

Policy Recommendations for Climate Resilience in the Mediterranean

DEMO 1 and 2

 Greece

Non-conventional water loops on North-South Aegean islands, Greece & Industrial symbiosis through smart water management in Central Greece



What are Traps?

From our analysis across all the case studies, we identified four patterns of interconnected barriers to nature-based solutions mainstreaming that are recognized in all case studies.

How can we Overcome or Steer clear from traps?

Identified good practices in the making that explicate how to overcome the different traps.

TRAP 01

Weak(ening) Evidence

Represents how risk aversion of regional and local governments' practice is reinforced by limited epistemological inclusivity, and a weak evidence basis for drawing climate policy and planning measures that results in slow or stalled policy implementation.

- Use the monitoring and evaluation of existing NbS pilots and newly implemented NbS as examples of monitoring and evaluation practices to inform a broader climate action monitoring and evaluation framework.
- Use the data collected from the monitoring and evaluation of the NbS demo to create an evidence base and inform the replication of the demo in other islands. Collect data from other public organisations to create a more updated and inter-disciplinary evidence base for climate pressures and climate awareness of the region.
- Employ digital technologies for data collection to monitor and evaluate the effectiveness of the demos in the region. Support changes to the procurement mechanism for the formulation of the Regional Climate Adaptation Plans (PeSPKA) to strengthen climate planning.

TRAP 02

Community as a challenge

Refers to the situation where there is an avoidance of public officers engaging with communities and citizens that reinforces a lack of participatory planning and preference for consultations, which fuels distrust of public institutions from local communities and a transactional attitude toward engagement and participation from the communities.

- **Demo 1 (Northern and Southern Aegean Region):** Identify, invite and collaborate with intermediary actors of the region to ensure more inclusive participation and a co-creation of a narrative of mission for climate resilience with nature-based solutions.
- Map all relevant stakeholders and networks to identify ways to collaborate and cooperate with them, plan for win-win situations and create diverse dialogue spaces to ensure open participation and engagement.
- **Demo 2 (Central Greece):** Convene private sector stakeholders to share insights from the multiple co-benefits of the NbS demonstrator and to co-create a narrative for the industrial community about climate adaptation. Initiate an e-governance platform approach where strategic action plans are shared in draft versions for e-consultation in an open and meaningful way with the public.



TRAP 03

Excluding Narratives of Climate Change and Nature-based Solutions

Refers to the ways Nature-based Solutions have been advocated and/or communicated alongside climate change action create excluding narratives, with technocratic language/terms that disengages community and blocks buy-in.

- **Northern and Southern Aegean Region (Demo 1):** Shift the narratives and messages of information campaigns to benefits of NbS instead of the threats of climate change. Create institutional spaces where knowledge is shared with citizens and communities in a simpler, careful and caring way avoiding technocratic language and jargon.

TRAP 04

Ambivalence in place - Nature-based Solutions as simultaneously soft and hard solutions

This trap captures the portraying of Nature-based Solutions as "soft" (desirable and easy to advocate for) and "hard" (technocratic and difficult to communicate about) simultaneously that creates a stalemate in how they are translated across urban agendas especially those on urban regeneration/planning.

- **Northern and Southern Aegean Region (Demo 1):** Differentiate engagement and participation of experts from those with the community so as to allow for more meaningful and genuine participation of both target groups. Differentiate how NbS benefits are communicated to target group to allow for capturing "hearts and minds" and connect to the different place identities. Collaborate and engage with different discipline experts beyond engineers to create a more engaging understanding of place and people dimensions of the NbS benefits.
- Champion values that are already embedded in the socio-cultural landscapes.
- Make it place and site specific by focusing less on raising awareness, and more on leveraging the specificities of the location and land use.

How can Greece be a catalyst for climate change adaptation and resilience?



Greece can serve as a lighthouse example of water conservation across the Mediterranean through the use of constructed wetlands and collaborations with existing industrial businesses in the area. The use of digital twins is an innovative addition to Nature-based Solutions that creates adaptative communities of practice.

NbS solutions that successfully engage community members in mainland Greece and restore landscapes on islands have the possibility of spreading across the Aegan. This transformative potential can create systems of water circularity and conservation in areas that have been affected by drought for many years.

Follow Us

www.cardimed-project.eu
[@cardimed_eu](https://twitter.com/cardimed_eu)



CARDIMED



Funded by
the European Union

Policy Recommendations for Climate Resilience in the Mediterranean

DEMO 3

📍 Italy

Decarbonization of agricultural practices and combating agricultural pollution in Sardinia, Italy



What are Traps?

From our analysis across all the case studies, we identified four patterns of interconnected barriers to nature-based solutions mainstreaming that are recognized in all case studies.

How can we Overcome or Steer clear from traps?

Identified good practices in the making that explicate how to overcome the different traps.

TRAP 01

Weak(ening) Evidence

Represents how risk aversion of regional and local governments' practice is reinforced by limited epistemological inclusivity, and a weak evidence basis for drawing climate policy and planning measures that results in slow or stalled policy implementation.

- Identify, invite and collaborate with intermediary actors of the region (for example within "Il Contratto di Laguna del Calich") to ensure inclusive participation and a co-creation of a narrative of mission for climate resilience with Nature-based Solutions.
- Leverage funding from other areas for NbS, including resources for water quality of the Porto Conte marine protected area, and update procurement processes at a local, municipal and regional level to include specific criteria for NbS included in tendering processes and contracts.
- Actively engage with the local universities to research, develop and provide local data and analysis of projects and their dynamics and impacts on the region, and to provide new perspectives.

