

WWF-MONGOLIABIENNIAL REPORT FOR 2023-2024

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FOREWORD



Batbold Dorjgurkhem Country Director, WWF-Mongolia

Nature is a complex system of interconnected landscapes, animals, plants, and other elements that have evolved over millions of years. Humanity coexisted harmoniously with this natural legitimacy and structure for centuries without infringing and causing significant disruptions.

Nomadic herders in Mongolia have developed a rich tradition of wisdom in harmonizing with nature's rhythms and cycles, owing to their reliance on livestock. This traditional knowledge has been passed down through generations, enabling Mongolia to maintain relatively pristine ecosystems and coexist with iconic species such as the snow leopard, Mongolian saiga, and Mongolian gazelle. However, in recent decades, climate patterns have shifted, livestock numbers have increased, and human behavior toward nature-often driven by a lack of awareness and ineffective policies-has led to land degradation, deforestation, and the drying up of natural springs. These changes highlight the urgent need for conservation efforts to address the challenges posed by degraded pastures, diminishing forests, and water scarcity, all of which threaten Mongolia's unique ecosystems and biodiversity.

Globally, climate-related natural disasters have increased fivefold since 1970. Mongolia, identified as one of the ten countries most vulnerable to climate change, has seen significant changes in its high-altitude ecosystems, including the habitat of snow leopards. Scientists report that glaciers and permanent snow cover have decreased by 14% since 1990, with the trend intensifying over the last decade. Moreover, in the Altai-Sayan region, phenomena such as permafrost depletion, early start of melting of the ice cover on the rivers, thinning of the ice covers, while localized microclimatic impacts have been observed, along with trends of potential future negative effects. To preserve the unique biological features and

ecosystem integrity of the region, urgent measures are required to be taken towards reducing these threats and addressing their root causes.

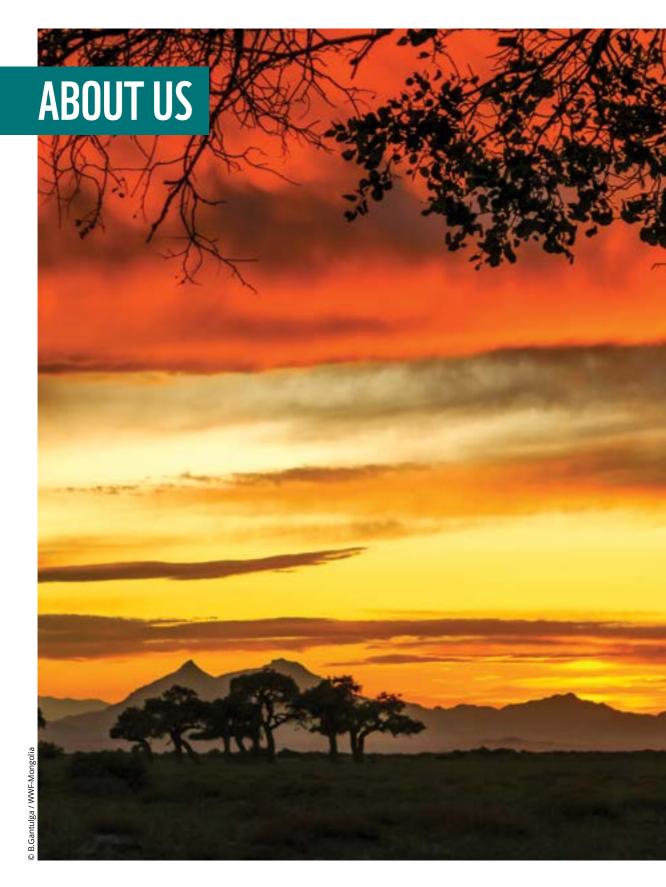
This document provides a brief overview of WWF-Mongolia's achivements in conservation over the past two years (2023–2024) as a biennual report. The report highlights our efforts towards achieving targets outlined in the Conservation strategy to take conservation measures needed to decrease and mitigate threats faced by the endangered and rare species, such as the snow leopard and Mongolian saiga, and challenges with regard to their habitats. It also covers initiatives aimed to restore and protect natural springs - the gold pearls of the Gobi region, safeguard the river basins and water resources across Mongolia, expand protected and conserved areas, and improve their management within the framework of our organization's Conservation Strategy.

Additionally, the report describes how we have initiated and implemented integrated planning processes for specific areas to preserve natural formation of the current ecological systems, balancing the critical needs for biodiversity and the land-use features.

We have also provided significant contributions to the national movement of "One Billion Trees" through close collaborations with local communities in cultivation, nursing and maintaining of trees and shrubs.

The fundamental principle in all our conservation efforts is guided by implementation of nature-based and people-centered conservation policies, with a strong emphasis on the high engagement of stakeholders, particularly local communities. The report further details our fruitful collaboration with local communities, mutually gaining support from each other, and providing assistance to them, in order to ensure that local communities obtain accurate, science-based knowledge and information about their natural resources, enabling them to understand that nature is the fundamental source of a prosperous future for our next generation and make informed decisions based on it.

We appreciate your interest in learning about our work and your collaboration with us.





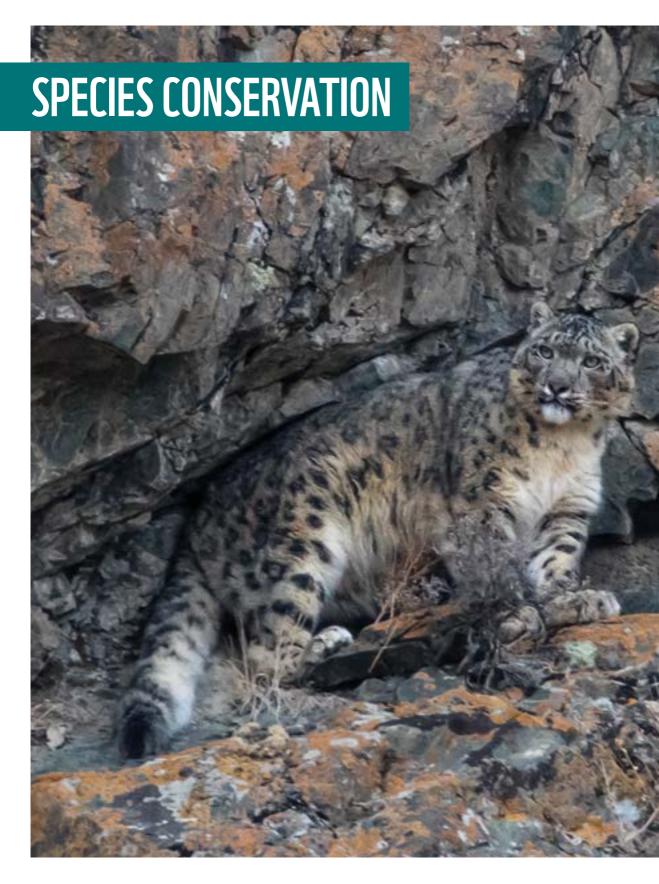
WWF-Mongolia has been active for 32 years, launching its first conservation project in Mongolia in 1992. Over this period, the program office has successfully implemented ongoing conservation efforts in globally significant eco-regions, namely the Altai-Sayan Montane Forest and the Amur Heilong Ecosystem Complex. The fifth five-year conservation program (2021–2025) focuses on key conservation values, covering various ecosystems, ecological processes, and endangered species. These include freshwater ecosystems, temperate forests, grassland steppe ecosystems, migration of ungulates, flyway, snow leopards, and the Mongolian saiga. By prioritizing these values, WWF-Mongolia adopts a peoplecentered approach to conservation, emphasizing the active participation of local communities and stakeholders. This ensures the preservation of ecosystems, the maintenance of ecosystem services, ecological processes and a harmonious coexistence between humans and nature-core goals of the organization. With a strong commitment to safeguarding Mongolia's unique natural heritage, WWF-Mongolia prioritizes expanding the network of protected areas, strengthening management capacities, fostering positive societal attitudes toward the environment, promoting climate change adaptation practices, and sharing knowledge and information to support conservation and the sustainable use of natural resources.



