



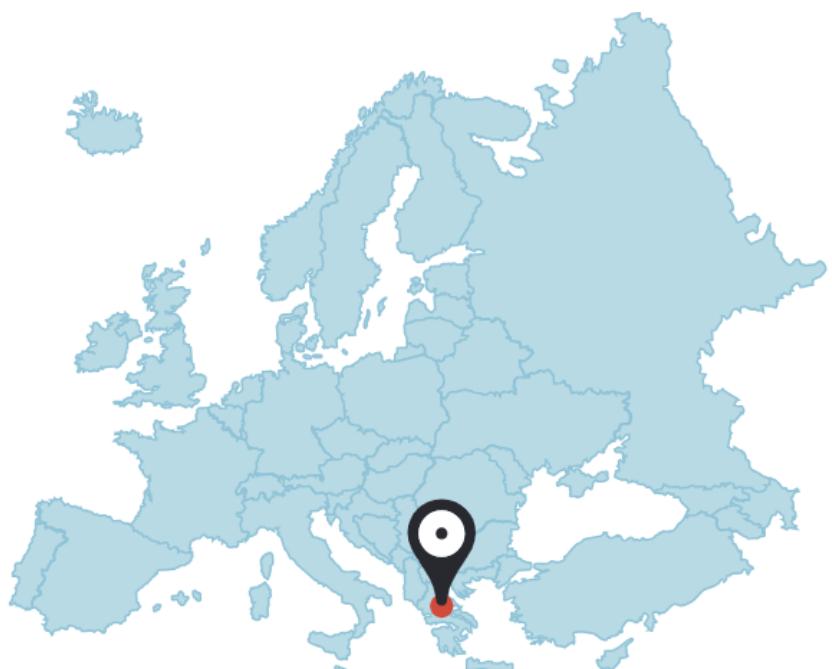
**Ex post evaluation of the Programme titled: “Water Management”
(Programme D - Water Management), with the Programme Operator being
the Special Service “NSRF Executive Structure, Ministry of Environment and
Energy, Environment Sector” of the Ministry of Environment and Energy**

DELIVERABLE 2: Final Ex Post Evaluation Report

Executive Summary

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Executive Summary

The Financial Mechanism 2014-2021 of the European Economic Area (FME-EEA Grants) concerns the contribution of the Republic of Iceland, the Principality of Liechtenstein and the Kingdom of Norway, with the ultimate aim of reducing economic and social inequalities and strengthening bilateral relations with fifteen (15) European Countries. The EEA Grants Facility included 5 Priority Areas analyzed in 23 Programme Areas. Within the framework of Priority Sector 3 “Environment, Energy, Climate Change, and Low Carbon Economy,” and more specifically within Programme Area 11 “Environment and Ecosystems,” the implementation of the Programme “Water Management” (Programme D – Water Management) for the period 2014–2021 was agreed. Its management was assigned to the Ministry of Environment and Energy, to the Special Service “NSRF Executive Structure, Ministry of Environment and Energy, Environment Sector”. The Programme involved co-financing from resources of the EEA Grants (5.200.000,00 €), and from the Public Investment Programme (1.950.000,00 €).

The Programme “Water Management” of the EEA Financial Mechanism 2014-2021 was called upon to cover the water management needs of particularly sensitive areas and islands, including support for projects aimed at saving water and providing water through desalination. The Programme itself encouraged the use of innovative technologies and Renewable Energy Sources. Also, awareness-raising activities of the public or specific population groups were supported through “small grants” schemes. Also, within the framework of the “Water Management” Programme of the EEA Joint Undertaking 2014-2021, which had, as general objective, the improvement of the state of water bodies, there was the possibility of financing projects related to the supply of desalination plants or the upgrading of old desalination plants (always in combination with the use of innovative technologies, such as e.g. technologies for addressing issues related to the disposal of brine from desalination plants, as well as the use of Renewable Energy Sources). At the same time, it provided the possibility of financing projects for addressing water leaks and reducing water loss, such as e.g. telemetric systems, etc., in combination again with the use of innovative technologies, as well as the use of Renewable Energy Sources. In addition, the “Water Management” Programme of the EEA Joint Undertaking 2014-2021 envisaged the funding of research projects on the good status of water bodies, which would provide data and solutions for improving the status of water bodies or improving water management, and awareness-raising actions in schools that would highlight water problems and the importance of improving the status of water bodies. The Projects that would be included were potentially foreseen to be implemented in collaboration between the Project Promoters with domestic or foreign partners, while cooperation with Partners from Donor Countries was encouraged.

The Projects of the “Water Management” Programme were in accordance with the River Basin Management Plans (as they emerged during the 1st Revision). Summary data for the Projects of the “Water Management” Programme are presented in the table below.

Project Title	Project Promoters	Call	MIS	Project Integration Act Date	Project Start Date	Project Completion Date
Electronic System Installation Location and Control of Leakages in the Internal Networks of the Municipal Water Supply and Sewerage Company of the Northern Axis of Chania - Phase A'	Municipal Water Supply and Sewerage Company of the Northern Axis of Chania	1.1	5092230	04/04/2022	30/09/2022	15/05/2024
Supply and installation of a desalination plant on the island of Thirasia with Renewable Energy Sources	Municipal Water Supply and Sewerage Company of Thira	1.1	5093602	17/06/2022	07/06/2022	23/07/2024
Installation of green desalination plant at Kimolos island incorporating innovative technology of brine treatment- BriZE	(a) Agricultural University of Athens, (b) Municipality of Kimolos, and (c) Norwegian company VISTA ANALYSE AS	1.1	5093109	17/06/2022	17/06/2022	30/04/2025

Project Title	Project Promoters	Call	MIS	Project Integration Act Date	Project Start Date	Project Completion Date
Smart Green System for Leakage Control and Water Quality Monitoring of Water District Area in Paramythia in the Municipality of Souli	(a) Municipality of Souli, (b) The Laboratory of Climatology and Atmospheric Environment of the Department of Geology and Geo-environment of the National and Kapodistrian University of Athens (EKPA), (c) The Laboratory of Networks and Advanced Services of the Department of Electrical and Computer Engineering of the University of Western Macedonia, and (d) The Department of Sciences and Technology of the Norwegian University of Life Sciences	1.1	5093623	07/06/2022	01/06/2022	30/05/2024
Supply and installation of an innovative desalination plant with brine and RES treatment in Alepochori, in the Municipality of Mandra-Idylia	Municipality of Mandra - Idylia	1.1	5179290	20/01/2023	01/03/2023	30/05/2024
Smart integrated platform for Leak detection of water supply network in the City of Argos	(a) Municipal Water Supply and Sewerage Company of Argos - Mycenae, and (b) The Laboratory of Climatology and Atmospheric Environment of the Department of Geology and Geoenvironment of the National and Kapodistrian University of Athens (NKUA)	1.1	5179783	23/01/2023	23/01/2023	30/05/2024

Project Title	Project Promoters	Call	MIS	Project Integration Act Date	Project Start Date	Project Completion Date
Smart leak detection network in the water supply network of Heraklion based on IoT technology and knowledge (Smart-LIK)	(a) Municipal water Supply and sewerage Company of Heraklion, (b) Technical University of Crete, Laboratory of Industrial, Energy and Environmental Systems of the School of Production Engineering & Management, and (c) Development Agency of Crete S.A. (DAC S.A.)	1.1	5179258	23/01/2023	23/01/2023	30/05/2024
Smart System for leak Detection for Waters Supply Network of Aigio	(a) The Municipal Water Supply and Sewerage Company of Aigialeia, and (b) Laboratory of “Intelligent Renewable Energy Technologies and Quality” of the Department of Electrical and Electronic Engineering of the University of West Attica	1.1	5179745	23/01/2023	23/01/2023	16/07/2024
Bilateral Relations of the Democritus University of Thrace with the Matis Research Institute in Iceland	(a) Department of Molecular Biology and Genetics of the Democritus University of Thrace (DUT), and (b) Matis Research Institute of Iceland	1.2	5086427	The project titled “Bilateral Relations between the Democritus University of Thrace and the Matis Research Institute in Iceland” was contracted in 2021 but was ultimately not implemented. One year later, in 2022, it was removed from the Programme’s bilateral initiatives.		
Delineation of saline groundwater in Zakynthos Island. Exploratory monitoring and potential for artificial recharge to address the ZANTE-SAL phenomenon	(a) University of Patras, Department of Geology, and (b) The Norwegian Institute for Energy and Technology	1.2	5086622	03/05/2022	03/05/2022	30/05/2024

Project Title	Project Promoters	Call	MIS	Project Integration Act Date	Project Start Date	Project Completion Date
Actions for the Improvement of the Qualitative and Quantitative situation and the adaptation to the Climate Change of the coastal Underground Water System “Larissos” of the catchment area of Peiros – Vergas – Pinios, Northern Peloponnese Water Department	(a) University of Patras (Department of Geology), and (b) Decentralized Administration of Peloponnese, western Greece and Ionian Islands	1.2	5086610	26/05/2022	01/06/2022	30/05/2024
Assessment of Arsenic and Other Contaminants in Groundwater and Surface Water Systems in Areas of the Regional Unit of Pella – Mapping of Hydrogeological Conditions	(a) University of Western Macedonia, and (b) Municipal Water Supply and Sewerage Company of Almopia	1.2	5087317	26/05/2022	01/06/2022	05/07/2024
Increasing knowledge of the Importance of Good Status of Water Bodies	(a) Hellenic Centre For Marine Research (HCMR), and (b) Inland Norway University of Applied Sciences (INN)	1.3	5166526	31/10/2022	01/10/2022	01/07/2024
Administrative Cost of the “Water Management” Programme of the EEA 2014 – 2021	Special Service “Executive Structure of the Regional Development Corporate Agreement of the Ministry of Energy, Environment Sector” of the Ministry of Environment and Energy	Admin.01	5055269	24/01/2018	31/10/2017	30/04/2025

For the successful and thorough completion of the ex post evaluation of the Programme “Water Management” (Programme D - Water Management), it was necessary to collect all available data, documents, and information both on the Programme itself and on the Projects that were included and funded by the EEA Financial Mechanism during the 2014 - 2021 funding period.

