



Restore4Life

RESTORING WETLANDS
FOR A SUSTAINABLE FUTURE



D4.2

A PRACTICAL GUIDE TO LOCAL BENEFITS FROM WETLAND NATURE-BASED SOLUTIONS

FOR ENTREPRENEURS, LOCAL AUTHORITIES, NGOs AND INVESTORS



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CO Confidential to REACH project and Commission Services

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PREAMBLE

The following document is intended as a non-technical “teaser” for entrepreneurs, local authorities, NGOs and funders to consider the potential for nature-based business opportunities resulting from existing or soon-to-be restored wetlands. It will be the entry point on the Restore4Life Wetland Restoration Hub for the theme of nature-based business development.

Wetlands represent a significant but underused opportunity for small businesses. By applying nature-based solutions, entrepreneurs can create value while contributing to environmental sustainability. The approach requires a shift in perspective, from seeing wetlands as constraints to recognising them as assets.

This brief guide demonstrates that a wide range of business models are possible, from biomass production to tourism, fisheries to forestry and aquatic environmental services. While challenges exist, they can be addressed through careful planning, collaboration, and innovation.

The key message is that wetlands are not only important for nature, but also for people and the economy. By working with nature rather than against it, small businesses can play a vital role in building a more sustainable future.

The document has these features:

- Can be read in less than 20 minutes.
- The main messages are rehearsed in text, tables and figures to reinforce them and accommodate different reading styles.
- Includes links to the body of related work already carried out within the Restore4Life project (in particular D2.3, D4.1, D4.3, M17, and M18 previously uploaded) and other appropriate external sources for readers to explore at will and spark ideas.
- The guide is not a menu – it suggests some potential business models but also encourages innovation.

By the end of 2026, the document will be redesigned for web compatibility, supplemented with illustrative photographs, and updated to include the tools and case studies now under preparation in WP4, namely:

- (1) a handbook for policy makers on supporting business activities based on NbS in restored wetland ecosystems;
- (2) a Restore4Life floodplain NbS business potential index (based on PESTLE and market analyses from Task 4.1, matrix of new economic benefits from Task 4.2, societal and financial support structures from task 4.3), that will help users (whether entrepreneurs, policy makers or investors) evaluate the NbS readiness of and benefits from particular restored wetland sites;

- (3) a sustainability check tool, that aims to analyse all dimensions of sustainability using machine learning algorithms and multi-criteria analysis based on important predictors for characterising the status of the implementation areas to enhance local entrepreneurs' predictivity skills; and
- (4) wetland-specific tutorials to help local entrepreneurs (whether start-ups or mature companies looking to update their business operations) in business planning, cost benefit analysis, investment pitches, financial management and good environment, sustainability and governance practices as set out in ISO 37000.

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A PRACTICAL GUIDE TO LOCAL BENEFITS FROM WETLAND NATURE- BASED SOLUTIONS

