

LEarning and action alliances for NexuS Environments  
in an uncertain future

# LENSES

## WP6

### D6.3 Business and governance models framework for Nexus-relevant NBS

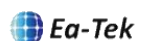
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March 30, 2023

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#### Project coordinator



This project is part of the PRIMA programme supported by the European Union.  
GA n° [2041] [LENSES] [Call 2020 Section 1 Nexus IA]

## Project Website

[www.lenses-prima.eu](http://www.lenses-prima.eu)

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This project is part of the PRIMA programme supported by the European Union.  
GA n° [2041] [LENSES] [Call 2020 Section 1 Nexus IA]

<b>Project no.</b>	2041
<b>Project acronym:</b>	LENSES
<b>Project title:</b>	Learning and action alliances for NEXUS environments in an uncertain future.
<b>Call:</b>	PRIMA call Section 1 – Nexus 2020, Topic 1.4.1-2020 (IA).
<b>Start date of project:</b>	01.05.2021
<b>Duration:</b>	36 months
<b>Deliverable title:</b>	D6.3 – Business and governance models framework for Nexus-relevant NBS
<b>Due date of deliverable:</b>	March 2023
<b>Project Coordinator:</b>	Stefano Fabiani, Council for Agricultural Research and Economics (CREA)
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Dissemination level		
PU	Public	PU
CO	Confidential, restricted under conditions set out in Model Grant Agreement	
CI	Classified, information as referred to in Commission Decision 2001/844/EC	

History			
Version	Date	Reason	Revised by
01	15/02/2023	First draft	
02	15/03/2023	Second draft	Giulia Amato (Etifor), Anna Biasin (UNIPD), Erica Di Girolami (Etifor)
03	30/03/2023	Final version	Maria Lilli (TUC), Nikolaos Nikolaidis (TUC), Christina Papadaskalopoulou (DRAXIS)



## LENSES Business and governance models framework for Nexus-relevant NBS



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GA n° [2041] [LENSES] [Call 2020 Section 1 Nexus IA]

## Executive summary

This report presents the methodological and practical foundations to develop business and financing models for NBS projects with a WEFE Nexus approach, considering socioeconomic and governance aspects in their formulation. The document also explores different financial and market instruments for financing NBS projects and presents cases for the Mediterranean region.

In terms of the methodology results, a business and governance model framework for NBS projects is presented, structured in nine modules, covering aspects from project formulation and justification to governance arrangements description and potential cost structures and revenue streams. Regarding the financing options component, different financial and market mechanisms were found as alternatives to finance NBS projects related to the WEFE Nexus in the Mediterranean, to be explored during the various stages of project development.

This document was developed as part of the PRIMA Foundation LENSES project (Learning and action alliances for NEXUS environments in an uncertain future), a three-year international collaboration between universities, research centers, and the private sector from the Mediterranean region. The project is part of PRIMA's initiative to promote the understanding and operationalization of the WEFE Nexus approach in the Mediterranean region to develop contexts resilient to climate change and meet multiple objectives of the current global environmental agenda.

This report aims to be functional to the objectives of the project's pilot sites but also reach a wider audience interested in the role that NBS can play in building resilience to climate change while pursuing social and environmental objectives from different sectors.

This work belongs to Work Package 6, "Environmental and natural resource economics approaches for Nexus business cases", task 6.3, "Business and governance models for NBS deployment".

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## 1. Introduction

The Mediterranean region is highly exposed to the effects of climate change (Bazzana et al., 2023; Markantonis et al., 2019). Alterations in rainfall patterns and a constant increase in temperatures put extra pressure on activities such as agriculture or water supply to local populations in an area already characterized by water scarcity (Saladini et al., 2018). Given the vulnerability of the region's food production and water supply systems, it is essential to develop integrated resource management approaches that generate resilience and adaptation to climate change in these systems without jeopardizing the sustainability of the other.

The concept of the Water-Energy-Food (WEF) Nexus or WEFE Nexus - connecting ecosystems - is an approach to natural resource management and governance which seeks to analyze synergies between water, energy, and food security policies to improve the efficiency of programs and projects (Markantonis et al., 2019; UNECE, 2018). This approach seeks to help achieve multiple objectives of environmental agendas, including the Sustainable Development Goals (SDGs), noting possible trade-offs between these crucial sectors to minimize them (FAO, 2014; Terrapon-Pfaff et al., 2018).

On the other hand, Nature-based solutions (NBS) are recognized for their potential to address the climate and biodiversity crisis and are becoming increasingly important in countries' environmental policies (Castellari et al., 2021; IUCN, 2016). A core element from NBS is the generation of multiple social and environmental co-benefits, in contrast to traditional gray infrastructure approaches that maximize specific objectives, sometimes undermining others (Somarakis et al., 2019). In this sense, such solutions play a prominent role in the WEFE Nexus agenda.

However, the formulation and financing of NBS still find different barriers that prevent their incorporation into the strategies of public and private actors. One of the critical points is how to generate NBS projects that can be self-sustaining when most of the benefits they produce are "public" and cannot be sold in markets or charged for their use. In this sense, it is also important to define appropriate governance structures to manage and maintain a project of this type, which can generate benefits for different actors (e.g., public, private, citizens) and where costs must be appropriately allocated among these actors.

Therefore, this work aims to provide the methodological and practical foundations to develop business and financing models for NBS initiatives with a WEFE Nexus approach, considering socioeconomic and governance aspects in their formulation to seek sustainability. Furthermore, these guidelines for developing appropriate business and governance models are expected to enable the pilot cases of the LENSES Project to adopt Nexus-supportive Nature-based Solutions on the ground.

This report is developed in the framework of the LENSES project (Learning and action alliances for NEXUS environments in an uncertain future) of the PRIMA Foundation. Lenses is a three-year international collaboration between organizations in the Mediterranean region, including universities, research centers, private companies, and NGOs. This project aims to enhance system understanding, gathering, and structuring knowledge to unravel complexity and manage uncertainty in WEFE systems, with their dynamic evolution, applying this knowledge in 7 pilot sites across different Mediterranean countries. The contents of this report aim to be functional to the objectives and contexts of the project's pilot sites but also to reach a wider audience interested in the role that NBS can play in building resilience to climate change while pursuing social and environmental objectives from different sectors.



The rest of the document is structured as follows: Section 2 presents an overview of the advances in the creation of business models for nature-based solutions and Nexus solutions, as well as the main aspects of their financing according to the literature. Section 3 outlines the methodology used in this study, explaining the primary sources of information to develop the business and governance framework for NBS with a Nexus approach and the catalogue of potential funding mechanisms. Section 4 presents the main results of the work, while the last chapter includes the conclusions and next steps.

## 2. Overview of business models and financing for Nature-based solutions

The term Nature-based Solution (NBS) is being increasingly used to refer to different strategies and approaches that place "nature" as a central element to help solve societal challenges such as Climate Change, Water, and Food Security, and others (Castellari et al., 2021; IUCN, 2016). Therefore, several approaches originating from different sectors (e.g., academia, industry, policy), started to be regarded as NBS. The term has now become an umbrella concept encompassing such approaches (Somarakis et al., 2019).

The Fifth Session of the United Nations Environment Assembly<sup>1</sup> (UNEA-5) formally defines NBS as “actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems, which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services and resilience and biodiversity benefits”.

The Think Nature Project (Somarakis et al., 2019) groups the different types of NBS into 11 categories, depending on the degree of intervention they cause in ecosystems:

### Type 1 – Better use of protected/natural ecosystems:

- Protection and conservation strategies in terrestrial, marine, and coastal areas ecosystems

### Type 2 – NBS for sustainability and multifunctionality of managed ecosystems

- Agricultural landscape management
- Coastal landscape management
- Extensive urban green space management
- Monitoring

### Type 3 – Design and management of new ecosystems

- Intensive urban green space management
- Urban planning strategies
- Urban water management
- Ecological restoration of degraded terrestrial ecosystems
- Restoration and creation of semi-natural water bodies and hydrographic networks
- Ecological restoration of degraded coastal and marine ecosystems

NBS projects aim to rely on and promote nature-based approaches to address societal challenges (Dumitru & Wendling, 2021). Particularly in the Mediterranean region, examples of NBS have focused on challenges such as climate resilience, water management, natural and climate hazards, new economic opportunities and green Jobs, and health and well-being, including food security (Figure 1). The main types of NBS used to address these challenges have been approaches to restoration and sustainable management of terrestrial and aquatic ecosystems and agricultural landscape management practices (IUCN, 2019).

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<sup>1</sup> IUCN “[Landmark UN Environment Assembly adopts key decisions and restores hope on multilateralism](#)”.



Figure 1. The Nature-based solutions framework. Source: IUCN (2016)

The holistic nature of NBS makes them attractive as solutions to complex problems and "multi-objective" natural resource management paradigms such as the Water-Energy-Food (WEF) Nexus.

The Nexus concept, including variations like WEFE (linking ecosystems) or WEFC (connecting with the climate), emerged as a useful concept to describe and address the complex and interrelated nature of our global resource systems, on which we depend to achieve different social, economic, and environmental goals. This approach puts in evidence that water security, energy security and food security are deeply intertwined (FAO, 2014), implying that actions in any of these domains can have effects in the others (Figure 2).

This approach provides a new way of thinking that is not limited to just the water, energy, and food agendas independently, but it treats them as domains of a broader system. The concept highlights the interdependencies and overlaps among these domains that underpin their security, as well as existing trade-offs (Terrapon-Pfaff et al., 2018).

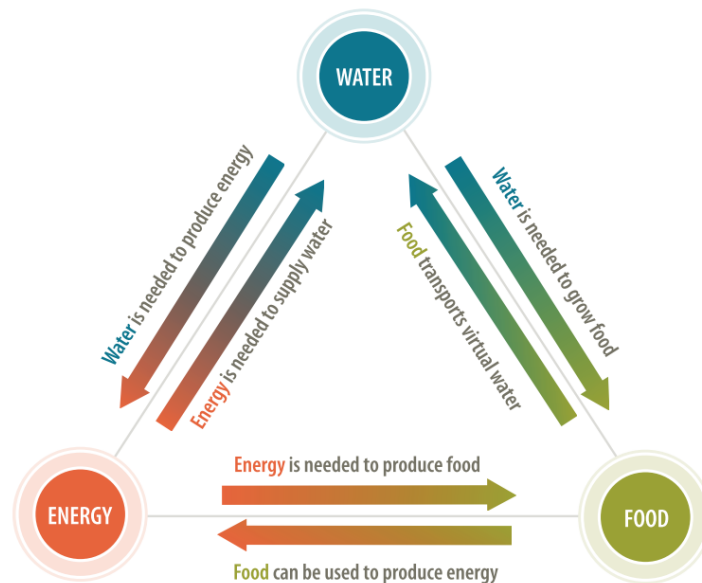


Figure 2. The WEF Nexus approach. Source: UNECE (2018)

Due to the great potential that NBS have to address multiple challenges simultaneously, such as those related to the Nexus, actors such as the European Union and other relevant environmental actors have made a great effort to mainstream them in the political arena and in the economy.

