

Policy Brief on Biodiversity and Agriculture

A global project on biodiversity and ecosystem services in agrarian landscapes

Executive Summary

Biodiversity and ecosystem services are of utmost importance for the agricultural sector. However, plant and species diversity, that provide for food security and human well-being, are under increasing threat due to overuse or unsustainable land use practices, with climate change putting further stress on the ecosystems. The policy analysis has shown that the challenges are addressed in a multitude of laws and strategies. Further, Tajikistan has ratified the Convention on Biological Diversity, as well as the Nagoya and the Cartagena protocol. Despite the sound legal framework, the enforcement of laws concerning biodiversity and ecosystem services in the agrarian landscape is weak. There is an urgent need to harmonize policies and strategies to avoid contradictions and to develop and enforce bylaws. Only if action is taken land use practises can be changed towards more sustainability to ensure food security today and in the future.

Context

This policy brief has been developed in the frame of the Global Project on Biodiversity and Ecosystem Services in Agrarian Landscapes implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, and commissioned by the International Climate Initiative (IKI) of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) implemented in Tajikistan, India and Kenya. In Tajikistan, the project is implemented in close collaboration with the Ministry of Agriculture of the Republic of Tajikistan.

The aim of the policy brief is to provide an overview of the most relevant legislation, policies, plans, and regulations of Tajikistan concerning biodiversity and ecosystem services in agrarian landscapes. This brief highlights the opportunities and limitations in the legal framework and the related policy implications and includes recommendations for policymakers.

Biodiversity in agrarian landscapes

Biodiversity in agriculture provides a multitude of ecosystem services, vital for environmental sustainability and human well-being, that are currently under threat due to overuse, mismanagement and climate change. The natural capital of agricultural landscapes is a source of food, fibre, firewood, fodder and provides additional ecosystems services such as nutrient cycling, soil fertility, water conservation and pollination. The richness of genetic diversity in the agricultural landscapes guarantees better adaptation to changing conditions such as severe droughts, the variability of precipitation and other weather extremes. Adaptation to climate change is gaining urgency globally and in this regard conservation and sustainable use of biodiversity and ecosystems services play a key role in addressing the challenges and alleviating threats posed by climate change. The livelihood and food security of many citizens, particularly rural communities depend heavily on the biodiversity of agricultural landscapes, be it subsistence farming or income earning from the cultivation of cash crops, livestock breeding or agro-forestry.

Findings of the policy analysis

The following section provides an overview of the international agreements Tajikistan has committed to as well as on the national legislation, policies, plans, and regulations. It discusses the main objectives of the legal framework and underlines the key opportunities and limitations it presents.

National commitments to international agreements and conventions

On January 27th, 1998, Tajikistan has signed the ***Convention on Biological Diversity (CBD*** - an international legally binding treaty which aims to conserve biodiversity, to ensure the sustainable use of biodiversity, and that the benefits of the genetic resources use are shared fairly and equitably.). On May 12th, 2004 Tajikistan committed to the ***Cartagena Protocol***, and on October 12th, 2014 to the ***Nagoya Protocol*** on Access and Benefit-sharing.

A ***Program of Work on Agricultural Biodiversity*** (2000) was adopted under the CBD in 2000. The Program specifically focused on tackling the existing challenges in agriculture within the framework of the CBD and provides a strong basis for conservation and sustainable use of biodiversity in the agriculture sector. The aim of the Program of Work is to promote the positive effects and mitigate the negative impacts of agricultural systems and practices on biodiversity in agro-ecosystems and their interface with other ecosystems and to promote the conservation and sustainable use of genetic resources of actual and potential value for food and agriculture. Three international cross-cutting initiatives have been developed and adopted under the Program of Work on Agriculture to enhance the implementation of the Program and focusing attention on the issues pollination, soil biodiversity, as well as food and nutrition.

