EXPLOITATION CANVAS

Arena: Mafra [Municipal Spatial Planning]

BioValue

BioValue's Ambitions:

Ambition 1: spatial planning safeguards, restores, allows recovery and enhances biodiversity.

Ambition 2: spatial planning significantly contributes to balanced and responsible consumption and production (avoiding external social and environmental costs).

Ambition 3: spatial planning significantly contributes to reducing socioeconomic inequalities.

About this template

The Business Model Canvas **maps** out key actors, activities and resources, the value proposition and more.
Here, it has been revised to **strategise** and inform the experimentation of BioValue's research framework.

The focus is on the **post-project exploitation**, providing a template for developing a short-run (4-year) action plan and presenting it to the outside.

ARENA AMBITION

Contextualisation:
Promote a planning system in Mafra that proactively safeguards biodiversity and ecological values beyond existing legal frameworks, addressing the high tourism pressure through planning strategies that preserve green and blue infrastructure, ecological connectivity, and ecosystem services.

*What is the intended **post-project ambition**?*
Recognise biodiversity as a strategic municipal asset and embed it across sectors including agriculture, tourism, water management, education, and housing, aligning local spatial planning with BioValue's ambitions of biodiversity restoration (Ambition 1), responsible land use (Ambition 2) and reducing socioeconomic inequalities (Ambition 3), by implementing a municipal fund for environmental and urban sustainability and payment for ecossystems services in rural areas.

IMPLEMENTATION ACTIVITIES AND ROADMAP

*What **activities** will the Arena ambition and transformative change be achieved through?*
- Embed biodiversity and ecosystem services in PDM revision and implementation
- Develop and disseminate biodiversity-sensitive planning guidelines at municipal level
- Continue training and awareness activities for municipal departments and sectoral stakeholders
- Expand green and blue infrastructure initiatives (nature-based solutions, connectivity planning)
- Strengthen participatory planning tools tested in BioValue.

*What exploitation **roadmap** is envisioned to reach the intended post-project ambition?*
- Institutionalise co-creation processes and evidence-informed planning
- Mobilise internal and external funding for biodiversity actions
- Create a monitoring framework for biodiversity outcomes
- Disseminate best practices to other Portuguese municipalities.

CONTRIBUTION AND RESULTS FROM BIOVALUE

*Detail the role of **Key Exploitable Results** in the Arena:*
- KER1: Helped identify gaps in the current spatial planning cycle and proposed how biodiversity can be better mainstreamed in the revised PDM, supporting the conceptual integration of ecosystem services and multifunctional land-use design
- KER2: Provided methods and instruments (e.g. ecosystem services mapping, participatory formats), enabled alignment between municipal planning and biodiversity targets beyond legal minimums and contributed to the planning vision for green/blue infrastructure in connection with water management, tourism and agrifood sectors
- KER3: Informed on how to institutionalise co-creation and stakeholder engagement, helped define potential funding strategies and monitoring mechanisms, and provided best practices for ecosystem-oriented planning.

*In terms of **contributions** during the project, BioValue:*
- Enabled a shared vocabulary and structure to link scientific evidence with local planning practices
- Created a foundation for cross-departmental collaboration within the Municipality of Mafra
- Developed training and facilitation approaches tailored to the policy and planning context.

*In terms of **post-project** potential:*
- Mafra can serve as a demonstration site for ecosystem-based planning within national and EU dialogues - Mafra as a front-runner to mainstream and scale-up BioValue activities
- Tools and methods developed (e.g. participatory workshops, causal map tool, ES frameworks) can be adapted by other municipalities
- The arena's cross-sectoral ambition offers a replicable governance model to integrate biodiversity across departments and policies.

KEY STAKEHOLDERS AND MAIN ACTORS

*Which stakeholders do you expect to be most **relevant** for the post-project exploitation?*
- Municipality of Mafra
- Local agrifood actors, water management authorities, and landowners
- Tourism operators and cultural institutions
- Civil society (local NGOs, educators, citizens' associations)
- National and regional authorities
- School community.

KEY INSTRUMENTS AND TOOLS

*Which instruments do you expect to employ for the post-project **exploitation**?*
- SP&MIs: Green and blue infrastructure strategy, ecosystem services mapping and integration into the revised PDM, spatial connectivity planning and land-use designations supporting biodiversity, Municipal Building and Urbanization Regulations of the Municipality of Mafra
- EAIs: Stakeholder engagement formats tested in BioValue workshops, scenario planning for biodiversity under tourism and land-use pressures, ecosystem-based SEA and EIA enhancement tools, causal map tool of cause-effect relations and biodiversity mitigation hierarchy connected to spatial planning
- E&FIs: Municipal environmental sustainability funds, financial mechanisms for land conservation and nature-based solutions, frameworks to valorise biodiversity in decision-making (e.g. land value adjustment, PES), environmental fund and Ecosystems Services Fund, Municipality of Mafra Fee Regulations and respective fee schedule.