One of the essential steps in this direction is the development of business models for NBS, a fairly recent topic. A business model is the story of a project to be developed, which explains how the elements of an initiative work together to generate value for a user or customer and how revenues are generated to sustain the initiative from this value generation (Connecting Nature, 2019).

In the case of NBS, several research and innovation projects have been carried out, mainly in Europe, to develop business plans and increase their potential for replication and financing (Connecting Nature, 2019; Mayor & et al, 2019; 2021; Somarakis et al., 2019). In such projects, business models have been perceived as a tool to identify key funding opportunities, paving the way for upscaling NBS and structuring project ideas not only from a financial but also from a governance point of view.

Two of the strongest examples of methodologies or frameworks for business models for NBS are the ones developed within the NAIAD (Mayor et al., 2021) and Connecting Nature EU projects (Figure 3). These two frameworks are based on the original business model canvas from Osterwalder<sup>2</sup>, which proposes three main dimensions of the canvas:

- Value proposition: what the customer or end-user wants?
- Value creation and delivery: who is needed to create and deliver the value proposition?
- Value capture: how much will it cost to deliver the value proposition and how to pay for the product or service delivered?

<sup>2</sup> Presented in the book “Business Model Generation: A Handbook For Visionaries, Game Changers, and Challengers”

Key Activities:	Key Resources	Value proposition	Key Partners	Key Beneficiaries
			Governance	
Cost Structure		Cost Reduction	Capturing Value	

2.SUPPLY SIDE	1. PROBLEM, SERVICE AND VALUE	3.DEMAND SIDE
<b>CLUSTER C. SUPPLY</b>	<b>CLUSTER A. FLOW OF ES SERVICES</b>	<b>CLUSTER E. DEMAND</b>
<b>STEP 4. WHO IMPLEMENTS</b> <i>Who takes the responsibility</i>	<b>STEP 1. PROBLEM TO BE ADDRESSED</b>	<b>STEP 9.WHO OWNS THE PROBLEM</b> <i>Who is affected</i>
<b>STEP 5. KEY ACTIVITIES</b> <i>Measures composing the strategy to address the problem</i>	<b>STEP 2. VALUE PROPOSITION</b> <i>Main service provided</i> <i>Damage costs/avoided costs + value of co-benefits</i>	<b>STEP 10. CUSTOMER SEGMENTS</b>
<b>STEP 6. KEY RESOURCES</b> <i>Needed to implement the measures, e.g. knowledge, people and capacity, legal frame, political support, other, ...</i>	<b>2A. Primary service and value</b> <i>Risk reduction service and avoided costs</i>	<b>10A. Direct Beneficiaries</b> <i>Those who benefit directly from the primary value, i.e. risk reduction value</i>
<b>STEP 7. KEY PARTNERS</b> <i>Key stakeholders you need to engage with to obtain the resources</i>	<b>2B. Secondary service and value</b> <i>Co-benefits and associated values</i>	<b>10B. Clients</b> <i>Those who pay for the service</i>
	<b>CLUSTER B. REGULATORY CONTEXT</b>	<b>10C. Extended Beneficiaries</b> <i>Those who benefit indirectly of the main value and co-benefits</i>
	<b>STEP 3. REGULATION</b>	<b>CLUSTER F. REVENUE STREAMS</b>
	<b>4.SUPPLY ↔ DEMAND</b>	<b>STEP 11. REVENUE STREAM</b> <i>Income streams associated with services/value generated, including private sector and private investments</i>
<b>CLUSTER D. COST STRUCTURE</b>	<b>CLUSTER E. SUPPLY-DEMAND INTERACTIONS</b>	<b>STEP 12. FUNDING COMING FROM</b>
<b>STEP 8A. Life Cycle Costs</b> <i>Costs of implementing the NBS measures including capital, operation and maintenance</i>	<b>STEP 13. CUSTOMER RELATIONSHIPS</b> <i>Type of communication between service provider and clients</i>	<b>12A. Tariffs</b>
<b>STEP 8B. Opportunity costs</b> <i>Avoided benefits from implementation of alternatives</i>	<b>STEP 14. CHANNELS</b> <i>Means of communication between service provider and clients</i>	<b>12B. Taxes</b>
		<b>12C. Transfers</b>
		<b>12D. Private</b>
	<b>5.IMPACT</b>	
	<b>CLUSTER H. IMPACT</b>	
	<b>STEP 15. IMPACT THROUGH KPIS</b>	

Figure 3. The Connecting Nature (above) and the NAIAD NAS (below) business model canvases

These two canvases appear in the literature as essential references for developing business models for NBS projects (More et al., 2021) and differ in some respects concerning the original canvas. For example, the Connecting Nature business model canvas expands the meaning of value proposition to social and environmental aspects instead of only focusing on the economic challenge or opportunity to be solved by the project or business (Connecting Nature, 2019). Furthermore, this canvas also renames the customer relationships and customer segments sections to key partners and beneficiaries, under the logic that NBS projects do not always lead to business or seller-buyer relationships.

On the other hand, the NAIAD Natural assurance scheme (NAS) canvas framework proposes a methodology oriented to NBS projects focused on disaster risk reduction (Mayor et al., 2021). Consequently, the method expands on the traditional business model to include aspects of ecosystem service flows during the value proposition phase, to estimate avoided costs due to implementing an NBS project.

Although there have been significant methodological advances, NBS are still at an early stage in implementation and face several barriers to scaling up and mainstreaming. One of the most significant

barriers is the difficulty in accessing funding and finance that help reduce and share investment efforts from different stakeholders, including public entities, often the main actors involved.

Regarding the financing of NBS, there are pioneering works such as the Think Nature project, which proposes different typologies of financing sources based on the nature (public or private) of the actors involved (Somarakis et al., 2019). Another of the most relevant works is the European Investment Bank's guide to financing conservation and nature-based solutions projects, which provides a tool to develop interesting projects for the eyes of potential private investors, such as banks and financial institutions (EIB, 2018).

More recent work on NBS financing includes the report by Brears (2022) and the recent publication of Network Nature's "The Vital Role of Nature-Based Solutions in a Nature Positive Economy" (McQuaid et al., 2022). The former explores new public and private business models. It discusses blended finance as an alternative for generating innovative financing cases. At the same time, the latter presents case studies of different market mechanisms for NBS and hypothesizes their future role in driving a nature-positive economy.

The literature on financing NBS varies greatly depending on the category of NBS. For example, the FAO studies on Local financing mechanisms for forest and landscape restoration (FAO, 2021b) and Developing Bankable business plans (FAO, 2021a) synthesize some of the lessons learned on the financing of NBS in the ecological restoration and forest landscape restoration sector, presenting different types of financial instruments, according to the nature of the returns generated by the project (social, environmental, economic) and the type of investors.

On the other hand, few reports document the financial instruments for solutions with a WEFE Nexus approach. One of the few is the UNECE (2021) report on solutions and investments in the WEFE Nexus, which presents examples of different projects categorized as Nexus solutions and the sources of financing used in each case, as well as opportunities to mobilize funding for future Nexus projects.

Since the concepts of financing both NBS and WEFE Nexus solutions are relatively recent, other studies discuss financing for nature in a broader sense. For example, the World Bank's (Blarel et al., 2019) work on Mobilizing Private Finance for Nature discusses ways to involve the private sector in financing actions and projects, mainly through financing green and greening financing. On the other hand, publications such as BIOFIN's catalogue<sup>3</sup> of instruments for financing projects that promote biodiversity show one of the most exhaustive examples in the efforts to group and classify financial instruments. This work was later complemented by the publication of the "Little book of investing in nature" (Tobin-de la Puente and Mitchell, 2021), where different biodiversity financing mechanisms are proposed. In any case, work is still needed to develop clear and robust business cases for Nexus-oriented NBS that can attract private and impact investors.

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<sup>3</sup> [BIOFIN Catalogue of Finance Solutions](#)

### 3. Methodology for the report

This section presents the methodological approach for developing the LENSES business and governance model framework for NBS with a WEFE Nexus approach and the identification of potential funding instruments.

The data for the study comes from three sources:

- Literature review from relevant sources about NBS business and governance models and financial instruments.
- Interviews with key potential financial actors to deepen into the challenges and opportunities of investing in Nature-based Solutions with a WEFE Nexus approach.
- Data and knowledge from other LENSES products, particularly the work from the University of Padova in the reports D6.1, "Socio-economic indicators and framework for Nexus-relevant NBS," and D6.2, "Policy indicators and framework for Nexus-relevant NBS" and the work from the Technical University of Crete in the report D5.1, "Critical review of existing NBS evaluation frameworks"

#### 3.1 Literature review of relevant studies

As a first stage, we conducted a broad review of scientific and grey literature about business and governance models for NBS and similar approaches including reports, guidelines, and methodologies, from January 2022 to January 2023 (Table 1). The exercise consisted of a search via Google Scholar and Google using a combination of the following keywords:

Table 1. Keywords for the literature review

Keyword 1		Keyword 2		Keyword 3
Nature-based solutions	+	Business models	+	Water-Ecosystem-Food Nexus
NBS	+	Governance	+	Water-Energy-Food Nexus
Ecosystem-based adaptation	+	Financing	+	WEF Nexus
Nature	+	Funding	+	And other related words...
Biodiversity	+	And other related words...		
And other related words...				

The documents were then evaluated based on their title and abstract to determine their relevance for this work. Given that this exercise had a technical focus rather than an academic one, the results from Google Scholar and Google were considered enough, and no further scientific literature directories were consulted.

The review focused on literature and examples of NBS in rural and agricultural landscapes, as the LENSES pilot sites are exclusively in rural areas. For this reason, results about NBS in urban areas were not included.

The final list included 20 references, of which 18 are reports, and two are academic papers. The reports consulted come mainly from two types of sources. On the one hand, there are the synthesis documents of different European research and innovation projects to promote NBS (5). On the other hand, there are reports of pioneering institutional organizations in the field of NBS and the WEFE Nexus (10).

