

Update of the Secretariat on the implementation of Resolution XIV.20

Actions requested:

The Standing Committee is invited to take note of the update of the Secretariat on the implementation of Resolution XIV.20 on *The Ramsar Convention's response to environmental emergency in Ukraine relating to the damage of its Wetlands of International Importance (Ramsar Sites) stemming from the Russian Federation's aggression*.

Background

1. This report provides an update on actions up to the end of May 2023 by the Secretariat pursuant to Resolution XIV.20 on *The Ramsar Convention's response to environmental emergency in Ukraine relating to the damage of its Wetlands of International Importance (Ramsar Sites) stemming from the Russian Federation's aggression*, paragraph 18, which:

REQUESTS the Secretariat of the Convention on Wetlands to coordinate actions with the Contracting Parties and relevant national and international organizations to conduct assessments of the Ramsar Sites in Ukraine affected by aggression of the Russian Federation, and advise on appropriate mitigation and restoration measures; and FURTHER REQUESTS the Secretariat to provide a report on the assessed damage and mitigation measures to the 15th meeting of the Conference of the Contracting Parties, in addition to providing an update on the implementation of this Resolution to all intervening meetings of the Standing Committee.

Coordination and consultation

2. The Secretariat has held bilateral discussions with a range of entities engaged in assessment of the environmental damage resulting from the Russian invasion of Ukraine, including the United Nations Environment Programme (UNEP) through the Regional Office for Europe and the Post-Conflict and Disaster Management Branch, and IUCN.
3. On 10 March 2023, Ukraine submitted to the Secretariat a notification of changes in ecological character of 16 Wetlands of International Importance ("Ramsar Sites"), and of potential changes in ecological character of a further 15. The Sites are listed in Annex 1. The Secretariat met with the Permanent Mission of Ukraine to the United Nations Office and other Intergovernmental Organizations in Geneva on 4 April to discuss the notification.
4. Pursuant to paragraph 19 of Resolution XIV.20, the United Kingdom has provided a voluntary contribution towards the Secretariat's work in implementing the actions requested in Resolution XIV.20.

5. As of April 2023, the Secretariat is a member of the Inter-Agency Coordination Group on Environmental Assessments for Ukraine. Membership of this informal group is limited to international organizations, and currently includes the UN Economic Commission for Europe (UNECE), UNEP, the Organisation for Economic Cooperation and Development (OECD), the UN Industrial Development Organization (UNIDO), the UN Development Programme (UNDP), the World Bank and the Organization for Security and Co-operation in Europe (OSCE). The Group directly and continuously engages with the Ministry of Environmental Protection and Natural Resources of Ukraine. Organization of the work of the Group is facilitated by the UN Regional Office for Europe.
6. The Group aims to enhance coherence between assessments, with a focus on the substantive results and methodological approaches applied in carrying them out, and to advise on how to use them to inform the post-war green reconstruction and recovery of Ukraine. Recent meetings of the Group have, for example, addressed draft methodologies on air and soil pollution, and legal issues.
7. Through engagement in the Group and with individual members, the Secretariat is sharing information on work under the Convention and Resolution XIV.20, and pursuing discussions on how consideration of Wetlands of International Importance may be best addressed in the context of current or planned environmental assessments.
8. A seminar organized by the Group with a focus on Earth observations and remote sensing was held on 24 May 2023. The Secretariat has proposed to organize a seminar on ecosystem impacts through the Group, in the second half of 2023.
9. Following the breaching on 6 June 2023 of the hydroelectric Nova Kakhovka Dam on the Dnipro River in Ukraine's Kherson Oblast, a team of 20 experts representing 13 institutions has been mobilised under the leadership of UNEP to assess the environmental impacts of the dam breach, including hydrological and geomorphological impacts, chemical contamination, disaster waste and impacts on biodiversity and protected areas. The Secretariat has joined this team to provide wetlands expertise and to participate in the review of the assessment to be published in August 2023. At least five Ukrainian Wetlands of international importance are situated closely upstream and downstream of the dam.

Assessments of environmental damage resulting from the Russian invasion of Ukraine

10. The Secretariat has compiled and analysed assessments carried out to date, including by engaging in the Inter-Agency Coordination Group and drawing on the "Inventory of assessments of the environmental damage resulting from the Russian invasion of Ukraine" compiled by the Group. A list of assessments with brief information on the methods used and topics covered is provided in Annex 2.
11. Impacts on the environment, ecosystems and biodiversity are important considerations, in the near term as well as in relation to reconstruction and recovery. Assessments of the impact of other conflicts have shown, for example, habitat alteration, pollution and other disturbances, with both short- and long-term effects contributing to population declines and biodiversity losses in terrestrial and aquatic environments.
12. The environmental assessments conducted to date have predominantly focused on immediate urgent priorities, such as humanitarian aspects, critical infrastructure and pollution. UNEP is

currently initiating work to conduct a deeper analysis of assessments undertaken, underway or planned, which will contribute to identifying gaps and help direct efforts and further support of the international community towards assessment and remediation.

