the government. A serious omission of the Act is that there is no government agency responsible for its implementation and enforcement (Belbase, 1997, 1999). A 2002 amendment to the 1961 ALPA prohibits the hunting and killing of Eurasian and Smooth-coated otters, both within and outside protected areas (Nepal Gazette, 2002). The Small-clawed otter is not afforded protection by the ALPA. These amendments could be crucial in preserving the biodiversity of aquatic ecosystems through interagency cooperation. The lack of strict enforcement of legal provisions and lack of monitoring of implementation of provisions of this act within and outside the protected areas threaten otter populations.

The goals of National Parks and Wildlife Conservation Act (NPWCA) prohibits possession without a permit of 27 mammal species, but no otter species (Government of Nepal, 1973). Section 5 of the Act prohibited various activities such as hunting, land

clearing, building dwelling, grazing livestock, cultivation, cutting or removing plants. Restrictions were imposed on carrying weapons, explosives, or any item that could be used to kill or injure wildlife, such as nets, poison, and baits as were prohibitions against hunting or harassing wildlife. The Act also imposed restrictions against extraction of stones, sand, gravels, soil, and minerals, diverting or blocking the river channel or allowing any water source to bring poisonous materials into waters that flow into a park (GoN/MoLJPA, 2020b). The NPWCA was later amended to include buffer zones and to raise revenues for habitat and conservation activities relevant to otters (Acharya and Rajbhandari, 2012).

The Wildlife Reserves Rules (WRR 1977), Rule 6, prohibits encroachment of land, livestock grazing, extraction of sand and stones, diverting river channels and use of explosive materials into waters that flow into a reserve (GoN/MoLJPA, 2020b).

The Mountain National Park Rules (MNPR), Rule 7, prohibits building dwellings, cultivation, encroachment, livestock grazing, removing plants, extracting sand, stones and boulders, diverting river channels. Rule 11 prohibits fishing within the rivers of parks without a permission letter. Fishing by local residents was allowed only by using fishing rod but restricts the use of other materials (GoN/MoLJPA, 2020 b).

The Conservation Area Management Rules (CAMR 1996), Section 5, and Section 1 of Conservation Area Government Management Rules (CAGMR, 2001) prohibits wildlife hunting, destruction of habitat, extraction activities and use of electric current in the river to kill and catch fish (GoN/MoLJPA, 2020b). The Buffer Zone Management Regulations Rules (BZMR 2005), Section 5, prohibits extraction of stones, soil, sand or minerals, the use of poisons or explosives in the river draining along the buffer zones, and hunting and harming of wildlife (GoN/MoLJPA/Law Book Manage Committee, 2020b). The Buffer Zone Guideline (Mapdanda 2005) has provisions for stone, gravel, sand, but not for the use of explosives and not in environmentally sensitive habitats (GoN/MoFSC/DNPWC, 2016).

The Policies on Physical Infrastructures Construction and Operation within Protected Areas (2008) has some provisions for hydroelectric projects construction outside parks (except < 1 megawatt) and mandates a minimum of 10% of the monthly discharge during the construction and operation. In protected areas, while diverting or blocking the river, a project must release at least 50% of the natural flow. In the process of diverting or blocking the river for electricity production, the project must release at least 50% of the monthly discharge (GoN/MoFSC/DNPWC, 2016). The Nepal government approved the National Ramsar Strategy and Action Plan (NRSAP 2018-2024) to fulfill the obligations of Ramsar Convention and is congruent with both the Sustainable Development Goals and the Aichi Biodiversity Targets (GoN/MoFE, 2018b). Ramsar Convention wetlands are broadly defined, and any project activities near Ramsar sites trigger special attention for conservation. Nepal is a signatory to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). At the 2019 CITES meeting, the Smooth-coated otter and Small-clawed otter were shifted to Appendix I from Appendix II. This listing allows no trade in the species, due to steep population declines throughout their range. A motion of the 2020 IUCN World Conservation Organization Congress describes a “high risk of extinction” of the Smooth-coated otter (IUCN, 2020). Lowland Nepal offers prime habitat for Smooth-coated otters and should be prioritized for its conservation. Nepal-specific CITES-enabled legislation guides the National Parks and Wildlife Conservation Act, 1973 (NPWC Act); the Forest Act, 1993; The Export Import (Control) Act, 1961; The Customs Act, 2007; The Police Act, 1995 and The Environment Protection Act, 1997. The CITES Act 2017 has made provisions for a maximum of 500,000 rupees fine and

imprisonment of 10 years if any person is convicted for the crime of killing otters in Nepal (GoN/MoLJPA, 2020b). Lack of effective law enforcement and stringent implementation of provisions of CITES legislation continues to threaten otter species in Nepal.

