

Bereketli Garakum State Nature Reserve, Turkmenistan: Characteristics

Name, organization, and contact information of the person in charge (email, etc.)		Karryeva Sh. (Karryeva Sh.), KADI/CADI		
Date of evaluation		06.06.2022		
Name of the PA		Bereketli Garagum State Nature Reserve		
Country	Turkmenistan			
Location of the PA (administrative region and, if possible, geographic coordinates)		Akbugday and Tedjen etraps of Akhal velayat Reference points: E 59°10'17.15" and N 39°51'26.15"		
Territory code in WDPA (these codes can be found at www.unep-wcmc.org/wdpa/)		Not currently included in the World Database of Protected Areas (WDPA)		
Date of foundation	State Nature Reserve was established by Decree No. 13127 of the President of Turkmenistan Gurbanguly Berdymukhamedov on July 18, 2013.			
Form of ownership (check the box)	<input checked="" type="checkbox"/> State	<input type="checkbox"/> Private	<input type="checkbox"/> Collective	<input type="checkbox"/> Other
Management organization	Ministry of Agriculture and Environmental Protection of Turkmenistan, Environmental Protection Service			
Protected area (ha)	Total area: 87 500 hectares, consists of two main sections of the reserve - Gamyshly (47400 hectares) and Murzechyrla (15000 hectares), connected with each other by the territory of Minara Reserve (25000 hectares), and there is also an experimental area "Chalysh" (100 hectares) The total area of the protected area of the reserve is 30745 ha, of which 16745 ha in the Gamyshly area and 14000 ha in the Murzechyrla area.			
Number of employees	On a permanent basis (in 2022): Total on the staff of 47 people, including 23 inspectors and 7 scientific workers; administration - 5; administration department - 12 people		On a temporary basis Periodic involvement of seasonal workers in the fire-hazardous period	
Annual budget (in U.S. dollars) - does not include employee salaries	<p>The annual state budget for 2021 is 1043280.00 AZN, or \$3,661,912.8 USD. (exchange rate 3.51)</p> <p>For other expenses (travel, fuel and lubricants, communications, sick pay, etc.) the reserve budget for 2021 is 253383.88 manat.</p> <p>Total of 86940 manat per month state salary for 2021.</p>		<p>Paid: salary for 2021 is 980295.38 AZN</p> <p>Compulsory pension insurance (20%) on the staff schedule of employees paid 196059.09 manat</p> <p>Total budgeted expenditures in 2021: 1429738.35 manat (980295.38 + 196059.09 + 253383.88)</p>	
Statuses (IUCN category, World Heritage Site, Ramsar Convention, etc.)	IUCN 1a; Bereketli Garagum component proposed for inclusion in the transnational Cold winter deserts of Turan serial site for nomination to the UNESCO World Heritage List (January 28, 2022)			
The main values that gave the territory a particular status	Desert ecosystem of Cold winter deserts of Central Asia, some species are on the IUCN Red List			
Name two main tasks related to the management of this PA				

Question	Criteria	Score: check only one box per question		Commentary/explanation	Next steps
<p>1. Official status</p> <p>Does the protected area have an official status (or, if the reserve is privately owned, is it bound by any official treaty or similar document)?</p> <p><i>Context</i></p>	This protected area has no official status/is not bound by an official treaty	0		This protected area was created by a special presidential decree № 13127 of June 18, 2013. which is the basis for the creation of a clearer legal structure	It is necessary to revise the Act on State Land Use and the Regulations of the Bereketli Garagum Nature Reserve on the Chalysh section, which is prescribed by documents as a "specially protected natural area" with an area of 100 ha, but in reality serves as a scientific and experimental station.
	There is an agreement that this protected area should receive official status/become bound by an official treaty, but the process has not yet begun	1			
	This PA is in the process of obtaining official status/signing an official treaty, but the process is not yet complete	2			
	This protected area has received official status/signed an official treaty	3			
<p>2. Rules of use of SPNAs</p> <p>Is abusive land use and other prohibited activities (e.g.,</p>	There are no rules for the use of land and activities in this protected area	0		The reserve has an adequate set of rules; the problems are mainly related to their non-implementation or poor implementation. Uncontrolled grazing of livestock is observed.	Before the creation of the reserve (Gamyshly site) and at the present time the local population lives in the surrounding area and uses wells for livestock. Proposals on possible revision/replacement of the Gamyshly
	In this protected area there are certain rules for the use of land and activities, but they are not enough	1			
	This protected area has a sufficient number of rules for land use and activities, but there are significant shortcomings	2			