13. Documented environmental impacts have included, for example, wildfires in forest, steppe and peatland ecosystems caused by shelling, including in nature reserves, as well as pollution of the environment caused by the destruction of fuel depots, industrial plants and other infrastructure, including air pollution arising from fires. Debris from damaged or destroyed infrastructure poses considerable management challenges. It is assumed that there are hydrological changes to some water bodies. It is recognized that there are significant data and information gaps relating to impacts on ecosystems, including long-term consequences for climate change and biodiversity.
14. Potential impacts on wetlands in Ukraine may include direct physical damage, for example from vehicle movements as well as from shelling, which destroys vegetation and can lead to degradation of soil and soil structure. Pollution, including from bullets and shell casings which may be made of or contain substances such as lead and depleted uranium which are harmful to ecosystems and species, as well as from hydrocarbon and other chemical spills, may have immediate impacts on biota as well as long-term effects through persistence of these compounds in the ecosystem. Potential impacts to wildlife include elevated mortality rates from direct impacts, destruction of natural habitat, risk of ingestion of shells, shell casings or fragments thereof especially by bird species, as well as noise pollution. The abrupt removal of dams or other significant alterations of water flows may also have significant impacts for sediment dynamics, species and habitats. These likely or potential impacts may have significant short- and long-term consequences for ecosystem functions and provision of ecosystem services. Furthermore, where wetlands span international boundaries there are also potential transboundary impacts, including as a result of altered water and sediment flow and pollution.

Methodological considerations

15. There are significant challenges associated with conducting assessments in areas with active conflict, which have implications for methodology:
 - a. In-situ assessments may be conducted at some Wetlands of International Importance, whereas others are inaccessible due to security concerns, including extensive use of mines and active conflict. Where possible to implement, in-situ assessments may be constrained by availability of human capacity, including limited technical capacity and/or limited time available to conduct studies locally, with some implications, for example in terms of the extent to which different components of ecological character status can be assessed.
 - b. Remote sensing may be used for greater spatial coverage, but there are limitations in the use of remote sensing to assess ecological character status of some wetland types and for some components (such as animal communities, species present, soil biology) and ecological processes. The availability and accessibility of remote sensing imagery appropriate for assessment of Wetlands of International Importance in Ukraine requires further investigation.
 - c. Results and experiences from other areas may be possible to draw on; for example impacts to wetland ecosystems that have been observed and measured in other conflict zones may be used to inform estimates of impacts on Wetlands of International Importance in Ukraine. However, this is likely to be limited by the availability of studies of conflict-related

environmental damage in other situations similar to that in Ukraine, in terms of scale and type of the conflict, and the types of wetland ecosystems affected.

- d. An important consideration is baseline conditions. It is likely that, at least for some areas, there will be limited knowledge, and while a baseline can potentially be estimated for some components of ecological character status, and partially defined using available in-situ and remote sensing data, defining a consistent baseline across sites poses a considerable challenge. However, data from Ramsar Information Sheets (RIS) may provide information that contributes to defining a baseline for a number of variables, including in particular in relation to the “Ramsar Sites Criteria” based on which sites were designated as Wetlands of International Importance.
16. Collaboration with other entities and integration of assessments into other, broader efforts will likely help overcome or mitigate some of the aforementioned constraints. It would also ensure that findings, including recommended mitigation and restoration measures, are embedded in and contribute to the international response.
 17. The Secretariat will continue working in the Inter-Agency Coordination Group on Environmental Assessments for Ukraine as well as with relevant individual organizations to prepare a methodology for the assessment requested in Resolution XIV.20, and to seek implementation of the assessment in the context of other ongoing or planned environmental assessments, including UNEP’s “Preliminary assessment of the environmental impacts of the Kakhovka Dam breach”. An update of progress will be provided to the Standing Committee at its 63rd meeting (SC63).

