

Policy Analysis

REPORT ON THE ANALYSIS OF NORMATIVE-LEGAL ACTS AND STRATEGIC DOCUMENTS RELATED TO BIOLOGICAL DIVERSITY AND ECOSYSTEM SERVICES IN AGRARIAN LANDSCAPES, THE ROLE OF GOVERNMENT STRUCTURES AND PRIVATE SECTOR IN CONSERVATION OF BIOLOGICAL DIVERSITY IN AGRARIAN LANDSCAPES

Consultant's Report

On behalf of: GIZ Project Biodiversity and Ecosystems Services in Agrarian Landscapes

Gulshan Ashurbekova

Dushanbe, 2018

Contents

1 INTRODUCTION	4
2 LIST OF LAWS, BYLAWS, AND STRATEGIC DOCUMENTS RELATED TO BIOLOGICAL DIVERSITY AND ECOSYSTEM SERVICES IN AGRARIAN LANDSCAPES	5
2.1 Laws	5
2.2 Bylaws	6
2.3 Strategic Documents, Programs, Concepts.....	7
3 STRATEGIC DOCUMENTS	8
3.1 NATIONAL STRATEGY AND PLAN OF ACTIONS ON CONSERVATION AND SUSTAINABLE USE OF BIOLOGICAL DIVERSITY IN RT	8
3.2 STATE ENVIRONMENTAL PROGRAM 2009-2019	10
3.3 PLAN OF ACTIONS TO IMPLEMENT THE STATE ENVIRONMENTAL PROGRAM	10
3.4 AGRARIAN REFORM PROGRAM OF RT 2012-2020	11
3.5 STATE PROGRAM ON DEVELOPMENT OF THE TAJIK ACADEMY OF AGRICULTURAL SCIENCES 2016-2020	11
3.6 Conclusions on Strategic Documents.....	11
4 ANALYSIS OF THE REGULATORY FRAMEWORK ON BIODIVERSITY AND RECOMMENDATIONS TO IMPROVE LEGISLATION	12
4.1 LAND CODE OF RT	12
4.2 THE LAW OF RT «ON PASTURES».....	15
4.3 FOREST CODE OF RT.....	16
4.4 THE LAW OF RT «ON THE STATE REGULATION OF FERTILITY OF AGRICULTURAL LANDS» ..	18
4.5 THE LAW OF RT «ON PROTECTION OF PLANTS».....	20
4.6 THE LAW OF RT «ON PRODUCTION AND SAFE TREATMENT OF PESTICIDES AND AGROCHEMICALS»	21
4.7 THE LAW OF RT «ON PROTECTION OF SOIL».....	21
4.8 LAWS OF RT «ON SEED PRODUCTION» AND «ON PROTECTION OF VARIETIES OF PLANTS»	23
4.9 THE LAW OF RT «ON COLLECTION, CONSERVATION AND SUSTAINABLE USE OF GENETIC RESOURCES OF CULTIVATED PLANTS»	23
4.10 THE LAW OF RT «ON PROTECTION AND USE OF FAUNA»	24
4.11 THE LAW OF RT «ON BIOLOGICAL SAFETY».....	25

5 THE LAW OF RT «ON BIOLOGICAL MANAGEMENT AND PRODUCTION».. 25

5.1	THE LAW OF RT «ON DEKHKAN FARMS».....	25
-----	---------------------------------------	----

6 ANALYSIS OF POWERS OF INVOLVED GOVERNMENT AGENCIES AND INSTITUTIONS TO REGULATE BIODIVERSITY AND ECOSYSTEM SERVICES IN AGRARIAN LANDSCAPES 26

6.1	Ministry of Agriculture of RT and its subordinate structures	26
6.2	2. State Committee for Land Management and Geodesy:	28
6.3	3. Environment Protection Committee under the Government of the Republic of Tajikistan 28	
6.4	Forestry Agency under the Government of RT	30
6.5	Local Executive Government Authority	31
6.6	7. Chemical Safety Commission of the Republic of Tajikistan:.....	32
6.7	Conclusions	32
6.8	Recommendations	34

7 ROLE OF THE PRIVATE SECTOR IN CONSERVATION OF BIODIVERSITY, INCENTIVES STIPULATED IN THE LEGISLATION, IMPEDIMENTS REVEALED.... 35

7.1	Recommendations:	36
-----	------------------------	----

1 INTRODUCTION

The current report reflects on the analysis of legislative framework on biodiversity and ecosystem services in agrarian landscapes as on the end 2017, roles of authorized government structures, as well as of the private sector in this area, and recommendations to improve legislation and public management in conservation of biodiversity.

Current legislation on conservation and use of biodiversity has quite a developed basis. At the same time, despite comparatively developed nature protection and natural resource legislation that regulates issues of biodiversity, it lacks a comprehensive approach to conservation of biodiversity and natural ecosystems, it has gaps and inconsistencies, particularly, in terms of implementing public management and control that leads to ineffective law-enforcement practice.

On June 15, 1997, Republic of Tajikistan joined the Convention on Biological Diversity, hence, at the legislative level, it led to deeper understanding of biodiversity and ecosystem services issues, understanding of the need to solve these. Pursuant to the Article 6, Contracting parties develop national strategies, plans or programs on conservation and sustainable use of biological diversity, or adapts existing strategies, plans or programs, which reflect, in particular, measures stated in the Convention and related to relevant contracting parties, as well as they envisage, to the extent possible, measures for conservation and sustainable use of biological diversity in sector or cross-sector plans, programs, and policies.

To meet the commitments of the Republic of Tajikistan under this Convention, on September 1, 2003, the Government of the Republic of Tajikistan approved the National Strategy and the Plan of Actions on Conservation and Sustainable Use of Biological Diversity of the Republic of Tajikistan No. 392, which is the key strategic document that envisages biodiversity conservation measures.

Biodiversity conservation measures are envisaged in other strategic programs and concepts, including the Concept on the Protection of Environment in the Republic of Tajikistan No. 645 from December 31, 2008, the State Environmental Program of RT for 2009-2019 No. 123 from February 27, 2009, the Concept on Transition of the Republic of Tajikistan to Sustainable Development No. 500 from October 1, 2007.

Republic of Tajikistan is the participant in a range of international agreements related to the conservation and sustainable use of biological diversity, including the Convention on International Trade in Endangered Species of Wild Fauna and Flora, Convention on the Conservation of Migratory Species of Wild Animals, Convention on Wetlands that have international significance primarily as habitats for water birds, as well as the UN Convention to Combat Desertification.

There is a need to further improve the legislative framework for conservation of biodiversity and regulation of ecosystem services.

In this connection, it is important to further improve the legislative framework for conservation of biodiversity and regulation of ecosystem services. This report reviews advantages and disadvantages of the legal framework and provides recommendations.

2 LIST OF LAWS, BYLAWS, AND STRATEGIC DOCUMENTS RELATED TO BIOLOGICAL DIVERSITY AND ECOSYSTEM SERVICES IN AGRARIAN LANDSCAPES

2.1 Laws

Key laws regulating public relations, biodiversity and ecosystem services, include:

1. Law of RT «On Environment Protection» No. 760 from August 2, 2011.
2. Law of RT «On Specially Protected Areas» No. 788 from December 26, 2011.
3. Law of RT «On Assessment of Impact on Environment» No. 1448 from July 18, 2017.
4. Law of RT «On Protection of Atmospheric Air» No. 915 from December 28, 2012.
5. Law of RT «On Protection and Use of Flora» No. 31 from May 17, 2004.
6. Law of RT «On Protection of Soil» No. 555 from October 16, 2009.
7. Law of RT «On the State Regulation of Providing Fertility of Agricultural Lands» No. 56 from July 15, 2004.
8. Law of RT «On Plant Protection» No. 817 from April 16, 2012.
9. Law of RT «On Production and Safe Use of Pesticides and Agrochemicals» from April 22, 2003.
10. Law of RT «On Protection of Plant Varieties» No. 672 from December 29, 2010.
11. Law of RT «On Seed Farming» No. 355 from January 5, 2008.
12. Law of RT «On Collection, Conservation, and Sustainable Use of Genetic Resources of Cultivated Plants» No. 892 from August 1, 2012.
13. Law of RT «On Biological Safety» No. 88 from March 1, 2005.
14. Law of RT «On Biological Farming and Production» No. 1001 from July 22, 2013.
15. Law of RT «On Pastures» No. 951 from March 19, 2013.
16. Law of RT «On Fauna» No. 354 from January 5, 2008.
17. Law of RT «On Hunting and Hunting Sites» No. 1118 from July 26, 2014.

