

Wetlands for life

– Connection channels on ‘Gajna’ communal grazing lands



Photo: Danijel Soldo



Name	‘Cooperative Eko-Gajna’
Country	Croatia
Biogeographical Region	Continental
Region	Slavonia, Brod-Posavina County, area of special state concern
Landscape/ Eco system type / protected area	Significant landscape (approx. cat V IUCN) from 1990 and part of the EU ecological network (Natura 2000) –Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), High Nature Value (HNV) Grassland since 2019. Seasonally flooded by ‘Sava River’.
Size / Scope	Ca. 300 hectares
Type of farm	Pasture managed in a cooperative approach as one mixed farm with 18 agricultural holdings as members of the ‘Cooperative Eko-Gajna’
Agricultural Use	- 300 ha, of which 250 ha of naturally flooded area are reported in the ‘Land Parcel Identification System’ (LPIS) as pasture since 2015, and as a HNV Grassland since 2019 - 12 herds (cattle, horses), max. 1 cattle per ha + geese
Best practice / main idea	Wetland patches on regularly flooded grassland were drying out and with a few technical interventions (connection channels) a steady water flow was enabled in this oasis for biodiversity.
Involved Stakeholders/ Partners	- LCA ‘Brod Ecological society (BED)’, ‘Public institution Natura Slavonica’, ‘Pasturing Community Veterans Cooperative Eko-Gajna’, ‘Cooperation Council on Gajna’, municipality, farmers
Duration	- Restoration projects started in 1989; the cooperative was founded in 2007 and brought old breeds to the pasture.

	- Rewetting mechanism and dredging of connection channels were built in 1990; renewed in 2019.
Goals	- Preservation of the significant landscape, biodiversity and water-connected habitats. - Flood protection for neighbouring and downstream villages - Preservation of endangered agricultural livestock breeds. - Carbon capture by keeping the combination of grassland-wetland (soil) in good condition.
Activities	- 'Cooperative Eko-Gajna': executing a yearly multitarget management plan with prescribed activities in several legally binding documents, e.g. contract with water company, concession agreement with nature protection administration, general management plan and cooperative rules.
Measures addressing water and/or soil management	- Rewetting mechanism and dredging of connection channels - Digging, fortifying anti flood elevations
Measures addressing biodiversity, climate	- Extensive grazing without fertilizers, herbicides and pesticides - Biodiversity projects targeting forest/wetland/grasslands in Gajna, e.g. controlling invasive plant species
Funding / Financing	- CAP direct payments and AECM for HNV grassland Rewetting projects (1989) financed through donations - Rewetting project (2019): 'Wetlands for life' by Euronatur
Transferability	Technical solutions are transferrable, but for such a long-time commitment, projects are not enough. There must be serious dedication from the local actors present.
Tip / suggestion from the farmer	Extreme weather events put more pressure on the farming landscapes– floods and draughts are just two faces of the same coin. Where traditional adaptation mechanisms no longer work, technical solutions are needed to complement Nature-based solutions.
Role of Landcare Associations	BED supports Eko-Gajna with 5,000 voluntary work hours per year (e.g. removal of different invasive species), and provide legal, administrative and expert support, maintenance of the visitor's infrastructure, acquiring and managing funded projects.
Further information	Movie 'Gajna – Collective approach of grazing native livestock in floodplains for climate mitigation' Movie – 'Fight for Gajna – fight for nature, people and climate' Brochure GAJNA WETLANDS
Contact information	Iris Beneš, bed@bed.hr Brod Ecological Society BED

"On flooded grasslands when dealing with cattle water is a blessing and a curse and seeking balance between technical and nature-based solutions is something every farmer working on 'Gajna' has to accept."

Šimo Beneš, 'Eko-Gajna' director, farmer & BED founding member



The story of 'Eko-Gajna' cooperative

'The land has been used as common pasture for centuries,' says Šimo Beneš, farmer, director of 'Eko-Gajna' and founding member of the NGO 'Brod Ecological society' (BED) which initiated the protection of the area in 1990. BED was trusted with the jurisdiction over the implementation of water retention and nature conservation measures until 2006, when the public institution 'Natura Slavonica' was founded and became responsible for the management of the protected areas and ecological network in 'Brod-Posavina County'.