TRAP 02

Community as a challenge

Refers to the situation where there is an avoidance of public officers engaging with communities and citizens that reinforces a lack of participatory planning and preference for consultations, which fuels distrust of public institutions from local communities and a transactional attitude toward engagement and participation from the communities.

- Translate findings and learnings from the NbS demo into technical guidelines and institutional settings as a best practice approach (such as wastewater recycling), and protect recipient water bodies from discharges that could contribute to eutrophication. The findings can also include monitoring and evaluation of ecosystem services to further support ecological restoration.
- Build on the strong institutional collaboration to establish a forum for community engagement with public authorities, inspired by the "Consulta Comunale del Verde" at the municipality of Catania (Demo 4). This forum exists outside of project-based engagement, but invites communities to provide inputs to environmental debates.
- Leverage the strong partnerships and collaborations between private sector, public sector and academic communities to share out NbS project lessons and experiences to different community groups beyond technical experts and stakeholders, at a variety of levels- from local to international.



TRAP 03

Excluding Narratives of Climate Change and Nature-based Solutions

Refers to the ways Nature-based Solutions have been advocated and/or communicated alongside climate change action create excluding narratives, with technocratic language/terms that disengages community and blocks buy-in.

- Explore opportunities for knowledge transfer beyond the region and within the CARDIMED consortium of “Il Contratto di Laguna del Calich”, using the experiences and lessons learned as strong examples of building multidisciplinary, transboundary collaboration forums which support the protection of ecosystems, but also build strong relationships amongst regional actors.
- Explore ways to keep and expand local knowledge within the area through communities of practice.
- Continue to expand outreach and involvement of the local community in an inclusive manner, tailored to the diversity of communities of all ages, abilities and backgrounds; for example through bringing the elderly into schools to talk to children about connections to nature and landscape over the years, and to raise awareness about climate change.

TRAP 04

Ambivalence in place - Nature-based Solutions as simultaneously soft and hard solutions

This trap captures the portraying of Nature-based Solutions as “soft” (desirable and easy to advocate for) and “hard” (technocratic and difficult to communicate about) simultaneously that creates a stalemate in how they are translated across urban agendas especially those on urban regeneration/planning.

- Enhance visibility of NbS projects through the region, metropolitan and local areas by undertaking site visits with the community, local students, or by promoting technical training sessions to build capacity on NbS project delivery with the teams responsible for this including public works, environment, urban design and landscape architecture professionals.
- Support awareness of NbS projects beyond a technical audience by adding information, panels, QR codes, or urban placemaking initiatives (ranging from installations to events), to celebrate the importance of NbS in linking to the water quality in swimming areas at the Porto Conte.

How can Sardinia be a catalyst for climate change adaptation and resilience?



Sardinia’s tenacity in developing strong voluntary partnerships in order to protect and care for ecosystems in the region is a testament to its strength in operating within and beyond governance frameworks. The project acts as an intermediary that catalyses collaborations. The innovative nature of the project itself provides valuable insights into the potential of improving water quality and using recycled water in agriculture.

The operation of the project as a circular system (aquaculture system used to assess water quality from the wetland) could also be employed as an economic resource in the region. The experiences of Sardinia can additionally lead to the development of mechanisms to support the evaluation of water quality, which will allow for broader upscaling, aiding in addressing regional water scarcity.

Follow Us

www.cardimed-project.eu
[@cardimed_eu](https://www.instagram.com/cardimed_eu)