Annex 1

List of Wetlands of International Importance in Ukraine affected or potentially affected by the war started by the Russian Federation (communication by the Ministry of Environmental Protection and Natural Resources of Ukraine)

Ukraine has a total of 50 Wetlands of International Importance (Ramsar Sites); the table includes Sites for which Ukraine has notified the Secretariat of change or potential change in ecological character, with information on designation date and the regions of Ukraine in which Sites are located provided by the Contracting Party. Information provided in fields marked with an asterisk is drawn from the Ramsar Sites Information Service (RSIS) and Ramsar Information Sheets (RIS).

| Site Name | Designation date | Region of Ukraine | Area (hectares) | Site number* | Ramsar Sites Criteria* | Other international designation* | Part of a Transboundary Ramsar Site* | RIS* | Last RIS update* | RAM* |
|---|------------------|--|-----------------|--------------|------------------------|--|--------------------------------------|---|------------------|------|
| Sites whose ecological character has changed | | | | | | | | | | |
| Sites occupied in 2014 | | | | | | | | | | |
| Aquatic-cliff complex of Cape Kazantyp | 17/11/2003 | Autonomous Republic of Crimea | 251 | 1393 | 1, 2, 4, 6, 7, 8 | | N | https://rsis.ramsar.org/ris/1393 | 17/11/2003 | |
| Aquatic-cliff complex of Karadae | 17/11/2003 | Autonomous Republic of Crimea | 224 | 1394 | 1, 2, 4, 7, 8 | | N | https://rsis.ramsar.org/ris/1394 | 17/11/2003 | |
| Aquatic-coastal complex of Cape Opuk | 17/11/2003 | Autonomous Republic of Crimea | 775 | 1395 | 1, 2, 4, 6, 7, 8 | | N | https://rsis.ramsar.org/ris/1395 | 17/11/2003 | |
| Kryva Bay and Kryva Spit | 23/11/1995 | Donetsk | 11,861 | 774 | 2, 3, 4, 5, 6, 7, 8 | Emerald network, National Park 'Meotida' | N | https://rsis.ramsar.org/ris/774 | 08/06/2022 | |
| Sites partly occupied in 2014 | | | | | | | | | | |
| Central Syvash | 11/10/1976 | Kherson, Autonomous Republic of Crimea | 104,513 | 115 | 1, 2, 3 | | N | https://rsis.ramsar.org/ris/115 | 01/01/1998 | |
| Eastern Syvash | 23/11/1995 | Kherson, Autonomous Republic of Crimea | 165,000 | 769 | 1, 2, 3 | | N | https://rsis.ramsar.org/ris/769 | 01/01/1998 | |
| Karkinitaska and Dzharylgatska Bays | 11/10/1976 | Kherson, Autonomous Republic of Crimea | 147,557 | 114 | 1, 2, 3, 4, 5, 6, 7, 8 | Emerald network | N | https://rsis.ramsar.org/ris/114 | 09/08/2022 | |

| Site Name | Designation date | Region of Ukraine | Area (hectares) | Site number* | Ramsar Sites Criteria* | Other international designation* | Part of a Transboundary Ramsar Site* | RIS* | Last RIS update* | RAM* |
|--|------------------|-------------------|-----------------|--------------|------------------------|---|--------------------------------------|---|------------------|--|
| Sites occupied during February-March in 2022 | | | | | | | | | | |
| Berda River Mouth & Berdianska Spit & Berdianska Bay | 23/11/1995 | Zaporizhia | 8,420 | 772 | 1, 2, 3, 4, 5, 6, 7, 8 | Emerald network | N | https://rsis Ramsar.org/ris/772 | 08/06/2022 | |
| Big Chapelsk Depression | 17/11/2003 | Kherson | 2,359 | 1397 | 1, 2, 3, 4, 5, 6 | UNESCO Biosphere Reserve | N | https://rsis Ramsar.org/ris/1397 | 02/08/2021 | |
| Bilosaraiska Bay and Bilosaraiska Spit | 23/11/1995 | Donetsk | 11,281 | 773 | 2, 3, 4, 5, 6, 7, 8 | Emerald network | N | https://rsis Ramsar.org/ris/773 | 08/06/2022 | |
| Dnipro River Delta | 23/11/1995 | Kherson | 34,426 | 767 | 1, 2, 3, 4, 5, 7, 8 | Emerald network | N | https://rsis Ramsar.org/ris/767 | 19/05/2022 | |
| Molochnyi Liman | 23/11/1995 | Zaporizhia | 29,152 | 770 | 1, 2, 3, 4, 5, 6, 8 | Emerald network | N | https://rsis Ramsar.org/ris/770 | 27/04/2022 | |
| Obytochna Spit and Obytochna Bay | 23/11/1995 | Zaporizhia | 6,917 | 771 | 2, 3, 4, 5, 6 | Emerald network | N | https://rsis Ramsar.org/ris/771 | 08/06/2022 | |
| Sim Maiakiv Floodplain | 24/12/2013 | Zaporizhia | 2,140 | 2273 | 1, 2, 3, 4 | | N | https://rsis Ramsar.org/ris/2273 | 23/11/2016 | |
| Tendrivska Bay | 23/11/1995 | Kherson | 55,022 | 768 | 2, 3, 4, 5, 6 | UNESCO Biosphere Reserve, Emerald Network | N | https://rsis Ramsar.org/ris/768 | 09/08/2022 | RAM No. 20, 1990; https://rsis Ramsar.org/RISapp/files/ram/ram_020_UA_en.pdf |
| Yagorlytska Bay | 23/11/1995 | Kherson, Mykolaiv | 39,693 | 116 | 2, 3, 4, 5, 6 | UNESCO Biosphere Reserve, Emerald Network | N | https://rsis Ramsar.org/ris/116 | 09/08/2022 | RAM No. 20, 1990; https://rsis Ramsar.org/RISapp/files/ram/ram_020_UA_en.pdf |