In 2007, the 'Pasturing Community Veterans Cooperative Eko-Gajna' was founded and included the protection measures in its management plan. 'This was the year, when we introduced old breeds to the pastures,' Šimo explains. Today 18 agricultural holdings graze the area with 11 cattle herds and 1 horse herd. In 2015 the foundation of the 'Cooperation Council on Gajna' gathered most of individuals, groups and organizations that are interested in Gajna, such as fishermen and hunter associations, municipality and police representatives, local women's organization, representatives of tourist boards, firemen, water and forest authorities, museum, beekeepers and many more. But why are so many stakeholders involved in the management of these wetlands?

"'Gajna' is a multi-functional area characterised by a land management combination that supports multiple land uses in the same spatial area, namely, grazing, flood control, recreation, climate protection and local biodiversity.' To keep its ecosystem functioning, BED and Eko-Gajna manage the land with three types of activities: A management plan, voluntary activities and funded projects', explains Iris Beneš, daughter of Šimo Beneš and president of BED.

First, the cooperative 'Eko-Gajna' follows a yearly management plan, that is adopted at the beginning of every grazing season. It contains prescribed activities connected to several legally binding documents, including a contract with the water company, a concession agreement with the nature protection administration, a general management plan and cooperative rules.

Second, there are systemic activities that BED does regardless of the funding. These include the legal fight to keep the nature conservation measures part of the lease of the land and lay monitoring. 'But we also take care of the maintenance of the visitor's infrastructure. These are voluntary based activities, e.g., cutting the willow branches in a traditional way, known as 'coppicing', to extend their life span or clearing the self-planted oaks in order not to be suffocated by invasive species like *Amorpha fruticosa*' tells Iris. Every year on flooded grassland with many invasive species is a challenge, since the natural conditions are always different. Moreover, the seeds spread with floods. 'Therefore, we constantly experiment with the time and mode of the removal of different invasive species', concludes Iris.

The third pillar to keep the wetlands alive are project activities, depending on available funding (BED). 'One of our last projects 'Wetlands for life' focussed on the renewal of the water management mechanism and included digging, fortifying anti flood elevations and working with the public', Iris explains.