CARDIMED

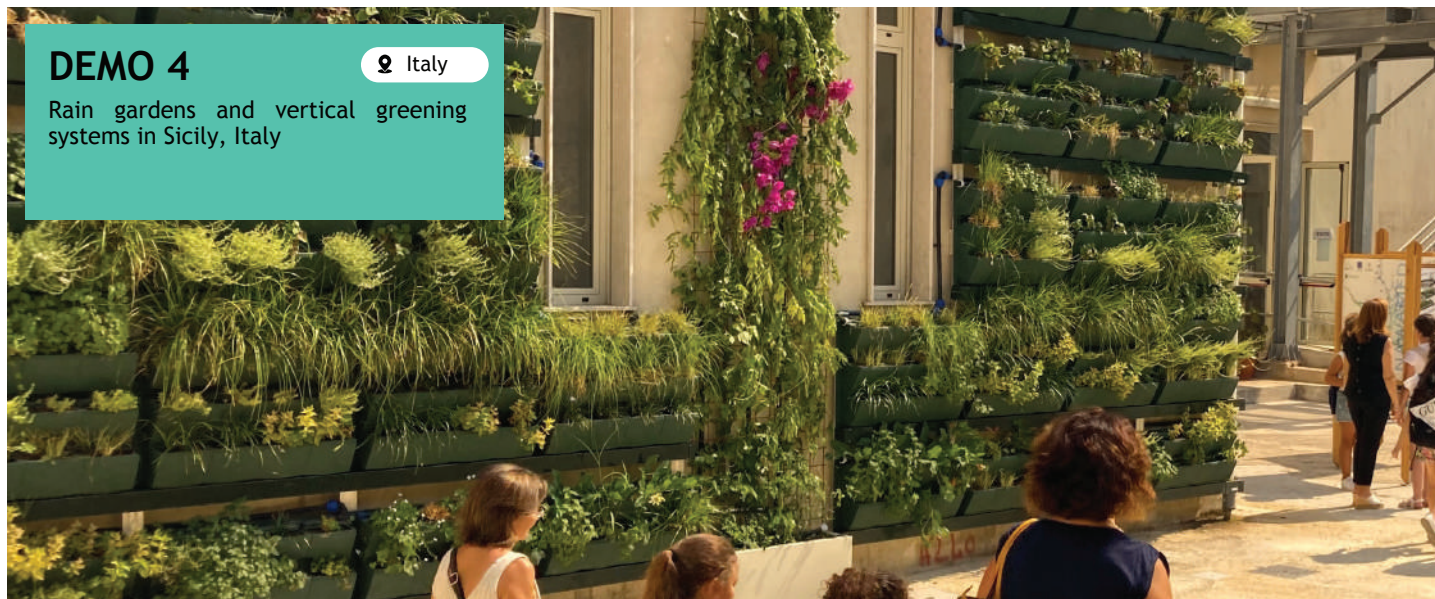


Funded by
the European Union

DEMO 4

📍 Italy

Rain gardens and vertical greening systems in Sicily, Italy



What are Traps?

From our analysis across all the case studies, we identified four patterns of interconnected barriers to nature-based solutions mainstreaming that are recognized in all case studies.

How can we Overcome or Steer clear from traps?

Identified good practices in the making that explicate how to overcome the different traps.

TRAP 01

Weak(ening) Evidence

Represents how risk aversion of regional and local governments' practice is reinforced by limited epistemological inclusivity, and a weak evidence basis for drawing climate policy and planning measures that results in slow or stalled policy implementation.

- Ensure that the lessons learned from the NbS demo are captured and communicated to improve future projects (for example, by consulting an ecologist to support species selection). Work to increase transparency of governance processes, communicating the barriers and challenges present - and how they impact projects.
- Run workshops with stakeholders and community groups to explore innovative ways to address specific challenges, while highlighting the bigger-picture challenges (such as flood risk).

TRAP 02

Community as a challenge

Refers to the situation where there is an avoidance of public officers engaging with communities and citizens that reinforces a lack of participatory planning and preference for consultations, which fuels distrust of public institutions from local communities and a transactional attitude toward engagement and participation from the communities.

- Support innovative and iterative ways to engage with the community using the city as a background for imagining different scenarios for NbS in Sicily's future (for example, by incorporating digital tools for community participation).
- Build on the strong government-to-community linkage fostered in the "Consulta Comunale del Verde" within Catania to expand this approach as a best practice across the region of Sicily.
- Develop comprehensive communication plans to guide the dissemination of projects. These should manage expectations, and foster trust in NbS and in the projects. These plans should promote the multiple benefits of NbS while also addressing common misconceptions, such as that a small-scale NbS intervention would solve systemic challenges.



TRAP 03

Excluding Narratives of Climate Change and Nature-Based Solutions

Refers to the ways nature-based solutions have been advocated and/or communicated alongside climate change action create excluding narratives, with technocratic language/terms that disengages community and blocks buy-in.

- Support awareness campaigns at different levels: Reach different audiences through classrooms, in traffic near the roundabout site, and in different educational contexts to foster an understanding of nature in the city.

- Explain how NbS are implemented and operated through project tours in Catania and Ferla. Encourage technical experts to learn about the process of designing and developing NbS projects through the preparation of technical guidelines or the delivery of training workshops, including site visits.

TRAP 04

Ambivalence in place - Nature-based solutions as simultaneously soft and hard solutions

This trap captures the portraying of nature-based solutions as "soft" (desirable and easy to advocate for) and "hard" (technocratic and difficult to communicate about) simultaneously that creates a stalemate in how they are translated across urban agendas especially those on urban regeneration/planning.

- Disseminate information about water sensitive urban design, encouraging implementation broadly for stormwater management by building synergies between projects to address flooding at scale. Highlight the fact that NbS projects as place-based small interventions will not fully mitigate risk, and a systemic catchment-wide approach is needed to achieve significant flood risk reduction.
- Support multi-disciplinary collaborations between stakeholders working on conventional infrastructure and NbS projects, fostering exchange of knowledge in the planning and design stages and countering design processes restricted by institutional silos.
- Incorporate lessons about unsealing soils from Demo 5 (Marseille) where possible, to increase permeability of hard surfaces in Sicily and support flood risk reduction while delivering additional co-benefits such as aesthetic and wellbeing projects.

How can Sicily be a catalyst for climate change adaptation and resilience?



The region faces extreme challenges of water scarcity and urban heat, but shows innovation and tenacity in cross border collaboration (as demonstrated through past INTERREG projects, such as NAWAMED and GiFluid). These collaborations are further strengthened by local intermediaries fostering partnerships within the projects. One of the key strengths demonstrated in Sicily is the awareness raised through highly visible projects, particularly the Green wall of Ferla. Innovative communication tools help share the importance of addressing water scarcity. In Catania, a triangular partnership for the SuDS project (private sector represented by IRIDRA, academia represented by the university of Catania, and the public sector represented by the municipality of Catania) has enriched the project and streamlined delivery in a highly complex and visible site.