18. Law of RT «On Fish Farming, Fishing, and Protection of Fishery Resources” No. 1021 from September 19, 2013.
19. Law of RT «On Pedigree Activities” No. 1020 from September 19, 2013.
20. Law of RT «On Subsoil» No. 983 from July 20, 1994.
21. Law of RT «On Licensing Certain Types of Activities» No. 37 from May 17, 2004.
22. Law of RT «On Dekhkan Farms» No. 1289 from March 15, 2016.
23. Law of RT «On State Support to Agro-Based Industries in the Republic of Tajikistan» No. 241 from March 5, 2007.
24. Forestry Code of RT No. 761 from August 2, 2011.
25. Water Code of RT No. 148 from October 20, 2000.
26. Land Code of RT No. 327 from December 13, 1996.
27. Code of Administrative Violations of the Republic of Tajikistan No. 455 from December 31, 2008.
28. Criminal Code of RT No. 575 from May 21, 1998.

2.2 Bylaws

1. Resolution of the Government of RT «On the National Strategy and the Plan of Actions on Conservation and Sustainable Use of Biodiversity of the Republic of Tajikistan” No. 392 from September 1, 2003.
2. Resolution of the Government of RT “On the Report and the Plan of Actions to Build National Capacity to Meet the Commitments of the Republic of Tajikistan on Global Environmental Conventions” No. 202 from June 2005.
3. The procedure and size of compensation of losses caused to the forest fund and other flora and fauna sites by individuals and legal persons approved by the Resolution of the Government of RT No. 790 from December 31, 2014.
4. The Procedure of State Monitoring of Forests approved by the Decree of the Director of the State Forestry Agency under the Government of the Republic of Tajikistan No. 72 from June 30, 2016.
5. Resolution of the Government of RT “On the Issues of the Committee on Protection of Environment under the Government of the Republic of Tajikistan No. 567 from October 1, 2009.
6. Resolution of the Government of RT “On the Ministry of Agriculture of the Republic of Tajikistan” No. 191 from April 2, 2008.
7. Regulations on the State Phytosanitary and Plant Quarantine Inspection approved by the Resolution of the Government of RT No. 372 from August 1, 2008.
8. Resolution of the Government of RT “On the Approval of the Regulations of the Chemical Safety Commission of the Republic of Tajikistan” No. 299 from July 3, 2003.

2.3 Strategic Documents, Programs, Concepts

1. National Strategy and Plan of Actions on Conservation and Sustainable Use of Biological Diversity of the Republic of Tajikistan approved by the Resolution of the Government of RT No. 392 from September 1, 2003.
2. Concept on Environment Protection in the Republic of Tajikistan approved by the Resolution of the Government of RT No. 645 from December 31, 2008.
3. State Environmental Program of the Republic of Tajikistan for 2009-2019 No. 123 from February 27, 2009.
4. Resolution of the Government of the Republic of Tajikistan “On Implementation of the State Environmental Program of the Republic of Tajikistan for 2009-2019” No. 602 from October 31, 2009.
5. Concept of Transition of the Republic of Tajikistan to Sustainable Development approved by the Resolution of the Government of RT No. 500 from October 1, 2007.
6. National Plan of Actions on Prevention of Desertification approved by the Resolution of the Government of RT No. 598 from December 30, 2001.
7. National Plan of Actions on Mitigation of Climate Change Impact approved by the Resolution of the Government of RT No. 259 from June 6, 2003.
8. Concept on Development of Tourism in the Republic of Tajikistan for 2009-2019 approved by the Resolution of the Government of RT No. 202 from April 2, 2009.
9. Program for Development of Tourism in the Republic of Tajikistan for 2015-2017 No. 738 from December 1, 2014.
10. Agrarian Policy Concept of the Republic of Tajikistan approved by the Resolution of the Government of RT
11. Agricultural Reform Program of the Republic of Tajikistan for 2012-2020 approved by the Resolution of the Government of RT No. 383 from August 1, 2012.
12. Government Program on Development of Specially Protected Natural Sites for 2005 – 2015.
13. Government Program on Development of the Tajik Academy of Agricultural Sciences for 2016-2020 approved by the Resolution of the Government of RT No. 790 from December 30, 2015.
14. Pasture Development Program in RT for 2016-2020 approved by the Resolution of the Government of RT No. 724 from November 28, 2015.

3 STRATEGIC DOCUMENTS

3.1 NATIONAL STRATEGY AND PLAN OF ACTIONS ON CONSERVATION AND SUSTAINABLE USE OF BIOLOGICAL DIVERSITY IN RT

This Document was approved by the Resolution of the Government of RT No. 392 from September 1, 2003.

National Strategy of Tajikistan and Plan of Actions on Conservation and Sustainable Use of Biodiversity was adopted by the Resolution of the Government of the Republic of Tajikistan on September 1, 2003. The NSPAB focuses on the five strategic goals: (1) economic and social assessment of national biological resources, (2) regeneration and preservation of the genetic flora and fauna resources, (3) ex-situ and in-situ conservation of biodiversity, (4) providing biological safety to the country, (5) sustainable use of biological resources to reduce poverty and improve human well-being. Fifteen priorities were identified for conservation of biological diversity.

Strategic goals for 2003-2013: conservation and sustainable use of biological diversity and ecosystems for sustainable social-economic and environmental development in the Republic of Tajikistan, comprehensive social-economic assessment of national biological resources, rehabilitation and preservation of the genetic flora and fauna resources, conservation of biodiversity in-situ and ex-situ, provision. The Plan of Actions envisages the following activities:

- A. improvement of policies and legislation;
- B. improvement of the institutional framework;
- C. Research and monitoring;
- D. training and education of population;
- E. strengthening financial support mechanisms;
- F. awareness, coordination and cooperation, creating intermediation mechanisms;
- G. international cooperation.

366 activities were planned for implementation of this scheme.

Republic of Tajikistan reported on the implementation of the Plan of Actions, however one should mention that based on the practice of approval and implementation of strategic documents, the Government issues a Resolution on acknowledgement of the report of the person responsible for these documents. This Resolution was not found in Legal Database «Adliya»

Regarding the National Strategy and the Plan of Actions on Conservation of Biodiversity to 2020 approved at the National workshop on August 22, 2016, one should note that according to the Law of RT «On Government Forecast, Concepts, Strategies and Programs on Social-Economic Development of the Republic of Tajikistan» No. 53 from December 8, 2003 as amended 2009, 2011, 2017, the Social-Economic Development Strategy of RT is drafted by the Government of Tajikistan, usually for 15 years, and it is revised once in five years. The Strategy is approved by the Resolution of the Lower Chamber of the Parliament of the Republic of Tajikistan. As environment protection is one of the social issues, such a document should be adopted in accordance with this Law. In any event, the Strategy is an official government document and should be approved by the authorized government agency.

National Strategy and Plan of Actions on Conservation of Biodiversity 2020 approved at the National Workshop on August 22, 2016 is not consistent with the requirements of the Law, hence, it will not be discussed in this Report.

CONCEPT OF PROTECTION OF ENVIRONMENT IN RT APPROVED BY THE RESOLUTION OF THE GOVERNMENT of RT No 645 from December 31, 2008

The Concept focuses on protection of agrarian landscapes. It is stated that insufficient land use control causes degradation and depletion of land resources. Current land use practices often do not take into account actual potential, productivity and factors limiting the use of land resources, as well as their spatial diversity. Deflation causes land desertification processes, waterlogging processes, flooding, swamping. It is stated that the key priority for social-economic development of RT is the biodiversity protection and management, and conservation of ecosystems. Agrarian ecosystems significantly expanded in the past decade, which, in the absence of proper management, caused erosion of the fertile topsoil, salinization, flooding, and mudslides.

Concept for development of measures, programs and projects includes solution to the following issues:

- Natural disasters are one of the key causes of biodiversity loss and environment degradation.
- Deforestation, cultivation and overgrazing, open-pit operations, numerous breakthrough prone mountain lakes exacerbate instability, particularly in mountainous areas.
- Erosion in Tajikistan is a widely spread phenomena occurring due to the landscape and climate conditions, exacerbating as a result of poor land management practices, including, farming on steep slopes, cutting trees, brushwoods and bushes, guard plots, overgrazing and ineffective irrigation.