| Site Name | Designation date | Region of Ukraine | Area (hectares) | Site number* | Ramsar Sites Criteria* | Other international designation* | Part of a Transboundary Ramsar Site* | RIS* | Last RIS update* | RAM* |
|---|------------------|-------------------|-----------------|--------------|------------------------|---|--|---|------------------|------|
| Potential change in the ecological status | | | | | | | | | | |
| Sites under threats of extension of military activities and occupation | | | | | | | | | | |
| Bile Lake and Koza Berezyna Mire | 24/12/2013 | Rivne | 8,036 | 2281 | 1, 2, 3, 4 | | N | https://rsis.ramsar.org/ris/2281 | 25/01/2017 | |
| Desna River Floodplains | 17/11/2003 | Sumy | 4,270 | 1398 | 1, 2, 3, 4, 5, 6, 7, 8 | UNESCO Biosphere Reserve | N | https://rsis.ramsar.org/ris/1398 | 02/08/2021 | |
| Dniester-Turunchuk Crossrivers Area | 23/11/1995 | Odesa | 10,903 | 764 | 1, 2, 3, 4, 5, 6, 7, 8 | Emerald network | N | https://rsis.ramsar.org/ris/764 | 27/04/2022 | |
| Kiliiske Mouth | 11/10/1976 | Odesa | 44,904 | 113 | 1, 2, 3, 4, 5, 6, 7, 8 | UNESCO Biosphere Reserve, Emerald Network | N | https://rsis.ramsar.org/ris/113 | 09/08/2022 | |
| Northern Part of the Dniester Liman | 23/11/1995 | Odesa | 25,929 | 765 | 1, 2, 3, 4, 5, 6, 7, 8 | Emerald network | N | https://rsis.ramsar.org/ris/765 | 09/08/2022 | |
| Perebrody Peatlands | 17/11/2003 | Rivne | 12,718 | 1402 | 1, 2, 3, 4 | | Yes (with Olmany Mires Zakaznik in Belarus) | https://rsis.ramsar.org/ris/1402 | 08/11/2016 | |
| Polissia Mires | 17/11/2003 | Zhytomyr | 2,145 | 1403 | 1, 2, 3, 4 | Emerald network | N | https://rsis.ramsar.org/ris/1403 | 27/07/2021 | |
| Prypiat River Floodplains | 23/11/1995 | Volyn, Rivne | 37,568 | 776 | 1, 2, 3, 4, 5, 6, 8 | Emerald network | Yes (with Stokhid River Floodplains in Ukraine and Prostyr in Belarus) | https://rsis.ramsar.org/ris/776 | 24/11/2021 | |
| Sasyk Lake | 23/11/1995 | Odesa | 23,488 | 762 | 2, 3, 4, 5, 6, 7, 8 | UNESCO Biosphere Reserve | N | https://rsis.ramsar.org/ris/762 | 09/08/2022 | |
| Shagany-Alibei-Burnas Lakes System | 23/11/1995 | Odesa | 27,600 | 763 | 1, 2, 3, 4, 5, 6, 7, 8 | Emerald network | N | https://rsis.ramsar.org/ris/763 | 27/04/2022 | |
| Somyne Swamps | 24/12/2013 | Rivne | 10,852 | 2275 | 1, 2, 3, 4 | | N | https://rsis.ramsar.org/ris/2275 | 13/12/2016 | |