In Sicily, the project has found ways to overcome the constraints of the formal governance and legislative frameworks, illustrating how creativity can facilitate the implementation of NbS. The knowledge of how to think flexibly, and with others to deliver projects is incredibly valuable, and an aspect to document and share within and beyond CARDIMED.

Follow Us

www.cardimed-project.eu
[@cardimed_eu](https://twitter.com/cardimed_eu)



CARDIMED



Funded by
the European Union

Policy Recommendations for Climate Resilience in the Mediterranean

DEMO 5

📍 France

Micro-forests and unsealed soils in Provence-Alpes-Côte d'Azur



What are Traps? ▾

From our analysis across all the case studies, we identified four patterns of interconnected barriers to nature-based solutions mainstreaming that are recognized in all case studies.

How can we Overcome or Steer clear from traps? ▾

Identified good practices in the making that explicate how to overcome the different traps.

TRAP 01

Weak(ening) Evidence

Represents how risk aversion of regional and local governments' practice is reinforced by limited epistemological inclusivity, and a weak evidence basis for drawing climate policy and planning measures that results in slow or stalled policy implementation.

- Continue to foster collaboration between private sector, public sector and academic communities in order to share out to different community groups beyond technical experts and stakeholders.
- Continue to work on developing governance mechanisms for mainstreaming NbS such as updating procurement processes at a local, municipal and regional level to include specific criteria for NbS in tenders and contracts.
- Build capacity on NbS project delivery with the relevant teams (including public works, environment, urban design and landscape architecture professionals) by undertaking site visits and technical training sessions.

TRAP 02

Community as a challenge

Refers to the situation where there is an avoidance of public officers engaging with communities and citizens that reinforces a lack of participatory planning and preference for consultations, which fuels distrust of public institutions from local communities and a transactional attitude toward engagement and participation from the communities.

- Establish a forum for community engagement with public authorities, inspired by the "Consulta Comunale del Verde" at the municipality of Catania (Demo 4) beyond project-based engagement.
- Establish a volunteering project to encourage the development of new projects in private land and to enable citizens participation in the creation of NbS.
- Engage with different communities, age groups and users using innovative approaches embedding artistic and creative practices (such as those employed by Demo 6, Aragon) including ballet, theatre, forest-bathing walks. These practices are important because they offer opportunities to pay special attention to underrepresented groups.



TRAP 03

Excluding Narratives of Climate Change and Nature-based Solutions

Refers to the ways nature-based solutions have been advocated and/or communicated alongside climate change action create excluding narratives, with technocratic language/terms that disengages community and blocks buy-in.

- Draw upon partnerships (including the collaboration with the university of Aix Marseille) to support action research in collecting local data, and communicating to the public in an accessible manner.
- Use existing platforms to disseminate this information (such as Urban Nature Atlas), and encourage all projects to contribute information to these knowledge sharing platforms.
- Explore digital mapping tools to connect across the region, allowing urban exploration and knowledge sharing to occur. In doing so, NbS projects and ideas for future works can be combined on one digital platform.
- Organise awareness campaigns at different levels both in classrooms and in other educational contexts to foster an understanding of nature in the city. Prioritise the use of tools that already exist.

TRAP 04

Ambivalence in place - Nature-based Solutions as simultaneously soft and hard solutions

This trap captures the portraying of Nature-based Solutions as "soft" (desirable and easy to advocate for) and "hard" (technocratic and difficult to communicate about) simultaneously that creates a stalemate in how they are translated across urban agendas especially those on urban regeneration/planning.

- Enhance visibility of NbS projects through the region, metropolitan and local areas, using these projects to support the forthcoming French national plan on climate adaptation, and incorporate reporting on projects to platforms that already exist (including the "Plus fraîche ma ville" and the "Urban Nature Atlas").
- Create awareness of NbS projects beyond a technical audience through simple, clear approaches that are tactile and accessible, for example by inviting the public to engage with maps and place-based knowledge (activities can include encouraging people to touch different kinds of rocks and to learn plant species names on site). This can complement approaches like information panels and QR codes.
- Support placemaking projects by incorporating wayfinding components leading to NbS projects and the NbS guidebook.

How can Marseille be a catalyst for climate change adaptation and resilience?



Marseille is tackling the challenge of land ownership and use with strong collaboration to embed NbS on different types of sites, from an educational site where experimental NbS can be embedded into educational curricula, to a highly-urbanised complex site with a range of stakeholders. For this reason, it provides a clear example of how projects implementing NbS can navigate complexity in a multidisciplinary manner. The adaptive policy-making process and project implementation strategy, as well as the creativity and commitment, can serve as an example of a best-practice approach to explore beyond Marseille. Strengthening procurement and tendering processes to embed NbS and continuing to build awareness are critical to the policy recommendations outlined.

There is strong potential for Marseille to support other Demo partners to explore dynamic, creative, multi-sectoral policy making and implementation to support climate change adaptation and resilience. This process can also serve as an opportunity to reflect back on the lessons learnt and experiences.

Follow Us

www.cardimed-project.eu
[@cardimed_eu](https://twitter.com/cardimed_eu)



CARDIMED



Funded by
the European Union

Policy Recommendations for Climate Resilience in the Mediterranean

DEMO 6

📍 Spain

Forest management and heatwave resilience in Aragón, Spain



What are Traps? ▾

From our analysis across all the case studies, we identified four patterns of interconnected barriers to nature-based solutions mainstreaming that are recognized in all case studies.

