SUPPORTING DOCUMENT TO THE NATIONAL REPORT - MONGOLIA (2021-2024)

SUMMARY

The Ramsar Convention is an intergovernmental agreement aimed at guiding the actions of each country and international cooperation in the wise use and protection of wetlands. As of 2023, 172 countries have joined this convention, and 2,400 areas covering 2.5 million km^2 have been registered as internationally important wetland. The countries that have joined the convention are implementing the Convention's 4th strategic plan for 2016-2024 adopted at COP12 through Resolution XII.2 in 2015. Since Mongolia officially joined the Ramsar Convention on April 8, 1998, it has regularly participated in the activities of the Convention and registered 11 wetlands with a total area of 1,439,530 hectares.

In Mongolia, the Department of Natural Resource Policy and the Department of Protected Area Policy, Ministry of Environment and Climate Change are responsible for implementiion of the convention within their respective responsibilities. The departments provide professional and methodological support to the Water Basin Administrations and Protected Area Administrations, operating under the relevant laws, including the Environmental Protection Law, the Water Law, and related regulations.

Out of the 11 wetlands listed in the Ramsar Convention, 8 are located within national protected areas. Therefore, the Protected Area Administrations of these areas are responsible for monitoring and conservation of the wetlands, including the lakes and surrounding wetlands, as well as the biodiversity such as aquatic birds and fish. They also implement activities such as eco-tourism, public awareness, and reducing human negative impacts on the ecosystem. These activities are carried out under the management plans of the protected areas. All 11 wetlands are located within 10 river basins, and therefore, the Water Basin Administrations, as part of their integrated water resource management plans, conduct research on the water resources of these wetlands, as well as their conservation, wise use, restoration, and public awareness.

In Mongolia, all wetlands are facing threats from human impacts and climate change that lead to changes of the lake's water regime and a decrease in water levels. Additionally, local people harvest and cause a reduction in reeds where birds nest, habitat degradation, desertification, pollution from poor-regulated tourism, fishing, increase in number of livestock, and the introduction of alien species that are threatening the wetlands' ecosystems.

From 2021 to 2024, the Water Basin Administrations and Protected Area Administrations, within their respective responsibilities and operations, have undertaken various activities to protect wetlands and surrounding water sources, complete a water management plan, establish protected zones, celebrate and promote World Migratory Bird Day and World Wetlands Day, and organize spring and autumn clean-up campaigns to prevent water pollution. They have also set up bird-

watching points, conducted research on birds, fish, and aquatic environments in collaboration with professional organizations and NGOs, ensured compliance with legal regulations through inspections, carried out afforestation of floodplains, and successfully organized biodiversity conservation capacity-building training with the support of international organizations and projects. However, it is necessary to closely align these activities with the goals and objectives of the Ramsar Convention's strategic plan.

In order to successfully implement the convention's strategic plan and fulfill the commitments made to the Contracting Parties of the convention, it is essential to establish an inter-sectoral Ramsar National Committee or to facilitate the National Water Council to exchange of intersectoral information and issue recommendation on national policy of wetland conservation and wise use. With the support of the National focal point of the convention, national policy, strategy, and work plan for water and wetland management should be developed to provide integrated guidance for the Water Authority, and Water Basin Administrations and Protected Area Administrations, and ensure timely access to decisions, programs, relevant guidelines, and manuals approved by the meetings of the Contracting Parties of the Ramsar Convention. Improving cooperation and coordination among these entities, enhancing their management of wetlands and water resources, and reporting on the convention's implementation, sharing information, and establishing a database would be crucial.

To implement the Ramsar Convention, a sub-database shall be established in coordination with the water and environmental information systems of Mongolia through collaboration between government and non-governmental research and conservation organizations. Based on their data, the ecological characteristics of water bodies should be identified, and when national water intervention is carried out, the wetland sub-database should be updated with information on changes in their ecological characteristics, fauna, and flora.

In 2024, the National Biodiversity Strategy and Action Plan, as well as National Integrated Water Resource Management Plan of Mongolia are being developed, thus it is essential to include national policies and action plans for conservation and wise use of wetlands to ensure the coordination and alignment of these policies and actions. Furthermore, in line with the requirements of the Ramsar Convention, it is necessary to develop and implement a national CEPA (Communication, Education, Participation, and Awareness) program for wetlands and water bodies. This should include incorporating programs on wetlands and water bodies into the public education system, organizing an annual national conference for information exchange, defining future activities, and organizing training and study tours to share experiences.

1. NATIONAL IMPLEMENTATION PROGRESS AND CHALLENGES

A. Main achievements

1. Since COP14, the Government of Mongolia has allocated more funding for wetland conservation and restoration. The President of Mongolia initiated the wetland restoration projects of the Ugii and Ganga Lakes of Ramsar sites. Additionally, the Water Authority launched restoration projects for other wetlands, including Avarga Toston, Burd, Ereen, Tsoitson, and Three Lakes.
2. After 26 years, the Ramsar database (RSIS) of 11 sites has been completely updated for 2019-2024. Between 2017 and 2019, a joint research team from the Mongolian Ornithological Society and the National University of Mongolia conducted research on 11 Ramsar sites in Mongolia with financial support from the Ramsar Regional Center-East Asia.
3. Two practitioner's guides on Wetland Management Planning and Rapid assessment of Wetland ecosystem services from Ramsar Convention Implementation Handbooks were translated into Mongolian by the Mongolian Ornithological Society and researchers of the National University of Mongolia. These guides have been used to assess and plan the ecosystem service of all sites.
4. Bird observation towers were built at four Ramsar sites (Achit Lake, Terkhiin Tsagaan Lake, Ugii Lake, and Uvs Lake) to observe and monitor migratory birds, develop ecotourism, and educate children. Wetland managers organized a bird-watching tour around Achit and Uvs Lakes for schoolchildren.
5. "Waterfowl population assessment and practical training" was organized at the Ugii Lake information and training center to strengthen the capacity of research specialists for 11 sites in August 2024. Moreover, the "Regional Flyway Initiative Training Series: Wetland ecosystem services and nature-based solutions" for site managers was held in Ulaanbaatar in November 2024.

B. Main challenges

1. Since wetland site managers do not have information about the 4th strategic plan for 2016-2024 in Mongolian language, the relevant guidelines, manuals, and resolutions approved by the meetings of the Contracting Parties of the Ramsar Convention, their activities are limited by conduct training and public awareness for water and wetlands, to carry out research and inspections, to clean garbage, and to plant trees.
2. Out of the 11 wetlands listed in the Ramsar Convention, 8 are located within national protected areas. Therefore, the Protected Area Administrations of these areas are responsible for the conservation of wetlands, including the lakes and surrounding wetlands, as well as the biodiversity such as aquatic birds and fish. Also, all 11 wetlands are located within 10 river basins, and therefore, the Water Basin Administrations, as part of their integrated water resource management plans, conduct research on the water resources of these wetlands, as well as their conservation, wise use, restoration, and public awareness. However, both Protected Area Administrations and Water Basin Administrations do not have a clear agreement on how to share information, develop a database, collaborate in research and monitoring, or report for wetland management and wise use.

