

Micro wetlands: Fountains of Life for Biodiversity and Human Wellbeing



Building *cheshma* - public fountains with running water - is an ancient tradition in Balkan countries. Such fountains in rural and forest areas are important for people, livestock and biodiversity. The network of habitat patches represents true 'stepping stones' for rare and protected species.

Due to the socio-economic development many *cheshma* are abandoned without maintenance. With the climate changes these fountains and temporary ponds become extremely important for biodiversity and grazing livestock.



The Project area



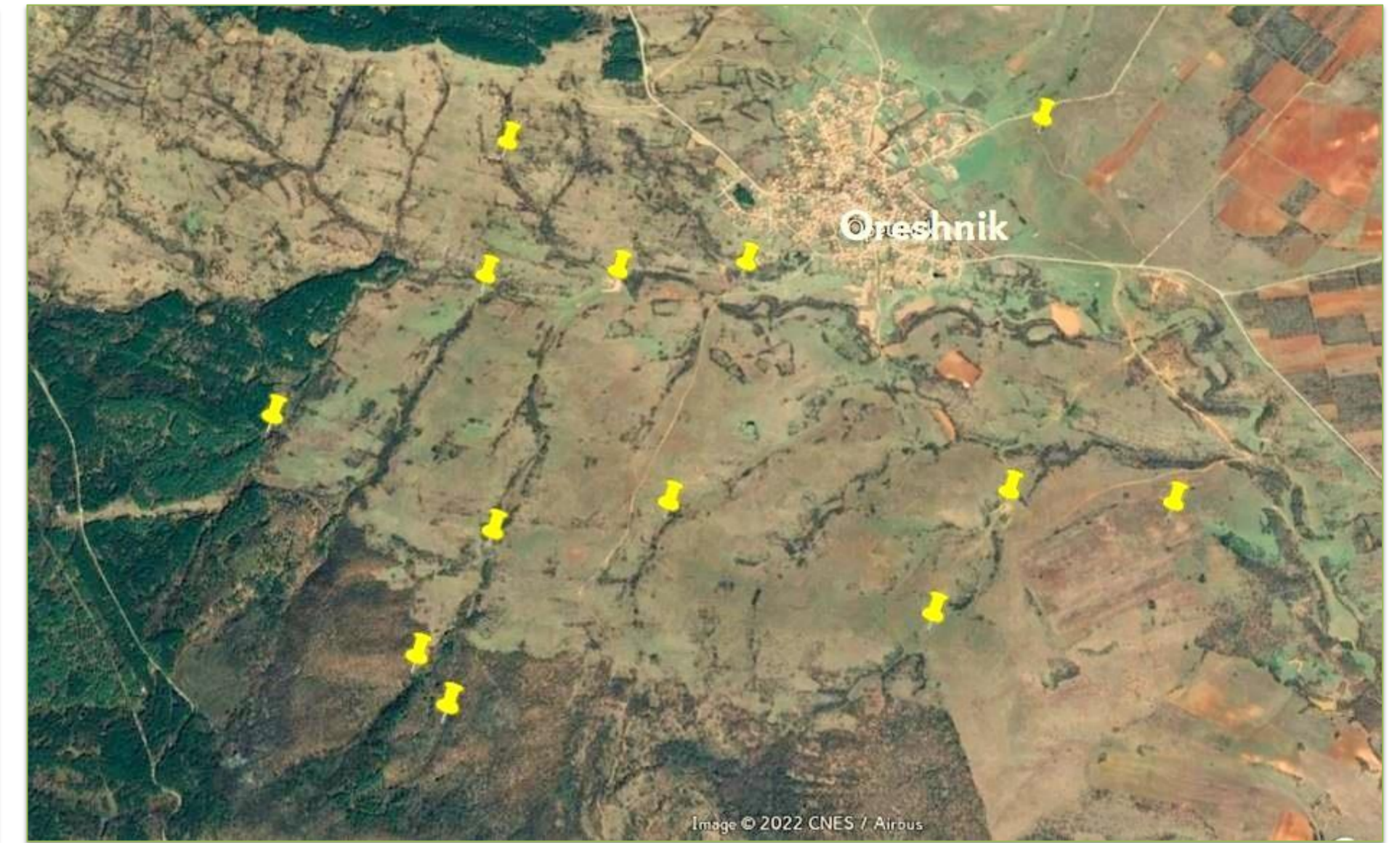
Bulgaria



Sakar mountain



Topolovgrad municipality



Oreshnik and its fountains

The Challenge



The fountains in the land of Oreshnik need maintenance and restoration. Micro-wetlands are drying. They are important for some rare and protected species: Large Copper (*Lycaena dispar*), Balkan crested newt (*Triturus ivanbureschi*), Schmidtler's smooth newt (*Lissotriton schmidtleri*), Yellow-bellied toad (*Bombina variegata*), Oriental tree frog (*Hyla orientalis*), European pond terrapin (*Emys orbicularis*), etc. Various species of birds are feeding around: White storks (*Ciconia ciconia*), Black storks (*Ciconia nigra*), etc.