The main source for the collection of the required information was the Programme Operator, namely Special Service “NSRF Executive Structure, Ministry of Environment and Energy, Environment Sector” of the Ministry of Environment and Energy [but also the National Focal Point and the Project Promoters]. The methodological framework followed for the data collection used in the ex post evaluation is presented in Chapter 3 of the analytical study.

It is noted here that the ex post evaluation of the Programme “Water Management” (Programme D - Water Management) included responses to all key questions under each of the eight evaluation categories: RELEVANCE, EFFECTIVENESS, EFFICIENCY, COHERENCE, SUSTAINABILITY, IMPACT, ADMINISTRATIVE CAPACITY & IMPLEMENTATION PROCEDURES, and BILATERAL COOPERATION. Following the analyses carried out, the critical conclusions per category were incorporated into the SWOT Analysis.

Below is a summary of the analyses for each of the eight evaluation categories of the “Water Management” Programme (Programme D). Specifically:

RELEVANCE: The successful design of the Programme “Water Management” (Programme D - Water Management) was mainly due to its “Effectiveness” (see analysis in Section 4.2 of this study) and its “Efficiency” (see analysis in Section 4.3 of this study). A significant contribution to the proper design of the Programme came from the prior experience of the Programme Operator (Special Service “NSRF Executive Structure, Ministry of Environment and Energy, Environment Sector” of the Ministry of Environment and Energy) in the European Economic Area (EEA) Financial Mechanism and NSRF Programmes, the prior experience of the Programme Operator in a previous EEA Programme on Water Management, as well as the existence of the River Basin Management Plans (RBMPs), specifically the 1st Revisions of the RBMPs, which outlined what needed to be carried out in the field of water management. A key role in the appropriate design was also the strategic decision to implement projects with a small budget (considering the available timeframe of the Programme).

In summary, it is noted that the Programme was designed and implemented with an emphasis on Sustainability, Innovation, and Effectiveness, thereby ensuring the proper and high-quality completion of the projects funded under it.

The Programme achieved all its qualitative and quantitative goals. Particularly regarding the quantitative targets, in some cases, there were even significant overachievements. For example, in the indicator "Estimated amount of water saved", with a target of 1.000 m³, a total of 3.052.336 m³ of water was saved annually, in the indicator "Estimated annual savings in euros", with a target of 400.000 €, a saving of 1.371.215 € was achieved, in the indicator "Additional water production capacity (m³)", with a target of 1.000 m³/day, a capacity of 1.021 m³/day of potable water was achieved, and in the indicator "Installed capacity of renewable energy production (MW)", with a target of 0,02 MW, an installed capacity of 0,045 MW was achieved, etc.

Another element that demonstrates the good design of the Programme (which, in turn,

contributed to its effective implementation) was its high absorption rate, which reached 98,28%, slightly below 100%. It is also worth noting that the allocation of resources per priority (Output) was consistent with the needs and goals of the Programme. Specifically:

- **Output 1 (Installation of Water Management Systems):** This absorbed the largest portion of the budget, as it included high-cost projects such as Desalination Units and Telemetry Systems. The Programme funded 8 projects. 3 of the 8 projects involved the construction of Desalination Units combined with Renewable Energy Systems (RES) and innovative technologies, implemented in Thirasia, Kimolos, and Alepochori, providing clean drinking water. The remaining 5 projects involved the supply and installation of Telemetry Systems for leak detection in the areas of Heraklion, Plataniyas of Chania, Argos, Aigio, and Souli. These projects had a significant impact, improving access to drinking water and reducing water losses in supply networks. The total absorption for Output 1 amounts to 5.386.795,87 €.
- **Output 2 (Research Measures):** Studies were funded to improve the status of water bodies, contributing to the implementation of the Water Framework Directive (Directive 2000/60/EC). This includes 3 Research Projects that fall under the Measures of the River Basin Management Plans (RBMPs), implemented in the Larissos River, in Zakynthos, and in Almopia of Pella respectively. The total absorption for Output 2 amounts to 599.258,79 €.
- **Output 3 (Increasing awareness of the importance of water bodies):** Although it had a small budget, the information and awareness campaigns under the slogan “Water Matters” succeeded in enhancing the involvement of local communities and raising awareness among schoolchildren about sustainable water management. The total absorption for Output 3 amounts to 93.503 €.

Based on the overall data presented above, the design of the Programme “Water Management” (Programme D - Water Management) is assessed as very good. However, the lessons and experiences gained during its implementation can be used in the future to improve similar programmes in specific areas.

With regard to the stakeholders involved, it appears that they were appropriate in relation to the organizational structure and the responsibilities of the policy sector. Key stakeholders included the Financial Mechanism Office (FMO), the National Focal Point (Special Service for Programming, Coordination and Monitoring of the Implementation of the Financial Mechanisms of the European Economic Area, the National Contact Point of the Ministry of National Economy and Finance), the Programme Operator (Special Service “NSRF Executive Structure, Ministry of Environment and Energy, Environment Sector” of the Ministry of Environment and Energy), the Project Promoters (Municipal Water Supply and Sewerage Company of the Northern Axis of Chania, Municipal Water Supply and Sewerage Company of the Municipality of Thira, Municipal Water Supply and Sewerage Company of Argos – Mycenae, Municipal Water Supply and Sewerage Company of Heraklion, Municipal Water Supply and Sewerage Company

of Aigialeia, Municipal Water Supply and Sewerage Company of Almopia, Decentralized Administration of Peloponnese, Western Greece and Ionian Islands, Municipality of Kimolos, Municipality of Souli, Municipality of Mandra-Idylia, Agricultural University of Athens, Laboratory of Climatology and Atmospheric Environment of the Department of Geology and Geo-environment of the National and Kapodistrian University of Athens (NKUA), Laboratory of Networks and Advanced Services of the Department of Electrical and Computer Engineering of the University of Western Macedonia, Laboratory of “Intelligent Renewable Energy Technologies and Quality” of the Department of Electrical and Electronic Engineering of the University of West Attica, Technical University of Crete (TUC), Laboratory of Industrial, Energy and Environmental Systems of the School of Production & Management Engineering, University of Patras, Department of Geology, University of Western Macedonia, Development Agency of Crete S.A. and Hellenic Center for Marine Research), and the Stakeholders involved in Bilateral Relations. It is worth noting that the Programme Operator (Special Service “NSRF Executive Structure, Ministry of Environment and Energy, Environment Sector” of the Ministry of Environment and Energy) worked closely with the competent Directorate for the Protection and Management of the Aquatic Environment of the Ministry of Environment and Energy.

Importantly, the Programme Operator conducted a public consultation to collect input regarding the Stakeholders interested in participating in the implementation of the Programme. A similar attempt was made for Stakeholders in Bilateral Relations, but it was not completed. Instead, a list of potential Stakeholders was prepared and published. The Norwegian Embassy also participated in this process, playing a guiding role. Finally, the preparation of a list of potential stakeholders for Bilateral Relations was considered a "good practice" by the Financial Mechanism Office (FMO).

EFFECTIVENESS: Based on the evaluation conducted on 'Effectiveness', the Programme 'Water Management' (Programme D - Water Management) emerges as an excellent example of successful programme implementation, as both the priorities and the outcomes set by the Programme Agreement were achieved.

The main outcome of the Programme was the “Improvement of the status of water bodies”, while its key priorities included the installation of Water Management Systems (Desalination & Telemetry Systems) (Output 1.1), the implementation of Research Measures for River Basin Management Plans (Output 1.2), and the increasing of knowledge regarding the importance of maintaining a good status of Water Bodies (Output 1.3).

It is noted that under Output 1.1, a total of 8 projects were funded, of which 3 (Thirasia – Project: Supply and installation of a desalination plant on the island of Thirasia with Renewable Energy Sources, Kimolos – Project Installation of green desalination plant at Kimolos island incorporating innovative technology of brine treatment– BriZE, and Alepochori – Project: Supply and installation of an innovative desalination plant with brine and RES treatment in Alepochori, in

the Municipality of Mandra-Idylia) concerned the construction of 3 Desalination Plants in combination with Renewable Energy Sources (RES) systems and innovative technologies, providing clean drinking water.

Additionally, 5 telemetry systems for leak detection were procured and installed in the areas of Heraklion, Platanias, Argos, Aigio, and Souli. All of the above-mentioned projects and telemetry systems resulted in the production of 1.021 m^3 of drinking water per day and contributed to an annual water saving of $3.052.336 \text{ m}^3$.

Indicative indicators used to assess the effectiveness of Output 1.1 included the number of innovative green technologies/processes/solutions implemented, the number of water bodies with improved environmental status, the additional water production capacity, the installed renewable energy production capacity, among others. Based on these indicators, the additional installed daily water production capacity reached $1,021 \text{ m}^3/\text{d}$, while the annual water savings amounted to $3,052,336 \text{ m}^3$. The project completion rate was 100%, as all projects were successfully completed by 30.04.2024.

Regarding Output 1.2, it is noted that it concerned the implementation of Research Measures for the River Basin Management Plans (RBMPs), specifically for the 1st Revision of the River Basin Management Plans. Within the framework of this Output, 3 Research Projects were implemented. The first Research Project, entitled: “Assessment of Arsenic and Other Contaminants in Surface and Groundwaters of Water Systems in Areas of the Regional Unit of Pella – Mapping of Hydrogeological Conditions” concerned the investigation of the presence of arsenic and other potentially toxic elements or other pollutant loads (e.g. nitrates, etc.), of anthropogenic and geogenic origin, which could burden the quality characteristics of the surface and groundwater of Almopia. The second Research Project concerned the area of Larissos River and was entitled: “Actions for the Improvement of the Qualitative and Quantitative Situation and the Adaptation to the Climate Change of the Coastal Underground Water System “Larissos” of the catchment area of Peiros – Vergas – Pinios, Northern Peloponnese, Water Department”. The objective of the project was to improve the qualitative and quantitative status of the coastal Groundwater System of Larissos of the catchment area of Peiros - Verga - Pinios of the Water District of the Northern Peloponnese and its adaptation to climate change. Through the implementation of this specific Research Project, the following were sought: **(a)** the delimitation of the brackish zone of the Larissos Watershed, the definition of protection zones and the formulation of proposals for management measures to achieve the minimum level/pumping of existing hydrological projects within the protection zones from salinization, **(b)** the formulation of proposals for improving the poor qualitative and quantitative state of the Larissos Watershed and its adaptation to climate change using the conclusions of a special hydrogeological survey and the pilot application of artificial enrichment, and **(c)** the coverage of measures M02B0601 and M02S0801 of the RBMP, by utilising the project deliverables from the Western Greece Waters Directorate of the Decentralized Administration. Peloponnese, Western Greece and Ionian.