<p>poaching) controlled? <i>Planning</i></p>	<p>Regulations on inappropriate land use and illegal activities in this protected area are in place and provide an excellent basis for quality management</p>	<p>3</p>		<p>site with another alternative site are prepared. Proposals for measures to expand the area of the reserve are presented in the Management Plan. The issue is still open. Due to the fact that the water in the wells is highly saline and unsuitable for drinking, and is deep and not used by wildlife, there is an opinion to bury all the wells to prevent the presence of livestock in the Gamyshly area. Minara Reserve - need to revise boundaries. Proposals have been submitted to the Ministry of Agriculture and Forestry with a new map-scheme and coordinates.</p>
<p>3. Law enforcement Does the staff succeed in enforcing protected area regulations? <i>The process</i></p>	<p>Staff does not have effective means/resources to enforce protected area laws and regulations</p>	<p>0</p>	<p>Employees have a lot of difficulty enforcing the rule of law due to lack of resources.</p>	<p>The KADI project provided the Reserve with additional monitoring and protection equipment: a Toyota Hailux off-road vehicle, six binoculars, 20 field outfit kits (shoes and uniforms), field equipment (five tents, five sleeping bags and five mattresses), and a camera. You should also explore the possibility of hiring employees from nearby communities.</p>
<p>There is an acute lack of funds/resources for staff to enforce PA laws and regulations (e.g., lack of appropriate skills, lack of funds to provide patrols)</p>	<p>1</p>	<p>In addition, the employees live in a village 270 km away from the reserve and have to use their own motorcycles to get to work and buy fuel at their own expense. It is possible to recruit employees from a closer locality 55 km away, but there are concerns that it would be difficult for them to apply punishment to their neighbors.</p>		
<p>Staff has a reasonable amount of effective tools/resources to enforce protected area laws and regulations, but there is a slight lack of them</p>	<p>2</p>			
<p>Staff is fully equipped with all the tools/resources to ensure compliance with PA laws and regulations</p>	<p>3</p>			
<p>Question</p>	<p>Criteria</p>	<p>Score: check only one box per question</p>	<p>Commentary/explanation</p>	<p>Next steps</p>

4. Objectives of the reserve Is it managed according to the objectives? <i>Planning</i>	This protected area does not have any clearly agreed objectives	0		As noted in paragraph 3, due to the lack of equipment, the staff has great difficulty in carrying out management tasks. The lack of well-trained research staff seriously affects the quality of research work in the reserve.	As part of the KADI project for 2019-2020, collaborative scientific research with outside experts (zoologists and botanists) was conducted, an inventory of biodiversity was conducted, and lists of flora and fauna of the reserve were prepared. In 2021, theoretical and practical trainings were conducted for the Reserve's staff to monitor biodiversity and better define conservation objectives.
	This protected area has agreed objectives, but is not managed in accordance with these objectives	1			
	This protected area has agreed objectives, but is only partially managed in accordance with these objectives	2			
	This PA has agreed objectives, and is managed in accordance with these objectives	3			
5. Structure of SPNAs Is the size and shape of the reserve appropriate for the protection of the main target species and habitats? <i>Planning</i>	Due to the imperfect structure of SPNAs, the implementation of the main tasks is impossible	0			In the course of research on the KADI project, planning activities for the expansion of protected areas were carried out. Monitoring of flora and fauna was conducted in April-May and September 2019, in June 2020, animal populations were studied, especially endemics and species included in the Red Book and the IUCN Red List. Re-zoning and proposals for expansion of the territory, creation of a migration corridor were carried out.
	Due to the imperfection of the structure of this PA, only incomplete implementation of the main tasks is possible	1			
	The structure of protected areas does not have a major impact on the implementation of tasks, but it can be improved	2			
	The structure of SPNA allows to fully perform the tasks of SPNA	3			