Tajikistan is committed to achieving the Aichi Biodiversity Targets, which are also reflected in the 2030 Agenda for Sustainable Development (Agenda 2030). Based on Tajikistan's commitment to the CBD, the ***National Biodiversity and Biosafety center*** (NBBC) was created under the Committee of Environmental Protection. The first ***National Strategy and Action Plan on Biodiversity Conservation of the Republic of Tajikistan (NBSAP) 2003 -2013*** was adopted by the Decree of the Government of the Republic of Tajikistan. The new NBSAP was revised in 2016 and is for the period up to 2020. Every member country is required to report annually on the achievement of the targets set in NBSAP.

Regional regulations

At the regional level, the countries of Central Asia have put forth efforts to address the existing environmental challenges and render support for sustainable environmental management in the ***Framework Convention on Environmental Protection and Sustainable Development in Central Asia***. The main purpose of the Convention, which was adopted in November 2006, is to ensure the protection of the environment and sustainable use of natural resources, as well as preventing actions, which may result in transboundary environmental damage. However, the progress in the implementation of the Framework Convention has been slow due to insufficient cooperation among the countries, also arising from bilateral cooperation, as well as a shortage of financial and technical capacity.

National regulations and laws

The policy and legal framework on biodiversity conservation and ecosystems services in the agrarian landscapes of the Republic of Tajikistan comprises several sectoral laws, key strategic policy documents, sectoral plans and programs, which fall under the authority of separate governmental bodies and state institutions. The legal and policy base on biodiversity conservation and ecosystems services in agrarian landscapes is well developed. Several strategic policy documents and laws were reviewed, which set the priority areas for protection and sustainable use of natural resources, also those used for agricultural production, identify the main areas, principles and goals for biodiversity conservation related to agrarian landscapes. In an address by the President of the Republic of Tajikistan, Mr. Emomali Rahmon, to the Parliament of the Republic of Tajikistan, on December 22, 2017, he highlighted the importance of natural resources regarding food and nutrition security for Tajikistan's growing population and called on the scientific community to continue their work in the field of biological diversity and natural resources.

The following sections of national strategies, concept papers, and programs were identified as vital for the agricultural sector in relation to biodiversity and ecosystem services:

- The **National Development Strategy of the Republic of Tajikistan 2030 (NDS)** determines main priorities for the development of the country after 2015. One of the four strategic national development goals is ensuring food security and access to quality nutrition. However, there are existing challenges, which hinder the progress. These include inadequate regulation of land use in the agricultural sector, land degradation and poor soil fertility, unsustainable use of natural resources (specifically water and pasture) and the risks induced by climate change. The development process is slow due to the lack of sustainable agricultural management, which results in soil salinization, pollution, erosion, waterlogging and substantial reduction of productive arable lands. The NDS provides several measures to address these existing challenges in the agricultural sector. The measures include reform in the agricultural sector, innovations with limiting adverse impact on the environment and land, and access to improved seeds and agricultural fertilizers. Moreover, the NDS requires effort to be made to enhance research work on biodiversity, climate change adaptation and strengthen the resilience of mountain ecosystems.
- The **National Strategy and Action Plan on the Conservation and Sustainable Use of Biodiversity (NBSAP)** for the period of 2016-2020. The Strategic goals and targets developed under the NBSAP aim foremost at conservation and sustainable use of natural resources and ecosystem services of wild flora and fauna, mountain ecosystems, pastures, forests and protected areas. There is some reference to agricultural ecosystems, which are defined as cultivated lands, on which crops, orchards and fodder crops are grown. The NBSAP consists of 5 Strategic goals, 5 National Goals and 20 Targets, each of which are supported by several specific activities. Target 7 puts focus on sustainable land management.
- The **Concept Paper on Agrarian Policy of the Republic of Tajikistan (2008)** proposes the development of an appropriate strategy to restore and maintain soil fertility. Further, the concept paper stated that the need for the development of sustainable pasture use systems has to be recognized and duly addressed.
- The **State Ecological Program (2009-2019)** is the main environmental policy document and proposes measures for improving the overall ecological situation in the country, especially the ecological condition of lands, their sustainable use and the protection of flora and fauna.
- The **Agricultural Reform Program (2012-2020)** proposes a set of activities, such as the introduction of drought-resistant crops and moisture-retaining technologies, sustainable land management practices, such as no-tillage, contour terracing and the use of organic fertilizers. Further, the Programme recommends a transition from monocultures to diversified agriculture, and to agro-biodiversity and agro-forestry.

