



LIFE15 CCM/DE/000138

Reduction of CO₂ emissions by restoring degraded peatlands in Northern European Lowland
(LIFE15 CCM/DE/000138)

LIFE Peat Restore

Socio-economic impact assessment Poland

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SITE LEVEL

DIRECT ECONOMIC INTERESTS FORM THE SITES

- All project sites are part of national park area, designated solely for nature conservation. Sites are not directly used for any economic purposes and does not provide any direct economic benefits. No products are harvested directly from the project sites. Hunting, picking berries is not allowed. According to National Park conservation strategy, there are no possibilities nor intentions of any economic interests also in the future.

INDIRECT IMPACT

- The project sites are part of more complicated hydrological system, which influence economic use of meadows and everyday life of citizens of villages Kluki (95 inhabitants), Izbica (248 inhabitants) and Gać (35 inhabitants).
- Hydrological modelling shows that project implementation should not influence water conditions on third party lands.
- Nevertheless, even if no real impact appears, the floods caused by other reasons may be interpreted by local people as caused by bog conservation measures. In particular, in 2017 the meadows and local roads were overflowed (due to intensive rains and local topography, with no impact of surrounding bogs, hopefully before any ditches blocking were implemented)

PUBLIC AWARENESS AND ATTITUDE TO THE NATURE CONSERVATION & BOGS CONSERVATION

- The attitude of the local stakeholders to the national park and to the nature conservation in general is diversified but was not studied in detail. There are visible and strong voices against and the impression of general opposition of the local community against nature conservation, nevertheless quantitative data are not available.
- In the opinion of some inhabitants of these villages *“villages and meadows are flooded by water due to existence of bogs in neighbourhood and not enough effective draining.... national park, by protecting surrounding bogs, make life more difficult... national park is main barrier for local development”*.
- The main conflicts are outside the project scope and cannot be solved by the project – the main challenge was to implement project successfully in such a difficult social environment. By many ad hoc meetings with local authorities, national park and local inhabitants aiming at explaining in detail the real scope and impact of project’s activities implementation and also by adjusting methods and localization of dams – project successfully managed to meet both local social and nature conservation expectations

TOURISM

- Educational path “Torfy”, created by the Slowinski National Park, is located in the northern part of Wielkie Bagno site. The number of visitors is roughly estimated at ca 1500 persons/year. These are mainly not specific visitors of the path, but accidentally visitors cycling or walking between Gać and Żarnowska. Nevertheless, some education groups are visiting the trail. As a result of the project implementation, the landscape around the trail, as well as the trail itself, may became locally swamplier. Project counteracts problems of more difficult access to tourist path by mounting wooden boardwalks along most wet sections of the trail – making the trail passable even during more wet periods.





- Tourist marked trail Kluki-Izbica partially cross Cieminskie Blota site. The trail is used by ca 5000 cyclers and hikers yearly. The project site itself is not the “attractor” for visitors and is rather crossed only. The boggy character of the site negatively influences accessibility of the trail. The bog conservation is in the conflict of interests with the comfort of tourists. The natural values of the site are rather invisible for the tourists crossing it. As a result of project implementation, the accessibility of this path was improved. The impact on tourists’ number is not foreseen, nevertheless the project improved the “comfort” of the tourists and improved their general impression.
- With the exception of the path mentioned above, most of the sites are not accessible for tourists. According to National Park conservation strategy, there are no possibilities nor intentions to open such access also in future.
- The project sites in general are not significant “tourism attractors”. They are overweight by much stronger attractors, as Baltic Sea, seashore, moving dunes, lakes, open-air museum in Kluki.
- Slowinski National Park is visited by ca 350.000 visitors per year, but for 98% of them the main motivation is to visit the seashore and moving dunes. The project sites are not (and never will) be important components of “tourism attractiveness” of the Park, and do not (and never will) influence visitors number (and local tourism economy) significantly.