How can we Overcome or Steer clear from traps? ▾

Identified good practices in the making that explicate how to overcome the different traps.

TRAP 01

Weak(ening) Evidence

Represents how risk aversion of regional and local governments' practice is reinforced by limited epistemological inclusivity, and a weak evidence basis for drawing climate policy and planning measures that results in slow or stalled policy implementation.

- Ensure that NbS work is captured as a responsibility (through the titular de competencias) within key departments at a regional and local level. Involving these stakeholders can support local authorities to implement NbS projects.
- Establish a dedicated budget category within institutions and update procurement processes at a local, municipal and regional level to include specific criteria for NbS in tendering processes and contracts, with a clear funding pathway.
- Link NbS projects to existing policy and budgetary categories that are already allocated, until a dedicated funding pathway is established.

TRAP 02

Community as a challenge

Refers to the situation where there is an avoidance of public officers engaging with communities and citizens that reinforces a lack of participatory planning and preference for consultations, which fuels distrust of public institutions from local communities and a transactional attitude toward engagement and participation from the communities.

- Undertake workshops with community members and local organisations, to develop new skills.
- Incentivise NbS projects on private land, regardless of the political direction at the time to enhance the coverage and distribution of benefits.
- Lead training workshops with technical staff at a regional and local level on innovative community engagement approaches and methods (such as the IAP2), particularly within the CARDIMED network, to promote participation.



TRAP 03

Excluding Narratives of Climate Change and Nature-based Solutions

Refers to the ways Nature-based Solutions have been advocated and/or communicated alongside climate change action create excluding narratives, with technocratic language/terms that disengages community and blocks buy-in.

- Explore opportunities for knowledge transfer beyond the region and within the CARDIMED consortium of the “Patio’s por el Clima” programme
- Build upon the experiences from knowledge transfer to generate examples of NbS best practice in educational settings with the aim to improve thermal comfort.
- Expand outreach in an inclusive manner, tailored to the diversity of communities of all ages, abilities and backgrounds; for example by bringing the elderly into schools to talk to children about connections to nature and the landscape over the years.
- Encourage storytelling and knowledge sharing, documenting the connections to place, nature and the land in Aragon by hosting picnics and urban events, as well as by promoting activities in which stories are recorded and shared.

TRAP 04

Ambivalence in place - Nature-based Solutions as simultaneously soft and hard solutions

This trap captures the portraying of Nature-based Solutions as “soft” (desirable and easy to advocate for) and “hard” (technocratic and difficult to communicate about) simultaneously that creates a stalemate in how they are translated across urban agendas especially those on urban regeneration/planning.

- Undertake site visits and technical training sessions to build capacity on NbS project delivery with the teams responsible for this (including public works, environment, urban design and landscape architecture professionals).
- Support awareness of NbS projects beyond a technical audience by adding information, panels, QR codes, or promoting urban walking and bike tours that feature NbS.
- Plan events in spaces with NbS to support the active use of the sites, while exploring opportunities for placemaking.

How can Aragon be a catalyst for climate change adaptation and resilience?



Aragon has experienced great shifts in the regional government, making for a challenging context in which to navigate the climatic vulnerabilities of the region. There are legacies of previous regional governments in policy which greatly support the development of eco-literacy, environmental awareness and education (EÁREA-Estrategia Aragonesa de Educación Ambiental), which serves as a powerful resource for raising awareness of climatic challenges. While political shifts make continued innovation challenging, Aragon can lean on the existing policies to explore ways of embedding NbS that can support the achievement of regional government goals. Aragon is an area with strong potential for collaboration with DEMO4- Sicily, which often employs similar approaches.

Aragon is a region that inspires and demonstrates how NbS projects can be holistically embedded within society by incorporating educational and awareness-raising activities, selecting sites to increase visibility and aligning with strong regional climate policies.

Follow Us

www.cardimed-project.eu
[@cardimed_eu](https://twitter.com/cardimed_eu)



CARDIMED



Funded by
the European Union

Policy Recommendations for Climate Resilience in the Mediterranean

DEMO 7

Portugal

Cultural landscape restoration in Alentejo, Portugal.



What are Traps?

From our analysis across all the case studies, we identified four patterns of interconnected barriers to nature-based solutions mainstreaming that are recognized in all case studies.

How can we Overcome or Steer clear from traps?

Identified good practices in the making that explicate how to overcome the different traps.

TRAP 01

Weak(ening) Evidence

Represents how risk aversion of regional and local governments' practice is reinforced by limited epistemological inclusivity, and a weak evidence basis for drawing climate policy and planning measures that results in slow or stalled policy implementation.

- Include the private sector (such as businesses related to vineyards, hotels and farms) in efforts to measure land-use changes and water use across the region in the inter-municipal and regional plans.
- Collaborate with public health personnel, including professionals from the nearby hospital, to strengthen data-monitoring plans for NbS and other sustainability practices.

TRAP 02

Community as a challenge

Refers to the situation where there is an avoidance of public officers engaging with communities and citizens that reinforces a lack of participatory planning and preference for consultations, which fuels distrust of public institutions from local communities and a transactional attitude toward engagement and participation from the communities.

- Create opportunities to engage with incoming young professionals through the green corridor. Other socio-economic groups can be involved by engaging with the southern regional section of the architects association, the University of Évora students and teachers, the Regional Health Administration and the Environmental Agency. These collaborations can serve as dissemination and awareness-raising forums to reach the Alentejo Central population and broaden engagement in NbS planning.
- Involve private landowners and farmers in the restoration and future maintenance of the green corridor, including elders in the community who remember fishing in the streams. Workshops around future imagining, involving elders and youth can create connections between these groups.