The National Climate Change Policy (NCCP 2019) contributes to the sectoral policies concerned with wetlands at risk of climate change and actions to conserve rare and endangered wildlife and plants and sensitive ecological systems (GoN/MoFE, 2019b). It includes measures to minimize adverse impacts on river ecosystems while generating hydroelectricity by selecting environments that factor in climate change.

The National Environment Policy (NEP) controls pollution, manages wastes and promotes greenery so that citizens can live in a healthy environment (GoN/MoFE, 2019c). Some of the policies, strategies and work policies outlined in 8.1 Section highlight pollution control via point and nonpoint sources. The policy emphasizes the importance of many stakeholders in environment-related decision making.

POLICY GAP SYNTHESIS

Lack of stringent enforcement to control mining, conservation strategy otters, monitoring of implementation of provisions of EIA (especially requirements of key indicator species of river basins) in development projects and effective implementation of NWP (2012) are the important gaps in the conservation of riverine biodiversity. The inclusion of biodiversity features into the EIA policy has increased significantly, but several weaknesses persist, including the continued absence of substitution solution assessment, a current analysis of cumulative impacts, the evaluation of impacts on common species, inclusion of an ecological network scale, and the lack of monitoring and evaluation measures (Bigard et al., 2017).

Enactment of separate wetland conservation legislation is required for providing a legal base for the NWP (Belbase, 2007), but as of 2021, the national ABT target in controlling industrial pollution in five major rivers and another 5 major wetlands progressed at an insufficient rate towards the target (MoFE, 2018a).

The impact of pollutants on aquatic life is poorly known in the river systems of Nepal. Protected areas should be a priority in designing water quality monitoring protocols (Acharya and Rajbhandari, 2014). For example, aquatic predators face formidable pressures from industrial pollution in the Narayani River, resulting in loss of habitat and food scarcity, and perhaps the reason for the disappearance of otters from this river (Acharya and Lamsal, 2010). Lack of monitoring of effects of discharges from industries into the river and lack of monitoring of EIA provisions of water resource projects has seriously threatened otter populations. Effluents from industries are being directly discharged into the Narayani and other rivers, causing bioaccumulation of pollutants in the prey-base and also causing loss of habitats. Research on levels of water pollution and its effects on aquatic life including otters is needed (Acharya and Rajbhandari, 2011a, 2012).

Some conservation progress has been made as the government has prepared national action plans for endangered species such as tiger, rhino, red panda, gaur, dolphin, and gharial in line with NBSAP policy framework (GoN/MoFE, 2018a; DNPWC, 2018; DNPWC & DoFSC, 2021). Yet, no similar effort has been made to formulate an otter action plan. Protection of otters is not given priority in achieving the national objectives of the Aichi Biodiversity Targets. Considerations of habitat requirements, habitat restoration, population recovery, improvement of habitats and monitoring of habitats and population should be given priority to ensure its long-term conservation. The NBSAP plan gave little priority to the conservation of otters and the

NBS 2002 does not focus on specific programs on ecosystem requirements and conservation measures for threatened, vulnerable and endangered key aquatic species. There has been no specific focus on habitat requirements, habitat restoration, and recovery of population and preparation of conservation strategies for otter conservation in NBSIP as well. Development projects are not following the provisions of EIA during project formulation, implementation, and monitoring, and there is weak incorporation of Ramsar Convention requirements in this policy.

Lack of maintaining optimal volume of water for aquatic species or monitoring of water quality, ineffective enforcement of policies and lack of incorporation of ecosystem requirements of otters in EIAs of development projects are important gaps in NWRP 2020. The dams constructed along rivers in many parts of the country have caused the loss of prime otter habitats and led to fragmentation of small isolated populations as well as reducing food availability. All river-based development projects, including dam constructions, while conducting an EIA, should focus on effects on otters and other species (Acharya and Rajbhandari, 2011a). Ineffective enforcement of laws and regulations and monitoring of water quality hamper protection of otters. There is no specific focus on effects of industrial pollution on otter habitats in WRS 2002.

The NFP 2018 does not specify conservation measures and ecosystem requirements for the long-term conservation of indicator species in river basins within protected areas/national forest areas. Lack of stringent enforcement of laws and lack of effective implementation of provisions and lack of specific programs focused on conservation of aquatic vertebrates in Forest Act 2019 outside protected areas are important gaps in otter conservation.

