

# ANNEX

Extract from

**THE LAW OF THE  
REPUBLIC OF TAJIKISTAN  
ON SPECIALLY PROTECTED NATURAL AREAS**

(Akhbori Majlisi Oli of the Republic of Tajikistan, 2011, No. 12,  
p. 852; the Law of the RT of 27.11.2014, No. 1159)

This Law determines legal, organizational and economic basis of specially protected natural areas, sets their tasks, the mode of activities and zoning.

**CHAPTER 1. GENERAL PROVISIONS**

Article 1. Basic concepts

In this Law the following basic concepts are used:

- specially protected natural areas - land areas, waters and airspace over them where the natural complexes and objects having special nature protection, scientific, cultural, esthetic, recreational and health-improving value, withdrawn in the procedure established by the legislation of the Republic of Tajikistan from economic use, fully or partially, for which the mode of special protection is set, are located;
- nature reserve – the territory of the earth or the water space withdrawn completely from economic activity, intended for preserving and studying of typical and unique natural complexes, gene pool of plants and animals, carrying out monitoring of dynamics of natural processes and the phenomena;
- natural park - the territory which includes the natural complexes having special ecological, historical and esthetic value, held for use in the nature protection, recreational, scientific and cultural purposes;
- biosphere wildlife reserve – the site of terrestrial and water ecosystems or their combination included in Worldwide network of biosphere wildlife reserves, intended for protection of natural and cultural values and sustainable land use, including lands of agricultural purpose, forest fund, specially protected natural areas and rural settlements;
- natural wildlife area – the territory allocated for certain period for the purpose of protection and recovery of separate components of the nature and natural complexes;
- nature sanctuary – unique, irreplaceable and valuable object of natural origin in the ecological, scientific, esthetical, cultural relation;
- recreational zone – the land area, water space or their combination having esthetical, ecological or cultural value, used for the purpose of recreation and health improvement of the population;
- protective (buffer) zone – the zone created around especially protected natural territories for the purpose of reduction of adverse external effects
- State Cadastre of specially protected natural areas – the code of data on the legal

status, geographical location, quantity and quality characteristics of the protected natural areas of natural, ecological, economic, scientific, educational and other value and their users;

– nature records – the scientific document in which the main results of observations of natural processes and the phenomena, the analysis of the obtained data, and also the revealed patterns of observed natural processes, the phenomena, the reasons causing them and forecasts of their further development are fixed;

– ecological tourism - the tourism including travel to places with rather untouched nature with the purpose to gain impression about natural and cultural and ethnographic features of this area and not breaking at the same time integrity of ecosystems and creating economic conditions under which conservation and natural resources become profitable to local population.

– dendrological parks and botanical gardens – organizations which task includes creation of collection of trees and bushes for the purpose of preserving biodiversity and enrichment of flora, introduction and acclimatization of new types of plants, and also in the scientific, educational and cultural and educational purposes.

Article 2. The legislation of the Republic of Tajikistan on specially protected natural areas

The legislation of the Republic of Tajikistan on specially protected natural areas is based on the Constitution of the Republic of Tajikistan and consists of this Law, other regulatory legal acts of the Republic of Tajikistan, and also the international regulatory legal acts recognized by Tajikistan.

Article 3. Categories of specially protected natural areas

1. Depending on the purposes of creation, features of the mode of protection and use the following categories of especially protected natural territories are established:
  - national natural parks;
  - state natural parks;
  - natural wildlife areas;
  - state zoological parks;
  - state nature sanctuaries;
  - ecology-ethnographic zones;
  - dendrological parks and botanical gardens;
2. Other categories of specially protected natural areas may be established in accordance with the legislation of the Republic of Tajikistan.
3. Taking into account the ecological value, specially protected natural areas can be of international, republican and local importance.

Article 4. State ownership of specially protected natural areas

1. Specially protected natural areas are the exclusive property of the state, and the state guarantees their effective use in the interests of the people.
2. Actions directly or indirectly, violating the right of state ownership of specially protected natural areas are prohibited.

## CHAPTER 2. MANAGEMENT OF SPECIALLY PROTECTED NATURAL AREAS

### Article 5. Management of specially protected natural areas

1. The Government of the Republic of Tajikistan, the authorized state body in the field of specially protected natural areas (hereinafter referred to as the “authorized state body”), local government bodies, ministries, departments and organizations in charge manage specially protected natural areas. Control of the state and compliance with the regime of specially protected natural areas is carried out by the authorized state body.
2. Activities for the implementation of state control and management of specially protected natural areas in the border areas are regulated by the legislation of the Republic of Tajikistan. Specific measures in these territories are carried out with the permission of the authorized state body for the protection of the state border.

### Article 6. Competence of the Government of the Republic of Tajikistan concerning specially protected natural areas

The competence of the Government of the Republic of Tajikistan concerning specially protected natural areas includes:

- pursuing a unified state policy in the field of specially protected natural areas;
- coordination of the activities of state bodies for the protection and management of specially protected natural areas;
- making decisions on the organization and liquidation of specially protected natural areas of republican and international importance;
- approving state programs and adopting normative legal acts concerning specially protected natural areas;
- determining the authorized state body in charge for specially protected natural areas;
- implementing international cooperation in the field of specially protected natural areas;
- exercising other powers determined by the legislation of the Republic of Tajikistan.

### Article 7. Powers of the authorized state body

The powers of the authorized state body include:

- implementing a unified state policy concerning specially protected natural areas;
- organizing monitoring of specially protected natural areas;
- implementing state control;
- developing programs and regulatory legal acts for specially protected natural areas;
- filing claims for compensation for damage caused to specially protected natural areas as a result of non-compliance with environmental legislation;
- exercising other powers determined by the legislation of the Republic of Tajikistan.

### Article 8. Powers of local government bodies concerning specially protected natural areas

The powers of local government bodies concerning specially protected natural areas include:

- providing assistance in implementing state programs in the field of specially protected natural areas;

- determining the main measures for the protection and use of specially protected natural areas, approving local environmental programs;
- coordinating and controlling the activities of local authorities on environmental protection, providing assistance in voluntary fundraising to implement measures for the preservation and restoration of specially protected natural areas;
- exercising other powers determined by the legislation of the Republic of Tajikistan.

Article 9. Participation of public organizations and citizens in the organization, protection and use of specially protected natural areas

Public organizations and citizens take part in the implementation of measures for the organization, protection and use of specially protected natural areas in accordance with the legislation of the Republic of Tajikistan.

Article 10. State Cadastre of specially protected natural areas

1. The State Cadastre of specially protected natural areas is maintained to evaluate the state of the natural fund, determine the prospects for their development, and ensure their protection, conduct scientific research, state control over the conservation of the gene pool, and comply with the relevant regime, as well as take into account these areas when planning socio-economic development and placement productive power in the region.
2. The State Cadastre of specially protected natural areas is maintained according to a unified system developed by the authorized state body with the participation of other interested departments. The procedure for maintaining the State Cadastre of specially protected natural areas is established by the Government of the Republic of Tajikistan.

Article 11. Planning of measures to protect and use specially protected natural areas

1. Measures to protect and use specially protected natural areas are provided for in the concepts, strategies and programs of socio-economic development. The planning of measures to protect and use specially protected natural areas is carried out taking into account the scientifically grounded combination of economic and environmental interests of society.

Current and long-term planning of measures to protect and use specially protected natural areas is carried out as part of concepts, strategies and programs of socio-economic development on the basis of the state environmental program and the general scheme for the development and distribution of productive power, sectors of the economy, taking into account the natural resource potential of the Republic and its individual regions.

Specially protected natural areas are taken into account when developing programs for the socio-economic development of regions, land management schemes and district planning.

The planning of measures to protect and use specially protected natural areas is carried out by the ministries, departments and organizations that are in charge of these areas.

Article 12. Material and technical support and financing of measures to protect and use specially protected natural areas

1. The Government of the Republic of Tajikistan, ministries and departments, local government bodies, and organizations, regardless of the form of ownership and subordination, take the necessary measures for the material and technical support

- of activities aimed at protection and use of specially protected areas.
2. Measures to protect and use specially protected natural areas are financed from the following sources:
    - republican and local budgets;
    - republican and local funds for environmental protection;
    - funds of enterprises, institutions and other organizations, regardless of their form of ownership;
    - voluntary investments of individuals and legal entities;
    - other types of financing not prohibited by the legislation of the Republic of Tajikistan.

### **CHAPTER 3. ORGANIZATION OF SPECIALLY PROTECTED NATURAL AREAS**

Article 13. The procedure for the creation of specially protected natural areas  
Specially protected natural areas are created by decisions of the Government of the Republic of Tajikistan and local government bodies at the suggestion of the authorized state body in accordance with this Law and other regulatory legal acts of the Republic of Tajikistan.

Article 14. Protective (buffer) zones

1. If it is necessary to prevent or mitigate harmful effects on the natural complexes of specially protected natural areas, protective (buffer) zones with limited economic activity may be established around these areas.
2. In the protective (buffer) zones, the types of economic activities and nature management that have a negative impact on specially protected natural areas are prohibited.
3. The sizes of protective (buffer) zones and their regime are established by the authorized state body.

Article 15. Ecological corridors

1. Ecological corridors are formed to ensure spatial communication between specially protected and other protected natural areas of the ecological network to preserve the property of the state natural reserve fund, biological diversity, protect natural migration routes of animals and the propagation of plants that live and grow in these protected natural areas.
2. On the sections of ecological corridors, a regulated regime of land use is established, which ensures the safety of wild animals in places of their temporary habitat and movement during the migration period, as well as the safety of places where wild plants grow.
3. The boundaries, area and regime of protection of ecological corridors are determined by local government bodies together with the authorized government body.

Article 16. Lands of specially protected natural areas

The lands of specially protected natural areas belong to the category of lands of the state forest fund and those used for environmental, health-improving, recreational, historical and cultural purposes. On the lands of specially protected natural areas, activities that contradict their designated purpose are prohibited.



Article 17. Procedure for reserving land for the creation of specially protected natural areas

1. The reservation of land plots for the purpose of organizing specially protected natural areas is made by the decision of heads of cities and districts based on the joint proposal of the authorized state body and the authorized scientific institution.
2. When land is reserved to organize specially protected natural areas and their protective (buffer) zones, losses of land users are reimbursed in accordance with the legislation of the Republic of Tajikistan.
3. In case of seizure of lands of the state forest fund, state land reserves for the creation of specially protected natural areas, no losses are reimbursed to nature protection institutions and other organizations who own these lands.