The third Research Project, which was entitled: “Delineation of saline groundwater in Zakynthos Island. Exploratory monitoring and potential for artificial recharge to addresses the ZANTE-SAL phenomenon”, had as its object the definition and demarcation of the areas of the Groundwater Systems (GWS) of the island of Zakynthos, which present phenomena of extensive or local salinization and apply specific Measures of the River Basin Management Plan (RBMP) of the Water District of the Northern Peloponnese. The Norwegian Institute for Energy Technology (Institute for Energy Technology) participated in the project by carrying out field measurements. This Research Project benefited the local water management company, as reported by the Service executives, by providing data from field measurements for the first time. Also, the local NGO for the Environment of Zakynthos expressed great interest in the results of the Project.

The project completion rate was 100%. The improvement in the quality and quantity of water was achieved through targeted actions and measures, which had a significant impact on the sustainability of water resources.

A critical part of the Programme “Water Management” (Programme D - Water Management) was Output 1.3. Within its framework, the Institute of Marine Biological Resources and Inland Waters (IMBRIW) of the Hellenic Center for Marine Research in collaboration with the Education Unit undertook the implementation of the project entitled: “Increasing Knowledge on the Importance of Good Status of Water Bodies”. The aim of the project was to design and implement an information and awareness campaign for students, residents and visitors to the islands of Santorini, Ios, Leros, Kalymnos, Pserimos and Telendos with the aim of highlighting the pressures on water bodies and seeking to increase understanding of the importance/value of water resources. Furthermore, in collaboration with scientists from the Eastern Norway Research Institute of the Inland Norway University of Applied Sciences (ENRI), common practices for sustainable water use in the 2 Countries were highlighted, as well as examples of water management in Norway from the past to the present.

In addition to the above, the Programme “Water Management” (Programme D - Water Management) also supports the Bilateral Relations Outcome, which is referred to as “Enhanced cooperation between Beneficiary States and Donor Countries”. More specifically, 5 of the 12 Projects include bilateral initiatives, with 6 Bodies from the Donor Countries: Eastern Norway Research Institute of Inland Norway University of Applied Sciences (ENRI), Norwegian University of Life Sciences, Oslo Water Company, VISTA ANALYSE AS, University of STAVANGER, Norway (UNIVERSITETET I STAVANGER) and Norwegian Institute for Energy Technology.

The bilateral initiatives under the Programme “Water Management” (Programme D - Water Management) played a decisive role in enhancing its effectiveness by promoting collaboration, knowledge exchange, and the implementation of innovative practices. The allocation of 100.000 € for bilateral initiatives facilitated the participation of Partners from the Donor Countries and Greek entities, who made a substantial contribution to achieving the Programme's objectives. It is also noted that the bilateral initiatives significantly strengthened the

effectiveness of the Programme “Water Management” (Programme D - Water Management) in the following ways:

(a) Innovative Solutions: The integration of advanced technologies and practices from the Donor Countries ensured high-quality outcomes and compliance with international standards, **(b) Knowledge Transfer:** The exchange of expertise between Greece and the Donor Countries enhanced local capacities and promoted a culture of innovation and sustainability, and **(c) Sustainability:** The focus on training and skills development ensured the long-term impact of the solutions, enabling local stakeholders to maintain and expand the projects.

Based on all of the above, it is evident that the effectiveness of Programme “Water Management” (Programme D – Water Management) was not limited merely to the quantitative achievement of its Objectives, but also extended to the quality of its outcomes. All Projects were implemented according to high technical standards, while the use of innovative technologies, such as Renewable Energy Sources and Telemetry Systems, ensured the sustainability of the interventions. Furthermore, the bilateral initiatives within the framework of the Programme proved to be extremely important for achieving its Objectives and enhancing its overall effectiveness. Through collaboration, knowledge exchange, and the promotion of sustainability, these initiatives contributed to the success of the Projects. The active participation of Partners from the Donor Countries highlighted the value of bilateral cooperation in addressing complex challenges, such as water protection and management, and paved the way for future partnerships.

Key factors that appear to have played a significant role in achieving the positive results of the Programme “Water Management” (Programme D – Water Management) were effective administration, meaningful handling, and comprehensive management of all issues that arose during the course of the Programme. These were addressed individually by each of the 3 main Stakeholders involved in the Programme [(1) the National Focal Point (Special Service for Programming, Coordination and Monitoring of the Implementation of the Financial Mechanisms of the European Economic Area, the National Contact Point of the Ministry of National Economy and Finance), (2) the Programme Operator (Special Service “NSRF Executive Structure, Ministry of Environment and Energy, Environment Sector” of the Ministry of Environment and Energy), and (3) the Project Promoters (such as Municipal Water and Sewerage Companies, Municipalities, Decentralized Administrations, Universities/Technical Institutes, Development Organizations, Research Institutions, as well as entities from the Donor Countries)] and collaboratively by all parties when necessary. An equally crucial role was played by prior experience in similar types of projects. For instance, the Programme Operator had experience with similar projects, which allowed for the timely identification of potential risks at all stages, the early anticipation of possible failures, and the implementation of preventive measures where needed. The continuous and close cooperation between the National Focal Point and the Programme Operator, as well

as between the Programme Operator and the Project Promoters, also significantly contributed to the Programme's success.

It is worth noting, however, that although the above-mentioned factors had a positive impact on the outcomes of the Programme “Water Management” (Programme D – Water Management), there were also factors that had a negative influence or acted as obstacles. These included the Covid-19 pandemic, the varying capacity of the Project Promoters, the time-consuming and complex procedures for obtaining environmental permits for the approved Projects, delays caused by other permitting processes from Local Authorities, the war in Ukraine, significant delays caused by HEDNO S.A. (Hellenic Electricity Distribution Network Operator S.A.) in implementing network connections, as well as national and especially regional elections, which led to changes in administrations and, consequently, to delays, among other issues.

Overall, the Programme “Water Management” fully achieved its Objectives, both in terms of quality and quantity. It could easily be characterized as a “model” Programme, a status that is evidenced not only by the achievement of the effectiveness indicators - (in some cases, these indicators were significantly exceeded, for example the indicator “Estimated amount of water saved,” with a target of 1.000 m³, reached an annual saving of 3.052.336 m³ of water, the indicator “Estimated annual savings in euros,” with a target of 400.000 €, achieved savings of 1.371.215 €, the indicator “Additional water production capacity (m³),” with a target of 1,000 m³/day, achieved 1.021 m³/day of potable water production, and the indicator “Installed renewable energy production capacity (MW),” with a target of 0,02 MW, achieved 0,045 MW of installed capacity, etc.) - but also by the overall “architecture” and “philosophy” of the Programme itself (e.g. targeted Projects based on the needs and problems of each region, small and well-designed Projects with broad geographic distribution, Projects solely focused on the protection and management of the precious natural resource of water, Projects with significant environmental, social, and economic benefits, etc.).

EFFICIENCY: The initial design of the Programme “Water Management” is assessed as reasonable and feasible, as its Objectives were clearly defined and responded to the needs of the areas with serious problems in their surface and groundwater resources. As for the allocation of resources to the 3 Outputs - Output 1.1: Installation of Water Management Systems (Desalination Plants & Telemetry Systems) - Output 1.2: Implementation of Research Measures for River Basin Management Plans - Output 1.3: Increasing Knowledge on the Importance of Good Status of Water Bodies (the Small Grant Scheme) – it was consistent with the priorities of the Water sector of our Country and of course with the requirements of the Water Framework Directive¹

¹The harmonization of Greek legislation with Directive 2000/60/EC was carried out by Law 3199/2003 (Government Gazette A' 280) and Presidential Decree 51/2007 (Government Gazette A' 54). The provisions of the aforementioned national legislation incorporated the basic concepts of the Water Resources Directive and at the same time established the new administrative

(Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy).

The design considered critical parameters, such as: **(a)** the need to improve water quality and quantity in areas with severe problems, such as arid islands and areas with over-pumping of groundwater, **(b)** the strengthening of sustainable management through innovative technologies (e.g. green desalination plants, telemetric systems, etc.), and **(c)** the increase of public awareness and the participation of local communities in water resources management.

It is worth noting here that the Programme “Water Management” (Programme D – Water Management) faced a number of complex challenges, both at national and international level, which affected the implementation process from the initial planning phase to its completion. The risks identified concerned various aspects of the Programme “Water Management” (Programme D – Water Management), such as the capacity of the Project Promoters, the requirements of the Management & Control System, external factors (e.g. national and regional elections, etc.), and administrative procedures [e.g. time-consuming and complex environmental permitting processes for the approved Projects, which required the issuance of an Environmental Terms Approval Decision, delays resulting from other permits issued by Local Authorities, etc.]. In addition, significant challenges arose from the Covid-19 pandemic and the war in Ukraine, which affected global, European, national, and local conditions. For each of these risks, management strategies were developed, included specific mitigation or avoidance measures to reduce their impact.

Regarding the other conclusions from the assessment of the effectiveness of the Programme “Water Management” (Programme D – Water Management), the following points are noted:

(1) The Programme appears to have produced the results planned in the Results Framework, as evidenced by the achievement of its Objectives. The interventions that were funded included permanent solutions, such as the installation of desalination systems and the prevention of leaks, which contributed to reducing resource use and environmental costs (Output 1). At the same time, the Programme enhanced public awareness and sensitization within local communities. Information and awareness campaigns were carried out on islands facing significant water shortages, such as Pserimos, Telendos, and Santorini, which highlighted the issues and emphasized the importance of proper water resource management (Output 3).