The SWCA Act (1982) does not explore any conservation measures and ecosystem requirements for the long-term conservation of indicator species in watershed areas of river basins.

Weak enforcement of regulations and ineffective monitoring provisions of HP Policy 2001 threatens the otter species in Nepal. Hydropower Projects can cause irreversible loss of otter habitats, i.e., decreased food resources and destruction of otter dens (Bouros, 2015). The HIAM 2018 focuses only on the diversity of fish populations but does not reflect on fish dependent mammals such as otters. The lack of enforcement of laws and lack of effective implementation and monitoring of provisions of EPR Rules 2020 threaten otters. The Conservation Area Management Rules (1996) does not specify any conservation measures and ecosystem requirements of indicator species in river basins.

Ineffective implementations of AAPA provisions, lack of incorporations of Ramsar Convention requirements, NWP provisions, lack of coordination between government agencies, lack of attention to the major threats faced by fishers and fishing activities, lack of designated agency to administer and enforce AAPA, all severely threaten otter populations. No agency has been given the responsibility of administering and enforcing AAPA, a clear obstacle for the protection of aquatic species (Belbase, 1999). Revision of AAPA and review of compliance with legislation and regulation and incorporation of ecosystem requirements of otters are urgently needed.

Attention to otter species in Nepal's parks has been overshadowed by conservation measures for charismatic species such as tiger and rhinoceros. Park managers are not enforcing laws for aquatic biodiversity in provisions of EIA/IEE in sand and stone mining and industrial pollution. Park management should monitor the implementation of EIA reports and assess the impacts of construction of diversion channels, irrigation intakes, drainage and small impoundment, and bridges (Acharya, 2017).

Ramsar Convention provisions as well as habitat requirements of otters should be incorporated into the wetlands of the Terai. Nepal is signatory to the Ramsar Convention in 1988, but current legislation in Nepal precludes optimum fulfillment of the Convention's requirements (Belbase, 2007). There is a need to focus on protection of a wide range of habitats in lowland Ramsar sites for enhancement of otter and wetland conservation (Brooks et al., 2011), for example, into the Koshi Tappu Wildlife Reserve Management Plan. The RSAP (2018-2024) should also consider ecosystem requirements of otters in their implementation plan. The government prepared the site-specific management plan of Beeshazari, Ghodaghodi and Rara Lakes without addressing habitat requirements of otters. The limited legislation provides only a modicum of wetland conservation, with glaring deficiencies (Belbase, 2007).

The NCCP 2019 does not explore the effects of climate change on ecosystem requirements of otters. Climate change vulnerability of Himalayan otters showed future climate and land use change will reduce (by 6-15%) and shift (by 10%-18%) the geographical range of *Lutra lutra*, *Lutrogale perspicillata*, and *Aonyx cinereus* in the Himalayas (Jamwal et al., 2021). *L.lutra* and *L. perspicillata* are notably affected by change in the mean annual temperature. The most specialist species, *L. perspicillata*, shows the highest vulnerability in comparison with the most generalist, *L. lutra* (Jamwal et al., 2021). Mean diurnal temperature was the most important variable for *A.cinereus* (Cianfrani et al., 2018). Incorporating into Nepali law the alterations in the environment due to climate change is a high priority.

Lack of effective law enforcement and stringent implementation of provisions of CITES legislation have threatened the otter species in Nepal. Many CITES parties are non-compliant, CITES over-relies on regulation, there remains a lack of knowledge and monitoring efforts of CITES species, and the Convention ignores market forces in decision-making and implementation terms among CITES actors (Challender et al., 2015). To more effectively manage trade, interventions need to go beyond regulation and should be multifaceted, reflecting the complexity of wildlife trade and its drivers. This will require 1) a concerted research effort into factors undermining wildlife trade governance at the national level; 2) sustainable harvest rates and adaptive management of CITES species; 3) buy-in by local communities in implementing CITES; 4) supply and demand based market interventions; and 5) means to quantify the illegal trade, political processes and influence within CITES (Challender et al., 2015). Nepal needs to improve national legislation to meet CITES requirements and improve regulatory systems and implementation to curb the illegal wildlife trade (Gomez et al., 2016).