- The key priority for Tajikistan is protection and management of biodiversity, conservation of ecosystems and specially protected areas.
- Quality of surface and underground waters is affected by diffuse pollution caused by agricultural activities (inadequate and ineffective drainage systems) and point industrial pollution. There is practically not waste water treatment. Unauthorized discharge and storage of waste on the river banks is observed.

3.2 STATE ENVIRONMENTAL PROGRAM 2009-2019

This strategy is the key strategic document that envisages specific measures to improve environmental situation. For example, in terms of improving environmental status and rational use of land, one can mention the following very important measures suggested in the Program:

- recultivation of land in mining industry system, transport and road system;
- development of a land reserves and farming agriculture forecast;
- determine dynamic of including new land areas in economic turnover, conversion of land for various agricultural purposes;
- forecasting change in quality of land due to natural processes as a result of economic activities;
- based on the economic assessment of land and data on the cost of their protection and reprocessing, identifying effectiveness of land protection costs;
- in allocation of land and signing an act for the use of land, environment protection bodies must provide their opinion;
- to transfer land and other natural resources for rent, agreements should envisage measures to improve environment and financing for environmental rehabilitation.

To improve environmental status of vegetation, including forests:

- returning pastures of the state forest reserves from agrarian entities to the state forestry, and obtaining a land use right certificate;
- organizing and regulating forest structure, land use, and mapping of forests;
- monitoring of forest lands of the state fund, dekhkan farms, associations, cooperatives, organizations and entities performed by competent state control agencies aimed at conservation of biological diversity.

3.3 PLAN OF ACTIONS TO IMPLEMENT THE STATE ENVIRONMENTAL PROGRAM

The Plan was approved by the Resolution of the Government of RT No.602 from October 31, 2009. This document is not contained in the legal data base «Adliya» and it was not feasible to analyze reflection of the above measures. However, implementation of these measures until today is

important and focus should be on these measures in the development of measures related to biodiversity.

3.4 AGRARIAN REFORM PROGRAM OF RT 2012-2020

The overall objective of this Program is to achieve the two key national goals:

- developing productive and profitable agriculture based on rational use and sustainable management of natural resources;
- implementation of the overall agrarian reform, including institutional reform both at the national and local levels.

Along with the measures aimed at reforming current and creating new agricultural production facilities, improving financing mechanisms for agriculture, improving taxation, the Program also envisages some measures for sustainable use and management of natural resources.

3.5 STATE PROGRAM ON DEVELOPMENT OF THE TAJIK ACADEMY OF AGRICULTURAL SCIENCES 2016-2020

The key objective of the Program is improving effectiveness of research activities and competitiveness of outcomes in the context of current sector restructuring, advocacy and implementation of research achievements that enhance agricultural production, food security and social-economic development.

A range of activities in farming, horticulture, research of genetic resources of plants, soil sciences and agrichemistry, livestock breeding are envisaged for the implementation of the Program. Implementation of these measures is directly linked with the conservation of biodiversity of agrarian landscapes.

3.6 Conclusions on Strategic Documents

Strategic documents envisage proper situation analysis and specific steps for implementation. However, there are issues related to their development and implementation, particularly:

1. Programs and plans of actions are not consistent, each of them envisage different tasks and activities, there is no hierarchy between the documents approved, for instance, between the State Environmental Program and the National Strategy on Biological Diversity.
2. Action plans do not contain calculated financial costs for implementation, they are not properly linked to the state budget capabilities, which is the prerequisite for their poor implementation.
3. There are no clear mechanisms for evaluation and monitoring of implementation of these documents. We did not find any assessment of the implementation of the National Strategy on Biological Diversity 2003, although there are national reports on biological diversity.

4 ANALYSIS OF THE REGULATORY FRAMEWORK ON BIODIVERSITY AND RECOMMENDATIONS TO IMPROVE LEGISLATION

Here we review only normative legal acts related to conservation and sustainable use of biodiversity and ecosystem services in agrarian landscapes.

4.1 LAND CODE OF RT

In the Land Code land is regarded as a natural object and natural resource. The Code contains a specific Chapter that defines the key parameters of the legal status of lands with the environment protection, health-improving, recreation, and historical-cultural status, and special legal treatment is set accordingly. These lands are fully or partially withdrawn from use and turnover. For protection of land in specially protected areas and health-improving land from negative manmade impact, conservation or sanitary control areas with regulated economic activity regime may be established with prohibited activities that have negative effect on the regime.

The Code outlines land protection and control mechanism. In particular, the Code envisages land protection measures, compliance with environmental, sanitary-hygiene, and other special requirements set in the legislation for placement, design, construction and commissioning of new and restructured facilities, structures and buildings, as well as implementation of new technologies with negative impact on the soil condition, monitoring of soil, during which biodiversity conservation requirements should be provided. An important provision in the Code that mentions biodiversity and ecosystem is the Article 51, according to which land protection is implemented based on the comprehensive approach in respect of lands as complex natural structures (ecosystems) with regard to their regional peculiarities; it also sets the following goals:

- prevent degradation and destruction of lands, other negative impacts of economic activities;
- ensure improvement and rehabilitation of land subject to degradation or destruction;
- create a mechanism for accounting and inspection of the environmental condition of soil, as well as to provide land users with environmental regulations approved according to the procedures set by the Government of RT.

However, this provision is not supported by specific enforcement mechanisms, in particular, by mechanisms for accounting and inspection of the environmental condition of land, and environmental regulations for land users were not developed. The Code does not develop on the provision regarding comprehensive approach in respect of land areas as complex natural structures.

A positive aspect of the Code is listing of activities on land conservation, including rehabilitation and increasing fertility of soil, as well as other characteristics of soil, protection of soil from water and wind

erosion, floods, swamping, consolidation, salinization, pollution with production waste, chemical and radioactive substances, other destruction processes, protection of agricultural lands from colonization by shrubs and underbush, other processes of deteriorating cultural-technical condition of soil, reclamation of destroyed soil, restoration of soil productivity and other benefits, their timely inclusion in agricultural turnover; withdrawal, use and conservation of the fertile topsoil during works causing destruction of soil.

However, there are no bylaws that specifically regulate land conservation procedures. Land is used by various categories of land users, including agricultural entities, including dekhkan farms and cooperatives, individual entrepreneurs, public and private users, and the regulation on the turnover of the right to use land was introduced. At the same time, there are no clearly set legal requirements, procedures for implementing land protection measures, or procedures to bring to responsibility for failure to perform such measures.

The Code also envisages ***economic motivation of the use and protection of land***, including:

- allocation of national and local budget funds, as well as using amounts of penalties collected in special accounts for rehabilitation of land, penalties paid for violations not attributable to persons using these lands, and for agrotechnical, forest reclamation and other soil protection measures;
- exemption of payment for land plots at the stage of agricultural development or improvement of their conditions during the period stipulated in the draft work plan;
- provision of concessional loans to implement activities to improve condition and use of land;
- partial compensation of reducing income as a result of temporary conservation of destroyed land plots attributable to land users from the budget funds;
- motivation to improve quality of land, increasing fertility of soil and productivity of state forestry fund lands, production of environmentally clean production.

However, this regulation practically is not enforced due to lack of sufficient funds in the national and local budgets, setting of various forms of land use and land use modes, lack of a concessional lending mechanism, lack of practices and mechanisms for conservation of destroyed land.

The Land Code envisages effective use of allocated land, use of environmental production technologies, preventing deterioration of environmental situation in the territory as a result of economic activities, and performing a set of land protection measures as the key obligations of land users. Use of land plots by ways that lead to the reduction of soil fertility, their chemical, radioactive and other contamination, deterioration of environment, serve as grounds to terminate the right to use a land plot.