6. Defining the boundaries of protected areas	The boundaries of the protected area are not known either by the administration or by local residents/users of nearby land.	0		The boundaries have been mapped and marked on the ground. Local residents are aware of their location.	The boundaries for the Minara Sanctuary have been reviewed for expansion and proposals have been reflected in the Management Plan. A letter on the expansion of the Minara Sanctuary has been prepared and submitted to the Ministry of Agriculture and Forestry for consideration. There is a need to locally define a new expanded area for the Minara Preserve and prepare a special Resolution to expand the Preserve. It is necessary to work together with the Department of Land Resources of MA&EOST. A map with coordinates has been prepared and submitted. The KADI project has financed the production of an additional 5 signposts/angles to be installed in the reserve and sanctuary areas.
Are the boundaries of protected areas known and marked?	The boundaries of PAs are known to the administration, but are not known to local residents/users of nearby lands	1			
<i>The process</i>	The boundaries of protected areas are known both to the administration and to local residents/users of nearby land, but are not properly marked	2			
	The boundaries of protected areas are known both to the administration and to local residents/users of nearby lands, and are properly marked	3			

Question	Criteria	Score: check only one box per question		Commentary/explanation	Next steps
7. Management plan Is there a management plan and is it carefully implemented? <i>Planning</i>	This PA does not have a management plan	0		The reserve only has annual plans for certain areas, which are not tied to the budget.	The five-year Management Plan for the period 2021 - 2025 was developed within the framework of the KADI project and is being translated into the national language (Turkmenian). The Russian version of the Management Plan was approved by the Head of the Environmental Protection Service on 19 January 2022. The Management Plan was submitted to the Ministry of Agriculture and Forestry for implementation, monitoring and possible budgetary funding. The Management Plan is included as an annex to the nomination dossier.
	Management plan is in preparation or already prepared, but not implemented	1			
	A management plan exists, but is only partially implemented due to financial difficulties or other problems	2			
	A management plan exists and is being implemented	3			
Additional items: <i>Planning</i>					

7a. The planning process	The planning process provides adequate opportunities for key stakeholders to influence the management plan	+1		Two ministries (agriculture and conservation) have teamed up to develop a comprehensive plan	Local residents are still deprived of the opportunity to participate in the development of the plan. This work is done at the level of government agencies.
7b. The planning process	There is a defined scheme and process by which the management plan is reviewed on a regular basis and necessary changes are made	+1			The Management Plan is amended regularly, with revisions every six months
7c. The planning process	The results of monitoring, research, and evaluations are an integral part of planning	+1			The Five-Year Management Plan has a Chapter 6 - Monitoring, Research, and Evaluation, which requires annual monitoring of the Plan
8. Permanent work plan	There is no permanent work plan	0		There is an annual work plan, with a five-year Management Plan developed as part of the CADI project; however, the lack of competent professionals among the staff, as well as the resources to properly patrol the area, significantly affects its implementation	Additional resources/equipment and equipment were provided under the CADI project to provide specialists in PAs; young specialists are reluctant to work in these low-paying structures; training in the country's higher education institutions does not meet the standards
Is there an ongoing work plan and is it being followed?	An ongoing work plan exists, but few of its items are being implemented	1			
	An ongoing work plan exists, and most of its items are being implemented	2			
<i>Scheduling/Release.</i>	There is an ongoing work plan and almost all or all of its items are being implemented	3			
Question	Criteria	Score: check only one box per question		Commentary/explanation	Next steps