(2) The Programme contributed to the strengthening of Bilateral Relations. Through the Bilateral Fund, Partners from the Donor Countries participated in the Programme’s activities, enhancing cooperation and the transfer of know-how.

structure, as well as defined the responsibilities of the individual Bodies, both at national and regional level. The priority of the relevant Special Secretariat of the Ministry of Environment & Energy, the Special Secretariat for Water, is the preparation of the River Basin Management Plans for the 14 Water Districts of the Country.

(3) The Programme operated within its Budget, achieving a high absorption rate of the available resources:

- Budget: 6.500.000 €.
- EEA funding: 5.200.000 €.
- National co-financing: 1.300.000 €.
- Final cost: 6.079.577,66 €.
- Absorption: 97,10% of the total budget.
- Timetable: All Projects were completed in April 2024.

(4) The “Water Management” Programme in economic terms, had limited deviations from the initial budget. All Projects were completed in April 2024, and although it appears that there was an amendment in November 2021 with the addition of Projects from the reserve budget of 1.500.000 €), the overall schedule was maintained.

(5) The Programme “Water Management” (Programme D – Water Management) had high value and impact, as it targeted geographical areas with significant water supply problems, such as small islands and areas with aging water networks. The benefits include the following: **(a) Cost reduction:** By implementing permanent solutions, the need for water transport by aquifers, which was costly and environmentally burdensome, was reduced, **(b) Quality of life improvement:** Residents, businesses and tourists benefited from a stable and quality water supply, **(c) Support for tourism:** Stable water supply reduced operating costs for tourism businesses and enhanced the visitor experience, and **(d) The programme produced the results that were designed in a cost-effective and timely manner.** The absorption of the Budget can be considered very good, while the Programme itself had a significant social, economic and environmental impact, especially in vulnerable areas and islands.

(6) The Programme was successfully completed within the overall timeline, and the delays did not affect the overall quality and effectiveness of the Projects. It is clear, however, that its implementation was influenced by various factors (e.g. administrative procedures, external conditions, unforeseen crises, etc.).

Regarding the allocation of resources per priority area (Output) and the absorption of the total budget per Project by the end of the funding period, the following applies:

The largest allocation of resources (5.500.000 €) was directed to Desalination and Telemetry Projects, which were critical for vulnerable areas. Below is a table with the Programme Outputs, their description, resource allocation and expected results.

Output	Description	Approved Budget (€)	Percentage of Budget (%)	Results
Output 1	Installation of Water Management Systems	5.500.000	84,62%	Installation of Desalination Units, Telemetric Systems,

Output	Description	Approved Budget (€)	Percentage of Budget (%)	Results
				reduction of water losses
Output 2	Research Measures	600.000	9,23%	Scientific studies on water bodies, support of Directive 2000/60/EC
Output 3	Awareness and Education	100.000	1,54%	Information and awareness campaigns, local workshops, participation of local communities

Based on the data in the above Table, the allocation of resources per priority (Output) is considered consistent with the needs and objectives of the programme. Specifically:

■ Output 1 (Installation of Water Management Systems): It absorbed the largest part of the Budget, as it included high-cost projects, such as Desalination Plants and Telemetric Systems. The Programme financed 8 projects. 3 of the 8 concerned the construction of Desalination Plants in combination with Renewable Energy Sources (RES) Systems and innovative technologies and were implemented in Thirasia, Kimolos and Alepochori, providing clean drinking water. The remaining 5 projects concerned the procurement and installation of Telemetry Systems for leak detection in the areas of Heraklion, Platanias, Chania, Argos, Aigio, and Souli. These projects had a significant impact, improving access to drinking water and reducing losses in water supply networks.

The total absorption of Output 1 amounts to 5.386.795,87 €.

S/N	Project Title	Final Budget (€)
1	Electronic System Installation Location and Control of Leakages in the Internal Networks of the Municipal Water Supply and Sewerage Company of the Northern Axis of Chania Prefecture - Phase A'	518.900
2	Installation of green desalination plant at Kimolos island incorporating innovative technology of brine treatment – BriZE	912.435,59
3	Supply and installation of a desalination plant on the island of Thirasia with Renewable Energy Sources	620.343,31
4	Smart Green System for Leakage Control and Water Quality Monitoring for Water District Area of city of Paramythia of Municipality of Souli	495.741,01
5	Smart leak detection network in the water supply network of Heraklion, based on IoT technology and knowledge – SmartLIK	1.361.290,26
6	Installation of an innovative desalination plant with brine and RES treatment in Alepochori of the Municipality of Mandra - Idylia	359.400
7	Smart System for Leak Detection for Waters Supply Network of Aigio	545.305,68

8	Smart integrated platform for leak detection of water supply network in the city of Argos	573.380,02
	Total:	5.386.795,87 €

■ **Output 2 (Research Measures):** Studies were funded to improve the status of water bodies, contributing to the implementation of the Water Framework Directive (Directive 2000/60/EC). It concerns 3 Research Projects that fall under the Measures of the River Basin Management Plans (RBMPs) and were implemented in Larissos River, in Zakynthos and in Almopia of Pella respectively.

The total absorption of Output 2 amounts to 599.258,79 €.

S/N	Project Title	Final Budget (€)
1	Actions for the Improvement of the Qualitative and Quantitative Situation and the Adaptation to the Climate Change of the Coastal Underground Water System “Larissos” of the catchment area of Peiros – Vergas – Pinios, Northern Peloponnese, Water Department	181.206,66
2	Delineation of saline groundwater in Zakynthos Island. Exploratory monitoring and potential for artificial recharge to address the ZANTE-SAL phenomenon	194.906,28
3	Assessment of Arsenic and Other Contaminants in Surface and Groundwaters of Water Systems in Areas of the Regional Unit of Pella – Mapping of Hydrogeological Conditions	223.145,85
	Total:	599.258,79

■ **Output 3 (Increasing knowledge on the importance of water bodies):** Despite having a small budget, the information and awareness campaigns with the slogan “Water Matters”, succeeded in strengthening the participation of local communities and raising awareness among the student population about sustainable water management.

The total absorption of Output 3 amounts to 93.503 €.

S/N	Project Title	Final Budget (€)
1	Increasing Knowledge on the Importance of Water Bodies	93.503
	Total:	93.503

Overall Efficiency

Output	Initial Budget (€)	Final Budget (€)	Absorption Rate (%)
Output 1	5.500.000	5.386.795,87	97,94%
Output 2	600.000	599.258,79	99,87%
Output 3	100.000	93.503	93,50%
Total:	6.200.000	6.079.577,66	97,10%

The following table presents the actual percentage of participation of each Output in the approved Budget.

Output	Final Budget (€)	Percentage (%) of the Total Budget (6.500.000 €)
Output 1	5.386.795,87	82,87%
Output 2	599.258,79	9,22%
Output 3	93.503	1,44%

In conclusion, and based on the total data presented above, the efficiency of the “Water Management” Programme can be considered very good, given the overall absorption rate of the Budget, which amounted to 98,28%, i.e. slightly lower than 100%. This fact assumes that almost all available resources were effectively utilised.

The main emphasis of the Programme was on the development of innovative water management systems, such as Desalination Plants, Leakage Control Systems and Internet of Things (IoT) Technologies, which cover critical needs for the sustainable management of water resources. All Projects were implemented with small deviations from the initial Budget, confirming the effectiveness and efficiency of the Programme.

The allocation of resources per Output reflects the strategic alignment with the main objectives, with Output 1 concentrating the largest Budget, underlining the importance of technological development in sustainable water resources management. In addition, the Projects combine innovation and cost-effective solutions, including the use of Renewable Energy Sources.

The Project with the highest Budget, the “Smart leak detection network in the water supply network of Heraklion, based on IoT technology and knowledge – SmartLIK” (1.361.290,26 €), introduced innovative solutions to the Municipality of Heraklion, while the Project with the smallest Budget, which concerned information, awareness and education actions (Output 3), with a cost of 93.503 €, had equally excellent results.

In any case, the allocation of resources, as it was done, ensured the coverage of both technological and social parameters in the field of water management, contributing to the achievement of the overall objectives of the Programme with rational utilisation of available resources. The Programme, therefore, is considered efficient in terms of the use of resources, with targeted allocation, very good absorption of the Budget and achievement of the objectives within the Financing Period.

COHESION: The 2014-2021 Financial Mechanism of the European Economic Area (EFG-EEA Grants) included 5 Priority Areas that were analyzed in 23 Programme Areas. Within the framework of Priority Area 3 “Environment, energy, climate change and low-carbon economy” and more specifically in Programme Area 11 “Environment and Ecosystems”, the implementation of the Programme “Water Management” (Programme D - Water Management) for the Period 2014-2021 was agreed. According to the current objectives, the Programme would contribute to addressing the critical challenges surrounding water, with an emphasis on the issues of its conservation, desalination and the use of green technologies, particularly in sensitive areas

and islands. Furthermore, the Programme would prioritize sustainable water management through the use of innovative technologies and Renewable Energy Sources, including research initiatives to improve the conditions of water systems and collaborative efforts with the 3 Countries, in order to promote bilateral relations, facilitate the exchange of knowledge in the water sector and, above all, to give impetus to joint initiatives that will contribute to the common vision for a green and inclusive Europe. Based on the above, the “Water Management” Programme concerned a Programme purely around the critical environmental sector of water (surface and groundwater). Therefore, its design fell within the European and national policy for the protection and management of water.

The evaluation carried out seems to indicate complementarity of the Programme “Water Management” (Programme D - Water Management) with other Programmes. More specifically, from the review that had been carried out at the beginning of the Programme's design in other Programmes, it became clear that there was a complementarity with the NSRF Operational Programmes [see The Operational Programme "Transport Infrastructure, Environment and Sustainable Development"], the Operational Programme "Competitiveness, Entrepreneurship and Innovation", the Regional Operational Programmes, the “LIFE” Programme (European Programme) and the “Philodimos” Programme.

It is noted here that the above-mentioned Programmes financed mainly large-scale projects, which constitutes a significant differentiation compared to the “D – Water Management”. The Programme under evaluation is also distinguished by a very small budget, and its targeting concerned small Projects, with a wide geographical distribution.

