

**ACTION 3.4.4 (WP3) –
DEVELOPMENT OF THREE GREEN INITIATIVES IN ACCORDANCE WITH THE JOINT
STRATEGY OF THE PROJECT “GREEN URBAN TERRITORIES” –
3RD GREEN INITIATIVE: STRENGTHENING THE PROFILE OF SAMOTHRACE AS A
“GREEN” TOURIST DESTINATION**

This document has been created within the framework of the Project “Green Urban Territories – Better Place to Live” with Acronym GUT-BPL, financed under the Cooperation Programme INTERREG V-A “Greece- Bulgaria 2014-2020” (Subsidy Contract No B2.6d.12/01.07.2019). The project is co-funded by the European Regional Development Fund (ERDF) and by national funds of the countries participating in the Interreg V-A “Greece- Bulgaria 2014-2020” Cooperation Programme.

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TABLE OF CONTENTS

| | |
|--|----|
| INTRODUCTION | 4 |
| CHAPTER I – BRIEF DESCRIPTION OF THE SCOPE OF THE PROPOSED INITIATIVE | 5 |
| 1.1 BRIEF DESCRIPTION OF THE PROFILE OF THE TARGET AREA | 5 |
| 1.2 IDENTIFYING THE KEY ISSUES / CHALLENGES ASSOCIATED WITH THE PROPOSED INITIATIVE | 8 |
| CHAPTER II – DESCRIPTION OF THE KEY POINTS OF THE PROPOSED INITIATIVE | 12 |
| 2.1 ENERGY AUTONOMY (USE OF RES) AND ENERGY UPGRADING | 12 |
| 2.2 ELECTRIC MOBILITY AND SUSTAINABLE MOBILITY | 14 |
| 2.3 USTAINABLE AND SMART WASTE MANAGEMENT | 19 |
| 2.4 SHIFT TO ORGANIC PRODUCTION / BIODIVERSITY PROTECTION | 23 |
| 2.5 CONNECTING TOURISM WITH LOCAL PRODUCTION: THE CONCEPT OF THE LOCAL PACT | 27 |
| CHAPTER III – CONNECTION WITH GOALS AND EXPECTED RESULTS | 31 |
| 3.1 CONNECTION WITH STRATEGIC OBJECTIVES (EUROPEAN GREEN DEAL, JOINT PROJECT STRATEGY) AND REGIONAL AND TARGET AREA PLANNING | 31 |
| 3.2 EXPECTED RESULTS AND BENEFITS FROM ITS APPLICATION | 38 |
| CHAPTER IV – SWOT ANALYSIS OF THE PROPOSED INITIATIVE | 41 |
| CHAPTER V – IMPLEMENTATION PLAN, FINANCIAL ANALYSIS AND IMPLEMENTATION SCHEDULE | 49 |
| CHAPTER VI – DRAFT PERFORMANCE MEASUREMENT GUIDE FOR TRANSFORMING THE ISLAND INTO A “GREEN DESTINATION” | 54 |
| CONCLUDING REMARKS | 57 |

INTRODUCTION

This initiative project was carried out in the context of the implementation of the project "Green Urban Territories - Better Place to Live", which is financed by the cross-border cooperation program "INTERREG VA GREECE - BULGARIA 2014 - 2020".

This project is one of the three joint "Green" Initiatives envisaged in the framework of this project and was developed on the basis of the previous researches that have been prepared for the preparation of a Joint Strategy between the project partners, namely the "Study of the development possibilities for use in urban, semi-urban and other green spaces-points covering the entire Evros area" (3.4.1 - WP3) and "Investigation on the practices of agriculture (primary production), transport and tourism affecting biodiversity in the prefecture of Evros" (3.4.2 - WP3).

The object of this presentation is the development of a comprehensive guide for the creation of "green destinations" and is addressed to the ecologically sensitive areas that are part of the Natura Network but at the same time are also popular tourist destinations. The present plan will be structured with the island of Samothraki as a case study, which combines the above characteristics.

The methodology and results of this initiative can be used as a "guide" for the implementation of similar initiatives in other regions with similar characteristics, with a particular emphasis on the regions covered by the present project, in the context of cross-border and joint management of common needs and challenges.

CHAPTER I –

BRIEF DESCRIPTION OF THE SCOPE OF THE PROPOSED INITIATIVE

1.1 BRIEF DESCRIPTION OF THE PROFILE OF THE TARGET AREA

The island of Samothraki is 24 nautical miles from Alexandroupolis, it is a small populated island with an important history and a rich natural environment thanks to its huge mountain mass (Mount Saos). The particularity of its natural landscape significantly influenced its social, cultural and economic character.