3. The national wetland CEPA program (Communication, Education, Participation, and Awareness) has not been developed to ensure the implementation of the Ramsar Convention. Therefore, required activities including national wetland forums, scientific conferences, capacity-building training, study tours, and incorporating wetland topics into the education system have been postponed.
4. Without an inter-sectoral National Committee for wetlands, as well as national wetland policies, strategies, and action plans, site managers face challenges in implementing the strategic plan of the convention.
5. It is challenging to track changes in the ecological characteristics of wetlands, water bodies, and their biodiversity to implement conservation measures because Mongolia has distinct water and environmental information systems.

C. Five priorities for implementing the Convention during next triennium (2026-2028)

1. Establish a national wetland center near wetlands, conduct monitoring work on wetlands and waterbirds, organize nationwide training programs, and CEPA activities, update regularly RSIS, and designate two new Ramsar sites through the wetland center.
2. Establish an inter-sectoral National Committee for wetlands and develop a national policy and action plan according to the convention's fifth strategic plan.
3. Organize extensive workshops and trainings on wetland ecosystem service and wise use for all stakeholders from the local community to decision makers to direct their activities to the convention goal and strategies.
4. Enhance international cooperation through migratory bird studies and twin programs (sister site development) for wetlands to learn about good practices in wetland management, including database management and capacity building.
5. A wetland sub-database will be established in coordination with national water and environmental information systems through collaboration between government and non-governmental research and conservation organizations.

D. A list the names of the organizations have contributed to the information provided in this report:

Ministry of Environment and Climate Change
Water Basin Administrations
Protected Area Administrations
Mongolian Ornithological Society NGO (www.mos.mn)
National University of Mongolia (www.num.edu.mn)
Institute of Biology, Mongolian Academy of Sciences (www.mas.ac.mn)
WWF Mongolia
Wildlife Science and Conservation Center of Mongolia (www.wscc.org.mn)

2. RAMSAR SITES AND THREATS

Countries in the world signed the Convention commit to designate and nominate suitable wetlands within their territories for the List of Wetlands of International Importance ("Ramsar List") based on the nine criteria. The government of Mongolia designated 11 wetlands, eight of which are located within national protected areas, whereas all 11 wetlands are located within ten river basins (Figure 1).

The Protected Area Administrations are responsible for the conservation of 8 wetlands, including lakes, rivers and surrounding different sized wetlands, as well as biodiversity. They also take steps to conduct research and monitoring, organize eco-tourism, raise public awareness, and reduce human negative impacts in a scope of the management plans on protected areas.
The Water Basin Administrations of those 10 river basins are in charge of water inventory and database, water resources protection, wise use, restoration of the water bodies and wetlands in the basin, and public awareness, as part of their integrated water resource management plans.

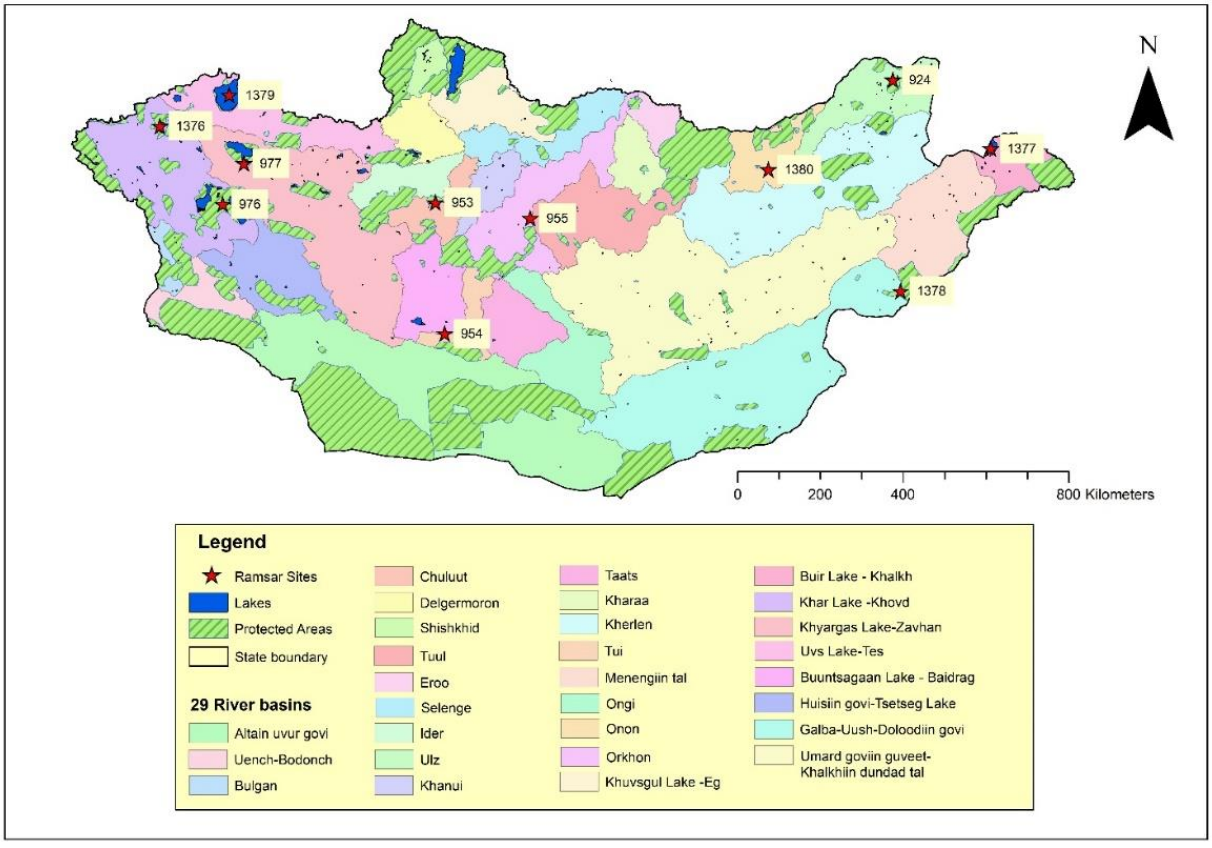

Figure 1. Ramsar sites in protected areas and river basins of Mongolia: Mongol Daguur (924), Valley of Lakes (954), Ogii Lake (955), Terhiyn Tsagaan Nuur (953), Khar-Us Nuur National Park (976), Ayrag Nuur(977), Lake Achit and its surrounding wetlands (1376), Lake Buir and its surrounding wetlands (1377), Lake Ganga and its surrounding wetlands (1378), Lake Uvs and its surrounding wetlands (1379), Lakes in the Khurkh-Khuiten river valley (1380).

