

Gap Analysis of Biodiversity Management Legal Framework of Kyrgyz Republic

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Abstract. Biodiversity is critical for the sustainable development of the Kyrgyz Republic due to its vital resources and impacts on people's welfare and quality of life. The World Bank Environmental and Social Framework (ESF) sets out its broad commitment to sustainable development and incorporates a safeguard standard (ESS6) for biodiversity conservation and sustainable management of living natural resources. To understand how effectively the country's regulatory framework and related institutional capacity operate to manage risks related to the *Biodiversity Conservation and Sustainable Management of Living Natural Resources standard (ESS6)* in the Kyrgyz Republic, a gap analysis was carried out. The analysis focused on reviewing the policy and legal framework at the national and sub-national levels relating to biodiversity management, the institutional structures, capacity, and track record for implementing the legislation, and a comparison against the standard requirements. Data gathering was through consultation with key stakeholders involved in biodiversity management, including authorities, academics, and NGOs. The analysis revealed that the legal instruments provide a sound basis for biodiversity management within the Kyrgyz Republic and cover most aspects of the ESS6. However, some gaps were identified, and related recommendations for improvement were consolidated into nine themes. These include legislative development, conservation planning, financial investment, capacity building of the civil service, biodiversity management, monitoring and enforcement, management of protected areas, ecosystem restoration, public awareness, education, and research. The findings and recommendations should help enhance the current legislative framework, particularly the update of the protected area law, and inform and support the development of future projects by the World Bank and other development partners in this area.

1. Introduction

The Kyrgyz Republic is a landlocked country in Central Asia with a rugged mountainous landscape and endowed with rich and unique biodiversity resources, including 2% of the world's known flora and 3% of the world's known fauna. Among its ecological resources are the unique walnut forests and the large Issyk-Kul Lake, both critical for biodiversity and ecosystem services. Yet, these natural resources face threats from unsustainable human practices and climate change.

To counter these threats, the Government of the Kyrgyz Republic has set strategic priorities for biodiversity conservation for the decade 2014-2024. These priorities include 1) integrating conservation issues into the mandates and activities of state agencies and public organizations by 2020; 2) mitigating impacts on biodiversity and promoting its sustainable use; 3) enhancing the protection and monitoring of ecosystem and species diversity; and 4) elevating the societal value of biodiversity and ecosystem services, thereby increasing the benefits from sustainable ecosystem services and traditional practices.

In support of these goals, the World Bank, alongside other international partners, committed to support strengthening the Kyrgyz Republic's capacity, including its national environmental and social frameworks, to manage and sustain its biodiversity and ecosystem services. An important step in this process was conducting a gap analysis to evaluate the Kyrgyz legislative framework in relation to the

World Bank's biodiversity standard, ESS6, a component of the ESF. This analysis examined the capabilities and historical performance of concerned Kyrgyz institutions in applying their legislative framework, with the aim of recommending strategic interventions to help the country achieve its biodiversity conservation objectives.

2. Gap Analysis Scope and Approach

The scope and approach of the assessment is guided by the below four ESS6 objectives:

- To protect and conserve biodiversity and habitats.
- To apply the mitigation hierarchy and the precautionary approach in the design and implementation of projects that could have an impact on biodiversity.
- To promote the sustainable management of living natural resources.
- To support livelihoods of local communities, including Indigenous Peoples, and inclusive economic development, through the adoption of practices that integrate conservation needs and development priorities.

The assessment also takes into account the provisions of Environmental and Social Standard 1 (ESS1)¹ as relates to ecosystem services and biodiversity management. The study followed the World Bank's guidance document for conducting an overview assessment which outlines four key areas for evaluation: (i) the legislative framework, (ii) relevant institutions, (iii) institutional capacity, and (iv) historical performance. The process involved reviewing available information and data, as well as gathering insights from concerned stakeholders through interviews and questionnaires. The primary objective of the overview assessment is to understand how the relevant national systems in KR work together, and how effectively they operate to identify, assess, manage, and regulate specific environmental and social risks and impacts related to biodiversity. The ultimate goal is to guide revisions to existing national legislation and to enhance institutional capacities to better achieve conservation objectives.

This study was informed by and builds on initiatives spearheaded by international partners, particularly the Convention on Biological Diversity (CBD), which partners with the KR to develop the National Biodiversity Strategic Action Plan and projects of the GIZ.