Article 18. Access of citizens to specially protected natural areas

1. Specially protected natural areas, with the exception of those with a strict protection regime, are generally accessible and are used by citizens for recreational, health-improving, cultural purposes and for ecological tourism.
2. The historically established residence of the local population with a low density in specially protected natural areas, except for those with a strict protection regime, is allowed, provided that the ecological balance of this area is preserved.
3. Ecological tourism is carried out at a specified time along the predetermined routes in accordance with the rules for accessing specially protected natural areas determined by the authorized state body. The authorized state body or organizations in charge of specially protected natural areas may prohibit ecological tourism in certain zones of specially protected natural areas to protect rare and endangered species of animals and plants and their habitat (growth).
4. Individuals and legal entities engaged in ecological tourism must enter into agreements with bodies or organizations in charge of specially protected natural areas to ensure compliance with their regime and rules for ecological tourism, agree on routes and other conditions.
5. Visits to specially protected natural areas for the purpose of ecological tourism may be carried out on a paid basis. The size and procedure for payment for ecological tourism in specially protected natural areas is established by the Government of the Republic of Tajikistan. Funds received from ecological tourism in specially protected natural areas are used to preserve, ensure the goals, objectives and regime of these areas.

Article 19. Procedure for reorganization, suspension of functioning and liquidation of specially protected natural areas

1. Reorganization, suspension of functioning and liquidation of specially protected natural areas is carried out by decisions of the Government of the Republic of Tajikistan and local government bodies in accordance with the proposal of the authorized state body and under this Law and other regulatory legal acts of the Republic of Tajikistan.
2. Reorganization of specially protected natural areas is carried out when it is necessary to change their type and category.
3. Suspension of functioning or liquidation of specially protected natural areas is carried out in the following cases:
  - expiration of their term of operation;

- is irreparable damage has been caused to the specially protected natural area by natural disasters and man-made actions;
- seizure of lands of specially protected natural areas for other state and public needs.

#### CHAPTER 4. STATE NATURE RESERVES

##### Article 20. Objectives of state nature reserves

The following objectives are assigned to state nature reserves:

- preserving biological diversity by maintaining the entire natural complex of the reserve in its natural state;
- biological monitoring;
- conducting scientific research;
- participating in the state ecological expertise of projects and layouts of economic and other objects, the implementation of which may have a negative impact on the natural complexes of reserves and their buffer zones;
- providing assistance in training scientific personnel and specialists in the field of environmental protection;
- disseminating environmental knowledge.

##### Article 21. Procedure for the formation of state natural reserves

1. The decision on the formation of state natural reserves, as well as on the change of their areas, is taken by the Government of the Republic of Tajikistan at the suggestion of the authorized state body and in agreement with local government bodies.

The organization of state nature reserves does not require the consent of individuals and legal entities carrying out economic activities and nature management in this area.

Seizure of land for the organization of state natural reserves is carried out in the manner prescribed by the legislation of the Republic of Tajikistan.

##### Article 22. Management of state natural reserves

1. The management of state natural reserves is carried out by the authorized state body in accordance with this Law.
2. Plans for the management of state natural reserves are approved by the authorized state body and brought to the attention of the relevant state bodies, public organizations and citizens. Interested individuals and legal entities may be involved in the development of management plans in the manner prescribed by the legislation of the Republic of Tajikistan. (Law of the RT No. 1159 of 27.11.2014).

##### Article 23. Regime of state natural reserves

1. On the territory of state natural reserves, economic and other activities that violate the development of natural processes, threaten the state of natural complexes and objects, and are not related to the fulfillment of the objectives assigned to the reserve are prohibited.

On the territory of state nature reserves and their protective (buffer) zones, the acclimatization of plants and animals unusual for these territories is prohibited.

The following is allowed in state nature reserves:

- carrying out measures to preserve, restore and prevent changes in natural complexes as a result of anthropogenic impact, as well as to implement research assigned to the reserve;



– carrying out fire-prevention and sanitary measures, as well as other types of limited economic activity and environmental management necessary to fulfill the objectives assigned to the state reserve.

4. Staying on the territory of state natural reserves of citizens, except for employees of the reserve and persons exercising state control, is allowed only with the permission of the administration of the reserves.

5. The construction of new economic facilities and the implementation of other activities in the territories adjacent to the state natural reserves that pose a threat to the reserve regime, leading to an increase in background concentrations of pollutants or a change in the hydrological regime within reserves, are carried out only in agreement with the authorized state body.

#### Article 24. Scientific and research activities in state natural reserves

1. Scientific and research activities in state nature reserves are carried out in the form of stationary round-the-clock long-term comprehensive research aimed at studying natural complexes and long-term monitoring of the dynamics of natural processes to evaluate and predict the ecological situation, develop scientific foundations for environmental protection, preserve the diversity of the biosphere, restore and rational use of natural resources. Keeping the «Nature records» is mandatory for all state nature reserves.
2. Specific features, regime and scientific profile of state natural reserves are established in their regulations, approved by the authorized state body.
3. Academic councils may be set up in state nature reserves. The composition of the academic council and the regulations on it are approved by the authorized state body.
4. Scientific data banks of state natural reserves are subject to permanent storage. State nature reserves are granted the right to publish scientific papers.

#### Article 25. Use of objects of the state natural reserve

Land, water, mineral resources, flora and fauna of state natural reserves are transferred to the reserves for unlimited use completely and free of charge. Leasing of lands and other natural resources of reserves is prohibited.

## **CHAPTER 12. PROCEDURE FOR PROTECTION OF SPECIALLY PROTECTED NATURAL AREAS**

#### Article 48. Procedure for the protection of specially protected natural areas

1. Protection of specially protected natural areas is carried out by the bodies in charge for those areas in the manner prescribed by the legislation of the Republic of Tajikistan.

Workers of the service for the protection of specially protected natural areas are included in the staff of state nature reserves and national parks.

The directors of state nature reserves and state natural parks are the chief state inspectors for the protection of these areas.

#### Article 49. Rights of state inspectors for the protection of nature reserves and state natural parks

1. Employees of nature reserves and state natural parks, who are state inspectors for the protection of these areas, have the right to enjoy all the rights and benefits of state inspectors for environmental protection and forest protection.

2. Decisions made by state inspectors for the protection of nature reserves and state natural parks within their powers are binding on individuals and legal entities and can be appealed in court.
3. State inspectors for the protection of nature reserves and state natural parks in the performance of their official duties have the right to store, bear and use special means and service weapons in accordance with the established procedure.
4. State inspectors for the protection of nature reserves and state natural parks are subject to compulsory insurance and have the right to compensation for damage in case of injury suffered in the course of duty.

Article 50. Public control in the field of specially protected natural areas  
Public control in the field of specially protected natural areas is carried out by public organizations on their own initiative in agreement with the authorized state body.

### CHAPTER 13. FINAL PROVISIONS

- Article 51. International cooperation concerning specially protected natural areas
1. International cooperation concerning specially protected natural areas is carried out on the basis of the legislation of the Republic of Tajikistan and international legal acts recognized by the Republic of Tajikistan.
  2. In the event that the norms of the legislation of the Republic of Tajikistan on specially protected natural areas contradict international legal acts recognized by the Republic of Tajikistan, the norms of international legal acts shall apply.

Article 52. Responsibility for violation of this Law  
Individuals and legal entities are held accountable for violation of this Law in the manner prescribed by the legislation of the Republic of Tajikistan.

Article 53. On recognizing as invalid the Law of the Republic of Tajikistan "On Specially Protected Natural Areas and Properties"  
Recognize as invalid the Law of the Republic of Tajikistan of December 13, 1996 "On Specially Protected Natural Areas and Properties" (Akhbori Majlisi Oli of the Republic of Tajikistan, 1996, No. 23, p. 353; 1998, No. 10, p. 125; 2002 ., No. 4, part 1, p. 272).

Article 54. Procedure for the entry into force of this Law  
This Law enters into force after its official publication.

President  
of the Republic of Tajikistan

Emomali Rahmon

Dushanbe, December 26, 2011  
No. 788

**CENTRAL STATE ARCHIVE OF THE REPUBLIC OF TAJIKISTAN  
MAIN ARCHIVES ADMINISTRATION UNDER THE COUNCIL  
OF MINISTERS OF THE TAJIK SSR**

/Coat of Arms/

38/1 N. Karabaev str., 734018, Dushanbe  
Tel. 33-95-71, 33-95-81, 33-94-97.  
Settlement account 12011, 14160 in the city department of the State Bank  
Dushanbe

Ref. No. 8 of May 13, 1998  
to No. 100/3 May 06, 1998

**ARCHIVE COPY  
RESOLUTION OF THE  
Council of People's Commissars of Tajik SSR  
city of Stalinabad  
No. 1165  
of November 3, 1938**

On the organization of the republican game preserve in the Tigrovaya Balka stow of the Tajik SSR.

To preserve and study the Bactrian deer (hangul), goitered gazelle, urial (mouflon), and pheasant, which are species of animals valuable in terms of hunting and scientific research, as well as to preserve the original flora of floodplain forests of the lower course of the Vakhsh River, which suffer the destruction, the Council of People's Commissars of the Tajik SSR

**Resolves:**

1. To organize the Tigrovaya Balka reserve with a total area of 500 sq. km. in the Tigrovaya Balka stow in Dzhilikul and Shaartuz districts including a part of plateau and mountains adjacent to the western slope of the Tigrovaya Balka stow to the western slope of the Khoja-Kaziyan mountains to ensure the natural living conditions for gazelles and urials.
2. To propose to the People's Commissariat of Agriculture of the Tajik SSR to allocate from the funds of the cattle-breeding department 14788 rubles for the 1st quarter of this year, and also to provide in budget of the People's Commissariat of Agriculture the fund to maintain the Tigrovaya Balka reserve in 1939.
3. To appoint the People's Commissariat of Agriculture of the Tajik SSR liable for the organization of the Tigrovaya Balka reserve.
4. To instruct the People's Commissar of Agriculture to approve.
5. To oblige the Dzhilikul, Shaartuz, Mikoyanabad, Voroshilovabad, and Modotovabad regional executive committees to communicate the significance of the Tigrovaya Balka reserve through the regional press.

**DEPUTY CHAIRMAN OF THE COUNCIL OF THE PEOPLE'S COMMISSARS OF THE TAJIK SSR: Karimov**  
**MANAGEMENT OF COUNCIL AFFAIRS OF THE TAJIK SSR: Mardankulov**

Grounds: fund 18, list 8., case 335, sheet 72

Director /signature//signature/  
Senior archivist /signature//signature/  
Round seal /CENTRAL STATE ARCHIVE OF THE TAJIK SSSR/  
Printing house of the Ministry of Education, ordered 1180 copies,  
a run of 2000 copies, November 23, 1981

M.S. Shakirova  
L.I. Ivanyuk

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OF MINISTERS OF THE TAJIK SSR  
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Dushanbe

Ref. No. 8 of May 13, 1998  
to No. 100/3 of May 06, 1998

**ARCHIVE COPY  
REGULATION**

**on nature reserves of the Main Directorate of Forestry and Protective Afforestation  
under the Council of Ministers of the Tajik SSR**

1. Nature reserves are land plots of special economic, scientific or cultural value, the natural wealth of which is used for scientific research in practical interests of the national economy and ensuring the complete preservation of nature in its original state.

The Government of the Tajik SSR decides on the organization and identification of the area of nature reserves.

2. The territory of nature reserves with all the natural properties located on it constitutes the state nature reserve fund, the use of which in the purposes other than those determined can be carried out only with the consent of the Government of the Tajik SSR.