4.1.1 **Conclusions**

The Code envisages specific requirements on protection and conservation of agricultural land, general requirements of comprehensive approach in protection and conservation of agricultural land as complex ecosystems, as mentioned above. However, it has some shortcomings that complicate practical application. First of all, one should note that the Code contains many amendments without a comprehensive approach to setting unified land use principles and procedures that resulted in inconsistency of related provisions of the Code overall and in respect of conservation of biodiversity and ecosystem services in agrarian landscapes. Some of these deficiencies were mentioned above and include the following:

- The Code envisages land protection based on the comprehensive approach on agricultural lands as complex ecosystems, however, it lacks principles and requirements on conservation of biodiversity in the process of using agricultural lands, their protection and conservation;
- With the introduction of changes in respect of the circulation of the right to use land plots the situation in managing agricultural lands may change, the structure and dynamics of land use will change, new owners emerge, and ecosystems and agrarian landscapes change. At that, the Code does not contain requirements on conservation of biodiversity and changing ecosystems in the event of circulation of land use rights, no new mechanisms were developed to manage agricultural lands in such a situation, no authorized agencies are identified to control the process, and their powers in terms of control over the process are not established.
- The Code envisages a mechanism to compensate losses to land users in the event of withdrawal of land plots for government and public needs, however, there is no mechanism to compensate losses in the event of land protection violation, including cases of negative impact on biodiversity of agrarian landscapes, and violation of ecosystems.
- As it was shown above, the Code does not contain a mechanism for accounting and checking the environmental condition of lands, no environmental regulations and standards or requirements on protection of biodiversity were developed.
- Economic motivation measures envisaged in the Code for land protection and the procedure of using fees for land have become outdated due to the changing land use rights and emergence of various land user categories.

4.1.2 **Recommendations**

1. Drafting of the revised Land Code taking into account requirements on protection of biodiversity and conservation of ecosystems, relation of all issues pertaining to the regulation of lands and conservation of biodiversity.

2. Setting of clear provisions in Code on determining violations in respect of biodiversity while using land and conservation of ecosystems, and responsibility for these violations.
3. Creation of a land cadaster, setting prerequisites for monitoring of land by way of developing procedures, determining sources of financing. The link between this cadaster with the water and forest cadasters, monitoring and accounting of flora and fauna. Create a resource base to facilitate control of biodiversity and conservation of ecosystems.
4. Envisage a mechanism in the Code for the land users to cover the losses in the event of land destruction, loss of biodiversity, violation of environmental regulations.

4.2 THE LAW OF RT «ON PASTURES»

The Law envisages the environment protection principle as one of the principles of using pastures. It envisages implementation of state monitoring, registration and expertise of pastures, pasture use standards and implementation control, geobotanical assessment of pastures. It also stipulates approval of state standards and procedures for assessment of monitoring of condition and quality of pastures.

A positive aspect in the Law is the inclusion of requirements on optimal grazing pressure, measures to improve condition of pastures, conservation of biological diversity and prevention of grass degradation, soil erosion and damage of catchment areas, drafting plans for development and rehabilitation of pastures.

4.2.1 Deficiencies of the Law:

Pastures and procedures on their use have significant impact on conservation of biodiversity and ecosystems. The Law on pastures must be one of the key laws in the area of conservation of biodiversity and ecosystems.

However, the Law has some serious deficiencies in this area, including the following:

- The Law does not consider the link between state monitoring, pasture expertise, drafting of methods and approaches, pasture protection and rehabilitation technologies, geobotanical assessments and conservation of biological diversity, and ecosystem approach.
- Provisions of the Law in respect of optimal pressure on pastures are not effective, the Law does not envisage criteria to determine optimal pressure on pastures, it does not stipulate an authorized structure to develop and approve pressure on pastures, procedures to determine pressure and their approval, link of pressure with the environmental safety, including conservation of biodiversity.

- Although pasture use plans stipulate requirements on conservation of biodiversity, violations of these requirements are not considered in the Law as one of the grounds to terminate the pasture use right.
- Mechanisms to enforce the Law, including standard pasture use norms, state standards, and the procedure to assess monitoring of the condition and quality of pastures are not yet developed.

One should not that the Pasture Development Program 2016-2020 approved by the Resolution of the Government of RT No. 724 from November 28, 2015 does not cover the issue of conservation of biodiversity.

4.2.2 **Recommendations**

1. Consider conservation of biodiversity as one of the key principles for use of pastures.
2. Include a requirement on biodiversity conservation as an obligation of pasture users, and consideration of failure to meet conditions to conserve biodiversity as one of the grounds to terminate the right to use pastures.
3. Include a new article in the Law regarding the responsibility for violations in respect of biodiversity, plan development of a methodology for calculation of damage incurred to pastures, taking into account biodiversity conservation indicators.
4. Envisage biodiversity indicators in the obligation to carry out monitoring and expertise of pastures, envisage development of the methodology to determine biodiversity indicators in monitoring and expertise of pastures.
5. Include a requirement on conservation of biodiversity as one of the key indicators to establish optimal pressure on pastures taking into account the above shortcomings.

4.3 FOREST CODE OF RT

Provisions of the Forest Code in this report are considered from the point of view of improving biodiversity and ecosystem services in agrarian landscapes. One can say that this Code is the only law directly considering conservation of biodiversity as one of the principles of maintaining forestry sector, it contains a concept of biological diversity, and its link with all type of activities in the area of use, protection and conservation of forests, introduces responsibilities of forest users on conservation of biodiversity. Violation of forestry legislation entailing deterioration of the forest condition, reduction and depletion of forest reserves, flora and fauna resources in plots allocated for use, shall be considered as grounds to suspend and terminate the right to use forests.

The Code envisages allocation of land from the state forest reserves to individuals and legal persons for use, haymaking and grazing of livestock. Areas for haymaking and grazing of livestock in state forest reserves lands in accordance with the Article 52 are allocated for a definite term to individuals and legal persons based on their applications and according to an agreement. Exceeding the ratio for grazing livestock in state forest reserve lands and in forest lands, which may cause damage to young homogeneous or natural forests shall be prohibited. Livestock grazing and haymaking in the state forest reserve lands shall be allowed only in forestry areas specially allocated by forestry agencies. According to the Code, haymaking and livestock grazing are considered as collateral use in forests, and must be implemented based on the forest vouchers issued according to the signed agreement for the use of forest or with no agreement for one season. Cancellation of a forest voucher and termination of a forest use agreement shall be the grounds to terminate the right to use land¹.

At the same time, Article 26 of the Land Code provides the right to the local executive authorities in districts and cities, upon coordination with the local land management authority and local executive authorities of Gorno-Badakhshan Autonomous Region and regions, upon coordination with the executive authorities of districts (cities), and local land management authorities, allocate land for unlimited, limited and lifetime inheritable use, as well as rent land plots from the state forest reserve for agricultural and non-agricultural needs in established sizes. This article does not require coordination of allocation of lands with forestry agencies.

Article 71.3 stipulates that land plots allocated to citizens for livestock grazing and haymaking upon recommendation of jamoats from the state forestry reserve based on the decision of the chairmen of districts (cities) upon coordination with the forestry agencies.

Article 94 of the Land Code establishes that the procedure of using land from the state forestry fund is determined by the legislation of the Republic of Tajikistan. Article 55 of the Forestry Code envisages that the procedure of allotment of land from the forest reserves is defined by this Code and other regulations of the Republic of Tajikistan. Thus, both codes contain reference rules in regulating this issue. Neither the Forest Code of RT, nor other normative-legal acts envisage clear procedure for allotment and use of forestry reserve lands. As a result, one can observe lack of regulation in terms of using forestry reserve lands allocated for agricultural purposes for unlimited and limited use, as well as for livestock grazing, as well as uncertainty in the legal status of such lands. In particular, it is not clear which agency will be directly responsible for maintaining such forests (forest maintenance, fire and insect control, current use control, control conservation of biodiversity, etc.).

¹ Articles 52, 53, 56, 59 of the Forestry Code

4.3.1 **Conclusions**

Uncertainty in terms of the status of the forestry reserve lands leased, provided for limited and unlimited use for agricultural purposes, may have significant impact on conservation of biodiversity.

4.3.2 **Recommendations**

1. Ensure consistency of the provisions of the Land Code and the Forestry Code in terms of the allocation and use of forestry reserve lands for agricultural and other needs, and livestock grazing.
2. All the provisions in respect of the forestry reserve lands should be regulated exclusively in accordance with the Forestry Code.
3. Consider the link of the use of forests with the requirements on plant protection established in the sector laws.

4.4 THE LAW OF RT «ON THE STATE REGULATION OF FERTILITY OF AGRICULTURAL LANDS»

The key law that sets requirements on implementation of agrotechnical, agrochemical, environmental and biological, amelioration, phyto-sanitary and anti-erosion measures to restore fertility of agricultural lands. Ensuring fertility of agricultural lands in accordance with the Law includes:

- ✓ development of standards, rules, regulations to ensure fertility of agricultural lands;
- ✓ development of plans to perform agrotechnical, agrochemical, environmental and biological, ameliorative, phyto-sanitary and anti-erosion measures;
- ✓ development of action plans for rehabilitation of agricultural lands polluted with radionuclides, heavy metals, and other hazardous substances.