What began with just two employees has now grown into a highly competent team of over 50 staff working from the head office in Ulaanbaatar and branch offices in the center of Khovd province and Dadal soum in Khentii province.



The program's key partners include the Ministry of Environment and Climate Change, the Ministry of Roads and Transport, the Ministry of Justice and Internal Affairs, the Ministry of Food, Agriculture and Light Industry, the National University of Mongolia, scientific institutions, International and local NGOs, local government administrations, law enforcement agencies, private sector entities, local communities, and eco-clubs. These partnerships are vital for the successful implementation of WWF-Mongolia's conservation programs.







SNOW LEOPARD

Approximately 953 mature snow leopards inhabit a 328,000 km² area, which accounts for 21% of Mongolia's total territory. In the 2024, a total of 500 cameras were installed across six mountain ranges, covering an area of 19,199 km² area.



As of 2024, 44 herders acting as volunteer rangers have been actively engaged for over 3 years in monitoring and protecting their local mountains, as well as raising awareness about conservation within their communities. Each year, they participate in 3–5 patrols and monitoring activities within snow leopard habitats, as well as 3–4 research activities. Additionally, they help disseminate conservation messages, gaining extensive environmental knowledge through their involvement with snow leopards.

2023-2024 HIGHLIGHTS IN **SNOW LEOPARD CONSERVATION**

173,000



In snow leopard ranges, including the Kharkhiraa-Turgen, Sair-Khatuu, Darvi, and Khasagtkhairkhan mountains, the population of prey species, such as Mongolian marmots, is estimated to be at around 173,000, reflecting a 9% increase in 2024 compared to pre-2020 survey results.



The "Bankhar Dog Program" continues successfully, with 42 households in the Darvi Range using over 60 Bankhar dogs to guard their livestock. This has resulted in a 74% reduction in predator attacks. Additionally, training on raising Bankhar puppies, herding sheep, and developing them into guard dogs was provided to 42 households, yielding positive outcomes.



In 2023, one case of poaching snow leopard was recorded, but no such incidents were reported in 2024.





As the number of herding households and livestock continues to increase, livestock encroach upon the habitats of predators such as snow leopards in high-altitude pastures. This results in habitat loss, pasture degradation, and a rise in human-snow leopard conflicts. In 2023, across nine major snow leopard habitats, 1,059 livestock were preyed upon by snow leopards: 175 were taken at night from winter camps, while 884 were killed during the day in open pastures.



Within the snow leopard range, 20 national and local roads (spanning 1,270 km) and three railroads (totaling 478 km, including planned railways) pass through critical snow leopard habitats. These infrastructures intersect snow leopard habitats at 38 points, emphasizing the urgent need for environmentally friendly planning and implementation of linear infrastructure.





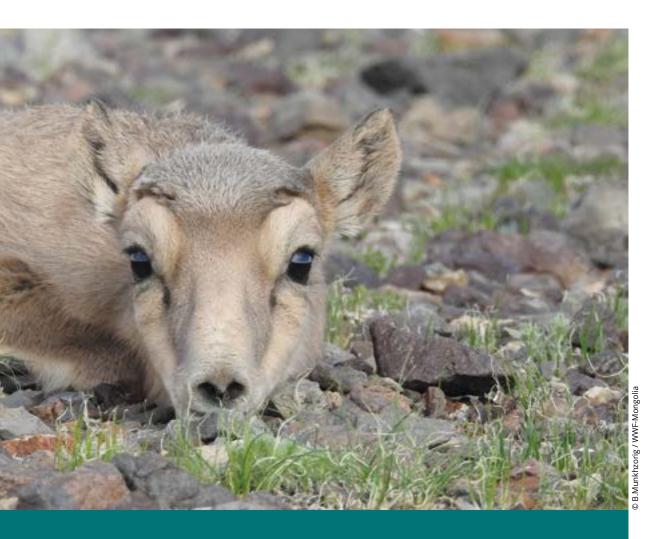
MONGOLIAN SAIGA



The Mongolian saiga is a migratory ungulate species that moves in search of food and water. Thanks to conservation efforts, its population has increased in recent years, and its range has expanded to 46,000 km², matching the extent of its habitat in the 1930s. However, the saiga herds continue to face threats from climate change-induced droughts and harsh winters, pasture and water shortages caused by livestock grazing, habitat fragmentation due to existing and planned linear infrastructure, and infectious diseases.



After a 90-year absence, the Mongolian saiga has returned to its historical range in Zavkhan and Naranbulag soums of Uvs province, where its population increased from 464 individuals in 2023 to 763 individuals in 2024.



2023-2024 HIGHLIGHTS IN MONGOLIAN SAIGA CONSERVATION



The number of Mongolian saiga has increased 20-fold compared with those in 2003, when they were on the brink of extinction, now reaching at least 15,540 individuals in 2023.



The Community Conservationists Network for Saiga, which includes 14 local herders, covers 46,000 km², gathering data on Saiga populations, promoting conservation efforts, and spreading awareness through information dissemination.



Restoration measures were taken on 31.9 hectares across 67 natural springs within the saiga range to support ecosystem integrity.



No cases of illegal hunting or trade of saiga horns have been reported.





WHITE NAPED CRANE

77.2%



A survey conducted in July 2022 in the Onon and Kherlen River basins recorded 22 breeding pairs of white-naped cranes, with a breeding success rate of 77.2%. Most pairs raised only one chick, and seven pairs that had chicks the previous year did not breed again. The population faces negative impacts such as wetland drying due to drought and increased livestock grazing in nesting areas.

2984 km



To identify critical breeding and summering habitats along the Ulz and Kherlen Rivers, seven chicks were fitted with transmitters in 2023, tracking 4,266 locations from July 26 to November 17. One chick, named "Bulgan," left its birthplace along the Kherlen River on October 19, traveled 2,984 km, and arrived in Guyuan, China on November 13 for wintering.

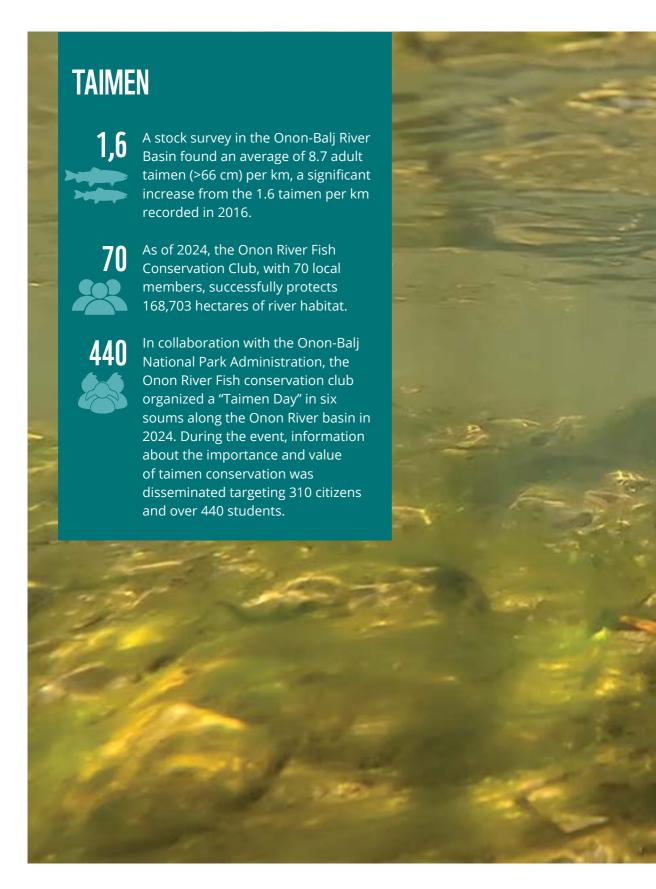
2 7 ha

In 2024, a 2.7-hectare area near Khulst Lake in Norovlin soum, Khentii province, was fenced off to support nesting and breeding success, create nesting environments for non-breeding pairs, and protect critical habitats.