3. Nature reserves are under the direct jurisdiction of the Main Directorate of Forestry and Protective Afforestation under the Council of Ministers of the Tajik SSR.

4. Nature reserve administration of the Main Directorate of Forestry and Protective Afforestation under the Council of Ministers of the Tajik SSR:

a) protects the territory of the reserve with all its natural resources and ensures the compliance with the respective regime adopted on the territory of the reserve;

b) keeps records of the forest fund of the reserve, protected animals and valuable plants;

c) draws up and submit for approval to the Main Directorate of Forestry and Protective Afforestation under the Council of Ministers of the Tajik SSR production, labor and capital construction schedules for the reserve and takes measures to fulfill the approved schedules;

d) prepares reports on research and production activities, as well as regular, annual accounting and statistical reports.

Printing house of the Ministry of Education, ordered 1180 copies, a run of 2000 copies, November 23, 1984

5. Research work is being carried out in reserves aimed at resolving theoretical and practical issues of biology, protection and reproduction of flora and fauna, as well as the rational use of the natural resources of Tajikistan.

6. The reserves are charged with the following objectives:

- a) preserving and enriching flora and fauna of the reserve and adjacent areas;
- b) carrying out research work according to plans approved by the Main Directorate of Forestry and Protective Afforestation under the Council of Ministers of the Tajik SSR;
- c) preserving and restoring typical natural complexes of the reserve;
- d) studying animals, birds, and plants that are important for the national economy, as well as their relationship with the habitat;
- e) developing and testing scientifically grounded methods of quantitative accounting of hunting and commercial fauna, ways of its increase, enrichment and the most reasonable use;
- f) identifying useful properties of wild animals and plants, methods of their reproduction and cultivation, as well as their use in the interests of the national economy;
- g) birdbanding and marking of animals;
- h) protecting and saving forests of the reserve, looking after them and implementing the necessary forestry and fire-fighting measures;
- i) organizational and economic arranging of the reserve;
- j) providing assistance to other institutions in carrying out research in the reserve, facilitating workers' excursions, as well as student practice and tourism.

7. Hunting, catching, destruction in any way of animals and birds, ruining nests and holes, fishing, collecting eggs and fluff, damaging trees and bushes is prohibited on the territory of reserves.

Those violating the regime of reserves are brought to justice in accordance with the established procedure.

8. The presence of unauthorized persons on the territory of reserves without the appropriate permission is prohibited, and the presence of unauthorized persons on the territory of reserves with a gun or fishing gear is treated as poaching activity.

9. Shooting animals and birds to regulate their population and conduct scientific research, destructing predators, as well as collecting fruits and berries, fishing, seed harvesting, harvesting hardy-shrub species, mining, felling, and haymaking on the territory of reserves are allowed only with the consent of the Main Directorate of Forestry and Protective Afforestation under the Council of Ministers of the Tajik SSR.

10. With the permission of the Main Directorate of Forestry and Protective Afforestation under the Council of Ministers of the Tajik SSR, land plots are allocated on the territory of reserves to meet the economic needs of the reserve.

11. Nature reserves are headed by directors appointed by the Main Directorate of Forestry and Protective Afforestation under the Council of Ministers of the Tajik SSR.

12. Scientific councils are organized in the reserves, the composition of which is approved by the Main Directorate of Forestry and Protective Afforestation under the Council of Ministers of the Tajik SSR.

13. Nature reserves carry out their activities in accordance with this regulation.

14. Reserves are liquidated in accordance with the resolutions of the Government of the Tajik SSR.

15. Nature reserves are included in the budget of the Republic.

16. Nature reserves have their original seals with the name of the respective reserve.

17. State nature reserves are protected based on the regulations approved by the Main Directorate for Nature Reserves under the Council of Ministers of the USSR, and enjoys all the rights of the state forest protection of the USSR, in accordance with the resolution of the Council of the Ministers of the USSR of March 22, 1950 No. 1181.

Grounds: fund 18, list 8., case 1605, sheets 180-183

Director /signature/

M.S. Shakirova

Senior archivist /signature/

L.I. Ivanyuk

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**Committee for Environmental Protection under  
the Government of the Republic of Tajikistan**



# **MANAGEMENT PLAN**

**for the Tigrovaya Balka Nature Reserve  
and the adjacent territory for the  
period 2022-2026**

**Committee for Environmental Protection under  
the Government of the Republic of Tajikistan**

Approved by  
Head of the State Institution for  
Specially Protected Natural Areas  
of the Committee for Environmental  
Protection under the Government  
of the Republic of Tajikistan  
\_\_\_\_\_ S. Kh. Kholzoda

**MANAGEMENT PLAN**  
**for the Tigrovaya Balka Nature**  
**Reserve and the adjacent territory**  
**for the period 2022-2026**

Dushanbe, 2021  
Management plan structure

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## INTRODUCTION

This mid-term Management Plan for the Tigrovaya Balka Nature Reserve for 2022-2026, developed by the staff of the State Institution for Specially Protected Natural Areas (SI SPNA) of the Committee for Environmental Protection under the Government of the Republic of Tajikistan and the National Academy of Sciences of Tajikistan, with the participation of international experts from the IUCN, within the framework of the UNESCO project for the preparation of documents for the inscription of the Tigrovaya Balka Nature Reserve on World Heritage List. When developing the Plan, the «Instruction for the development of management plans for specially protected natural areas of Tajikistan», approved by the Head of the State Institution for Specially Protected Natural Areas on June 18, 2010, was used.

The Management Plan has been developed to ensure the improvement of public administration and planning of Tigrovaya Balka Nature Reserve in accordance with the Law of the Republic of Tajikistan “On Specially Protected Natural Areas and Properties” and the State Program on the Development of Specially Protected Natural Areas of the Republic of Tajikistan for the period 2021 – 2030. The international obligations of the Republic of Tajikistan on the conservation of biological diversity and other international documents have also been taken into account.

The Management Plan is designed to play an important role in informing the public about the activities of the Tigrovaya Balka Nature Reserve, as well as in promoting awareness among the population living in the reserve zone. The main objective is to foster a respectful attitude towards nature, form a sense of personal responsibility for the state of the environment.

The existing information on the resources of the Tigrovaya Balka Natural Reserve, the analysis of its activities, as well as the study and analysis of existing on-site problems served as the basis for drawing up the Management Plan. The specially conducted research, fund materials and developments served as the input data.

Interaction with the local population, regional and local government bodies, landowners and land users, scientific institutions, non-governmental environmental organizations was an important component of this work. For these purposes, the authors of the Plan conducted workshops with the of representatives of third-party interested organizations and the local population, at which the main directions and possibilities of further development of the Tigrovaya Balka Natural Reserve were identified. A consensus was reached on the issues under consideration.

**SECTION C: THE 5 YEAR PLAN, AND ANNUAL ACTION PLAN**

<b>MANAGEMENT PLAN 2022-2026 (- year period): Main Management Objectives and Activities to Address Threats</b>					
Task/Activity	Activity	Term, years	Expected results	Sources of financing	Monitoring
<b>PART 1. ACTIVITIES ASSOCIATED WITH THE RESERVE</b>					
<p><i>Program on conservation of the unique ecosystems of the reserve and its components</i>  <u>Program goal:</u> Implementation by the reserve of the functions of regional nature conservation, academic and research, and propaganda center for the preservation of ecosystems of the region and their components.  <u>Results Expected:</u> reduction of violations of the reserve's protection regime, improvement of the efficiency and quality of inspection activities ; reduction of violations of environmental legislation in the region, and application of the principle of sustainable nature management in the territories adjacent to the reserve.</p>					
<b>Task 1</b>	<b>8.1. Strengthening the infrastructure of the reserve and material and technical base by maintaining and developing the administrative and technical capacity and resources.</b>				
Activity 1.1	Purchase of individual motor vehicles, solar panels, and other equipment for the security service, provision of the security service with uniforms, night vision goggles, and communication facilities.	2022-2026	Reduction of the number of violations of the reserve's protection regime; improving the efficiency and quality of inspection activities; reduction of violations of environmental legislation	State budget and other possible sources	State Institution for Special Protected Natural Areas
Activity 1.2	Purchase of camera traps, office and other equipment	2022-2026	Improvement of the management efficiency of the reserve and ensuring monitoring of key species	State budget and other possible sources	State Institution for Special Protected Natural Areas
Activity 1.3	Barbed wire fencing of the protected area on the left-bank part of the reserve for about 40 km and the installation of border pillars with appropriate inscriptions.	2024	Increasing the degree of protection of the reserve (especially from grazing of domestic animals, felling)	Attraction of grantors, State budget	State Institution for Special Protected Natural Areas



Task/Activity	Activity	Term, years	Expected results	Sources of financing	Monitoring
Activity 1.4	Major overhaul of two gamekeepers' loges and the house for scientists	2023-2026	Improvement of the effectiveness of the protection of the reserve, improving the conditions for scientific work	State budget, other possible sources of financing	State Institution for Special Protected Natural Areas, NGOs
Activity 1.5	Purchase of 2 fire-protection pumps in the amount, 20 fire extinguishers/modern fire extinguishing equipment, and other fire-fighting equipment, as well as 2 duralumin boats	2023-2026	Strengthening of fire protection	State budget	State Institution for Special Protected Natural Areas
Activity 1.6	Repair of dirt roads in the right-bank part of the reserve on the Polvantugay section with a total length of 60 km	2022-2026	Improving the protection regime of the reserve	State budget	
Activity 1.7	Construction of 2 observation fire towers in fire hazardous areas and fitting them with communication means	2022-2026	Strengthening of fire protection	State budget, grantors	
<b>Task 2:</b>	<b>8.2. Maintenance and improvement of the ecological state of the reserve through the implementation of environmental protection measures and activities aimed at preserving biodiversity and restoring the environment</b>				
Activity 2.1	Improvement of the hydrological regime of the tugay ecosystems of the reserve by cleaning 1000 m of channels to deliver water to the lakes of the reserve annually	2022-2026	Scope of work performed by year-filling in the lakes with water	State budget and other non-governmental organizations	State Institution for Special Protected Natural Areas

Task/Activity	Activity	Term, years	Expected results	Sources of financing	Monitoring
Activity 2.2	Restoration of forest saksaul plantations/maintenance of plantings made in 2009-2011 in degraded desert ecosystems on an area of 120 hectares annually.	2022-2026	Scope of work performed by year-desert land, overgrown with saksaul	State budget and other non-governmental organizations, donors	State Institution for Special Protected Natural Areas
Activity 2.3	Restoration of Asiatic poplar plantations in degraded areas of tugays, in the burnt-out areas	2022-2026	Scope of work performed by year-floodplain lands with Asiatic poplar regrowth	State budget and other non-governmental organizations, donors	State Institution for Special Protected Natural Areas
Activity 2.4	Annual biotechnical measures in the buffer zone (on the lands to be withdrawn from Dusti, Kabodien districts in 2023) to improve the habitats of wild animals: <ul style="list-style-type: none"> <li>• sowing grain on 2.5 hectares and obtaining at least 4 tons of grain for laying out in winter,</li> <li>• planting 3500 fruit trees,</li> <li>• preparation of 38 tons of hay for wild ungulates,</li> <li>• preparation of rich feed - 18 tons and laying out in winter,</li> <li>• arrangement of 70 feeding grounds,</li> <li>• laying out 60 salt licks.</li> </ul>	2022-2026	Increase in the number of valuable and rare species of wild animals	State budget	State Institution for Special Protected Natural Areas

