

# **Guidelines for systematic upload/update of NbS case studies from Biodiversa+ to NbS repositories**



## Document Information

<b>Grant Agreement number:</b>	101052342
<b>Project acronym:</b>	Biodiversa+
<b>Project full name:</b>	The European Biodiversity Partnership
<b>Biodiversa+ duration:</b>	7 years
<b>Biodiversa+ start date:</b>	<u>Start date:</u> 1 <sup>st</sup> October 2021
<b>For more information about Biodiversa+</b>	Website: <a href="http://www.biodiversa.eu/">http://www.biodiversa.eu/</a> Email: <a href="mailto:contact@biodiversa.eu">contact@biodiversa.eu</a> LinkedIn: <a href="#">Biodiversa+</a>

<b>Deliverable title:</b>	MS183 Guidelines for systematic upload/update of NBS case studies from Biodiversa+ to NBS repositories
<b>Authors:</b>	Chiara Catalano, Valentina Verduchi, Chiara Baldacchini
<b>Work package title:</b>	Promote and support design and implementation of Nature-based Solution, and valuation of biodiversity in private sectors
<b>Task or sub-task title:</b>	Promoting uptake of knowledge on NbS
<b>Lead partner:</b>	MUR
<b>Date of publication:</b>	28/01/2025
<b>Disclaimer:</b>	Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

Cover page illustration: Ian Turnell - Pexels

## What is Biodiversa+

The European Biodiversity Partnership, Biodiversa+, supports excellent research on biodiversity with an impact for policy and society. Connecting science, policy and practise for transformative change, Biodiversa+ is part of the European Biodiversity Strategy for 2030 that aims to put Europe's biodiversity on a path to recovery by 2030. Co-funded by the European Commission, Biodiversa+ gathers 81 partners from research funding, programming and environmental policy actors in 40 European and associated countries to work on 5 main objectives:

1. Plan and support research and innovation on biodiversity through a shared strategy, annual joint calls for research projects and capacity building activities
2. Set up a network of harmonised schemes to improve monitoring of biodiversity and ecosystem services across Europe
3. Contribute to high-end knowledge for deploying Nature-based Solutions and valuation of biodiversity in the private sector
4. Ensure efficient science-based support for policy-making and implementation in Europe
5. Strengthen the relevance and impact of pan-European research on biodiversity in a global context.

More information at: <https://www.biodiversa.eu/>

# Table of Contents

<b>What is Biodiversa+ .....</b>	<b>3</b>
<b>1. Introduction .....</b>	<b>6</b>
1.1. Report aims .....	8
1.2. Who should read this report? .....	8
<b>2. NbS platforms and tools overview.....</b>	<b>8</b>
<b>3. Guidelines to upload Biodiversa+ case studies .....</b>	<b>10</b>
3.1. Type of outcomes .....	12
3.2. Relevancy to societal challenges .....	13
3.3. Other parameters .....	14
<b>4. Resources for guiding the upload and update of case studies .....</b>	<b>14</b>
4.1 Guiding Flow Chart.....	14
4.2. The 12 repository profiles .....	15
<b>Conclusive remarks .....</b>	<b>16</b>
<b>References .....</b>	<b>17</b>
<b>ANNEX I. NbS Repository Profiles.....</b>	<b>18</b>
Climate-ADAPT .....	18
ClimateScan .....	19
Connecting Nature Enterprise Platform .....	20
GeolKP .....	21
The Natural Water Retention Measures (NWRM) .....	22
Nature4Climate .....	23
Nature-based Solutions .....	24
NetworkNature .....	25
Oppla.....	26

Panorama..... 27

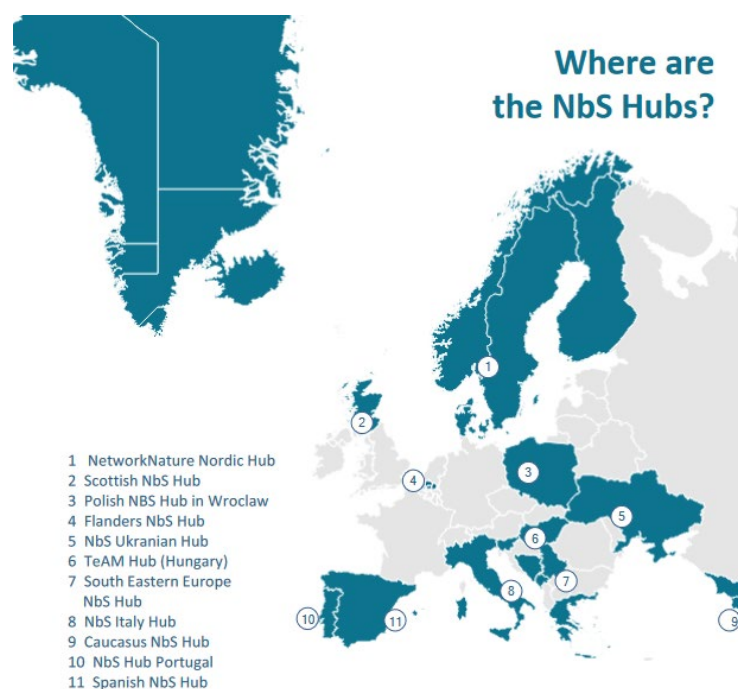
WeADAPT ..... 28

WOCAT ..... 29

**ANNEX II. NbS Repository Upload Info ..... 30**

# 1. Introduction

Nature-based solutions (NbS) are considered a strategic and cost-effective instrument (World Bank, 2021) for achieving an “inclusive, economically vibrant and ecologically resilient society” (Davies et al., 2021) while minimising the impact of climate change on biodiversity and increasing ecosystem resilience to disasters, as stated in the Global Biodiversity Plan (CBD, 2022). For this reason, NbS were integrated into the European Green Deal<sup>1</sup>, the EU’s Biodiversity Strategy 2030<sup>2</sup>, the Climate Adaptation Strategy<sup>3</sup> and the recently approved Nature Restoration Law<sup>4</sup>.



Over the last 20 years, the European Commission (EC) Framework Program for R&I (FP7, Horizon 2020 and Horizon Europe NbS) together with the LIFE, Biodiversa and INTERREG funding programs, fostered several projects on NbS (not always framed as such but belonging to the same umbrella concept) development, implementation and monitoring (Davies et al., 2021; Faivre et al., 2017; Harrak & Lemaitre, 2023).

As one of the legacies of NbS EU-funded projects, and one of the most consolidated knowledge exchange platforms NetworkNature is promoting initiatives such as the creation of Task Forces (enabling synergies on relevant transversal themes among Horizon 2020 projects) and NbS Hubs<sup>5</sup>. member states and European regional hubs, supported also by the Urban by Nature program<sup>6</sup>, are promoted with the intent of scaling down international cooperation on NbS to the local, national, and regional levels, including metropolitan areas and municipalities (Fig. 1).

Figure 1. The European NbS Hubs. Source: NetworkNature “Introducing the Nature-based Solutions Hubs”, retrieved from <https://networknature.eu/nbs-hubs> (accessed 30/10/2024)

In this highly active context, the need for assessing NbS effectiveness in tackling societal challenges, and to foster NbS uptake, brought to: (1) the publication of standards (IUCN, 2020) and definitions (UNEA, 2022); (2) the development of impact and performance indicators (Dumitru & Wendling, 2021); and (3) the implementation of platforms and decision supporting systems showcasing case studies and best practices (Voskamp et al., 2021).