3. Main Findings

The legal and regulatory framework governing biodiversity conservation and the management of living natural resources in the Kyrgyz Republic is rooted in the Constitution, which declares: 'The land, subsoil, airspace, water, forests, flora, fauna, and other natural resources are the exclusive property of the Kyrgyz Republic. These are used to maintain a unified ecological system, essential for the Biodiversity Conservation and Sustainable Management of Living Natural Resources life and activities of the people of Kyrgyzstan and receive special state protection' (Article 12.5). The legislative framework encompasses a comprehensive set of instruments (including documents, codes, and laws) that, along with accompanying regulations, provide for the conservation and management of biodiversity and living natural resources. Nine principal instruments constitute the foundation of the

¹ ESS6 does not provide guidance for assessing the ecosystem services, these are defined within ESS1 but are frequently associated with biodiversity and are therefore considered here.

Kyrgyz Republic's legal framework for biological conservation and management, specifically the Forest Code, Land Code, Water Code, Law on Environmental Protection, Law on Flora Protection and Use, Law on Fauna, Law on Protected Areas, Law on Biosphere Territories, and Law on Environmental Examination. These documents provided the basis for the assessment conducted.

The institutional framework for managing natural resources in the Kyrgyz Republic is led by the Ministry of Natural Resources, Environment & Technical Supervision (MNRETS). This ministry is tasked with the development, implementation, and coordination of policies related to the environment, climate, geology, subsoil use, and the protection of natural resources. Within MNRETS, the Department for Biodiversity Conservation and Protected Areas is charged with ensuring the conservation and sustainable use of biological diversity, the effective management of protected natural areas, and the protection, utilization, and reproduction of flora and fauna. Key functions of this department include (i) organizing and maintaining the national Red Data Book, (ii) managing the state cadaster of flora and fauna, and (iii) documenting natural objects and complexes under state protection. Additionally, the Forestry Service, which falls under the Ministry of Agriculture, is responsible for the management and conservation of forest resources. The service's duties typically include developing and enforcing sustainable forest management plans, reforestation and afforestation initiatives, forest protection measures, compliance monitoring, and public education, as well as research and data collection on forest ecosystems and resources. Other stakeholders include 'Gareev' Botanical Garden/Research Institute, and Forest Research Center under National Academy of Science, among others.

The legal framework for biodiversity management within the Kyrgyz Republic is generally well-developed and addresses many aspects of the ESS6. Nevertheless, gaps have been identified, particularly concerning the implementation and enforcement of this framework. The subsequent sections will discuss these gaps in detail and offer recommendations for their resolution and enhancement.

Gaps Identified in the KR Biodiversity Legal Framework

The study identified some key gaps within the legal framework of the Kyrgyz Republic pertaining to biodiversity management, which include:

- Compliance with the mitigation hierarchy is not a primary objective of Environmental Impact Assessments, nor is there an emphasis on a precautionary approach to protect biodiversity, although the concept is incorporated into various legislative instruments."
- The framework lacks definitions for key concepts such as 'no net loss' or 'net gain' of biodiversity, as well as 'offsets,' which are compensatory measures designed to achieve measurable, additional, and long-term conservation outcomes for sensitive biodiversity.
- The biodiversity legislation does not address the concept of critical habitat; however, the concept is acknowledged via the Red Data Book, first published in 1978. This instrument does not offer a structured analysis of threatened status, necessitating adaptations for its use in determinations of critical habitat aligned with ESS6, which calls for the use of national red list assessments.
- Legislation concerning specially protected areas is well developed, with no notable legislative deficiencies pertaining to legally protected and internationally recognized regions of significant biodiversity value. However, gaps exist in the track record and capacity for effective implementation. This is similar to the case with the management of invasive alien species."

- Extensive legislation regulates the utilization of living natural resources; however, it lacks a focus on the sustainable use of these resources.
- Issues pertaining to primary suppliers are not included in biodiversity-relevant legislation.

4. Recommendations Resulting from the Study

Based on the outcomes of the gap assessment and consultations with relevant stakeholders, key issues were identified, many of which were accompanied by specific recommendations. A summary of these is provided below.

Legislative Frameworks: Old legislation governing environmental protection and biodiversity conservation needs updating to align with current challenges and to eliminate inconsistencies across various legal instruments. More critically, the enforcement of existing laws, particularly those regulating livestock grazing, must be significantly improved. Government agencies should face increased accountability for their role in ensuring compliance with biodiversity conservation and environmental protection mandates. Additionally, it is vital to promote increased collaboration and engagement with leading global conservation entities.