Task/Activity	Activity	Term, years	Expected results	Sources of financing	Monitoring
Activity 2.5	Restoration of the population of rare and endangered species of fauna, such as the goitered gazelle, the Bactrian deer, the Tajik pheasant and the houbara bustard by strengthening protection and raising them in zoo nurseries in conditions close to their natural habitats, i.e. in the buffer zone of the reserve (on the lands to be withdrawn from Dusti, Kabodien, or Jai districts in 2022). Organization of permanent monitoring of the state of rare and valuable species of animals.	2023-2026	Achievement of optimal numbers and improvement of the status of populations of rare and valuable animal species	State budget	State Institution for Special Protected Natural Areas
Activity 2.6	Implementation of biotechnical measures to reduce the number of alien species in the lakes of the reserve, e.g. the snakehead	2022-2026	Decrease in the number of snakeheads	State budget	State Institution for Special Protected Natural Areas
Activity 2.7	<ul style="list-style-type: none"> <li>• Creation of mini-nurseries to grow rare plant species.</li> <li>• Organization of permanent monitoring of the state of rare and valuable plant species.</li> </ul>	2022-2026	Increase in the number of cultivated seedlings and planting stock for their subsequent introduction into the natural environment - enrichment and maintenance of the ecosystems of the reserve	Attraction of grantors, NGOs	State Institution for Special Protected Natural Areas
<b>Task 3;</b>	<b>8.3. Organizational measures to improve the state of natural ecosystems and fire-prevention measures.</b>				
Activity 3.1.	Expanding the protected area of the reserve, including the buffer zone, for up to 60 thousand hectares.	2023	Obtaining a land certificate	Attraction of grantors, NGOs	State Institution for Special Protected Natural Areas

Task/Activity	Activity	Term, years	Expected results	Sources of financing	Monitoring
Activity 3.2	<p>Drawing up operational plans for extinguishing forest fires and approving them in the hukumats of the districts.</p> <p>Carrying out the following fire-fighting measures annually:</p> <ul style="list-style-type: none"> <li>• installation of fire-prevention (mineralized) strips 90 km long,</li> <li>• reconstruction of 10 km of roads,</li> <li>• cleaning 20 km of roadsides from dry reeds in the early-spring period,</li> <li>• installation of 20 notices with environmental content.</li> </ul>	2022 - 2026	<p>Forest fire extinguishing plans</p> <p>Preparedness for the fire season</p>	State budget	State Institution for Special Protected Natural Areas, local bodies
Activity 3.3	<p>Fitting the fire and chemical station (FCS) with fire extinguishing means and ensuring the perfect operation of the FCS during the fire hazard season, the readiness of firefighting equipment, the availability of the necessary supply of fuel and lubricants, the presence of equipped fire shields in all gamekeepers' districts.</p>	2022 - 2026	Preparedness of the FCS for the fire hazardous season	State budget	State Institution for Special Protected Natural Areas, local bodies
	<p>Программа «Развитие научных исследований и экологического мониторинга»</p> <p>Цель программы: Развитие научных основ сохранения и восстановление экосистем заповедника</p> <p>Ожидаемые результаты: получение данных о компонентах экосистем; повышение мобильности, увеличение объема и улучшение качества работы; повышение объема информации о состоянии экосистем региона и их компонентах; улучшение возможности анализа данных; более полный и качественный сбор и анализ информации о состоянии и изменении экосистем заповедника для корректировки режима его сохранения.</p>				

Task/Activity	Activity	Term, years	Expected results	Sources of financing	Monitoring
<b>Task 4</b>	<b>8.4. Organization and conduction of scientific research in the Tigrovaya Balka Nature Reserve</b>				
Activity 4.1	Keeping gamekeepers' records and carrying out phenological observations of indicator species of animals and plants and a systematic (annual) evaluation of the state of the wildlife based on the annual animal registration data and an inventory of rare plant species	2022 - 2026	Dynamics of changes in the state of fauna and flora	State budget and other possible sources	State Institution for Special Protected Natural Areas and of the NAST
Activity 4.2	<p>Conducting scientific research with the Institute of Zoology and Parasitology of the Academy of Sciences of the Republic of Tajikistan on the following topics:</p> <ul style="list-style-type: none"> <li>• «Study of the state of artiodactyls (the gazelle, the Bactrian deer) in the reserve and the development of measures to bring their number to the optimum.»</li> <li>• «Assessment of the state of the population of the Central Asian cobra, the blunt-nosed viper, and the carpet viper in the Tigrovaya Balka Nature Reserve.</li> <li>• «Study of the state of populations of the Tajik subspecies of pheasant and houbara bustard in the Tigrovaya Balka Nature Reserve.</li> <li>• «Study of the hydrological regime and hydrofauna of the floodplain lakes of the Tigrovaya Balka Nature Reserve.»</li> <li>• «Counting the number of waterfowl and near-water birds in Tigrovaya Balka Nature Reserve in winter.»</li> </ul>	2022 - 2026	Research reports and practical recommendations. Data on the state of ecosystems and their components	State budget and other possible sources	State Institution for Special Protected Natural Areas and of the NAST

Task/Activity	Activity	Term, years	Expected results	Sources of financing	Monitoring
	<ul style="list-style-type: none"> <li>“Counting the number of the Bactrian deer by the roar of males in autumn during the rutting season.”</li> <li>“Monitoring the population of the alien species, i.e. the snakehead, in the lakes of the Tigrovaya Balka Nature Reserve and the development of recommendations for reducing its number.»</li> </ul>				
Activity 4.3	<p>Conducting scientific research with the Forest Research Institute on the following topics:</p> <ul style="list-style-type: none"> <li>“Study of the state and dynamics of changes in tugay forest complexes.»</li> <li>“Conducting a survey and determining the current sanitary state of forest plantations in the Tigrovaya Balka Nature Reserve.”</li> <li>«Проведение обследования и определение современного санитарного состояния лесных насаждений заповедника «Тигровая балка».</li> </ul>	2022 - 2026	Research reports and practical recommendations	State budget and other possible sources	State Institution for Special Protected Natural Areas and of the NAST
Activity 4.4	<p>Conducting scientific research with the Institute of Botany of the Academy of Sciences of the Republic of Tajikistan on the following topics:</p> <ul style="list-style-type: none"> <li>Determination of indicator species and succession processes in various ecosystems of the reserve</li> <li>Determination of the species composition of phytocenoses of low-grass semi-savannas, meadows and herbaceous bogs</li> <li>Determination of the main pests for indicator species in phytocenoses</li> </ul>	2022 - 2026	Research reports and practical recommendations	State budget and other possible sources	State Institution for Special Protected Natural Areas and of the NAST



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Task/Activity	Activity	Term, years	Expected results	Sources of financing	Monitoring
Activity 4.5	Implementation of scientific developments and prepared recommendations into the practice of environmental protection and scientific and educational activities	2022 - 2026	Research reports and practical recommendations	State budget and other possible sources	State Institution for Special Protected Natural Areas and of the NAST
Activity 4.6	Keeping the Nature Records of the Tigrovaya Balka Nature Reserve	2022 - 2026	Keeping the Nature Records of the Tigrovaya Balka Nature Reserve	State budget and other possible sources	State Institution for Special Protected Natural Areas and of the NAST
Activity 4.7.	Learning modern research methods: <ul style="list-style-type: none"> <li>• Invitation of specialists, holding seminars, business trips to exchange work experience, participation in scientific conferences, meetings</li> <li>• Invitation of foreign specialists</li> </ul>	2022 - 2026	Improving the quality of work Obtaining data on unexplored ecosystem components	State budget and other possible sources	State Institution for Special Protected Natural Areas and of the NAST
Activity 4.8.	Purchase of scientific equipment, tools	2022 - 2026	Increased mobility, volume and quality of work	State budget and other possible sources	

Task/Activity	Activity	Term, years	Expected results	Sources of financing	Monitoring
<b>Task 5</b>	<b>8.5. Осуществление экологического мониторинга состояния природных экосистем заповедника и прилегающих территорий (буферная зона).</b>				
Activity 5.1.	Development of monitoring guidelines for the reserve staff	2022 - 2026	Availability of prepared guidelines for monitoring	State budget	State Institution for Special Protected Natural Areas and of the NAST
Activity 5.2	Organization of an optimal network of permanent observation points and improvement of the primary data collection system (regularity, reliability).	2022 - 2026	The presence of a network of observation points – improvement of the quality and volume of information on the state of the region's ecosystems and their components	State budget	State Institution for Special Protected Natural Areas and of the NAST
Activity 5.3	Ensure the annual systematic observation of wild animals and the state of their habitat	2022 - 2026	Data on the state of wildlife populations	State budget	State Institution for Special Protected Natural Areas and of the NAST

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Task/Activity	Activity	Term, years	Expected results	Sources of financing	Monitoring
Activity 5.4	Monitoring the state of the hydrological regime of tugay complexes and the degree of mineralization of wastewater in the buffer zone of the reserve	2022 - 2026	Data on the state of the hydrological regime	State budget	State Institution for Special Protected Natural Areas and of the NAST
Activity 5.5	Continuous monitoring of the state of forest ecosystems and the presence of foci of insect pests and forest diseases	2022 - 2026	Data on the state of forest ecosystems and the presence of foci of pests and diseases of forest plantations	State budget	State Institution for Special Protected Natural Areas and of the NAST
Activity 5.6	Continuous monitoring by type of land use and the degree of direct negative impact on agroecosystems in the buffer zone of the reserve, and monitoring indirect impact on the protected area	2022 - 2026	Data on the state of land use in the buffer zone and the degree of its influence	State budget	State Institution for Special Protected Natural Areas and of the NAST
Activity 5.7	Annual comprehensive monitoring of the reserve's ecosystems (forests, waters, wetlands, deserts, etc.) and agroecosystems of the buffer zone	2022 - 2026	Monitoring data for adjusting the territory management system	State budget	State Institution for Special Protected Natural Areas and of the NAST

Task/Activity	Activity	Term, years	Expected results	Sources of financing	Monitoring
Activity 5.8	Comprehensive ecological and geochemical evaluation of the natural systems of the reserve and adjacent territories.	2022 - 2026	Availability of a comprehensive assessment of the state and forecast of the natural development of ecosystems	State budget	State Institution for Special Protected Natural Areas and of the NAST
<b>Task 6</b>	<b>8.6 Advanced training of scientific personnel and specialists in the field of environmental protection</b>				
Activity 6.1	<p>Preparation of training programs for scientific, engineering and technical workers of the reserve on the following topics:</p> <ul style="list-style-type: none"> <li>• "Rights and obligations of officials, engineers and gamekeepers of the reserve."</li> <li>• "Environmental monitoring within the framework of the national environmental monitoring system", 6 hours.</li> <li>• "Rules for conducting phenological observations of wild animals, taking into account their species characteristics", 8 hours.</li> <li>• "Wildlife census in the reserve", 8 hours.</li> <li>• "Keeping Nature Records", 2 hours.</li> <li>• "Museum affairs and modern opportunities for their further development"</li> <li>• Opportunities for the development of ecotourism in protected areas and the rules for working with ecotourists."</li> <li>• "Ecosystem approach to the management of specially protected areas"</li> </ul>	2022-2026	Availability of prepared programs to train researchers and engineers of the reserve	State budget and other possible sources	State Institution for Special Protected Natural Areas and NGOs