According to the booklets on Wetlands of International Importance developed by WWF Mongolia in 2022, the Ramsar sites in Mongolia face the following threats:

1. The vicinity of Airag Lake[1] is one of the livestock grazing areas as local herders along with their herds stay there all year around. Increasing herds in the region is a main cause of habitat deterioration and negative impacts (disturbance) on nesting and breeding species populations occurring in riparian zones and wetlands of the Lake. In addition, water flow into the Lake varies in relation to the ongoing climate change and anthropogenic interventions, so a loss of biodiversity is being threatened. Since 2007, water level of Airag Lake has lowered by 3.54 km^2 in average a year. A cause of these declines is a change in Zavkhan River flow, inflowed into Airag Lake, to Gegeen Lake or a reservoir of of Taishir hydro-power plant. If the reservoir is mismanaged, it is likely to negatively impact Khyargas Lake's water level.

2. Lands around Khar Us Lake[2] are used by local people for livestock grazing, hay making, and vegetable growing. Currently, overgrazing and decline of vegetation cover have become a concern due to increasing herds. Destructive human activities e.g. over-use and clear-cut of the bushy plants such as *Caragana* spp. and *Artemisia* spp. and off-road driving around the Lakes are resulting in soil erosion and desertification in the region. Water levels of the Lakes are getting lowered due to climate change. Lately, some negative impacts on the Lake ecosystem have been seen in relation to the introduction of the muskrat (*Ondatra zibethicus*). At the same time, the fish transmission channel of Durgun hydropower plant built on Chonokharaikh River has become to negatively impact on movement, migration, and population of Mongolian grayling. These problems may cause a threat to the Lake ecosystem, in particular the fish populations and structures and future growths of Zoo and Phyto-planktons, the baseline organisms of the Lakes. The Dalmatian pelican is poached to make sweet scrapers of race horses of its bills. However, the species population is likely to increase, but its growth is slow. A cause of this slow growth is related to firstly poaching and secondly, human disturbance in nesting grounds at the beginning of the species breeding season. All these human impacts are likely led to the habitat loss and declined population of the species.

3. Water surface areas of the lakes in the Valley of Lakes[3] are often changeable, vulnerable, and fluctuated in relation to the ongoing climate change. Even drastic changes in their surface areas are seen in dry or droughty years. Loss of water plants and animals is threatened due to declining or lowering water levels in the Lakes. In addition, water and migratory bird species are being pushed away and reed and cane stands along the Lakes are likely to be dried up and lost. There are quite many croplands near lower area of Tui stream. To water these croplands, the river's flow is diverged by dams and reed and cane stands along the Lakes and streams nearby are cut and destroyed to prepare feeds for livestock. Moreover, mining operations actively take place near Baidrag stream in a territory of Bumbugur sub-province of Bayankhongor province. In addition to human induced activities, the natural factors such

[1] https://wwfasia.awsassets.panda.org/downloads/airag_lake_ramsar_eng.pdf
[2] https://wwfasia.awsassets.panda.org/downloads/har_us_lake_ramsar_eng_new.pdf
[3] https://mongolia.panda.org/en/?374598/WETLANDS-OF-INTERNATIONAL-IMPORTANCE--VALLEY-OF-LAKES#

as declines sin rainfall and its intensity and changes in annual air temperatures also impact flows and covering areas of the Lakes. For instance, Baidrag stream was cut twice in its inflowing section to Buun Tsagaan Lake in 2017. Orog Lake had high water levels reached the maximum 1,084 cm between 1993 and 1995, but water in the Lake was nearly lost and disappeared in 2005-2006, 2009, and 2020.

4. In 1995, a total covering area of Terkhiin Tsagaan Lake[4] was 7950.0 ha, but it was declined to 7440.1 ha in 2015 (lost by 509.9 ha or 6.4% within 2 decades). As the Lake's water area was reduced, the numbers of migratory birds recorded at the Lake and its wetland were also reduced by 23.5% within the two decades. At the same time, the area covered by sand was also expanded by 39.4%; the deteriorated land was increased by 1.44 times in the decades. Furthermore, the Lake water has been heavily polluted and vicinities of the Lake have been overgrazed and consequently the sandy areas are getting expanded. There are numerous natural springs (e.g. Bulat, Sort, Nariin Ekh, Tsagaan Bulag, Tsagaan Tsokhio, Dadga, Elst Bulag) and mineral water bodies found around the Lake which are a main water source for human and animals. However, sources of these springs and water bodies are not protected (e.g. by livestock number increase) and their waters have been polluted and some of them have disappeared. Increasing loss and pollution of the Lake's water may lead to loss of about 20 water plant species, 36 plankton species, 20 benthic species, and over 10 vascular plants recorded in the Lake. Terkhiin Tsagaan Lake is inflowed by more than 10 small streams, but is drained by one river Suman. Self-purification capacity of the Lake is obviously limited due to its location in a small depression enclosed by mountains. This becomes a main cause of the Lake's water pollution on one hand. A survey on land cover changes conducted by the park administration showed that forested areas were 13526.4 ha in1995, but this amount was reduced to 5752.6 ha in 2015 (lost by 7773.8 ha or 57.4%) for two decades. Main causes of these declines included forest fire and tree cutting (the highest) and consequently, the forest steppe is likely to be replaced by a steppe. As a result, the region has become vulnerable to outbreaks of damageable pests and human activities.

5. Uvs Lake[5] is one of ideal destinations for nature-based tourism development. However, visitors and tourists often pollute the Lake water and riparian zone with their garbage and trash. There are some small lakes existing around the Lake. These lakes are favourable nesting and feeding grounds for waterfowls; however, a loss or disappearance of these small lakes has been threatened due to increasing dryness in the region. At the same time, overgrazing is likely to be a concern around the lakes according to the recent assessments, this threat has been assessed as relatively lower amongst other threats to the region.