The "Chicks of my homeland" initiative expanded in 2024, engaging 35 children from six lakeside communities. Children educated local herders through dissemination of appropriate information about threats such as habitat degradation, pollution, and overlapping grazing, which can prevent cranes from nesting and result in breeding failures and deaths of eggs and chicks. As a result, over 30 herders living near breeding sites cooperated through securing their dogs and restricting grazing of livestock during the breeding season, while children regularly monitored the areas.







WILDLIFE RESCUE AND REHABILITATION



WWF-Mongolia actively contributed to incorporating the idea that rescuing and rehabilitating injured or sick wildlife is a form of conservation into the Law on Fauna.



In 2022, four comprehensive standards related to wildlife rescue and rehabilitation were approved, marking a significant milestone in wildlife conservation. From 2023 to 2024, the Wildlife Rescue and Rehabilitation Team, composed of the Environment Department, Veterinary Department, and Police, responded to seven reports from local communities in the Altai-Sayan ecoregion, successfully rescuing and rehabilitating wildlife (for more details, see the next page).





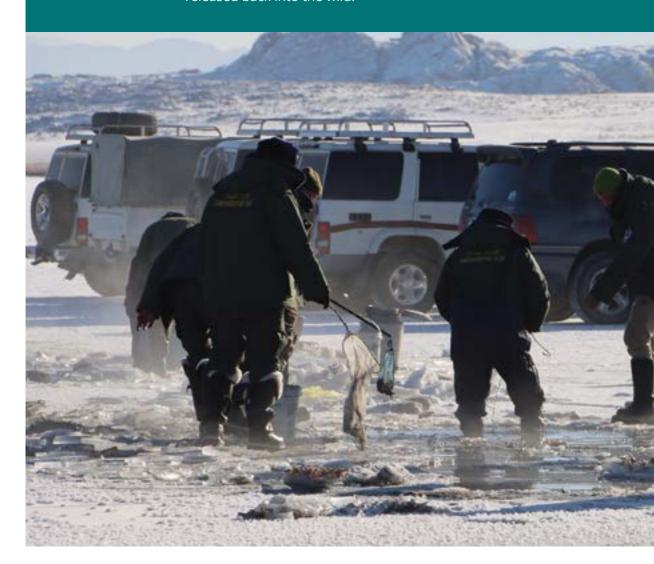
In Uvs province, a bustard unable to fly was rescued, provided with medical care and shelter. After overwintering in the shelter, it was successfully released back into the wild.



Following a report of an argali with a neurological disease, it was treated for four days before being reintegrated into its herd.



In Gobi-Altai province, an exhausted adult ram was rescued, given first aid on-site, and a critically endangered migratory bird, the Great bustard, found near a herder's camp, was treated and released back into the wild.





Over a million juvenile Potanin's Altai osman (*Oreoleuciscus potanini*) fish were trapped and suffocated among the ice and rocks in Achit Lake in Bayan-Ulgii province. In response, 40 rangers and WWF-Mongolia conservationists worked tirelessly to transfer the trapped fish to a safer location. In less than 20 hours, the rescue team successfully relocated at least half a million fish to the nearest river, 8 kilometers away.



A snow leopard with an injured hind leg in the Munkhkhairkhan National Park received first aid and was successfully released back into its habitat.



A black-tailed gazelle fawn found with domestic livestock was sheltered for four days, cared for, and returned to the wild.



SAFEGUARDING WILDLIFE

The Sub-Council for Preventing Environmental Crimes under the Ministry of Justice and Internal Affairs plays a crucial role in implementation of nationallevel multifaceted initiatives to enhance the detection of wildlife poaching and trade violations, and to prevent such offenses. These efforts were carried out in partnership with governmental law enforcement agencies, including the State General Prosecutor's office, the Ecological police department, Office for Crime Prevention Coordination Committee, the Ministry of Environment and Tourism, the University of Internal Affairs, and other governmental and nongovernmental organizations. In 2023-2024, the Sub-Council for Preventing Environmental Crimes implemented 25 different activities allocating more than USD200,000 for prevention work against environmental crimes.



As adequate training on wildlife taxonomy and identification is not often available to law enforcement officers, the Sub-Council has worked with WWF-Mongolia since 2018 to provide mobile and on-the-job training to inspectors at five border points. In 2023-2024, the Sub-Council was allocated 40% of the Coordination Council for Crime Prevention budget to continue these trainings.



A series of trainings such as "Investigation and Prosecution of A series of trainings such as investigated.

Crimes Related to Illegal Hunting, Logging, and Trade of Wildlife and Plants", "Crime Against the Environment and Prosecutor's Control" were conducted for over 332 officials from provincial prosecutors' offices, police, customs, border, and environmental agencies. The training was engaging and effective, using real-life cases and examples of violations. Participants were encouraged to work in teams, engage in discussions, and participate in interactive sessions, significantly enhancing the training's impact.





Recent attempts to smuggle Mongolian gazelle horn into China in large quantities, along with its declining population, indicate that the species is becoming a victim of the international illegal wildlife trade. Although there is no concrete proof, it is likely that the horns are being used as a substitute for the rarer and better protected saiga antelope to fill the demand driven by traditional medicine. In this regard, a workshop titled "Opportunities to Reduce Illegal Hunting of Mongolian Gazelle" was held in June 2023, in Dornod province. The event was jointly organized by the Secretariat of the Council for the Coordination of Crime Prevention, the Citizens' Representative Khural of Dornod province, the Sub-Council for Coordination of Crime Prevention, and the Ecological Police Department of the National Police Agency. Over 40 officials from the Sub-councils for Environmental Crime Prevention from three eastern provinces participated. As a result, it was decided to develop and implement an annual plan for measures to prevent environmental crime.

128



Since 2017, a biennial training series on preventing the transboundary illegal trade of wildlife and their derivatives and improving law enforcement has been organized. In 2024, the fourth session of this training was held under the theme "Preventing the Transboundary Illegal Trade of Wildlife and Their Derivatives and Ensuring Legal Enforcement." The training involved 128 officers from border control agencies at five border checkpoints in the western region. The trainers provided insights into the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), proper documentation for species listed in its appendices, legal considerations for regulating international trade, common violations at customs and border areas, international developments, and best practices.



WWF-Mongolia, in collaboration with its partners, conducted comprehensive impact assessments in 2017 and 2021, covering the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the London and Kasane Statement on the Illegal Wildlife Trade, as well as the Mongolian Law on the Regulation of foreign trade in fauna and flora, alongside other relevant legislation. As part of this process, proposals for amendments to five laws, as well as drafts for four regulations were developed and submitted to the Ministry of Environment and Tourism. As a result of this effort, on April 26, 2024, by Order A/240 of the Minister of Environment and Tourism, operational regulations for the National Coordination Council and the Scientific Council responsible for implementing CITES were approved.



In 2024, the Ecological Police of the National Police Agency, in collaboration with the Secretariat of the Council for the Coordination of Crime Prevention and WWF-Mongolia, prepared 34 video lessons in three modules. These e-learning videos were made available on the internal training section of the Ecological Police website, providing educational materials for officers responsible for environmental issues at both central and local levels.