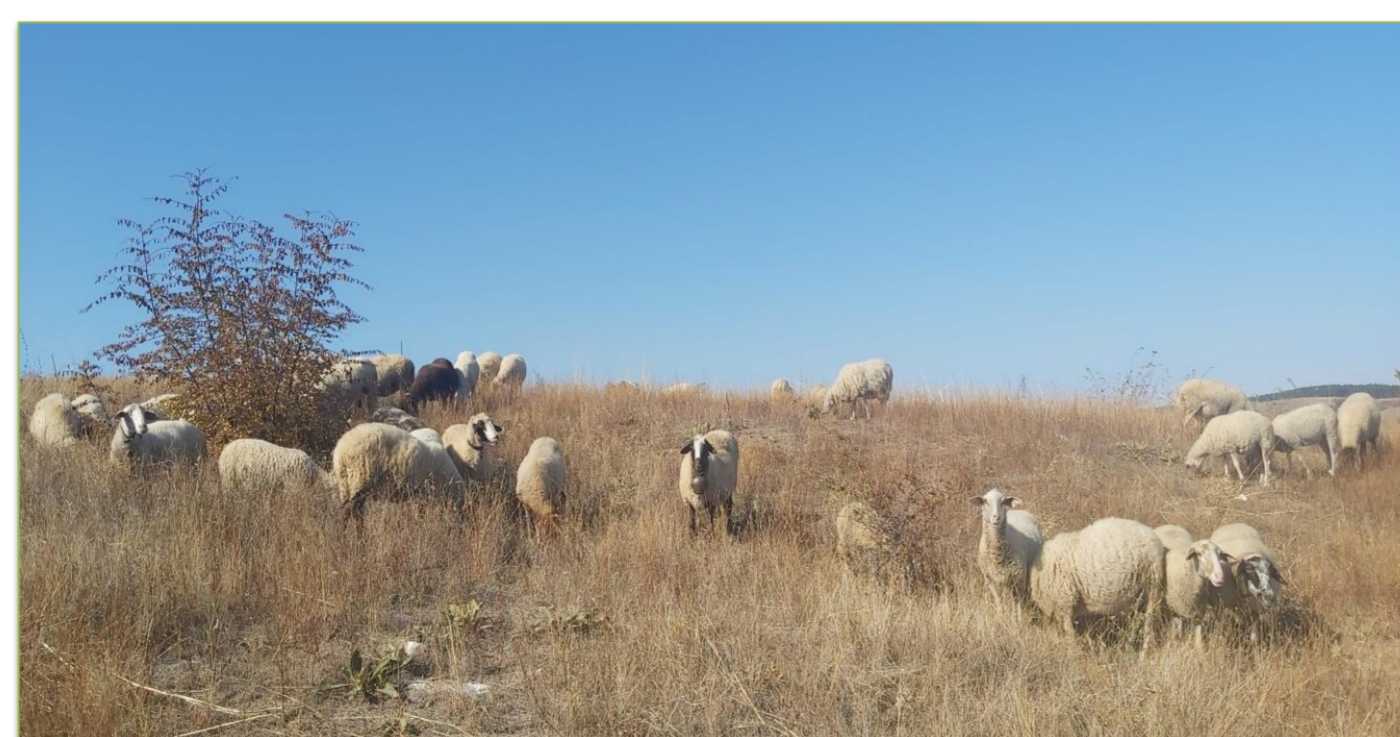


The Objectives



The overall project objective is to maintain and increase the ecosystem services of micro-wetlands to benefit biodiversity, communities' health and livelihoods of people along the Balkan Green Belt.

- The specific objectives are:
- Enhanced habitat quality for indicator species of micro-wetlands
 - Increased environmental benefits for local communities from the restored fountains
 - Strengthened local capacities on the maintenance of micro-wetlands and their replication potential
 - Increased awareness of local communities of the importance of micro-wetlands for biodiversity and community wellbeing.



The Results

- The expected tangible results are:
- Result 1: Selected micro-wetlands are rehabilitated as suitable biodiversity habitats and 'stepping stones' for protected species
 - Result 2: New elements of water fountains infrastructure are developed
 - Result 3: Better knowledge sharing between local communities and conservation practitioners regarding importance of micro-wetlands
 - Result 4: Knowledge on building and maintaining of cheshma as micro-habitats for people and biodiversity is shared along the Green Belt.

The Approach



Topolovgrad Municipality initiates the rehabilitation of damaged fountains and micro-wetlands on territory of Oreshnik village – Natura 2000 zone with high-value natural and cultural landscape. The Bulgarian Biodiversity Foundation enters as a partner providing expertise and support.

The technical conditions of the local fountains and micro-wetlands, their importance for livestock and potential as micro-habitats will be assessed by experts. 3 fountains with their water-catchment, troughs and streams, and 1 micro-wetland will be rehabilitated as suitable biodiversity habitats. New elements of fountain's infrastructure will be developed enhancing the socio-economic benefits from the rehabilitated cheshma.

Parallel line of activities concerns the knowledge sharing between local communities and conservation practitioners – training of 5 local volunteers to become "guardians of the fountains", interviews with local people for collection of the forgotten knowledge of building cheshma, development of local strategy for the follow-up. Media and online publications are expected to reach at least 50% of the municipality population.

Best practice guide on cheshma construction and maintenance for people and biodiversity will be developed and presented to participants from other areas along the Green Belt sharing similar cultural and environmental background.

The planned duration of the project is extended to 18 months giving an opportunity to follow the short-term effect of the performed activities and to assess the development of the wetlands' flora and fauna in the spring season following the rehabilitation. Emphasis is placed on publicity and raising awareness of the local community, as well as on summarizing and sharing experiences related to fountain's maintenance and micro-wetlands' importance in conditions of drought climate.

The project contributes to harmonization of human activities with the well preserved biodiversity of the Green Belt area of Sakar.

The Biodiversity



Bombina bombina

Photo: L. Domozetski



Triturus ivanbureschi

Photo: L. Domozetski



Emys orbicularis

Photo: L. Domozetski



Pseudopus apodus

Photo: L. Domozetski



Calopteryx splendens

Photo: R. Vassilev



Lycaena dispar

Photo: L. Domozetski



Veronica anagallis-aquatica

Photo: R. Vassilev



Ciconia nigra

Photo: G. Gerzhikov



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