The following national laws contain relevant paragraphs in relation to biodiversity and ecosystem services that are summarized here:

- The **Land Code** outlines the mechanism for protecting land and controlling its use. It has reference to the complex nature of ecological systems and identifies a set of measures to prevent land degradation and ensure rehabilitation of degraded lands. The Code has a special chapter that defines the main parameters of the legal status of land types that comprise protected, recreational, historical and cultural areas. Further, the Land Code ensures compliance with environmental, sanitary and other special requirements established by legislation, the introduction of new technologies, as well as monitoring of land use. The Land Code ensures land protection on the basis of an integrated landscapes approach, taking into account their zonal and regional peculiarities and sets the following objectives:
 - prevent land degradation and disturbance, and other adverse consequences of unsustainable economic activity;
 - ensure the improvement and restoration of lands that have been degraded or disturbed;
- The **Law on State Regulation for the Provision of Fertility of Agricultural Lands (2004)** is a key law that defines the requirements for agrotechnical, agrochemical, ecological and biological, meliorative, phytosanitary and anti-erosion measures for the conservation and restoration of soil fertility of agricultural lands.
- The **Law on Pastures (2013)** contains principles of efficient and integrated use of pastures, pasture protection and the protection of the environment. It provides methods, approaches, and technologies for pasture protection and restoration, identifying allowable limits of pastures, state monitoring and registration of pastures (the law is currently being amended).

- The **Law on Soil Conservation (2009)** regulates soil quality control and implementation of soil monitoring system.
- The **Forest Code** considers conservation of biodiversity as one of the principles of the forestry sector, provides the definition of biological diversity, and considers its relation to all activities in the field of forest use and protection, and ensures conservation of biological diversity.
- The **Law on State Support for Agroindustrial Sector of the Republic of Tajikistan** provides state support to certain core areas of the agro-industrial sector by providing a subsidy from the state budget and attracting foreign investments and grants for the development of the agro-industrial sector. Further relevant laws are: **Law on Plant Protection, and Use of Flora and Fauna, Law on Collection, Conservation and Rational Use of Genetic Resources of Cultivated Plants, Law on Production and Safe Use of Pesticides and Agrochemicals, Law on seeds, Law on the Protection of Varieties of Plants, and Law on Biologic Safety**

Policy Implications and Recommendations

The conservation and sustainable use of biological diversity (biological resources of wild flora and fauna) is exclusively regulated in environmental laws. However, these do not provide a solid base for natural resources use in agrarian landscapes while the agrarian policy and legal framework do not mention biodiversity conservation. In addition, the norms of laws are not harmonized with each other. The analysis identified several contradictions and duplications of the norms of various laws. By-laws, including standards, regulating requirements to the land and soil protection and providing mechanisms for enforcement and implementation are often not developed. Consequently, the execution of laws and regulations, and the implementation of state programmes is not fully accomplished.

Responsibilities between ministries are not clearly defined, and functions of control bodies are overlapping or duplicated. For example, there is no responsible authorized body determined for the implementation of the Land Code, the Law on Ensuring the Fertility of Agricultural Land, and the Law on Plant Protection. Further, for these laws, no by-law and standards necessary for exercising control functions are developed. Moreover, there is a lack of a management system and clear delineation of powers. Consequently, unclear definition and allocation of responsibilities and powers may negatively affect the conservation of natural resources, including the conservation of biodiversity.

Windows of opportunity

In the analysis the following opportunities for policymakers were identified:

- Following the presidents address in December 2017, a new Food Security Program needs to be developed. The Ministry of Agriculture, the State Committee for Land Management and Geodesy, the Agency for Land Reclamation and Irrigation, local executive bodies of state power need to take measures with the involvement of domestic and foreign entrepreneurs to improve the land reclamation state, introduce intensive methods of agricultural production, complete the introduction of sustainable agricultural in arid areas, and to improve the farming practices. The four core elements and the three Initiatives under the **Program of Work on Agricultural Biodiversity** provide an excellent opportunity to make use of the Ecosystem Approach and to achieve the commitments under the CBD. Member-countries of the CBD are requested to prepare national strategies, programs and plans on agricultural biodiversity. Such strategic documents are expected to promote sustainable agriculture and contribute to the conservation of biodiversity in agriculture. Along with governments, donor agencies and international and regional organizations are invited to be active participants in the implementation of the Program of Work, as well as render their support in capacity building, exchange of knowledge, and awareness raising at various levels, including regional cooperation. Joint actions among different actors are also necessary to strengthen the understanding and the significance of maintaining biodiversity in agricultural landscapes and to consolidate efforts for promoting the implementation of sustainable agricultural practices beneficial for the environment and the people.
- The achievement of **Aichi Biodiversity Targets** can contribute significantly to the success of the biodiversity-related goals of **Agenda 2030** and concurrently the Agenda 2030 provides an opportunity for mainstreaming biodiversity in the agrarian sector and promoting the implementation of

biodiversity-related targets. In this regard, the implementation of NBSAP 2016-2020 will promote the achievement of the objectives of the NDS 2030.

- The implementation of the measures provided by the **State Ecological Program for 2009-2019** and its action plan are relevant and should be considered for designing measures related to biodiversity.

Short term recommendations

In the short term, the following steps are recommended:

- Mainstream biodiversity and ecosystem services in the agricultural sector using the opportunities provided in the existing and planned policies, strategies and actions plans as well as mainstreaming the importance of biodiversity and ecosystem services into an inter-ministerial dialogue.
- Provide targeted inputs for the NBSAP that focuses mostly on wild flora and fauna, and protected areas to include the agrarian landscape and the importance of biodiversity for agriculture in the NBSAP. Formulate concrete actions for biodiversity and ecosystem service conservation in agrarian landscapes in the NBSAP.
- Actively involve the Ministry of Agriculture and the Tajik Academy of Agricultural Sciences in the implementation of the NBSAP.

Mid and long-term recommendations

In regards to the legal framework:

- Eliminate duplications, contradictions and discrepancies in the norms of different laws with regard to land, soil and plant protection. Their consolidation in one single law could be considered. Combined law norms on biodiversity and ecosystem services need to be included.
- Developing by-laws for land and soil protection, including for soil quality standards, norms of maximum allowable concentrations of harmful substances, microorganisms and other biological pollutants in the soil, including the standards of maximum allowable use of agricultural lands, the use of agro-chemicals, biological factors and substances and pesticides as well as developing rules and regulations on farming, agro-chemical, environmental and biological reclamation, phytosanitary and anti-erosion measures.
- Include minimal requirements for biodiversity and ecosystem services conservation in the obligations of the agricultural producers and for dekhkan farms
- Developing procedures for calculating and compensating damage, in the event of land destruction, damage to biological diversity, violations of environmental standards.

In regards to public administration:

- Eliminate duplicated functions of various state bodies for land, soils, and plant protection.
- Consider the creation of a single inspection body, which also ensures biodiversity and ecosystem services conservation.

For private sector participation and incentives

- Develop a legal normative act for enabling private sector participation in financing conservation activities, as well as encouraging private entrepreneurship to invest in conservation.
- Improve the mechanism for providing subsidies established by the Law on State Support of the Agroindustrial Complex of the Republic of Tajikistan, as well as considering changing procedures and requirements for state support.
- Develop a mechanism for the interaction between environmental law enforcement and public authorities in combating violations in the field of biodiversity conservation.
- Improve the management of agricultural land and forest funds.
- Prepare land, water and forest cadasters.
- Introduce a land monitoring system with clearly defined responsible institutions.

Appendices

For a more detailed analysis please consult the report on the legal framework in Tajikistan and the report on Tajikistan's commitment to international agreements on biodiversity conservation. Both reports are an appendix to this document and can be accessed on K-Link:

Policy Analysis

<https://iki-biodiv.k-box.net/d/show/d5c38735-71fe-4b1e-a324-76778307fbcc>

Tajikistan's commitments to international agreements

<https://iki-biodiv.k-box.net/d/show/7b7eb7af-79e5-4efc-b057-ae726be10224>

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E info@giz.de
I www.giz.de

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