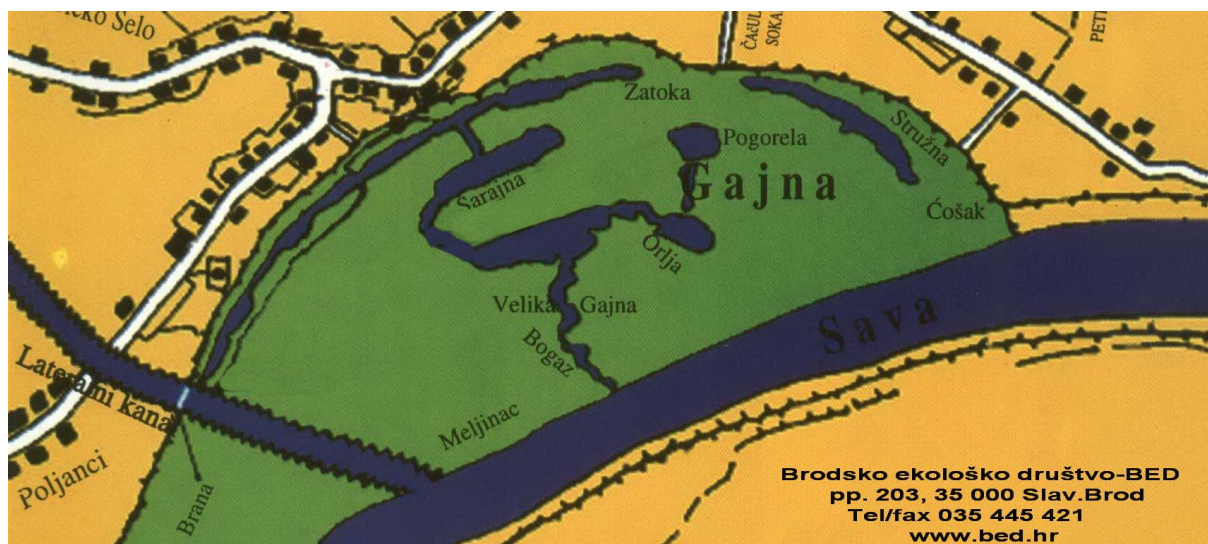


Photos: Brod Ecological Society

Rewetting and restoration of Gajna, good for nature and farming

'The drying up of wetland microhabitats after the flood waters would recede back into the riverbed of 'Sava River' presented a problem in terms of preserving the biological resources of this protected area', remembers Šimo Beneš. The first project designed by 'Brod Ecological Society' (BED) was aimed at keeping the water inside the depressions for as long as possible during the year and thus replenishing the aquatic flora and fauna but also providing an access to water for the cattle. Already in 1988, the biggest pond, called 'Velika Gajna', was deepened, widened and connected to the 'Lateral Canal'. The construction of a dam on the Canal in 1990 and the use of a system of smaller canals enabled the bringing of water into the marshes of 'Gajna'.

There are several alluvial depressions in 'Gajna' which accumulate and retain water after the main body retreats into the 'Sava River' during the regularly occurring floods in spring and autumn. The biggest of them is 'Velika Gajna', and some of the bigger are 'Zatoka', 'Šarajna', 'Stružna' and 'Orlja'. They are connected through natural and semi-natural channels. During regular seasonal floods from 'Sava River', they fill up with water, but due to sediments and the shallowness, most of them dry out in short periods after the floods. 'This is also more visible following recent climate change events – more volatile floods, more intensive droughts,' says Šimo Beneš.



The whole setup needed to be rebuilt in 2019. This was financed as a project "Wetlands for life" as part of the call for the restoration of wet meadows and pastures by the organization 'Euronatur' and the 'European Village Network'. The implementation of this idea was possible thanks to the cross section of the 'Lateral Canal' in the western part of 'Gajna' and the collection of water from the hills into the 'Sava River'. 'The quality of water collected in depressions is important for flora and fauna, as well as for feeding livestock in pasture', explains Iris Beneš 'Both of these processes are important because grazing and natural flooding are two key ecological processes on Gajna - those that shape the unique plant life and then the wildlife on it.' The project restored a special mechanism, deepened the natural connections in the depressions (and removed the parts accumulated by sludge, and removed the invasive plants of the species where 'Sava River' first enters 'Gajna' during the flood at 'Bogaz'. Apart from the biodiversity restoration, the other goal was to educate the wider society about the value of wetlands and promote their services, e.g. through the printing of the bilingual brochure '[GAJNA WETLANDS](#)'.

Administrative challenges

Traditionally, the common pasture which currently carries the formal status of 'public water good' and the farmers from the cooperative 'Eko-Gajna' have special obligations, set out in a lease contract with the 'State Water Company'. Some of those is proving

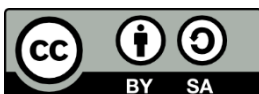
the experience in ecological restoration, High Nature Value Grassland and possession of a certain number of old cattle breeds, efficient in invasive species removal.



Photo: Danijel Soldo

‘Despite the importance of grazing and maintaining the wetlands of Gajna, there is no long-term solution for the administration of the collective governance’, explains Iris. Currently the GAP Paying Agency and the Ministry for Agriculture have agreed upon giving subsidies to the ‘Eko-Gajna Cooperative’ but the administrative process in the LPIS of connecting the cattle of the owners (cooperative members) and the area is technically not possible as it is for other users, but it is checked manually. ‘We hope that ‘Gajna’, this oasis of biodiversity will survive on the long term, because the way ‘Gajna’ is managed is an excellent example of how people can farm and protect nature at the same time’, Iris concludes.

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