FOR ENTREPRENEURS, LOCAL AUTHORITIES,
NGOS AND INVESTORS

A Practical Guide to Local Benefits from Wetland Nature-Based Solutions

for entrepreneurs, local authorities, NGOs and investors

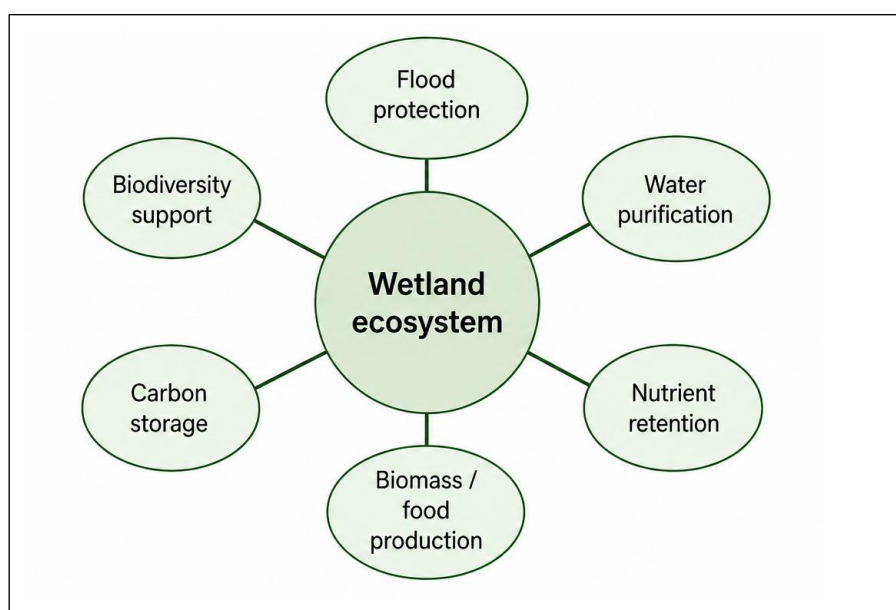
Preface

Wetlands are among the most productive ecosystems on Earth, yet they are often undervalued or misunderstood. For many years, wetlands were disparaged as marginal or unproductive land, suitable only for drainage or conversion. Today, this perception is changing. Increasingly, wetlands are recognised as valuable natural systems that provide a wide range of benefits to society, including clean water, flood protection, carbon storage, and biodiversity. These benefits can also support viable and innovative business opportunities.

Nature-based solutions (NbS) are approaches that work with natural processes to address environmental and societal challenges. In wetland environments, NbS can include restoration, sustainable management, and the development of nature-based enterprises. For micro and small businesses, wetlands offer opportunities to generate income while contributing to environmental sustainability.

This guide explains how wetland-related NbS can be translated into practical business ideas. It is designed for entrepreneurs, land managers, and community organisations who are interested in developing small-scale economic activities linked to wetlands. The report draws on the materials developed by the Restore4Life project¹, including economic guidance for NbS and supporting documents on ecosystem services, financing, and business development.

How wetlands provide ecosystem benefits for people



¹ <https://restore4life.eu/>

1. Wetlands as Economic Assets

Wetlands are often described in ecological terms, but they also have significant economic value. They function as natural infrastructure, delivering services that would otherwise require costly engineered solutions. For example, wetlands can filter pollutants from water, reducing the need for expensive treatment plants. They can store floodwater, lowering the risk of damage to homes and businesses. They can also capture and store carbon, contributing to climate mitigation.

For small businesses, these functions can be translated into income-generating activities. Wetlands can support the production of biomass, such as reeds or grasses, which can be used for construction, energy, or craft products. They can provide the basis for tourism and recreation, including birdwatching, guided tours, and educational activities. They can also support innovative services such as natural wastewater treatment or participation in emerging markets for carbon and biodiversity credits.

The key idea behind NbS is that economic activity and environmental protection do not have to be in conflict. Instead, they can reinforce each other. By working with natural processes, businesses can reduce costs, increase resilience, and create new forms of value.

2. Understanding Nature-Based Solutions in Wetlands

Nature-based solutions are defined as actions that protect, manage, or restore natural ecosystems in ways that address societal challenges while providing benefits for both human well-being and biodiversity. In wetlands, NbS often involve restoring natural hydrology, re-establishing vegetation, or managing land use in ways that enhance ecosystem functions.

Unlike traditional engineering approaches, which often rely on hard infrastructure, NbS use living systems. For example, instead of building concrete flood barriers, a wetland NbS approach might involve restoring a floodplain so that it can absorb excess water². Instead of installing chemical water treatment systems, a constructed wetland can use plants and microorganisms to filter pollutants.

For entrepreneurs, the important point is that NbS create opportunities for service provision and resource use. These opportunities are grounded in the natural characteristics of the site. Each wetland is different, and successful NbS businesses are those that align closely with local ecological conditions.

3. Ecosystem Services and Business Opportunities

The concept of ecosystem services is central to understanding how wetlands can support businesses³. Ecosystem services are the benefits that people obtain from ecosystems. They can be grouped into several categories, including provisioning services (such as food and raw materials),

² Fokurapuszta report

³ Biodiversity value report

regulating services (such as water purification and climate regulation), and cultural services (such as recreation and tourism).

In practical terms, ecosystem services can be translated into business opportunities. For example, the ability of wetlands to produce biomass can support enterprises based on reed harvesting or bioenergy⁴. Their capacity to attract wildlife can support tourism businesses⁵. Their role in water management can support services related to flood protection or water treatment.