TRAP 03

Excluding Narratives of Climate Change and Nature-based Solutions

Refers to the ways Nature-based Solutions have been advocated and/or communicated alongside climate change action create excluding narratives, with technocratic language/terms that disengages community and blocks buy-in.

- Adapt the NbS and practices so that narratives around sustainability, biodiversity, and water-use are aligned with local practices and language.
- Include QR codes and other communication tools in the green corridor and ecotrail to share knowledge about health, culture, birding, and other Citizen Science projects that allow citizens of all ages to get involved and invested in NbS.

TRAP 04

Ambivalence in place - Nature-based Solutions as simultaneously soft and hard solutions

This trap captures the portraying of nature-based solutions as "soft" (desirable and easy to advocate for) and "hard" (technocratic and difficult to communicate about) simultaneously that creates a stalemate in how they are translated across urban agendas especially those on urban regeneration/planning.

- Extend existing interventions into urban areas through place-making and belonging activities. These partnerships have mostly introduced NbS in rural landscapes to date. In addition to the direct intervention in the rural and agricultural areas, provide the region's municipalities with plans to restore urban river and stream galleries creating urban green networks and reaching more people.
- Promote knowledge about natural cycles and the changes in the landscape while nature-based solutions are being implemented. River restoration is not a linear process; thus, preparing and informing communities about side effects (including smells, flooding, arrival of new bird species) allows NbS practitioners to bring nature into urban areas.

How can Alentejo be a catalyst for climate change adaptation and resilience?



The region of Alentejo is scaling up numerous and interconnected NbS by connecting rural and urban spaces together. The resilience of vineyards, agricultural sites, and recreational areas' can be increased through the stream restoration and the removal of invasive species. There is potential for these NbS to support the neighbouring regions of Spain and create impactful trans-boundary collaborations.

The Dehesa/Montado system serves as an example of a socio-ecological system with deep connections to the rural region as it is a cultural landscape shaped by human activity. The enormous biodiversity of the Montado system ensures that this area works as a buffer zone to desertification and local people recognise this importance. Demo 7 has the potential to restore and reconnect the Alentejo region's landscape and communities through a network of green corridors and streams. By connecting communities to each other, through their past experiences and visions of a brighter future, Demo 7 provides important lessons on how other projects can scale up NbS in rural regions of the Mediterranean.

Follow Us

www.cardimed-project.eu
[@cardimed_eu](https://twitter.com/cardimed_eu)



CARDIMED



Funded by
the European Union

Policy Recommendations for Climate Resilience in the Mediterranean

DEMO 8

Türkiye

Indigenous production landscapes in İzmir, Türkiye.



What are Traps?

From our analysis across all the case studies, we identified four patterns of interconnected barriers to nature-based solutions mainstreaming that are recognized in all case studies.

How can we Overcome or Steer clear from traps?

Identified good practices in the making that explicate how to overcome the different traps.

TRAP 01

Weak(ening) Evidence

Represents how risk aversion of regional and local governments' practice is reinforced by limited epistemological inclusivity, and a weak evidence basis for drawing climate policy and planning measures that results in slow or stalled policy implementation.

- Inform policymakers of the challenges, opportunities, and benefits of NbS so that there is stronger institutional backing for future projects.
- Build on existing monitoring efforts to collect evidence on the impact of the Nature-based Solutions in addressing the food-energy-water nexus. The data collected can provide important insights into how other Mediterranean cities can better integrate the relationship between water use, wildfire, and biodiversity.
- Continue supporting changes to protect local biodiversity and encourage the removal of invasive species without creating more institutional barriers.

TRAP 02

Community as a challenge

Refers to the situation where there is an avoidance of public officers engaging with communities and citizens that reinforces a lack of participatory planning and preference for consultations, which fuels distrust of public institutions from local communities and a transactional attitude toward engagement and participation from the communities.

- Document community participation and co-creation efforts on the ground, to influence funding for future community-based NbS in the region.
- Develop strategies to collaborate with public health officials to better understand social and health co-benefits generated by the NbS.



TRAP 03

Excluding Narratives of Climate Change and Nature-based Solutions

Refers to the ways Nature-based Solutions have been advocated and/or communicated alongside climate change action create excluding narratives, with technocratic language/terms that disengages community and blocks buy-in.

- Continue participatory interventions such as invitations for workshops, council meetings, and festivals that empower people to adapt to climate change. Existing participatory activities (including nature puzzles, QR codes, and bird-watching areas) create opportunities for the local population to participate in the implementation of NbS.
- Provide accessible information through community events to children and families; and to neighbouring communities that employ traditional and Indigenous understandings of NbS.

TRAP 04

Ambivalence in place - Nature-based Solutions as simultaneously soft and hard solutions

This trap captures the portraying of Nature-based Solutions as "soft" (desirable and easy to advocate for) and "hard" (technocratic and difficult to communicate about) simultaneously that creates a stalemate in how they are translated across urban agendas especially those on urban regeneration/planning.

- Consider community concerns and mitigate expected side-effects of NbS before construction begins, to generate support for future projects.
- Collect cultural narratives and values to anchor communities' meaning and senses of place in the process of NbS planning.

