Green living areas | Interreg Euro-MED | Co-funded by the European Union

A project labelled by the UfM
Union for the Mediterranean
Union pour la Méditerranée
الاتحاد من أجل المتوسط

THE INSTITUTIONAL DIALOGUE PROJECT OF THE GREEN LIVING AREAS MISSION

ENHANCING THE GR-ECO ISLANDS INITIATIVE: RECOMMENDATIONS FOR A CLEAN ENERGY TRANSITION

POLICY BRIEF

ABSTRACT

The GR-Eco Islands Initiative aims to transform the Greek Islands into models of clean energy transition, green economy, energy self-sufficiency, ecological mobility and digital innovation. Relying on a close collaboration between the Greek Government, European Institutions and private partners, and with rigorous coordination and control mechanisms in place, the Initiative constitutes an innovative policy approach that can inspire and drive change across Europe.

By addressing the key challenges and detailing how the Initiative works in terms of legislation, governance and funding, this policy brief offers actionable recommendations to ensure the GR-eco islands model can be replicated and improved in the many islands and/or small remote communities across the Euro-Mediterranean area and beyond.

Keywords: Gr-eco Islands Initiative, Clean energy for EU Islands, Renewable Energy Source, Energy Transition, Energy Autonomy, Integrated Planning, Sustainable Islands, Green Economy, Carbon Neutrality, Climate Change Resilience, Community Engagement, Sustainable Development, Sustainable Tourism

KEY TAKEAWAYS FROM POLICY RECOMMENDATIONS

- Holistic and integrated projects (energy, mobility, waste and water, etc)
- Clever mix of public and private funding to finance interventions
- Community engagement is key for the successful implementation of the projects
- Monitor and evaluate impact continuously is crucial to track progress and goals
- Simplification of legal framework to integrate renewable energy sources

DISCLAIMER: This policy brief is pending final approval by the Managing Authority of Interreg Euro-MED, and it might still be slightly revised.

INTRODUCTION

The GR-eco Island initiative was launched by the Hellenic Government with the aim to promote sustainable development, green economy, energy autonomy, decarbonisation and digital innovation in the Greek Islands by 2030. The goal is to foster a comprehensive and sustainable transformation of the development model of the Greek islands, positioning them as key drivers of economic, social prosperity, and spatial cohesion.

The adoption of a circular and sustainable development model is expected to create a new "image" for the islands, highlighting their unique characteristics while ensuring better living conditions and new quality jobs. This approach is particularly beneficial for small islands that lack differentiated development options. Furthermore, the green and just transition is expected to provide a competitive advantage for tourism in the GR-eco Islands, responding to the growing demand from environmentally and climate-conscious citizens.

Key pillars of the initiative include the increased use of renewable energy sources, promotion of energy efficiency practices, sustainable waste and water management, zero pollutants released into the environment, electrification of transport, the green transformation of agriculture and tourism, and the development of green ports and other related infrastructure for environment-friendly maritime transport. These interventions also aim to increase social cohesion and welfare at local level, empowering inhabitants and boosting a sustainable local economic development.

In its first phase, the GR-eco Islands Initiative focused specifically on small, non-interconnected and/or remote islands, having defined a group of islands that meet population criteria, but also based on the plan for their electrical connection to the mainland system, their energy needs, tourist traffic and accessibility. A key criterion going forward will be the commitment by each Island to implement the necessary interventions based on their technical and economic feasibility.

LEGISLATION, GOVERNANCE AND FUNDING

The GR-eco Island initiative fully aligns with the Country's strategy for achieving carbon neutrality by 2050. It was established under Greece's first National Climate Law (4936/2022), setting ambitious intermediate targets for reducing CO2 emissions, as well as a carbon budgeting mechanism. Based on the Climate Law, the "Development Strategic Framework" for the Greek islands, "GR-eco Islands," was also established.

INSTITUTIONAL DIALOGUE: ACCELERATING MEDITERRANEAN SUSTAINABILITY EFFORTS

On October 10, 2024, the Institutional Dialogue Project of the Green Living Areas Mission hosted its 1st Institutional Policy Dialogue in Brussels in parallel with the European Week of Regions and Cities. The event showcased successful policies with high replicability potential, across thematic domains, including Bologna's SULP in the mobility sector. The Institutional Dialogue aims to bring together policy champions – policy-makers who successfully implemented a given policy instrument in the Mediterranean – with other stakeholders interested in replicating and transferring these policies. The insights gathered shaped the recommendations in this brief, ensuring a practical and collaborative approach.