It is also worth noting here that, in addition to the review carried out in the above-mentioned Programmes, the following played a central role in the design of the eligible Projects of the Programme “Water Management” (Programme D - Water Management):

(1) The cost of water transportation: This particular parameter was helped by the interpretation given to the wording “vulnerable areas” in the Memorandum of Understanding (MoU) and in particular in the section entitled: “Special Concerns” which stated the following: “The Programme shall address the water management needs of particularly vulnerable areas and islands, including through support to projects aiming at water saving and desalination. The Programme shall encourage the increased exploitation of innovative technologies, including renewable energy solutions...”. In particular, the demand for water on the Greek islands usually exceeds the supply during the tourist season. Furthermore, in many areas, the water networks are old, which leads to serious leaks and water losses. These two conditions often result in water shortages, deterioration of water quality and over-pumping of groundwater. Especially in coastal areas, over-pumping has caused both qualitative and quantitative degradation of water resources. Quality control - along with ensuring the required quantity, especially during the peak summer season due to tourism - is a major issue in water management. In addition to the above, it is reported that on the islands, the need for water is particularly high, as it serves both

permanent residents and tourism businesses. Demand increases significantly (even doubles) during the summer tourist season, where tourism is the main economic activity. Often, especially on small islands, part of the demand is covered through sea water transport by water tankers, a solution that sometimes becomes unfeasible due to bad weather conditions. Water transport by ship also entails other environmental impacts, such as increased emissions of gaseous pollutants (Carbon Dioxide/CO₂, Sulfur Oxides/SO_x, Nitrogen Oxides/NO_x, Particulate Matter/PM), as well as risks and uncertainties related to maritime accidents. The cost of water transportation (10,3 €/m³ - excluding VAT, according to public tender data for 2017 and 2018 in the Cyclades and the Aegean) is high compared to other more permanent solutions, such as the construction of water reservoirs (where feasible), the installation of desalination systems. For the years 2016 and 2017, the annual cost of water transportation (330,000 m³ per year) for the Cyclades and the Aegean amounted to 4.214.760 €. For 2018, the total cost is expected to decrease to 2.554.400 € for the transportation of 220.000 m³. The cost of drinking water supplied through plastic bottles is even higher, estimated at 133 €/m³.

(2) The gap in funding for Research Programmes: It is common knowledge that there is a significant gap in funding for Research Programmes. Regions, such as Crete in particular, had a significant number of Programmes [which in the process became apparent that those not funded by the Programme Operator were sought to be included in Regional Operational Programmes (ROPs), such as the Crete ROP]. It is worth noting that the strategic and operational choice to fill this gap in the funding of research programmes from the call Output 1.2: “Special measures related to the supported programme of measures of Greece”, which was issued in November 2020, had significant benefits, such as: **(a)** the implementation of applications that aroused the interest of Norwegians and Icelanders, **(b)** the increase in the employment of researchers, preventing brain drain, and **(c)** the strengthening of “bilateral relations”.

Finally, overlaps seem to be avoided, as the Programme “Water Management” (Programme D – Water Management) has a different architecture, targeting and budget compared to the other Programmes.

SUSTAINABILITY: The Programme “Water Management” (Programme D – Water Management) is characterized by a strong emphasis on sustainability, encompassing all three of its pillars: environment, society, and economy. Among other aspects, it focuses on the protection and management of water resources (both surface and groundwater), the overall reduction of environmental pressures and threats on water, and the short-, medium-, and long-term protection of water resources, as well as the promotion of innovation and collaboration in the water sector.

Regarding each of the three sustainability pillars (environment, society, economy), the following apply:

Environmental Sustainability: The Programme "Water Management" (Programme D – Water

Management) contributed to addressing some of the critical challenges surrounding water, emphasizing issues of water protection and conservation, desalination, and the use of green technologies, especially in sensitive areas and islands. Furthermore, the Programme prioritized sustainable water management through the use of innovative technologies and Renewable Energy Sources (RES), including research initiatives aimed at improving the conditions of water systems and collaborative efforts with the 3 Donor States, in order to promote bilateral relations, facilitate knowledge exchange in the water sector, and, most importantly, foster joint initiatives contributing to the shared vision of a green and inclusive Europe. The Programme also focused exclusively on the critical environmental sector of water (both surface and groundwater). Considering official data from the European Commission regarding water [only 37% of surface water bodies achieve good ecological status • 85% of bathing waters are of excellent quality • 40% of the global population is affected by water scarcity • 80% of global wastewater is discharged untreated into the environment • 90% of natural disasters are water-related], it becomes evident that the water sector is not only critical but also particularly fragile, making the Programme's contribution to this field especially significant. As such, the design of the Programme "Water Management" was fully consistent and perfectly aligned with EU environmental policy - both in general (environmental sustainability) and specifically in relation to water protection and management. This alignment traces back to 1972 at the Paris European Council (where the need for a Community environmental policy alongside economic policies was first declared), continued in 1987 with the Single European Act [which introduced a new "Title on the Environment" (Title VII), offering the first legal basis for a common environmental policy], was formalized in 1993 with the Maastricht Treaty [which established the environment (Title XVI) as an official EU policy area], and continued in 1999 with Article 3c of the Amsterdam Treaty (which established the integration of environmental protection into all sectoral policies to promote sustainable development), and further reinforced in 2007 by the Lisbon Treaty, which recognized sustainable development and climate change as key priority areas. **In conclusion**, the Programme "Water Management" (Programme D – Water Management) makes a substantial contribution to environmental sustainability. The environmental benefits of the implemented Projects are considered highly significant -including improvements in water quality, reductions in water losses, pollution mitigation, and support for the transition away from fossil fuels through the use of Renewable Energy Sources. The general assessment is that these benefits will remain intact over time, whether the Projects involve infrastructure and innovative equipment (such as renewable energy technologies, Internet of Things applications, etc.) or are of a more "intangible" nature, such as Research Projects. The former are expected to continue delivering lasting environmental value, particularly in the water sector, while the latter provide a solid knowledge base upon which future plans and Projects for water management and protection can be built. A necessary condition for maintaining the benefits of infrastructure and technological Projects is the regular and appropriate maintenance, wherever and whenever required.

Social Sustainability: The social dimension of the Programme “Water Management” (Programme D – Water Management) is particularly significant, as it concerns a natural resource – water - which is essential for human life. As noted on the official website of the European Commission, “we need water to preserve human health, as clean, safe, and affordable water is a key factor in people’s well-being,” while elsewhere it is stated that “we need water for peace, since cross-border cooperation on water can act as a catalyst for peaceful coexistence rather than conflict between countries,” highlighting another important social aspect of water. To these aforementioned social dimensions, we must also add water’s contribution to the preservation of nature and the protection of biodiversity. Thriving, healthy ecosystems require clean water and also help mitigate the impacts of climate change - an issue that demands both social and environmental prioritization.

It is worth noting here that the Programme “Water Management” (Programme D – Water Management) was fully aligned with the European Commission’s “Water Vision for 2050”. In support of this vision, a Water Action Agenda was developed, aiming to jointly achieve “the water security for all”, “the global resilience to water-related pressures,” “the human right to safe drinking water,” “the protection and preservation of water bodies and ecosystems,” and “a fair balance between water supply and demand”. Beyond these elements, the Programme also aligned with European priorities in the water sector, several of which have a strong social focus - such as ensuring the human right to access safe drinking water, promoting a more integrated approach to water management across all sectors, fostering cross-border cooperation, and supporting funding for research, innovation, and knowledge exchange on water issues.

A central pillar of the Programme’s social sustainability was its strategic focus from the outset on “vulnerable areas”. This approach was informed by the interpretation of the term “vulnerable areas” found in the Memorandum of Understanding (MoU), specifically in the section titled “Special Concerns,” which stated: “The programme shall address the water management needs of particularly vulnerable areas and islands, including through support to projects aiming at water saving and desalination. The programme shall encourage the increased exploitation of innovative technologies, including renewable energy solutions...”. Based on this interpretation, the Programme targeted small, remote islands and regions with poor water status, contributing to the protection and preservation of water resources and improving access to clean water.

Finally, another significant social contribution of the Programme “Water Management” (Programme D – Water Management) - one that has and will continue to support social sustainability - was its investment in public information and awareness-raising around water issues. The campaign titled “Water Matters” helped educate and sensitize the public on matters related to the good status of water. This was a methodologically robust intervention aimed at strengthening environmental awareness regarding water resources. The campaign was implemented systematically across a cluster of islands with pronounced hydrological vulnerability

due to their geomorphological and climatic conditions, including Kalymnos, Pserimos, Telendos, Santorini, Leros, and Ios.

Economic Sustainability: The implementation of the eligible Projects under the Programme “Water Management” (Programme D – Water Management) resulted in a series of economic benefits, stemming from the general improvements achieved in the water sector. One of the most significant economic advantages was related to the cost of water transportation to the Greek islands. More specifically, the cost of transporting water (10,3 €/m³ excluding VAT, according to public tender data for the years 2017 and 2018 in the Cyclades and Aegean) is high compared to more permanent solutions, such as the construction of water reservoirs (where feasible), installation of desalination systems, etc. For the years 2016 and 2017, the annual cost of transporting water (330.000 m³ annually) to the Cyclades and the Aegean amounted to 4.214.760 €. For 2018, the total cost was expected to decrease to 2.554.400 € for the transport of 220.000 m³. Furthermore, the cost of drinking water supplied through plastic bottles is even higher, estimated at 133 €/m³. Based on the above data, it becomes clear that the Projects contributed - and will continue to contribute - to reducing these costs.