6. A key threat to Buir Lake[6] and its surrounding wetlands is fishing. Breeding ground in Buir Lake is relatively small, but it overlaps with fishing ground. Populations of game fish species have declined due to catching and hunting of the species during their breeding seasons. In

[4] https://wwfasia.awsassets.panda.org/downloads/terkhiin_tsagaan_lake_ramsar_eng.pdf
[5] https://wwfasia.awsassets.panda.org/downloads/uvs_lake_ramsar_eng.pdf
[6] https://wwfasia.awsassets.panda.org/downloads/buir_nuur_ramsar.pdf

addition, game fish species populations have become dominate by juveniles in terms of their ages and body sizes of the game species become smaller represented that they are being affected by bio-ecological changes. Large amounts of fish, water birds, Gammarus lacustris, mosquito larvae, and other benthic plants and organisms including mollusks are caught and destroyed by the fish nets put and abandoned in the Lake. Besides, eutrophication takes place in the Lake's bottom due to the household wastes leftover and entering the Lake. Also, benthic sediments and plants are harvested by fish nets that made aquatic plant roots loosen and removed; consequently, loosen and removed plants are pushed by water into outer edges of the Lake. Remnants of these accumulated materials and swamps increasingly appear in outer edges of the Lake. Lately, in average 7000 vacationers or holiday makers visited Buir Lake every travel season. As numbers of travelers and visitors were increased from year to year, the wastes leftover and earth roads along the Lake's shore have been increasing.

7. Ecosystem around Ganga Lake[7] and its surrounding wetlands is very sensitive to several threats. A total of 21 natural springs used to discharge their water into Ganga Lake before. Some years ago, these numbers drastically reduced to only one natural spring "Orgikh Bulag" flowing into the Lake, according to the locals. The Lake's water level was decreased by 100-200cm between 2000 and 2017 due to increased air temperature and total evaporation and reduced annual rainfall in the region. The Lake's water level started to gradually increase from May, 2019. In addition, the Lake water has been heavily polluted by livestock wastes and soil and vegetation covers have been also deteriorated due to drastic increase and concentration of herds within the Lake zone. The water pollution is leading to increase in algae distributions in the Lake and sand is blown and deposited at the Lake bottom. As a result of these impacts, the natural water purification process in the Lake has been prevented. Furthermore, overuse of forest resources has been contributing in reduced water level. Therefore, a priority is being given to the Lake conservation by fencing and making its vicinity free of livestock to reduced their direct impacts on the Lake and its wetlands.

8. Key major threats to the lakes and wetlands in Khurkh-Khuiten River Valley[8] are climate change impacts (the highest) and human induced impacts, namely overgrazing. Dominant types of the pastureland in the region are river Valley, lake shores and edges, and pastures in depressed areas, steppe, grassland, and dry steppe. All these types are suitable for grazing of any kinds of livestock. However, the most affected pastures are the river Valley or the areas around water sources, where large livestock are often concentrated. In addition, areas of wetlands are getting lost and replaced by croplands. In the meantime, the areas of the cropland abandoned and left fallow are getting increased in the region from year to year. Lately, some parts of untouched river Valley and floodplains are likely to be used for cropping as dryness is increasing in the basin. These actions have become one of the current threats to the wetlands to reduce and destroy areas of the wetlands in the region.

[7] https://wwfasia.awsassets.panda.org/downloads/ganga_nuur_ramsar__1_.pdf
[8] https://wwfasia.awsassets.panda.org/downloads/khurkh_ramsar.pdf

9. Mongol Daguur[9] wetlands are one of the few remaining wetlands enduring the current climate change and dryness. The exponential growths of human and livestock are resulting in overgrazing, habitat loss and degradation as well as wildlife population declines. Natural regeneration and restoration of wetlands are needed, so that sustainable use of the wetlands is vitally important in practice. Unfortunately, unsustainable use by human is likely to cause more damages and negative impacts on the valuable ecosystem in the future. Therefore, the wetlands need to be protected and preserved through climate change adaptation or implementation of action plan, policy and legal framework on sustainable land and pastureland management and improved public ecological education in the region.

10. Key threats to Achit Lake[10] and its surrounding wetlands are livestock trampling of bird nesting area, climate change related water level decrease, poor infrastructure, disorganized tourism and fishing.

[9] https://wwfasia.awsassets.panda.org/downloads/mongol_daguur_ramsar.pdf
[10] https://wwfasia.awsassets.panda.org/downloads/achit_lake_ramsar.pdf

3. RAMSAR SITES MANAGEMENT

In Mongolia, the Department of Natural Resource Policy and the Department of Protected Area Policy of the Ministry of Environment and Climate Change are in charge of implementing the convention within their respective responsibilities. These departments provide professional and methodological support to Water Agency, the Water Basin Administrations and Protected Area Administrations, by applicable legislation such as the Environmental Protection Law, the Water Law, and associated regulations (Figure 2). The Minister of Environment and Tourism issued Order No. A-171 of 2024 which established the Convention's Steering Committee and Scientific and Technical Committee.

