



Leaving no one behind: Towards inclusive nature-based solutions



Objectives

This Knowledge Brief produced by NetworkNature provides an overview of the concept of inclusion in the nature-based solutions context, including its relevance to the EU and international policy landscape and the just transition. By raising awareness on the importance of inclusive nature-based solutions in promoting social and environmental sustainability, the brief identifies best practices, key elements to consider and tools to put in place to improve nature-based solutions practice towards more inclusive, equitable and just approaches.

Who should read this?

In order to provide a common ground for inclusive development and implementation of nature-based solutions, this knowledge brief is intended for practitioners, infrastructure developers, planners and landscape architects directly involved in these efforts. However, it might be insightful for anyone interested in understanding how to develop inclusive nature-based solutions.

Understanding inclusion in and for nature-based solutions

Nature-based solutions (NbS) have been gaining increasing recognition as effective solutions to tackle biodiversity, climate and sustainable development challenges. However, criticisms have appeared to highlight the risks to society of improper NbS approaches and to call for better inclusiveness in their implementation and mainstreaming.

Issues of social nature have primarily emerged in the context of greening efforts in urban areas. Green areas are often unequally distributed in urban environments, with findings showing a significant positive correlation between residential tree canopy and median household income ([Heynen, N., et al. 2006](#)). While people of lower socio-economic status are found to reap greater benefits from green spaces than more privileged ones, such spaces are overall less available in lower income neighbourhoods ([EEA, 2022](#)). Evidence shows that greening efforts and nature-based solutions integration may result in exacerbated social exclusion. This is for instance the case of green gentrification, where greening projects contribute to increased rents or inflated property taxes, therefore leading to the displacement of residents. This may happen intentionally or be the

unwanted consequences of a non-inclusive approach to nature-based solutions. Such potential impacts should be considered upfront.

In the context of nature-based solutions, inclusion is intended as ensuring that vulnerable, marginalised and under-represented voices are included in all processes and practices for their mainstreaming ([Armstrong, 2020](#)). In order to reduce or avoid possible inequality, inequity and marginalisation as much as possible, it is therefore crucial to ensure the engagement of diverse communities and stakeholders, especially those who have traditionally been marginalized or excluded, in NbS initiatives, across all stages, from planning to design, implementation and monitoring and feedback processes. This would ensure equal access, participation, and benefits for all, leaving no one behind. To ensure long-term and short-term benefit to all participating and affected stakeholders, it is necessary to ensure equitable involvement, clarify of roles, trade-offs and power sharing throughout the NbS life cycle.

Defining vulnerable communities and the implications of inequality

Vulnerable groups and communities refer to minorities, children, elderly, immigrant and indigenous populations, persons with disabilities and those from low-income households ([European Commission, n.d.](#)). They are generally the most affected by the adversities resulting from the triple crises of climate change, pollution and biodiversity loss. Vulnerable communities or groups need to be classified based on the socio-economic and environmental challenges pertinent to a specific local context. For instance, in the case of coastal ecosystems and low-lying areas, communities living close to the coastline - specifically with poor socio-economic background dependent on coastal resources - are most likely to suffer from the adverse impacts ([UNDRR 2019](#)). It also depends on the vulnerability of the ecosystem they are present in. The indices to measure vulnerability impacts are exposure, sensitivity, recovery and adaptability potential ([Lazzari, et al. 2021](#)). Unfortunately, vulnerable communities often suffer the most from these crises on a socio-economic level, but also on an individual health and well-being level. It is crucial to put in place appropriate mitigation and adaptation measures to reduce such vulnerability and inequality. In this context, NbS can help increase overall resilience, by providing healthy ecosystems and ensuring inclusive decision-making processes. Therefore, it is essential to consider the vulnerability of different populations in order to provide the necessary support and increase their capacity to adapt and cope with the impacts of climate change, pollution, and biodiversity loss.