ENHANCING THE CAPACITY OF ENVIRONMENTAL SPECIALISTS AND RANGERS



The Ministry of Environment and Climate Change provides centralized management for the implementation of the SMART program, working towards establishing a integrated database. Additionally, by Ministerial Order A/219, issued in June 2023, methodological guidelines for applying this program in monitoring and inspections within state-protected areas were approved. Regional training sessions were organized for specialists and rangers across all administrative offices of state-protected areas to familiarize them with the program and facilitate its adoption.

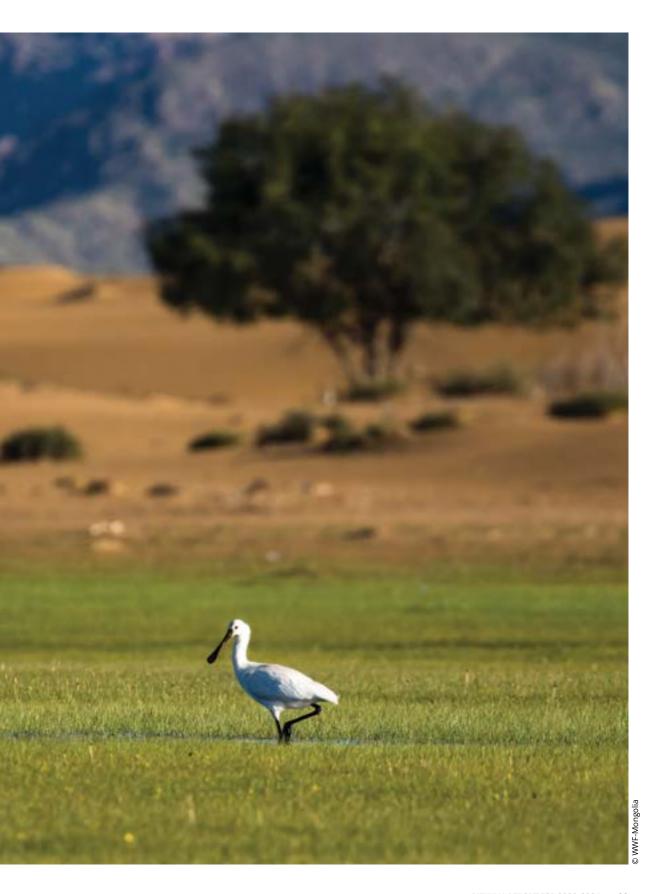


Over the past five years, WWF-Mongolia collaborated with various stakeholders to develop a specialized training program for rangers. As a result, the "Training Program for the Qualification of Rangers" was approved on March 29, 2024, by Order A/189 of the Minister of Environment and Tourism. This program enables rangers with state inspector status, rangers, assistant rangers, and volunteer rangers to enhance their practical knowledge and skills systematically and in line with their job descriptions through short-term, phased training sessions.



By the end of 2024, step-by-step training on the SMART program had been provided to 209 specialists and rangers from the administration offices of 21 state-protected areas.





WILDLIFE-FRIENDLY LINEAR **INFRASTRUCTURE**





In view of increasing development of linear infrastructure (paved roads, railways, and power lines) in the Altai-Sayan and Amur River ecoregions leading to fragmentation of habitats of species, such as argali, snow leopards, Mongolian saiga, black-tailed gazelle, Mongolian gazelle, Gobi bear, wild camel, and khulan, their habitat ranges, corridors, and migration routes of 12 large mammal species to be potentially impacted by linear infrastructure, were identified and mapped, and a database has been created based on longterm monitoring data of these species applying internationally recognized methodologies. In addition, recommendations were provided serving as a scientific basis to minimize these impacts of the new linear infrastructures to be constructed, contributing to the compliance of the standards for wildlife-friendly infrastructure development and improving existing infrastructure.



In collaboration with the Ministry of Road and Transport Development and the Ministry of Environment and Tourism, the process of developing a national standard for wildlife-friendly fencing was initiated in 2023. The standard, "Barrier fences for railways and highways. General requirements MNS 7042:2024" was approved by the Standards and Metrology Agency on May 24, 2024, and its implementation started on June 4, 2024 onwards. The standard requires that fences be built without barbed wire and allow wildlife to move freely by crawling underneath or jumping over them.

427 km #

Recommendations for integration of 47 wildlife crossings across the planned 427 km Tavantolgoi-Shivee Khuren railway, for 31 crossings along roads such as Altai-Tsagaanhairkhan (40 km), Uliastai-Altai (178 km), and Ulaangom-Khovd (163.3 km), were elaborated based on findings of the study on wildlife habitat and corridor areas and Tavantolgoi Railway LLC. as well as to relevant project units.

A five-module training program was developed to provide critical knowledge on building wildlife-friendly linear infrastructure. A total of 221 decisionmakers and employees from eight government agencies, one construction company, two railway companies, and 58 environmental impact assessment firms were trained, enhancing their knowledge on minimizing the impact of infrastructure on wildlife.

In order to provide university students with appropriate understanding and knowledge on the impact of linear infrastructure on wildlife migration and their habitats, as well as mitigation measures, curriculum contents of 83 hours for lecture and seminar were introduced into the curriculum of a total of 10 subjects at the National University of Mongolia in fall 2023.

Studying this content enables students to explore real-world examples of how existing infrastructure impacts wildlife migration, movement, and long-term survival. They also learn predictive methods for assessing the future effects of linear infrastructure on wildlife habitats and corridors, as well as strategies and techniques for avoiding and mitigating these adverse impacts during the planning and development of linear infrastructure.

During the 2023-2024 academic year, 570 students from the National University of Mongolia acquired the above knowledge, and a sustainable framework has been established to ensure its continued delivery over the long term.







SPRING REHABILITATION AND POND CONSTRUCTION



Due to climate change and human misconduct, many natural springs face pollution of headwaters, drying, and depletion. With support from WWF-Mongolia and local community involvement, spring sources have been fenced and protected, resulting in increased water flow and improved water access for livestock and wildlife. As of 2024, the following springs have been rehabilitated:

- 67 springs in the habitat of the Mongolian saiga
- 8 springs and 11 ponds in the snow leopard range
- 9 springs in the habitat of Mongolian gazelles and cranes, located within the 3 Nature Reserves.





A provincial standard for spring protection through fencing in steppe and desert regions was approved by the Governor of Gobi-Altai province on February 23, 2023, developed building on the successes of spring rehabilitation efforts.



Best practices have been developed to protect dried-up spring sources from livestock and wildlife, leading to significant improvements in water flow. For example:

- WWF-Mongolia is working with local communities to implement conservation project aimed at rehabilitating 100 springs in the Mongolian saiga habitat over a four-year period. The primary goal of this initiative is to improve water access for both herder households and the critically endangered Mongolian saiga antelope, benefiting 1,000 herder families and 15,000 saigas. Thus, by 2024, 31.9 hectares surrounding 67 springs were fenced with the participation of 400 local community members, ensuring ongoing maintenance.
- Working with voluntary rangers and herders, ponds were constructed in areas with limited water but good grazing conditions to promote harmonious coexistence between livestock and snow leopards. A large pond built in Darvi Mountain serves 8,600 livestock, while 10 smaller ponds in Jargalant Mountain have helped improve water access for livestock, snow leopards, and their prey species.
- At Bayantsagaan Steppe Nature Reserve, the Elegiyn natural spring was fenced in July 2023 with local community involvement, increasing its flow to 6 m³/sec and extending its reach to 420 meters.



48.5 mln



A number of best practices have emerged, showing opportunities for additional income generation for community groups through their active participation in forest restoration. For example, under the "Tree for Water -Water for Life" campaign, the Tsagaan Bulag community-managed forest group reforested 5 hectares in Dadal soum, while the "Ev Eye" forest group reforested 3 hectares in Batshireet soum Khentii province. These efforts were registered in the State Forest System. Both groups got compensation with amounts MNT 48.5 million and MNT29.1 million, respectively, in 2024 as compensation for their restoration efforts.