<sup>1</sup> [https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal\\_en](https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en)

<sup>2</sup> [https://environment.ec.europa.eu/strategy/biodiversity-strategy-2030\\_en](https://environment.ec.europa.eu/strategy/biodiversity-strategy-2030_en)

<sup>3</sup> [https://climate.ec.europa.eu/eu-action/adaptation-climate-change/eu-adaptation-strategy\\_en](https://climate.ec.europa.eu/eu-action/adaptation-climate-change/eu-adaptation-strategy_en)

<sup>4</sup> [https://environment.ec.europa.eu/news/nature-restoration-law-enters-force-2024-08-15\\_en](https://environment.ec.europa.eu/news/nature-restoration-law-enters-force-2024-08-15_en)

<sup>5</sup> <https://networknature.eu/nbs-hubs>

<sup>6</sup> <https://www.urbanbynature.eu/> emme

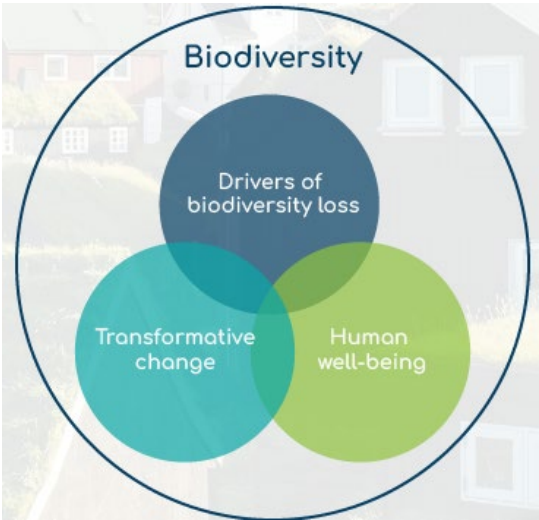


Figure 2. Scheme of the Biodiversa+ call on NbS' scope: it is structured in three overlapping and non-mutually exclusive themes, embedded in a biodiversity framework.

In its latest call (2023-2024), Biodiversa+ funded 34 projects<sup>7</sup> aimed (1) to improve the understanding of synergies and trade-offs in the context of human well-being, (2) to mitigate anthropogenic drivers against biodiversity loss, and (3) to contribute to a just transformative change (Fig. 2). Through the previous calls, as featured within the NetworkNature European project database on NbS<sup>8</sup>, Biodiversa funded 49 NbS-related projects from 2011 to 2023 (calls 2010-11 to 2022-23) (Fig. 3).

NbS-related projects are constantly delivering case studies, reports, monitoring data, policies, tools, and other evidence-based resources, to clarify the relationship among biodiversity, NbS and societal challenges. Systematically uploading this knowledge to platforms and repositories that allow free navigation, access, and data downloads is essential for promoting the adoption of NbS (Catalano et al., 2024).

To overcome the issue of locating and accessing data after projects are completed, platforms such as Oppla, NetworkNature and Urban Nature Atlas (open-ended outputs of the EU-funded project “Naturvation”) constitute not only consistent repositories but also an attempt to centralise the information, which otherwise would be fragmented and less accessible.

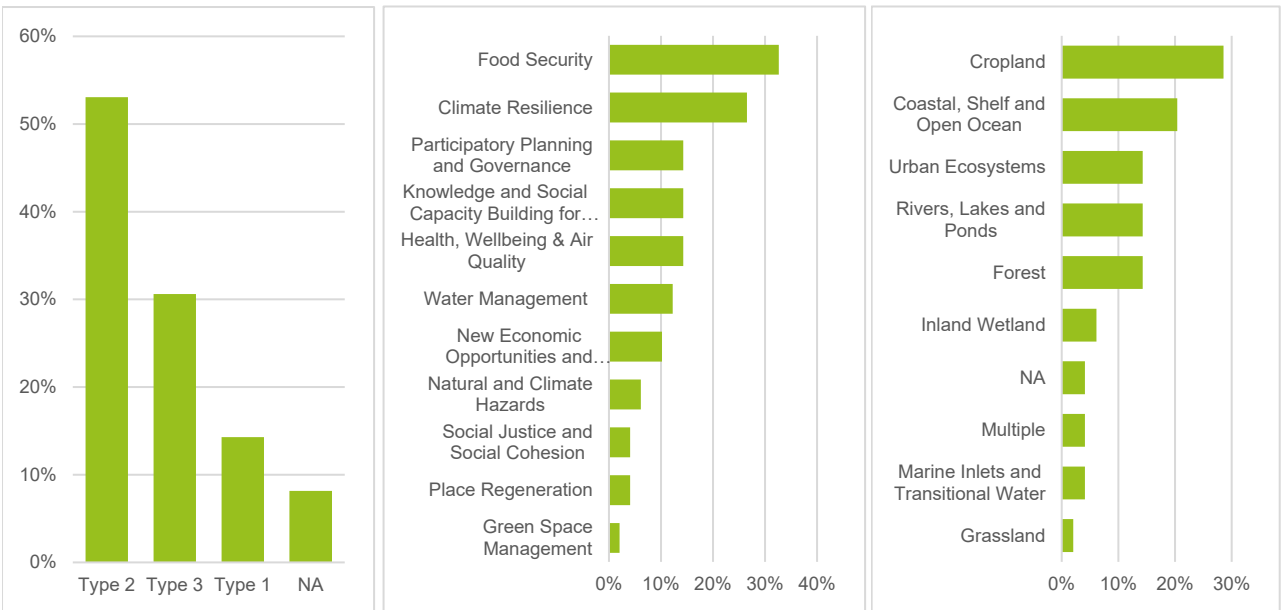


Figure 3. Biodiversa projects funded spanning from 2011 (start of the project) to 2022 (end of the project): a) Eggermont typologies; b) Societal Challenges; c) Environments.

<sup>7</sup> <https://www.biodiversa.eu/2023/06/05/2023-2024-joint-call/>

<sup>8</sup> <https://networknature.eu/ridb>

## 1.1. Report aims

The main aims of this report are to:

- Give a synthetic overview of the platforms, repositories and tools related to NbS implementations focusing on case study repositories
- Provide guidance to upload and update NbS case studies from Biodiversa projects into the relevant repositories, based on the project outputs and the societal challenge addressed, while also highlighting the one enabling the upload of biodiversity- and business-oriented data.

## 1.2. Who should read this report?

This report is intended to support researchers working within the Biodiversa+ partnership, and it may be relevant to:

1. Researchers and practitioners working with NbS and willing to upload their study case
2. Biodiversa+ project partners.

## 2. NbS platforms and tools overview

Voskamp et al. (2021) identified and categorised 70 tools, available online before August 2020 (Ballinas et al., 2020), that aim at facilitating the adoption of Nature-based Solutions (NbS). These tools include software, methodologies, catalogues, repositories, e-platforms, handbooks, and guidelines, providing spatial, economic, social, environmental, and climate-related information relevant to NbS implementation. The 70 tools were identified through a combination of interviews with EU municipalities, dedicated workshops, reviews of EU-funded NbS projects (European Commission, 2022), and an analysis of peer-reviewed scientific literature, reports, and grey literature.