Land users have the following obligations:

- for agricultural production, apply methods that enhance fertility of land and environment protection;
- comply with the standards, norms, guidelines, rules and regulations for the performance of agrotechnical, agrochemical, environmental and biological, ameliorative, phyto-sanitary, anti-erosion measures;
- submit information on the use of agrochemicals, biological factors and agents, phyto-sanitary and environmental-toxicological assessment of agricultural lands to relevant executive authorities;

- facilitate implementation of agrochemical, environmental and biological, phytosanitary and environmental-toxicological assessment of agricultural lands;
- inform relevant executive authorities of the degrading agricultural lands and soil pollution on land plots in their disposal.

The Law also establishes a requirement on the state registration of indicators of the fertility condition of agricultural lands, and monitoring of fertility. Executive authorities, in order to ensure development of the agrochemical and environmental-biological services, submit proposals to allocate state orders, and facilitate production and supply of agrochemicals, biological substances and pesticides to agricultural producers.

4.4.1 **Conclusions**

Although the Law generally repeats requirements of industry laws on conservation of land, including the laws of RT «On Plant Protection», «On Production and Safe Use of Pesticides and Agrochemicals», the Land Code, «On the Quarantine of Plants», «On Soil Conservation», «On Environment Protection», it applies a comprehensive approach in protection and conservation of land. The Law does not explicitly cover biological diversity, however, it contains provisions aimed at protection and conservation of biodiversity and ecosystem services. The Law establishes a single authorized agency responsible for controlling fertility of soil, which is authorized to control compliance with all soil fertility measures.

At the same time, the Law has some shortcomings:

- Although it stipulates powers of the authorized agency to control fertility of land, the Law does not make distinction between its powers and powers of an agency regulating land relationships, the agency that ensures sanitary safety, an environment protection agency, as envisaged in the sector laws, including in the area of biological diversity.
- Lack of consistency between the provisions of this law pertaining to the financing activities on ensuring fertility of soil and provisions of the Land Code on economic measures and incentives, and financing of land protection.
- Legal provisions on the financing of land protection are not sufficient. Thus, the Law establishes that financing process includes responsibilities and requirements of land users. Such formulation of a provision causes lack of clarity in its understanding and application. Also, the Law establishes that land users shall bear responsibility for elimination of negative impact of lower fertility of agricultural lands resulting from economic activity. This provision is very effective, however the Law does not envisage development of a mechanism for its enforcement, hence, it cannot be practically applied.

4.4.2 Recommendations

1. As the Law contains a comprehensive approach to land protection and conservation, it is important to strengthen its provisions in terms of biodiversity conservation, in particular, a) to show consistency between fertility of land and biodiversity by adding biodiversity in the soil fertility concept; b) envisage the requirement on conservation of biodiversity as the responsibility of land users; c) include the biodiversity conservation criterion in state registration and monitoring of land; d) include issues of biodiversity conservation in the key areas of agrochemical and environmental-biological services, and scientific research on fertility of soil.
2. Determine contradictions and clearly distinguish powers of authorized bodies to ensure fertility of agricultural lands, as well as include these in biodiversity control.
3. Improve provisions of the Law on financing of activities to ensure fertility of soil, ensure consistency of the provisions of this Law and the Land Code on sources of financing, economic incentives, and include financing of biodiversity in these articles.
4. For the purpose of unified and single approach in conservation of biological diversity, protection of all categories of land, the Land Code of RT shall be improved, and provisions of this Law shall be merged with the Land Code provisions.

4.5 THE LAW OF RT «ON PROTECTION OF PLANTS»

The Law identifies plant protection as a set of measures in agriculture and forestry to prevent and eliminate consequences of damage caused to plants by pests, diseases and weed, based on the combination of various methods and means (organizational-economic, agrotechnical, biological, selection-genetic, chemical, etc.). The positive aspect of the Law is the requirement for phytosanitary measures to be developed and applied as required to protect the lives and health of people, plants and animals, based on the assessment of the risk to the lives and health of people, plants or animals implemented in accordance with the methodology applied by relevant international organizations.

Pursuant to the Law, the authorized agency shall recognize the ***concept of zones free from pests, diseases or weed, and zones with minor prevalence of pests, diseases or weed***. Such factors as ***geography, ecosystems, epidemiological surveillance, effective sanitary and phytosanitary control*** are taken as basis. Exporting countries, which declared that areas within their territories are free from pests, diseases or weed, present a required confirmation to a relevant agency to prove such areas are actually free from pests, diseases or weed, or have minor presence of pests, diseases or weed, and will likely remain as such. The positive aspect is the inclusion of this concept in the Law, however the provisions on this Concept are not sufficient. The Law only repeats the provisions of the Agreement

on application of sanitary and phytosanitary measures of the WTO, but it does not envisage a specific mechanism for enforcement.

Although plant protection is also linked with biodiversity conservation and measures envisaged in the Law have direct impact on it, provisions of this Law do not mention conservation of biodiversity as one of the important principles and objectives in plant protection.

4.5.1 **Conclusions**

- The Law does not consider conservation of biodiversity and ecosystems as an important part in plant protection.
- Despite the inclusion of the requirements of the Agreement on application of the WTO sanitary and phytosanitary measures in respect of concept of areas free from pests, diseases or weed, and areas with minor prevalence of pests, diseases or weed, these provisions were not further improved in the Law.

4.5.2 **Recommendations**

Provisions on the conservation of biodiversity shall be added in the part of the Law pertaining to the plant protection, development and application of phytosanitary measures, plant protection requirements.

4.6 THE LAW OF RT «ON PRODUCTION AND SAFE TREATMENT OF PECTISIDES AND AGROCHEMICALS»

envisages organization of registration tests and state registration of pesticides and agrochemicals to develop and justify Regulations on Application of Pesticides and Agrochemicals. Registration tests of pesticides and agrochemicals include environmental assessment of the regulations on application of pesticides and agrochemicals.

The positive aspect of the Law is the requirement on application of pesticides and agrochemicals based on phytosanitary, sanitary, and environmental situation, demand of plants in agrochemicals, fertility condition of soil, as well as breeding ration.

Although the Law does not explicitly cover biological diversity, environmental requirements on the use of pesticides and agrochemicals, aimed at conservation and protection of biodiversity.

4.7 THE LAW OF RT «ON PROTECTION OF SOIL»

The Law regulates protection of fertile soil layer. As one of the government policy principles on conservation of soil, the Law envisages efficient use and conservation of soil as the most important component of nature. To maintain diversity of soil, in particular, to prevent contamination and degrading, the Law envisages adoption of state comprehensive, targeted and regional programs

covering measures to protect soil from water and wind erosion, rehabilitation of degraded soil aimed at increasing soil fertility, other nature protection measures.

In order to protect soil, ensure performance of sanitary-hygiene, environmental, economic functions, state soil quality standards, acceptable soil exposure, standards of acceptable man-made burden on the soil in agricultural lands.

4.7.1 **Shortcomings in the Law:**

The Law envisages that the Government of the Republic of Tajikistan shall define the authorized agency and the state control procedures on soil conservation. However, these procedures are not established, the powers for soil fertility protection are not envisaged or delineated.

The Law establishes that the state monitoring of soil shall be implemented by the authorized government agencies as part of the state environment monitoring of land in accordance with the legislation of RT. However, the Law does not stipulate in which parts environmental monitoring and land monitoring are performed, the link between these two types of monitoring, and interaction of involved structures in implementation of these monitoring types are not identified.

There is duplication and inconsistency of the provisions of this Law and other laws on environment protection, including the Land Code, the Law of RT «On Fertility of Agricultural Land», the Law of RT «On Protection of Plants, Production and Safe Treatment of Pesticides and Agrochemicals». Provisions of these laws on the identification of an authorized agency and forms of soil protection are not consistent.

The mechanism to enforce the Law is not effective, in particular, it lacks soil exposure ratios, including man-made soil exposure in agriculture.²

4.7.2 **Recommendations**

1. To avoid inconsistencies, duplication and contradictions, it is proposed to include all provisions on soil and land protection, including provisions of this Law, the Law of RT «On Fertility of Agricultural Land», the Law of RT «On Protection of Plants» in the Land Code. The Land Code should be revised to take into account recommendations provided in the Land Code Analysis.
2. A single body authorized to implement protection of land, including soil, should be identified.
3. Biodiversity related requirements should be included in the key principles and requirements on protection of land, soil, and their fertility.