Table 1. Key ecosystem services provided by wetlands and associated business opportunities

| Ecosystem Service | Description | Example Business Opportunities |
|----------------------|--|---|
| Water purification | Natural filtration of pollutants through vegetation and soils | Constructed wetlands for wastewater treatment; water quality services |
| Flood regulation | Storage and slow release of excess water, reducing flood risk | Floodplain restoration services; resilience planning |
| Biomass production | Growth of reeds, grasses, and aquatic plants | Reed harvesting; bioenergy; insulation materials |
| Biodiversity support | Habitat for birds, fish, and other species | Ecotourism; guided wildlife tours; education services |
| Carbon storage | Capture and storage of carbon in soils and vegetation | Carbon credit schemes; peatland restoration projects |
| Nutrient retention | Absorption and transformation of nutrients such as nitrogen and phosphorus | Nutrient offset schemes; agricultural runoff mitigation services |

4. Types of Wetland-Based Businesses

A wide range of business models can be developed around wetland NbS. These models can be grouped into several broad categories.

One important category is biomass production. Wetlands can produce large amounts of plant material, such as reeds, grasses, and other vegetation. These materials can be used for construction, insulation, energy production, or craft products. In some cases, they can replace less sustainable materials, creating additional environmental benefits.

Another category is food production. Wetlands can support aquaculture, sustainable fisheries, and other forms of food production. These activities can be particularly valuable when they are linked to local markets and branding strategies that emphasise sustainability.

Tourism and recreation represent another major opportunity. Wetlands are often rich in biodiversity and can attract visitors interested in nature. Small businesses can provide services such as guided tours, accommodation, and educational activities.

Environmental services are also an important area. These include activities such as natural water

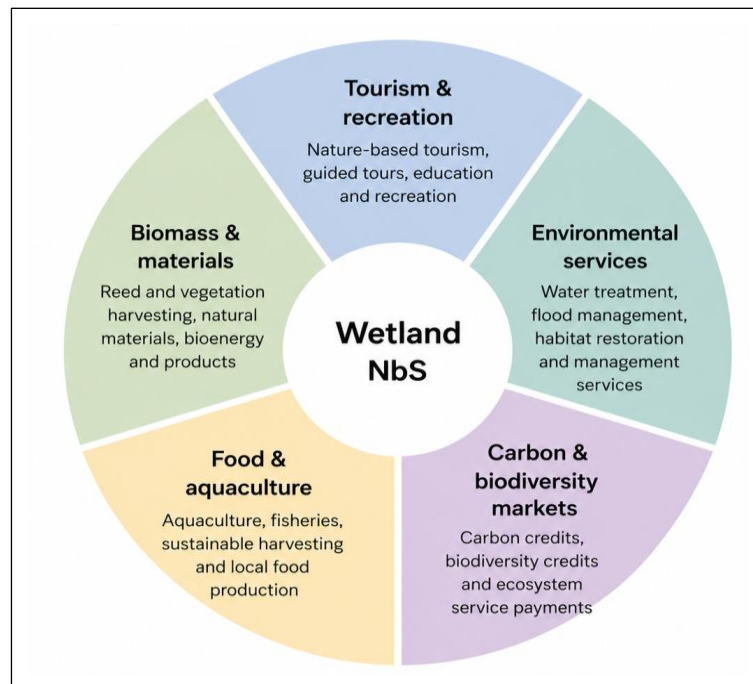
⁴ BioFare example

⁵ Armenia example

treatment, flood management, and habitat restoration. In some cases, these services can be paid for by public authorities or private companies.

Finally, there is growing interest in markets for carbon and biodiversity. Wetland restoration can generate carbon credits by increasing carbon storage. It can also contribute to biodiversity goals, creating opportunities for payments linked to conservation outcomes.

Wetland Business Model Wheel



5. Identifying Opportunities at a Local Level

Developing a successful NbS business requires a good understanding of the local context. This includes both ecological and economic factors. The first step is to assess the characteristics of the wetland, including its size, hydrology, vegetation, and biodiversity. It is also important to understand how the site is currently used and what constraints may apply, such as legal protections or land ownership.