To identify the platforms enabling the users to upload and update documentation and monitoring data related to NbS case studies we: (1) revised the mentioned dataset compiled by Ballinas et al. (2020) selected digital and interactive tools and excluded static resources (e.g., \*.pdf), not active ones (e.g., page not found), not available in English (output of the same project); (2) ran desk research by using a set of keywords on the Google search engine, i.e. 'nature-based solutions', 'ecosystem-based adaptation', 'climate adaptation' "AND" 'tools, software, methodology, catalogue, repository, platform'.

The reviewed list from Ballinas et al. (2020), which included 41 tools and platforms, was integrated with the output of the desk research resulting in a total of 115 entries.

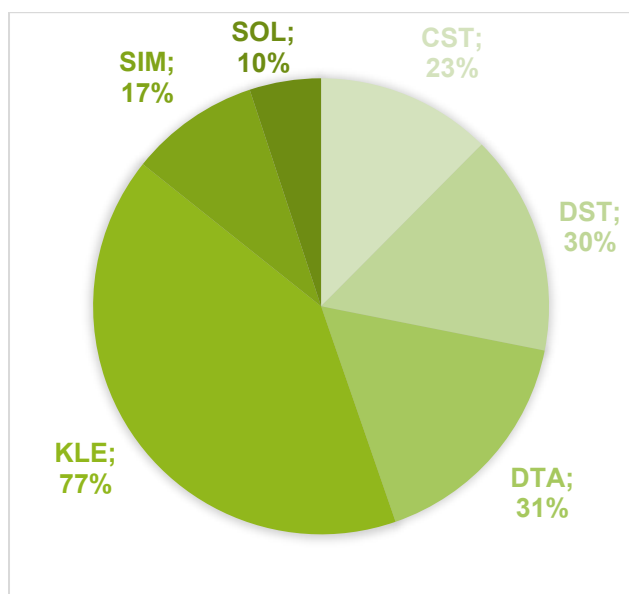


Figure 4. Platforms and tools. KLE = Knowledge Exchange; DTA = Data; CST = case studies; DST = Decision Supporting Tool; SIM = simulation tools; SOL = Solutions. Sum is more than 100% because the platforms and tools belong to more than one category

The 115 tools and platforms were further categorised according to the stored kind of data (Fig. 4) as follows:

- 'Case studies' (CST) - implemented solutions in landscape and urban projects, or research studies (23%);
- 'Solutions' (SOL) - also referred to as measures or units, not necessarily related to a specific case study (10%);
- 'Data' (DTA) - tabular data, databases (31%);
- 'Knowledge exchange' (KLE) - including publications, reports, webinars, etc. (77%);
- 'Decision Supporting Tool' (DST) - interactive web-based or stand-alone software, as well as methodologies (30%);
- 'Simulation tools' (SIM) (17%).

Among the 115 platforms, 27 were classified as 'Case Studies' (CST) and 'Knowledge Exchange' hubs (KLE). Of these 27, 6 were also classified as repositories of theoretical solutions (not linked to case studies) (SOL), 9 as monitoring and spatial data (DTA), 10 as decision-supporting tools (DST), and 3 as simulation tools (SIM) (Tab. 1).

**Table 1: Knowledge content within case studies platforms. CST = Case Study; SOL = Solutions; DTA = Data; KLE = Knowledge Exchange; DST = Decision Supporting Tool; SIM = Simulation tools.**

Platform name	CST	SOL	DTA	KLE	DST	SIM
AdapteCCA	•		•	•		•
Climate-ADAPT	•	•		•	•	
CRC for water sensitive cities	•			•	•	•
GeolKP	•		•	•	•	
Natural Water Retention Measures (NWRM)	•	•	•	•		
Naturebase	•		•	•	•	
Nature-based Solutions Initiative	•		•	•	•	
Susdrain	•			•	•	•
Urban greenUP	•	•		•	•	
WOCAT	•		•	•	•	
Biodiversity Information System Europe (BISE)	•		•	•		

Global Program on Nature-Based Solutions for Climate Resilience	•			•	•	
NetworkNature	•		•	•		
Oppla	•		•	•		
ReNature	•			•	•	
UN - NBS contributions platform	•	•		•		
Urban Green-Blue Grids for resilient cities	•	•		•		
weADAPT	•	•		•		
Climate Adaptation Knowledge Portal of the Netherlands	•			•		
Climatescan	•			•		
Connecting Nature Enterprise Platform	•			•		
EcoShape	•			•		
Nature4climate	•			•		
Nature-based Solutions	•			•		
Panorama	•			•		
SIA-Toolbox	•			•		
Urban Nature Atlas	•			•		
	27	6	9	27	10	3

### 3. Guidelines to upload Biodiversa+ case studies

The platforms enabling users to upload/update case studies were further analysed to define the parameters useful to guide users in the procedure (Tab. 2):

1. The type of outcomes (see par. 1.2), namely (1) 'Actions and Initiatives', (2) 'Strategies including policies, and (3) 'Data generated from monitoring activities through Key Performance Indicators' (KPI);
2. The relevancy to the 12 societal challenges (see par. 1.3), defined within the NetworkNature's European Roadmap to 2030 for Research and Innovation on Nature-based Solutions (El Harrak & Lemaitre, 2023);
3. Other parameters such as the upload modality that is either via email, or forms (e.g., google forms) or within the platform itself; when via email or contact form, the requisite was a prompt response; an upload simulation was done to test all the platforms and to analyse the upload process as well as the focus on biodiversity and/or business data.

**Table 2: Overview of the relevant parameters and criteria identified for characterising the various NbS case study repositories.**

Upload of case studies	
Criteria	Description
Upload mode	Process required for submitting case studies on each platform (i.e. registration, upload mode, and case study format)
Characteristics	
Criteria	Description
Area of relevancy	Area where the case studies are distributed
Biodiversity focus	Number of biodiversity focused parameters in the case study form
Business focus	Number of business focused parameters in the case study form
Results and outcomes	The repositories were sorted according to the type of outcomes of the case study, that could be grouped as (ACT) actions and initiatives, (STR) strategies including policies, and (KPI) data from monitoring KPIs. More details are in chapter 1.2.
Socio-environmental challenges	Relevancy of the case studies to the societal challenges as identified in the European Roadmap to 2030 published by NetworkNature (El Harrak & Lemaitre, 2023)
User-friendly features	
Criteria	Description
Case studies view	Layout of the repository for presenting the case studies: it can be a map, with pins corresponding to the case studies locations, or an archive, as a list of links and documents

It is important to underline that the criteria are not made of mutually exclusive categories, considering that the analysed NbS case studies repositories commonly include multiple types of outcomes and challenges addressed. For instance, the GeolKP platform allows sharing case studies with all three types of outcomes (i.e., actions and initiatives, strategies and KPI data) that address any of the 12 societal challenges.

The platforms identified where users could share case studies were 12 (Urban Nature Atlas, being unresponsive, did not allow the upload and was therefore moved from ‘case study upload’ to ‘consultation only’) (**Fig. 5**).