² These provisions were not found in the official sources for publication of normative legal acts. We assume such acts exist and were approved by the authorized agency. However inaccessibility of these acts and lack of information on their registration with the Ministry of Justice suggest that such normative legal acts do not exist.

4. Standards for protection of soil should be developed and made accessible to all users, including agricultural producers.

4.8 LAWS OF RT «ON SEED PRODUCTION» AND «ON PROTECTION OF VARIETIES OF PLANTS»

These laws regulate the state variety testing system, in particular, seed production and state seed and variety control. The legal framework for selection and seed production sector is, of course, the framework to solve issues directly linked with the biodiversity conservation. Overall, laws are aimed at conservation of biodiversity and ecosystem services, however, there is a need to strengthen these requirements by including specific provisions on biodiversity conservation in the indicated laws.

4.8.1 Recommendations

1. Include requirements on conservation of biodiversity in the part on variety and seed control, seed certification.
2. Merge provisions of these laws in one single law.

4.9 THE LAW OF RT «ON COLLECTION, CONSERVATION AND SUSTAINABLE USE OF GENETIC RESOURCES OF CULTIVATED PLANTS»

The key law regulating genetic diversity of plants and their wild relatives, which are used or may be used in the future for agriculture and food production. The Law has the following advantages:

- The Law sets concepts of *biological diversity, agrobiodiversity, agroecosystems*.
- The Law introduces economic motivation and inclusive public awareness in the area of collection, conservation and sustainable use of genetic resources of cultivated plants and their wild relatives.
- It clearly lists grounds for restriction of activities on collection, conservation and use of genetic resources of cultivated plants when such activities cause damage to environment, have negative impact on agroecosystem, lead to reduction or total disappearance of components of agrobiodiversity; ensuring state security, environment protection, protection of historical and cultural values, rights and legal interests of the citizens and legal persons.
- It sets special measures for conservation of rare and endangered species of cultivated plants potentially important for agroecosystems.
- It sets forms of ownership on genetic resources of cultivated plants and their wild relatives.

4.9.1 Shortcomings of the Law:

- The Law does not have clear delineation of powers of involved authorized agencies.

- The Law does not link its provisions with the provisions of other specific laws, including the laws «On Seed Production» and «On the Protection of Plant Varieties», «On Protection of Plants», «On Protection and Use of Fauna”.

4.9.2 **Recommendations**

1. Consider a possibility of merging this Law with other above listed laws regulating fauna and its protection.
2. Merging the provisions of laws allows clear delineating powers of all involved government agencies, eliminate inconsistencies, and develop a single approach for conservation of biological diversity of fauna.

4.10 THE LAW OF RT «ON PROTECTION AND USE OF FAUNA»

The Law considers conservation of biological diversity of wild plants and natural plant communities that they form as one of the key principles of protection, use and reproduction of flora resources. Protection of plant communities shall be performed based on a comprehensive approach such as the approach for complex formations – ecosystems.

However, the Law does not apply to agricultural crops and flora resources grown on land plots in managed conditions. At the same time, there are a number of questions common for any type of plants, including issues of plant quarantine, conservation of genetic plant resources, the procedure of using pesticides and agrochemicals, the procedure of safe selection tests of new varieties. Contradictions are observed in the use of flora regulated by this Law, and in the use of forests as part of flora resources regulated by the Forestry Code. Such regulation leads to legal regulation of flora resources, including cultivated plants, wild plants, trees and shrubs, and forests.

4.10.1 **Recommendations**

1. Develop a single approach to conservation of biodiversity, protection of all types of plants, including agricultural crops.
2. Consider the link of this Law with the laws of RT “On Protection of Plants”, “On Conservation of Soil”, “On Protection of Plant Varieties”, “On Production and Safe Treatment of Pesticides and Agrochemicals”, “On Collection, Conservation, and Rational Use of Genetic Resources of Cultivated Plants”, “On Seed Production”.
3. In order to unify provisions of the laws regulating flora, to develop a single approach to conservation of biological diversity of flora and its protection, to eliminate duplication of control functions and make clear distinction of the powers of authorized bodies, merging all above mentioned laws regulating flora in one law would make sense.

4.11 THE LAW OF RT «ON BIOLOGICAL SAFETY»

The Law regulates activities for development, testing, production, import, export, and delivery to the market and environment of genetically modified organisms; it is aimed at *reducing the risk of unfavorable impact of genetically modified organisms* on human health, **biological diversity, environmental balance, and environment condition**. The Law envisages assessment of the impact and risks to human health and/or environment caused by introduction in environment, and at the time of the first release of genetically modified organisms and/or combinations of such organisms to the market.

The Law sets visibility and transparency of the procedure for the authorization of deliberate release of genetically modified organisms and their derivatives to the environment and in the market.

4.11.1 Shortcomings of the Law:

The Law includes issues related to the use of genetically modified microorganisms (organisms) in sealed systems, releasing genetically modified organisms or their combinations for the research, testing, development and/or other purposes, releasing of genetically modified organisms and their derivatives to the market in the powers of the National Commission, however it does not provide the details of such a commission, its developers, members of the commission, and its operation procedures. The Law does not clarify powers of the agencies responsible for the safety of food products, including the Ministry of Agriculture and health authorities; it does not distinguish their powers from the powers of the environmental authority.

5 THE LAW OF RT «ON BIOLOGICAL MANAGEMENT AND PRODUCTION»

The Law sets rules of production, processing, storage, transportation, packaging, labeling, and sale of biological products.

It considers protection and increase of diversity of the wild plants varieties by harmonizing biological production, prevention of environmental pollution and maintaining environmental system balance in the period of biological production as one of the key tasks of the Law.

5.1 THE LAW OF RT «ON DEKHKAN FARMS»

The Law includes obligations of dekhkan farms to prevent deterioration of agro-environmental, ameliorative, and sanitary-hygiene condition of land in the process of economic activities, application of methods to prevent spread of diseases, insects and pests of plants and livestock in production of agricultural products, allocation of funds from the profit of dekhkan farms to rehabilitate and increase fertility of land, implement science based agrochemical, environmental, and biological measures. These measures are related to the conservation of biodiversity, at the same time, for deeper

understanding of the importance to conserve biodiversity by dekhkan farms, it makes sense to include a requirement on conservation of biodiversity in the obligations of dekhkan farms, and stipulate its violation as one of the grounds to terminate the land use right of dekhkan farms.

Recommendations

1. Include a requirement on conservation of biodiversity in the obligations of dekhkan farms.
2. Envisage compensation to be paid by dekhkan farms of the damage caused to biodiversity as a result of their economic activity.
3. Envisage development of a methodology to calculate damage caused to nature by dekhkan farms taking into account natural systems and ecosystems.

6 ANALYSIS OF POWERS OF INVOLVED GOVERNMENT AGENCIES AND INSTITUTIONS TO REGULATE BIODIVERSITY AND ECOSYSTEM SERVICES IN AGRARIAN LANDSCAPES

State regulation of biodiversity and ecosystem services in agrarian landscapes is regulated by the Ministry of Agriculture and its subordinate structures, by the **State Committee for Land Management and Geodesy**, the Committee on Protection of Environment under the Government of RT, the Forestry Agency under the Government of RT, the below government agencies, local executive authorities, settlement and village jamoats. Further we will discuss the key powers of these structures for regulation of biodiversity and ecosystem services.

6.1 Ministry of Agriculture of RT and its subordinate structures

The Ministry implements the following powers:³

- Performance of research, agrochemical and agro environmental works to identify opportunities of sustainable land use for agricultural production and maintenance of environmental order.
- Control compliance with the standards, norms, rules and regulations in carrying out ***agrotechnical, agrochemical, environmental and biological, ameliorative, phytosanitary, and ant erosion measures.***

³ Laws of RT «On Fertility of Agricultural Land», «On Protection of Plants», «On Production and Safe Treatment of Pesticides and Agrochemicals», Regulations on the Ministry No. 191 from April 26, 2008.

