



MAINSTREAMING OF BIODIVERSITY IN THE RURAL DEVELOPMENT SECTOR

The Case of Clima EAST - Sustainable Management of Pastures and Forests in NEAR East Countries

Case highlights

The Clima EAST project showed that intact ecosystems can have a strong and cost-effective, positive effect, both on climate change mitigation and adaptation. An ecosystem-based approach combining rural development, sustainable land management, and sustainable livelihoods can establish community-centred solutions to climate change. Although the project was focussed on climate issues, the benefits for biodiversity were more than evident - over 66,000 hectares of key ecosystems and at least 57 key species of flora and fauna have either reduced climate-related threats and/or improved their biodiversity status.

Issue addressed

Unsustainable land management in the past and the impacts of climate change through increased droughts and erratic weather resulted in land degradation in six NEAR East Countries. The primary reason of degraded pastures in Azerbaijan, Armenia, Georgia and Moldova is overgrazing, which results in losses of organic soil carbon through wind and water erosion and soil impoverishment. As a consequence, ecosystems and their services for farming communities are negatively impacted. In Belarus and Ukraine, peatlands are degraded due to large-scale drainage projects implemented in the past for agricultural needs, but with only temporary viability.

Approach followed

The CLIMA East project supports the development of ecosystem-based approaches to climate change as well as regional co-operation between the NEAR East countries. It focuses on pasture and forest restoration and sustainable pastoral management in 4 countries and peatlands conservation and improved peatlands management in 2 countries. Primarily it has a strong climate adaptation and mitigation component (avoiding GHG emission by replacing fossil fuel with biomass, and through the restoration of peatlands, forests, and pastureland) with co-benefits to biodiversity.

Through the project, rotational grazing, new roads, water supply systems, etc. have been introduced in order to minimize the pressure on pastoral ecosystems and therefore improve their productivity and biodiversity. In Armenia, a mixed line of climate-resilient trees is established, creating a new forest belt which mitigates heavy winds.

Benefits obtained

Overall, over 66,000 hectares of key ecosystems and at least 57 key species of flora and fauna have either reduced climate-related threats and/or improved their biodiversity status.

"Now, I understand what a sustainable solution truly means. This is a win-win for the nature, the people, and the economy." – Oleksandr Pyvovar, Head of Kukshyn village council (Ukraine)

- Belarus: Construction and maintenance of water-regulating facilities and access points to provide active regulation of water levels and access for machinery that, in return, will help to sustain the natural



condition of the peatland and conserve endangered species of plants and animals; an increased number of birds can be found in the restored peatlands;

- Azerbaijan, Armenia: Established rotational grazing systems for 16 farms of approximately 3000 hectares in total. Restored more than 3000 hectares of summer pastures – reducing pressures on pasture ecosystem, allowing them to regenerate and therefore allowing the pastoral practices to persist.
- Armenia: Established 34.2 hectares of new forest belts, including 18.2 hectares of community forest; rehabilitated 25.8 hectares of degraded natural forest to protect the settlement from heavy wind; improved road conditions that allow cattle and sheep to move between summer and winter pastures, ensuring that winter pastures aren't overgrazed and limiting soil erosion during livestock transit;
- Georgia: Installation of water supply systems and watering points in order to lower pressure from sheep movement routes, and to reduce pressures on pastoral ecosystem and a protected area;
- Moldova: The productivity of pastures due to restoration activities more than doubled, from 2 tonnes of hay per hectare in 2014 to 4.6 tonnes in 2016.
- Ukraine: Converting degraded private arable peatlands to semi-natural conditions with high value for local people and biodiversity conservation; cleaning of 12km of the existing main irrigation canal, repairing 4 sluices and 12 tube crossings at irrigation system. As a result, the risk of devastating fires decreased and plants and animals have returned to the area.

Best practice lessons

Ecosystem-based approaches in managing pastoral, forest and peatlands (but also in other agricultural activities) focus on enhancement of services these ecosystems provide to the communities. Healthy ecosystems are more resilient to climate change and can help farming communities to cope with it.

Local farming communities play a central role in the process of ecosystem-based land management. Since a shift in regular practice is needed, awareness raising among the local communities on the benefits of this approach is crucial.





Elsewhere: Local sustainable development solutions for people, nature, and resilient communities, MOROCCO

Amsing Association was formed by members of Douar Elmoudaa village in order to contribute to the development of the village and to protect the natural resources critical to local livelihoods in a context of infrastructural isolation and a harsh climate. The farming communities in Douar Elmoudaa village are particularly vulnerable to the impacts of unpredictable rainfall patterns and variations in temperature due to climate change. Amsing Association has successfully reintroduced a traditional land management practice called 'azzayn' which bans herders from grazing their livestock on protected lands. By outlawing grazing in certain degraded areas of land through the enforcement of the azzayn system, the community has protected and sustained native shrubs and grasses, allowing them to passively regenerate in areas from which they had disappeared. As a result, Douar Elmoudaa is now home to varieties of native flora that have completely disappeared in other areas of the valley. This passive revegetation, alongside the planting of native tree species on ten hectares of land surrounding the village, benefits biological diversity and has as well lessened the effects of erosion in the local area and reduced the risks of flash-flooding.

Source: UNDP, Equator Initiative, Amsing Association, Morocco, Case study

Sheep-grazing to maintain an open landscape, POLAND

Contrary to the previous example and the CLIMA East project, the typical open landscapes within the Popradzki Landscape Park in Poland were threatened by overgrowth and shrub encroachment due to land and sheep farm abandonment and under grazing. In order to preserve montane meadows and pastures it was crucial to bring back an indigenous sheep species and sheep farming practice into the region. Through a good cooperation with local farmers, the sheep farm has expanded the scale of production to enhance its income based on the production and sale of cheese, mutton, wool and other "grazing services".





Source: Clima East – Shifting ground, <https://www.adaptation-undp.org/shifting-ground>

Additional information

- Handbook for developing and implementing Pro-Biodiversity Business Projects, 2009:
<https://www.cbd.int/doc/case-studies/inc/cs-inc-eur-pbbhandbook-workshop2009-en.pdf>
- Agriculture Sector and Biodiversity Conservation Best Practice Benchmarking
https://ec.europa.eu/environment/archives/business/assets/pdf/sectors/FINAL_Agriculture.pdf
- Practical guide on biodiversity for SMEs in the agri-food sector, 2022
https://ec.europa.eu/environment/biodiversity/business/assets/pdf/2022/EU%20B@B%20SME%20Guidance_2022.pdf
- Business@Biodiversity: https://ec.europa.eu/environment/biodiversity/business/index_en.htm
- List of potential AGRICULTURAL PRACTICES that ECO-SCHEMES could support
https://ec.europa.eu/info/sites/default/files/food-farming-fisheries/key_policies/documents/factsheet-agri-practices-under-ecoscheme_en.pdf
- Agri-environment schemes: impacts on the agricultural environment, 2017
https://ec.europa.eu/environment/integration/research/newsalert/pdf/AES_impacts_on_agricultural_environment_57si_en.pdf