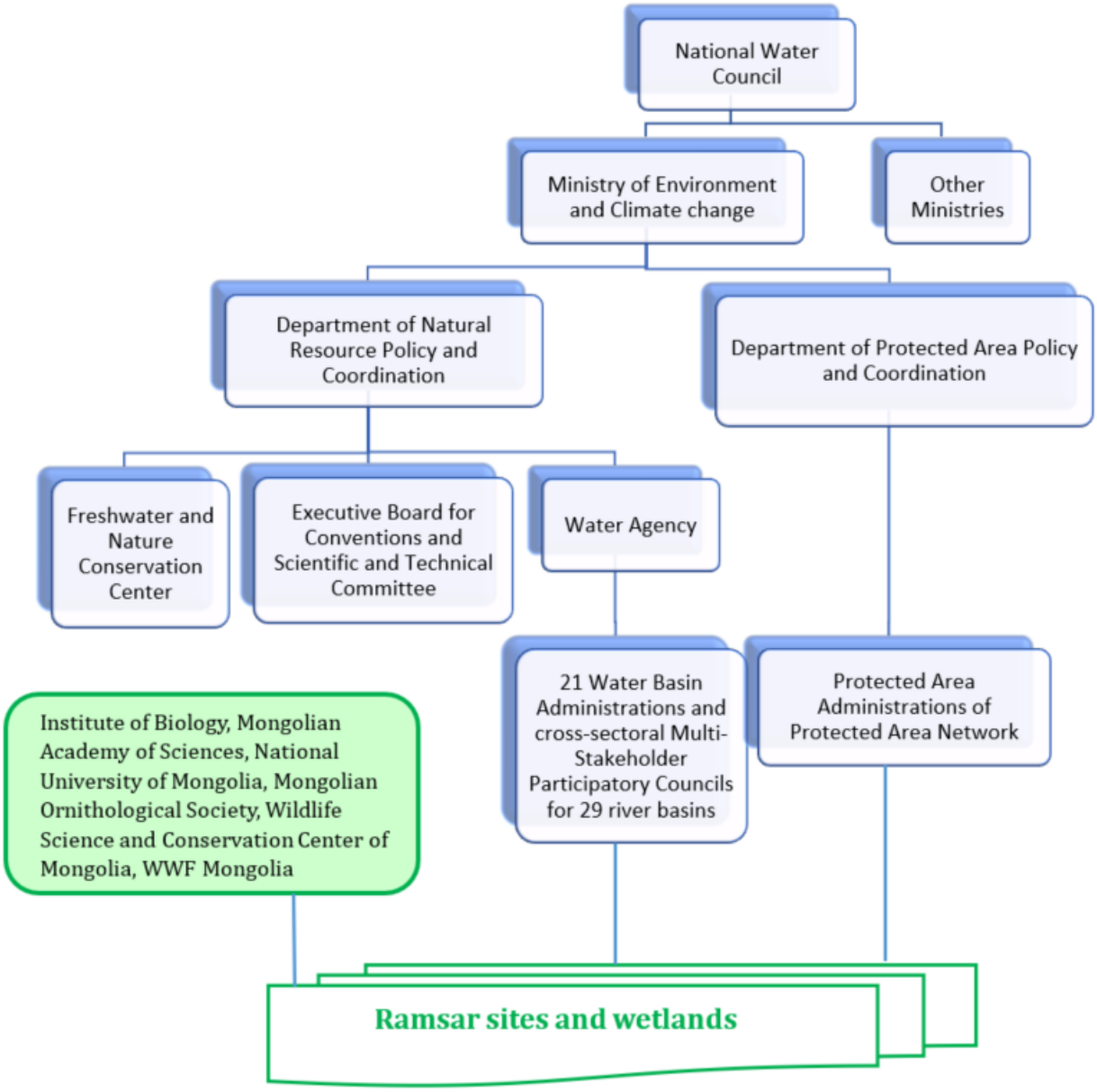

Figure 2. The organizational framework for Ramsar Convention Implementation at the national level

Between 2021 and 2024, the Water Basin Administrations and Protected Area Administrations carried out a variety of activities to protect wetlands and surrounding water sources, organize water management, establish protection zones, celebrate and promote World Migratory Bird Day and World Wetlands Day, and organize spring and autumn clean-up campaigns to prevent water pollution. They also established bird-watching towers, monitored birds, fish, and aquatic environments in collaboration with professional organizations, ensured compliance with legal regulations through inspections, afforested floodplains, and successfully organized biodiversity conservation capacity-building training with international organizations and projects.

Based on Article 9^1.1 of the Water Law, the inter-sectoral National Water Council was established by the Government's Resolution No. 38 of 2023 to provide policy recommendations focused on ensuring water security and to facilitate the exchange of information across sectors. The council is led by the Prime Minister of Mongolia. The council is chaired by the Minister of Environment and Tourism, with the following members: the Minister of Construction and Urban Development, the Minister of Food, Agriculture, and Light Industry, the Minister of Mining and Heavy Industry, the Deputy Minister of Health, the Governor of Ulaanbaatar City, the Secretary of the National Security Council, the Advisor to the Minister of Mongolia and Head of the Government Office, the Director of the Water Authority, and the Head of the Water Sector at the Institute of Geography and Geo-ecology of the Mongolian Academy of Sciences.

All 11 wetlands belong to 10 water basins. Each water basin has its Water Basin Administration and cross-sectoral Multi-Stakeholder Participatory Council. The Water Basin Administrations are in charge of water resources protection, wise use, restoration, and public awareness, whereas Multi-Stakeholder Participatory Council ensures multi-stakeholder participation in the development of water management plans and supports public oversight during implementation, promotes collaboration and share information. The council consists of representatives of the local government, environmental department, specialized inspection agency, non-government organization, soum, district citizen, water user, scientist, researcher, and water professional organization.

4. NATIONAL IMPLEMENTATION AT RAMSAR SITES (2021-2024)

- **Airag Lake (Ramsar Site No 977)**

Waterfowl research at Airag Lake is conducted annually between May and June. Every year, more than 150-260 species of waterfowl nest and lay eggs there. Additionally, the rare pelican, which has been declining globally, has been observed to nest annually, which demonstrating the effectiveness of our trainings and public awareness. About 50 hectares of willows have regenerated around Airag Lake. A total of 58,969.477 m^2 of land, including the Khunkhin Givant hot spring and the area around Airag Lake in Songino soum of Zavkhan province, has been designated as local protected area. On World Water Day, the staff of the Protected Area Administration cleaned the solid waste around the lake and river basin and organized a training on Ramsar Convention, wetlands conservation, and waste management for secondary school students in Zavkhan province.

- **Lake Achit and its surrounding wetlands (Ramsar Site No 1376)**

Since 2022, a research team led by Dr. Z. Burmaa from the Western Branch of the National University of Mongolia has been conducting a hydrological monitoring study on Achit Lake. The Achit Lake-Develi Island National Park Administration, together with the Eco Club of the Böhmörön soum secondary school, successfully organized an educational excursion for 11 students to learn about the waterfowl of Achit Lake. The excursion emphasized the importance of traveling in an environmentally friendly manner. Protected Area Administration provided a handbook on waterfowl.

- **Lake Uvs and its surrounding wetlands (Ramsar Site No 1379)**

In May 2022, the Protected Area Administration conducted research in collaboration with ornithologists S. Gombobaatar and P. Davaasuren from the Mongolian Ornithological Society to determine the bird species composition, ecological status, and conservation status of the Uvs Lake basin. Since 2020, studies have been conducted on the population of great cormorants and their impacts on habitat and on other fish-eating birds in terms of food sources.

The Uvs Lake basin is a highly diverse habitat, with various ecosystems including high mountains, mountain ridges, valleys, river and forest areas, forest steppe, mountain steppe, rocky cliffs, deserts, sand dunes, lakes, and marshes. These environments are crucial for birds to breed, migrate, rest, and winter. However, the overgrowth of livestock and grazing has created pressure on bird nesting and breeding areas. The livestock grazing causes to bird habitats degradation, the reeds' limited growth and building nests in trees instead. The absence of reed beds and marshes during the breeding and reproductive seasons has been identified as a threat to the plant species in the area, which ultimately affects the survival of bird species, especially great cormorants.

In May 2023, the Uvs Lake National Protected Area Administration conducted a joint research on the waterfowl of Uvs Lake in collaboration with researchers from Tuva, Russia, the Mongolian Ornithological Society, and French scientists. The study involved observation and monitoring at 26 locations, focusing on the research of Hooded Crane. Approximately 150 individuals of the hooded crane were recorded, and two birds were fitted with information transmitters as part of the research.