- Collect information from land users on the use of biological factors and means, and pesticides.
- Drafting action plans for rehabilitation of agricultural lands contaminated with radionuclides, heavy metals and other substances.
- Control the quality of biological factors and means, and pesticides used to ensure fertility of agricultural land, and their safe treatment.
- State control of reproduction of agricultural land and its sustainable use to ensure compliance of land users with the legislation of the Republic of Tajikistan.
- Develop plant protection programs.
- Control compliance with the rules of storage, transportation, and use of pesticides, develop and approve normative documents regulating relationships in the plant protection area.
- Organize works to detoxicate pesticides upon agreement with the authorized government agencies for protection of environment and sanitary-epidemiological surveillance.
- Organize registration tests, expertise of the results of registration tests of pesticides and agrochemicals, state registration of pesticides and agrochemicals.
- Organize works for standardization and certification of pesticides and agrochemicals.
- Develop methods and approaches, technologies of protection and rehabilitation of pastures, standard rules for the use of pastures and implementation control.
- Implement state monitoring of the condition of pastures and pasture resources.
- Organize geo-botanical assessment of pastures.

6.1.1 **The Food Security Committee under the Government of the Republic of Tajikistan**

The Committee was established in the end of 2017 on the basis of state services on veterinary control, pedigree works, and state phytosanitary and plant quarantine inspectorate.

It implements functions of control and supervision in the area of phytosanitary, quarantine of plants and seed production, as well as issue of permits, including certification and accreditation within the determined control areas.

6.1.2 **State Enterprise «State Commission on Testing Varieties of Agricultural Crops and Protection of Varieties» of the Ministry of Agriculture of RT.**

- Identified as the state authorized body for testing, registration, and protection of plant varieties⁴.

⁴ Resolution of the Government of RT No. 21 from June 2, 2011.

6.1.3 Tajik Academy of Agricultural Sciences⁵:

The Academy has been identified as a state authorized body responsible for collection, storage and sustainable use of genetic resources of cultivated plants. It is responsible for implementation of the following:

- creation of new higher productivity varieties and hybrids of agricultural crops, breeds, types, lines, hybrids and crosses of animals, birds, bees, silkworms, and their future improvement using methods of biotechnology, gene technology and cell engineering, new means of diagnostics, prevention and therapy of animals, birds, fish and bees, new technologies of scientific research of effective methods of production in farming and livestock breeding, and their processing;
- development of scientific basics for seed production, fruit farming, and creation of new varieties of agricultural crops;
- creation of a new system for protection of plants and animals from diseases and pests based on modern achievements of science and technologies;
- development of scientific basics for sufficient use of natural resources, increasing fertility of soil, control of erosion and salinization of soil.

6.2 2. State Committee for Land Management and Geodesy:

The Committee performs the following functions⁶:

- state control of the use and protection of land;
- implement state land cadaster and land monitoring;
- suspend any type of construction, development of minerals and peat deposits, operation of facilities, implementation of forest improvement, geological exploration works, and prohibit land users works when these are performed in violation of land legislation.

6.3 3. Environment Protection Committee under the Government of the Republic of Tajikistan

The Committee performs the following functions⁷:

⁵ CHARTER OF THE TAJIK ACADEMY OF AGRICULTURAL SCIENCES approved by the Resolution of the Government of RT No. 215 from May 2, 2008, Resolution of the Government of RT No. 147 from March 30, 2013 "On Identification of the Authorized Government Body for Collection, Storage and Sustainable Use of Genetic Resources of Cultivated Plants".

⁶ Land Code of RT

⁷ Regulations of the Committee, the laws of RT "On Protection of Environment", "On Protection and Use of Flora Resources".

- implementation of government environmental policy and comprehensive management in the area of environment protection and sustainable use of natural resources, coordination of activities of ministries, departments, local government authorities, self-governance bodies of settlements and villages, natural and legal persons;
- implementation of state control in the area of effective use of natural resources and protection of environment, as well as activities of economic and other facilities, regardless of the form of property and departmental subordination;
- implementation of the single government environmental policy in the area of environment protection, control of efficient use of natural resources, including protection of natural monuments, hydrometeorology, prevention of causes of emergency situations with negative impact on environment, biological diversity, persistent organic pollutants, climate change;
- state control of protection and sustainable use of flora and fauna, fish stock of hunting farms, specially protected natural territories, touristic routes, woodlands, water resources, open air, land and its underground layers, known minerals, treatment of chemical substances and mineral fertilizers, waste and recyclable products, compliance with the norms of environmental and biological safety, quality of fuel, persistent environmental pollutants and compliance with the environmental norms and standards;
- implementation of research and study of environment protection issues, efficient use of natural resources, biological diversity, water resources, fish, and climate change;
- coordination of activities with the ministries, departments, and local government authorities, as well as with enterprises, institutions and organizations, regardless of the form of property and subordination on the issues pertaining to the use of natural resources, environment protection, and environmental safety;
- coordination and performance of commitments made by the Republic of Tajikistan on conventions and agreements on environment protection and use of natural resources;
- setting the rules for protection, efficient use and reproduction of flora resources, identification of limits and norms for the use of natural flora;
- state control of protection, use and reproduction of flora resources;
- development of the Regulations on the Red Book of the Republic of Tajikistan jointly with the Academy of Sciences of the Republic of Tajikistan and other stakeholder agencies;
- development and approval of standards, rules and norms in the area of protection, use, and reproduction of flora resources;
- submit proposals to include flora species in the Red Book of the Republic of Tajikistan;
- implementation of the single government policy to ensure environmental safety;

- streamlining and coordination of activities to implement the strategy and the national plan of actions for conservation of biodiversity;
- designing projects and organization of works for conservation of biodiversity, and biosafety;
- drafting national environment protection reports, reports, environmental passports, projects, and other environment protection documents;
- identifying bioresources stocks.

6.3.1 **National Biodiversity and Biosafety Center under the Committee:**

Tasks of the National Biological Center⁸:

- attracting international grants for sustainable implementation of the national action plan for conservation of biodiversity at the non-system, ecosystem, population-variety, and genetic levels;
- developing initiatives to create an environmental network of the country;
- assessment of the conditions, analysis and activities of specially protected territories;
- developing normative-methodology documentation on the use of biodiversity;
- preparing documentation and recommendations for improvement of the legislative and regulatory acts on structural activities related to biodiversity and organization of biosafety structure.

6.4 **Forestry Agency under the Government of RT**

The Agency implements the following powers for conservation of biodiversity⁹:

- submit proposals to international organizations and foreign countries to enter into contracts and agreements aimed at conservation of forest ecosystems and solving forestry and specially protected areas' problems;
- ensure protection, rehabilitation, multifunctional and sustainable use of forest resources by implementing control, regulation and support;
- organization of monitoring of the condition of forest resources, flora and fauna species in specially protected natural territories;

⁸ Regulations of the Center approved by the Resolution of the Government of RT NO. 392 from September 1, 2003.

⁹ Regulations of the Agency approved by the Resolution of the Government of RT No. 132 from February 28, 2014.

- identification of the procedure of operation of the system of seed farming, production and processing of seeds, organization and use of the contingency seed fund, certification of seeds, issue of certificates confirming variety and quality of seeds.

6.4.1 **State Forest and Hunting Inspection of the Forestry Agency**

Implements state control of forest and hunting resources.

6.4.2 **State Research Institute of Forestry**

- implementing research, studying planting and restoring forests, genetics, selection, conservation of biological diversity, sustainable use of forest and hunting resources, flora and fauna.

6.5 **Local Executive Government Authority**

Implements the following functions¹⁰:

- participation in implementation of state control of collection, maintenance, and efficient use of agrobiodiversity components;
- provision of recommendations to authorized government bodies on the need to arrange special protected agroecosystems, in which rare and endangered species of wild plants, as well as old-local traditional varieties of local selection and wild relatives of cultivated crops used by local population in agriculture and food production;
- organizing and ensuring operation of the mechanism to provide access to local genetic resources of cultivated plants and their wild relatives, and obtaining equal benefits from their use;
- support and direct involvement in the state monitoring of the condition of agrobiodiversity and recording the degree of genetic erosion;
- implementing measures to prevent unauthorized access to components of agrobiodiversity and biological research activities within their powers;
- representation in various government agencies making decisions on the access to genetic resources of cultivated plants and their wild relatives, as well as sharing benefits from their use;

¹⁰ Laws of RT “On Collection, Maintenance and Efficient Use of Genetic Resources of Cultivated Plants”, “On Pastures”.