Task/Activity	Activity	Term, years	Expected results	Sources of financing	Monitoring
Activity 6.2	<ul style="list-style-type: none"> <li>• “Legislative and legal mechanisms regulating the nature protection activities for specially protected areas”, 6 hours.</li> <li>• “The Red Book - Indicator Species of Flora and Fauna for the Reserve”, 6 hours.</li> <li>• Sharing experience on nature reserve management with other reserves in Tajikistan, the CIS, and the Russian Federation.</li> </ul> <p>Annual classes and training seminars with scientific and engineering workers of the reserve on the basis of the Information Center at the reserve on the developed topics</p>	2022-2026	Improving the quality of work. Indicator - Number of classes conducted and number of employees trained	State budget and other possible sources	State Institution for Special Protected Natural Areas and NGOs
<p><b>Program on the Environmental Education Development Program.</b>  <u>Program goal:</u> to increase the public significance of the Tigrovaya Balka Nature Reserve and ensure its support as an object of national treasure by the general population.  <u>Expected results:</u> increased public awareness, raising awareness of the local population about the reserve, forming a positive opinion, raising awareness of the population about the local nature, increasing environmental education of visitors, use of environmentally efficient farming methods by the local population, organization of ecological paths in buffer zones</p>					
<b>Task 7.</b>	<b>8.7. Promoting awareness among the population, environmental propaganda and the development of educational excursion visits to specially prepared eco-educational paths in the buffer zone of the reserve.</b>				
Activity 7.1	Conducting trainings and short-term courses for trainers to work with the population on the basic rules of attitude to wildlife and sustainable nature management in the buffer zone of the reserve	2022-2026	Improving the quality of work. Indicator - the number of events held and the number of trained trainers	State budget and other possible sources	

Task/Activity	Activity	Term, years	Expected results	Sources of financing	Monitoring
Activity 7.2	Study of the possibilities for cognitive ecotourism, determination of excursion routes, determination of the procedure and rules for visiting excursions in the buffer zone of the reserve, development of tariffs for environmental excursions, coordination with the Committee for Environmental Protection under the Government of the Republic of Tajikistan	2022	Approved excursion routes, rules and tariffs for visiting ecological routes in the buffer zone	State budget and other possible sources	
Activity 7.3	Preparation of ecological routes (ecological paths) on the ground (in the buffer zone of the reserve), provision of technical equipment, information materials	2022-2026	Availability of the approved excursion routes	State budget and other possible sources	
Activity 7.4	Promoting awareness among the local population through interviews, training sessions and seminars on environmental protection, restoration of lost biodiversity and ecosystem approach in the use of natural resources.	2022-2026	Application of rational nature management in the territories adjacent to the reserve. Indicator - Number of events held and number of people trained	State budget and other possible sources	State Institution for Special Protected Natural Areas and NGOs
Activity 7.5	Updating the existing website of the Tigrovaya Balka Nature Reserve.	2022-2026	Greater access to information, increased awareness	State budget	State Institution for Special Protected Natural Areas

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Task/Activity	Activity	Term, years	Expected results	Sources of financing	Monitoring
Activity 7.6	Preparation and publication of an illustrated booklet on ecological routes	2022-2026	Advertising brochures about ecological routes in the buffer zone of the reserve	State budget and other possible sources	State Institution for Special Protected Natural Areas, NGOs
Activity 7.7	Popularization of the Tigrovaya Balka Nature Reserve through the media	2022-2026	Information about the reserve is regularly published in the media. Raising awareness of the local population	State budget and other possible sources	State Institution for Special Protected Natural Areas and NGOs
Activity 7.8	Regularly informing the local population about the activities of the reserve through local authorities	2022-2026	Improving the environmental education of the population and tourists	State budget and other possible sources	State Institution for Special Protected Natural Areas and NGOs
Activity 7.9.	Reconstruction of the reserve museum, creation of new exhibitions and exhibits	2023	Increasing the number of visitors, attracting tourists	State budget and other possible sources	State Institution for Special Protected Natural Areas and NGOs



PART II. INTERACTION WITH THE ADMINISTRATION OF THE TERRITORY ADJACENT TO THE TIGROVAYA BALKA NATURE RESERVE					
Task/Activity	Activity	Term, years	Expected results	Sources of financing	Monitoring
Task 8.	<b>9. Improvement of management on the territory of the buffer zone of the Tigrovaya Balka Nature Reserve in Dusti, Kumsangir, Kabodien and Shaartuz districts</b>				
Management task 8.	<b>9.8. Agriculture</b> <b>The task is to improve the efficiency of the use of land resources</b>				
Activity 8.1	<p>Conducting training seminars with farmers in Dusti, Kumsangir, Kabodien and Shaartuz districts on the following topics:</p> <ul style="list-style-type: none"> <li>• "Learning the rules to use water-saving technologies in the cultivation of agricultural crops:</li> <li>• "Norms and rules for the use of mineral fertilizers in the cultivation of agricultural crops in the context of the need to preserve protected biodiversity"</li> <li>• "Permissible pressure of grazing of livestock on the territory of the buffer zone of the reserve and measures to increase the productivity of pastures"</li> <li>• "Carrying out measures to increase the productivity of hayfields"</li> </ul>	2022-2026	Sustainable land management in the buffer zone of the reserve without factors of negative impact on nature	Grantors, State budget, other sources of financing	Hukumats of districts, Associations of dehqan farms, NGOs
Activity 8.2.	<p>Measures to regulate livestock grazing in the buffer zone of the reserve:</p> <ul style="list-style-type: none"> <li>• Determination of the productivity of pastures (cadastral assessment) in the buffer zone of the reserve. Determination of the capacity of pastures and permissible pressure thereon by season</li> </ul>	2022-2026	Improving the condition of pastures	State budget, other sources of financing (grantors)	Local executive authorities (Hukumats), Committee for Land Management, Ministry of Agriculture

Task/Activity	Activity	Term, years	Expected results	Sources of financing	Monitoring
	<ul style="list-style-type: none"> <li>On site determination and marking of pasture boundaries, installation of boundary pillars and identification of permanent and temporary users</li> <li>Control over the use of pastures and compliance with the norms of pressure thereon</li> <li>Designing measures to ensure an increase in the productivity of pastures and compliance with pasture rotation</li> <li>In connection with the possibility of irrigation of certain areas in the buffer zone, practice the creation of irrigated hayfields with the transfer of these areas for long-term lease to farms or individual entities</li> </ul>				
Activity 8.3.	Small grant programs for demonstration projects on the use of advanced soil and water saving technologies	2022-2026	Reducing the adverse impact on the reserve	Grants	NGOs, Hukumats, land users
Activity 8.4.	Organization of nurseries, gardens, greenhouses for growing productive crops	2022-2026	Improving the condition of land resources, reducing land degradation	Land users, grants, other sources of financing	WUA, Hukumats, land users
Activity 8.5.	Construction (acquisition) of small processing enterprises for processing agricultural products (fruits, vegetables), 3-4 in each district	2022-2026	Reducing the pressure on the reserve	State budget programs, grants	Hukumats, land users, NGOs

Task/Activity	Activity	Term, years	Expected results	Sources of financing	Monitoring
Activity 8.6.	Growing medicinal plants – demo plots – 4 in each district	2022-2026	Increase in incomes of the population and reducing the pressure on the reserve	Grants	Hukumats, land users
Activity 8.7.	Development of beekeeping, fish farms, seed production	2022-2026	Increase in incomes of the population and reducing the pressure on the reserve	State budget, other sources of financing	Hukumats, land users, academic institutions
Activity 8.8.	Carrying out anti-erosion measures (terracing, forest melioration, etc.)	2022-2026	Improving the condition of land resources	State budget, other sources of financing	Hukumats, State Committee on Land Resources, land users
Activity 8.9	Leaching of saline soils	2022-2026	Improving the condition of land resources	State budget, grants, other sources of financing	Hukumats, Ministry of Agriculture, State Committee on Land Resources, CEP
Activity 8.10	Development of a marketing network for agricultural products	2022-2026	Increase in income of the population and decrease in the degree of use of the natural resources of the reserve	State budget, grants, other sources of financing	Hukumats, Ministry of Agriculture

Task/Activity	Activity	Term, years	Expected results	Sources of financing	Monitoring
Activity 8.11	Reconstruction of interfarm and intrafarm irrigation systems	2022-2026	Improving the state of land resources, increasing agricultural productivity and reducing the pressure on the reserve	WUA, State budget, other sources of financing (projects, grants, credits, etc.)	Hukumats, WUA, land users, projects (CPM)
Activity 8.12	Introduction of cost-effective, energy-saving technologies for processing agricultural products (solar dryers, kitchens, etc.)	2022-2026	Reducing pressure on the resources of the reserve, increasing the income of the population around the reserve	ADF, State budget, other sources of financing (projects, grants, credits, etc.)	Hukumats, WUA, land users, projects (CPM), NGOs
Management task 8.2	9.8.2. Development of alternative energy sources				
Activity 8.2.1.	<ul style="list-style-type: none"> <li>• Installation of 2-4 solar panels on the territory of the buffer zone of the reserve in each farm of Dusti, Kabodien, Shaartuz districts</li> <li>• Installation of mini-hydroelectric power plants on the territory of the buffer zone of the reserve in the Kumsangir region</li> </ul>	2022 - 2026  2022 - 2026	Provision of the population with electricity	NGOs	State Institution for Special Protected Natural Areas and NGOs

Task/Activity	Activity	Term, years	Expected results	Sources of financing	Monitoring
	<ul style="list-style-type: none"> <li>Introduction of biogas plants in farms in 4 districts</li> </ul>	2022 - 2026		NGOs	
<b>Management task 8.3.</b>	<b>9.8.3. Improvement of forest resources and biodiversity in the areas adjacent to the reserve</b>				
Activity 8.3.1.	Creation of forest belts	2022 - 2026	Increasing the area covered by forests	State budget, grantors	
Activity 8.3.2.	Establishment of nurseries for fast-growing, highly productive forest species (poplars) - development of a forest management system based on local community management	2022 - 2026	Reducing the incidence of tree felling in the reserve	State budget, other sources of financing	Land users, ADF, Hukumats, NGOs
Activity 8.3.3.	Carrying out forest melioration activities	2022 - 2026	Improving the condition of natural resources	State budget	Hukumats, Ministry of Agriculture, CEP
Activity 8.3.4.	Strengthening slopes with trees	2022 - 2026	Increasing the area covered by forests, reduction of land degradation resources		Hukumats, WUA, CEP, other
<b>Management task 8.4.</b>	<b>9.8.4. Ensuring access to clean drinking water</b>				
Activity 8.4.1	Arrangement of 5-6 water pumps with drinking water for farms in the buffer zone of the reserve in the Kabodien region	2022 - 2026	Provision of the population with drinking water	State budget, grantors, other sources of financing	MMWR, Ministry of Healthcare, CEP, Hukumats