JOBS MARKET, LOCAL SERVICE MARKET

- The local level of unemployment in the communities Smołdzino and Główny is presently (2022) ca 5% and has not significantly changed since 2016 when project started. The job marked is characterized rather by lack of people ready to work, in particular ready to do physical work in the field. There is no need to provide jobs locally.
- The project provided job for ca 10 local persons during the project time (trees removing, ditches blocking). It can be estimated as ca 3% of local forest services market. Nevertheless, due to low level of unemployment, new permanent job positions had not been created.

REGIONAL LEVEL

The work with regional level, so as the regional level impact did not take place in the Polish part of the project. No useful data on the regional level are available.

NATIONAL LEVEL

PEAT & PEAT EXTRACTION

- According to data of National Geological Institute (Państwowy Instytut Geologiczny), the peat in 2021 was extracted from 57 deposits in Poland (7 less in comparison to 2016). The annual national peat extraction was 1.304.000 m³ (=0,007% of the peat volume in Polish peatlands, but it was 147 000 m³ more in comparison to 2016). Most of the mines are small. Only 48 peat deposits are exploited permanently for industry (including agriculture) purposes, in the rest extraction is accidental or for pharmaceutical purposes only. Only 26 of them extract more than 10.000 m³ yearly; only 5 of them – more than 100.000 m³ yearly. The biggest peat mine is Stoczek in Lubelskie, with annual production 133.000 m³. The biggest mines work with former raised bogs, extracting brown peat.
- The peat is used mainly in gardening, in a small scale for balneology, not as the source of energy.





- The annual GHG emission (2019 i.e., last available data, official Inventory Report 2021 for Climatic Convention by KOBiZE) without LULUCF is declared as 390.740 t CO₂ equivalent. The emission from degraded peatlands (under meadows, pastures or forests), strongly underestimated in official reports, was in 2021 reliably estimated by W. Kotowski¹ as 33.900 t CO₂ equivalent yearly.
- The project is not foreseen to change numbers mentioned above significantly. Due to project activities estimated reduction by 2,95 t of CO₂-eq/ha/yr.
- The public awareness of peatlands importance for GHG balance is low. The governmental propaganda is focused only on the potential CO₂ sequestration by forests, with the estimation that some improvements of forest management can accumulate ca 4.000.000 t CO₂ yearly. The accumulation by peatlands is not considered at all in national strategies. Nevertheless, the quantitative estimations of the awareness of politicians, officers or experts do not exist. The project is foreseen to change public awareness of relevant experts; nevertheless, quantification of this change requires wide national research and was outside the project scope.

¹ Kotowski W. 2021. Oszacowanie emisji gazów cieplarnianych z użytkowania gleb organicznych w Polsce oraz potencjału ich redukcji. Fundacja WWF Polska
[<https://www.researchgate.net/publication/353632194>]





POLAND									
	INDICATORS								
	DIRECT					INDIRECT			
Units	Economic contribution	Ecosystem regulating services (GHG emissions, water quality, biodiversity)	Awareness raising	Scientific knowledge	Social capital	Ecosystem supporting services	Ecosystem provisioning services	Fire/flood prevention	Ecosystem cultural services
Stakeholder and Duty holder involvement			3		3				
Information boards/panels			7		7				
Employment (Individuals/companies hired by the project)	€397 000								
Amount spent (€) ²	€1 570 000								
Number of jobs (FTE and PTE)	18								
Number of events and conferences organised / participated			6	6	6				
Number of participants in Events / Conferences			730	730	730				

² The sum of costs from external assistance, consumables, travels, other costs





Number of hectares restored		1350 ha				1350 ha	1350 ha	1350 ha	1350 ha
GWP reduction³ (tons of GWP CO ₂ -eq/ha/yr)		2,95							
Number of Print media			2	2	2				
Number of Publications/Reports, promotional material produced			27	27	27				
Website – visits⁴ (to website in Polish) 01/06/2017-28/02/2022			3,446	3,446	3,446				
Website – downloads⁵ (to Website in Polish) 01/06/2017-28/02/2022			31	31	31				

³ Reduction by tons CO₂-eq/ha/yr

⁴ Due to the recent EU Data Protection Law (GDPR), which allows visitors the option to block statistical tracking of the website traffic; it is assumed the figures may be higher.

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