Table 2. Selected references of the literature review

#	Title of the document	Authors	Main topic
1	Investing in Nature: Financing conservation and Nature-based Solutions	EIB (2018)	Opportunities and barriers for NBS financing
2	Mobilizing Private Finance for Nature	Blarel et al. (2019)	Overview of mechanisms for financing Nature
3	Nature-Based Solutions Business Model Canvas Guidebook Challenges of financing and business models for NBS	Connecting Nature (2019)	NBS business model development
4	Towards Nature-based solutions in the Mediterranean	IUCN (2019)	Introduction to the definition of NBS
5	Think Nature Handbook	Somarakis et al. (2019)	Introduction to the definition of NBS
6	Global standard for Nature-based Solutions	IUCN (2020)	Introduction to the definition of NBS
7	Nature-based solutions for adapting to water-related climate risks	OECD (2020)	Mechanisms for NBS financing
8	Taking Nature-based solutions programs to scale	Bierbaum et al. (2021)	Scaling pathways for NBS projects
9	Evaluating the impact of nature-based solutions. A handbook for practitioners	Dumitru and Wendling (2021)	NBS impacts and measurement
10	Developing bankable business plans	FAO (2021a)	NBS business model development
11	Local financing mechanisms for forest and landscape restoration	FAO (2021b)	Opportunities and barriers for NBS financing
12	Natural assurance schemes canvas: A framework to develop business models for nature-based solutions aimed at disaster risk reduction	Mayor et al. (2021)	NBS business model development
13	State of the art and latest advances in exploring business models for nature-based solutions	Mayor et al. (2021)	NBS business model development
14	The little Book of investing in Nature	Tobin-de la Puente and Mitchell (2021)	Mechanisms for NBS financing
15	BIOFIN Catalogue	UNDP (2021)	Mechanisms for NBS financing
16	Solutions and Investments in the Water-food-energy-ecosystems nexus	UNECE (2021)	Opportunities and barriers for NBS financing
17	Common success factors for bankable nature-based solutions	Baralon et al. (2022)	Opportunities and barriers for NBS financing
18	Financing Nature-based solutions: Exploring Public, Private and Blended Finance models and case studies	Brears (2022)	Opportunities and barriers for NBS financing
19	Connecting Nature: A practical guide to using co-production for nature-based solutions	Connecting Nature (2022)	NBS business and governance models
20	The Vital role of NBS in a nature-positive economy	Mcquaid et al. (2022)	Mechanisms for NBS financing



The second phase of the literature review consisted of a search for potential financing instruments for NBS in rural areas at a global, European, and Mediterranean level. Since the term NBS is still novel, the search was extended to terms encompassed under this concept. Thus, a Google search was performed with the word "financing" plus the following keywords:

- NBS for disaster risk reduction
- Sustainable agriculture
- Protection and conservation of ecosystems
- Ecological restoration of degraded terrestrial ecosystems
- Restoration and creation of semi-natural water bodies and hydrographic networks
- Monitoring of NBS

The search returned mainly websites of different types of organizations (e.g., financing facilities, asset managers, banks, cooperation agencies) and catalogs on financing instruments for nature and biodiversity. These websites were analyzed and included/discarded based on their relevance to the present work.

### 3.2 Interviews with financing actors

To understand how to develop better NBS business models able to meet the information needs of potential funding sources, we decided to conduct a series of interviews to potential stakeholders with financing availability.

The identification and selection of the relevant players to be contacted was carried out considering the funding potential of each of them. To define the macro-categories and sectors to be interviewed, we carried out an internal brainstorming; this exercise allowed us to identify the following categories:

1. EU funds
2. Corporate investors
3. Private foundation/Trust
4. Multilateral funds (e.g., EBRD, World bank)
5. Commercial banks (Ethical banking)
6. Insurance firms and institutional investors (e.g., pension funds)
7. Asset management
8. Utilities and multiutilities

Reference contacts for each sector were found through convenience sampling and web-based research for the contacts not at our disposal. Furthermore, we asked the LENSES project partners if they could point us potential people from these sectors to interview.

We contacted by email 28 actors and received replies from 14 of them, with whom we organized the interviews. 6 of the total 14 interviews were conducted with actors from the Italian multi-utility sector. Utilities and multi-utilities of the water management sector, as hybrid actors and providers of public good and services, could be seen as possible financiers and implementers of NBS. Indeed, they can obtain benefits from the implementation of NBS, directly as in the case of water services providers (such as saving costs) or indirectly, through for example reputational benefits (biodiversity and CO2 compensation). As this was half of the sample, we decided to reserve a dedicated in-depth discussion for this sector.

In general, the interviews were structured to allow us to understand:

- The knowledge about the concept of NBS by the respondents.
- The interest of the sector in developing NBS projects (also alternatively to traditional “grey” solutions)
- The potential barriers they face in the development of NBS projects and the key strategies to overcome (or mitigate) them.
- Current and potential projects defined as NBS that these actors developed (or are developing or will be developed) to be deepened in further analysis.

The interviews were conducted from July to December 2022 and the methodology we opted for was semi-structured interviews, consisting of a total of 12 open questions to create a discussion. Each interview lasted approximately 30 minutes.

### 3.3 Data and knowledge from other LENSES products

The third source of data and information for the present work comes from methodologies and documents developed in the framework of the LENSES project. Particularly the development of the business and governance model framework for NBS with a WEF Nexus approach takes elements from the following project documents:

- Deliverable 6.1, "Socio-economic indicators and framework for Nexus-relevant NBS"
- Deliverable 6.2, "Policy indicators and framework for Nexus-relevant NBS"
- Deliverable 5.1, "Critical review of existing NBS evaluation frameworks"

## 4. Results

This section presents the main results of the work. The first part of the results introduces the proposed methodology for developing business and governance models for LENSES NBS projects, based on the literature review, the interviews with financial actors, and other LENSES products. This methodology is structured in 9 modules to be completed by stakeholders interested in developing an NBS project, covering from the fundamental aspects of the project idea and justification to the proposed governance structure and possible financing mechanisms.

The second part of the results presents various instruments and mechanisms for financing NBS projects, which vary according to the type of NBS, the scale of the project, and the project implementation phase, among others. The classification includes a separation between financial and market mechanisms and proposes a list of possible sources of financing for these projects.

### 4.1 The LENSES Business and governance model framework for Nexus NBS

The results of the literature review and the interviews allowed the development of the current LENSES business and governance model framework, which seeks to consider socio-economic criteria and policy and governance aspects as fundamental criteria for the development of an NBS project to face the challenges of the WEFE Nexus. Furthermore, this methodology seeks to help prepare attractive NBS projects for different sources of financing, prepared under the logic of a potential investor or funder.

The final framework comprises nine modules grouped into the traditional categories of a business model canvas: **1) value proposition**, **2) value creation and delivery**, and **3) value capture** (Figure 4). The modules within each of these categories consist of instructions that seek to collect the fundamental information for developing a business model for an NBS with the potential to be financed.

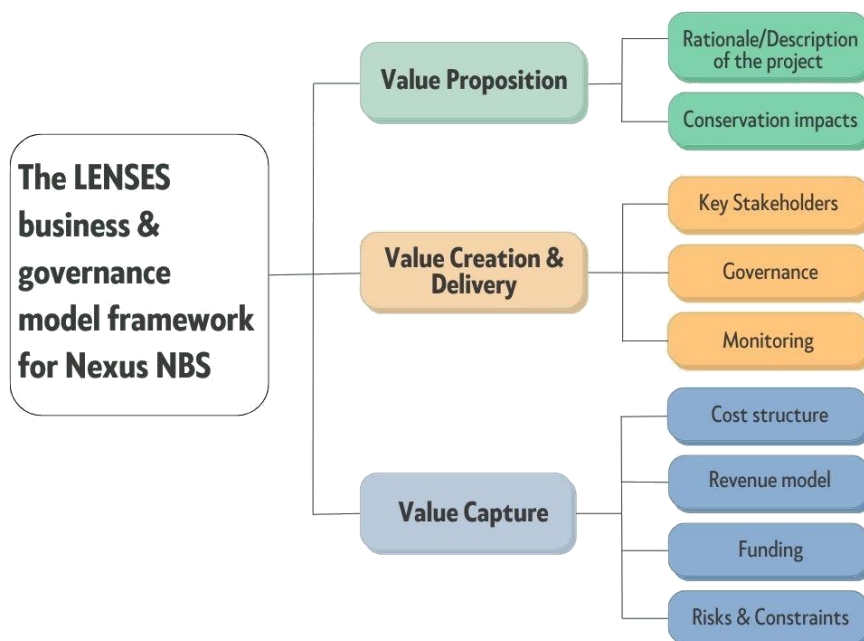


Figure 4. The LENSES Business and governance model framework.

The business and governance model development helps identify various elements to make possible the implementation of the solution: ranging from defining the necessary resources, the critical partners to collaborate with, the governance arrangements to maintain the solution, and the solution's cost structure up to the point to identify possible financing sources.

The objective of the modules is to be utilized by the user with different potential levels of detail, depending on the available information for the project, the user's profile (e.g., academic or business), and the type of funder to whom they want to propose the NBS project. In this sense, although going through all the modules is desirable, it is not considered strictly necessary.

Each of these modules is connected to important references and examples on different aspects of NBS project development (e.g., IUCN Global Standard for NBS), as well as to other documents developed in the LENSES project, such as:

- the socio-economic analysis of NBS, presented in greater detail in Deliverable 6.1
- the analysis of the policy environment for enabling NBS adoption from Deliverable 6.2
- the roadmap to navigate the available catalogs of Nature-based Solutions and finalized list of candidates NBS developed in deliverable 5.2.

Each module is explained in more detail below:

## Value proposition

This component of the business model canvas consists of defining how, according to the identified Nexus challenges, the proposed NBS is offering value from the environmental (e.g., addressing droughts), social (e.g., increased food security), and economic (e.g., job creation) dimensions. Moreover, this step helps consider and prioritize trade-offs between these dimensions.

In our case, the value proposition is reflected in the project's rationale, explaining which challenges the NBS project wants to address through the enhancement of nexus-related ecosystem services and how the proposed solution could contribute to addressing such challenges, generating positive impacts on biodiversity conservation.

### 1. MODULE 1: Rationale and description of the project:

This module allows the user to describe the project's general objective and justify why it is important to develop it. This process begins by describing the current societal challenges related to the WEF Nexus in the project's area, identifying the ecosystem services that the NBS wants to improve, proposing the activities or bundles of NBS that are required to increase the provision of these services and describing the paths to scale the project and generate long-term impacts.

*1.1 Describe the main challenges of the WEF Nexus present in the project's area at the scale the user can impact.*

A starting point can be to classify the challenges in the project area based on the 12 societal challenges defined by the European Commission (Table 3). From these challenges, the user is asked to describe the ones the project will focus on.

Table 3. The societal challenges defined by the European Commission. Source: Dumitru & Wendling (2021)

N°	Societal challenges
1	Climate resilience
2	Water management
3	Natural and climate hazards
4	Green space management
5	Biodiversity enhancement
6	Air quality
7	Place regeneration
8	Knowledge and social capacity building for sustainable urban transformation
9	Participatory planning and governance
10	Social justice and social cohesion
11	Health and well-being
12	New economic opportunities and green jobs

More information can be found in:

- LENSES D5.1 “Critical review of existing NBS evaluation frameworks”, page 16
- [Evaluation the Impact of Nature-based: EU Handbook for practitioners Solutions](#) (Dumitru & Wendling, 2021)

1.2 Describe the ecosystem services the project aims to strengthen.

For this activity, the user is asked to select from the classification of ecosystem services presented in the Table 4 and describe those services the project will seek to strengthen.

Table 4. List of ecosystem services and categories equivalence from LENSES D5.1 and D6.2

Equivalent of Ecosystem Services in D6.1	Ecosystem service category
Water provision	Provisioning
Food provision	
Energy provision	
Materials Resources	
Genetic Resources	
Regulation of water flows	Regulation and maintenance
Climate regulation	
Water purification	
Moderation of extreme events (flood protection)	
Erosion prevention	
Biological control	
Lifecycle maintenance	Cultural
Opportunities for recreation and tourism	

More information can be found in:

- LENSES D6.1 “Socio-economic indicators and framework for Nexus-relevant NBS”, page 12

*1.3 Describe the solution the project provides to the previously mentioned challenges.*

Based on the LENSES NBS categories (Table 5), this activity requires describing which NBS are selected for the current project and explaining how they contribute to strengthening ecosystem services, addressing the abovementioned challenges.