Once the site has been assessed, the next step is to identify the ecosystem services it can provide. This involves considering how the natural features of the site can be used to generate value. For example, a wetland with abundant reeds may be suitable for biomass production, while a wetland with high biodiversity may be better suited to tourism.

The final step is to match these services to market opportunities. This requires an understanding of demand, pricing, and competition. It may also involve identifying potential partners, such as local authorities, NGOs, or other businesses.

Table 2. Matching wetland characteristics to potential business opportunities

| Wetland Characteristic | Key Features | Suitable Business Activities |
|---------------------------|---|---|
| Reed-dominated wetland | High biomass productivity; stable water levels | Reed harvesting; construction materials; biomass energy |
| Floodplain wetland | Seasonal flooding; large water storage capacity | Flood management services; grazing; eco-tourism |
| Peatland wetland | High carbon storage; sensitive hydrology | Carbon credits; conservation management; education |
| Biodiverse wetland | High species richness; attractive landscapes | Wildlife tourism; guided tours; environmental education |
| Constructed wetland | Designed water flow; managed vegetation | Wastewater treatment services; demonstration sites |
| Coastal or lagoon wetland | Brackish conditions; fish habitats | Aquaculture; fisheries; tourism |

6. Developing a Business Model

Once an opportunity has been identified, the next step is to develop a business model. This involves defining how the business will create, deliver, and capture value as well as foster good relations with local stakeholders. This may involve using tools such as PESTLE and TOWS analyses⁶, which can help structure this process.

PESTLE analysis focuses on external factors, including political, economic, social, technological, legal, and environmental conditions. For example, government policies may provide funding or create regulatory requirements. Market conditions may affect demand for products or services.

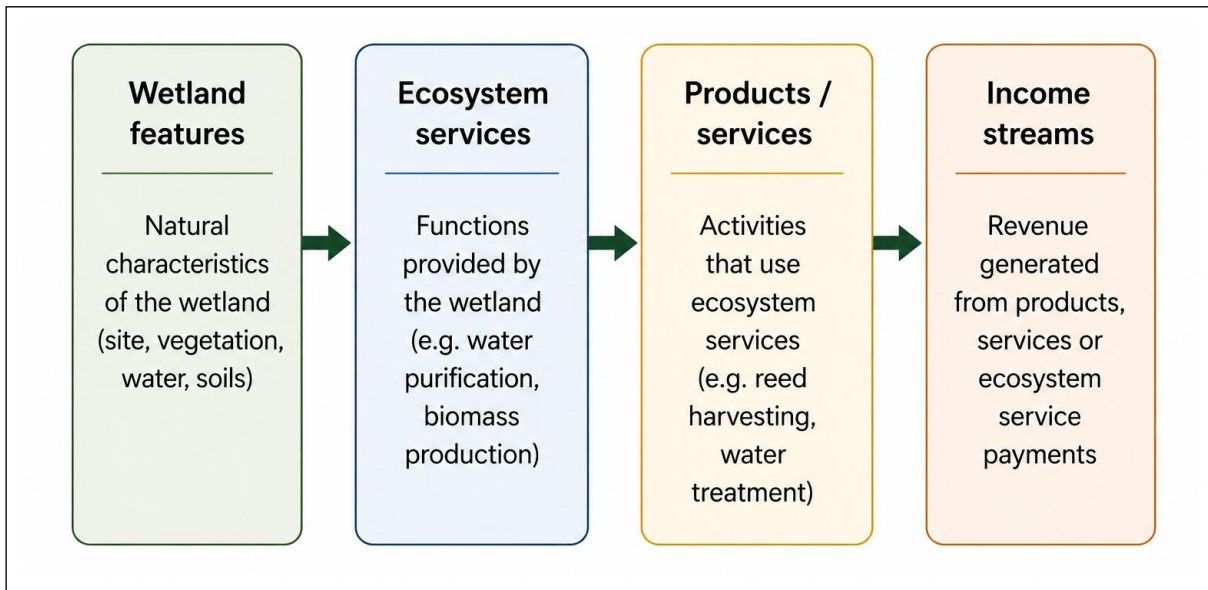
TOWS analysis focuses on the internal strengths and weaknesses of the business, as well as external opportunities and threats. This can help identify strategies that build on strengths while addressing risks.