In September 2023, with funding from the World Wildlife Fund's Mongolia Program Office, the "Uvs Lake Waterfowl Day" event was held in the Uvs Lake Strictly Protected Area. During the event, various publications were distributed, including 48 copies of the "Uvs Lake Birds" book, 30 copies of "Vertebrates of the Uvs Lake Basin," 182 copies of the internationally important wetland Uvs Lake, 107 copies of Airag Lake, and 107 copies of Valley of Lakes. From 2021 to 2023, the National University of Mongolia (MUIS) and the Mongolian Ornithological Society collaborated to produce and distribute three video contents about Uvs Lake's bird species and ecosystem.

- **Khar-Us Lake (Ramsar Site No 976)**

In February 2022, a survey was conducted to determine the distribution and species composition of migratory birds wintering around Khar-Us Lake, assess the habitat of the Mongolian wild horse (Przewalski's horse), and implement biotechnical measures. A total of 333 birds were counted, belonging to 4 families, 4 genera, and 7 species. With support from the GIZ SPACES project, in collaboration with researcher N. Amarkhüü from the Bird Conservation Center, an artificial nest was constructed for the Hooded Crane in 2022.

Since 2018, water quality studies on major lakes and their tributary rivers in the Khar-Us Lake Ramsar Site have been conducted. Information boards with a brief introduction to the Khar-Us Lake Ramsar Site and the "Birds' Trail" bird-watching tour route were installed near the popular tourist camps.

In April 2022, experts and wildlife rangers conducted a study on the reproductive biology and ecology of the Mongolian grayling fish, as well as an assessment of the ecological condition of the area surrounding the Erdeneburen Hydroelectric Power Station. The study also aimed to track the movement of the grayling by applying a T-bar tag for migration analysis. The research determined the arrival time of fish to their breeding sites, the duration of the breeding season, the weight of the fish, sex ratio, and the number, size, and characteristics of the eggs. At the Durgun Hydroelectric Power Station, measurements were taken on 10 individuals, ranging from 420 to 590 mm in length and weighing between 870 and 1390 grams. Of the 74 individuals observed, 24 were male and 50 were female. T-bar or flexible tags were applied to these 74 fish for tracking.

Since 2013, every year on February 2, public awareness campaigns about Ramsar Convention, the importance of wetlands and their biodiversity have been organized for students from secondary school in collaboration with the Education and Science Departments of Khovd and Bayan-Ölgii provinces.

- **Terkhiin Tsagaan Lake (Ramsar Site No 953)**

In 2024, a survey on rare and endangered bird species carried out along the shores of Terkhiin Tsagaan Lake, on the lake's central island, and along the shores of Khödöö Lake, where large numbers of waterfowl gather and breed. The study aimed to assess the success of bird nesting and breeding. A total of 10 bird genera were recorded, including 350 grey-headed geese, 2,460 great cormorant, 806 gulls, 114 swans, 66 spoonbills, 28 cranes, 128 scoters during the survey.

A bird-watching observation station was established on the southern shore of Terkhiin Tsagaan Lake. To protect water sources and springs, the sources of two springs (Naran Bulag and Khar Chuluut) that flow into Terkhiin Tsagaan Lake were fenced and protected from livestock.

Along the shores of Terkhiin Tsagaan Lake, 60 pit latrines used at tourist camps were replaced by septic tanks. Every spring and autumn, a clean-up campaign is held along the shoreline of the lake in collaboration with local people, secondary school students, tourism operators, and local government and NGOs.

- **Valley of Lakes (Ramsar Site No 954)**

On February 2, 2024, Water Basin Administration presented Ramsar Convention and values of wetlands to local schoolchildren. To protect the vegetation cover around the Orog lake, the local administration prohibits herders with livestock to staying around Orog Lake during summer. The springs and water sources of 20 soums were fenced and protected. The 36% of the Tuin River flows into Orog Lake, and 35.6% of the total catchment area was designated as local protected areas.

- **Ugii Lake (Ramsar Site No 955)**

A freshwater permanent lake ecosystem recognized as a Ramsar site on July 6, 1998, renowned for its diverse bird and fish populations. Covering an area of 2,570 hectares, it is the smallest Ramsar site in the country and one of only three that are not designated as state-level protected areas. The lake has a water volume of 171 million m^3, a shoreline extending 24.7 km, and a maximum depth of 15.3 m. It boasts rich biodiversity, including 266 plant species, 83 aquatic insect species, 20 mammal species, a single amphibian species, 3 reptile species, 244 bird species, and 15 fish species.

However, this lake is under a lot of pressure from anthropogenic activities and over grazing, which has a negative impact on the lake's health. Although 51 species of birds have been listed to breed around the lake, this number has been decreasing year by year owing to these pressures.

A project on wetland ecosystem conservation and sustainable use and management was carried out between 2005 and 2010 with the assistance of JICA and the Ministry of Environment. As part of the project ecological and biodiversity assessment was carried out between 2005 and 2006 and based on this the first and only Wetland Interpretation Center of the country was set up.

The Ugii Lake Interpretation Center located within the Orkhon-Chuluut River Basin Administration, which is part of the Water Agency, is an educational institution that provides materials and also participates in public relations activities for the visitors who visit the center annually about 3,500.

The Orkhon-Chuluut River Basin Administration together with Arkhangai Province Environmental Department has been actively participating in the regulation implementation at the site. In the period of 2022–2024, they conducted 38 monitoring activities to ensure the effectiveness of the environmental legislation.

The Ugii Lake Wetland Center was established through the collaboration of the Orkhon-Chuluut River Basin Administration and WSCC. The center supports ongoing monitoring of wader populations and promotes public awareness through educational initiatives, such as distributing 1000 each brochure on the common birds and plants of Ugii Lake to visitors. Since 2022, Ugii wetland Center has carried out systematic bird observations from May to October, including catching shorebirds and tagging them with leg flags. The team has successfully caught and released 1,500 individuals of 29 wader species to date. Additionally, a total of 251 bird species have been registered in the area.

Water quality monitoring at Ugii Lake has been conducted regularly from 2015 to 2022 through collaborative research efforts between scientists from Taiwan and Mongolia. Environmental officer Erdenetuya Chultem contributed to these efforts by completing her master's thesis, titled *Reducing Mechanisms of Pollution in Ugii Lake*, at the University of Science and Technology.

From 2023 to 2024, the Geography and Geo-ecology Institute of the Mongolian Academy of Sciences conducted a comprehensive study on water quality, aquatic plants, and socio-economic factors at Ugii Lake.