At the core of the 2030 Agenda for Sustainable Development, *leaving no one behind* represents the transformative premise to eradicate poverty in all forms, from discrimination, to exclusion and inequality ([UNDP, 2023](#)). Embedding such a notion in NbS mainstreaming, by empowering those

being left behind, is essential for the effectiveness and sustainability of NbS initiatives, building trust, ownership, and support among all those directly or indirectly affected by these solutions - regardless of income, gender, and race - and benefitting society at large.

To this end, the [IUCN Global NbS Standard](#) includes a specific Criterion (5) that states that *NbS are based on inclusive, transparent and empowering governance processes*. It points to the risks of inadequate governance, therefore requiring the acknowledgment, involvement and

response to the concerns of a variety of stakeholders, especially rights holders. In addition, Criterion (6) of the IUCN Standard emphasises the importance of identifying and documenting the potential costs and benefits of the associated trade-offs of NbS interventions during their

entire life cycle. It requires NbS to follow a fair, transparent and inclusive process to balance and manage trade-offs over both time and geographic space. Necessary safeguards and appropriate corrective actions need to be established based on the identified trade-offs.

“NbS require investing in people. Only through the involvement of all those affected will NbS become a reality” – Karin Zaunberger, European Commission, DG Environment

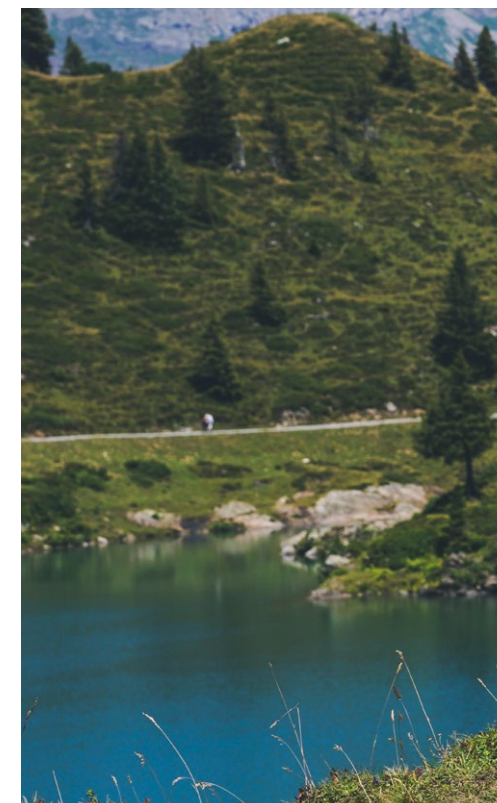
Contributing to the just transition...

The just transition refers to a principle, a process and practice which aspire to integrate equity and justice in the economic framework. Historically, the just transition has been linked primarily to decarbonisation, as well as to jobs and workers. However, with the concept being increasingly taken up by governments, it has become clear that it has implications on different sectors and is applicable to several contexts. NbS are definitely one of them, as well rooted in sustainable development, and forming a crucial part of the transition to a green, low-carbon and nature-positive economy¹. However, while the attention on NbS has revolved around the environmental and social benefits, less so has been dedicated to their economic benefits, on their role in a just transition to a sustainable economy ([McQuaid et al., 2021](#)) and on their potential for the creation of decent jobs.

The abovementioned potential social challenges and implications of NbS confirm the idea that nature-based interventions are not “just” by default, therefore making their contribution to a just transition less obvious¹. However, increasing evidence on NbS and decent jobs has shed light on the transformative potential of such interventions for employment and social justice. A [recent study by ILO, UNEP and IUCN](#) showed that an estimated 75 million people are currently working on NbS, and that tripling NbS investment by 2030, as stressed in the [State of Finance for Nature Report](#), can generate an additional 20 million jobs. Jobs generated by NbS can help reduce deficits in employment opportunities, while ensuring adequate pay, better health and wellbeing and greater stability and security of work. In addition, NbS come with an important shift in the way nature is managed,

therefore requiring a transition from often well-established unsustainable management forms ([ILO, UNEP, IUCN, 2022](#)).