2.8 mln

Six community groups in the Onon River basin planted 10 kg of pine seeds in 2022, 13.5 kg in 2023, and 6 kg in 2024, cultivating 2.8 million seedlings. These will be marketed as three-year-old saplings.



120

School children in Dadal soum of Khentii province propagated 3,000 seedlings from bird cherry seeds as of May 2024. During the National Tree Planting Day, 600 seedlings were presented to 120 local households for planting in their yards. This initiative hugely encouraged community involvement in tree planting and beautifying their environment.

11,729



The "Let's make every household a fruit farmer" campaign has been organized annually since 2016. Within this campaign, a total of 11,729 fruit tree saplings were provided to 1,356 households across 14 soums in three provinces, enabling households to harvest 3–30 kg of fruit annually, propagate saplings, and earn income by selling them. The campaign has elevated public interest in planting fruit trees. Many households have started to enjoy harvesting fruit from their yards for own consumption and generating income in addition. This initiative has significantly contributed to forest resource conservation.



In the last years, we prioritized our efforts on protection of riparian ecosystems. Within this framework, over 100 students from five soums in the Onon and Kherlen River basins were provided with classroom and field training on the critical importance and protection of the riparian ecosystem, in October 2023.



In January and April 2024, theoretical and practical training to improve the management of riparian forests was conducted with the participation of 32 representatives from the Environment and Tourism Departments of Khentii and Dornod provinces, the Kherlen River Basin Administration, and local government organizations. Together, they celebrated the Day of Riparian Forest Protection for the Kherlen River and took decision to jointly protect the riparian forests.



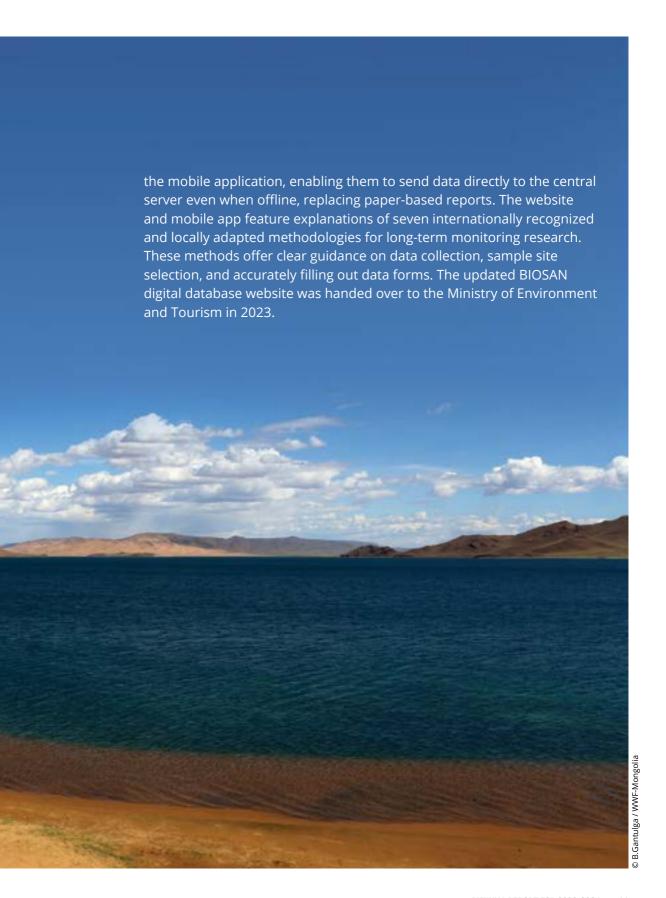


STATE PROTECTED AREAS



BIOSAN is a software system specifically designed to collect biodiversity monitoring data in state protected areas, supporting effective and efficient management that initially introduced by WWF-Mongolia in 2008-2009. The web-based database (www.eic.mn) and a newly developed mobile application now include camera trap monitoring, enhancing data quality and reducing the workload for rangers and specialists. Moreover, the improvement enables rangers to send real-time field data via mobile phones, monitor their safety, track their location, and provide updates. Rangers and research specialists were trained to use







Khar-Us Lake National Park and Onon-Balj National Park were registered in UNESCO's World Network of Biosphere Reserves. This enhances their international importance and their protection, as well as increasing funding opportunities for conservation.



As of 2024, the SMART program is used to monitor 13,067,489 hectares of land across 21 protected areas. The tool helps improve the effectiveness of management plans, allocate resources efficiently, and support the enforcement of conservation laws, thereby aiding in the protection of biodiversity and natural resources. It also facilitates better coordination among stakeholders and can be tailored to meet the specific needs of different regions.



The long-term project "The Land of the Blue Sky - Onon-Balj National Park" (2024-2039), to be jointly implemented by The Nature Conservancy (TNC) and WWF-Mongolia, has been approved. This project aims to enhance management activities within the Onon-Balj National Park and five soums across two provinces within its buffer zones. The project focuses on ensuring biodiversity and ecosystem sustainability, supporting local communities in conservation efforts, strengthening climate change adaptation capacity, and promoting nature-friendly local economies through the establishment of best practice protected area.





Due to illegal hunting, marmots had disappeared from Khar Yamaat Nature Reserve in early 1990s. In collaboration with partners, since 2019 WWF-Mongolia reintroduced 250 Siberian marmots (Marmota sibirica) from Khustai National Park.



Since 2019, the Young Researchers summer program, in partnership with the Mongolian National University, to inspire school children and introduce them fundamental scientific studies in Khar Yamaat Nature Reserve. In 2023, the summer school hosted 27 schoolchildren from Mongolia's eastern provinces and 4 school children from Shanghai, China. In 2024, 45 school children participated and gained ecological knowledge. Participants learned techniques for species identification, pasture capacity assessment, and evaluating endangered species.



LOCAL PROTECTED AREAS

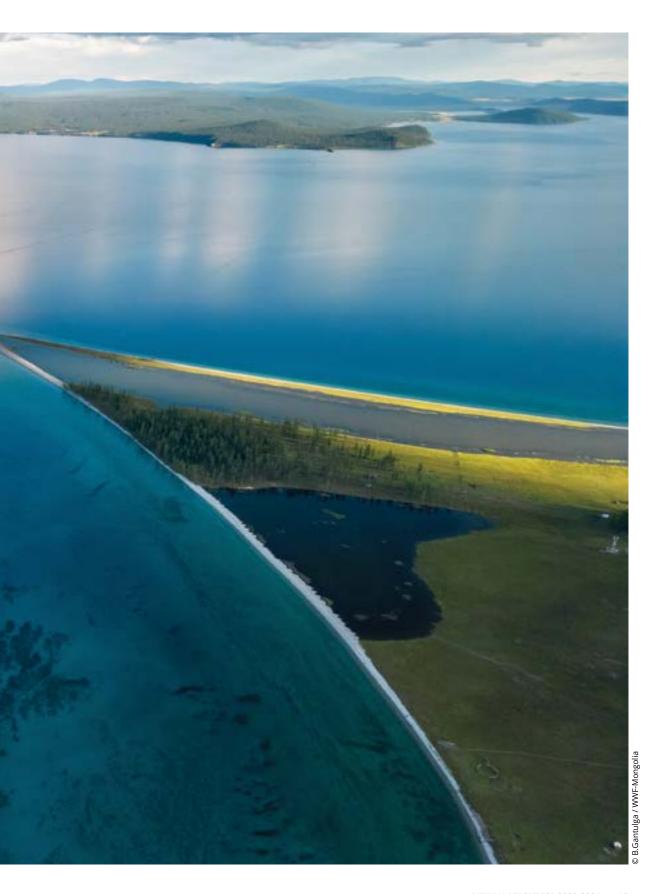


The Citizen Representative Khural of Durgun soum in Khovd province passed resolutions to expand the local protected area in Durgun soum from 32,244 hectares to 91,114 hectares. Furthermore, the extended protected area, covering 91,117 hectares, was submitted to the State Parliament for designation as a state level Nature Reserve. In addition, a proposal was made to designate 169,984 hectares in Zavkhan soum, Uvs province–the northern range of the Mongolian saiga–as a Nature Reserve. These actions hopefully will include a total of 261,098 hectares in Khovd and Uvs provinces within the state protected area network under the names "Saiga A" and "Saiga B."