The results of the analysis were conveyed through a **flowchart** (Fig. 7) and 12 **NbS repository profiles** (Annex 1) containing synthetic information on each repository both guiding the repository selection for the upload procedure

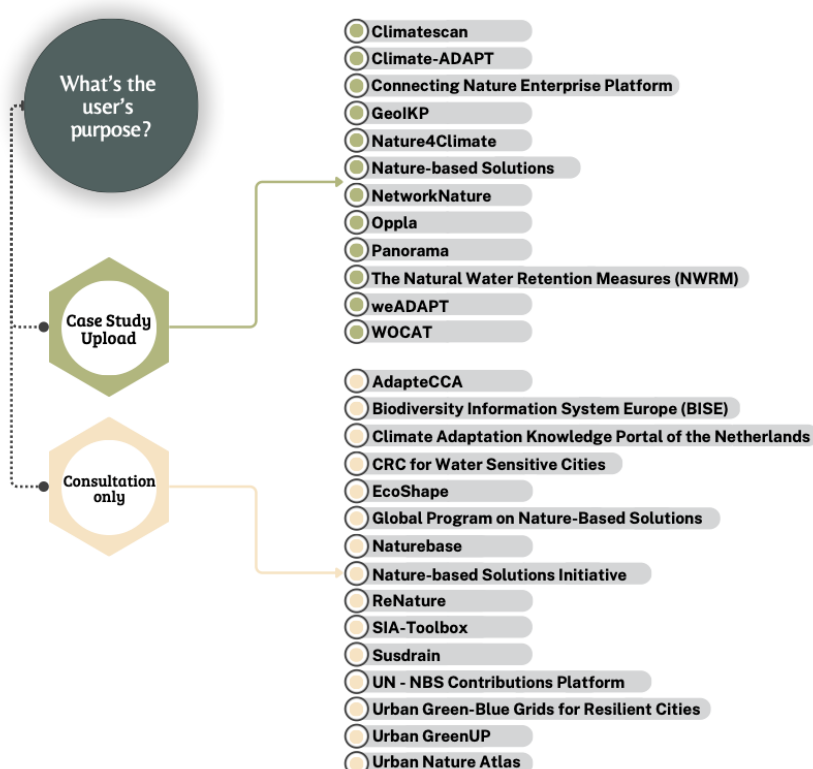


Figure 5. Diagram showing the case study repositories analysed sorted according to the user purpose.

### 3.1. Type of outcomes

The 12 'Case Studies' repositories were differentiated according to the typology of outcomes generated (**Fig. 6**), which can be grouped into 3 main categories that are (1) Actions & Initiatives, (2) Strategies including policies, or (3) Data generated from monitoring activities through Key Performance Indicators (KPI):

1. Case study results that showcased 'Actions & Initiatives' refer to projects that have transitioned from planning to on-the-ground activities. These efforts focus on addressing environmental or societal challenges through organised, tangible actions to be shared with civil society, businesses, and local governments to maximise their impact.
2. When the outcomes involve 'Strategies including policies', the focus is on developing long-term plans and frameworks to guide future actions. These outcomes emphasise governance, planning, and decision-making rather than immediate on-the-ground activities. In this case, project efforts have led to structured, formalised approaches fostering broader and systemic change, and ensuring sustainable use and management of natural resources in the long term. The format of these results makes them effective when targeting policy-makers and governmental authorities.
3. Case studies that yield 'Data from monitoring Key Performance Indicators (KPIs)', provide outcomes that are focused on measuring and evaluating the effectiveness and impact of NbS interventions. This involves collecting and analysing data to measure how well project objectives were met. In this case,

the results emphasise the scientific and analytical dimensions of NbS, providing proof of their effectiveness grounded in evidence and performance metrics. These data play a crucial role in enabling adaptive management and the improvement of the interventions.

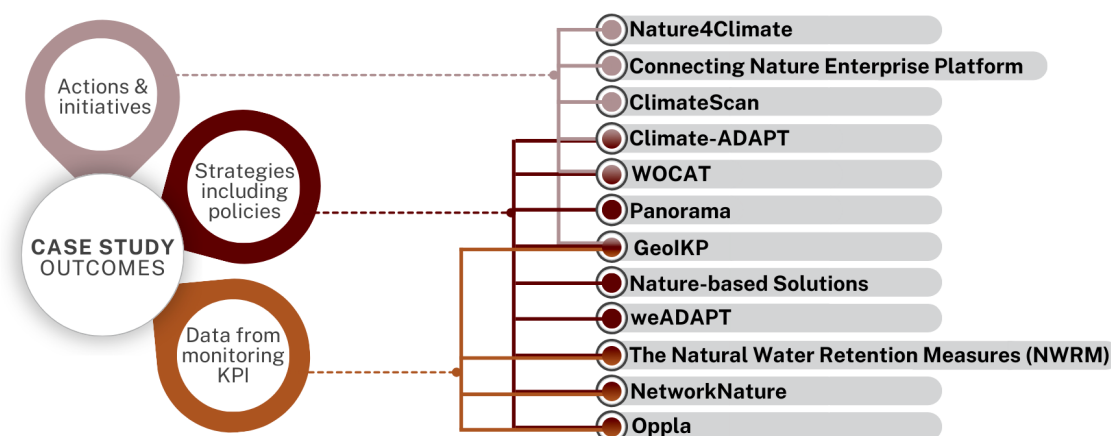


Figure 6. Diagram showing the knowledge-sharing repositories sorted according to the typology of case study outcomes they target.

### 3.2. Relevancy to societal challenges

The repositories were also categorised according to the societal challenges they address. The societal challenges were defined following the 12 key societal challenges from the NetworkNature's European Roadmap to 2030 for Research and Innovation on Nature-based Solutions (El Harrak & Lemaitre, 2023): (1) climate resilience, (2) water management, (3) food security, (4) social justice and social cohesion, (5) new economic opportunities and green jobs, (6) participatory planning and governance, (7) natural and climate hazards, (8) health, well-being, and air quality, (9) green space management, (10) place regeneration, (11) knowledge and social capacity building for sustainable transformation, and (12) biodiversity enhancement (which was not included in the flowchart as it is a prerequisite for NbS). Additionally, the challenges were divided into three main themes to highlight the focus areas of the different repositories:

- 'Environmental Resilience', including the challenges (1) climate resilience, (2) water management, (7) natural and climate hazards, and (9) green space management;
- 'Economy & Governance', including the challenges (5) new economic opportunities and green jobs, (6) participatory planning and governance, (10) place regeneration, and (11) knowledge and social capacity building for sustainable transformation;
- 'Human-related services', including the challenges (3) food security, (4) social justice and social cohesion, and (8) health, well-being, and air quality.

### 3.3. Other parameters

In addition, other parameters were identified to integrate the two main criteria, (1) case study outcomes and (2) societal challenges addressed, and to provide further guidance in the repository selection process as summarised in the 'NbS Repository Profiles' (Annex 1).

To determine whether a platform had a 'Biodiversity focus' and/or a 'Business focus' it was necessary to run an in-depth analysis. The information requested during an uploading simulation for each of the repositories was reviewed and ranked following this procedure:

- 1 'biodiversity focus point' (one leaf in the repository profile) was given for each item directly referring to biodiversity, for instance when the upload form mentioned the keywords "Nature-based\*", "biodiversity" and "ecosystem"
- 1 'business focus point' (one star in the repository profile) was given for each item related to business, for instance when the upload form mentioned the keywords "financing", "fundings", or the link to external partners, such as company websites and other company information
- The sum of the biodiversity and business focus points was then used to characterise the NbS case study repositories.

## 4. Resources for guiding the upload and update of case studies

The guidelines outlined in this report include a **guiding flowchart** and **12 repository profiles** meant to support and smoothen the repository selection process by providing a range of useful considerations for sharing NbS case studies online. In fact, due to the multitude of functions, characteristics, target users, formats, and layouts, uploading NbS case studies on more than one platform might be the most effective strategy to enhance knowledge outreach.