How can Izmir be a catalyst for climate change adaptation and resilience?



As Izmir transitions towards a sponge city, communities should be prepared for the multiple changes and disruptions expected to occur. Demo 8 has the potential to pilot a wetland restoration project thus supporting indigenous and local practices and connecting a fragmented coastline to a wider network of NbS. Demo 8 is leading the way for other coastal cities in the Mediterranean by supporting a local economy and other ways of knowing in climate change adaptation schemes. Creating a future for people and restoring landscapes are mutually beneficial goals and NbS can serve as a catalyst in this process.

Demo 8 can show how historically marginalised rural communities, who could be displaced by rapid urbanisation, have a place in urban planning and an important role to play in conservation efforts. In this demo, policy stakeholders work across different sectors to simultaneously conserve biodiversity and protect local and traditional practices.

Follow Us

www.cardimed-project.eu
@cardimed_eu



CARDIMED



Funded by
the European Union

Policy Recommendations for Climate Resilience in the Mediterranean

DEMO 9

📍 Cyprus

Gardens of the future in the heart of Nicosia city, Cyprus.



What are Traps? ▾

From our analysis across all the case studies, we identified four patterns of interconnected barriers to nature-based solutions mainstreaming that are recognized in all case studies.

How can we Overcome or Steer clear from traps? ▾

Identified good practices in the making that explicate how to overcome the different traps.

TRAP 01

Weak(ening) Evidence

Represents how risk aversion of regional and local governments' practice is reinforced by limited epistemological inclusivity, and a weak evidence basis for drawing climate policy and planning measures that results in slow or stalled policy implementation.

- Continue exploring community-driven and flexible ways in which gardens can be developed in post-war abandoned sites, where experimentation and data-monitoring could co-occur and serve as an example for future NbS in a divided Nicosia.
- Continue filling policy and implementation gaps through experimentation within the food-energy-water nexus. Future policies should integrate the data, lessons from successes, and opportunities into new regional policies.

TRAP 02

Community as a challenge

Refers to the situation where there is an avoidance of public officers engaging with communities and citizens that reinforces a lack of participatory planning and preference for consultations, which fuels distrust of public institutions from local communities and a transactional attitude toward engagement and participation from the communities.

- Record social innovations and their co-benefits so that policymakers and practitioners across the EU can replicate them and understand the role of community participation in NbS. Find long-term funding and enact policy changes that center communities.
- Map the communities of practice to strengthen and mainstream current adaptation practices then introduce emergent NbS.



TRAP 03

Excluding Narratives of Climate Change and Nature-based Solutions

Refers to the ways Nature-based Solutions have been advocated and/or communicated alongside climate change action create excluding narratives, with technocratic language/terms that disengages community and blocks buy-in.

- Extend current climate change adaptation and NbS narratives to war-torn, and conflict-affected communities.
- Create opportunities for communities to learn about the more technical and scientific aspects of an NbS and understand how these interventions work. Understanding how NBS work can increase the uptake and co-creation of new NbS in the future.
- Utilize narratives of resilience that connect people to the landscape.

TRAP 04

Ambivalence in place - Nature-based Solutions as simultaneously soft and hard solutions

This trap captures the portraying of Nature-based Solutions as "soft" (desirable and easy to advocate for) and "hard" (technocratic and difficult to communicate about) simultaneously that creates a stalemate in how they are translated across urban agendas especially those on urban regeneration/planning.

- Extend the flexible design of the gardens to include NbS in the Pedieos River or the Green Line through new and extant transboundary collaborations.
- Scale up the current gardens of the future model to selected sites, but stress that these emerging gardens will change depending on the context. Not every garden will provide the same social services, place-based belonging, or adapt to the same climatic hazards. NbS should be connected to each other and address different hazards in tandem, in order to transform the landscape by bringing nature into cities.

How can your demo be a catalyst for climate resilience?



The Gardens of the Future and other public gardens in Nicosia serve as a piloting site for a circular water system on the island of Cyprus, which is prone to droughts. The Gardens of the Future are a site that provides food, belonging, and healing for surrounding communities. This site of innovation provides insights into how emerging NbS sites can co-create with communities, implement an adaptive design, and utilize climate change adaptation strategies as a tool for social justice.

The gardens are advancing NbS technologies and social innovation in a post-war neighborhood, despite ongoing conflict and numerous crises including the migratory pressures and intense droughts that affect the island. Serving as an example of innovation, peace, and diverse climate-change adaptations, Demo 9 exemplifies how NbS are not only socio-ecological systems, but also serve as places for peace among contexts of political unrest. Other conflict-torn neighborhoods, communities, and countries can co-create NbS that prepare communities for climate change and launch them towards imaginaries of peace.

Follow Us

www.cardimed-project.eu
[@cardimed_eu](https://twitter.com/cardimed_eu)



CARDIMED



Funded by
the European Union

Policy Recommendations for Climate Resilience in the Mediterranean

Cross cutting recommendations for all Mediterranean case studies of CARDIMED

What are Traps?

From our analysis across all the case studies, we identified four patterns of interconnected barriers to nature-based solutions mainstreaming that are recognized in all case studies.

How can we Overcome or Steer clear from traps?

Identified good practices in the making that explicate how to overcome the different traps.

TRAP 01

Weak(ening) Evidence

Represents how risk aversion of regional and local governments' practice is reinforced by limited epistemological inclusivity, and a weak evidence basis for drawing climate policy and planning measures that results in slow or stalled policy implementation.