Policies directed towards a just transition are crucial to ensure that the integration of NbS leads to positive social impacts, rather than detrimental. In order to turn the just transition into reality, efforts need to expand towards those sectors that affect and are affected by nature. In line with this mission, researchers have been introducing the *just nature transition* which “delivers decent work, social inclusion and the eradication of poverty in the shift to a net zero and climate-resilient economy that simultaneously delivers biodiversity goals in agriculture, forestry, land-use and the oceans” ([Muller & Robins, 2022](#)). For this reason, scaling up NbS represents a crucial priority area for such a just nature transition.



Policy for inclusive and just solutions

As NbS are increasingly mainstreamed into policy and implemented on the ground, efforts are needed to ensure clarity and features for successful, effective, and inclusive solutions. Policies therefore need to integrate clear notions and recognitions on inclusion and equality, in relation to gender, as well as to minorities, indigenous populations, elderly and all vulnerable communities and groups.

Gender equality and empowerment

Inclusion notions are embedded in the [Kunming-Montreal Global Biodiversity Framework](#), particularly in relation to tools and solutions for implementation and mainstreaming and Target 21, calling for the *full, equitable, effective and gender-responsive representation and participation in decision-making, and access to [justice and] information related to biodiversity by indigenous peoples and local communities [...]*. There is in fact an explicit call for a gender plan of action to be considered by the local governments to support, mainstream and advance gender-responsive implementation of the Framework. In addition, the Framework urges national governments to appoint gender-biodiversity focal points.

Further, [Resolution XIII.18 on Gender and wetlands](#) of the Ramsar Convention on Wetlands recognises the role of women, including indigenous and local women, in the provision, management and safeguarding of wetlands, as well as the importance of addressing gender equality and women’s empowerment in the implementation of all Conventions.

Vulnerable regions, industries and communities

At European level, the European Commission launched in 2019 the [European Green Deal](#) – a set of policy initiatives with the overarching aim of making the EU climate neutral in 2050 - and pledged to implement it in a “just and inclusive way” for its citizens. For this purpose, all components of the Deal fall under the *leaving no one behind* premise. An important element of the Deal is the [Just Transition Mechanism](#) which aims to ensure that the transition towards a climate-neutral economy happens in a fair way, by addressing the social and economic effects of the transition and focusing on the regions, industries and

workers facing the greatest challenges. However, it is argued that the inclusiveness and justice component of the EU Green Deal lacks a specific mention to migrants, who make up a significant part of the workforce

and are part of socio-economically disadvantaged communities. Ensuring such integration could lead to a more just implementation of the Deal ([Kvasnickova et al, 2023](#)).



Inclusive nature-based solutions in practice

Social justice and cohesion is one of the 12 societal challenges identified by the European Commission² to be addressed by NbS. Several projects, from the Horizon 2020 and Horizon Europe programmes, have focused on NbS in this context. In addition, NbS projects working on societal challenges related to *knowledge and social capacity building for sustainable transformation*, as well as on *new economic opportunities and green jobs* are contributing to the growing efforts of making NbS more inclusive and just.

Social justice and social cohesion:

GoGreenRoutes, INTERLACE, Invest4Nature, JUSTNature, NaturaConnect, Nature4Cities, NATURVATION, proGInreg, UPSURGE, URBiNAT



Case study 1: A Coruña – An urban gardens green network for social cohesion

Title of case study: ecoHORTAS

Project: Urbact Ru:rbán; Connecting Nature

Objective: Urban gardening to create a network of Urban Gardens

Location: A Coruña, Spain

Timeline: 2018 – Now

Inclusion themes: co-creation, participatory process, social inclusion and diversity, vulnerable community inclusion

Summary:

In 2018, the city of A Coruña started the ecoHORTAS project which aims to meet the neighbourhood demand for spaces for urban agriculture and to create a network of urban gardens integrating organic urban agriculture, accessible to all citizens. In the framework of the project, a network of urban gardens was created in the city along with participatory initiatives involving various communities.