CONCLUSION

A review of the legal framework of Nepal documents the lack of species-specific conservation measures for otter conservation in Nepal. Otter species are still neglected by the conservation policy as compared to the conservation of large mega-vertebrates. Thoughtful revisions of wetland related acts and regulations is urgently needed to create an integrated policy for the conservation and effective management of otter species in Nepal. Policies that currently address the conservation, restoration, and effective and sustainable management of wetlands for biodiversity and environment conservation have not addressed how to achieve long-term conservation of key riverine indicator species. Minimal effective implementation, lack of unified wetland acts and regulations, and lack of coordination among related agencies are major gaps in the conservation of otters. The lack of integration between ecological conservation policies and infrastructure developments is a key factor. Ecosystem-related policies require dynamic and adaptive approaches supported by peer-reviewed science. Lack of inter-

institution coordination in the implementation and enforcement of legislation and jurisdictional overlapping in the management of otter habitats is a serious gap in otter conservation.

Our review of Nepali laws and regulation proposes the following actions to improve the conservation status of three otter species:

1. Otter-specific conservation policies integrated into wetland acts and regulations,
2. Effective coordination between communities, stakeholders, implementing agencies and all tiers of government on conservation policies,
3. Enforcement of wildlife laws outside of protected areas and effective monitoring and implementation of provisions of the Environmental Impact Analysis policy,
4. Engagement of the National Natural Resource Conservation Commission in overall management outcome of conservation,
5. Robust research and development and effective monitoring and evaluation of water quality standards, specifically key indicator species and climate change,
6. An EIA that effectively addresses pollution and river bank disturbance,
7. Internalization of the Biodiversity Convention provisions of the Biodiversity Strategy and Action Plan,
8. Engagement of Criteria 2, 3 and 4 of the Ramsar Convention related to otter species.

Strong legislation, effective enforcement of conservation laws and policies, redesigning and strict implementation of policies based on habitat management and human-wildlife coexistence, including threat mitigation measures and strong interagency co-operation in planning and implementing policies are considered important for successful conservation efforts (Bist et al., 2021). More awareness programs for local people would help in strengthening stakeholder participation in policy formulation and regulation (Thapa et al., 2020; Joshi et al., 2021). The strongest part of biodiversity conservation in Nepal is institutional representation at every level of government. The effective implementation of laws and policies that govern conservation requires both scientific validity and stakeholder engagement. At the planning level, dynamic adaptive policy pathways need to be practiced in the complex and uncertain world of climate change.

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RESUMÉ

SYNTHESE DES REGLEMENTATIONS ENVIRONNEMENTALES ET CONSERVATION DE LA LOUTRE AU NÉPAL

Le Népal a plusieurs réglementations et dispositions légales pour la conservation des espèces, mais aucune protection spécifique pour les espèces de loutres. Cette étude vise à identifier les dispositions juridiques du Népal. Protéger les animaux riverains, y compris les loutres, en analysant les documents juridiques et les publications décrivant les politiques environnementales telles qu'elles s'appliquent à la conservation des espèces riveraines. La synthèse suggère que les projets de développement dans le pays ne respectent pas les dispositions des études d'impact environnemental lors de la formulation, de la mise en œuvre ou du suivi des projets. Les règlements existants mettent l'accent sur la conservation, la restauration et la gestion efficace des zones humides pour la conservation de la biodiversité et de l'environnement. Une mise en œuvre efficace minimale des lois et des réglementations unifiées dans les zones humides et le manque de coordination entre les agences concernées sont les principales lacunes de la conservation des loutres au Népal.

RESUMEN

REVISIÓN DE LAS POLÍTICAS AMBIENTALES Y LA CONSERVACIÓN DE LAS NUTRIAS EN NEPAL

Nepal tiene varias políticas y provisiones legales para la conservación de especies, pero no tiene protección específica para las especies de nutria. Este estudio está dirigido a identificar las provisiones legales de Nepal vinculadas con la protección de los animales fluviales, incluyendo las nutrias, analizando los documentos y publicaciones legales que describen las políticas ambientales aplicables a la conservación de las especies fluviales. La revisión sugiere que los proyectos de desarrollo en el país no están siguiendo las provisiones sobre estudios de impacto ambiental durante la formulación, implementación o monitoreo de los proyectos. Las políticas establecidas enfatizan la conservación, restauración y manejo efectivo de los humedales para la biodiversidad y la conservación ambiental. Los mayores huecos en la conservación de nutrias en Nepal son la mínima implementación efectiva de las Leyes de Humedales unificadas, y la falta de coordinación entre agencias relacionadas.