### 4.1 Guiding Flow Chart

A guiding flowchart (**Fig. 7**) was created to guide users in selecting the most suitable online repository, based on the following characteristics of the case study they wish to share, which are visualised as the 3 different sections of the flowchart:

1. The type of outcomes (left side of the flowchart)
2. Biodiversity and/or Business focuses (centre of the flowchart)
3. The relevancy to the 12 societal challenges (right side of the flowchart)

The flowchart can be used starting from any of the 3 sections, depending on the user's preferences and priorities. Yet, we suggest starting by selecting 'Actions & Initiatives', 'Strategies including policies', or 'Data from monitoring KPI', based on the case study output (left side of the flowchart). Each of these options is linked to a list of NbS case study repositories, which can be filtered based on the relevant type of data in the case study (business or biodiversity focused; centre of the flowchart), and on the relevancy of the societal challenges addressed (12 societal challenges; right side of the flowchart).

For a more effective selection process, it is recommended to consult the guiding flowchart together with the information contained in the 12 NbS repository profiles, presented in the following chapter.

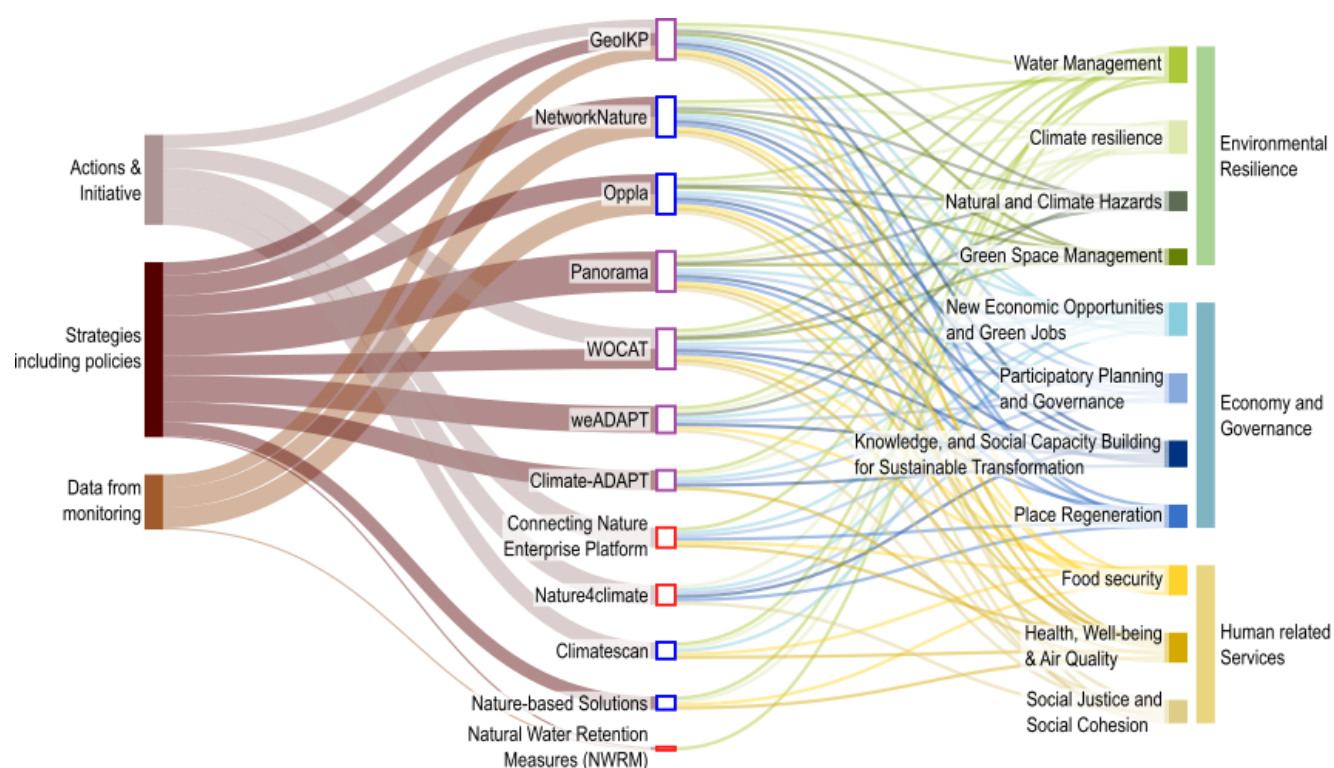


Figure 7. The flowchart to identify the most suitable NbS case study repository (in the centre) according to the type of outcomes obtained (on the left) and societal challenges addressed (on the right). Biodiversity enhancement is not displayed because it is a prerequisite for all NbS.

## 4.2. The 12 repository profiles

The 12 NbS repository profiles (Annex I), a supplementary resource integrated with the guiding flowchart, were created to support an effective but informed decision-making process. These are 12 schematic info-sheets that illustrate relevant details for the upload of case studies on the 12 repositories, mainly based on the parameters reported in Table 2, in addition to the upload mode and link (see also Annex II), the information retrieved from the flowchart, and further information about each repository.

## Conclusive remarks

The preliminary screening of the platforms related to NbS implementations (115 platforms) highlighted a vast range of available and accessible resources. Nevertheless, the information conveyed in such platforms is still unbalanced towards the 'Knowledge Exchange' category (77%) highlighting the need to improve or encourage platforms to store case studies together with the related monitoring data (only 31%). Also, an effort should be made to standardise the indicators used to evaluate the NbS performances tackling the main 12 societal challenges.

This report provides guidelines for researchers and project managers to upload and update NbS case studies into the relevant repositories. Integrated within the guidelines, the study provides various resources: a guiding flowchart, to support the repository selection, and 12 'NbS repository profiles', which are more detailed info-sheets for each one of the repositories.

The selection of suitable repositories is based on (1) the project outputs, which can be 'Actions & Initiatives', 'Strategies including policies', or 'Data generated from monitoring activities through KPI', and (2) the 12 societal challenges addressed (El Harrak & Lemaitre, 2023). The analysis behind the latter categorisation showed a similar trend to the one obtained analysing the 115 platforms: an unbalance towards the resources focused on 'Strategies including policies' (75%) rather than the ones providing 'Data from monitoring KPI' (33%).

To conclude, on the one hand, there is a wide range of technical and governance tools available for planning effective NbS; on the other hand, we recognise the clear necessity for tangible actions and implementations to obtain available, reliable, and ready-to-use empirical data. Data availability is a prerequisite for upscaling and mainstreaming NbS. Nonetheless, there is the need to create synergies among the different repositories (e.g., developing a common database across different platforms), so to reduce the knowledge fragmentation.