@ <https://earthlocations.blogspot.com>

Demographics

Demographically, the island of Samothraki is characterized by a relatively small population (2,859 inhabitants according to the 2011 census) with a constant fluctuation over the last two decades. The local population is concentrated in Kamariotissa (port) and Chora (administrative capital). On the other hand, during the summer season, a large number of local residents (accommodation owners) and visitors. From the qualitative analysis of the demographic composition of the island, a tendency to concentrate the permanent population in Kamariotissa emerges, while on the contrary, the rest of the island's settlements follow the opposite trend, facing the risk of further desolation. A significant decrease is also recorded in the number of students of all grades and also of the dynamic age groups (18 - 45), leading to a greater aging of the population.

Financial Structure

The economic activity in the target area (Municipality of Samothraki) includes mainly the primary and tertiary sectors and to a limited extent the secondary.

As for the primary sector in Samothraki, it includes agricultural and animal husbandry activities, which are carried out throughout the island, including the lowlands but also its extensive semi-mountainous and mountainous areas, as well as the fishing activity which takes place in the wider marine areas that surround the island. In terms of cultivated species, in arable crops there is an emphasis on crops of forage plants (barley/vetch/oats for hay, alfalfa, clover, etc.) which support the extensive livestock activity. Part of the wheat production is directed to the

production of bakery products for the needs of the local market. As far as vegetables are concerned, they are found mainly in small family farms which supply the local greengrocers or (through them) the restaurants mainly during the summer season when tourist traffic is high. In tree crops, almost all of the land is permanently occupied by olive trees, in particular 4,000 acres for the production of edible olives and 5,000 for the production of oil olives (based on data for 2018, according to data from ELSTAT), through the operation of a local olive mill. Finally, there is also a dynamic increase in viticulture for the production of bulk or standardized wine where Greek varieties are also found (e.g. malagouzia). Livestock farming activity in Samothraki has been dominated over time by sheep and goat breeding, which for the year 2017 (according to ELSTAT data) included 47,041 heads (around 24,000 and 22,500 for goats and sheep respectively). The livestock products produced are sheep's and goat's milk (about 1,800 and 800 tons respectively) and cheese (soft cheese about 100 kg). Finally, there is also an increased production of honey (approximately 9 tons) and eggs (approximately 300 thousand for the same reference year). Finally, the fishing practiced on the island provides the local community as well as the island's visitors with rich catches of the Thracian sea.

The secondary sector in the Municipality of Samothraki includes a small but significant number of crafts and workshops, the majority of which belong to the category of food processing and processing with raw materials from the local agricultural, livestock and fishing activities as shown in the table below:

| <i>Sector</i> | <i>Area</i> |
|--|---------------------------------|
| Wine production and bottling | Alonia |
| Production of sweet products | Dafnes |
| Olive mill – olive oil standardization and fertilizer production | Alonia |
| Flour and feed production | Kamariotissa, Lakomma |
| Standardization of agricultural and fishery products | Kamariotissa |
| Processing of fruits and vegetables | Paleopolis |
| Cheese factory | Makrilies |
| Brewing | Kamariotissa |
| Production of confectionery products | Therma |
| Pasta production | Kamariotissa |
| Bakery | Kamariotissa (2), Therma, Chora |

The tertiary sector in the Municipality of Samothraki has as its main pillar the tourism activity, for the service of which most of the commercial and other service businesses that operate (car rentals, shops of various kinds, catering and entertainment) are oriented to serve. To this end, in recent years there has been a significant increase in hotel capacity, as a result of the growing tourist flows.

This potential is presented in detail in the tables below:

| | <i>Units</i> | <i>Rooms</i> | <i>Beds</i> | <i>Gathering area</i> |
|--------------------------|--------------|-----------------|---------------|-------------------------------------|
| Hotels (3*) | 13 | 317 | 609 | Therma and Kamariotissa (33% each) |
| Rooms to let | 73 | 456 | 940 | Therma (50%) and Kamariotissa (25%) |
| Tourist furnished houses | 9 | 48 | 86 | |
| <i>Municipal Camping</i> | <i>Area</i> | <i>Capacity</i> | <i>Status</i> | |
| Varades | 17 | 315 | Organized | |
| Platia | 148 | 1.000 | Free living | |

Source: Regional Tourism Office, Data for 2020

Regarding tourist traffic, looking back at the relevant tourist figures (arrivals / overnight stays) of the previous decade (2010-2019) there is a significant recovery in tourist flows from 2016 onwards which now approaches 9,000 visitor arrivals, while overnight stays still show greater dynamics (they range around 28,000). Contributing to this increase was the ever-increasing number of foreign visitors, which now accounts for 33% (mainly from Bulgaria and Romania, while tourist flows are also observed from Mediterranean or Central European countries).