To enhance the protection of freshwater, additional areas have been designated as Local Protected Areas through resolutions passed by the respective Soum Citizen Representative Khurals, as follows:

- 8,714 hectares covering a runoff generating areas in the Tes River Basin;
- 288 hectares covering a water protection zone in Tonkhil soum of Gobi-Altai province that lies in the Khuisiin Gobi – Tsetseg Nuur Basin;
- 113,000 hectares headwater area of the Bogd and Chigertei rivers of Zavkhan aimag, belongs to Khyargas Nuur - Zavkhan River Basin;
- 119,719 hectares headwater area of Tenuun and Barkh rivers in Umnudelger soum of Khentii province, within the Kherlen River Basin.



BORDER GREEN BELT



Within the framework of the Border Green Belt initiative, support was provided to the General Authority for Border Protection in creating of an integrated border protection system and updating the "Saran-2008" program. This advancement enabled to consistent monitoring of the wildlife populations, their location, and migration movements within the state border, border strip, and regional territories, as well as the creation and maintenance of a comprehensive database. Moreover, this electronic program was developed and installed with the geographic information system technologies ensuring its functionality even in offline environments.



WWF-Mongolia, in collaboration with government agencies, deployed 10 remote-sensing cameras in selected areas starting in 2021 to observe and monitor wildlife migration and validate the results of various research activities. In 2023, these cameras played a crucial role in detecting a wildfire in Uvs province that was spreading across the border, enabling immediate response efforts. Thanks to 6 hours of firefighting by a team of over 30 people, rare plants, winter shelters, livestock and wildlife pastures, and structures near the border were spared from destruction. To expand camera installement initiative, in 2024, the Border Protection Unit, local residents, and the local administration contributed funding to install an additional five remote-sensing cameras in the region, which are now being utilized for border protection and conservation efforts.



In Uvs province, awareness campaigns conducted by the Border Protection Unit reached over 300 residents and herders in border areas, providing education on illegal hunting, resource extraction, and border regulations.





In Bayan-Ulgii and Gobi-Altai provinces, the Border Protection Units conducted training for over 8,000 residents, distributing materials on environmental laws and wildlife protection.



The Mongol Altai National Park Administration provided training for 8,300 residents and distributed materials on environmental laws and wildlife protection. Additionally, 20 warning signs and 4 legal notices were installed to raise awareness and deter violations.



Historically, the "Transboundary Argali Sheep Monitoring Program" in the border region between Russia and Mongolia was officially endorsed by the two governments in 2018. Since then, a transboundary argali sheep census has been conducted every two years. Thanks to the conservation efforts of border guards, the Uvs Lake Strictly Protected Area administration, and the local communities, the argali sheep population along the border has increased from 638 in 2007 individuals to 4,024 individuals by 2023.





INTEGRATED LAND MANAGEMENT PLANNING



The general land management plans of Khentii, Dornod, Sukhbaatar provinces, the territorial development plans of Bayan-Adarga, Bayan-Ovoo, and Norovlin soums of Khentii province, Bulgan, Matad, and Khulunbuir soums of Dornod province and Tumentsogt, Sukhbaatar, and Munkhkhaan soums of Sukhbaatar province were developed in 2022-2023 with the participation of the parties and approved by the respective provincial and soums' Citizens Representative Khurals in 2023. The land management planning was developed based on a novel methodology, that addresses climate change, land degradation, biodiversity aspects, such as the important habitat of the Mongolian gazelle and the crane species, as well as the special protected areas and watershed protection zones that require alignment within the legal framework. This created an integrated, region-wide environmental land use planning framework for the entire eastern region.





In order to ensure the participation of stakeholders and develop an comprehensive plan that integrates their interests, inter-and multidisciplinary working groups were created in provinces and soums, and activities were organized with and under their participation and leadership. To this end, a total of 11,173 citizens (47% male, 53% female) came up with suggestions in over 110 meetings and discussions with the participation of the working groups and other stakeholders, and jointly discussed the plan contributing to it with ideas on solutions for sustainable use, protection and restoration of land.



The successes, lessons learned, and innovations that emerged during the development of the above-mentioned plans have been discussed by stakeholders representing government and nongovernmental organizations, research institutes, universities, and the private sector, and the "Methodology for the province general land management plan" and the "Methodology of the soum territorial development plan" have been improved by incorporating additional modifications addressing the climate change, land degradation, and biodiversity issues. This methodology was approved by the orders No. A/304, A/305 of the Head of the Agency of Land Administration and management, Geodesy and Cartography dated October 24, 2024, and will be officially used nationwide in the future.



To enhance the effective implementation of land management planning and ensure wider access to land management data, two open-access dashboards and their accompanying user manuals were developed: the Land Management Planning Statistics dashboard, which enables stakeholders to regularly monitor the implementation of integrated land management plans, and the Biodiversity Statistics dashboard, which supports the integration of ecosystems, wildlife distribution areas, critical habitats, and connectivity zones into land management planning processes.

CLIMATE SMART AGRICULTURE



Mixed cropping, as a component of regenerative agriculture, is a practice that involves cultivating multiple crops in the same field to achieve a balance of soil fertility and microorganisms. This approach enables crop growth without the use of highly toxic chemicals, offering the added advantage of mitigating various risks. Since 2022, in collaboration with the company "Khentiyn tarialan" LLC, a mentorship program for young farmers has been successfully implemented to promote best practices of mixed farming and to date, it has been successfully introduced to 12 enterprises in the eastern region, covering 4,272 hectares of land:

- 10 companies cultivated mixed crops on a 1612 ha area involving 4 crop combinations (wheat and flax, peas and yellow mustard, buckwheat and flax, oats and wheat);
- 7 crop mixtures (wheat and flax, wheat and oats, sudan grass (Sorghum × drummondii), flax and peas, peas and yellow mustard, barley and flax, millet and buckwheat, rye and flax) on 4272 hectares:
- Results of mixed cultivation of yellow mustard and peas: No weeds, yield twice high the national average, soil aggregate structure and yeast content improved, soil density significantly decreased compared to wheat monoculture, and the prevalence of soil ticks and bagrada beetles significantly decreased compared to 2022.



Four companies planted sudan grass on 150 hectares and oats on 360 hectares, resulting in a total harvest of 1,444 tons of green fodder crops.



Cover crops are being introduced since 2024 and 13 types of crop mixtures (50 hectares) and winter rye (80 hectares) are being cultivated for testing. It is beneficial for accumulating heat in the soil in fall and spring, nourishing the soil, suppressing weeds, eliminating black fallow and reducing the use of chemicals.

284 ha

Fencing of agricultural fields is common to reduce conflicts between herders and farmers and to improve the effectiveness of technologies and methods introduced into agriculture. However, the common use of barbed wire poses a risk of mortality, especially for the migratory species such as Mongolian gazelle. To support sustainable farming, we collaborated on fencing 284 hectares of farmland by proposing a wildlife-friendly design that excluded the use of barbed wire. Additionally, innovative technologies were introduced on this land, including the breeding of elite seed varieties and the cultivation of new rotational crops and green fodder. These practices contribute to protecting the soil from erosion and ensuring sustainable harvests.