Main actions and challenges addressed:

A Coruña is an extremely compact city, which has resulted in fewer green spaces and low biodiversity, but also greater vulnerability to natural factors. To address these challenges, abandoned, degraded or underutilized green spaces were transformed into urban gardens. The implementation of the project started as an open participatory process through co-participation and co-production, involving citizens and associations. They selected the most suitable

spaces and identified their potential design and services to be provided. As a result, three municipal urban gardens, as well as two smaller gardens for NGOs and educational projects were created. A total of 218 separate plots together with common areas are now available to citizens. For the two smaller gardens, NGOs and educational projects are implementing workshops with vulnerable communities and children to involve them in the garden activities.

Benefits:

Biodiversity: Biodiversity increased, and ecology was boosted thanks to the creation of new green areas and the implementation of organic urban agriculture.

Climate change adaptation: Gardens help to increase resilience against perturbations and to mitigate climate change effects. They promote self-production and self-consumption of vegetables, providing easier access to healthy food and sustainable consumption.

Social cohesion: The gardens provide sustainable public spaces with recreational opportunities, increased social cohesion, and community engagement. They promote mental and physical health and improve the well-being of citizens by connecting them with nature. The co-participation process during the implementation helped to conglomerate various communities around a common project.

Vulnerable community inclusion: With the participation of NGOs, migrants, long-term unemployed, survivors of gender-based violence and others are engaged in the garden activities. Gardens have become a tool for social integration and helped



more than 200 people from vulnerable communities to improve their welfare, and social and soft skills.

Economy: The city's attractiveness increased thanks to these new green areas that can create new economic opportunities. A training program on urban gardening was conducted and led to the creation of SME and social enterprise projects by the trainees.

Education: Training is offered by the municipality on organic agriculture and an online platform has been developed to share knowledge. Schools and children are also involved in the gardens' activities.

Culture: Gardens can help recover the historical and ethnographic agriculture heritage of the region and increase the community's sense of belonging towards the public space.

Find out more about this case study:

[A CORUÑA: AN URBAN GARDENS GREEN NETWORK | Connecting Nature](#)

[A CORUÑA : Urban Gardens Network Slide | Connecting Nature](#)

[A CORUÑA: AN URBAN GARDENS GREEN NETWORK | NetworkNature](#)

Case study 2: ReDuna - Restoration of S. João da Caparica Sand Dunes proving local employment

Title of case study: ReDuna

Project: REGREEN

Objective: Sand dunes restoration through nature-based solutions

Location: Almada, Portugal

Timeline: Construction: 2014 (6 months)

Monitoring: 2014 - Ongoing

Inclusion themes: decent green work, local citizen involvement, co-creation and co-participation

Summary:

The ReDuna project aims to restore the natural capacity of the Almada sand dune-beach ecosystem to healthily respond to natural drivers, enhancing its resilience to sea-level rise and storms. ReDuna has promoted a strong community involvement from the beginning so that stakeholders could understand and engage in several of the project's activities, ensuring that the users' experience was incorporated in the area's design. The installation of facilities on the dune system, such as raised walkways and signage, enhanced the possibilities for the local population and tourists to interact with the sand ecosystem and get informed about its value and importance. The project is equally praised by the local population for providing coastal protection and aesthetic values.

Main actions and challenges addressed:

The ReDuna project started in 2014, in response to strong winter storms in the coast of Costa da Caparica, which caused the destruction of the dune system. After this event, the beach was sand nourished and the dune profile along 1km of coast was restored using willow sand fences and native dune plant species (100,000) were planted to help the recovery process. To this end, seeds were collected from a close area to preserve the local genetic integrity of the site. Also, human pressure mitigation measures were implemented such as pathways, fences and project communication.

Benefits:

Biodiversity: Over the first two years of the project, biodiversity increased. 90% of the planted native species have survived and 49 new wildlife species were identified.

Climate change adaptation: The restoration made the ecosystem more resilient to storm effects and coastal erosion and improved risk management while increasing carbon sequestration and storage along with water infiltration and storage.