Table 5. Nature-based solutions categories used for the LENSES analysis.

NBS category	Type
Protection and conservation strategies in terrestrial, marine, and coastal areas ecosystems	Type 1 Better use of protected/natural ecosystems
Agricultural landscape management	Type 2 NBS for sustainability and multi-functionality of managed ecosystems
Monitoring	Type 2 NBS for sustainability and multifunctionality of managed ecosystems
Ecological restoration of degraded terrestrial ecosystems	Type 3 Design and management of new ecosystems
Restoration and creation of semi-natural water bodies and hydrographic networks	Type 3 Design and management of new ecosystems

More information can be found in:

- LENSES D5.1 “Critical review of existing NBS evaluation frameworks”, pages 27 to 34.
- [Investing in Nature: Financing Conservation and Nature-based Solutions](#), page 7 (EIB, 2018)

*1.4 Describe the path to scaling the project.*

This step requires reflecting on and describing the possible strategies to increase the project's impact or sustainability over time. To illustrate to the user, the three approaches suggested by Salafsky et al. (2021) to scale NBS projects are proposed:

- **Scaling Out - Replicating an Initial Pilot Strategy:** This type of scaling can be carried out in three ways: 1) expanding the current scope of the pilot to include more actions or a longer time horizon; 2) replicating the pilot in several new pilots in the area of interest, transforming it into a program with several local projects or; 3) Promote innovation in the area of interest by offering the knowledge generated by the pilot to other actors so that they can adopt these practices in other projects.
- **Scaling Up - Developing System-Level Strategies:** This scaling path consists of engaging with key stakeholders (e.g., public authorities or big companies) to take the pilot's actions to a larger scale and with higher leverage.
- **Scaling Deep - Transforming System Intent:** This path to scaling consists of developing a long-term vision for the area of interest through actions to change the underlying values, goals, and mental models of the actors causing the problems in the overall system.

More information can be found in:

- [Taking Nature-based Solutions Programs to Scale](#) (Bierbaum et al., 2021)

Optional instructions:

*1.5 Describe how the most pressing societal challenge(s) for rights-holders and beneficiaries are prioritized.*

This activity consists of verifying and explaining how the definition of the challenges that the project seeks to address has been decided in agreement with the project stakeholders, following an inclusive and transparent consultation process.

*1.6 Describe the Synergies and Trade-offs with other ongoing projects in the landscape.*

This activity describes how the project can create synergies with other projects, programs, and policies at the landscape level and the potential trade-offs or overlaps it can generate with these actions.

More information can be found in:

- The [IUCN Global Standard for Nature-based solutions](#), Criteria C1.1 and C2.2 (IUCN, 2020)

## **2. MODULE 2: Conservation impacts**

This module helps the user discuss how the NBS project contributes to ecosystem integrity and biodiversity net gain. This aspect is essential to consider since the design and implementation of an NBS project must place improving functionality and connectivity of the ecosystem at the centre of its strategy. Furthermore, a project that considers biodiversity conservation and enhancement can access different funding sources for biodiversity.

*2.1 Describe the identified opportunities to enhance ecosystem integrity and connectivity through the NBS strategy.*

This step requires to describe how the proposed project contributes to increase biodiversity in the implementation area. Options to achieve this objective include improving the connectivity of the project area with surrounding natural ecosystems or the introduction through the project of lost elements of an ecosystem, such as plant or animal species.

*2.2 Explain how the NBS actions directly respond to an evidence-based assessment of the current state of the ecosystem and its degradation drivers (C3.1).*

This step requests a justification of how the planned NBS project responds to the challenges of ecosystem degradation in the area of interest. It is desirable at this point to have studies on the key ecological functions of the area that have been lost and those that are being maintained, as well as information on existing threats that jeopardize the integrity of the ecosystem. These documents will help establish the baseline and define project objectives that effectively respond to the main ecological challenges of the area, generating a net biodiversity gain.

More information can be found in

- The [IUCN Global Standard for Nature-based solutions](#), Criteria C3.1. and C3.4 (IUCN, 2020)

## **Value creation and delivery**

This component of the business model canvas, building on what is defined in the value proposition part, consists of establishing which key partners are needed to effectively implement the value proposition and identifying the main beneficiaries of it. Furthermore, this component is fundamental to define the best governance arrangements to involve stakeholders in a participatory way, considering the opinions of all the variety of actors involved in the NBS project. Monitoring is also crucial to delivering value, as it allows to

measure in quantitative terms the benefits produced by the NBS and enables the avoidance of negative consequences for ecosystems, thus ensuring the long-term sustainability of the NBS project.

### 3. MODULE 3: Key stakeholders

This module allows the user to describe the key actors involved in the entire process of design and implementation of the NBS project. This goes from the identification of possible implementers devoted to carrying out the project and sponsors required to provide the necessary resources for the implementation of the NBS, to the identification of the main beneficiaries affected by the project's impacts.

Key partners and key beneficiaries are here considered within this same category to reflect the overlap which sometimes exists between partners and beneficiaries involved in the implementation of NBS projects. For example, the community is often a key beneficiary but is also usually an important partner. Local business may be a beneficiary and also a key partner.

#### *3.1 Describe the potential project implementers and explain why they are the right person for their role.*

This step requires identifying the right people to implement the project, thus the key partners required to deliver the activities identified in the value proposition component. It is important to make sure they have the appropriate expertise and management soft skills, that they cover all fields of expertise and that they come from different geographical and legal levels, depending on the level in which the NBS is being implemented. The involvement of so many stakeholders can be justified by the equally large number of goals and co-benefits the NBS may have.

More information can be found in:

- [Connecting Nature: Nature-Based Solutions Business Model Canvas Guidebook](#), page 17 (Connecting Nature, 2019)

#### *3.2 Identify key stakeholders who are directly and indirectly affected by the NBS.*

This step allows an understanding of all the possible beneficiaries of the activities, i.e., those affected by the challenges. It is important to identify both direct end-user beneficiaries, namely those who benefit most directly from the NBS and who have a higher level of interaction with it and co-beneficiaries (i.e., those who are somewhat affected by the benefits generated by the NBS, whether on different spatial or temporal scales). Equally important is to consider all the environmental, social, and economic impacts that an NBS may have and consequently the categories of stakeholders that may be affected by them.

More information can be found in:

- [Connecting Nature: Nature-Based Solutions Business Model Canvas Guidebook](#), page 18 (Connecting Nature, 2019)
- The [IUCN Global Standard for Nature-based Solutions](#), Criteria C5.3 (IUCN, 2020)

#### *3.3 Assess if the project has Stakeholder Endorsement*

This step allows to assess whether the NBS project is supported and accepted by the community, as this is a critical element for a successful implementation of NBS, as extensively discussed in the literature (Martin et al., 2021).

More information can be found in:

- Lenses D6.2 "Policy indicators and framework for Nexus-relevant NBS", page 23
- [OECD's Nature-based solutions for adapting to water-related climate risks](#), page 15 (OECD, 2020)



#### 4. MODULE 4: Governance

This module allows the user to define what type of governance model is most appropriate for the NBS project given the different activities defined in the value proposition and the key stakeholders involved in the process. Good governance has been identified as one of the biggest challenges to the successful implementation of NBS as it enables the NBS policy progress, therefore its identification is crucial from the very steps of the planning process implementation of the project. NBS are often very complex with many different partners and beneficiaries involved: it is important to consider early in the planning process how different stakeholders will be engaged in ongoing management and operations, and what governance structures are needed to facilitate this.

##### 4.1 *Involve the stakeholders in all the process of the NBS intervention.*

This step requires the involvement of relevant stakeholders in all the process of the intervention given the proven importance of using participatory approaches in decision-making in all the phases of NBS intervention (Figure 5). Instead of just informing or consulting relevant stakeholders, an equal collaboration should be established so that local stakeholders play an integral role in both the problem definition and problem solving.

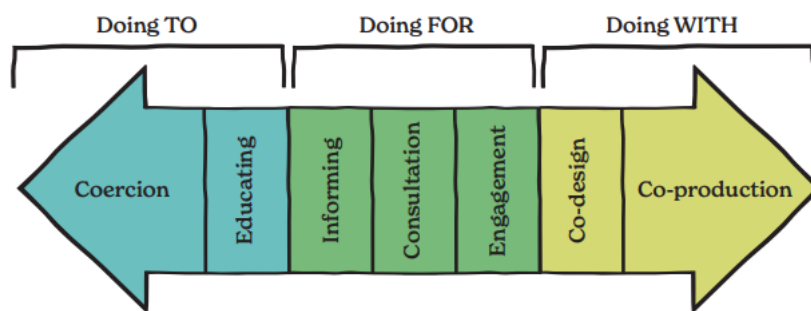


Figure 5. An adaptation of the participation ladder. Source: Connecting Nature (2022)

More information can be found in:

- [Connecting Nature: A practical guide to using co-production for nature-based solutions](#) (Connecting Nature, 2022)
- Lenses D6.2 “Policy indicators and framework for Nexus-relevant NBS”, page 23

##### 4.2 *Guarantee participation based on mutual respect and equality, regardless of gender, age or social status, and upholds the right of Indigenous Peoples to Free, Prior and Informed Consent (FPIC)*

This step requires ensuring an effective participation of all stakeholders, where they get the right information at the right time and the inputs they provide is meaningfully addressed. In doing so, a conscious effort is required to ensure that traditionally excluded groups are actively brought into the process in a manner that upholds their dignity and encourages their participation. This is particularly the case when an NBS intervention operates or impacts on the lands and territories of indigenous peoples, where their right to self-determine interventions and outcomes should follow established FPIC protocols.

More information can be found in:

- The [IUCN Global Standard for Nature-based Solutions](#), Criterion C5.2 (IUCN, 2020)

#### 4.3 *Ensure that the regulatory environment is adequate/appropriate for the intervention.*

This step requires to assess that the regulatory environment allows the adoption of NBS. Therefore, the actors in charge of designing and implementing the NBS intervention must consider different opportunities for NBS integration and address systemic barriers.

Key policy elements to be evaluated can be:

- land use regulation and zoning, intended as the presence of documents defining the land use of the area (e.g., maps, regulations) useful in defining areas for NBS implementation.
- permitting, intended as the presence of needed authorizations to implement the selected NBS;
- safety and performance codes and standards, intended as the presence of a comprehensive set of interconnected standards that aim to regulate that the design and construction of NBS are sound and withstand the rigors of nature and time;
- procurement policies, intended as core policies and standards that define the procedures to follow to ensure effective and compliant procurement practice;
- land rights, so that the NBS implementation does not infringe on anyone's rights, but can produce benefits for different stakeholders in the area involved by the intervention;
- environmental protection regulation, intended as ensuring real effectiveness in terms of environmental improvement and protection through the NBS adoption.

More information can be found in:

- Lenses D6.2 “Policy indicators and framework for Nexus-relevant NBS”, page 26
- [OECD’s Nature-based solutions for adapting to water-related climate risks](#), page 24 (OECD, 2020)

#### 4.4 *Explain the roles and responsibilities of each actor involved within the project.*

This step requires clarifying the roles and tasks of each actor involved in the NBS project. This refers to the need for the presence of dedicated actors for each NBS implementation phase (planning, implementation, and maintenance) and the predisposition of well-defined actors' responsibilities for each NBS phase.