**Suggested measures to improve the use of water resources in the area adjacent to the Tigrovaya Balka Nature Reserve for the period 2022-2026**

Management task	Activity	Estimated scope of work	Expected result (to be filled in for tasks only)	Term	Responsible body (Performers)	Alleged sources of financing	Monitoring
Ensuring the discharge of quality water from collectors	Cleaning collectors from silt and overgrowth	No less than 20-25% of their length	Increase the volume of water course	Once a year	SDWM - State Directorate for Water Management - (district water management authorities) WUA - Water Users Association	State budget, water users	Water Resources District Inspectorate
Monitoring of water supplied to users and dehkhan farms	Conclusion of contracts between the SDWM and WUA or water Users	1 contract per WUA or each water user (dehkan farm)	Compliance with the terms of the contract	Once a year	SDWM, WUA	State budget, water users, grantors	Water Resources District Inspectorate
Channel monitoring	Security works of water metering facilities (WMF)	1 WMF per each WUA water outlet or dehkan farm	The reliability of the information received	During vegetation	SDWM of the Ministry of Water Resources	State budget, grantors	Water Resources District Inspectorate
Prevention of salinization of irrigated land	Compliance with the irrigation regime; preventing the rise of the groundwater level	Drains cleaning	Increasing crop yields	During vegetation	Water users	WUA, water users	Water Resources District Inspectorate

Management task	Activity	Estimated scope of work	Expected result (to be filled in for tasks only)	Term	Responsible body (Performers)	Alleged sources of financing	Monitoring
Rational use of water for irrigation	Compliance with irrigation techniques; training sessions for irrigators	All over the area	Reducing surface discharge and soil erosion	During vegetation	Scientific departments of the Ministry of Agriculture and Ministry of Water Resources	At the expense of projects, international organizations, grantors	Water Resources District Inspectorate
Creation of a water protection zone for main channels	Compliance with regulations and requirements for using water protection zones	Along the entire length of the channels	Avoiding water pollution	Once in 3 years	SDWM, local bodies	SDWM, local bodies, donors	Water Resources District Inspectorate
Water reuse	Avoiding pollution of water protection zones with industrial waste and polluted wastewater (approx. 300 km.)	Clean shores eco-campaign	Improvements in water quality	Once a year	WUA, water users	WUA, water users	Water Resources District Inspectorate
Improving the water quality of channels and rivers	Maintenance of the restored water supply system of the reserve	Clean shores eco-campaign	Improvements in water quality	Once a year	Local population, jamoats, CEP, WUA, IWRM, water users	State bodies, grantors, water users	Water Resources District Inspectorate



Nomination  
TUGAY FORESTS OF THE TIGROVAYA BALKA NATURE RESERVE

Management task	Activity	Estimated scope of work	Expected result (to be filled in for tasks only)	Term	Responsible body (Performers)	Alleged sources of financing	Monitoring
Preserving water supply to lakes	Maintenance of the restored water supply system of the reserve	Regular cleaning of the system of channels and drains from channels to the reserve	Optimization of the hydrogeological network on the territory of the reserve	2022 -2026	Nature reserve, director, gamekeepers	State budget,	Water Resources District Inspectorate
Ensuring water filling of lakes	Creation of a rapid response system to identify potential threats	Rapid response systems	Optimization of the hydrogeological network on the territory of the reserve	2022-2026	Nature reserve, director	State budget, support of the IO	Water Resources District Inspectorate
Ensuring water filling of lakes	Lake level monitoring	8 monitoring points on representative lakes (RL) by lake (1 of 5)	Optimization of the hydrogeological network on the territory of the reserve	Annually	Nature reserve, director, gamekeeper	State budget, support of the IO	Water Resources District Inspectorate
Ensuring water filling of lakes	Monitoring of channels and branches of the lake level	8 monitoring points on supply channels (RL) on representative lakes (1 of 5)	Optimization of the hydrogeological network on the territory of the reserve	Annually	Nature reserve, director, gamekeepers	State budget, support of the IO	Water Resources District Inspectorate

Management task	Activity	Estimated scope of work	Expected result (to be filled in for tasks only)	Term	Responsible body (Performers)	Alleged sources of financing	Monitoring
Ensuring water filling of lakes	Monitoring of collecting canals of the lake level	8 monitoring points on the supply collecting canals connected to the channels and branches (RL)	Optimization of the hydrogeological network on the territory of the reserve	Annually	Nature reserve, director, gamekeepers	State budget, support of the IO	Water Resources District Inspectorate
	Improving the capacity of officials, experts and specialists in the field of water quality and water resources management	Development and adaptation of training materials; Conducting seminars on monitoring the state of water supplied to water users and dehkan farms	Training materials, recommendations, practice in application	2022-2026	Nature reserve, director, water users	State budget, support of the IO	Water Resources District Inspectorate
Monitoring of the state of water supplied to water users and dehkan farms	Improving coordination of complex estimates, monitoring and sharing information on water quality	Development of Recommendations for water quality control and information sharing; creation of a common database on water quality and monitoring.	Improvement of coordination of integrated water quality evaluations, monitoring and information sharing; formation of a database on water quality; analysis of the results of evaluation	2022-2026	Nature reserve, director, water users	State budget, support of the IO	Water Resources District Inspectorate

Management task	Activity	Estimated scope of work	Expected result (to be filled in for tasks only)	Term	Responsible body (Performers)	Alleged sources of financing	Monitoring
Monitoring of the state of water supplied to water users and dehqan farms	Establishment of an accounting and reporting system to disseminate the results of monitoring programs at the national and international levels	Analysis of existing monitoring practices, use of mechanisms to improve monitoring practices	of water quality in the collector-drainage network Reporting systems for disseminating the results of monitoring programs	2022	Nature reserve, director, water users	State budget, support of the IO	Water Resources District Inspectorate

11. Socio-economic component

Activity	Expected results	Term	Categories of participants	Cost (thousand TJS)	Sources of financing
1. Communication of information to the population					
1.1. Conducting a survey on the level of awareness of the population on the results of the implementation of the Poverty Reduction Strategy and Environmental sustainability plan in particular, as well as activities implemented within the framework of the Concept of Environmental Sustainability of the Republic of Tajikistan.	Survey	2022 – 2026	Residents of settlements, schoolchildren, employees of government bodies, RECCA		State budget, grantors
1.2. Preparation of information materials on the experience of the population in solving environmental problems, rational use and conservation of biodiversity, as well as distribution of these materials.	Prepared, discussed and distributed information materials		Residents of settlements, schoolchildren, employees of government bodies, RECCA		
1.3. Conducting round tables to identify key issues for subsequent trainings.	Round tables.		Residents of settlements, schoolchildren, employees of government bodies		
1.4. Conducting training sessions to inform the population about the results of the implementation of the Poverty Reduction Strategy and Environmental sustainability plan in particular for the past period, as well as about environmental sustainability measures included in the PRS for the future.	Training session		Residents of settlements, schoolchildren, employees of government bodies.		

Activity	Expected results	Term	Categories of participants	Cost (thousand TJS)	Sources of financing
1.5. . Preparation of information materials on the experience of solving environmental problems, as well as introduction of measures for ensuring environmental sustainability by the population to the Strategy for the Development of the Republic of Tajikistan and the Development Plans for the respective districts, their publication in mass media.	Prepared information materials, activities included in the Strategy and Development Plans, published information.		Republican, regional, district level mass media.		
1.6. Conducting seminars on the results of 2-year work and identifying the main problems for implementation in the next year.	Seminars, key problems.		District, region		
1.7. Conducting round tables to inform the population about the progress of the PRS implementation in the field of ensuring environmental sustainability and identifying problems for subsequent periods.	Round tables, identified problems for subsequent periods.		Residents of settlements, schoolchildren, employees of government bodies.		
1.8. Preparation of information materials on the mechanism for problem solving and their publication in mass media.	Information materials.		Republican, regional, district level mass media.		
1.9. Conducting final seminars based on the results of work and identifying the main problems for subsequent periods.	Seminars, identified key problems.		District, region, republic		
1.10. Support for information and educational centers created with the assistance of WWF.	Operating centers, support for beneficiaries.		Residents of settlements, schoolchildren, employees of government bodies.		

Activity	Expected results	Term	Categories of participants	Cost (thousand TJS)	Sources of financing
2. Increasing the efficiency of the security service arrangement					
<p>2.1. Organization of coordination and joint work with other environment protection authorities and border service:</p> <ul style="list-style-type: none"> <li>- Drawing up annual plans for joint work with the National Security Committee, border service, CEP under the Government of the Republic of Tajikistan for 2022;</li> <li>- Organizing and holding jointly inspections and activities with the NSC, border service, directorates in charge of protected areas of district Hukumats.</li> </ul>	Decrease in violations of the protection regime for the wildlife and violations of environmental legislation throughout the territory	2022-2026	<ol style="list-style-type: none"> <li>1. Hukumats of districts</li> <li>2. CEP</li> <li>3. NSC</li> <li>4. Border Force</li> </ol>		State budget, grantors, raised funds
<p>2.2. Increasing mobility and efficiency of work through improved transport and communications:</p> <ul style="list-style-type: none"> <li>- Renovation of the vehicle fleet and water transport;</li> <li>- Purchase of necessary spare parts for existing vehicles.</li> </ul>	Increased operating efficiency		<ol style="list-style-type: none"> <li>1. Hukumats of districts</li> <li>2. Grantors</li> </ol>		
<p>2.3. Strengthening the prevention of violations and communication with the population by increasing the number of meetings, lectures, improving their information content, preparing visual materials.</p>	Reducing the number of violations of the reserve protection regime		<ol style="list-style-type: none"> <li>1. Hukumats of districts</li> <li>2. RECCA</li> <li>3. Mass Media</li> </ol>		
<p>2.4. Training and professional development of workers of Hukumats.</p>	Increase in quality of work		<ol style="list-style-type: none"> <li>1. 1. Hukumats</li> <li>2. 2. RECCA</li> </ol>		

Activity	Expected results	Term	Categories of participants	Cost (thousand TJS)	Sources of financing
3. Ensuring nature protection and regulation of nature management in the region.					
3.1. Strengthening co-operation between environmental agencies, business entities, law enforcement authorities, and border service.	Reducing violations of environmental legislation in the region	2022-2026	1. Hukumats of districts 2. Law enforcement authorities 3. CSOs 4. Business entities		State budget, grantors, raised funds
3.2. Cooperation with local population to ensure sustainable nature management in the territories adjacent to the reserve.	Application of sustainable nature management practices in the territories adjacent to the reserve				
4. Improvement of spatial planning					
4.1. Conducting a survey of the territories adjacent to the reserve to prepare materials for adjusting the boundaries of the Tigrovaya Balka Nature Reserve in accordance with the developed proposals for zoning	Optimization of the reserve area	2022	1. Hukumats of districts, 2. Committee for Land Management 3. Ministry of Economic Development of the RT 4. Government of the RT		State budget, grantors, raised funds