Jobs: 1,040 volunteers supported the project through work on restoration, maintenance and clearing of invasive non-indigenous plants. Moreover, 104 NbS local jobs were created including 64 related to restoration, construction and maintenance of the ecosystem. Now, 12 people have a permanent job.



Economy: Beach support-structure owners were also able to ensure economic revenue from the facilities throughout time, benefiting directly from the coastal defence through avoided damage and indirectly from increased tourism.

Social cohesion: Using co-creation and co-participation and involving local population (NGOs, citizens, schools) helped developing social cohesion and knowledge on coastal nature-based solutions. As a result, the project was praised by the local population for providing coastal protection along with aesthetic values.

Find out more about this case study:

[ReDuna - Restoration of S. João da Caparica Sand Dunes | NetworkNature](#)

[The ReDuna Project in Almada | REGREEN](#)

Communicating in an inclusive way

Effective communication is essential for ensuring that multifunctional NbS are maintained and provide long-term benefits and co-benefits for local communities. However, it is equally important to consider the opportunities that arise when striving for a just transition with the deployment of NbS. This includes promoting gender-sensitive communication and using inclusive language to challenge gender stereotypes and ensure that both women and men are equally benefiting from NbS initiatives ([UNDP 2018](#)).

Inclusive language is critical in sustainable development and involves avoiding words, phrases, or expressions that might exclude or offend certain groups of people. Examples of inclusive language include using gender-neutral pronouns, avoiding gendered language, and using first person language. To communicate inclusively in sustainable

development, it is essential to consider the diversity of the community and stakeholders involved. Strategies to achieve this include using clear and simple language, considering different communication channels, engaging with the community, acknowledging and addressing diversity, using inclusive language, providing information in multiple languages, and being transparent and honest about the planning process and potential impacts.

Therefore, effective communication in sustainable development requires a commitment to inclusivity, diversity, and transparency. By using gender-sensitive and inclusive language and considering the needs and perspectives of diverse communities and stakeholders, we can ensure that NbS initiatives and sustainable urban development projects benefit all, leave no one behind and thus promote a just transition.

Opportunities & recommendations

By sharing knowledge, experiences and resources from the NbS community, NetworkNature aims to support practitioners in ensuring their nature-based interventions are planned, designed and implemented in a fair, inclusive and transparent manner. Several EU NbS projects and organisations have significantly contributed to the available

information on this theme through the development of guidelines, frameworks and articles. The following list provides a selection of key resources which will help practitioners implement inclusive NbS. Additional relevant resources may be found in the [NetworkNature knowledge database](#).



Co-creation and stakeholder engagement

With achieving socially inclusive NbS as the goal, participation and empowerment of citizens and stakeholders becomes the necessary requirement and the means to enable a multi-directional approach to problem solving. Co-creation processes are the enablers for innovative and active collaborations which create inclusive, accepted, and targeted solutions ([Leino, Pumala, 2020](#)).

Project/ Organisation	Type of resource	Resource	Key words
CLEVER Cities	Guidance	Guidance on co-creating nature-based solutions	Co-creation, stakeholder engagement
URBINAT	Guidance	Guidelines for Citizen Engagement and the Co-Creation of Nature-Based Solutions	Co-creation, citizen engagement
INTERLACE	Guidance	Inclusive participatory process for urban ecosystem restoration: Guidance on cultural, gender and ethics-related considerations	Gender inclusion, ethics, cultural, fair stakeholder engagement, urban
Nature4Cities	Guidance	Step-by-step guide for co-production and co-creation of Nature-based solutions	Stakeholder engagement, Inclusive communication
NAIAD	Brief	Participatory Modelling for NBS Design and assessment	Stakeholder engagement, co-design
UNaLab	Guidance	Introducing nature-based solutions in your city	Co-creation, urban
Connecting Nature	Article	Co-creating inclusive green cities: European examples and global learning opportunities	Co-creation, co-production, co-management
Connecting Nature	Article	Engaging the UN-usual Suspects	Stakeholder engagement
Connecting Nature	Guidance	Co-production Guidebook	Co-production
proGIneg	Guidance, Toolkit	Guidelines for co-designing and co-implementing green infrastructure in urban regeneration processes	Co-creation
euPOLIS	Guidance	Stakeholders engagement plan and guidelines	Stakeholder engagement, co-creation
RECONNECT, PHUSICOS	Publication	Stakeholder mapping to co-create nature-based solutions: who is on board?	Co-creation, stakeholder mapping
PHUSICOS	Publication	Living Labs – A concept for co-designing nature-based solutions	Living Labs, co-designing
GO GREEN ROUTES	Guidance	Review of existing approaches to collaboration in research	Co-creation
REST-COAST	Publication	Invited perspectives: Managed realignment as a solution to mitigate coastal flood risks – optimizing success through knowledge co-production	Co-production, stakeholder engagement
ENVISION	Factsheet	What is inclusive conservation and why is it important to biodiversity conservation and protected area management?	Inclusive conservation, co-creation, protected areas