A key feature of NbS business models is that they often involve multiple revenue streams. For example, a wetland tourism business might also generate income from biomass production or environmental payments. This diversification can increase resilience and reduce risk.

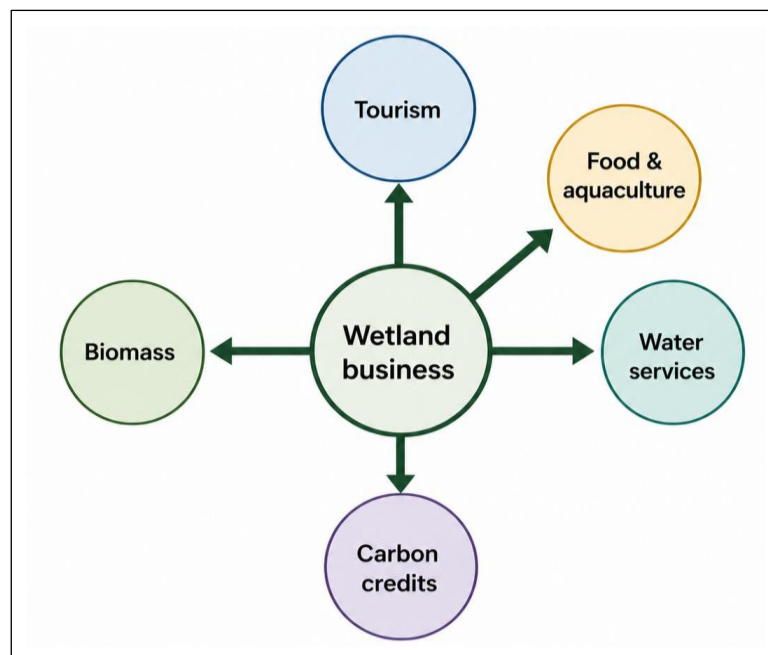
From a funding viewpoint, focus and investment efficiency can be derived from adopting a cluster investment approach. This involves identifying locations with a high concentration of wetland NbS opportunities and then investing in mutually supportive SMEs. Thus, a wetland that is attractive for tourists needs appropriate accommodation, catering outlets and facilities such as hire bicycles and horses. The accommodation could be roofed with thatch and heated by biomass from the wetland. Food for restaurants should be sourced locally and produced organically. Shops can sell local crafts, honey, preserves and other produce. Horses can be grazed on the flood meadows.

⁶ PESTLE, TOWS materials

From Ecosystem Services to Business Value



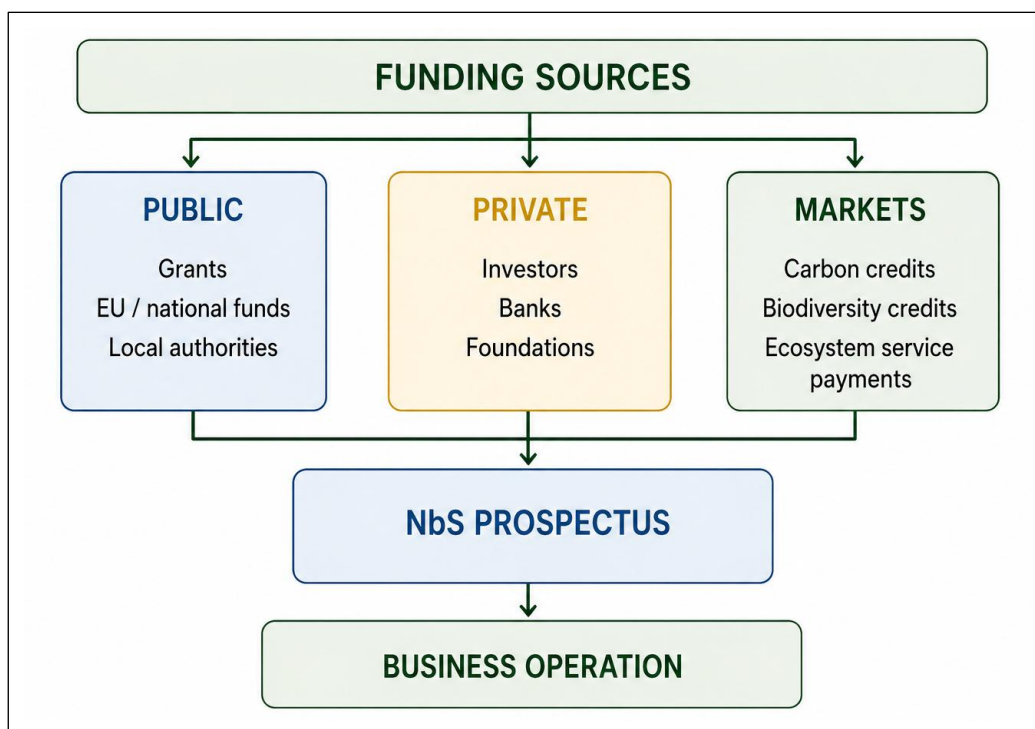
Multiple Income Streams from One Wetland Cluster