More information can be found in:

- [OECD’s Nature-based solutions for adapting to water-related climate risks](#), page 23 (OECD, 2020)
- Lenses D6.2 “Policy indicators and framework for Nexus-relevant NBS”, page 26

Optional instructions (these are guidelines that contribute to having a more robust exercise but are not considered essential within the module):

#### 4.5 *Share the NBS design, implementation and lessons learnt to trigger transformative change.*

This step requires the sharing of knowledge that has been acquired during the project implementation. This requires capturing, documenting, and ultimately making the lessons learnt from the project available to individuals and stakeholders who may be interested in replicating the process. This includes decision makers, investors and other NBS users from the public and the private sectors.

More information can be found in:

- The [IUCN Global Standard for Nature-based Solutions](#), Criterion C8.2 (IUCN, 2020)

#### 4.6 *Define a feedback and grievance resolution mechanism available to all stakeholders before an NBS intervention is initiated.*

This step includes providing a feedback and grievance resolution mechanism characterised by its acceptance among different stakeholders, transparency, accessibility, and adherence to rights-based approaches. This

mechanism should operate in a predictable and equitable manner, according to a clear set of procedures, roles and rules and be based on engagement and dialogue.

More information can be found in:

- The [IUCN Global Standard for Nature-based Solutions](#), Criterion C5.1 (IUCN, 2020)

*4.7 Describe the mechanisms established to enable joint decision-making of the stakeholders, where the scale of the NBS extends beyond jurisdictional boundaries.*

Managing NBS design and implementation is complex because NBS often involve multiple actions and effects that cross jurisdictional boundaries requiring active cooperation and coordinated actions among stakeholders whose priorities, interests, or values may not be aligned.

More information can be found in:

- The [IUCN Global Standard for Nature-based Solutions](#), Criterion C5.5 (IUCN, 2020)

## 5. MODULE 5: Monitoring

This module allows the user to create a monitoring framework for the NBS project. NBS must deliver tangible and substantive benefits to human well-being, enhance biodiversity, and avoid the production of adverse consequences for ecosystems. For NBS to be successfully adopted, a framework for their monitoring is needed to ensure the long-term sustainability of NBS interventions in a specific context.

*5.1 Describe how human well-being outcomes arising from the NBS are identified, benchmarked, and periodically assessed.*

This step requires that specific, measurable, attainable, realistic and timely (SMART) targets should be defined and used to assess how well the NBS project is helping to achieve tangible and substantive benefits to human well-being. To carry out this activity, key performance indicators for human well-being identified in LENSES 5.1 “Report on the review of existing frameworks” might be helpful.

More information can be found in:

- LENSES D5.1 “Report on the review of existing frameworks”
- The [IUCN Global Standard for Nature-based Solutions](#), Criterion C1.3 (IUCN, 2020)

*5.2 Describe how clear and measurable biodiversity conservation outcomes are identified, benchmarked, and periodically assessed (C3.2)*

This step requires that specific, measurable, attainable, realistic, and timely (SMART) targets should be defined and used to assess how well the NBS project is helping to enhance biodiversity. For each NBS project, the type of target may differ; for example, the target could be the percentage of ecosystem area restored or the return of a keystone species.

To carry out this activity, key performance indicators for biodiversity identified in LENSES 5.1 “Report on the review of existing frameworks” (section 9 and 10) might be helpful.

More information can be found in:

- LENSES D5.1 “Report on the review of existing frameworks”
- The [IUCN Global Standard for Nature-based Solutions](#), Criterion C3.2 (IUCN, 2020)

Optional instructions:

### 5.3 Carry out periodic assessments of the project's unintended adverse consequences.

This step requires that a periodic assessment to be carried out to identify unintended adverse consequences that may occur in the NBS implementation process. Since ecosystems are complex with interdependent components and processes, there will always be a level of uncertainty in how they will react to specific interventions or other external changes. Therefore, NBS should be designed and monitored to minimise and mitigate unanticipated risks that might undermine the ecological foundations of the solution itself.

More information can be found in:

- The [IUCN Global Standard for Nature-based Solutions](#), Criterion C3.3 (IUCN, 2020)

## Value capture

This component of the business model canvas focuses on describing the cost structure of the project and the potential revenue model, detailing how project services flow from the supply side to the demand side and identifying possible risks.

The following modules seek to help the user formulate the financial part of the NBS project to apply to potential funding mechanisms.

### 6. MODULE 6: Cost structure

This module allows the user to describe the cost structure of the NBS project and provide an estimate of the costs associated with its implementation.

#### 6.1 Describe the direct and indirect costs associated with the NBS project.

To carry out this activity, estimate the approximate costs of the project and classify them into the following categories:

- **Capital costs:** These include the initial costs to implement the NBS project, comprising labour, materials, and machinery expenses needed to develop the NBS. They also contain the financial costs incurred when initial investment support is required.
- **Operation and maintenance costs:** These refer to the management and monitoring costs of the NBS project to ensure its implementation over time. They may include, e.g., ecosystem management and restoration costs such as pest control, landowner payments, and enforcement.
- **Opportunity costs:** These include the costs of excluding or limiting the previous activities in place by implementing the proposed project. A way to calculate this cost is

*Opportunity cost = Return of the desired NBS project – Return on second preferred investment choice*

- **Transaction costs:** These are the costs associated with time, resources, and efforts to initiate, negotiate, and enforce the NBS, thus making the context ready for their implementation (e.g., stakeholder involvement, permissions request, workers' training, knowledge sharing, etc.).

More information can be found in

- LENSES D6.1 “Socio-economic indicators and framework for Nexus-relevant NBS”, page 15.

Optional instructions:

6.2 Describe if a cost-effectiveness study has been conducted to support the choice of the NBS project, including the likely impact of any relevant regulations and subsidies.

This step helps the user to consider the project's long-term vision, including calculations of the operational costs and the possible impacts of regulations and subsidies on the project's sustainability.

More information can be found in

- The [IUCN Global Standard for Nature-based solutions](#), Criterion C4.2 and C4.3 (IUCN, 2020)

## 7. MODULE 7: Revenue model

This module helps the user to define the potential revenue streams of the NBS project. It is important to note that NBS projects do not necessarily generate marketable services or products, which poses a challenge in this kind of project to create revenues. Examples of revenues in NBS projects include fees for providing services such as carbon credits, sustainable commodities, or ecotourism (Baralon et al., 2022). Another possible revenue channel from an NBS project includes the avoided costs NBS can generate in relation to natural disasters such as droughts or floods, mainly encouraging public authorities to invest in these projects.

Therefore, this module seeks to facilitate the disaggregation and identification of potential revenue streams from public and private actors for the different phases of project financing.

7.1 Describe and quantify the products/services generated by the project, both marketable and non-marketable.

This activity consists of identifying and quantifying the ecosystem services related to the WEF Nexus that the NBS project generates to estimate its economic benefits, even if not all these benefits can be translated into tradable products and services.

The first step for quantifying the benefits consists of the biophysical estimation of the services provided by the NBS with respect to a baseline scenario (i.e., without the project). Said estimation is made through the following *provision indicators* (Table 6). The second step consists of assigning an economic value to said biophysical estimate through the presented *economic value indicators*.

Table 6. Provision and economic indicators to estimate ecosystem services provided by the project.

Ecosystem Service	Provision indicators	Economic value indicators
Water provision	Fresh and/or process water availability per water use (m <sup>3</sup> /ha per year)	Market price per sector: water (€/m <sup>3</sup> per year)
Food provision	Average production yield (kg/ha)	Market price per crops (€/kg per year)
Energy provision	Converted energy (kWh/m <sup>3</sup> per year) Produced electricity (kWh/m <sup>3</sup> per year)	Market price: energy (€/kWh per year)
Materials Resources	Natural resources extracted (kg/ha per year)	Market price: natural resources (€/kg per year)
Genetic Resources	Number of crop varieties and livestock breed species living in a region/surface	Restoration costs (€/ha per year)
Regulation of water flows	Water storage capacity per land use (m <sup>3</sup> /ha per year) Groundwater recharge rate (m <sup>3</sup> /ha per year)	Replacement costs: (€/m <sup>3</sup> of construction material)
Climate regulation	Carbon sequestration rate per land use (tons CO <sub>2</sub> /ha per year)	Market price: carbon credit (€/ton CO <sub>2</sub> )
Water purification	kg of pollutant retained from soil per soil type	Replacement costs (€/ton of pollutant removed)

Ecosystem Service	Provision indicators	Economic value indicators
Moderation of extreme events (flood protection)	Water storage capacity per land use (m <sup>3</sup> /ha per year) groundwater recharge rate (mm/ha per year)	Replacement costs (€/m <sup>3</sup> of construction material)
Erosion prevention	Amount of soil retained, or sediment captured (m <sup>3</sup> /ha per year)	Replacement costs (€/ton of soil retained)
Biological control	Populations of pest control agents (n/ha)	Replacement costs (€/l of pesticides)
Lifecycle maintenance	Native vegetation or high nature value farmland; Biodiversity index; Structural changes in habitats and other ecosystem characteristics	Restoration costs (€/ha of habitat restored)
Opportunities for recreation and tourism	Number of facilities (e.g., hotels, restaurants, hiking paths, parking lots; n/ha) Results from questionnaires on nature and leisure preferences (wildlife-viewing, hiking, fishing, sports)	Visitors' total expenditure (€)

More information can be found in

- LENSES D6.1 “Socio-economic indicators and framework for Nexus-relevant NBS”, page 14.

### 7.2 Describe for whom the project can create value. Who would want to pay for it?

Based on the services identified in the previous step, this activity consists of determining the stakeholders for whom the project may be interesting (i.e., for whom the project creates value) and who might be interested in contributing to its financing. Some of the possible categories of stakeholders are presented below:

- Citizens through donations and crowdfunding
- NGOs and public foundations
- Private companies (e.g., real estate, utilities, insurance) through corporate social responsibility (CSR) and private foundations
- Governments, international cooperation, EU funds
- Private equity impact funds, development finance institutions
- Traditional investors (e.g., pension funds, commercial banks)

More information can be found in

- [Local financing mechanisms for forest and landscape restoration](#) (FAO, 2021b)
- The [IUCN Global Standard for Nature-based solutions](#), Criterion C4.4 (IUCN, 2020)

### 7.3 Describe how this project will generate cash flows.

This step seeks to determine the different ways the project could generate cash flows. Examples of cash flows include reducing costs of current programs or policies (e.g., fire prevention, agricultural irrigation) or creating revenues from the provision of new products or services (e.g., agricultural commodities, forest products, energy, ecotourism).

More information can be found in

- [Common success factors for bankable nature-based solutions](#) (Baralon et al., 2022)

Optional instructions:

### 7.4 Conduct a cost-benefit analysis (CBA) of the project based on the estimated costs and benefits.

This step involves using the estimated costs and benefits of the NBS project to assess its financial sustainability, using a defined time horizon and discount rate. The CBA's main economic indicators include

the net present value (NPV), the Internal Rate of Return (IRR), the benefit/cost ratio (B/C), and the payback period (PB).