9. Resource Inventory	There is little or no information on threatened habitats, species, and cultural values within PAs	0		The KADI project research included expeditions to identify plant and animal life in April-May and September 2019, and in June 2020, to study animal populations, especially endemics and threatened habitats of Red List and IUCN Red List species, and cultural values. Methodological material has been prepared for the sections: higher plants, amphibians and reptiles, birds and mammals. The methodological material has been translated into the Turkmen language. Field guides (booklets) on 13 desert species of flora and fauna were prepared, translated into the Turkmen language, printed and distributed to the staff of all nine nature reserves and interested parties, including teachers of local schools and university teachers, representatives of international projects, other public organizations and scientific institutions; the booklets were provided to the library of the Visitor Center, where public awareness and education activities are planned.	Despite the conducted field expeditions, research and methodological material, it is necessary to conduct further research and cover different seasons of the years to complete the lists.
	Information on threatened habitats, species, and cultural values within PAs is available in insufficient quantities for planning and decision-making				
	Information on threatened habitats, species, and cultural values within PAs is available in sufficient quantity to support planning for most key issues and decision-making	2			
	Information on threatened habitats, species, and cultural values within PAs is available in sufficient quantity to support planning and decision-making on all key issues	3			
Do you have enough information to manage the territory?					
<i>Attachment</i>					

<p>10. Assessment of accessibility</p> <p>Is control of access to protected areas/use of protected area resources consistent with the objectives?</p> <p><i>Results</i></p>	Protection systems (patrolling, issuing permits, etc.) are not capable of controlling access to the PA and the use of its resources	0		<p>Depending on the type of violation, game wardens may demand that the violators pay damages or apply some kind of punishment to them. Illegal hunting of Red Book species is punished more severely, and three recorded such cases can lead to imprisonment for 1 to 3 years. However, the allocated funds (fuel and lubricants) are only enough for one raid per month, besides, huntsmen are often forbidden to use their personal vehicles because they do not meet the technical standards. There is a shortage of vehicles and means of fuel and lubricants.</p>	<p>There are difficulties with the appointment of locals as it is not known how strictly they will follow the rules, although some of the respondents denied this. There is also the problem of tensions between gamekeepers and locals.</p>
	Security systems provide only partial control of access to the PA and the use of its resources	1			
	Security systems provide moderate control over access to the PA and the use of its resources	2			
	Protection systems provide complete or nearly complete control over access to the PA and the use of its resources	3			
<p>11. Research</p> <p>Is there an observation and research program to improve management?</p>	There are no observations and studies on the territory of the protected area	0		<p>Each reserve conducts annual research and maintains a monitoring journal "Annals of Nature" / "Tebigy Yazgi" (in Turkish), where the relevant data on biodiversity monitoring is recorded.</p>	<p>The "Annals of Nature" monitoring journal is filled out for the constant accumulation and systematization of data on all sections and topics of scientific work.</p>
	There is a small amount of observation and research on the territory of SPNA	1			
	A large number of observations and studies are conducted in PAs, but they are not aimed at improving the management of PAs	2			

<p><i>The process</i></p>	<p>Comprehensive observations and research are conducted on the territory of protected areas to improve management of protected areas</p>	<p>3</p>		<p>Based on the results of the annual scientific studies, ten-day and annual reports are prepared, which are then entered in the "Annals of Nature". Also the data on the collected materials of the scientific department and inspection teams are analyzed (inspectors fill out diaries), also the results of photographic materials are entered in the "Annals of Nature". Researchers also participate in works in the enclosure where wild animals are kept, as well as carry out environmental education activities among the population. Conducting scientific research and monitoring at an insufficient professional level and in an incomplete scope is the result of the lack of necessary specialists in the field of profile disciplines (for example, invertebrate animals,</p>
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Question	Criteria	Score: check only one box per question		Commentary/explanation	Next steps
12. Resource management Is there an understanding of the need to take measures to manage the reserve's resources and are these measures being taken? <i>The process</i>	Understanding of the need to take steps to actively manage threatened habitats, species, and cultural values is lacking	0		At the moment the management is carried out on a small scale. In particular, captive breeding with subsequent release into the wild such animals as gazelles (17 animals have already been released), porcupines and hares. Also, in dry periods, animals are provided with water pumped from wells.	Further management research is needed. Some areas of the reserve near human settlements are undergoing major changes due to the cutting of living and harvesting of dead woody vegetation.
	There is an understanding of the need to take steps to actively manage threatened habitats, species, and cultural values, but these steps are not being taken	1			
	The understanding of the need to take steps to actively manage threatened habitats, species, and cultural values is present, and these steps are in part	2			
	An understanding of the need to take steps to actively manage threatened habitats, species, and cultural values is present, and these steps are being taken in significant or full	3			
13. Number of employees	The PA has no employees	0		The staff consists of 23 people working in the security department and 7 people from the scientific department; including 3 employees who do	For effective management of the reserve it is necessary to increase the number of staff. The developed
	There are not enough employees to carry out basic management	1			
	The number of employees is below the optimal level, sufficient for basic management	2			