## References

- Ballinas, M. B.-P., Hulsman, H., Luca, C. de, & Brolsma, R. (2020). *Nature-Based Solutions Tools Catalogue* (Version Final) [Dataset]. Zenodo. <https://doi.org/10.5281/zenodo.5541253>
- Catalano, C., Campiotti, A., & Baldacchini, C. (2024). *Possible ways to foster the uptake of knowledge on Nature-based Solutions*. Biodiversa+. [https://www.biodiversa.eu/wp-content/uploads/2024/04/MS3.9\\_Report\\_uptake-of-knowledge-on-NbS.pdf](https://www.biodiversa.eu/wp-content/uploads/2024/04/MS3.9_Report_uptake-of-knowledge-on-NbS.pdf)
- CBD. (2022). 15/4. *Kunming-Montreal Global Biodiversity Framework* (CBD/COP/DEC/15/4; Version 19 December 2022).
- Davies, C., Chen, W. Y., Sanesi, G., & Laforteza, R. (2021). The European Union roadmap for implementing nature-based solutions: A review. *Environmental Science & Policy*, 121, 49–67. <https://doi.org/10.1016/j.envsci.2021.03.018>
- Dumitru, A., & Wendling, L. (Eds.). (2021). *Evaluating the impact of nature-based solutions: A handbook for practitioners*. Publications Office of the European Union. <https://data.europa.eu/doi/10.2777/244577>
- European Commission. (2022). *Nature-based solutions: EU funded nbs research projects tackle the climate and biodiversity crisis*. Publications Office of the European Union. <https://doi.org/10.2848/42098>
- Faivre, N., Fritz, M., Freitas, T., de Boissezon, B., & Vandewoestijne, S. (2017). Nature-Based Solutions in the EU: Innovating with nature to address social, economic and environmental challenges. *Environmental Research*, 159, 509–518. <https://doi.org/10.1016/j.envres.2017.08.032>
- Harrak, M. E., & Lemaitre, F. (2023). *European Roadmap to 2030 for Research and Innovation on Nature-based Solutions*. NetworkNature. <https://networknature.eu/sites/default/files/uploads/eu-ri-roadmapweb.pdf>
- IUCN. (2020). *IUCN Global Standard for Nature-based Solutions. A user-friendly framework for the verification, design and scaling up of NbS*. (First edition). IUCN. <https://doi.org/10.2305/IUCN.CH.2020.08.en>
- UNEA. (2022). *Resolution adopted by the United Nations Environment Assembly on 2 March 2022* (UNEP/EA.5/Res.5). United Nations. <https://www.unep.org/resources/resolutions-treaties-and-decisions/UN-Environment-Assembly-5-2>
- Voskamp, I. M., de Luca, C., Polo-Ballinas, M. B., Hulsman, H., & Brolsma, R. (2021). Nature-Based Solutions Tools for Planning Urban Climate Adaptation: State of the Art. *Sustainability*, 13(11), Article 11. <https://doi.org/10.3390/su13116381>
- World Bank. (2021). *A Catalogue of Nature-Based Solutions for Urban Resilience*. World Bank. <https://openknowledge.worldbank.org/handle/10986/36507>

## ANNEX I. NbS Repository Profiles



### Climate-ADAPT



## Climate-ADAPT

Climate-ADAPT is an online platform developed as a partnership between the European Commission and the European Environment Agency (EEA) to support climate adaptation in Europe. Maintained by the EEA with the support of the European Topic Centre on Climate Change Impacts, Vulnerability, and Adaptation (ETC/CCA), the platform offers a database of quality-checked and searchable information. It provides access to a wide range of resources, including tools, case studies, data, and adaptation strategies, to help policymakers, researchers, and practitioners plan and implement climate adaptation measures. Climate-ADAPT promotes collaboration and knowledge sharing to enhance resilience to climate change across Europe.

Upload of case studies	
upload link	<a href="#">Link</a>
registration	Yes
upload mode	Via email
format case study	Guided document



Characteristics	
area of relevancy	Europe (EEA)
biodiversity focus	
business focus	

### Comments & remarks

1. There are 9 selection criteria to fulfil for case studies to be uploaded on the platform
2. The submission is open to Climate-ADAPT stakeholders, researchers, and governmental organisations
3. The repository is climate adaptation- and measures-focused




### User friendly features

	case studies view	ARCHIVE & MAP
	possible to add links	YES
	possible to upload files	NO



## ClimateScan






### ClimateScan

Climatescan is an interactive, web-based map application designed for international knowledge exchange on 'blue-green' projects worldwide. It helps cities, municipalities, and regions assess their climate adaptation and mitigation efforts by visualizing, comparing, and sharing local climate action plans and measures. The platform focuses on urban resilience, climate-proofing, and climate adaptation, featuring a database of climate projects with insights into their outcomes, strategies, and lessons learned. Climatescan also enables cities to track progress toward climate goals, promoting the replication of successful initiatives and fostering collaboration among local governments.

### Comments & remarks

1. A vast range of topics/categories is available to classify the case studies
2. The repository is climate- and intervention-focused
3. There are few beta features, so inconveniences may occur when navigating: particularly in the translation to English, and, adding a new case study, in the location tools


### User friendly features

	case studies view	MAP
	possible to add links	YES
	possible to upload files	YES

### Upload of case studies

upload link	<a href="#">Link</a> <small>Click on the "+ Add a project" button</small>
registration	Yes
upload mode	On the website
format case study	Guided questionnaire on the website

### Characteristics

area of relevancy	World
biodiversity focus	
business focus	

### Case Study Outcomes



### Socio-environmental challenges

Climate resilience • Food security • Health, Well-being & Air Quality • New Economic Opportunities and Green Jobs • Water Management

## Connecting Nature Enterprise Platform






**Connecting Nature Enterprise Platform**

The Connecting Nature Enterprise Platform is a stand-alone innovation developed as part of the Connecting Nature project (2017-2022). It is an online resource designed to support the development and scaling of nature-based enterprises. The platform connects entrepreneurs, businesses, and organizations involved in creating and delivering nature-based solutions (NbS) to tackle urban challenges. It provides tools, resources, and networking opportunities, helping to grow commercial and social enterprises focused on NbS products and services. By fostering innovation and offering market access, the platform accelerates the adoption of sustainable, nature-based approaches in cities and communities worldwide.

### Comments & remarks

1. The 10 communities are a key feature of this platform
2. The case studies/projects are linked to the different communities
3. There is a dedicated section for fundraising initiatives
4. This platform is network- and business-focused

### User friendly features

	case studies view	ARCHIVE
	possible to add links	YES
	possible to upload files	NO

### Upload of case studies

upload link	<u>Link</u>   Click on "Publish your Project" button
registration	Yes
upload mode	On the website
format case study	Guided questionnaire on the website

### Characteristics

area of relevancy	World
biodiversity focus	
business focus	☆☆☆☆+

### Case Study Outcomes



### Socio-environmental challenges

Food security • Health, Well-being & Air Quality • New Economic Opportunities and Green Jobs • Participatory Planning and Governance • Place Regeneration • Water Management

## GeoIKP






# GeoIKP

GeoIKP is an interactive platform developed by the OPERANDUM project, focusing on Nature-Based Solutions (NBS) for reducing and mitigating hydro-meteorological risks such as flooding, landslides, and coastal erosion. Designed for both urban and non-urban contexts, GeoIKP provides advanced mapping tools and visualization options for exploring data on NBS implementations. Users can browse case studies, examine NBS projects in various regions, and access relevant policy documents to better understand the role of NBS in climate adaptation and risk management.