For further information on the Policy Instrument, scan the QR below.

Or visit the Policy Instrument webpage

https://www.greeknewsagenda.gr/gr-eco-islands-smart-and-sustainable-greek-islands/

The importance Greece places on green transition is also reflected in its latest National Energy and Climate Plan (NECP), raising the country's target for renewable energy to 28 GW by 2030 and aiming to achieve 80% penetration of renewables in the national energy mix by 2030, as well as in the National Recovery and Resilience Plan "Greece 2.0", where 37,5% of the plan supports climate objectives aiming to further increase the share of renewable energy sources.

The National Strategic Reference Framework (NSRF) of the GR-eco Islands Initiative has the task of analysing interventions to be pursued in each participating Island. Its governance and management is ensured by the work of two Committees: the Steering Committee (SC), with the role of approving and providing recommendations to the competent Ministers on the main strategic directions of the initiative, including strategic objectives, intervention areas, criteria for selecting islands, entities, and funding sources; and the Coordination Committee (CC), established for managing the projects of the GR-eco Islands Initiative.

The role of the Coordination Committee is to prepare and submit proposals to the SC for making relevant decisions, approve the Action Plans for the projects included in the NSRF under the Integrated Spatial Strategy of GR-eco Islands for the islands, the financing scheme per fund and programme, and the evaluation criteria, as well as to coordinate the management and necessary actions for implementation and technical support.

Islands are pre-selected by the NSRF according to their characteristics and are provided with dedicated technical assistance to support them in the preparation and submission of their proposal. Hence, based on their Masterplan, they develop their "GR-eco Island Action Plan", setting out the implementation plan of their investment programme and the associated organisational measures needed to achieve the GR-eco Island Label. Projects are thus thoroughly evaluated in terms of technical and economic feasibility before receiving financial support, with rigorous control mechanisms ensuring the transparent and effective use of funds. A public consultation process is also envisaged to involve local actors and stakeholders in identifying priority actions or propose projects.

Interventions are funded by a mix of contributions from the Greek State, the European Union, the European Investment Bank (EIB) and private partners who are involved through sponsorship mechanisms. To strengthen collaboration between the public and private sectors, the Initiative operates within the framework of Public-Private Partnerships (PPP).

Partners involved in the interventions are the Local Authorities of participating Islands, local stakeholders such as businesses, associations and citizens, and the private sector.

BENEFICIARIES AND BEST PRACTICES

In the first phases of the GR-eco Islands Initiative, which led to the current pre-selection of 39 islands, priority was given to small, non-interconnected and/or remote islands, facing severe disruptions in their natural environment directly associated with climate change and several socioeconomic impacts (from threats to traditional economic activities that islands depend on such as fisheries, agriculture, tourism, etc. to health risks for islands populations and a danger of limited social cohesion and non-inclusion).

Several Greek Islands have been selected as pilot sites to test the programme's first pilot phase. The first Municipality to become a "GR-eco Island" was **Chalki** in 2021, a small island in the Dodecanese archipelago which became a model of clean energy transition thanks to a holistic project involving different aspects of energy and mobility. Its vision was the result of a participatory process in which the Municipality involved residents, as well as business owners and all the other relevant stakeholders. The integrated measures implemented to achieve this vision were the following:

- Installation of a 1MW solar plant and set up of the "ChalkiOn" Energy Community, with the Municipality and all willing residents and businesses as members. Benefits included savings of euro 180.000-250.000 per year, meaning up to 80% Electricity Bill reduction for Energy Community members, as well as savings of 1.800 tons of CO2,
- Electrification of the entire Municipal fleet (in progress and to be concluded by 2025),
- Installation of 4 free charging stations to encourage citizens to switch to EVs,
- Improvement and upgrade of the public street lighting network in the Municipality,
- Promotion of sea transfer electrification and experimentation of the first electric boat on the island,
- Energy upgrade of the Municipal building stock (in progress),
- Installation and operation of a smart meter network on the island.

Many of these interventions were undertaken by private subjects, from the installation of the solar photovoltaic (PV) system to the electrification of the municipal fleet and the greening of the island's lighting system. This, coupled with public funds, made for a very successful example of public-private partnership.