flora, etc.) and insufficient qualification of the staff of the scientific department. It is necessary to strengthen the human resource capacity of the Reserve, to review the activities of scientific staff and to specify their scientific topics.

Does the PA have enough employees to manage it? <i>Attachments</i>	There are enough employees to manage PAs	3		not work on the territory. The shortage of scientific staff is particularly acute and requires the hiring of additional independent consultants with narrow specialization.	Management Plan includes proposals to increase the staffing of the reserve.
14. Employee training	Employees do not have the qualifications necessary to carry out the management of SPNAs	0		All specialists in the technical field have basic skills, but the general consensus is that their level of technical training should be much higher.	Areas of training required: zoology, botany, modern observation and mapping techniques including photo traps, computers and software, habitat management, communication and social skills, and analytical skills.
Is the staff sufficiently qualified to perform management tasks?	The level of qualification and training of staff does not meet the requirements of PAs	1			
	Employees are sufficiently qualified and trained, but the level of their skills can still be improved in order to fully perform the tasks of management	2			
<i>Attachments/process</i>	The level of qualification and training of staff fully meets the requirements for PA management	3			
Question	Criteria	Score: check only one box per question		Commentary/explanation	Next steps
15. Current budget	There is no budget for the effective management of protected areas	0		Staff salaries are very low, and there are difficulties in recruiting young people to work in the reserve. Thus, the technical staff is predominantly made up of older professionals, so there is a risk of serious problems with qualified employees in the next few years.	It is necessary to take serious measures and create incentives to improve the skills of the staff, as well as to attract young people to the management of SPNAs. This should be one of the priority tasks.
Is the current budget sufficiently sized?	The available budget is insufficient for the basic management of protected areas, which raises serious management challenges	1			
	The current budget is of acceptable size, but it must be increased in order to fully and effectively manage protected areas	2			
<i>Attachments</i>	The current budget is sufficient to fully carry out the management of protected areas	3			

16. Budget stability Is there a permanent budget? <i>Attachments</i>	This protected area does not have a permanent budget, and is managed entirely through outside support or through appropriations assigned separately for each year	0		Previously, there was a so-called "environmental fund," which provided the main financial support, but now the fund has been abolished, and the main funds come directly from the ministry, and their volume has decreased. The deficit is filled, if possible, by implementing third-party projects. Some PAs are trying to raise funds, e.g. by developing beekeeping. Permission is needed to explore alternative funding opportunities. Part of the budget allocated to the reserve is squandered at the level of the ministry.	
	The permanent budget is very small, and the PA will not be able to function properly without outside financial support	1			
	This protected area has a fairly large permanent budget, but for the implementation of most of the innovations and initiatives outside funds are attracted	2			
	This PA has a large permanent budget, sufficient to manage	3			
17. Budget management Does the quality of budget management allow for basic PA management? Is the budget managed to meet critical management needs? <i>Process</i>	Budget management is at a low level and greatly reduces efficiency	0			
	Budget management is at a low level and affects efficiency	1			
	Budget management is at an acceptable level, but it can be improved	2			
	Budget management is at a high level and contributes to efficiency	3			
Question	Criteria	Score: check only one box per question		Commentary/explanation	Next steps
18. Equipment	Premises and equipment are available in insignificant quantities or are absent at all	0		With the exception of cordons equipped with solar panels,	The KADI project provided the following equipment and facilities