## Comments & remarks

1. A vast range of topics/categories is available to classify the case studies
2. On the website there is a function to select the user type
3. There is a section dedicated to policies, which can be linked with case studies
4. The repository highlights environmental risks and hazards



## User friendly features

	case studies view	ARCHIVE & MAP
	possible to add links	YES
	possible to upload files	NO

## Upload of case studies

upload link	<u>Link</u>
registration	No
upload mode	On the website
format case study	Guided questionnaire on the website

## Characteristics

area of relevancy	World
biodiversity focus	
business focus	


## Case Study Outcomes



## Socio-environmental challenges

Climate resilience • Food security • Green Space Management • Health, Well-being & Air Quality • Knowledge, and Social Capacity Building for Sustainable Transformation • Natural and Climate Hazards • New Economic Opportunities and Green Jobs • Participatory Planning and Governance • Place Regeneration • Social Justice and Social Cohesion • Water Management

## The Natural Water Retention Measures (NWRM)






### Natural Water Retention Measures (NWRM)

The Natural Water Retention Measures (NWRM) platform is a resource designed to enhance water management through nature-based strategies. Launched by the European Commission's DG ENV, the platform stems from a pilot project aimed at addressing hydromorphology and pollution in river basins. It provides a comprehensive knowledge base on NWRM accessible through the Water Information System for Europe (WISE) and fosters a European network of practitioners. The platform includes a practical manual for implementing NWRM and supports regional networks to facilitate knowledge-sharing and improve water retention practices across Europe.

### Comments & remarks

1. There is a section of the website dedicated to the datasets related to the case studies, where it is also possible to download them
2. There is a section dedicated to policies, which can be linked with case studies
3. The repository is water-focused

### User friendly features

	case studies view	ARCHIVE & MAP
	possible to add links	YES
	possible to upload files	NO

### Upload of case studies

upload link	<u>Link</u>
registration	Yes
upload mode	On the website
format case study	Guided questionnaire on the website

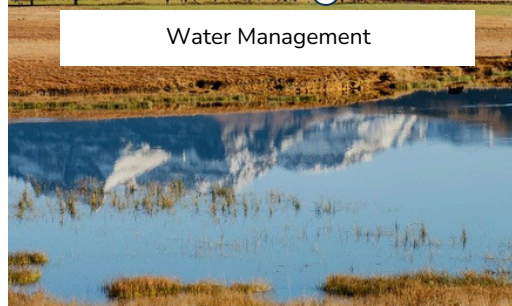
### Characteristics

area of relevancy	Europe
biodiversity focus	
business focus	☆☆


### Case Study Outcomes



### Socio-environmental challenges



## Nature4Climate




**Nature4Climate**

Nature4Climate is a global initiative focused on highlighting and advancing the role of nature in climate action. By promoting natural climate solutions (NCS), Nature4Climate demonstrates how restoring and conserving ecosystems can help mitigate climate change while supporting biodiversity and community resilience. The platform collaborates with governments, NGOs, and businesses to raise awareness of how nature-based approaches—such as reforestation, peatland restoration, and sustainable agriculture—can effectively reduce greenhouse gases and restore climate balance. Through data, case studies, and resources, Nature4Climate underscores nature's essential role in global climate strategies.

### Comments & remarks

1. Submission via Google form requires an email address
2. The Google form functions limit the content that is possible to add (text only)
3. Case studies are concentrated in Africa and Latin America
4. NbS pillars highlighted:  
Protect, Manage, Restore, Adapt

### User friendly features

	case studies view	MAP
	possible to add links	YES
	possible to upload files	NO

### Upload of case studies

upload link	<a href="#">Link</a> <small>Click on the section "Submit case studies"</small>
registration	No
upload mode	via Google Forms
format case study	Google Form questionnaire (only text)

### Characteristics

area of relevancy	World
biodiversity focus	
business focus	☆☆☆

### Case Study Outcomes



### Socio-environmental challenges

- Climate resilience • Knowledge, and Social Capacity Building for Sustainable Transformation • New Economic Opportunities and Green Jobs • Participatory Planning and Governance • Place Regeneration • Social Justice and Social Cohesion

## Nature-based Solutions



**Nature Based Solutions**




### Nature-based Solutions

Nature-based Solutions is a platform dedicated to advancing sustainable solutions that address climate and societal challenges through nature-based strategies. This private organization, composed of experts in engineering, planning, natural resource management, and research, develops and shares solutions that provide ecological, social, and economic benefits. These initiatives include coastal protection, water quality improvement, and community health safeguards, while also supporting goals like the UN Sustainable Development Goals. By showcasing global projects, the platform fosters knowledge exchange and collaboration, aiming to mainstream Nature-Based Solutions in diverse landscapes and address global environmental challenges.

### Comments & remarks

1. Submission via Google form requires an email address
2. The Google form functions limit the content that is possible to add (text only)
3. Evaluation and publication of case studies submitted is case-specific
4. The repository is water- and urban-focused


### User friendly features

	case studies view	ARCHIVE & MAP
	possible to add links	YES
	possible to upload files	NO

### Upload of case studies

upload link	<u>Link</u>
registration	No
upload mode	via Google Forms
format case study	Google Form questionnaire (only text)

### Characteristics

area of relevancy	World
biodiversity focus	
business focus	

### Case Study Outcomes



### Socio-environmental challenges

Climate resilience • Food security •  
Health, Well-being & Air Quality •  
Water Management

## NetworkNature






### NetworkNature

NetworkNature is a European platform dedicated to supporting the Nature-based Solutions (NbS) community by fostering collaboration and knowledge-sharing across local, regional, and international levels. Funded by the European Commission under the Horizon 2020 program, it provides resources, tools, and networking opportunities to maximize the implementation and impact of NbS worldwide. NetworkNature's initiatives include facilitating partnerships, sharing research and best practices, and promoting innovative approaches to environmental challenges, from biodiversity loss to climate adaptation, empowering stakeholders to integrate NbS in policy and practice.

### Comments & remarks

1. There are 3 typologies of case studies that can be added: NC & ES, NBS Project, and NBS City Overview
2. A vast range of topics/categories is available to classify the case studies
3. This repository is connected to Oppla



### User friendly features

	case studies view	ARCHIVE & MAP
	possible to add links	YES
	possible to upload files	YES

### Upload of case studies

upload link	<u>Link</u>   an "+ ADD CASE STUDY" button will appear after login
registration	Yes
upload mode	On the website
format case study	Guided questionnaire on the website

### Characteristics

area of relevancy	World
biodiversity focus	
business focus	

### Case Study Outcomes



### Socio-environmental challenges



## Oppla






### Oppla

Oppla is an open, EU-backed platform serving as a central repository for Nature-Based Solutions (NbS), natural capital, and ecosystem services. Acting as a knowledge marketplace, it consolidates the latest insights, research, and tools to enhance environmental management. Designed to cater to a diverse audience—from scientists and policymakers to practitioners across public, private, and voluntary sectors—Oppla promotes easy access to shared resources, encouraging collaboration and innovation. By welcoming contributions from organizations and individuals alike, Oppla aims to build a community that advances sustainable solutions for global environmental challenges.

### Comments & remarks

1. There are 3 typologies of case studies that can be added: NC & ES, NBS Project, and NBS City Overview
2. A vast range of topics/categories is available to classify the case studies
3. This repository is connected to NetworkNature



### User friendly features

	case studies view	ARCHIVE & MAP
	possible to add links	YES
	possible to upload files	YES

### Upload of case studies

upload link	<a href="#">Link</a>   an "+ ADD CASE STUDY" button will appear after login
registration	Yes
upload mode	On the website
format case study	Guided questionnaire on the website

### Characteristics

area of relevancy	World
biodiversity focus	
business focus	


### Case Study Outcomes



### Socio-environmental challenges

Climate resilience • Food security • Green Space Management • Health, Well-being & Air Quality • Knowledge, and Social Capacity Building for Sustainable Transformation • Natural and Climate Hazards • New Economic Opportunities and Green Jobs • Participatory Planning and Governance • Place Regeneration • Social Justice and Social Cohesion • Water Management

## Panorama






# Panorama

Panorama is a global knowledge platform that offers resources—including publications, webinars, and case studies—focused on solutions to pressing environmental and social challenges. Covering areas like climate change, biodiversity, and governance, Panorama enables users to explore and share examples of sustainable practices. By showcasing successful case studies and providing educational resources, it fosters knowledge exchange and inspires action among a diverse community of practitioners, policymakers, and organizations. Panorama empowers stakeholders worldwide to replicate and adapt effective solutions, promoting resilient and sustainable approaches to complex challenges.