Two additional indirect economic benefits should also be mentioned, which result from the reduction in water transport routes to the Greek islands and from the improvement in water quantity. The first benefit concerns the ships that transport water, which significantly contribute to greenhouse gas emissions (Carbon Dioxide/CO₂, Sulfur Oxides/SO_x, Nitrogen Oxides/NO_x, Particulate Matter/PM). Consequently, fewer transport routes mean lower emissions of these pollutants and a reduced risk of marine pollution from potential accidents. This contribution extends beyond economic benefits, improving the country’s environmental profile - a country that appears to be choosing and promoting sustainable environmental solutions, as opposed to outdated practices that gradually degrade the environment. The second benefit relates to the improved availability and quality of water in relation to economic activities. Greek islands are known for the seasonality of certain economic sectors, such as tourism. The uninterrupted access to water, especially clean and drinkable water, supports the growth of tourism, and consequently the tourism industry (hotels, small and medium-sized tourism enterprises, etc.), with corresponding benefits to the local economy, the creation of new jobs, and the strengthening of regional development and decentralization through increased employment opportunities.

Beyond the above examples related to desalination units as infrastructure, considerable economic contribution also came from other Programme Projects, such as those involving detection and control of leaks in water supply networks. The use of innovative technologies in this domain helped reduce operational costs for responsible services (e.g. Municipal Water and Sewerage Companies). For example, leak detection became easier, maintenance work was more targeted, measurements were automated, eliminating the need for additional operational expenses for on-site monitoring, labor hours were significantly reduced, with

implications for the national budget, energy consumption also decreased, leading to substantial economic savings, etc.

Lastly, the Programme’s contribution to the pillar of economic sustainability is also linked to its support for innovation and promotion of advanced equipment. The Programme funded innovative technologies and solutions, such as advanced water management systems and green technologies, which can attract further investments.

Safeguarding the Programme’s Benefits Over the Next Five Years: The benefits of the implemented Projects are assessed as duly significant (e.g. improvement in water quality, reduction of water loss, decreased water pollution, contribution to the reduction of dependency on fossil fuels through the use of Renewable Energy Sources, etc.) and are expected to be sustained over time. In fact, it could be stated that the general assessment is that the environmental benefits will remain intact over time (including over a period significantly exceeding five years), whether referring to Projects involving infrastructure and innovative equipment, or to more “intangible” Projects, such as Research Projects or the public information and awareness-raising campaign on water protection and management issues. The former are expected to make a lasting contribution to the environment - especially in the water sector - for as long as they remain operational, while the latter will continue to serve as a knowledge base on which future planning and Projects for the protection and management of water resources can be built. However, a prerequisite for the continued benefit of Projects involving infrastructure and innovative equipment is the implementation of appropriate maintenance work, wherever and whenever necessary.

IMPACT: In order to systematically investigate the degree of impact of the Programme “Water Management”, a structural analysis of the individual interventions by output category was carried out. This methodological approach allowed the assessment of both the direct and indirect impacts of the implemented Projects on the environment, society and economy of the intervention areas.

Within the framework of Output 1.1 [Installation of Water Management Systems (Desalination Plants & Telemetry Systems)], 2 main categories of interventions were implemented: **(a)** the construction and operational activation of Desalination Plants, and **(b)** the design and implementation of Telemetry Systems of Water Supply Networks.

The installation of the Desalination Plants was a decisive intervention for addressing the chronic problem of water scarcity in island and coastal areas with limited natural water resources.

Ensuring access to clean drinking water also constitutes a fundamental contribution of the implemented Projects, as it goes beyond the simple technical dimension of infrastructure and emerges as an essential mechanism for meeting basic human needs and defending fundamental rights. This intervention is based on the recognition of the right to safe drinking water as an

integral element of human dignity and a prerequisite for the enjoyment of multiple other rights, as reflected in the international legal framework for the protection of human rights.

The impact of the Water Supply Projects extends to multiple levels and spreads to broader population groups beyond permanent residents. Specifically, it also positively affects the seasonal population of visitors, contributing decisively to the strengthening of the sustainable tourism development of these areas.

Regarding the environmental impacts of desalination, the implementation of innovative brine treatment technologies (such as in the Project “Installation of green desalination plant at Kimolos island incorporating innovative technology of brine treatment – BriZE” in Kimolos, has a significant impact on reducing the environmental impacts of desalination. According to the Life Cycle Analysis (LCA), the carbon footprint of water production is limited to just 0,78 kg CO₂-eq/m³, while with the expansion of the Photovoltaic System a further reduction of 44,76% can be achieved. The integration of 60 kW Photovoltaic Systems in Thirasia, in the Project “Supply and installation of a desalination plant on the island of Thirasia with Renewable Energy Sources” and 10 kW in Alepochori, Municipality of Mandra - Idylia, in the Project “Installation of an innovative desalination plant with brine and RES treatment in Alepochori of the Municipality of Mandra - Idylia” are examples of the wider penetration of Renewable Energy Sources (RES) in the production of drinking water, contributing to the energy transition and the reduction of greenhouse gas emissions at a national level.

The “local production” of drinking water through the installed Desalination Units brings about a significant restructuring of the economic model of water supply in the intervention areas. Specifically, a drastic reduction in the cost of transporting water by water tankers or tanker trucks is achieved, a practice that was the only water supply solution for many island areas for decades. The independence on these costly transport methods entails significant savings of financial resources, which can now be redirected and allocated to alternative development initiatives and infrastructure investments that strengthen the local economy.

Ensuring sufficient quantity and quality of water resources is expected to act as a catalyst for the tourism development of the intervention areas, as water sufficiency is a fundamental prerequisite for the qualitative upgrade of the provided tourist services. The improvement of the tourist experience, combined with the possibility of extending the tourist season and increasing the carrying capacity of destinations, is expected to strengthen the tourist flow to these areas, with multiplier benefits for the entire local economy.

The strengthening of tourist activity and related economic sectors is expected to create new jobs, both directly in the tourism sector and indirectly in complementary sectors of the local economy. At the same time, favorable conditions are being created for the development of new business initiatives, as the sufficiency of water allows the operation of businesses that previously faced insurmountable obstacles due to the lack of this vital resource. The expansion of

the business base of local societies contributes to the diversification of economic activity and to the strengthening of the resilience of local economies against external disturbances.

The formation of strategic bilateral partnerships with entities such as VISTA ANALYSE AS from Norway and the University of STAVANGER in Norway (UNIVERSITETET I STAVANGER) is a decisive factor. These synergies go beyond the framework of a simple contractual relationship and develop into dynamic platforms for the exchange of know-how and good practices between countries with different experience and approaches to water resources management. Systematic interaction contributes to the transfer of specialized know-how to domestic entities and professionals in the sector. The dissemination of this knowledge is not limited to the technical dimension of the projects, but extends to issues of management, operational optimization and long-term planning of the systems. This bilateral networking acts as a catalyst for the development of innovative solutions adapted to the particular conditions of the Greek island and coastal areas.

This systematic process of transfer and assimilation of know-how contributes decisively to the strengthening of Greek expertise in the field of desalination, creating a domestic core of know-how with an international orientation. The development of domestic expertise in this field can, in long term, transform Greece from a recipient of know-how to an exporter of innovative solutions and consulting services to countries in the Mediterranean and beyond, which are facing increasing water scarcity challenges.

Also, in the context of Output 1.1 [Installation of Water Management Systems (Desalination Plants & Telemetry Systems)] regarding the second pillar, Telemetry Systems in Water Supply Networks, remarkable progress has been achieved in saving water resources, with documented and quantified results. Specifically, the implementation of the Project “Smart leak detection network in the water supply network of Heraklion, based on IoT technology and knowledge - SmartLIK” in Heraklion brought about a significant reduction in water losses from 464.000 m³ to 316.104 m³ on an annual basis, with a parallel reduction in the percentage of non-invoiced water from 46,43% to 31,26%. In the case of the Municipal Water Supply and Sewerage Company of Argos-Mycenae, the Project “Smart integrated platform for leak detection of water supply network in the city of Argos” is estimated to save 1.200.000 m³ of water per year, effectively addressing the pre-existing high rate of unbilled water that reached 65%. Correspondingly, the Municipal Water Supply and Sewerage Company of Aigialeia project, the project “Smart System for Leak Detection for Waters Supply Network of Aigio” contributed to saving up to 600.000 m³ of water per year, reducing the rate of unbilled water from the initial 52%. In the case of the Municipality of Souli (Paramythia), within the framework of the Project “Smart Green System for Leakage Control and Water Quality Monitoring for Water District Area of city of Paramythia of Municipality of Souli”, the estimated savings also reached 600.000 m³ of water per year, in a network that was characterized by 65% non-priced water.

The above Projects contribute decisively to the decongestion of aquifers, given that the reduction of leaks implies lower pumping requirements. This specific parameter is of particular importance for the protection of coastal aquifers from the phenomenon of salinization, as is characteristically observed in the case of the Municipal Water Supply and Sewerage Company in Chania, as well as for the treatment of water scarcity phenomena in areas with limited water resources.

Additionally, the implemented Projects “Smart System for Leak Detection for Waters Supply Network of Aigio”, “Smart integrated platform for leak detection of water supply network in the city of Argos” and “Smart Green System for Leakage Control and Water Quality Monitoring for Water District Area of city of Paramythia of Municipality of Souli”, in Aigio, Argos and Paramythia respectively, contributed to the reduction of energy consumption by 10-15%.

In the case of Heraklion, in the Project “Smart leak detection network, in the water supply network of Heraklion, based on IoT technology and knowledge – SmartLIK”, the installation of pressure reducing valves (PRV) led to the optimization of the operation of the Network and the reduction of energy requirements for the pumping and transportation of water. This specific reduction in energy consumption is directly related to the reduction of greenhouse gas emissions, while contributing to the goals of sustainable development and climate neutrality.

All water quality monitoring systems installed in the projects contribute to the protection of public health. In particular, in the Municipal Water Supply and Sewerage Company of Chania and in the Project “Electronic System installation location and control of leakages in the internal networks of the Municipal Water Supply and Sewerage Company of the Northern Axis of Chania - Phase A”, the monitoring of the water disinfection process through residual chlorine stations ensures the high quality of drinking water, while in Aigio and Paramythia, the monitoring systems of critical water quality characteristics allow for the timely identification of quality changes and the taking of protective measures.

All Telemetry Projects also contribute to developing a sense of trust among consumers. More specifically, the SmartLIK project in Heraklion promotes transparency in the management of water resources, providing accurate data in real time. The Projects in Argos, Aigio and Paramythia explicitly mention the installation of supporting mechanisms to ensure water quality. In Heraklion, the use of Internet of Things (IoT) systems and advanced sensors allows for the early detection of damage and leaks before they develop into major failures. Continuous monitoring of pressure and flow in the network reduces the likelihood of significant failures that could lead to prolonged water supply interruptions.