INTEGRATED PASTURE MANAGEMENT

12,000

Scientists and researchers believe that Mongolia's pasture carrying capacity has been exceeded by about 70 percent, and herders are recognizing this, and the desire to increase the profit they can earn per livestock and to raise livestock that is commensurate with the pasture's carrying capacity is becoming popular among local communities. Considering this demand, a livestock breeding, technology and service unit in Bokhmoron soum of the Uvs province was established, that has served 198 households since 2019, increasing the profit per livestock (female sheep increased its weight by 8 kg, live weight of male sheep increased by 17 kg), reducing the number of sheep herds by 12,000 heads, thus reducing the grazing pressure.



Thanks to measures taken such as providing support services of experts on environmentally friendly pasture management to the administrative and pasture experts of Turgen and Khovd soums of Uvs province, and Dariv and Bayan-Uul soums of Gobi-Altai province through organization of consultation meetings, special training, and professional consulting services, the pasture management plans were implemented to a degree of 80%. Soum administrators introduced pasture use guidelines to 616 households, while providing training on livestock product marketing, resulting in an average livestock population reduction of 15%, and in Bayan-Uul soum by 25%. Turgen soum administrators have issued and implemented an ordinance to free the habitat for wild animals during their breeding seasons.





As a result of training and distributing seeds to 133 households in the soums within the habitat of the leopards, 21 tons of fodder were harvested in the fall of 2023, which motivated other herders to plant fodder plants and leading to the reduction of the carrying capacity of pastures. Furthermore, 31 households participated in trainings on how to prepare nutritious green silage from ground plants, and a total of 500 kg of silage were prepared in the fall of 2023.



9 soums in the Amur River Basin have included 1,168,178.9 hectares of degraded land in their land management plans, a significant increase from previous years. The release of 82,000 hectares of pastures from use in 5 soums in May-August 2023 demonstrated the effectiveness of local governments planning and implementing pasture use jointly with the herders.



Under the leadership of the Khulunbuir soum of Dornod province administrative team, with the active participation of the bagh administrators and herders, the pasture use guidelines were revised to take into account wild animal migration and bird habitat. The new regulations were supported by the local community meeting in July 2023 and approved by the Ministry of Justice and Internal Affairs.







12 members of the "Ikhes Nuuryn Khishig" savings and credit cooperative in the Altai-Sayan region took investment loans from the cooperative and developed family businesses in their local area, achieving a monthly income of MNT200-500 thousand. Herders' trust in cooperatives has increased and they have realized the advantages of continuously increasing their income over time. The total assets of the 12 cooperatives that started in 2018 have reached almost MNT4 billion.



In the Altai-Sayan ecoregion, over 1,000 members of 8 agricultural cooperatives distributed MNT98 million from the price difference and MNT32 million in dividends to members over 4 years. As a result of the expansion of its raw material collection warehouse the Sanjin Bogd Cooperative of Gobi-Altai province with the support of Program office, the earnings from the difference in raw material prices doubled from MNT1.2 million before the warehouse expansion to MNT2.5 million in 2023.





The income from small-scale manufacturing businesses of 8 cooperatives in Uvs and Gobi-Altai provinces has increased by 31.8% in 2023 to MNT107 million, indicating that herders would be able to produce products from livestock raw materials and supply them to the market.



46 mln



Herders who participated in training and experience-sharing meetings to improve the financial education of herders in the Amur River Basin have established savings and credit cooperatives such as "Ashid Undran Arvijih" and "Adarga Bayan Pyurllig" on their own initiative. By the end of 2023, they had 151 members with active as MNT40 million in joint property, MNT40 million in savings, and MNT46 million in disbursed loans.



7.3 tons The "Eco Street" initiative, which started with 14 households in Bayan-Ovoo soum of Khentii province, was joined by many households in Norovlin soum and received technical training and advice. As a result, in 2023, the households harvested 10.1 tons of 13 different vegetables from 4.7 hectares, whereby the 7.3 tons of the harvest came from the greenhouse. This has created a situation when they not only meet their personal needs in vegetables but also supply it to the market.

500



To increase women's participation in environmental protection, a meeting under the slogan "Let's seek solutions jointly" has been organized annually with participation of more than 500 women. In 2023-2024, as a result of the work to align the natural resource use fee (NRUF) spending in the western provinces with legal provisions, improve resource utilization, and develop an action plan, Bayan-Olgii province, which had none at all, has now the highest spending of over 70 percent, while other provinces have also increased their collection and spending rates by 20 percent. There is a consensus reached this year that it is time to focus on the results of NRUF revenue expenditure.



D.Enkh-Orgil / WWF-Mongolia





Since 1997, we have been dedicated to fostering environmental education for school children. The following initiatives are being implemented to support children's knowledge and environmental education:



Initiatives such as "Chicks of my homeland", "Lovely moilkhon-bird cherry", and "A day with a saiga conservationist" provide children with the opportunity to participate in environmental conservation, observe animals in the wild, and volunteer to protect them.



In order to provide knowledge and scientific understanding, the following programs were implemented in collaboration with the National University of Mongolia: "Young researchers" at the Khar Yamaat Nature Reserve, "Junior rangers" with the administration of the Onon-Balj National Park, and "Children of Sair khairkhan" with the Khovd University. These programs provide a wide range of knowledge, including permafrost monitoring, pasture and plant research, and primary wildlife research.



Traditionally, each year, environmental holidays and public events such as Snow leopard Day, Mongolian saiga Day, Gazelle Day, Water spring



Day, Taimen Day, Goodbye Crane, and Earth hour were celebrated with children and local residents under specific themes.



In order to prepare future conservationists, reduce human-wildlife conflicts, and foster a sense of coexistence, a comprehensive and active curriculum on endangered species such as snow leopard and its role in nature was developed and distributed to all schools in the western and southern regions in the 4th and 6th grade curriculum. In April 2024, 54 teachers were provided with online training to implement the program, and 750 students from Uvs province and 600 students from Gobi-Altai province have been reached.



The book "Manual for Youth and Eco-Clubs" was published and distributed to school children who are new members of the environmental conservation eco-clubs to support them in teamwork, organization, and collaborative decision-making. We hope that this manual will be shared not only with the children working with us, but also with many others interested in this field, providing support for their future collaboration opportunities.



Since the first meeting under the "Great Gobi-6" initiative was organized in 2016 by the "B" section of the Great Gobi Strictly Protected Area Administration, and following the issuance of the "Takhi Declaration," these meetings have been held annually. In 2023, the responsibility for organizing the meeting was transferred to the Environmental Department of Gobi-Altai province, marking a significant step toward fostering local ownership of the initiative. In 2024, the 8th discussion was organized by the Gobi-Altai province Environmental Department under the theme "Habitat and Water Supply for the Great Gobi-6 Animals." The event gathered over 90 participants, including scientists, representatives from National Park administrations, provincial Environmental Departments, and international organizations. During the meeting, the results of wildlife research and conservation recommendations were presented. Additionally, a working group was established to develop a comprehensive 5-year plan aimed at protecting the habitats of the six species.



WWF-Mongolia produced and released a scientific documentary titled "Sprinter of the Desert Steppe". This 16-minute film offers an engaging portrayal of the Mongolian saiga's behavior, feeding habits, and life across the four seasons. The footage, captured over a fiveyear period by the WWF-Mongolia team, brings the saiga's story to life in an authentic and captivating way. Additionally, the illustrated book "The Behavior of the Mongolian Saiga" has been made available to the public. This book provides readers with fascinating insights into the biology, ecology, and behavior of the saiga, further enriching public understanding of this unique species.



The "Let's preserve our Nature" campaign is organized annually in collabration with the Sub-commission on prevention of environmental crimes to prevent environmental crimes. In 2024, 13 video contents, 15 interviews, 10 news stories on online news channels, 26 posters on social media, and 114 other posts, content, and news were broadcast. Cumulatively 21.6 million people were reached and 8,588 reactions were received.