## Comments & remarks

1. A vast range of topics/categories is available to classify the case studies
2. It is possible to upload *full solutions*, with all the details, or *snapshots solutions*, which are abbreviated versions
3. The network aspect is highlighted in this platform, in fact, case studies are grouped into 11 different thematic communities



## User friendly features

	case studies view	ARCHIVE & MAP
	possible to add links	YES
	possible to upload files	YES

## Upload of case studies

upload link	<a href="#">Link</a>   Click on the "contribute solution +" button
registration	Yes
upload mode	On the website
format case study	Guided questionnaire on the website

## Characteristics

area of relevancy	World
biodiversity focus	
business focus	

## Case Study Outcomes



## Socio-environmental challenges

Climate resilience • Food security • Green Space Management • Health, Well-being & Air Quality • Knowledge, and Social Capacity Building for Sustainable Transformation • Natural and Climate Hazards • New Economic Opportunities and Green Jobs • Participatory Planning and Governance • Place Regeneration • Social Justice and Social Cohesion • Water Management

## WeADAPT


**weADAPT**




**weADAPT**

weADAPT is a global, collaborative platform dedicated to climate change adaptation. It brings together a diverse community of researchers, policymakers, and practitioners to share knowledge, tools, and resources on adaptation strategies. The platform allows users to access the research, showcase their work, and connect with others tackling similar challenges. By facilitating collaboration and knowledge exchange, weADAPT supports the development of effective climate adaptation solutions that can be tailored to different regions and contexts, with the aim of helping communities worldwide build resilience to climate impacts.

### Comments & remarks

1. A vast range of topics/categories is available to classify the case studies
2. The repository is climate adaptation-focused


### User friendly features

	case studies view	ARCHIVE & MAP
	possible to add links	YES
	possible to upload files	NO


### Upload of case studies

upload link	<u>Link</u> Click "Add" button on the "Add your project" section
registration	Yes
upload mode	On the website
format case study	Guided questionnaire on the website

### Characteristics

area of relevancy	World
biodiversity focus	
business focus	☆☆


### Case Study Outcomes



### Socio-environmental challenges

Climate resilience • Food security • Knowledge, and Social Capacity Building for Sustainable Transformation • Natural and Climate Hazards • New Economic Opportunities and Green Jobs • Participatory Planning and Governance • Social Justice and Social Cohesion • Water Management

## WOCAT






**WOCAT**

WOCAT (World Overview of Conservation Approaches and Technologies) is a global network focused on Sustainable Land Management (SLM). It promotes the documentation, sharing, and application of knowledge to support adaptation, innovation, and decision-making in land management practices. Through its platform, WOCAT facilitates the exchange of information on effective SLM techniques, helping communities, policymakers, and organizations implement sustainable solutions to combat land degradation, enhance productivity, and build resilience. By connecting global stakeholders, WOCAT fosters collaboration to address critical land management challenges and promote environmental sustainability.

### Comments & remarks

- 1.Registration is subject to manual validation (rapid response)
- 2.The repository is focused on Sustainable Land Management
- 3.Two types of resources can be uploaded, namely SLM Technology or SLM Approach; an additional layer of specification can be added for SLM Technologies, through the association of a Carbon Benefit Projects (CBP) module and/or Climate Change Adaptation (CCA) module




### User friendly features

	case studies view	ARCHIVE & MAP
	possible to add links	YES
	possible to upload files	LIMITED

### Upload of case studies

upload link	<a href="#">Link</a>
registration	Yes
upload mode	On the website
format case study	Guided questionnaire on the website

### Characteristics

area of relevancy	World
biodiversity focus	Technology:  CCA: 
business focus	

### Case Study Outcomes



### Socio-environmental challenges



## ANNEX II. NbS Repository Upload Info

Platform Name	Platform Home [link]	Upload mode	Upload link   Note
Climate-ADAPT	<a href="https://climate-adapt.eea.europa.eu">https://climate-adapt.eea.europa.eu</a>	Via email	<a href="https://climate-adapt.eea.europa.eu/en/help/share-your-info/case-studies">https://climate-adapt.eea.europa.eu/en/help/share-your-info/case-studies</a>
Climatescan	<a href="https://www.climatescan.nl">https://www.climatescan.nl</a>	On the website, after registration	Same as Platform Home Click on the “+ Add a project” button.
Connecting Nature Enterprise Platform	<a href="https://naturebasedenterprise.com">https://naturebasedenterprise.com</a>	On the website after registration	<a href="https://naturebasedenterprise.com/ventures">https://naturebasedenterprise.com/ventures</a> Click on “Publish your Project” button.
GeoIKP	<a href="https://geoikp.operandum-project.eu">https://geoikp.operandum-project.eu</a>	On the website without registration	<a href="https://geoikp.operandum-project.eu/nbs/crowdsourcing">https://geoikp.operandum-project.eu/nbs/crowdsourcing</a>
The Natural Water Retention Measures	<a href="https://www.nwrm.eu">https://www.nwrm.eu</a>	On the website after registration	<a href="https://www.nwrm.eu/submit-case-study">https://www.nwrm.eu/submit-case-study</a>
Nature4Climate	<a href="https://nature4climate.org">https://nature4climate.org</a>	Via Google form without registration	<a href="https://nature4climate.org/get-involved">https://nature4climate.org/get-involved</a> Click on the section “Submit case studies”.
Nature-based Solutions	<a href="https://www.nature-basedsolutions.com">https://www.nature-basedsolutions.com</a>	Via Google form without registration	<a href="https://www.nature-basedsolutions.com/page/572/submit-your-nature-based-solutions-project">https://www.nature-basedsolutions.com/page/572/submit-your-nature-based-solutions-project</a>
NetworkNature	<a href="https://networknature.eu">https://networknature.eu</a>	On the website after registration	<a href="https://networknature.eu/network-nature-case-study-finder">https://networknature.eu/network-nature-case-study-finder</a> A “+ ADD CASE STUDY” button will appear after login.
Oppla	<a href="https://oppla.eu">https://oppla.eu</a>	On the website after registration	<a href="https://oppla.eu/case-study-finder">https://oppla.eu/case-study-finder</a> A “+ ADD CASE STUDY” button will appear after login.
Panorama	<a href="https://panorama.solutions">https://panorama.solutions</a>	On the website after registration	Same as Platform Home Click on the “Contribute solution +” button.
weADAPT	<a href="https://weadapt.org">https://weadapt.org</a>	On the website after registration	Same as Platform Home Click “Add” button on the “Add your project” section.
WOCAT	<a href="https://wocat.net">https://wocat.net</a>	On the website after registration	<a href="https://qcat.wocat.net/en/wocat/add/">https://qcat.wocat.net/en/wocat/add/</a>