



Frequently Asked Questions

(FAQ)



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1. What is GENESIS?

GENESIS aims to develop, test, and demonstrate the application of Nature-based Solutions (NbS) for freshwater storage on the islands of Macaronesia. The NbS to be developed, tested, and demonstrated include recharge systems in dry galleries, the enhancement of natural infiltration, and the increase in groundwater storage capacity and quality. In addition, GENESIS promotes the sustainable reuse of water and maximizes resource efficiency through the treatment and use of reclaimed and stormwater for non-potable uses such as irrigation, aquifer recharge, industry, and urban landscaping.

2. Why GENESIS?

Due to the small land area of many islands, the amount of freshwater is limited and is particularly affected by dynamic processes. In the islands of Macaronesia, any change in climatic conditions can have serious negative effects on the volume of available freshwater, making water management a top priority.

3. What is a Nature based Solution (NbS)?

They are solutions that utilize characteristics, processes, and/or elements of nature. According to the European Commission, they are solutions inspired by and supported by nature, cost-effective, and providing environmental, social, and economic benefits. These solutions incorporate elements and processes typically found in nature, in cities, and in rural landscapes, through site-specific interventions.

4. What are the main objectives of the project?

The main objectives of GENESIS are:

- To develop and implement innovative nature-based solutions (NbS) in Macaronesia to protect critical water infrastructure.
- To develop strategies for combining various NbS to improve resilience to the impact of climate change on water resources.
- To implement and evaluate nine full-scale demonstration projects on the islands of La Palma, Gran Canaria, and El Hierro (Canary Islands); Faial (Azores); Madeira (Madeira); and Santiago (Cape Verde).
- Increase freshwater storage capacity and benefit local communities. The project aims to capture and recover more than 10 hm³ of water, which will directly benefit more than 35,000 people.





5. Where are the demonstration sites located, and why are they important?

The project is implementing nine large-scale demonstration sites on six islands in Macaronesia:

- Canary Islands: La Palma, Gran Canaria, and El Hierro.
- Azores: Faial.
- Madeira: Madeira.
- Cape Verde: Santiago

Each island and location offers unique conditions (environmental patterns, local needs, etc.) that help test different NbS approaches. The knowledge gained from these studies will ensure the transfer of the most effective solutions to other island regions.

6. What benefits will NbS bring to Macaronesia?

The implementation of NbS in Macaronesia can provide benefits related to improved water security by ensuring a reliable water supply through natural filtration and storage in groundwater. Geologically enhanced nature-based solutions can help create managed aquifer recharge systems, hydrogeological barriers against saltwater intrusion, and improved soil infiltration systems.

7. What are the expected benefits?

- Environmental: Reduction in the volume of wasted water, improvement in water quality, and restoration of aquatic ecosystems.
- Economic: Creation of new business models and opportunities in the circular economy related to water management.
- Social: More resilient communities, improved access to water resources, and community participation in sustainable water management practices.
- Policy impact: Recommendations on water resource management and climate adaptation for European regulations based on field-based evidence.

8. Why does the project involve citizens?

Dialogue with citizens is a fundamental part of GENESIS. It allows island communities and the general public to:

- Learn about the benefits of NbS for water management.
- Share concerns and ideas.
- Contribute to the improvement of the tested NbS.



- Actively participate in decision-making processes.

9. How does the project engage the public?

The project uses various channels to engage different segments of the public:

- The Citizen Science Hub will be a collaborative virtual space for sharing knowledge and collecting data from citizens.
- The training bootcamp in La Palma is an educational program for geoscientists, engineers, social scientists, and IT developers, focused on Nature-based Solutions (NbS) and water management.
- Educational and awareness-raising activities, such as the “Groundwater on the Islands” video contest for young people, to encourage young people and the general public to reflect on access to water and its impact on their lives
- The La Palma Living Lab is a participatory space for validating GENESIS concepts, where relevant authorities, research institutions, civil society actors, and companies develop actions to improve water management and governance for climate resilience.
- Surveys, expert interviews, local discussion groups, and citizens’ assemblies.

10. How does the project support policymakers?

GENESIS not only develops technologies but will also provide recommendations to help European Union, national, and local authorities adopt circular economy practices for water resource management. The goal is to influence regulations related to freshwater management and climate change adaptation.

11. How does the project ensure safety and compliance?

All solutions are tested in accordance with European standards for safety, quality, and environmental impact. The project follows strict monitoring and evaluation protocols to ensure that the implemented NbSs are safe and effective.

12. How does GENESIS contribute to the European Green Deal?

By improving traditional water management through the use of NbS, the project contributes to:



- The goals of the circular economy by keeping water resources in use longer and creating employment opportunities.
- Water and food security by increasing the availability of freshwater for public supply and agriculture.
- Environmental protection by minimizing the erosive effects of torrential runoff and protecting natural ecosystems.

13. Who is participating in the project?

GENESIS brings together universities, research institutes, industry partners, municipalities, and NGOs from across Europe and Macaronesia. Each partner contributes expertise relevant to NbSs, environmental protection, business development, and community engagement.

14. What will happen when the project ends?

GENESIS aims to leave the following legacy:

- A proven set of Nature-based Solutions for water management.
- A professional community for the ongoing exchange of knowledge.
- Recommendations for policymakers for replication in Europe and other island regions.

15. More information

- Visit the project website at genesisnbs.eu.
- Follow us on social media for regular updates:
www.instagram.com/genesisnbs/
www.linkedin.com/company/genesisnbs/

16. Contact

For more information about the GENESIS project, please contact the coordination team via the official website or the project's social media channels.