Water table monitoring revealed significant fluctuations over the years, with the highest recorded level in 2004 at 353 cm and the lowest in 2011 at 162 cm. Notably, the water level reached a new peak of 365 cm in 2023.

Overall, the water quality has been assessed as stable. However, instances of *Rivularia planctonica* and other domestic pollutants were observed during August and September in 2015 and 2016. These pollutants have decreased in years with higher water levels, suggesting a correlation between water table fluctuations and pollutant concentrations.

Since 2017, the Biological Institute of the Mongolian Academy of Sciences has been conducting studies on fish and aquatic insects at Ugii Lake. In 2023, a fish resources survey was completed, and a fishery management plan was formally established.

The lake's inflow often dries out during the spring months in the upper catchment area due to irrigation practices for wheat fields, which significantly impacts the lake's water balance.

Natural spring and well preservation efforts were carried out at Khoovor Bulag, located 9 km from the main lake, with support from local herder communities and reduce the pressure of livestock numbers in the lake.

World Wetlands Day and World Water Day are celebrated annually with local school children to raise public awareness within the community. Additionally, World Migratory Bird Day is marked with educational activities, and summer camps are organized under the *Young Naturalist Program* in collaboration with the Wildlife Science and Conservation Center. These initiatives aim to engage and educate local students about wetland conservation, water management, and migratory bird ecology.

Public engagement in the lake cleaning campaign involves stakeholders from around the lake, including herders, government officials, managers, and rangers, working together to maintain the environment. The number of eco-camps has been steadily increasing, as Ugii Lake has become a popular destination for both domestic tourists and fishing communities, as well as foreign birdwatchers and general tourists.

Currently, there are five official tour camps and 45 eco-ger camps, hosting around 22,000 tourists annually. Additionally, approximately 310 tons of solid waste are collected around the lake each year as part of ongoing conservation efforts.

Approximately 34,120 livestock grazes around the lake system and wetland year-round, placing consistent pressure on the ecosystem. However, the most significant impact occurs during the breeding and summer seasons, when the presence of livestock coincides with critical periods for bird populations, affecting their nesting and overall habitat quality.

With financial support from a government project implemented to prevent drying out, pollution, and strengthen water flows, several initiatives were undertaken between 2019 and 2020. These included the construction of a bird-watching tower in the western shoreline, the installation of three wells further from the lake to reduce pressure on the water source, and the erection of a 17 km pole fence to prevent the creation of new roads around the shoreline. Additionally, a channel was planned to connect Orkhon River floodwaters to the lake's inflow, though this project remains incomplete

With the support of Mongolian President Mr. Khurelsukh Ukhnaa, the second phase of the project was implemented, consisting of four key components. These included the establishment of grazing-free exclosures along the western shoreline to support breeding birds, the installation of an informational wall, and the placement of floating fences in the western part of the lake to reduce disturbances caused by motorboats, particularly for molting birds.

Currently, the main threats to Ugii Lake include irresponsible tourism, unpermitted eco-yurt camps, inadequate waste management, and organic pollution from livestock around the lake. Although there is no dedicated management plan specifically for the lake, it is partially included in the Orkhon River Basin Water Resource Management Plan.

- **Ganga Lake (Ramsar Site No 1378)**

Ganga Lake (Ramsar Site No. 1378) is managed by the Dariganga National Park Administration and is also partially involved with the Galba Oosh Gobi Water Basin Administration. The national park was initially established in 1993 as a memorial site and was later upgraded to national park status in 2004.

The management plan for Dariganga National Park (2022-2026) was implemented in 2021 and is currently being actively followed. According to the plan, the park has designated conservation priorities, including the protection of species such as the Whooper Swan, Elm and Willow trees, Siberian Marmot, and Mongolian Gazelle.

Ganga Lake serves as an important staging site for Whooper Swans during their autumn migration, hosting approximately 3,500 to 4,200 individuals. In total, the lake is home to about 111 bird species, 20 of which are globally threatened.

Dariganga National Park continues to face significant pressures, including the impacts of climate change, a large number of livestock, solid waste accumulation, steppe fires, and illegal hunting of Mongolian Gazelles. Due to the lack of watering points, much of the livestock congregates around Ganga Lake. By 2019, approximately 410 herders from Dariganga and 46 herder families from Naran village, with a combined livestock population of around 362,000, were using the lake area.

Since 2019, a restoration project supported by the Mongolian President's Office has been underway in the national parks. The project has included hydrological, geophysical, and geomorphological surveys, which recommended the use of underground water through wells to help prevent the lake from drying out during dry summer years. Additionally, hydrological monitoring sites were established, 16 wells were restored, and a rainwater collection pond was built to support water management in the area.

Bird ringing activities were conducted from 2019 to 2021 but were discontinued due to a lack of manpower.

Currently, six seasonal tour camps operate within the national park, and official tour routes have been established. Preventative measures against desertification around the lake have been implemented, including the planting of willows and *Agropyron cristatum* over 35 hectares. Additionally, mechanical protection, such as placing natural rocks around the lake, is underway in 2024.

- **Khurkh-Khuiten Nature Reserve (Ramsar Site No 1380)**

This area was designated as a Ramsar site in 2004, covering 42,940 hectares, and meets the C6 criteria for its significance to global bird populations, including 11% of the world's White-naped Cranes, 3% of Common Cranes, 1% of Demoiselle Cranes, and 15% of the Black Stork population. As a result, it was declared a Nature Reserve in 2020, expanding to 193,000 hectares. The Nature Reserve is home to 308 bird species, with 150 species recorded as breeding visitors, 34 of which are listed as internationally threatened according to IUCN criteria.

The Wildlife Science and Conservation Center (WSCC) has signed agreements with the Ministry of Environment and Climate Change to manage nature reserves for a period of 10 years. Additionally, WSCC has secured funding agreements with the International Crane Foundation to support the administration and monitoring efforts within the nature park.

Since 2015, the Wildlife Science and Conservation Center (WSCC) has operated the Khurkh Bird Ringing Station, marking a significant milestone as the first ongoing bird ringing project in Mongolia. To date, 53,000 individuals from 163 species have been ringed, with the station set to celebrate its 10th anniversary in 2025.

WSCC has also been conducting crane and waterfowl monitoring since 2013, focusing on both the breeding and migration seasons. In collaboration with researchers from the Geo-ecological Institute and the Botanical Institute of the Mongolian Academy of Sciences, WSCC has contributed to surveys on permafrost, soil, insects, and plant life.

In 2024, the Khurkh Ecological Center and Local Communities Building was opened, providing a space for researchers and local communities to engage in nature protection efforts for the Khurkh Khuiten Nature Reserve.