- motivation of the population, providing every possible support and assistance in implementing measures to conserve local flora biodiversity and its sustainable use in agriculture and food production.
- On pastures:
Implementing control of the use of land plots and water areas envisaged for pastures, for the purpose of environmental safety, protection of historical monuments and cultural heritage resources.

6.5.1 **6. Jamoats**

Control of the use and protection of land¹¹

6.6 7. Chemical Safety Commission of the Republic of Tajikistan:

- coordination of activities of the ministries, departments, local government authorities and self-governance bodies in the area of control of treatment of chemical substances, regulation of measures in respect of persistent organic pollutants, environmental safety and population health protection;
- approval of the “List of Chemical and Biological Substances Allowed for Use in the Republic of Tajikistan”, introducing amendments in the List;
- considering proposals to carry out tests and registration of chemical substances, biological substances, and making decisions.

6.7 Conclusions

At the legislative level one observes lack of clarity in sharing responsibilities, duplication and overlapping functions of controlling agencies in terms of protection, use and reproduction of land, vegetation and soil. Shortcomings in the management system, lack of clear delineation of powers and involved agencies for cooperation may have negative impact on the conservation of natural resources, including conservation of biodiversity.

Thus, according to the Land Code, agencies implementing control of the use and protection of land, are the State Committee on Land Management and Geodesy, and local jamoats. At the same time, the Law of RT “On Fertility of Agricultural Land” identified the Ministry of Agriculture as the body implementing control of compliance with the standards, norms, rules, and regulations for agrotechnical, agrochemical, environmental and biological, ameliorative, phytosanitary and antierosion measures; control of the quality of biological factors and substances, and pesticides used to ensure fertility of agricultural land, and safe treatment; state control of reproduction of agricultural

¹¹ Land Code of RT.

land and their sustainable use to ensure compliance of land users with the requirements of the land legislation of the Republic of Tajikistan. The Law of RT “On Environment Protection” identifies the Environment Protection Committee as the agency implementing state control of effective use of natural resources, which also includes control of the impact of, e.g., pesticides, control of land degradation, treatment of chemical substances and mineral fertilizers, waste and secondary use items, compliance with the norms of environmental and biological safety, quality of fuel, persistent organic pollutants, and compliance with the environmental norms and standards.

The most effective mechanism of the management system in biodiversity area may be considered state control of protection and use flora resources, which is also extremely disconnected between the ministries and departments. Thus, according to the Law of RT “On Protection and Use of Flora”, state control of protection, use and reproduction of flora resources, including works on controlling quarantine and ruderal varieties of plants, pests and diseases of wild plants, prevention of soil erosion, swamping, flooding, salinization, contamination, reduction of soil fertility, and other processes, application of mineral fertilizers are implemented by the environment protection agency; according to the laws of RT “On Protection of Plants” and “On Fertility of Agricultural Land”, this function is implemented by the Ministry of Agriculture, and the land management and geodesy agency – according to the Land Code. The Law “On Soil Conservation” envisages the same control, however, it does not establish powers of specific authorized bodies.

The Law “On Biological Safety” envisages only powers of the environment protection agency, but it does not consider the role of agencies on food safety and health protection in biological safety. One should note that agrobiodiversity must become separate protection object, however structures of discussed authorized bodies in the ministry lack a special structure for conservation of agrobiodiversity. Moreover, some of these structures, for instance, of the Committee on Environment Protection, as well as of the State Committee on Land Management and Geodesy of the Republic of Tajikistan, do not include an Inspection for implementing control. Function of the inspection in such agencies is implemented by their central office structures responsible for development of policies that leads to ineffective control.

Institutions are granted functions of government agencies. Thus, the government institution «State Commission for Testing Varieties of Agricultural Crops and Protection of Varieties» and the Tajik Academy of Agricultural Sciences under the Ministry of Agriculture are identified as authorized government agencies for testing, registration and protection of plant varieties, and for collection, conservation and rational use of genetic resources of cultivated crops, accordingly. In this case, the

authorized agency should be the Ministry of Agriculture, which may impose implementation of such work on its subordinate structures.

Establishment of the Food Security Committee is a positive step towards food security, including protection of plants and seed production. However, one should note, that functions of the Committee primarily include ***control and licensing functions***, which is peculiar to the inspections (surveillance services). It is assumed that policy development in the food security area remains the function of the Ministry of Agriculture. To avoid duplication of powers, it is important to continue reforms in this area and, specifically, to split functions of this Committee and of the Ministry of Agriculture.

6.8 Recommendations

1. Consider the issue of merging all provisions of laws pertaining to the protection and conservation of land, soil, and protection of plants, in one law, thus eliminating duplication, contradictions, and inconsistency of provisions. Include provisions on protection of biodiversity, including agrobiodiversity, in such a Law.
2. Identify a single inspection body for the performance of supervisory functions for conservation and protection of land, soil, and plants. Include specific functions of conservation of biodiversity in the powers of such an inspection.
3. To specify the functions of controlling biodiversity, indicators should be developed for conservation of biodiversity and methods of control and detection of violations in conservation of biodiversity, inclusive of natural habitat and ecosystems, and develop methods to compensate damage to specific natural resources.
4. Develop and approve state norms and standards for the quality of soil, norms of admissible impact on soil, admissible concentrations of repugnant substances, microorganisms, and other biological substances contaminating soil, including limits on the use of agricultural land, use of agrochemical substances, biological factors and agents, and pesticides; rules and regulations for performing agrotechnical, agrochemical, environmental and biological, ameliorative, phytosanitary and antierosion measures¹². Ensure accessibility of these norms and standards to all users, including agricultural and other organizations, whose economic activities affect conservation of biodiversity.

¹² Вывод об отсутствии нормативов и стандартов сделан на основе проведенного обзора наличия этих документов в официальных источниках опубликования нормативных правовых актов и сведений об их регистрации в Министерстве юстиции РТ.

7 ROLE OF THE PRIVATE SECTOR IN CONSERVATION OF BIODIVERSITY, INCENTIVES STIPULATED IN THE LEGISLATION, IMPEDIMENTS REVEALED

Legislation of RT is characterized by the establishment of the priority role of the state in conservation of biodiversity, whereas the public has secondary role. Public control of implementation of nature protection requirements, including requirements on conservation of biodiversity, are not envisaged in the above mentioned laws.

One should note that the key burden on biodiversity resources is from private enterprises, which use natural resources and ecosystem services as the key component of production processes. Along with the negative practice of existing pressure on environment, business may also become part of the solution if innovative, effective, at the same time beneficial approaches from the business sustainability point of view are implemented for conservation of biodiversity.

In such a case, a specifically important aspect is motivation of business in conservation of biodiversity. However, there is no normative-legal acts establishing the process of public participation in the financial support of nature protection measures, motivation of businesses to engage in nature protection activities.

Positive aspects of the legislation can be provisions of the laws of RT “On Environmental Expertise” and “On the Assessment of Impact on Environment” in respect of public environmental assessment, involvement of public associations in preparation and discussion of materials on assessment of impact on environment, and public hearings on the results of the environment impact assessment.

Also one should note that provisions of the Article 301 of the Tax Code regarding exemption from the payment of the single agricultural tax on destroyed land (requiring recultivation) for 5 calendar years.

The Law of RT “On Government Support to the Agro-Based Industries of the Republic of Tajikistan” No. 241 from March 5, 2007.

The Law envisages government support according to the list of agro-based industries by allocating subsidies (financial support) from the state budget and attracting foreign investments and grants for development of agro-based industries.

The size and procedure for allocation of subsidies (financial support) for established purposes is identified annually in the process of drafting the Law of the Republic of Tajikistan “On the State Budget” for the next financial year depending on financial capacity. However one should note that annual laws on the state budget do not envisage procedure for allocation of subsidies (financial support) for identified purposes, and have only a separate line to identify the total amount of

expenditures to pay for subsidies. This may complicate allocation of subsidies to a certain subject of such law. In addition, the Law establishes that targeted and direct funding is provided by the central treasury system and its local agencies, within the approved budget, which, in the absence of a clear mechanism to identify the subject and size of subsidy for this subject, may lead to a subjective approach in payment of subsidies.

7.1 Recommendations:

1. Draft a normative-legal act that establishes the process of participation of the private sector in financing of measures aimed at maintaining, as well as enhancing private businesses in a particular area of activity.
2. Develop a mechanism for implementation of the Law of RT “On State Support to Agro-Based industries of the Republic of Tajikistan”.

Develop a mechanism of cooperation between nature protection, law-enforcement bodies and the public in prev