Activity	Expected results	Term	Categories of participants	Cost (thousand TJS)	Sources of financing
5. Ensuring socio-economic development and sustainability					
5.1. Improving socio-economic conditions of the population to eliminate the negative impact on biodiversity of the reserve:					
<ul style="list-style-type: none"> <li>- measures for stable supply of electricity and provision of the population with various types of fuel</li> <li>- introduction of alternative energy sources</li> <li>- measures to provide the population with drinking water;</li> <li>- measures to repair the existing non-operating pumping stations;</li> <li>- cleaning feed ditches and water discharge lines,</li> <li>- construction and repair of roads</li> </ul>	Development and implementation of activities within the framework of the District Development Plans ( for all activities described in the section)	2022-2026	Hukumats of districts, Business entities Government of the RT		State budget, grantors, raised funds
5.2. Sustainable use of human resources, creation of new jobs, increase of incomes of the population:					
<ul style="list-style-type: none"> <li>• increasing land productivity ,</li> <li>• improving the economic situation of households by introducing alternative activities,</li> <li>• restoration of local species of fruit trees and shrubs; organization of new orchards and fruit tree plantations; expansion of orchards;</li> <li>• organization of a workshop for fruit processing and production of pomegranate juice</li> <li>• development of new types of activities                             <ul style="list-style-type: none"> <li>- tourism, birdwatching, wildlife photography, etc.</li> </ul> </li> </ul>	Development and implementation of activities within the framework of the District Development Plans ( for all activities described in the section)	2022-2026	Hukumats of districts, Business entities Government of the RT		State budget, grantors, raised funds

Activity	Expected results	Term	Categories of participants	Cost (thousand TJS)	Sources of financing
<p>5.3. Improving the efficiency of agriculture, carrying out melioration activities</p> <p>Hydraulic engineering:</p> <ul style="list-style-type: none"> <li>• leaching of saline lands ;</li> <li>• complex reconstruction of irrigation systems (CRIS);</li> <li>• mechanization of irrigation and introduction of new water-saving technologies (drip, sprinkler, subsoil irrigation, etc.);</li> </ul> <p>Anti-erosion:</p> <ul style="list-style-type: none"> <li>• terracing ;</li> <li>• forest melioration;</li> <li>• deep grounding ;</li> <li>• strip farming;</li> <li>• drain spraying;</li> <li>• snow retention and regulation of snow melting;</li> <li>• minimization of technogenic impact on soils.</li> </ul> <p>Agrotechnical</p> <ul style="list-style-type: none"> <li>• scientifically grounded cotton-lucerne crop rotations;</li> <li>• use of organic and mineral fertilizers;</li> <li>• development of seed production and production of new varieties of seeds;</li> <li>• subsoiling</li> </ul>	<p>Development and implementation of activities within the framework of the District Development Plans ( for all activities described in the section)</p>	<p>2022 - 2026</p>	<p>Hukumats of districts, Business entities Government of the RT</p>		<p>State budget, grantors, raised funds</p>
<p>Agrotechnical</p> <ul style="list-style-type: none"> <li>• scientifically grounded cotton-lucerne crop rotations;</li> <li>• use of organic and mineral fertilizers;</li> <li>• development of seed production and production of new varieties of seeds;</li> <li>• subsoiling</li> </ul>	<p>Development and implementation of activities within the framework of the District Development Plans ( for all activities described in the section)</p>	<p>2022 - 2026</p>	<p>1. Hukumats of districts, 2. Business entities 3. Government of the RT</p>		<p>State budget, grantors, raised funds</p>

Activity	Expected results	Term	Categories of participants	Cost (thousand TJS)	Sources of financing
Ecological reclamation <ul style="list-style-type: none"> <li>• Application of biological methods of plant protection</li> <li>• Introduction of elements of adaptive landscape farming</li> <li>• Introduction of environmentally friendly technology</li> </ul>	Development and implementation of activities within the framework of the District Development Plans ( for all activities described in the section)	2022-2026	1. Hukumats of districts, 2. Business entities 3. Government of the RT		State budget, grantors, raised funds

Abbreviations used in the table:

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|--|---|
| SDWM - State Directorate for Water Management<br>GWL - Groundwater level<br>FL - fuels and lubricants<br>OFN - On-farm network<br>IO - International organizations | WUA - Water Users Associations<br>WTF - Water treatment facilities<br>IFN - Inter-farm network<br>RL - representative lake<br>DF - dehkan farms |
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**List of rare, endemic and relict plants of the  
Tigrovaya Balka Nature Reserve**

The name of the species in Latin	Protection status
<b>Family (Poacea)</b>	
<i>Stipa longiplumosa</i> Roshev.	—
<b>Family (Liliaceae)</b>	
<i>Eremurus roseolus</i> Vved.	CR
<i>Tulipa tubergeniana</i> Hoog.	CR
<b>Family (Alliaceae)</b>	
<i>Allium sordidiflorum</i> Vved.	—
<i>Allium bucharicum</i> Regel.2	EN
<b>Family (Polygonaceae)</b>	
<i>Calligonum griseum</i> Korov.ex Pavl.	—
<b>Family (Ranunculaceae)</b>	
<i>Nigella bucharica</i> Schipcz.	—
<b>Family (Crassulaceae)</b>	
<i>Pseudosedum bucharicum</i> Boiss.	—
<b>Family (Brassicaceae)</b>	
<i>Erysimum babatagi</i> Korsh.	—
<i>Catenularia hedysaroides</i> Botsch.	VU
<i>Neuroloma fruticosum</i> (Regel et Schmalh.) Botsch.	—
<i>Cryptospora trichocarpa</i> Kar. et Kir.	—
<i>Matthiola integrifolia</i> Kom.	—
<i>Matthiola czernjakovskae</i> Botsch. et Vved.	—
<i>Matthiola bucharica</i> Czerniak.	—
<i>Lepidium seravechanicum</i> Ovcz.et Junuss.	—
<b>Family (Fabaceae)</b>	
<i>Medicago lanigera</i> C.Winkl.	—
<i>Astragal terekliensis</i> Gontsch.	—
<i>Astragal kabadianus</i> Lipsky	—
<i>Astragal lancifolius</i> Gontsch.	—
<i>Astragal densus</i> M.Pop	—
<b>Family (Zygophyllaceae)</b>	
<i>Zygophyllum gontscharovii</i> Boriss.	—
<b>Family (Rutaceae)</b>	
<i>Haplophyllum tenuisectum</i> Lincz. et Vved.	—
<b>Family Rhamnaceae</b>	
<i>Rhamrus baldachuanica</i> Grub.	—
<b>Family (Apiocaeae)</b>	
<i>Ferula botschantzevii</i> Korov.	EN
<b>Family (Boraginaceae)</b>	
<i>Heliotropium pileiforme</i> Czuk.	—
<i>Nonea macropoda</i> M. Pop.	—

<b>Family (Limonacea)</b>	
<i>Acantholimon afanassievii</i> Lincz.	—
<b>Family (Scrophulariaceae)</b>	
<i>Scrophularia kabadianensis</i> B. Fedtsch.	—
<i>Scrophularia glabella</i> Botsch.et Junuss.	—
<b>Family (Valerianaceae)</b>	
<i>Bryonia lappifolia</i> Vass.	VU
<b>Family Compositae (Asteraceae)</b>	
<i>Cousinia agelocephala</i> Tschern.	CR
<i>Cousinia pusilla</i> C. Winkl.	—
<i>Cousinia pulchra</i> C. Winkl.	—
<i>Cousinia corumbosa</i> C. Winkl	CR
<i>Cousinia hilariae</i> Kult	EN
<i>Gymnospermium darvasicum</i> (Regel) Takht	VU
<i>Jurines atopurpurea</i> C.Winkl. ex Iljin	—
<i>Jurinea darvasica</i> Iljin	CR
<i>Saussurea caprifolia</i> Iljin et F. Zapr.	EN
<i>Rosularia lutea</i> Boriss	VU
<i>Iris hoogiana</i> Dykes	EN
<i>Juno baldshuanica</i> (O.et B. Fedtsch) Vved	VU
<i>Juno tadshikorom</i> Vved	EN
<i>Erianthera rhomboidea</i> Benth	EN
<i>Kudrjaschevia korshinskiyi</i> (Lipsky) Pojark	CR
<i>Kudrjaschevia nadinae</i> (Lipsky) Pojark	EN
<i>Astragalus darvasicus</i> Basil	CR
<i>Chesneya tadzhikistana</i> Boriss	VU
<i>Keyserlingia mollis</i> (Royle) Boiss	EN
<i>Oxytropis astragaloides</i> Boriss	EN
<i>Traagacantha alexeenkoana</i> (B. Fedtch.et Ivanona) Boriss	VU
<i>Allium stipitatum</i> Regel	EN
<i>Petillum eduardii</i> (Regel) Vved	—
<i>Tulipa anisophylla</i> Vved	CR
<i>Tulipa lehmanniana</i> Mercki	EN
<i>Tulipa liniifolia</i> Regel	VU
<i>Vassillczenkoa sogdiana</i> (Lincz)	CR
<i>Ficus carica</i> L.	EN
<i>Jasminum revolutum</i> Sims (J. humile L var revoluutum (Sims) Stockes)	VU
<i>Paeonia intermedia</i> C.A. Mey	VU
<i>Atraphaxis karataviensis</i> Lipsch. Et N. Pavl	VU
<i>Polygonum ovczinnikovii</i> Czuk	CR
<i>Androsace bryomorpha</i> Lipsky	VU
<i>Primula flexuosa</i> Turkev	VU

Nomination  
TUGAY FORESTS OF THE TIGROVAYA BALKA NATURE RESERVE

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<i>Bergenia strachey</i> (Hook. F. et Thoms) Engl	CR
<i>Saxifraga albertii</i> Regel et Schmalh	VU
<i>Bunium persicum</i> (Boiss) B. Fedtsch.	EN
<i>Cephalopodium badachschanicum</i> Korov.	EN

<i>Seseli sclerophyllum</i> Korov	VU
<i>Zygophyllum darvasicum</i> Boris	VU
<i>Parasilaus asiaticus</i> (Korov)	VU