The "Research student" conference, jointly organized by the National University of Mongolia for the 7th year successfully, has expanded into a platform for master's and bachelor's level students from universities such as the National University of Mongolia, the Mongolian University of Life Sciences, and the Mongolian State University of Science and Technology to present their research results. Two students who

participated in the research conference submitted their research articles to international scientific journals.



On Snow Leopard Day 2023, in Ulaanbaatar city, where approximately 50% of Mongolia>s population resides, we collaborated with the Mongolian Union of Artists and the Natural History Museum to organize an exhibition showcasing 40 works by 53 artists. The exhibition also offered a virtual viewing option, reaching approximately 1,000 people both in person and online. In 2024, the interactive educational exhibit "The spirit of high mountains - the Snow Leopard" opened at the Ecological Education Center of the National University of Mongolia. Additionally, the creation of a 3D video of a leopard, which is arguably the first of its kind in Mongolia, and its public display on the Shangri-La Mall screen has not only attracted the attention of Mongolians but has also received praise from online organizations.



The "Lord of the Mountains" portable photo exhibition, featuring 40 photos taken by wildlife photographers and chronicling the lives of Mongolian snow leopards, traveled 14,000 km across the Altai-Sayan ecoregion, reaching over 9,100 school children and 1,800 local residents. More than 60 percent of the audience shared that it was their first time experiencing such an exhibition.





In collaboration with the Mongolian National Broadcasting TV, an audiobook based on children's books published by the organization was prepared and posted on social media. The audio books are intended for visually impaired children and preschoolers who cannot watch TV or use the internet. Also, 8 animated films were made using traditional felting techniques to introduce animals such as snow leopards, Mongolian saigas, cranes, and snowcock, which were appreciated by many people.



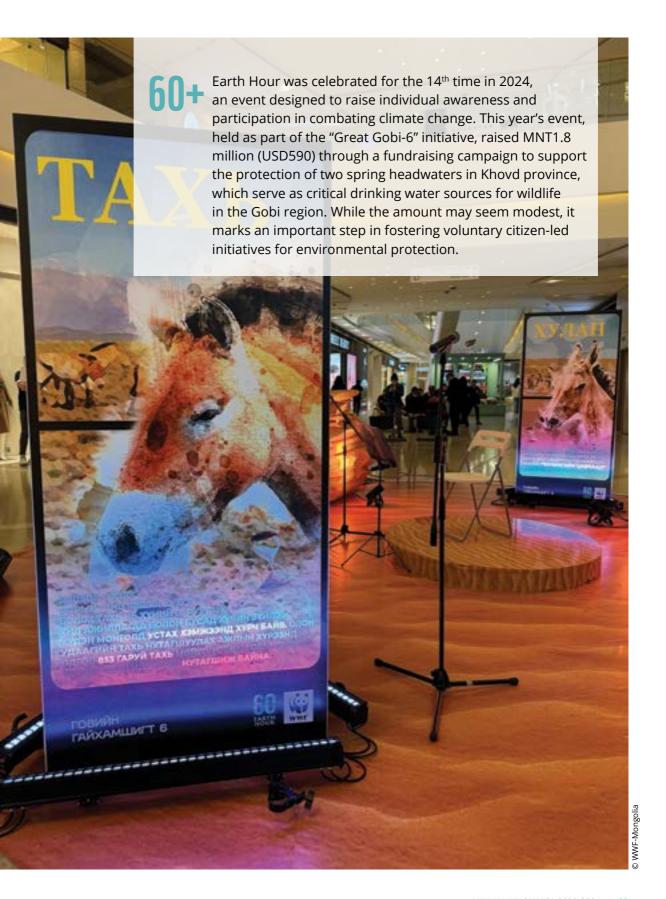
For young children, we have published three series of "Baby Saiga and His friends", a storybook "Taimen's son Tulbaga" and a comic book "The gazelle calf".



In collaboration with the Mongolian Puppet Theater, a five-part puppet play series based on the book "Baby Saiga and His Friends" was developed, illustrated, and produced as videos for public access. Special attention was given to inclusivity by incorporating sign language, ensuring equal and accessible information delivery for hearing-impaired children.



WWF-Mongolia



GOVERNANCE AND FINANCE



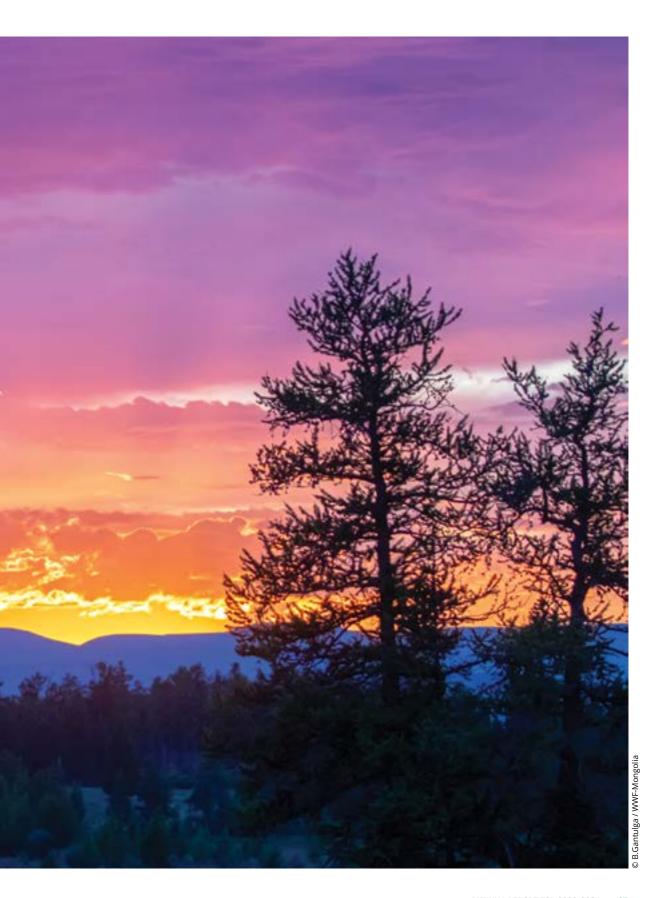
WWF-Mongolia is working to consolidate its activities and work together to achieve conservation goals, focusing on six practical goals: freshwater, biodiversity, forests, climate, and energy, food, and financial systems, spending USD2.8 million in 2023 and USD3 million in 2024 on environmental conservation (Figure 1). Our funding sources comprise approximately 39% from WWF network, 49% from Public Sector Partnership, with remaining 12% coming from external funding sources.

INCOME GROWTH (in USD millions)



We have implemented projects and programs through partnerships and collaborations with organizations such as the WWF International, WWF-Netherlands, WWF-Germany, WWF-Poland, WWF-Switzerland, WWF-Japan, WWF-France and WWF-US, the United States Agency for International Development (USAID), the Global Environment Facility (GEF) and Legacy Landscape Fund and the Nature Conservancy (TNC).





ENVIRONMENTAL AND SOCIAL SAFEGUARD FRAMEWORK

We operate in alignment with six core environmental and social protection standards and adhere to three key principles: respecting human rights, considering the interests of local communities, and ensuring gender equality. Our goals and activities are regularly evaluated to identify potential risks to the environment and local communities. We then plan and implement measures to prevent, avoid, or, if necessary, mitigate these risks. Additionally, we follow Child Safeguarding Guidelines to ensure the safety of all children participating in our activities. This guidance includes regulations to prevent forced labor and requires obtaining parental or guardian consent before photographing or publishing images of children or involving them in any activities.





For more information about WWF's environmental and social standards, please visit our website.



mongolia.panda.org





WWF-Mongolia has a grievance mechanism for receiving complaints and petitions from citizens and resolving them. For more information on how to file a complaint or petition, please visit our website, or office in person. Also, you may call our office at 11-311659.