Reducing leaks leads to significant savings in operating costs. In Heraklion, the reduction of water losses from 46,43% to 31,26% implies significant financial savings for the Municipal Water Supply and Sewerage Company of Heraklion. The reduction in energy consumption by 10-15% in Argos, Aigio and Paramythia translates into direct financial savings. Thus, the projects

offer economic benefits to end users. In Heraklion, the possibility of immediate reduction (or stabilization) of prices within 4-8 months is explicitly mentioned. Long-term savings due to more efficient management of water resources are expected to lead to economic growth through lower water prices and taxes.

At the same time, the Projects create opportunities for reinvestment of the saved resources. In Heraklion, the possibility of developing a reserve and its disposal in improvement Projects (e.g. sewage, biological treatment, replacement of old equipment, etc.) is recorded. The investment cost through the design of cost-effective upgrade systems is reduced.

Regarding Output 1.2 (Implementation of Research Measures for River Basin Management Plans), it is stated that the Projects have contributed significantly to the protection and improvement of groundwater aquifers, with long-term benefits for the environment. In particular, the Project “Delineation of saline groundwater in Zakynthos Island. Exploratory monitoring and potential for artificial recharge to address the ZANTE-SAL phenomenon”, in Zakynthos, delineated the Groundwater Systems (GWS) that present phenomena of extensive or local salinization, contributing to the implementation of specific measures of the River Basin Management Plan (RBMP) of the Northern Peloponnese. This allowed for better control and enforcement of Measures for Projects and Activities that contribute to the degradation of Groundwater Systems (GWS). The Project “Assessment of Arsenic and Other Contaminants in Underground and Surface Water Systems in Areas of the Regional Unit of Pella – Mapping of Hydrogeological Conditions”, in the Municipality of Almopia, recorded for the first time the chemical composition of the underground and surface waters of the area, identifying the sources of origin of arsenic (natural or anthropogenic) and other trace elements. This allowed the design and implementation of special protection regulations, such as the identification of Pollution Sensitivity Zones and Development Zones for the construction of new hydrological Projects with good quantitative and qualitative characteristics. Regarding the Project on the Larissos River, in Western Achaia, entitled “Actions for the Improvement of the Qualitative and Quantitative Situation and the adaptation to the Climate Change of the Coastal Groundwater System “Larissos” of the catchment area of Peiros – Verga – Pinios, Northern Peloponnese Water Department”, this monitored the impacts of climate change and overexploitation of water resources in the area of the underground aquifer of Larissos. The application of artificial enrichment had only positive impacts on the aquifer, as the water that entered the boreholes was of better quality than the already existing brackish groundwater.

In the above context, it is also noted that the Projects contribute substantially to climate change adaptation. The project in Larissos focused specifically on monitoring the impacts of climate change on water resources and led to the issuance of a Decision Plan that proposes the necessary actions to reduce the impacts of climate change on the underground aquifer. The Special Hydrogeological - Hydrochemical study carried out within the framework of the Project “Assessment of Arsenic and Other Contaminants in Underground and Surface Water Systems

in Areas of the Regional Unit of Pella - Mapping of Hydrogeological Conditions”, in Pella, Almopia, constitutes an important tool for the preparation of an effective and sustainable Water Management Programme in the study area, which addresses the impacts of climate change, which in turn leads to the quantitative and qualitative degradation of water resources.

In addition to the benefits of the Projects in relation to Climate Change issues, the Projects also contribute to the improvement of drinking water quality, with a direct impact on the health and well-being of local communities. In particular, the Project entitled “Delineation of saline groundwater in Zakynthos Island. Exploratory monitoring and potential for artificial recharge to address the ZANTE-SAL phenomenon” provided the Municipal Water Supply Company with important information for the qualitative and quantitative improvement of the state of the underground water reserves of Zakynthos, contributing to ensuring the quality of drinking water for the residents and visitors of the island. The Project “Assessment of Arsenic and Other Contaminants in Underground and Surface Water Systems in Areas of the Regional Unit of Pella – Mapping of Hydrogeological Conditions”, in Pella, identified the water systems or sections where there are chemical elements with high natural background values of arsenic and other elements, allowing measures to be taken to protect public health.

Regarding the projects of Output 1.2, it is worth noting that these also contribute significantly to the promotion of the fundamental human right to clean water. The Project “Delineation of saline groundwater in Zakynthos Island. Exploratory monitoring and potential for artificial recharge to address the ZANTE-SAL phenomenon” aimed at the design and implementation of Measures that will contribute positively to the improvement of the quality and quantity of Groundwater Systems (GWS), thus ensuring the right of the residents of Zakynthos to clean drinking water. The results of the Project in Pella formed the basis for the design and preparation of Projects that aim at the sustainable development of the region and the protection of the environment, thus contributing to ensuring the right of the residents of Almopia to clean water.

In addition, the Projects promoted transparency and citizen participation in the management of water resources. Specifically, in the Project “Actions for the Improvement of the Qualitative and Quantitative Situation and the Adaptation to the Climate Change of the coastal Underground Water System “Larissos” of the catchment area of Peiros - Verga - Pinios, Northern Peloponnese Water Department”, a geoportal was created, which allowed citizens to access information related to the status of the water resources of their region.

At the same time, the Projects contributed to supporting agricultural production and the economy of Local Communities. For example, the project in the municipality of Larissos is expected to contribute in the long term to the more rational management of groundwater reserves, but also to the better management of irrigation water that is pumped and used for the irrigation of potato, strawberry and fruit and vegetable crops, contributing to the agricultural production and economy of the region. The improvement of water resources management led to savings for water utilities. Thus, the Project “Delineation of saline groundwater in Zakynthos Island.

Exploratory monitoring and potential for artificial recharge to address the ZANTE-SAL phenomenon” provided the Municipal Water Utility of Zakynthos with important information for the qualitative and quantitative improvement of the state of groundwater reserves, thus allowing for a more effective management of its resources. If we also take into account that the island of Zakynthos is an island with significant tourist activity, then it is easy to see that the Project contributed to ensuring sufficient quantity and quality of water to meet the needs of both permanent residents and visitors, thus supporting the sustainable tourism development of the island.

Regarding Output 1.3 (Increasing Knowledge about the Importance of Good Water Status) with the slogan “Water Matters”, it could not but be characterized as a very successful and targeted campaign to inform and raise public awareness on the issues of good water status. The “Water Matters” campaign concerned a methodologically sound intervention to enhance environmental awareness regarding water resources. It was implemented in a systematic manner, in the island complex that includes Kalymnos, Pserimos, Telendos, Santorini, Leros and Ios, areas with particular hydrological sensitivity due to geomorphological and climatic conditions. The methodology applied could be characterized by a multi-level approach, targeting different population groups: the school community, permanent residents and visitors to the islands. This stratification of the Target Groups ensured the maximization of the social impact and the dissemination of environmental knowledge to wider population groups.

Although the project did not have a direct environmental footprint, it had significant indirect positive impacts on the environment. Increased information and awareness about the importance on the good condition of water bodies is expected to lead to more responsible water management behaviors and practices by residents and visitors to the islands. The promotion of good practices for the conservation, protection and sustainable use of water is expected to contribute to the reduction of water consumption and the protection of aquatic ecosystems. The Project, in other words, contributed to the long-term protection of water resources, as the education of new generations on the importance of water protection and management is expected to have long-term positive impacts on the state of water bodies. In addition, the installation of 2 automatic monitoring stations for physicochemical parameters of water provides valuable data for the monitoring and management of water resources, gradually contributing to the preparation of local societies to address the challenges of climate change. Furthermore, information and awareness-raising on the importance of sustainable water management is particularly important in the context of climate change, which is expected to significantly affect the availability of water on the Aegean islands. At the same time, promoting water-saving practices contributes to increasing the resilience of local societies to the impacts of climate change.

Among other things, it should be mentioned that this specific Project also contributed to the strengthening of bilateral cooperation and knowledge exchange. The development of bilateral

relations between the Hellenic Centre for Marine Research (HCMR) and the Inland Norway University of Applied Sciences allowed the exchange of experience, know-how and good practices in the field of water resources management. Harnessing the experience of Norway's mountain communities, from 1700 to the present, has provided valuable insights into the long-term sustainable management of water resources.

ADMINISTRATIVE CAPACITY & IMPLEMENTATION PROCEDURES: Considering the previous funding period of EEA-GRANTS 2009-2014, as well as the course of the current Programme “Water Management), it seems that no changes are required in the institutional and administrative capacities of the Programme Operator that could potentially contribute to a more effective completion of the Programme (or to a future takeover of another Programme as Operator). In any case, it does not seem that major or deep structural changes are required in the way the Programme Operator operates. The Special Service “NSRF E-Staff Structure of the Ministry of Environment and Energy” has so far demonstrated its effectiveness, but also its adequacy as the Administrator of the “Water Management” Programme. Evidence of this is the successful completion of the Projects that were included and implemented in the Programme, as well as the continuous compliance with the requirements of the Donor Countries and the National Authorities. Based on this, the full institutional and administrative capacity of the aforementioned Service is also demonstrated.

The Programme Operator appears to have significant experience that makes him effective and capable of successfully implementing Programmes in the Environmental sector. Among these is the Programme “Water Management” (Programme D - Water Management). However, it is clear that maintaining efficiency requires continuous improvement, adaptability and addressing potential weaknesses. Strengthening resources, investing in staff training and adopting innovative practices can certainly contribute to the further success of the Programme.

In addition to the aforementioned points, it should be emphasized that the Programme Operator provided support and assistance to a very high degree throughout the funding period of the Programme “Water Management” (Programme D – Water Management), thereby ensuring the effective resolution of any issues that arose. Key elements of this contribution include the valuable experience gained during the previous funding period of EEA-GRANTS 2009 - 2014, as well as the professionalism and positive attitude of the staff of the respective Service. Furthermore, through close collaboration with the Financial Mechanism Office (FMO), the National Focal Point (NFP), the Embassy, the Project Promoters, the competent Directorates of the Ministry, and the Certification and Audit Authorities, the Programme Operator succeeded in ensuring the smooth operation and successful completion of the Programme “Water Management” (Programme D – Water Management).