Development of In-country Biodiversity Expertise: The Ministry of Finance is urged to reassess the financial support provided to government departments and academic institutions, with the intention of boosting funds for human resources and research. It is imperative to devise a comprehensive recruitment and capacity-building strategy for the MNRETS. The private and nonprofit sectors should be motivated to play a larger role in biodiversity conservation, management, and monitoring. The collaboration between academia and conservation authorities at both national and local levels requires enhancement. Academic institutions should contribute to graduate vocational training for authorities and biodiversity professionals. Environmental Science faculties need to teach international best practices in biodiversity management, including the principles of no net loss and net gain as highlighted in ESS6 of the Environmental and Social Framework. Law schools should integrate environmental law into their programs. Furthermore, investment in scholarships for undergraduate and postgraduate studies is essential to cultivate future careers in biodiversity conservation.

Management of Threatened Ecosystems and Species: A comprehensive conservation planning program is needed to establish national conservation targets and to create a strategic roadmap for the enhanced protection and sustainable management of biodiversity across the country. This includes broadening the scope of the Protected Area network. It is also critical to update the national Red Data Book to reflect the IUCN Red List categories for species that are critically endangered, endangered, and vulnerable, ensuring alignment is based on rigorous scientific analysis. This update should be accompanied by robust conservation programs tailored for endangered, rare, and endemic species. Furthermore, local conservation initiatives specifically designed for threatened and endemic species must be identified and developed to support the findings and objectives set forth in the Red Data Book.

Management of Specially Protected Areas (SPA): Each SPA has its regulations, but many of these regulations need updating. The boundaries of some SPAs need physical demarcation, along with the completion of state cadastral data. A capacity-building analysis for SPA management authority is needed to guide the development of a plan to enhance rangers' skills. An overview of donor and international financing support to SPAs would be beneficial to identify funding gaps. There are efforts

to boost ecotourism, but this could impact some SPAs. A national tourism management plan, based on an assessment of the ecological carrying capacity of each SPA and monitoring of the human influence, is needed. This plan should identify stress points, infrastructure and capacity gaps to manage tourism sustainability within SPAs. Additionally, involving and building the capacity of local communities near SPAs to monitor and regulate activities is crucial for the protection of SPAs and their associated biodiversity.

Forest Management and Restoration: Focused efforts for the conservation and sustainable management of walnut forests in the Kyrgyz Republic's southern region are essential. Restoring degraded lands is a priority to reverse the loss of forests and enhance the livelihoods of the local population. Research into the ecological functions of these forests is necessary to inform effective restoration strategies. It is important to initiate both large and small-scale native tree planting programs, prioritizing species with significant commercial and conservation value. The Forestry Service, under the Ministry of Agriculture, and the Forest Research Centre, part of the National Academy of Sciences, should strengthen their horticultural capabilities. Additionally, establishing botanical reserves will be crucial for cultivating a variety of indigenous trees, including those species that are endangered, to facilitate large-scale forest restoration efforts.

Sustainable Management of Living Natural Resources: Raising awareness about the value of ecosystem services and the sustainable management of living natural resources is needed. To enhance the sustainability of harvesting practices in the remaining walnut forests, specialized programs should be developed. These programs should also encourage the reforestation of walnuts and other tree species on a large scale, particularly in areas where the land has been degraded. It is important to note that GIZ is already actively involved in this area.

Control of Invasive Alien Species (IAS): The delineation of responsibilities for the enforcement of regulations and the control of IAS must be made clear at both national and local levels. The Department of Plant Quarantine and Protection, which falls under the Ministry for Agriculture, requires enhanced capacity and improved coordination with other governmental agencies to effectively manage IAS across various sectors beyond agriculture.

5. Conclusions

The legal framework in Kyrgyzstan is continuously evolving, with amendments and additions to existing laws and regulations. To ensure compliance with international standards for environmental protection, biodiversity conservation, and sustainable management of living natural resources, it is essential to harmonize national legislation with international legal instruments and standards. Such harmonization, coupled with the enhancement of national institutions' capacities, will lead to more consistent and effective governance for both government-funded investments and those supported by International Financial Institutions or the private sector. This will, in turn, improve the management of biodiversity and related developmental outcomes. The findings and recommendations from this study could be used to guide the development of future biodiversity-related investments and initiatives by the World Bank and other development partners in Kyrgyzstan. These efforts would aim to ensure alignment with international biodiversity standards, including environmental and social safeguards, and best practices for the conservation and sustainable management of living natural resources.

6. Acknowledgement

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