More information can be found in

- LENSES D6.1 “*Socio-economic indicators and framework for Nexus-relevant NBS*”, page 15.

## 8. MODULE 8: Funding

This module allows the user to establish how much financing the project requires, identify potential funding sources, and clearly describe how these resources will be used during the different phases of the project. The module considers recommendations mainly from the interviews with financial actors and relevant literature on investments in NBS and biodiversity.

### 8.1 Estimate how much funding the project requires.

This activity requires establishing the amount of financing needed for the project in each of its phases and its distribution over time. The different phases of the NBS project include:

- **Initial upfront/readiness investment:** this phase refers to the initial feasibility investments of an NBS project, which include capital and transaction costs. These investments support activities such as stakeholder coordination, capacity building, project planning, and design. The funding sources in this phase are usually grants from public organizations and NGOs, crowdfunding campaigns, as well as soft loans to pave the way to high-risk commercial investments.
- **Implementation-related investment:** this phase refers to investments that mainly cover the project's operational and maintenance costs. In this phase, funding sources usually include Corporate Social Responsibility commitments from private companies, private foundation and philanthropy resources, allocations from government budget items, or investments from local banks offering below-market capital.
- **Self-sustaining financing:** this phase covers the project's long-term running costs. In this phase, project costs are expected to be lower than initial investments. In contrast, project services are more mature and ready to generate revenue (e.g., commodity supply chains, recreational services, avoided costs of disasters). Funding sources in this phase mainly comprise market mechanisms such as new commodity markets, ecotourism fees, or payments for ecosystem services (PES).

More information can be found in

- [Local financing mechanisms for forest and landscape restoration](#), page 8 (FAO, 2021b)
- [Investing in Nature: Financing Conservation and Nature-based Solutions](#) (EIB, 2018)

### 8.2 Explain how this funding will be spent.

This step describes how the requested funding will be spent throughout the project, detailing the cost for each activity and the time horizon of the expenses. Likewise, it should describe the methodology to track the costs throughout the project.

More information can be found in

- [Developing bankable business plans A learning guide for forest producers and their organizations](#) (FAO, 2021a)

### 8.3 Provide information about the project's potential portfolio of funding options.

This step allows the user to reflect on the type of funding source required for developing the NBS project. These financing options can be public or private, and their relevance to financing the project varies according

to the project phase, the services provided by the project, and the potential stakeholders. Funding options include:

- Grants from public and private organizations
- Public finance instruments (e.g., taxes and subsidies, charges, and tradable permits)
- Equity investment
- Bonds (e.g., green and resilience bonds)
- Loans
- Market development for specific products
- Payment for ecosystem services (PES)
- Certification and other sustainability standards
- Ecotourism

More information can be found in the second chapter of this report.

- [Local financing mechanisms for forest and landscape restoration](#), page 9 (FAO, 2021b)
- [The Little Book of Investing in Nature](#) (Tobin-de la Puente, J. and Mitchell, 2021)
- [BIOFIN Catalogue of Finance Solutions](#) (UNDP Biodiversity Finance Initiative, 2021)
- [Investing in Nature: Financing Conservation and Nature-based Solutions](#) (EIB, 2018)

## 9. MODULE 9: Risks and constraints

This module allows the user to identify the potential risks associated with the project, evaluate them in terms of probability and severity and determine the corresponding mitigation measures. Risk analysis is a fundamental component in project development since it helps to decide which financing mechanisms are most appropriate while assisting potential funders in feeling more comfortable with the investments.

### *9.1 Explain the main risks that may affect the project's development.*

This activity consists of identifying and classifying the main risks associated with the project's development, considering both those that may affect the revenues and cash flows of the project, as well as the potential risks of the project inside and outside the implementation area.

Risks can be classified into several categories. The approach of this methodology proposes to classify risks as internal and external.

**Internal risks:** includes risks that the project organization can control, for example

- technical and operational risks
- communication and management risks

**External risks:** including risks due to external factors beyond the control of the project organization

- legal risks (e.g., political, currency, corruption and legality)
- economic and market risks (e.g., price volatility and access to markets)
- environmental risks (e.g., natural disasters, pests)
- social risks (e.g., unclear property rights, social conflicts, vandalism)

More information can be found in

- [Developing bankable business plans: A learning guide for forest producers and their organizations](#), page 59 (FAO, 2021a)
- [Investing in Nature: Financing Conservation and Nature-based Solutions](#) (EIB, 2018)
- The [IUCN Global Standard for Nature-based solutions](#), Criterion C2.3 (IUCN, 2020)



9.2 Analyse the identified risks in terms of their probability of occurrence and the severity of their impact.

This activity consists of evaluating each of the risks identified in terms of the possibility of their occurrence and the severity of their impact if they happen. This activity is traditionally carried out through a risk matrix (Table 7) and allows prioritizing the principal risks of the project to define mitigation measures.

Table 7. Risk matrix for the NBS project under development

Risk event	Probability of occurrence (P) (Low, medium, high)	Severity of impact (S) (Low, medium, high)	Score
Technical risks	1, 2, 3	1, 2, 3	PxS
Management risks	1, 2, 3	1, 2, 3	PxS
Economic and market risks	1, 2, 3	1, 2, 3	PxS
...	1, 2, 3	1, 2, 3	PxS

More information can be found in

- [Developing bankable business plans: A learning guide for forest producers and their organizations](#), page 61 (FAO, 2021a)

9.3 Describe the mitigation strategies for the identified risks and who is in charge of implementing them.

This step consists of explaining the mitigation measures proposed for each identified risk and assigning the responsible actor for carrying them out (Table 8). Possible mitigation measures include technological tools, knowledge (e.g., technical assistance), and financial tools (e.g., insurance, guarantees), among others.

Table 8. Example of a mitigation measure table

Risk event	Mitigation measure	Measure responsible
Technical risks	<u>Example</u> : Capacity building programs and partnerships with experts in the project's field	Project officer
Economic and market risk	<u>Example</u> : Project insurance against fluctuations in the prices of commodities and other materials.	Project manager
Management risks	<u>Example</u> : Development of a project communication strategy	Communications office
...		

More information can be found in

- [Investing in Nature: Financing Conservation and Nature-based Solutions](#) (EIB, 2018)
- [Developing bankable business plans A learning guide for forest producers and their organizations](#), page 60 (FAO, 2021a)

It is essential to highlight that the development of each project varies according to multiple factors, such as its objectives, the requirements of the funding organization to which it is being applied, and the role and function of who is developing the project, among others. This variability implies that it is not possible to follow a unique and univocal methodology to develop an NBS project and seek its funding but that each proposal has its particularities.

Therefore, the objective of these modules is to provide guidance on the most critical issues to develop a project that can be funded and is not intended to be a formula whatsoever. The development of an NBS project can follow some or all the modules presented here, according to the needs of both the project writer and the funding organization.

An overview of the modules, including the expected results per module, is presented below in Table 9.

Table 9. Expected results by module.

Business model component	Module	Expected results
Value capture	<b>1. Rationale and description of the project:</b>	A project document that describes its general idea, specifying: <ul style="list-style-type: none"> <li>• What type of solutions are proposed in the project, and what is its area of implementation?</li> <li>• The justification of the project through the context and current challenges around implementation</li> <li>• The pathways to scale the project</li> <li>• The process of involving stakeholders in the construction of the project</li> <li>• Potential synergies with other programs at the landscape level</li> </ul>
	<b>2. Conservation impacts</b>	A complement to the project's document explaining: <ul style="list-style-type: none"> <li>• How the proposed NBS project contributes to the net gain of biodiversity in the implementation area</li> <li>• The specific ways to achieve this objective</li> </ul>
Value creation and delivery	<b>3. Key stakeholders</b>	A complement to the project's document explaining: <ul style="list-style-type: none"> <li>• Who are the project implementers and their expertise relevant to the project?</li> <li>• Who are the key stakeholders and how they are affected directly and indirectly by the project?</li> </ul>
	<b>4. Governance</b>	A robust governance framework relevant to the project, with: <ul style="list-style-type: none"> <li>• Explanation of stakeholder involvement and their responsibilities in the process of the NBS intervention</li> <li>• Review of the regulatory environment</li> <li>• Good practices and lessons learnt from the project</li> <li>• Feedback and grievance resolution mechanisms</li> <li>• Strategy enabling joint decision-making in the case of transnational areas</li> </ul>
	<b>5. Monitoring</b>	Project's monitoring strategy aimed at: <ul style="list-style-type: none"> <li>• Assess human well-being benefits arising from the project.</li> <li>• Assess biodiversity conservation outcomes resulting from the project.</li> <li>• Monitor unintended adverse consequences resulting from the project.</li> </ul>
Value capture	<b>6. Cost structure</b>	<ul style="list-style-type: none"> <li>• A complement to the project's document where the total costs of the project are described.</li> <li>• An excel file where the different costs associated with the NBS project are specified and quantified.</li> </ul>

Business model component	Module	Expected results
	<b>7. Revenue model</b>	<p>A complement to the project's document where its possible gain channels are explained, specifying:</p> <ul style="list-style-type: none"> <li>• Estimation of project benefits in terms of ecosystem services</li> <li>• The definition of the potential funding sources of the project</li> <li>• The type of cash flows generated by the project.</li> <li>• An excel file with a cost-benefit analysis of the project, providing economic indicators based on the estimation of costs and benefits.</li> </ul>
	<b>8. Funding</b>	<p>A complement to the project's document explaining:</p> <ul style="list-style-type: none"> <li>• What is the amount of funding required to implement the project?</li> <li>• How will that funding be spent over the project's life, and how will it be monitored?</li> <li>• What are the potential financing sources and mechanisms for the project?</li> </ul>
	<b>9. Risks and constraints</b>	<p>A complement to the project's document explaining:</p> <ul style="list-style-type: none"> <li>• What are the main risks of the project</li> <li>• What are the mitigation measures for those risks and who is responsible for implementing them?</li> </ul>

## 4.2 Financial and market mechanisms for Nexus NBS in the Mediterranean

The literature review and interviews allowed the identification of different types of financing instruments for NBS in the Mediterranean, which can be grouped into two macro groups: Financial mechanisms and Market mechanisms. Furthermore, blended finance is discussed at the end of the section.

### Financial mechanisms

This type of instrument groups together the mechanisms through which an NBS project receives the necessary financing to establish or sustain itself in its initial phases. These phases of the project comprise the initial investments or readiness investments, which include the capital costs to implement the NBS project, the financial costs incurred when initial investment support is required, or the transaction costs for making the context ready for the project's implementation (Brears, 2022; FAO, 2021b).

Financial mechanisms can be Not-for-profit or For-profit.