- Strengthen the evidence with more interdisciplinary collaborations in your area to help formulate more integrative climate measures (increases evidence base).
- Design monitoring & evaluation frameworks to be holistic, participatory, integrative and to be part of climate strategy. Use the data collected from demo's as part of the evidence for climate solutions, and as part of an adaptive climate change policy cycle.

TRAP 02

Community as a challenge

Refers to the situation where there is an avoidance of public officers engaging with communities and citizens that reinforces a lack of participatory planning and preference for consultations, which fuels distrust of public institutions from local communities and a transactional attitude toward engagement and participation from the communities.

- Allow for time and institutional space to meaningfully engage with communities for climate planning which has continuity outside of project cycles.
- Work together with intermediary actors to ensure diverse and inclusive participation in the planning and implementation of climate change plans.

TRAP 03

Excluding Narratives of Climate Change and Nature-based Solutions

Refers to the ways Nature-based Solutions have been advocated and/or communicated alongside climate change action create excluding narratives, with technocratic language/terms that disengages community and blocks buy-in.

- Allow community/governmental actors to develop different narratives for climate resilience and Nature-based Solutions.
- Create new narratives of climate action and Nature-based Solutions that connect histories and cultures of place (locally rooted) from past, present and future.
- Embed lessons learnt from the Nature-based Solutions demo planning practices, and into the lexicon of project processes from different departments.

TRAP 04

Ambivalence in place - Nature-based Solutions as simultaneously soft and hard solutions

This trap captures the portraying of nature-based solutions as "soft" (desirable and easy to advocate for) and "hard" (technocratic and difficult to communicate about) simultaneously that creates a stalemate in how they are translated across urban agendas especially those on urban regeneration/planning.

- Support awareness of NbS projects beyond a technical audience by adding and curating the information, panels, using QR codes, or urban walking/bike tours connecting to the place of the NbS. Plan events in spaces with NbS to support active use of the sites.
- Go beyond dividing cultural and natural landscapes that are shaped by NbS. Highlight the values that are represented in a more integrative understanding of NbS, which amplifies socio-cultural placemaking, practices and meanings.

Questions to trigger transformative thinking for springing out of the traps

What are Traps? ✓

From our analysis across all the case studies, we identified four patterns of interconnected barriers to nature-based solutions mainstreaming that are recognized in all case studies.

TRAP 01

Weak(ening) Evidence

Represents how risk aversion of regional and local governments' practice is reinforced by limited epistemological inclusivity, and a weak evidence basis for drawing climate policy and planning measures that results in slow or stalled policy implementation.

What questions should we ask in order to spring out of the trap? ✓

Identified questions that explicate how to exit or spring out of the trap.

- How can policies bring in diverse and sustainable funding for long-term adaptive planning?
- What is a safe and approachable way for a new pilot or NbS project to tackle risk aversion through experimentation?
- How can data management and evaluation plans to connect more policies, stakeholders, and nearby NbS to a region?

Exiting Trap 1:

Adaptive, flexible, and interconnected regional-wide efforts

TRAP 02

Community as a challenge

Refers to the situation where there is an avoidance of public officers engaging with communities and citizens that reinforces a lack of participatory planning and preference for consultations, which fuels distrust of public institutions from local communities and a transactional attitude toward engagement and participation from the communities.

- How can existing community efforts be captured, honored, published and disseminated to a wider audience (to both strengthen the practice and serve as evidence for future funding)?
- How can community participation and co-creation be piloted, measured, and eventually embedded in NbS policy?
- How can the NbS maintain accessibility and participation for local communities?

Exiting Trap 2:

Community as ally, collaborator and innovator

TRAP 03

Excluding Narratives of Climate Change and Nature-based Solutions

Refers to the ways Nature-based Solutions have been advocated and/or communicated alongside climate change action create excluding narratives, with technocratic language/terms that disengages community and blocks buy-in.

- How can your NbS pilot, site, policy move beyond using stakeholder and scientific language, and engage in different types of information dissemination and meaning-making?
- How can your NbS site maintain NbS as a place for solutions that aren't just technical but also social and engaging to the public?

Exiting Trap 3:

Pluriform and meaningful narratives

TRAP 04

Ambivalence in place - Nature-based solutions as simultaneously soft and hard solutions

This trap captures the portrayal of nature-based solutions as "soft" (desirable and easy to advocate for) and "hard" (technocratic and difficult to communicate about) simultaneously that creates a stalemate in how they are translated across urban agendas, especially those on urban regeneration/planning.

- How can your region or site focus on NbS as a place where nature can be reintroduced to people not as a "natural" or "technical" element, but as a dynamic design (i.e. some ponds smell bad, but so does trash, therefore nature is not bad or worse than the already existing smells in the city)?
- How can your region & demo site maintain the NbS through seasonal changes, disasters, or stressors while continuing to engage communities (i.e. the smell of the pond is not the issue)?
- During the more technical implementation of the NbS, how can communities be prepared for changes (i.e., high traffic in the city during a green corridor construction)?
- How are specific trade-offs (smell and increase in mosquitoes) delivered and understood by the population?
- Which stakeholders can be involved to help buffer trade-offs (public health can create warnings about mosquitos, transportation officers create a new bus route during construction for local residents)?

Exiting Trap 4:

Embracing and transforming relations with place and nature