

Restoration of water flow in Khor Virap Marsh Ramsar site for rehabilitation of wetland biodiversity in Ararat Valley, Armenia

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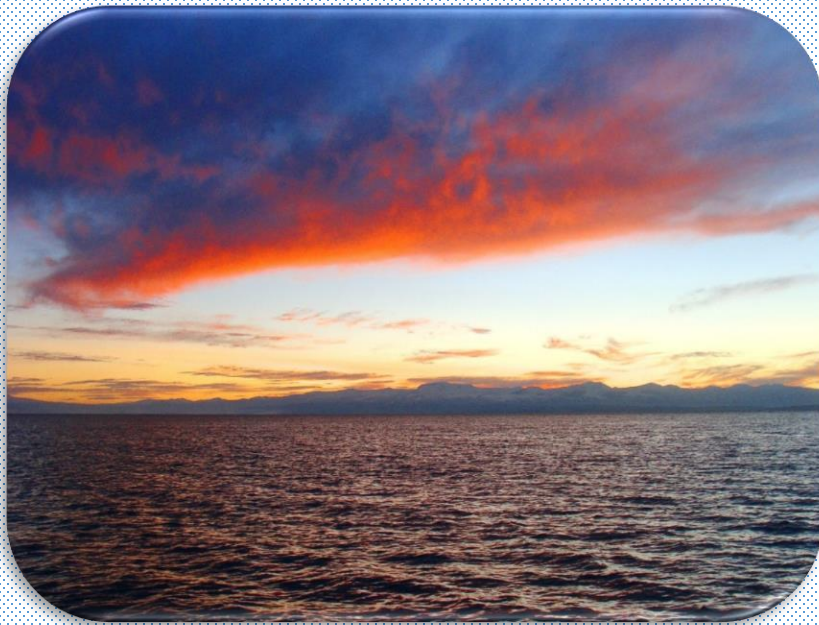
EU4Environment

Regional Workshop on NbS

6 July 2023

The Ramsar Convention entered into force in Armenia on 6 November 1993 by designation of 2 Ramsar sites

- **Lake Sevan** and its catchment area
490,231 ha | 40°15'44"N 45°21'19"E | National Park



- **Lake Arpi** and surrounding wetlands
3,230 ha | 41°03'33"N 43°38'33"E | National Park



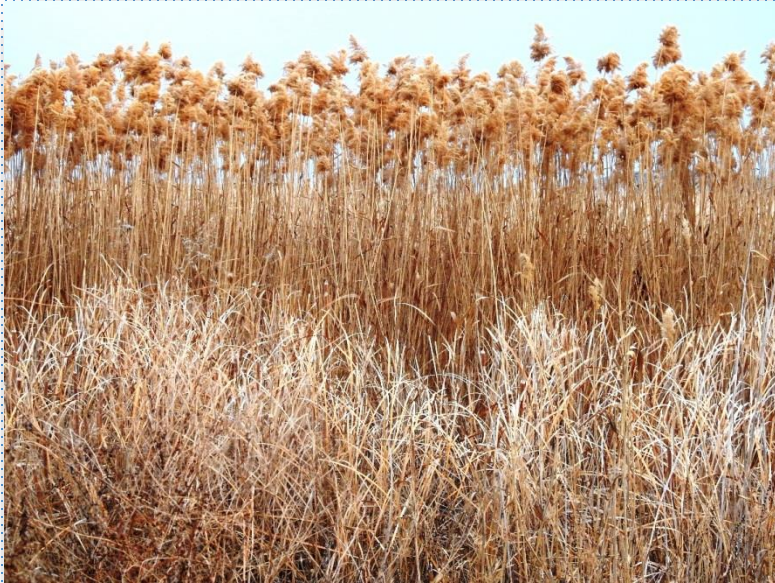
RA GOVERNMENT DECISION N 975 OF JANUARY 25th, 2007



To ensure the conservation, natural development, reproduction and sustainable use of the ecosystem of the wetland, its components, plant and animal species, the Government of the Republic of Armenia decides:
To establish the "Khor Virap" State Sanctuary in a state-owned wetland of 50.28 ha, located in Ararat region, by including it in the list of wetlands of international importance under the Ramsar Convention on Wetlands.

The wetland of Khor Virap (total 371 hectares as of 1999) is a freshwater marsh of semi-artificial origin fed by irrigation canal, located on the ancient Arax riverbed.

**Common reed (*Phragmites australis*)
and broadleaf cattail (*Typha latifolia*)**



**Secondary irrigation canal around
Khor Virap Marsh**



Biodiversity of Khor Virap Marsh

The site is an important passage for over 100 species of migratory waterbirds, of which 30 species are breeding.

Pygmy (right) and Common Cormorants



Besides, here inhabit a number of vertebrate and invertebrate animal species, including endangered.

Common Otter



Socio-economic features of Khor Virap Marsh

- Irrigation water storage
- Gravity irrigation
- Cattle watering
- Cattle pasture
- Buffalo breeding
- Flood mitigation downstream
- Sediment trapping



ToR for Restoration of Khor Virap Marsh

- Ensure the movement of water in secondary and tertiary canals and in the marsh
- Maintain the water level in the marsh at the height, ensuring an optimal mosaic of emergent vegetation and open water
- Ensure irrigation water for Poqr Vedi and Lusarat communities, total 6075 inhabitants
- Maintain the Poqr Vedi community pastures suitable for cattle grazing
- Maintain the Lusarat community lands downstream suitable for orchards

Artificial alternation of emergent vegetation and open water

Implementing organization - BirdLinks Armenia NGO
Financial Support – Caucasus Nature Fund (CNF)

In 2017-2019 – 38 breeding and 31 migratory bird species of 32 families



In 2020-2021 – 55 breeding and 61 migratory bird species of 37 families



Farther steps proposed for restoration of Khor Virap Marsh

- Construction of a regulated dam
- Artificial alternation of emergent vegetation and open water
- Restoration of the former water level in the area

View on Khor Virap Marsh in the September of 1997



Ruined dam on Hrazdan-Arax collector

Low water level.

November 30, 2011



High water level.

May 18, 2018



Expected benefits from restoration of the whole Khor Virap Marsh

- Better water quality in the marsh
- Higher habitat diversity
- Better breeding conditions for waterfowl
- Better spawning conditions for fish
- Drainage of waterlogged lands upstream
- Better irrigation conditions for agricultural lands
- Flood mitigation downstream

Welcome to Khor Virap Marsh Ramsar site!