#### Not-for profit

- **Grants:** a grant is a transfer of funds to support the development of a project, enterprise, or program, which does not involve a financial return to the granting organization. Grantmakers or the organizations that provide grant funding could be governmental, private, or philanthropic. This type of funding is usually made by organizations whose objectives are not measured only in financial terms but address social and environmental goals (e.g., formalization of employment and reduction of vulnerability of minority populations). A grant application usually consists of a proposal explaining how the funds will be used in detail. The transfer of funds from the grant organization to the grantee is generally done in advance (FAO, 2021b). Examples of known donors for nature-based projects include the [Global EbA Fund](#) (for developing countries) and the [Endangered Landscapes](#) and [LIFE](#) programmes for European countries.
- **Public finance instruments:** these instruments include various government mechanisms, such as taxes, subsidies, charges, and tradable permits. These instruments aim to create an economic incentive for consumers and producers of a good or service to change environmentally damaging behavior. Fundraising through these instruments can be used to carry out ecosystem restoration projects, sustainable agricultural management practices, and deforestation prevention programs (Brears, 2022).
- **Donations and crowdfunding:** donations are one of the simplest but most prevalent mechanisms for funding NBS projects. Donations can come primarily from philanthropic organizations, as well as through crowdfunding, a community-based, typically online initiative where people interested in supporting a project, make a small individual donation that is collected in a pooled fund (Tobin-de la Puente and Mitchell, 2021).

#### For profit

- **Loans:** this financial instrument provides access to capital to develop projects to cover the delay between expenses incurred and product sales in exchange for a loan repayment plus interest. Loans are typically granted by traditional investors such as commercial banks, development banks, or microfinance institutions (FAO, 2021b). There are various types of loans (e.g., short, medium, and long-term), which typically vary in interest rates and repayment arrangements. In some cases, government or civil society organizations may subsidize loans from banks or financial institutions, which allows access to loans at below-market interest rates. Examples include loans to small farmers or small businesses (Brears, 2022).

- **Equity investment:** this type of instrument applies mainly to companies (e.g., nature-based) rather than to projects since it consists of the purchase of shares in a company by an investor. The investor capitalizes the company in exchange for a return in the form of dividends linked to the company's growth in value. This way, the company can finance its operations or incur the initial investment and operating costs. Green equity, as a subset of this type of instrument, is mainly carried out by investment funds called impact investors, which seek not only financial returns but also social and environmental returns. Since this type of investment has a higher risk than other financial decisions, the rate of return is expected to be higher than the interest rate of commercial banks (Tobin-de la Puente and Mitchell, 2021).

A catalogue of the main financing mechanisms for NBS projects with a Nexus approach for the Mediterranean region is presented in Annex 1 at the end of the document.

## Market mechanisms

The instruments presented in this category share the characteristic of creating revenue streams by selling goods and services in the market. These goods and services can be sold directly to the final consumer (i.e., citizens) or public and private actors interested in sustaining an ecosystem service. For example, a public entity might be interested in regulating water flows in a watershed to reduce the risk of flood disasters. Therefore, they could finance a scheme to protect river margins through tree planting, compensating landowners for the opportunity cost of such trees instead of potential commercial activity.

Market mechanisms are often an excellent alternative to finance NBS projects when they are already underway or generating the "services," therefore helping to cover the costs of the intermediate or mature phases of the project, such as operation and maintenance.

- **Market development for specific products:** NBS, in some cases, generate provisioning ecosystem services, such as food, raw materials, fiber, energy, or genetic resources, which can be sold in a market (Blarel et al., 2019). Particularly NBS oriented to agricultural landscape management or sustainable agricultural and forestry practices can generate such products to sell in the market while increasing ecosystem resilience and diversifying local livelihoods (FAO, 2021b). In this way, NBS projects can promote a change in agriculture, shifting from a driver of adverse environmental impacts to an alternative that provides climate change adaptation and resilience (Mcquaid et al., 2022). The supply of provisioning ecosystem services allows these types of projects to create business models based on different financing mechanisms, such as loans and the direct market for the goods produced.

An example of the potential for new markets for products from sustainable agricultural and forestry systems is found in Greece. On the island of Crete, the nutritional, industrial, and cosmeological potential of more than 50 native drought and salinity-resistant plants was investigated. Studies show that many of these species, such as the carob tree or *χαρουπιά* (*Ceratonia siliqua*), the Mediterranean cypress (*Cupressus sempervirens*), or the Borage or *μπουράντζα* (*Borago officinalis*) have potential to be cultivated or exploited in the wild, thereby opening opportunities for new markets for products from adaptable plants resistant to climate change trends. More information about this example [can be found here](#) (Christoforidi et al., 2022).

- **Certification and other sustainability standards:** This type of mechanism comprises the certification of market products (e.g., crops, timber, and other commodities) under sustainability standards that generate added value for consumers (Blarel et al., 2019). This certification allows the certificate holder to sell their products at a market premium and make specific claims of generating positive environmental and social impacts associated with producing the good or service (FAO, 2021b). Certification under the

standard is obtained after the product has demonstrated that it is produced under sustainability principles and criteria, which typically include social, environmental, and economic dimensions such as: compliance with laws and regulations, respect for the rights of indigenous communities, evaluation of environmental impacts, safeguarding of areas with high conservation value, among others.

One example of certification applied to the Mediterranean region involves the NGO The Rainforest Alliance and hazelnut producer groups in Turkey. With the support of food companies that require hazelnuts in their supply chain, the farming communities are seeking certification under the Rainforest Alliance standard to improve primarily the working conditions of the seasonal workers who harvest the nuts. Certification is also expected to promote more accountability in managing environmental and other social impacts by farmers, who will be able to improve their incomes due to a higher price for certified hazelnuts. More information about this example [can be found here](#) (Rainforest Alliance, 2022).

- **Payment for ecosystem services (PES):** These mechanisms aim to connect providers of a service that is not traditionally traded in the market, such as water quality, erosion prevention, or the aesthetic value of a landscape, with potential consumers interested in conserving these services, such as public institutions, utilities, or private companies (FAO, 2021b). In these cases, the consumer pays the supplier for implementing sustainable agro-environmental practices or conserving ecosystems that provide the services of interest, which typically involves an opportunity cost for the supplier, who could use his land for commercial purposes. Payments can be in cash or in-kind and made directly between the consumer and supplier or, in some cases, through an intermediary. In these cases, the intermediary is usually an organization that manages the funds provided by the consumer and develops programs that benefit suppliers. These types of schemes are a promising source of financing for “green infrastructure” projects or those that promote regulating ecosystem services (Blarel et al., 2019).

An example of a PES scheme in the Mediterranean region is the Mature Forest reserves program in Catalonia, Spain. In this program, the public administration signs conservation contracts and grants cash compensation to forest owners who commit to conserving selected forest plots to maintain and increase regional vegetation diversity. These conservation contracts are for 25 years, and compliance is monitored through regular field visits. In exchange, forest owners are compensated for the opportunity cost of not harvesting all the timber that they could. More information about this example [can be found here](#) (Associació Sèlvans, 2018).

- **Ecotourism:** Finally, ecotourism is a market mechanism becoming increasingly relevant as a business model for nature-based initiatives. This type of responsible tourism involves the enjoyment of natural or semi-natural areas in a way that supports conservation and minimizes the impact on local communities. Because the main asset of ecotourism is nature, a portion of the revenue from tourism packages or entrance fees is earmarked to correctly manage natural capital and recreational ecosystem services (Tobin-de la Puente and Mitchell, 2021). Typically, ecotourism comprises activities such as agro-ecotourism, which generates incentives for farmers to manage their agricultural land sustainably; wildlife-based tourism, which encourages local communities, tourism companies, or public authorities to maintain the good quality of the ecosystems visited; and community-based tourism, which provides for the association of local communities and the conservation of their traditions and customs. (FAO, 2021b).

Examples of ecotourism in the Mediterranean region can be found in various places, from Italy to Jordan. Hidden Mediterranean is one of the platforms responsible for promoting different destinations organized around ecotourism, sustainability, and positive impacts on local communities in high-potential tourism sites in the Mediterranean. Examples of NBS that use ecotourism as a marketing mechanism include the

Oak Walk in Umm Qais and the Jabal Moussa Biosphere Reserve in Jordan. More information about this example [can be found here](#) (Hidden Mediterranean, n.d.).

Market mechanisms may be more or less suited to different types of NBS according to various aspects of these projects. One of the most important is the main ecosystem services the NBS aims to promote. In this case, solutions that strengthen provisioning services such as food provision, material resources, or energy provision can be considered for being financed through mechanisms such as the development of new markets for agricultural or forestry products or through premium prices resulting from obtaining sustainability certification.

On the other hand, solutions more oriented to providing regulation and maintenance services, such as the moderation of extreme events or soil prevention, could be compatible with Payments for ecosystem services (PES) schemes, where landowners are compensated by an interested actor (private or public) for maintaining a land use that generates an improvement in these ecosystem services.

Finally, if the NBS project has a strong component of recreation and tourism opportunities, it could be compatible with market mechanisms associated with ecotourism (Figure 6).

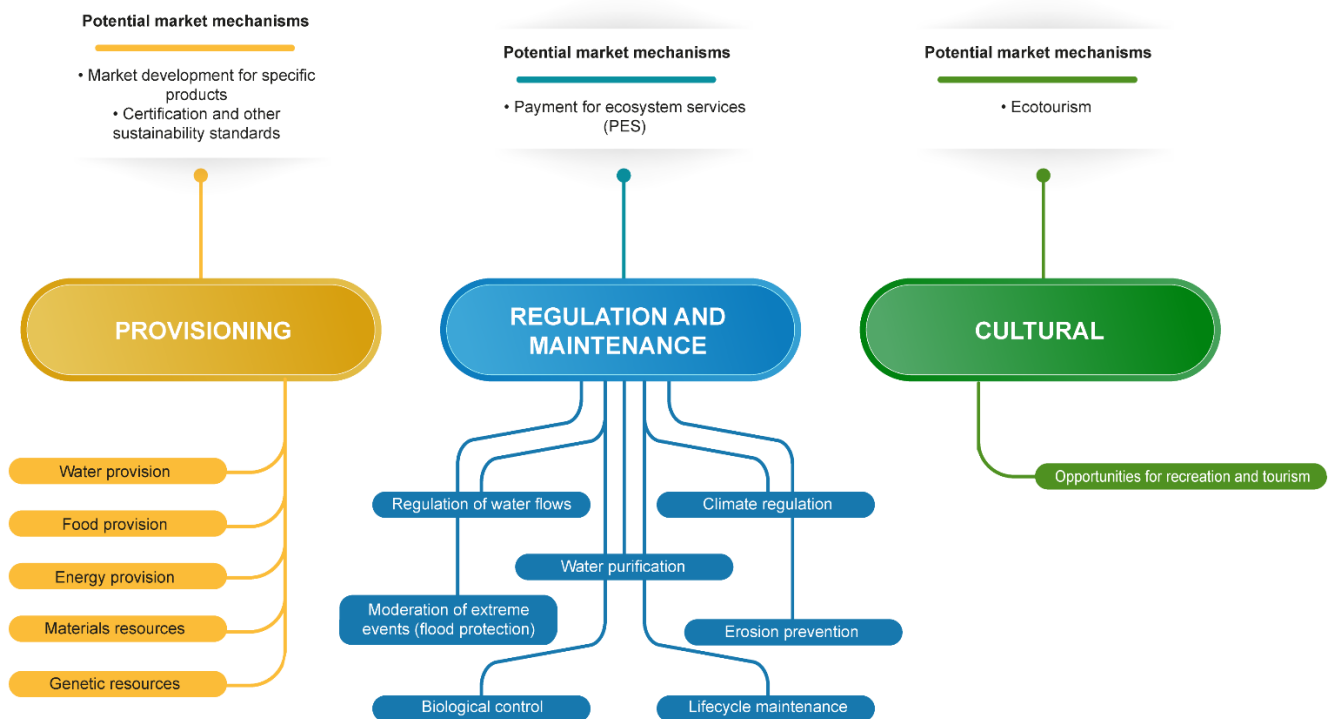


Figure 6. Potential market mechanisms for NBS projects according to the provided ecosystem services.