<p>Is the available equipment sufficient for effective management?</p> <p><i>Attachment</i></p>	<p>There are some rooms and equipment, but in insufficient quantities</p>	1		<p>there is a serious shortage of all other equipment.</p>	<p>for the Reserve (Science and Conservation Department):</p> <ul style="list-style-type: none"> • Toyota Highlux car • Laptop - 1 pc. • Color printer - 1 pc. • Tablet - 1 pc. • Camera 3 pcs. • Binoculars - 6 pcs. • Uniforms and shoes - 20 sets • Field equipment (5 tents 3-5 local, 5 sleeping bags and 5 mattresses). <p>It is also necessary to purchase:</p> <ul style="list-style-type: none"> • Radios • GPS devices • Photo traps <p>It is necessary to build an observation tower.</p>
	<p>Facilities and equipment are available, but there is some shortage of them, which affects the quality of management</p>	2			
	<p>Premises and equipment are available in sufficient quantity</p>	3			
<p>19. maintenance of equipment</p> <p>Is the equipment adequately maintained?</p> <p><i>The process</i></p>	<p>Equipment maintenance is very poor or non-existent</p>	0		<p>Absolutely no funds are allocated for the purchase of spare parts or software. Most drivers are good mechanics. In many aspects of management, employees must receive basic training.</p>	<p>When allocating finances for equipment, some portion of the budget must be allocated for maintenance and spare parts/fuel purchases.</p>
	<p>Maintenance of premises and equipment is performed only on an "as needed" basis</p>	1			
	<p>Basic maintenance of the premises and equipment is carried out</p>	2			
	<p>Premises and equipment are always kept in good technical condition</p>	3			
Question	Criteria	Score: check only one box per question		Commentary/explanation	Next steps

20. Educational and outreach programs	There is no educational and outreach program	0		The work of the Bereketli Garakum Nature Reserve is carried out according to an annual work and management plan, and there is a separate Action Plan aimed at education and work with the local population. The current	Given the fact that the territory of the reserve has been nominated for inclusion on the UNESCO World Heritage List, it is necessary to consider opportunities to work with a wider
Is there any planned educational program that is relevant to the objectives and needs?	There is a limited educational and outreach program that is conducted "by necessity"	1			
	There is a planned education and outreach program, but it does not fully meet the needs and could be improved	2			

<p><i>The process</i></p>	<p>There is an effective planned educational and outreach program</p>	<p>3</p>	<p>educational program, however, does not allow to build enough trust with local residents and land users and increase their level of knowledge to ensure the inviolability of the reserve in the long term.</p>	<p>range of people and provide better educational programs.</p> <p>To disseminate information among the public, educate and expand knowledge about the Cold winter deserts of Turan, the project created and equipped the Information Visitor Center "Nature of the Karakum Desert" in m. Chalysh Bereketli Garagum Reserve. The Visitor Center looks like a Turkmen yurt (40 qm) with a solar autonomous power station (10kW); it has additional equipment (apart from that provided for the Scientific and Conservation Department): an air-conditioner, a laptop, a projector, speakers, a screen, a camera, binoculars, conference tables, 20 chairs, 3 bookcases, books, 2 carpets, a screen; also color photographs and a</p>
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21. Regional planning	Regional planning is not carried out	0		The reserve is legally protected, and since, with the exception of cattle grazing in and around the area, there is almost no activity, there is little need to consider the protected area in planning. On the other hand, if the situation changes (e.g. transport infrastructure is created), none of the current processes can solve the problem.	
Is this PA taken into account in regional planning and does it help meet the objectives? <i>Planning</i>	Regional planning does not take into account the needs of this PA	1			
	Regional planning partially takes into account the long-term needs of this PA	2			
	Regional planning fully takes into account the long-term needs of this PA	3			
Question	Criteria	Score: check only one box per question	Commentary/explanation	Next steps	