| Site Name | Designation date | Region of Ukraine | Area (hectares) | Site number* | Ramsar Sites Criteria* | Other international designation* | Part of a Transboundary Ramsar Site* | RIS* | Last RIS update* | RAM* |
|---------------------------------------|------------------|-------------------|-----------------|--------------|------------------------|----------------------------------|--|---|------------------|------|
| Stokhid River Floodplains | 23/11/1995 | Volyn | 10,000 | 777 | 1, 2, 3, 4, 5, 6, 8 | Emerald network | Yes (with Prypiat River Floodplains in Ukraine and Prostyl in Belarus) | https://rsis Ramsar.org/ris/777 | 04/08/2021 | |
| Syra Pogonia Bog | 24/12/2013 | Rivne | 9,926 | 2274 | 1, 2, 3, 4 | | N | https://rsis Ramsar.org/ris/2274 | 13/12/2016 | |
| Tyligulskyi Liman | 23/11/1995 | Odesa, Mykolaiv | 22,450 | 766 | 1, 2, 3 | | N | https://rsis Ramsar.org/ris/766 | 01/01/1998 | |
| Archipelago Velyki and Mali Kuchueury | 24/12/2013 | Zaporizhia | 7,740 | 2282 | 1, 2, 3, 4, 5, 6, 8 | | N | https://rsis Ramsar.org/ris/2282 | 25/01/2017 | |

Annex 2

Synthesis of findings relevant to wetlands in assessments of the environmental damage resulting from the Russian invasion of Ukraine

(drawing on the Inventory of assessments of the environmental damage compiled by the Inter-Agency Coordination Group on Environmental Assessments for Ukraine)

| Title | Lead Entity/ies | Publication date | Geographic Scope | Main focus of assessment | Method of assessment | Relevance to wetlands | Link |
|--|---|------------------|----------------------------|--|--|---|----------------------|
| Environmental Assessment and recovery priorities for Eastern Ukraine | Organization for Security and Co-operation in Europe (OSCE) | 2017 | Regional (Eastern Ukraine) | Pollution, water supply, land resources, | Materials taken from desk and field studies performed under the project | Section on Impact on land resources, ecosystems, flora, and fauna (not specific to wetlands, but mention of wetland ecosystems) | Link |
| Kryvyi Rih, Ad hoc flood risk assessment after incident on 14 Sep 2022 | USAID, JICA | Sep-22 | Local (Kryvyi) | Flood assessment | Remote sensing | River ecosystem affected | Link |
| The Use of Remote Sensing Data for Investigation of Environmental Consequences of Russia-Ukraine War | Independent (Journal of Landscape Ecology) | Sep-22 | National | Fires, pollution | Remote sensing | Wetland ecosystems affected | Link |
| The Environmental Impact of the Conflict in Ukraine: A Preliminary Review | UNEP | Feb-22 | National | Pollution, waste, fuel, urban centres, food security and natural environment | Government of Ukraine, literature review, limited remote sensing and non-verified media reports | Section on Biodiversity and natural resources (not specific to wetlands, but mention of wetland ecosystems) | Link |
| Rapid Damage and Needs Assessment February 2022 – February 2023 | World Bank | Feb-23 | National | Economic impact | Remote sensing validated through ground-based information provided by the Government of Ukraine, local agencies, the UN and other partners | Environmental, natural resources and forestry damage. Specific mention of wetlands | Link |

| Title | Lead Entity/ies | Publication date | Geographic Scope | Main focus of assessment | Method of assessment | Relevance to wetlands | Link |
|---|---|-------------------------|-------------------------|---|--|---|----------------------|
| Rapid Damage and Needs Assessment August 2022 | World Bank | Aug-22 | National | Economic impact | Remote sensing validated through ground-based information provided by the Government of Ukraine, local agencies, the UN and other partners | Environmental, natural resources and forestry damage. Specific mention of wetlands | Link |
| Environmental impacts of the war in Ukraine and prospects for a green reconstruction | OECD | Jul-22 | National | Environment and policy | Literature review | General mention of damage to the natural environment | Link |
| Impact of war on natural environment of the Carpathians in Ukraine | Ministry of Climate and Environment of Poland (Department of Nature Conservation) | Oct-22 | Regional (Carpathian) | Natural environment | Information from Ministry of Environmental Protection and Natural Resources of Ukraine and survey of protected area administrations | Mentioning some impacts on Ramsar Sites | Link |
| Damaged cultural sites in Ukraine verified by UNESCO | UNESCO | Mar-23 | National | Cultural sites | Cross-checking the reported incidents with multiple credible sources. A satellite image analysis is being developed | Damaged cultural sites in Ukraine verified by UNESCO, some could be within Ramsar Sites | Link |
| Impact of the Russia – Ukraine armed conflict on water resources and water infrastructure | Nature Sustainability | Mar-23 | National | Freshwater resources and water infrastructure | Literature review | Freshwater ecosystems | Link |