## Blended finance

It is important to mention that the mechanisms presented above should not be seen as mutually exclusive, as NBS projects often need to rely on several of them to be sustained over time. This combination of multiple public and private sources of financing is known as blended finance and is playing an increasingly important



role in financing innovative nature-based projects. For example, for an NBS project that seeks to develop a supply chain with crop varieties adapted to the effects of climate change, the first phase of funding could come from a research and development grant for the project through a public agency. These funds would be used for the initial investment phases of readiness investments with stakeholders, permitting and procuring machinery and other inputs. Once the project has started, its viability has been more or less defined, and the investment risk has decreased, the project would be ready to apply for other types of financing, such as green loans that would allow for market expansion and the generation of income from the sale of agricultural products. In the same way, public and private financing for a Project can co-occur through the so-called Public-Private Partnerships (PPP). These financing models generate interesting synergies, such as making an investment more attractive for the private sector by reducing its risk due to the guarantee of public financing or promoting the use of public funds for innovative activities and market creation, derived from close collaboration with the private sector.

Blended finance approaches for nature-based solutions are becoming increasingly common and can significantly increase the flow of capital to support these types of initiatives in the future. Projects with a WEF Nexus approach have an opportunity to reach a wide range of stakeholders who may be interested in financing solutions to different multi-sectoral challenges.

More information about Blended finance [can be found here](#) (GEF, 2021).

## 5. Conclusions

This report condenses the efforts of the LENSES task 6.3, "Business and governance models for NBS deployment," integrating all the products of WP6 "Environmental and natural resource economics approaches for Nexus business cases." The document introduces two main results. On the one hand, it presents a methodology for developing business and governance models for Nexus-related NBS projects. On the other hand, it explores different instruments and mechanisms for financing NBS projects.

These two results were developed based on relevant literature on business models, governance, and financing for Nature-based solutions, as well as interviews with key stakeholders and other project products such as D5.1 "Report on the review of existing NBS evaluation frameworks."

The business and governance model framework is structured in nine modules to be developed by stakeholders interested in formulating NBS projects with a Nexus approach that can be financed through different financial and market instruments. The modules cover aspects of project formulation, from the rationale and description of the project to the governance arrangements and the possible cost structure and funding options. These modules are grouped into the main dimensions of a business model, comprising Value proposition, Value creation and delivery, and Value Capture.

On the other hand, the financing options for NBS projects include financial and market mechanisms and examples in the Mediterranean region. These mechanisms should not be considered mutually exclusive since some are more useful in the initial stages of project development, while others can finance the operations and self-sustaining the initiatives. This concept is called blended finance, and it is becoming increasingly important.

As presented in the document, although in more detail in D6.1, "Socio-economic indicators and framework for Nexus-relevant NBS," cost-benefit analyses are fundamental to illustrate the wide range of benefits of an NBS project. The critical point is that not all these cash flows can be capitalized by an investor since many of the benefits produced are of a "public" nature. It is necessary to find a mix of investors with social and environmental indicator goals apart from the traditional financial return benefits. This is undoubtedly one of the following steps that future projects and research should deepen and develop.

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## Annexes

### Annex 1. Examples of financing mechanisms for NBS project with a Nexus approach in the Mediterranean

Financing instruments vary widely in nature and do not apply to all types of NBS (Table 10). For example, some instruments support agricultural landscape management projects, while others focus on the Ecological restoration of degraded ecosystems.

Table 10. The LENSES Nature-based solutions categories and their acronyms.

NBS category	Acronym
Protection and conservation strategies in terrestrial, marine, and coastal areas ecosystems	PCS
Agricultural landscape management	ALM
Monitoring	M
Ecological restoration of degraded terrestrial ecosystems	ER
Restoration and creation of semi-natural water bodies and hydrographic networks	RCWB

Another feature on which these instruments may differ is the phase of the NBS project they are interested in financing. Some financial institutions specialize in readiness projects and seed capital for initial project stages, while others provide funding to well-defined initiatives already underway. Similarly, some institutions finance small, local-scale projects, while others seek higher-scale solutions. These characteristics may influence whether investors decide to finance the project or not.

The main characteristics used in this report to classify financial instruments for NBS with a Nexus approach are presented below.

**Phase of the NBS:** Three main stages of the NBS project are identified to describe how mature the NBS project is (FAO, 2021b).

- Initial upfront/readiness: this phase refers to activities such as opportunity identification, stakeholder engagement, and other transaction costs and capital costs.
- Implementation-related: the project or initiative is underway but in early stages, and the costs are primarily capital and operational.
- Self-sustaining financing: the project is well established, and the costs are primarily operational, and maintenance related.

**Scale of the NBS:** According to the funding request, different financial sectors would be interested or not in investing in the project.

- Small: from 0 to 500.000 euros
- medium: from 500.000 to 5M
- Big: over 5M euros

**Type of investor:** It refers to the actors that manage these potential funding sources, which might have different expected returns, e.g., purely financial vs. financial and environmental (FAO, 2021b).

- Crowdfunding
- NGOs and public foundations
- Corporate social responsibility
- Governments, international cooperation
- Private equity impact funds, development finance institutions
- Traditional investors, including pension funds and commercial banks.

**Region:** Funding from different sources might be available depending on the region of interested of the financing body. Some cooperation institutions fund initiatives solely in developing countries, while others to at the European level.

- Global
- Europe
- Mediterranean
- Specific countries
- ODA countries, including Jordan and Türkiye
- Developing countries, including Jordan

#	Potential financing instruments	NBS category	Type of mechanism	Phase of the NBS	Scale of the NBS project	Type of investor	Region	References
1	Green Climate Fund (GCF)*	PCS ER	Grant Loan	Initial upfront/readiness Implementation-related	Big	Governments, international cooperation	Developing countries (Jordan)	<a href="https://www.greenclimate.fund/">https://www.greenclimate.fund/</a> * <a href="#">How to access the Green Climate Fund?</a>
2	Global EbA Fund	PCS M ER RCWB	Grant	Initial upfront/readiness	Small	Governments, international cooperation	ODA countries (Jordan, Türkiye)	<a href="https://globalebafund.org/">https://globalebafund.org/</a>
3	Global Environment Facility (GEF)**	PCS ALM ER	Grant Loan	Initial upfront/readiness Implementation-related	Small Medium Big	Governments, international cooperation	ODA countries (Jordan, Türkiye)	<a href="https://www.thegef.org/">https://www.thegef.org/</a> ** <a href="#">Small grants programme</a> and <a href="#">Non-grant instruments</a> available
4	Adaptation Fund	PCS ALM M ER RCWB	Grant	Initial upfront/readiness Implementation-related	Small Medium	Governments, international cooperation	Developing countries (Jordan)	<a href="https://www.adaptation-fund.org/">https://www.adaptation-fund.org/</a>
5	Climate Investment Funds (CIF)	PCS ALM ER	Grant Loan	Initial upfront/readiness Implementation-related Self-sustaining financing	Small Medium Big	Governments, international cooperation	ODA countries (Jordan, Türkiye)	<a href="https://www.cif.org/">https://www.cif.org/</a>



#	Potential financing instruments	NBS category	Type of mechanism	Phase of the NBS	Scale of the NBS project	Type of investor	Region	References
6	Mirova - Investing in sustainability	PCS ALM ER	Equity investment	Implementation-related Self-sustaining financing	Medium Big	Private equity impact funds, development finance institutions	Global	<a href="https://www.mirova.com/en">https://www.mirova.com/en</a>
7	International Fund for Agricultural Development (IFAD)	ALM	Grant Loan	Initial upfront/readiness Implementation-related Self-sustaining financing	Small Medium	Governments, international cooperation	ODA countries (Jordan, Türkiye)	<a href="https://www.ifad.org/en/">https://www.ifad.org/en/</a>
8	International Climate Initiative (IKI)	PCS ALM M ER RCWB	Grant	Initial upfront/readiness Implementation-related	Small Medium Big	Governments, international cooperation	ODA countries (Jordan, Türkiye)	<a href="https://www.international-climate-initiative.com/en/">https://www.international-climate-initiative.com/en/</a>
9	Hellenic Green Fund	PCS ALM ER	Grant	Initial upfront/readiness Implementation-related	Small Medium	Governments, international cooperation	Greece	<a href="http://www.lifetaskforce.gr/el/">http://www.lifetaskforce.gr/el/</a>
10	Cassa Depositi e Prestiti (CDP)	ER RCWB	Loan	Initial upfront/readiness Implementation-related	Small Medium Big	Governments, international cooperation	Italy	<a href="https://www.cdp.it/sitointernet/page/it/prestito_green?contentId=PRD41845">https://www.cdp.it/sitointernet/page/it/prestito_green?contentId=PRD41845</a>
11	Instituto de Crédito Oficial	PCS ER RCWB	Loan	Initial upfront/readiness Implementation-related	Medium Big	Governments, international cooperation	Spain	<a href="https://www.ico.es/programa-ico-vivienda-y-">https://www.ico.es/programa-ico-vivienda-y-</a>

#	Potential financing instruments	NBS category	Type of mechanism	Phase of the NBS	Scale of the NBS project	Type of investor	Region	References
								<a href="#">regeneraci%C3%B3n-urbana-y-rural</a>
12	Rewilding Europe Capital***	ER RCWB	Loan	Initial upfront/readiness Implementation-related	Small	Private equity impact funds, development finance institutions	Europe	<a href="https://rewilding-europe.com/rewilding-europe-capital/">https://rewilding-europe.com/rewilding-europe-capital/</a>  *** <a href="#">More information</a>
13	LIFE Programme	PCS ALM M ER RCWB	Grant	Initial upfront/readiness Implementation-related	Medium	Governments, international cooperation	Europe	<a href="https://cinea.ec.europa.eu/programmes/life_en">https://cinea.ec.europa.eu/programmes/life_en</a>
14	Piraeus Bank****	ALM	Loan	Initial upfront/readiness Implementation-related	Small	Traditional investors (e.g., pension funds, commercial banks)	Greece	<a href="https://www.piraeusbank.gr/en/agrotes">https://www.piraeusbank.gr/en/agrotes</a>  *** <a href="#">More information</a>
15	Bamboo Capital Partners	ALM	Equity investment	Implementation-related Self-sustaining financing	Medium Big	Private equity impact funds, development finance institutions	ODA countries (Jordan, Türkiye)	<a href="https://bamboocp.com/investees/">https://bamboocp.com/investees/</a>
16	Endangered Landscapes Programme	PCS M ER RCWB	Grant	Initial upfront/readiness Implementation-related	Small Medium	NGOs and public foundations	Europe	<a href="https://www.endangeredlandscapes.org/about/funding-opportunities/">https://www.endangeredlandscapes.org/about/funding-opportunities/</a>



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