21a: Land and water use planning for habitat conservation	The implementation of watershed or landscape planning and management, which includes a given PA, involves the creation of appropriate environmental conditions (e.g., regulation of water quantity and quality and flow schedule, air pollution control) to preserve appropriate habitats				This question requires further study, especially in view of climate change.
21b: Land and water use planning for connectivity	Management of corridors associated with protected areas provides access for wild species to habitats outside protected areas (e.g., in the case of fish that need to move between freshwater pools where they spawn and the sea, or migratory animals)				
21c: Land and water use planning for ecosystem services and species conservation	Planning addresses the needs associated with a particular ecosystem and/or the needs of a particular threatened species at the ecosystem level (e.g., regulating the amount, quality, and schedule of freshwater flows to conserve a particular species, fire prevention to preserve savannah habitat, etc.)				
22. Government and commercial structures in the surrounding area Is there any interaction with land users in adjacent areas? <i>The process</i>	The PA administration does not come into contact with state or corporate land users in adjacent areas	0		HAS NOTHING TO DO WITH	
	The PA administration has limited contact with state or corporate land users in adjacent areas	1			
	The PA administration regularly comes into contact with state or corporate land users in adjacent areas, but interacts with them only to a limited extent	2			
	The PA administration regularly comes into contact with state or corporate land users in adjacent areas and interacts extensively with them on management issues	3			
23. Indigenous Peoples Do indigenous peoples and people with a traditional way of life who live or regularly use the land in the protected	Indigenous peoples and populations with a traditional way of life do not participate in decision-making on the management of the protected area	0		HAS NOTHING TO DO WITH	
	Indigenous peoples and populations with a traditional way of life take some part in discussions about governance, but do not participate directly in governance	1			
	Indigenous peoples and populations with a traditional way of life participate in some management decisions, but their role can be enhanced	2			

area participate in decision-making on PA management? <i>The process</i>	Indigenous peoples and populations with a traditional way of life are directly involved in all management decisions, i.e., they manage together with the administration.	3			
Question	Criteria	Score: check only one box per question		Commentary/explanation	Next steps
24. Local population Does the local population living directly in the protected area or in its vicinity participate in decision-making on the management of the protected area? <i>The process</i>	The local population is not involved in decision-making on the management of the protected area	0		Reserve employees are in conflict with local residents because the latter have been cut off from wells, traditional sources of water on which their livelihood directly depends (less opportunity to raise cattle)	Resolving the conflict is one of the most important tasks that is currently not high enough on the list of management priorities. One obvious possible measure that should be studied and budgeted for is piped water delivery, which would allow local residents to have access to water sources again.
	The local population takes some part in discussions of governance, but does not take a direct part in governance	1			
	The local population participates in some management decisions, but their role can be enhanced	2			
	The local population is directly involved in all management decisions, i.e., it manages together with the administration.	3			
<i>Additional items Local/Indigenous Peoples</i>					
24 a. Impact on the local population	There is mutual understanding and mutual trust between local and/or indigenous peoples, stakeholders, and the PA administration	+1			See above. The lack of dialogue and mutual trust with the local population living in the surrounding areas will create long-lasting difficulties if the problem is not addressed.
24b. Impact on the local population	Programs are implemented to improve the living standards of local people, while at the same time preserving the resources of SPNAs	+1			
24c. Impact on the local population	Local and/or indigenous people actively support the work of PAs	+1			
25. Assessment of economic benefits Does the PA bring economic benefits to	The creation of SPNAs has limited economic development opportunities for local people	0		(However, consider the fact that the loss of access to wells discussed in the preceding paragraphs was seen as a cause of the decline in local incomes.)	As in the previous paragraphs, providing water to the local population is one of the priority tasks.
	The creation of protected areas has had neither a positive nor a negative impact on the local economy	1			