VALUE PROPOSITION

*What **motivates** the intervention in the specific Arena context? What **transformations** will be achieved in your Arena? How do these relate to and build towards the **post-project ambition**?*
BioValue aims to facilitate a biodiversity-driven transformation of Mafra's spatial planning practices, positioning the municipality as a reference for integrating natural value into land-use decisions, going beyond minimum compliance and showcasing how biodiversity enhances resilience, quality of life, and sustainable tourism. This involves building strategic partnerships, mobilising funding, and anchoring biodiversity within municipal policies and spatial planning instruments.
Mafra aims to integrate biodiversity through spatial planning in activities such as tourism, agriculture activities, housing, and urbanisation, engaging policymakers and influencing political agendas towards increasing biodiversity and implementing specific actions (including ecological restauration and renaturalisation of urban areas).

POLICY AND SPATIAL PLANNING FRAMEWORK

*Which spatial planning law and regulations **impact** your Arena?*
*How is the regulatory environment expected to affect the post-project **exploitation**?*
The arena operates under Portugal's national spatial planning law and municipal regulations (Revised PDM of Mafra). Biodiversity is acknowledged, but does not yet represent a driver of land-use decisions; SEA and EIA are implemented, but do not prioritise biodiversity enhancement; current planning complies with the minimum legal standards.
Mafra's experience can contribute to future national-level guidelines on biodiversity in spatial planning, including by possibly integrating within future regulation an ecosystems services - related approach to the planning system, currently present only as an orientation.

KEY RESOURCES

*Which resources are expected to be **crucial** for the post-project exploitation?*
- Human and organisational capacity: internal staff with planning and environmental expertise, local NGOs and researchers mobilised through BioValue, education and awareness-raising formats from workshops
- Financial and economic resources: support from national sustainability funds (e.g. Fundo Municipal de Sustentabilidade Ambiental e Urbanística), EU-level support (LIFE, Horizon Europe, Interreg), municipal budget allocated to green and blue infrastructure
- Database Resources: open data on biodiversity-related indicators in Mafra's spatial planning monitoring system (https://smot-cmmafra.opendata.arcgis.com).

*Which ones are **not** currently present and will have to sourced or developed?*
Integration of ecosystem service mapping in spatial databases, capacity-building for sectoral actors in biodiversity-sensitive planning, cross-sectoral working groups within the municipality.

BARRIERS AND CHALLENGES

*Which are the main barriers and challenges foreseen for post-project **exploitation**?*
- Limited internal capacity to develop and monitor biodiversity metrics
- Fragmentation between policy sectors and planning competencies
- Difficulty in shifting from a reactive to a proactive planning culture
- Dependence on external funding and expertise to sustain innovation
- Risk of low institutional uptake of participatory and co-creation processes tested within BioValue
- Tension between conservation aims and dominant economic narratives (tourism, housing, political agenda).

ENVIRONMENTAL VALUE LOSS

*What **negative impacts** and **costs** could result from the activities envisioned for post-project exploitation, from an environmental point of view?*
- Risk of superficial or symbolic integration of biodiversity in planning (e.g. "greenwashing" strategies)
- Misalignment between biodiversity objectives and tourism or urban expansion agendas
- Potential overreliance on ecosystem service proxies without strong ecological baselines
- Possible neglect of soil and microhabitat dynamics if spatial planning focuses on large-scale features only.

ENVIRONMENTAL VALUE CREATION

*What **positive impacts** and **benefits** could result from the activities envisioned for post-project exploitation, from an environmental point of view?*
- Support for biodiversity conservation and ecological connectivity across urban, rural, and coastal areas
- Enhanced use of green and blue infrastructure to mitigate fragmentation and climate risks
- Integration of ecosystem services into land-use decisions at municipal level
- Strategic protection of natural heritage as a foundation for sustainable tourism and quality of life
- Demonstration of how spatial planning can become a tool for ecological regeneration.

SOCIAL VALUE LOSS

*What **negative impacts** and **costs** could result from the activities envisioned for post-project exploitation, from a social point of view?*
- Resistance from stakeholders unaccustomed to biodiversity-sensitive planning
- Potential exclusion of certain groups from participatory processes
- Perception that ecological priorities may limit traditional land-use practices or development opportunities, for tourism and housing.

SOCIAL VALUE CREATION

*What **positive impacts** and **benefits** could result from the activities envisioned for post-project exploitation, from a social point of view?*
- Strengthened citizen knowledge and capacity through engagement and participatory processes focused on the importance of biodiversity (links with education)
- Capacity-building among municipal staff, educators and community stakeholders
- Increased environmental literacy and sense of stewardship across sectors
- Reinforcement of Mafra's identity as a biodiversity-conscious, naturally and culturally rich territory.

ECONOMIC VALUE LOSS

*What **negative impacts** and **costs** could result from the activities envisioned for post-project exploitation, from an economic point of view?*
- Short-term costs linked to ecosystem restoration, mapping, and monitoring
- Investment needs for updating planning tools, staff training, and infrastructure
- Risk of friction with economic actors if spatial planning introduces land-use restrictions.

ECONOMIC VALUE CREATION

*What **positive impacts** and **benefits** could result from the activities envisioned for post-project exploitation, from an economic point of view?*
- Diversification of local economy through eco-tourism and sustainable land-use practices
- Improved access to EU and national biodiversity-related funding streams
- Long-term savings via nature-based solutions for water, climate adaptation, and health
- Potential to attract innovation in biodiversity planning and monitoring.