Reskilling and decent green jobs

Policies and instruments promoting education, skilling and reskilling for all are crucial to foster a just nature transition and improve employability in green and NbS jobs ([ILO, UNEP, IUCN, 2022](#)), while addressing barriers to participation in the workforce.

Project/ Organisation	Type of resource	Resource	Key words
ILO, UNEP, IUCN	Guidance	Decent Work in Nature-based Solutions 2022	Decent NbS work
Urban Innovative Actions	Article	Skilling and reskilling	Green jobs, skilling, reskilling, urban

Inclusive communication

Communication is a powerful tool in the NbS context. Communicating in an inclusive way promotes inclusivity and respect for diversity and involves being aware of the ways in which language can perpetuate stereotypes, biases, and discrimination.

Project/ Organisation	Type of resource	Resource	Key words
Nature4Cities	Guidance	Step-by-step guide for co-production and co-creation of Nature-based solutions	Stakeholder engagement, Inclusive communication
URBINAT	Report	Report with the ethical principles guidelines, composition of the ethics commission and submission of additional requirements/ approvals	Project's ethics and inclusion
UNDP	Guidance	Guide Note to Gender Sensitive Communication	Gender sensitive communication
Council of Europe	Checklist	Gender sensitive communication checklist	Gender sensitive communication

Social justice and communities' inclusion

Beyond their environmental benefits, NbS are crucial for social integration and cohesion. In order to reflect this, NbS have been linked to the notion of environmental justice, equal access to nature and cultural integration of typically-excluded social groups ([European Commission, 2021](#)).

Project/ Organisation	Type of resource	Resource	Key words
Naturvation	Guidance, toolkit	Policy and Planning tools for urban green justice	Green justice, gentrification, urban
Naturvation	Guidance	Mainstreaming nature-based solutions	Social inclusion
Naturvation	Article	Whose city? Whose nature? Towards inclusive nature-based solution governance	Social inclusion, social and racial inequalities
UNaLab	Article	Inclusive urban development	Gentrification, disadvantaged communities, urban
IN-HABIT	Report	Gendered Landscapes in the 4 Cities	Gender inclusion, urban
UN Habitat	Guidance	A guide for municipalities inclusive and sustainable urban planning – Volume 1 , 2 , 3 and 4	Social inclusion, gender inclusion, urban
Urban Green Up	Article	Social justice and social cohesion	Inclusive urban solutions
CLEVER Cities	Factsheet	Establishing a framework to measure the impact of nature-based solutions on urban regeneration within clever cities	Social cohesion, environmental justice
European Commission	Report	Nature-based solutions towards sustainable communities – Analysis of EU funded projects	Co-creation, social inclusion



Network Nature

NetworkNature aims to provide a bridge between the European policy landscape and the NbS community, with the overarching objective of maximising the impact and spread of nature-based solutions.

Through its regular activities, gathering knowledge and experience, engaging stakeholders and providing guidance, capacity building and creating opportunities for cooperation, NetworkNature aims to support the opportunities and recommendations provided in this Knowledge Brief.

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