

Appendix 1. Case study descriptions

1.1. Case 1: Bogs

Jel'nia is a very large complex (23,200 ha) of raised bogs and transitional mires in northern Belarus (Fig. 2). This wetland's hydrological balance was dramatically altered by drainage schemes in the 1960's, although some drainage channels for peat mining date back more than 100 years (Kozulin et al. 2010). Since 1975, more than 77% of Jel'nia's area has been burned by peat fires, including a major conflagration in 2002.

The Jel'nia bog restoration (hereafter Case Bogs) initiative commenced in 1999, coordinated by local ornithological NGO APB Birdlife Belarus, due the importance of Jel'nia for birdlife. The area provides both breeding sites for birds rare to Belarus, and an important stop-over site for migrating cranes (*Grus grus* L.) and geese in spring and autumn, which forage on adjacent fields and use the large bog as a safe resting place. Management efforts have primarily focused on delivering ecological outcomes. Bog restoration has occurred at the local scale, although communication activities occur across local-to-national scales.

Initial funding, provided by the Dutch Ministry of Foreign Affairs and the Royal Society for Protection of Birds (UK NGO), led to the construction of 18 dams by 2007. Volunteer labour camps, held annually between 2007-2014, as well as a series of new projects from 2009, led to a further 50 dams being built and later repaired. A visitor's centre, and eco-trails were also constructed to support environmental education and bird-watching and fishing tourism activities. These latter projects were financed initially through the GEF and by Coca-Cola, with later contributions through UNDP.

1.2. Case 2: Birds

At present, Zvanets and Sporovo protected areas are among the largest natural fen mire peatlands in Europe at 15,000ha and 18,000 ha and form Important Bird Areas (Republic of Belarus 2012), supporting remaining breeding populations of globally threatened species (e.g., *Acrocephalus paludicola* L.). These two protected areas are located in south-west Belarus, and have been subjects of restoration efforts since 2006. Large-scale peatland fires in 1999 and 2002 triggered a peatland restoration and management initiative (hereafter - Case Birds). Initial objectives focused on re-elevation of ground water levels, which have prevented further fires,

restored ecological integrity for bird conservation, and allowed resumption of local livelihoods and recreational activities (UNDP 2016a).

Peatland restoration activities were supported by UNDP and funded by the Global Environment Fund, and has been managed as a public-private partnership, through an NGO (civil sector). A major achievement has been the approval by the Belarusian Council of Ministers of the Strategy for Sustainable Use and Conservation of Peatlands. This strategy serves to balance national interests in respect of the environment and sustainable economic development, whilst fulfilling commitments under the Convention on Biological Diversity (CBD) and the Ramsar Convention. Activities occur at the local scale but are organised at the regional scale. Permanent sources of funding were required to maintain wetlands openness in order to retain functionality for biodiversity. This requirement led to subsequent initiatives to develop and demonstrate a feasible circular model for wetlands management, using the outputs of management measures (e.g. biomass for energy production, reeds for construction materials) in order to finance continued management. Initiatives have included development of commercial enterprises using wetland resources leading to local job creation.

1.3. Case 3: Berries

Aržanica enterprise (arzhanitsa.by; hereafter - Case Berries) represents a successful and unique private small-scale enterprise based on value-added production of wild foods harvested from wetlands – mainly berries (*Oxycoccus*), but also mushrooms. Its primary focus is delivering economic and social benefits (e.g. developing a profitable business) but the firm explicitly aims to promote wetland sustainability by e.g. participating in internationally-sponsored wetlands conservation management initiatives (UNDP 2016b) and implementing indirect ecological objectives in order to secure a sustainable supply of wild foods. The firm employs 20-30 people and has been operating in the Belarusian market since 1992, developing innovative technologies to produce a diverse range of natural, high-quality wild foods. Early technical developments occurred in collaboration with the national Institute for Nutrition. The firm was initially supported by local district authorities and provided with public-owned facilities, which were later privatised. Direct production activity occurs mainly at the local scale, in the small town of Hlubokaje near Jel'nia bog, although berries are sourced locally-nationally (Fig.1). Sugar is sourced from centralised, state-based commodity procurement agencies. Marketing is focused

at the national scale, although international demand is growing, primarily in neighbouring countries.