**List of rare and endangered species of animals found  
in the Tigrovaya Balka Nature Reserve**

The name of the species in Latin	Protection status
<b>FISHES – PISCES</b>	
<i>Acipenser nudiventris</i> (Lovetzky, 1828)	CR
<i>Pseudoscaphirhynchus kaufmanni</i> (Bogdanov, 1874)	CR
<i>Pseudoscaphirhynchus hermanni</i> (Kessler, 1877)	EN
<i>Aspiolucius esocinus</i> (Kessler, 1874)	CR
<i>Barbus brachycephalus</i> Kessler, 1872	VU
<i>Barbus capito conocephalus</i> Kessler, 1872	VU
<i>Abramis brama orientalis</i> Berg, 1872	VU
<i>Capoeto brama kuschakewitschi</i> (Kessler, 1872)	EN
<i>Cobitis aurata aralensis</i> Kessler, 1877	EN
<b>REPTILES – REPTILIA</b>	
<i>Agryonemys horsfieldi</i> (Gray, 1844)	VU
<i>Crossobamon eversmanni eversmanni</i> Wiegmann, 1834)	EN
<i>Teratoscincus scincus</i> (Schlegel, 1858)	EN
<i>Alsophylax tadjikiensis</i> (Golubev, 1979)	EN
<i>Phrynocephalus interscapularis sogdianus</i> (Cernov, 1948)	EN
<i>Phrynocephalus mystaceus</i> (Pallas, 1776)	EN
<i>Phrynocephalus reticulatus boetgeri</i> (Bedriaga, 1905)	EN
<i>Varanus griseus</i> (Daudin, 1803)	EN
<i>Eremias scripta lasdini</i> (Tzarev., 1918)	EN
<i>Eremias grammica</i> (Lichtenstein, 1823)	EN
<i>Eremias lineolata</i> (Nikolsky, 1896)	EN
<i>Eremias intermedia</i> (Strauch, 1876)	EN
<i>Eremias nigrocellata</i> (Nikolsky, 1896)	EN
<i>Eumeces schneideri</i> (Daudin, 1802)	EN
<i>Boiga trigonata melanocephala</i> (Annan-dale, 1904)	EN
<i>Spalerosophis diadema</i> (Schlegel, 1837)	CR
<i>Lycodon striatus bicolor</i> (Nikolsky, 1903)	EN
<i>Naja oxiana</i> (Eichwald, 1831)	EN
<i>Macrovipera lebetina turanica</i> (Cernov, 1940)	VU
<i>Echis multisquamatus</i> (Cherlin, 1981)	EN
<b>BIRDS – AVES</b>	
<i>Gyps himalayensis</i> (Hume, 1869)	VU
<i>Gypaetus barbatus</i> (Linnaeus, 1758)	EN
<i>Circaetus gallicus</i> (Gmelin, 1788)	EN
<i>Pandion haliaetus</i> (Linnaeus, 1758)	EN
<i>Neophron percnopterus</i> (Linnaeus, 1758)	EN
<i>Aquila chrysaetus</i> (Linnaeus, 1758)	VU
<i>Aquila pennata</i> (Gmelin, 1788)	EN
<i>Accipiter nisus melanoschistus</i> (Hyme, 1869)	EN
<i>Falco cherrug coatsi</i> (Dementiev, 1945)	EN
<i>Falco pelegrinoides</i> (Temminck, 1829)	EN
<i>Ammoperdix griseogularis</i> (Brandt, 1843)	VU
<i>Phasianus colchicus bianchii</i> (Buturlin, 1904)	EN
<i>Otis tarda tarda</i> (Linnaeus, 1758)	CR
<i>Chlamydotis undulata</i> (Jacquin, 1784)	CR
<i>Burhinus oedicnemus</i> Linnaeus, 1758	EN
<i>Glareola pratincola</i> (Linnaeus, 1766)	EN
<i>Pterocles orientalis</i> (Linnaeus, 1758)	EN
<i>Terpsiphone paradisi leucogaster</i> (Swainson, 1838)	VU
<b>MAMMALS – MAMMALIA</b>	
<i>Suncus etruscus</i> (Savi, 1822)	VU
<i>Myotis emarginatus</i> (Geoffroy, 1806)	VU
<i>Hypsugo savii</i> (Bonaparte, 1837)	VU
<i>Eptesicus serotinus</i> (Schreber, 1774)	VU
<i>Eptesicus bottae</i> (Peters, 1869)	VU
<i>Vespertilio murinus</i> (Linnaeus, 1758)	VU
<i>Otonycteris leucophaeis</i> (Severtsov, 1873)	VU
<i>Tadarida tenioti</i> (Rafinesque, 1814)	VU
<i>Spermophilopsis leptodactulus</i> (Lichtenstein, 1823)	EN
<i>Hystrix indica</i> (Kerr, 1792)	VU
<i>Allactaga elater</i> (Lichtenstein, 1825)	EN
<i>Vulpes corsac tukmenica</i> (Ognev)	EN
<i>Mustela nivalis</i> (Linnaeus, 1766)	EN
<i>Vormela peregusna</i> (Gueldenstaedt, 1770)	EN
<i>Lutra lutra</i> (Linnaeus, 1758)	EN
<i>Hyaena hyaena</i> (Linnaeus, 1758)	CR
<i>Felis chaus oxiana</i> (Heptner, 1969)	EN
<i>Panthera tigris virgata</i> (Illiger, 1815)	EX
<i>Panthera pardus ciscaucasica</i> (Satunin, 1914)	EW
<i>Gazella subgutturosa</i> (Gueldenstaedt, 1780)	CR
<i>Ovis vignei bochariensis</i> (Nasonov, 1914)	CR
<i>Cervus elaphus bactrianus</i> (Lydekker, 1900)	CR

**Plants and animals included in the Red Book of the Republic of Tajikistan**

<b>Invertebrates</b>	<b>Family Cyprinidae</b>
<b>Order Mantoptera</b>	<i>Aspiolucius esocinus</i> Kesler
<b>Family Mantoidea</b>	<i>Barbus brachycephalus</i> Kesler
<i>Nierodula tenuidentata</i> Sausure	<b>Reptilia</b>
<i>Rivetina beybienkoi</i> Lindt	<b>Sauria</b>
<i>Amblythepis misthenkoi</i>	<b>Family Geconidae</b>
<b>Order Homoptera</b>	<i>Grosabaton eversmanni</i>
<b>Family Margarodidae</b>	<b>Family Agamidae</b>
<i>Porphirophora cynadontis</i>	<i>Phrynocephalus sogdianus</i> Cern.
<i>Porphirophjra sophorae</i>	<b>Family Varanidae</b>
<b>Order Neteroptera</b>	<i>Varanus griseus</i> Daudin
<b>Family Pentatomidae</b>	<b>Family Laceridae</b>
<i>Cellodius abdominalis</i>	<i>Eremias scripta</i> Str.
<b>Family Aradidae</b>	<i>Eremias grammica</i> Licht.
<i>Calisius turanicus</i> Kir	<b>Family Scicidae</b>
<b>Family Reduvidae</b>	<i>Eumeces schneideri</i> Daudin
<i>Stenolemus bogdanovi</i> Osh.	<b>Family Boidae</b>
<i>Reduvius fedtchenkinus</i>	<b>Serpentes</b>
<b>Order Lepidoptera</b>	<i>Erux tataricus</i> Lichtenstein
<b>Family Sphingidae</b>	<b>Family Colubridae</b>
<i>Amorpha philerema</i> Diak	<i>Lycodon striatus bicolor</i> Nicolsci
<i>Celerio chamula arocyni</i>	<i>Boiga trigonatum melanocephala</i> Annandale
<b>Family Notodontitae</b>	<b>Family Elapidae</b>
<i>Paragluphisia oxiana</i>	<i>Naja oxiana</i> Eichw
<b>Family Lasiocampidae</b>	<b>Family Veperidae</b>
<i>Taragama fainae</i> Geras	<i>Veperia lebetina turanica</i> Cernow
<b>Family Lemonidae</b>	<i>Echis carinatus</i> Schneider
<i>Lemonia tancrei</i> Punglr.	<b>Aves</b>
<b>Family Nolidae</b>	<b>Order Falconiformes</b>
<i>Nola silvicola</i> Stshetkin	<b>Family Acipitridae</b>
<b>Family Noctuidae</b>	<i>Circaetus ferox heptneri</i> Dem.
<i>Pseudohadena seposita</i> Punglr.	<i>Neophron pencopterus</i>
<i>Catocala optima</i>	<b>Family Falconidae</b>
<i>Catocala timur</i>	<i>Falco cherrung coatsi</i> Idem.
<i>Lygephila lubrosa</i>	<i>Falco peregrinus babilonicus</i>
<b>Family Geometridae</b>	<b>Order Galliformes</b>
<i>Euphithecia diakonovi</i> Stshetkin	<b>Family Phasianidae</b>
<i>Euphithecia dominaria</i>	<i>Ammoperdix griseogularis</i> Brandt.
<b>Vertebrates</b>	<i>Phasianus colchicus bianchi</i>
<b>Pisces</b>	<b>Order Gruiformes</b>
<b>Order Acipenseriformes</b>	<b>Family Otididae</b>
<b>Family Acipenseridae</b>	<i>Ortis undulate</i>
<i>Pseudoscaphirhynchus kaufmanii</i> Bogdanov	
<b>Order Cypriniformes</b>	



<b>Order Charadriiformes</b>
<b>Family Burhinidae</b>
<i>Burhinus oedicnemus astutus</i> Hart
<b>Family Charadriidae</b>
<i>Glareola pretinkola</i>
<b>Order Columbiformes</b>
<b>Family Pterolidae</b>
<i>Pteroclis orientalis</i> Pallas
<b>Mammalia</b>
<b>Order Insectivora</b>
<b>Family Soricidae</b>
<i>Suncus etruscus</i> Savi
<b>Order Chiroptera</b>
<b>Family Rhinolophidae</b>
<i>Rhinolophus ferrumegninum</i> Schreber
<b>Family Vespertilionidae</b>
<i>Eptesicus serotinus turcomanus</i> Eversmann
<b>Family Molossidae</b>
<i>Tadarida teniotis teniotis</i>
<b>Order Rodentia</b>
<b>Family Sciuridae</b>

<i>Spermophilopsis leptodactylus bactrianus</i> Scullu
<b>Family Hystricidae</b>
<i>Hystrix leucura satunini</i> Muller
<b>Family Dipodidae</b>
<i>Allactaga elater</i> Lichtenstein
<b>Order Carnivore</b>
<b>Family Mustelidae</b>
<i>Mustela nivalis pallida</i> Heptneri
<i>Vormela peregusna</i> Satunin
<i>Lutra lutra seistanika</i> Birula
<b>Family Hyaenidae</b>
<i>Hyaena hyaena</i> Linnaeu
<b>Family Felidae</b>
<i>Felis chaus pxiana</i> Heptneri
<b>Order Artiodactila</b>
<b>Family Bovidae</b>
<i>Gazelle subgutturosa guldeenstaend</i>
<i>Ovis vgnei bochariensis</i> Nasonov
<b>Family Cervidae</b>
<i>Cervus elaphus bactrianus</i>

<b>Plants</b>
<b>Fungi</b>
<i>Pleurotus komarnitzkyi</i> Vassilk
<i>Battarea phalloides</i> Pers
<b>Family Angiospermae</b>
<i>Capparis rosanoviana</i> B.Fedtsch
<i>Seidlitzia rosmarius</i> Bunge
<i>Cousinia adelocephala</i> Tschern
<i>Allium ophiophyllum</i> Vved
<i>Tulipa tubergeniana</i> Th. Hood
<i>Zygophyllum bucharicum</i>