The Khurkh Khuiten Nature Reserve Administration was established in 2021 and currently includes five rangers, three official managers, and a director. The administration operates on a daily basis, with each ranger required to patrol their designated area twice a month for law enforcement and monitoring purposes.

Public awareness activities have been a key focus, including the publication of brochures on common plants and birds, as well as efforts to prevent dogs from predating crane eggs during the breeding season. Additionally, the Crane Festival has been celebrated annually since 2013, alongside World Migratory Bird Days and summer camps for local communities within the nature reserve. Khurkh Khuiten Nature Reserve organizes training programs for local herder women to help increase their income sources and improve livelihoods. These initiatives focus on creating wool products that can be sold in international markets, including souvenir shops at the International Crane Foundation.

The management plan for Khurkh Khuiten Nature Reserve (2024-2032) is in its final drafting phase and awaits official approval from the provincial government. The plan has identified key conservation priorities, including the White-naped Crane, Demoiselle Crane, Great Bustard, Yellow-

breasted Bunting, Siberian Marmot, riparian forests, wetlands, and pastures, with an assessment of their current conditions.

The Ramsar site is currently under significant pressure from overgrazing, habitat overlap between wildlife and human activities, habitat loss, steppe and forest fires, drought, harsh winter conditions, and the cultural loss of local communities.

- **Mongol Daguur SPA (Ramsar Site No 924)**

Mongol Daguur Strictly Protected Area (SPA) is managed by the Eastern Mongolian Protected Area Administration, with its office located in Choibalsan City, Dornod Province. The SPA is recognized as a Man and Biosphere area, a UNESCO World Heritage Site, part of the Daurian International Protected Area, an ECO 200 region of WWF, a Northeast Asian Crane Protection Network Site, and a Flyway Network Site of the East Asian-Australasian Flyway Partnership (EAAFP).

The SPA management plan for 2014-2020 has been evaluated, and its results have been assessed for effectiveness. The new management plan for 2025-2034 is in the final stages of drafting and is set to become officially active in 2025, pending approval from the central government.

The conservation priorities for Mongol Daguur Strictly Protected Area include the White-naped Crane, Siberian Marmot, and Mongolian Gazelle, as well as the preservation of the Daurian Steppe and wetland ecosystems.

Since 2019, the Mongolian Bird Conservation Center has been conducting regular monitoring of White-naped Cranes. The survey tracks six breeding pairs, with breeding success being highly dependent on the amount of precipitation each year.

Bird monitoring has been ongoing since 2019 through a collaboration between the Mongolian Bird Conservation Center (MBCC) and the Eastern Mongolian Protected Area Administration. From 2021 to 2024, the research team recorded the following species: 71-376 Swan Geese, 14-79 White-naped Cranes, 15-30 Hooded Cranes, 16-26 Siberian Cranes, 16-51 Common Cranes, and 22-34 Great Bustards. Notably, a new breeding record for the Ferruginous Duck was made at Chuck Lake in 2021, where 7 ducklings were raised.

Mongol Daguur SPA has officially registered 267 bird species. Additionally, under the coordination of MBCC, the Chuck Bird Research Station, established in 2019, marks 300 species of shorebirds annually and conducts regular counts at Chuck Lake. These surveys have recorded 46,985-650,000 individuals across 81-162 species. The Mongolian Gazelle population count reached 48,000 individuals, with 294 new offspring recorded.

Public awareness activities at the Chuck Bird Research Station include celebrating Shorebird Days, where local children from nearby villages participate. Additionally, World Migratory Bird Days are marked with events such as hand-drawing competitions for local kids. Summer camps for local children, along with educational courses for schoolteachers about wetland conservation, are also organized to raise awareness about the importance of protecting these ecosystems.

Law enforcement monitoring at Mongol Daguur Strictly Protected Area (SPA) includes the extension of the SPA boundaries, with the relocation of three herder families from within the protected area. The borders of the SPA are clearly marked with warning signs, prohibition signs, and information

boards. Rangers patrol their assigned areas twice a month to ensure compliance with regulations. Current threats identified by the SPA administration include droughts triggered by climate change, fires, unleashed dogs during the breeding season, habitat loss, and illegal hunting.

- **Buir Lake (Ramsar Site No 1377)**

Buir Lake is the second-largest lake in Mongolia and one of the three unprotected Ramsar sites in the country. The Administration of Buir Lake and Menen Steppe Basin has been collaborating with the Geography-Geoecology Institute of the Mongolian Academy of Sciences to prevent desertification and sand movements along the shorelines of Buir Lake. In 2023, 10 hectares of enclosures were established with the planting of 14,000 trees to combat sand movement. This initiative was expanded in 2024, with 28,000 poplar and willow trees planted in 20 hectares of enclosures. Desertification monitoring work began in 2023 to track and address the ongoing challenges.

In 2023, a massive mortality event of Silver Carp (Hypophthalmichthys molitrix) occurred along the shoreline of Buir Lake. An investigation team found that the water and soil of the lake were contaminated with bacterial pathogens, including E. coli, Shigella, Salmonella, Clostridium perfringens, and Staphylococcus aureus. Additionally, the Silver Carp, which are sensitive to herpes viruses, were found to have been affected by this virus. As a result, regular water quality monitoring has been implemented, and nearby local herders, along with 20 tour camps, have been informed to raise awareness and reduce further risks.

Solid waste cleaning efforts are conducted annually at Buir Lake, with two local communities contracted to clean the shorelines. Between 2022 and 2024, approximately 100 tons of waste were removed from the shoreline each year.

The administration authorities also organize regular public awareness campaigns in kindergartens, schools, and tour camps. These activities focus on World Wetland Day, the conservation of wetland ecosystems, and ecological education to engage and inform local communities about the importance of preserving these vital habitats

Law enforcement monitoring is conducted at 8 tourist camps around Buir Lake, with efforts made to inform operators about legal requirements and regulations. As tourism numbers continue to rise, the administration has required tourist camps to switch to eco-toilets. As of now, 3 out of the 8 camps have successfully transitioned to eco-friendly toilet systems.

The Buir Nuur-Khalkhgol Basin Management Plan is in the process of being revised and approved. This updated plan will incorporate considerations for climate change, related risks, and vulnerabilities. We plan to begin regular monitoring of biodiversity, hydrology, pastureland, and desertification to better understand and manage the ecological health of the region. Efforts will include afforestation initiatives aimed at preventing sand movement and combating desertification. Additionally, we will focus on the development of nature-friendly tourism practices that minimize the negative impacts on biodiversity and wetland ecosystems. To further strengthen conservation efforts, we will increase public engagement through educational programs and community involvement, ensuring wider support for sustainable environmental practices.