7. Costs, Revenues, and Financing

Developing an NbS business typically requires an initial investment. This may include the cost of restoring the wetland, purchasing equipment, and setting up operations. These costs can vary widely depending on the scale and type of project.

Funding Pathways for Funding NbS Business



On the revenue side, income may come from product sales, service provision, or payments for ecosystem services. In some cases, public funding or subsidies may be available, particularly for activities that deliver environmental benefits.

New approaches, labelled as green finance or impact investing, seek to blend funding from public institutions and private investors. The European Investment Bank and other organisations have developed guidance on financing NbS⁷, emphasising the importance of clear business models and measurable outcomes.

⁷ EIB report

Table 4. Indicative pathway from wetland site to viable NbS business

| Step | Key Actions | Expected Outcome |
|----------------------------------|--|---|
| Site assessment | Analyse wetland type, condition, and constraints | Clear understanding of ecological potential |
| Ecosystem service identification | Identify services such as water purification or biomass production | List of possible value streams |
| Market analysis | Assess demand, competitors, and pricing | Identification of viable business options |
| Business model development | Define products/services, costs, and revenues | Structured business plan |
| Financing and partnerships | Secure funding and collaborate with stakeholders | Resources and support secured |
| Implementation | Establish operations and deliver services | Business becomes operational |
| Monitoring and adaptation | Track performance and adjust strategy | Improved efficiency and resilience |

NbS Business Development Cycle



8. Benefits and Challenges

Wetland NbS businesses offer a range of benefits. They can generate income, create jobs, and support local economies (not least by paying municipal taxes). They can also enhance environmental quality, reduce risks, serve as cost avoidance schemes, and contribute to climate goals.

However, there are also challenges. These include regulatory complexity, uncertainty about markets, and the need for specialised knowledge. In addition, NbS projects often require time to deliver results, which can be a barrier for small businesses.

Addressing these challenges requires careful planning, strong partnerships, and access to appropriate support and expertise.

Table 5. Common challenges in wetland NbS businesses and possible responses

| Challenge | Description | Possible Response |
|---------------------------|--|--|
| Regulatory complexity | Multiple permits and environmental rules | Early engagement with authorities; expert advice |
| Market uncertainty | Limited or emerging demand | Diversify income streams; pilot projects |
| High upfront costs | Investment needed before returns | Seek grants; phased development |
| Knowledge gaps | Limited technical or business expertise | Training; partnerships with experts |
| Long return periods | Benefits may take time to materialise | Combine short- and long-term revenue sources |
| Environmental variability | Changes in water levels or climate | Adaptive management; risk planning |

9. Further Guidance

For those interested in developing a wetland NbS business, a number of practical steps can be recommended. It is often advisable to start with a small-scale pilot project, which can be used to test ideas and build experience. Working with partners, such as local authorities or research organisations, can provide access to knowledge and resources.

Combining different types of activities can also be beneficial. For example, a business that combines tourism with biomass production, fisheries or other environmental services may be more resilient than one that relies on a single income source that may be highly seasonal leading to highly fluctuating cash flows.

Finally, it is important to make use of existing tools and guidance, including the materials provided in the Restore4Life project⁸. These can help structure the process and reduce the risk of failure.

⁸ R4L wetland restoration hub