the local population (i.e., do they receive income from the PA, work in it, use the environmental services it provides)?	The local population receives insignificant economic benefits from protected areas	2			
<i>Results</i>	The local population receives significant or major economic benefits from activities in and around the PAs (e.g., job creation for local residents, commercial tours organized by local tour operators, etc.).)	3			
Question	Criteria	Score: check only one box per question		Commentary/explanation	Next steps
26. Monitoring and evaluation	Monitoring and evaluation are not carried out in this protected area	0			
Is the effectiveness of management improvement measures evaluated?	Some monitoring and evaluation work is done on an "as needed" basis, but there is no overall strategy and/or regular collection of results	1			Despite the high praise from participants, the standard observations that are still being made in the preserve indicate that it is worth continuing to invest resources in these areas.
<i>Planning/process</i>	A system of monitoring and evaluation has been developed for this protected area, but their results do not affect the effectiveness of management	2			
	This PA has a quality monitoring and evaluation system that is used in adaptive management	3			
27. Infrastructure for receiving visitors	The PA has no infrastructure for visitors, despite the obvious need for its creation	0			
Is there a quality infrastructure for receiving visitors?	The infrastructure and level of services do not match the existing flow of visitors	1		Neither the administrative building in Ashgabat nor the nursery in Chalysh have yet been adapted to properly receive visitors.	It will be appropriate to create a basic infrastructure in the nursery. At the moment, serious investment in this area is not justified due to low attendance.
	The infrastructure and level of services are appropriate for the current flow of visitors, but they can still be improved	2		Only 50 people visit the reserve and nursery each year (for scientific purposes - on their	

<i>Returns</i>	The infrastructure and level of services perfectly matches the existing flow of visitors	3		own initiative or by assignment).	In connection with the nomination of the site for inclusion on the UNESCO World Heritage List, it will be advisable to develop and implement a curriculum for eco-education and public awareness, which will help improve the relationship between the reserve and local residents and enhance the educational functions of the protected area.
Question	Criteria	Score: check only one box per question	Commentary/explanation	Next steps	
28. Commercial tourism	Tour operators, who use the services of the PA, and its administration do not interact or interact practically with each other	0		There is practically no tourism in this part, and it is not developed at all on the territory of the reserve	At this stage, it is not advisable to invest in the development of ecotourism; due to the strict visa regime in force, tourism in the country is limited to short group tours, mainly for the purpose of visiting cultural sites. There are more affordable options if you want to visit natural sites.
Do commercial tour operators contribute to management efficiency? <i>The process</i>	There is some interaction between the administration and tour operators, but their cooperation is limited to the area of administrative and organizational issues	1			
	The administration and tour operators cooperate with each other on a limited scale in order to improve the level of service to visitors and preserve the values of the protected areas	2			
	The administration and tour operators fully cooperate with each other in order to improve the level of service for visitors and preserve the values of protected areas	3			
29. Cash receipts	In theory, payments are accrued, but in practice they do not go to PAs	0		See above.	

Do the payments (e.g., visitor fees or fines) help develop effective PA management? <i>Attachments/process</i>	Payments go to the PA, but they do not contribute to the development of the area and its surroundings	1		There is a fee to visit the protected area, but tourists do not visit this reserve.	
	Payments go to the PA and to some extent contribute to the development of the area and its surroundings	2			
	Payments go to PAs and significantly contribute to the development of the area and its surroundings	3			
30. Assessment of the state of Are protected areas managed according to their objectives? <i>Results</i>	Important environmental, cultural, and biodiversity values are in very poor condition	0		There is some degradation of the territory around settlements, cases of poaching are recorded, large animals are present in insufficient numbers.	Many of these problems should be solved by improving relations with the local population, as discussed above, and by improving security and control.
	Some environmental and cultural values, as well as some values related to biodiversity, are in very poor condition	1			
	Some environmental and cultural values, as well as some biodiversity-related values, are in poor condition, but the core values are not seriously affected	2			
	Most environmental, cultural, and biodiversity values are unaffected	3			
<i>Additional items: Condition Assessment</i>					
30a: Condition assessment	Condition assessment is based on the results of research and/or monitoring	+1			
30b: Condition assessment	Special management improvement programs are being implemented to address major threats to environmental, cultural, and biodiversity values	+1			
30c: Condition assessment	The tasks of maintaining environmental, cultural, and biodiversity values in good condition are an integral part of the management of the territory	+1			
OVERALL BALL			51		