The most critical areas of the institutional and administrative capacities of the Programme Operator and the Project Promoters that contributed to the effective completion and delivery of

the Programme include: **(a)** Planning and Coordination, **(b)** Administrative Organisation and Resource Management, **(c)** Institutional Cooperation and Networking, **(d)** Problem and Crisis Management Capability, **(e)** Compliance with Regulations. Other critical elements of the Programme Operator and the Project Promoters that equally contributed to the effective completion and delivery of the programme were the following: **(a)** Continuous monitoring of the progress of the Programme, **(b)** On-site verifications, which allowed for the timely identification and resolution of problems, as well as ensuring the completion of the Projects, **(c)** The know-how, expertise and institutional capacity of the Programme Operator and the Project Promoters were key factors for the successful implementation of the Programme Projects/Actions, **(d)** Close cooperation between all stakeholders and **(e)** The focus on transparency, cooperation and flexibility, were finally the foundation for the success of the Programme.

BILATERAL COOPERATION: The contribution of the Partners from the Donor Countries and the bilateral collaborations played a decisive role in the effective completion of the Projects and by extension of the Programme “Water Management” (Programme D – Water Management). Bilateral collaborations appear to have been strong and effective in most areas. However, there are some areas where collaborations could be considered relatively weaker.

In addition to the above, bilateral collaborations were particularly successful in the areas of technology, dissemination and exchange of knowledge, but also education. The key factors for this success were the specialization of the Partners, very good cooperation, networking, common priorities.

It is mentioned here that the introduction of advanced technologies and innovation by the Donor Country Partners enhanced the effectiveness and sustainability of the Projects. The visibility of the projects increased the collaborative reach and strengthened the exchange of knowledge and experiences, attracting interest from other Agencies. The focus on sustainable solutions enhanced the environmental protection and efficiency of the Projects, as happened in the Project “Installation of green desalination plant at Kimolos island incorporating innovative technology of brine treatment - BriZE”.

It is also worth noting at this point that the bilateral collaborations carried out within the framework of the Projects have proven their effectiveness and brought significant added value. However, further development of Exchange Programs, Workshops and Seminars for staff and local stakeholders, as well as the expansion of Networking, would facilitate the exchange of best practices and the adoption of innovative solutions from different geographical and cultural contexts. In addition, the active involvement of the Local Community in Exchange Programmes would enhance the acceptance of the Projects by the communities and contribute to their long-term sustainability. A larger available funding budget for bilateral relations would allow the implementation of more Projects with Partners from Donor Countries, the integration of advanced technology and the addressing of existing weaknesses.

Finally, it is worth noting that a request for an increase in the Budget was submitted to the Programme “Water Management” (Programme D - Water Management), which was doubled from 50.000 € to 100.000 €, but despite this increase, the available resources were still not sufficient to fully exploit the cooperation opportunities. The development of an integrated communication strategy to disseminate the importance and results of bilateral relations would further contribute to attracting more stakeholders and enhancing the impact of the partnerships.

Programme “Water Management” (Programme D – Water Management)

SWOT Analysis



STRENGTHS

- Development of a comprehensive and well-studied Concept Note, resulting from significant preparatory work.
- Strong cooperation between the Financial Mechanism Office (FMO), the National Focal Point (Special Service for Programming, Coordination and Monitoring of the Implementation of the Financial Mechanisms of the European Economic Area, the National Contact Point of the Ministry of National Economy and Finance), the Programme Operator (Special Service “NSRF Executive Structure, Ministry of Environment and Energy, Environment Sector” of the Ministry of Environment and Energy), and the Project Promoters throughout all phases of the Programme (from design to completion).
- Project funding with emphasis on Sustainability, Innovation, and Effectiveness.
- Broad geographical distribution of projects, allowing for tailored water management solutions across various regions.
- Achievement - and in some cases, surpassing - of the Programme's intended Priorities and Results (Outputs & Outcomes).
- Exceeding quantitative targets in key indicators: Water savings: 3.052.336 m³ /year vs. target of 1.000 m³, Annual financial savings: 1.371.215 € vs. 400.000 € target, Additional water production capacity: 1.021 m³/day vs. 1.000 m³/day target, Installed renewable energy capacity: 0,045 MW vs. 0,02 MW target.
- Achievement of the Objectives of the Programme “Water Management” (Programme D – Water Management) [“Addressing critical challenges related to water, with an emphasis on conservation, desalination, and the use of green technologies, especially in sensitive areas and on islands” – “Priority on sustainable water management through the use of innovative technologies and Renewable Energy Sources” – “Research initiatives aimed at improving the conditions of aquatic systems” – “Collaborative efforts with the three Donor Countries, in order to promote bilateral relations, facilitate knowledge exchange, and primarily to boost joint initiatives that contribute to the common vision for a green and inclusive Europe”].
- Adequate resources. There were no shortages or delays due to financial constraints.
- Transparency and Accountability. Transparency in the use of resources and accountability were ensured through specific procedures, mechanisms, and tools applied at all stages of the programme's implementation. The Regulation, the Guidelines from the Donor Countries, and the national regulatory and institutional framework set strict requirements for transparency and accountability in management.

- Effective administration, substantial problem-solving, and comprehensive management of all issues that arose during the implementation of the “Water Management” Programme (Programme D – Water Management) were carried out both individually by each of the three main stakeholders of the Programme - the National Focal Point [Special Service for Programming, Coordination and Monitoring of the Implementation of the Financial Mechanisms of the European Economic Area, the National Contact Point of the Ministry of National Economy and Finance], the Programme Operator [Special Service “NSRF Executive Structure, Ministry of Environment and Energy, Environment Sector” of the Ministry of Environment and Energy”], and the Project Promoters (Municipal Water and Sewerage Companies, Municipalities, Decentralized Administrations, Universities/Technical Universities, Development Agencies, Research Institutions, and entities from the Donor States) - and jointly by all parties involved, whenever required.
- Duly successful bilateral initiatives with six entities from the Donor States [Eastern Norway Research Institute, Norwegian University of Life Sciences, Oslo Water and Sewerage Works, VISTA ANALYSE AS, University of Stavanger (UNIVERSITETET I STAVANGER), and the Institute for Energy Technology (IFE)].
- Significant impact (greater than initially expected) in critical areas such as Innovation, Water Management, and the use of Renewable Energy Sources.
- Utilization of targeted measures to manage and address specific challenges. These measures included: (a) Proactive planning [The Programme Operator adapted to known election dates], (b) Enhanced communication [Regular meetings and consultations with Project Promoters and competent authorities ensured the resolution of issues], (c) Use of digital tools [The adoption of videoconferencing and collaboration tools facilitated continued implementation even during the pandemic], and (d) Continuous risk assessment [Proactive identification of potential problems and implementation of risk management measures helped to minimize delays].
- Good practices emerging from specific projects, such as the awareness campaign “Water Matters” and stakeholder consultations.

WEAKNESSES

- Insufficient implementation capacity of the Project Promoters (due to a lack of specialized personnel).
- Limited use of qualitative indicators in Bilateral Relations and absence of indicators for assessing social impacts, as well as indicators for scientific output and interdisciplinary collaborations.
- Absence of a comprehensive communication strategy for disseminating the importance and outcomes of the bilateral relations, which could have further contributed to attracting more stakeholders and enhancing the impact of the Partnerships.
- According to the Programme Operator, the Special Service “NSRF Executive Structure, Ministry of Environment and Energy, Environment Sector” of the Ministry of Environment and Energy”, there was insufficient consultation regarding the Management and Control System (MCS). The consultation process was primarily conducted with the National Focal Point (NFP), namely the Special Service for Programming, Coordination and Monitoring of the Implementation of the Financial Mechanisms of the European Economic Area, the National Contact Point of the Ministry of National Economy and Finance, as well as with the Management Organization Unit of Development Programmes. Subsequently, the MCS was sent to the Programme Operator for approval.

OPPORTUNITIES

- Continuation of project operations (well beyond the five-year period), bringing sustained benefits to the Environment, Society, and the Economy. These benefits are expected to persist even for non-material projects, such as the Research Projects implemented.
- Highlighting the importance of technological development, particularly innovative technologies and Renewable Energy Sources, as an opportunity for the sustainable management and protection of water resources.
- Development of domestic expertise in the field of water protection and management, offering Greece the opportunity to transition from a recipient of know-how to an exporter of innovative solutions and consulting services to Mediterranean countries and beyond, which face increasing water scarcity challenges.
- Addressing water management and protection needs based on identified funding gaps. For example, the review of Operational Programmes and funded Projects contributed to identifying actual gaps and shaping the Programme “Water Management” (Programme D – Water Management) in a way that addresses unmet needs, focusing on smaller but critical actions.
- Filling Greece’s gaps in the implementation of the EU Water Framework Directive (Directive 2000/60/EC).
- Emphasis on bilateral initiatives, with the exchange of knowledge, experience, and good practices.
- Implementation of additional research-based measures in the water sector to support sustainability and adaptation to Climate Change.

THREATS

- COVID-19 pandemic, which imposed severe restrictions, disrupted supply chains, created obstacles to on-site work and research, and caused difficulties in coordination and collaboration among the various stakeholders.
- Time-consuming and complex environmental permitting procedures for the funded Projects, which required the issuance of an Environmental Terms Approval Decision (ETAD), particularly for projects such as Desalination Units, in accordance with Law 4014/2011 (Government Gazette A' 209), as amended, and the related regulatory decisions issued under that law.
- Delays due to other licensing requirements issued by Local Authorities.
- The war in Ukraine, which, due to inflationary pressures and associated problems, led to increased prices for raw materials and issues with the supply/availability of technical equipment (e.g. water meters, etc.).
- Significant delays caused by the HEDNO S.A. (Hellenic Electricity Distribution Network Operator) in implementing the necessary grid connections.
- National and particularly regional elections, which led to changes in local administrations and consequently to delays.