Two other Islands that are currently implementing innovative projects in the framework of the GR-eco Islands Initiative are Astypalea, where the Greek government made an agreement with Volkswagen to establish a state of the art shared e-mobility system on the island, unique in the Mediterranean; and Poros, where UAE's State-owned company Masdar has helped the Municipality implement an integrated plan including a PV system and upgrade the grid to cover most of the energy needs, electrification of maritime transport and a new water and waste management system.

A total of 39 Greek islands have so far (end of 2024) been pre-selected to participate in the GR-eco Island through proposal submissions and implement targeted sponsored interventions in the areas covered by the Initiative.

POTENTIAL FOR REPLICATION

The GR-eco island policy, with its best practice examples, has a high potential for replication first in other European islands: there are approximately 2.200 inhabited islands in the EU (about 16 million inhabitants and 4% of the total population), many of which face several severe disruptions in their natural environment directly associated with climate changes and socioeconomic impacts. However, the replication potential of the policy goes beyond islands to also include small and/or isolated communities across the EU, often facing similar challenges in relation for example to energy supply, mobility and sustainable use of resources. Additionally, the concept also has the potential to be replicated at a neighbourhood scale of larger cities.

This policy can be of inspiration for any EU territory willing to become leader for the green energy transition by implementing an innovative integrated plan that would include the increased use of renewables, promotion of energy efficiency practices, sustainable waste and water management, zero pollutants release into the environment, electrification of transport, the green transformation of agriculture and tourism, and the development of green ports and other related infrastructure for environment-friendly maritime transport.

Finally, it must be highlighted that integrated projects like the one implemented in Chalki go beyond environmental sustainability, often paving the way for economic development and community enrichment and fostering a wave of new job opportunities.

POLICY RECOMMENDATIONS

Building on the discussion emerged during the First Institutional Dialogue, we propose the following considerations for replicating, adapting, or scaling the GR-eco Island Initiative Policy.

- **Holistic approach**

Municipalities should plan their projects in a holistic and integrated way. The policy focus should not only be on the energy transition as such (energy production and consumption via energy communities), but also on sustainable resource management, environmental protection, entrepreneurship, innovation and so on, linking it with a variety of sectors, creating a low carbon energy system base to potentiate a sustainable economic development. The preparation of a broad, holistic strategy/policy that leads to extensive benefits and contributes to the increase of quality of life of citizens can make it easier to apply and justify the request for financing.

- **Public Private Partnerships**

Public investment is important, but private funding also plays a key role. Municipalities should explore the possibility to establish Public-Private Partnerships to co-finance some of the measures (e.g. the installation of renewable energy sources), as was the case in Chalki. A strong, transparent governance framework for these partnerships would ensure alignment with the island's long-term goals and help attract further investments.
To unlock finance, all the right stakeholders need to be involved and brought to the table: from technicians to banks, businesses, local authorities, associations and private actors.

- **Community Engagement**

Community engagement and public acceptance is a key aspect for the successful development and implementation of this policy and to demonstrate that the green transition meets the needs of the community. Additionally, local ownership ensures that projects are well-aligned with the needs and expectations of the community, leading to higher acceptance and smoother implementation.
All participants highlighted the difficulty of engaging the community in the policy, and generally when introducing innovative practices and technologies. In Chalki, it took a lot of effort to engage all citizens to join the ChalkiOn energy community, even though it is a small territory, and the new measures would lead to substantial savings for them. In their case, locals joined progressively, after seeing with their own eyes that the policy was working and producing benefits for the ones already involved. A close communication with citizens, and taking advantage of the small scale, were essential factors for its success; nevertheless, it can be considered and adapted to larger territories.
This highlights the importance of allocating adequate time and effort for awareness raising activities, to ensure public acceptance and buy-in of innovative policy instruments at local level.

- **Monitor and evaluate impact continuously**

Implementing a robust monitoring and evaluation system to track the progress of the initiative in terms of renewable energy production, energy consumption, and other sustainability goals.

- **Territorial space limitation**

The limitation of territorial space for the implementation of renewable energy sources may be a constraint to the implementation of this policy, so alternatives of renewable energy production per area must be considered and evaluated.

- **Simplify legal framework**

Introduce laws that support the development and regulation of a local microgrid systems, allowing islands to manage its energy generation, storage, and distribution independently.
Introduce or amend national laws to allow for easy integration of renewable energy sources, into the grid, and simplify the permitting process for renewable energy projects on islands.

PROJECT SUMMARY

The Institutional Dialogue Project of the Green Living Areas Mission seeks to enhance policy transfer through dialogue among policy-makers and public stakeholders. It focuses on continuous policy improvement and transformation, and aims to establish long-term cooperation on public policy instruments at the Euro-Mediterranean level, ultimately improving citizens' quality of life

PROJECT CONTACT INFORMATION

Scan the QR to see the Contact information

POLICY BRIEF AUTHORS

CONTRIBUTORS

PRODUCED BY:

IRE- REGIONAL AGENCY FOR INFRASTRUCTURE DEVELOPMENT, BUILDING RENOVATION AND ENERGY OF LIGURIA

https://www.ireliguria.it/

LISBOA E-NOVA - ENERGY AND ENVIRONMENT AGENCY OF LISBON

https://lisboaenova.org/

Regulatory complexity and lengthy approval processes can slow down the development of renewable energy projects. Simplifying these processes will accelerate the transition to clean energy, allowing for faster implementation.

Islands face unique challenges due to their geographic isolation. Energy autonomy laws can grant Islands, like Chalki, the authority to develop its own energy infrastructure, ensuring a more sustainable and independent energy supply.

CONCLUSIONS

These policy recommendations aim to provide inputs needed to overcome key challenges of the GR-eco Islands initiative, which presents a unique opportunity to not only transition the Greek Islands towards sustainability but also serve as a model for Europe's broader efforts in clean energy, green mobility, and digital innovation. By addressing the key challenges of legislation, governance, funding and community engagement, this initiative can lead to a transformative shift toward an effective integration of renewable energy sources, green economy and engage its community in building a more sustainable and resilient future. It is imperative that all stakeholders collaborate effectively to ensure the successful implementation and scaling of this innovative policy.

REFERENCES

The GR-eco Islands Initiative – Promoting sustainable development, green economy, energy autonomy and digital innovation in the Greek Islands by 2030" – United Nation's Sustainable Development webpage https://sdgs.un.org/partnerships/gr-eco-islands-initiative-promoting-sustainable-development-green-economy-energy

"Greece Presents an Update on Progress in the Implementation of National Commitments to SDGs at the UN" – press release by the Ministry of Foreign Affairs of Greece https://hellenicaid.mfa.gr/en/greece-presents-an-update-on-progress-in-the-implementation-of-national-commitments-to-sdgs-at-the-un/

John. K. Kaldellis, Panagiotis Ktenidis – "The Clean-Green Decarbonization of Remote Islands: The GReco-Islands Concept", 16th International Conference on Meteorology, Climatology and Atmospheric Physics—COMECAP 2023 - https://www.mdpi.com/2673-4931/26/1/208

"What is the Chalki GR-eco Islands national Initiative?" - The Clean Energy for EU Islands (European Commission) webpage https://clean-energy-islands.ec.europa.eu/

Panagiota Maragkozoglou – "The Greek Green Islands" – Lexology webpage https://www.lexology.com/library/detail.aspx?g=35f5ca76-2a06-468a-9f77-7729bedf4706

"GR-eco Islands: Smart, Sustainable and Greek Islands" – Greek News Agenda webpage https://www.greeknewsagenda.gr/gr-eco-islands-smart-and-sustainable-greek-islands/

"GR-eco Island Chalki" – Aegean Islands webpage https://www.pnai.gov.gr/wp-content/uploads/2022/08/Memo-Chalki.pdf

"The GR-eco Islands Program: An Innovative Model for the Energy Transition of Greek Islands" – Energy News webpage https://energynews.pro/en/the-gr-eco-islands-program-an-innovative-model-for-the-energy-transition-of-greek-islands/

"Making Green Islands self-sufficient" – PV magazine webpage https://www.pv-magazine.com/2024/12/20/making-greeces-islands-energy-self-sufficient/

"Chalki 1st GR-eco Island in Greece" – Sustainable Cities webpage https://sustainablecities.eu/transformative-actions-database/?c=search&action_id=a16060q7

"Clean energy for EU islands: Study on connection policies and management of energy systems under conditions of asynchronous generation in the non-interconnected islands" – *Clean energy for EU islands secretariat managed by the European Commission Directorate-General for energy – https://clean-energy-islands.ec.europa.eu/system/files/2024-09/CE4EUI%20DSO%20study%202024_July.pdf*