Housing Development and Transportation¹

Residential development showed a significant variation, where the increased building activity of the period 1997-2006 (19.3 new permits / year) gave way to a relatively large recession in the decade 2010-2019 (only 6.3 permits / year) , a trend that however seems to be reversing in the last two years. The construction of new housing concerns to a large extent (about 80%) tourist uses, and concerns either the construction of new buildings or the restoration of abandoned buildings.

Today it is estimated that there are a total of 2,600 residences on the island, the majority of which are located in the settlements of Kamariotissa (over 20%), followed by Chora. Regarding some basic characteristics, it is pointed out that 50% of which were built before 1970, are under 60 sq.m. and has no insulation (the latter is due to the fact that many of them are used for tourist or holiday use). In addition, 50% use oil as a heating source while 33% use another source (fireplace, LPG) while 22% and 47% of households do not use electricity for cooking and hot water respectively.

In terms of transportation, 70% of households own a car. The island also has long-distance transport (KTEL) that connects the settlements with each other.

¹ Local Town Planning Plan of the Municipality of Samothraki, 2021.

Public Services and Public Benefit Structures

The public services that operate on the island belong exclusively to the Municipality with the object of administration, welfare, care, cleaning etc. The municipal buildings include the Town Hall, the Technical Service as well as buildings that house the structures of the Social Protection Solidarity & Education Center . Regarding the education structures, on the island there are 3 Kindergartens, 2 Primary schools and a Gymnasium / High School. There is also a Health Center in Chora (temporarily suspended until the flood damage is repaired) and a Regional Clinic in Kamariotissa. Finally, there are also PPC and OTE facilities, ELTA office, Police Department, Fire Department, Port Department and 2 Bank branches.

1.2 IDENTIFYING THE KEY ISSUES / CHALLENGES ASSOCIATED WITH THE PROPOSED INITIATIVE

The proposed initiative joins the planned and implemented actions that are promoted at the local level and are linked to key issues that have to do with the quality of life of the resident population on the one hand, and the development prospects of the local economy on the other.

The main elements that characterize the target area (Samothraki) that are of interest in terms of intended results through the implementation of the initiative by intervention sector are briefly described in the following lines.

1.2.1 Energy Production / Consumption

The connection of the island to the national electricity distribution network is made through a double submarine cable 92 km long that ends at the PPC facility north of Kamariotissa. There is no High / Medium Voltage substation, while the Medium and Low Voltage network is entirely aerial outside the urban fabric of the settlements of Kamariotissa and Chora where it has been under the ground.

Regarding the production of energy from RES, there are 11 private photovoltaic parks (100 kw each) located on the island. In the past, 4 PPC wind turbines operated on the cape west of Kamariotissa, which have been uprooted for about 20 years. However, due to the large wind potential, there is strong interest in installing new wind turbines. In fact, 2 such permits had been issued in the mountainous part of the island (the first concerned 3 wind turbines with a power of 2.5 MW and the second 36 with a power of 108 MW), which initially did not proceed due to the strong reactions of the local community and institutional bodies, while later by a recent Decision of the Ministry of Interior, Mount Saos was added to the status of "Deceited Mountains", according to which the opening of new roads and the creation of artificial interventions that alter the natural environment, such as the installation of renewable energy projects, are prohibited ., effectively canceling the said investment plans.



Aerial view of the old wind turbines of the island. @samothraki-tourism.gr

The rich wind potential, however, favors the installation of small-scale wind turbines, allowing the Municipality of Samothraki to contribute its share of renewable energy productio..

In terms of consumption, the energy needs of households are covered mainly by oil, as far as heating is concerned, however, given the increased cost of supply, a large part of them resorts to other forms such as burning wood (fireplace), the supply of which is often done with non- legal way (illegal logging). Similarly, the ever-increasing cost of electricity brings many households facing the specter of energy poverty. The high energy costs also burden the Municipality due to increasing costs for street lighting.

1.2.2 Waste management

The management of waste is a major issue for the Municipality of Samothraki with the main reasons being the difficulty of collecting it due to the dispersion of the settlements and the few available means and personnel, the vertical increase in their quantities during the summer season due to tourist traffic (indicatively, according to data from DIAAMATH, for 2021 around 1,200 tons of mixed waste were produced), as well as the impossibility of on-site management due to a lack of appropriate infrastructure, which forces the high-cost transportation outside the Municipality (via the Waste Transfer Station).

The number of common (green) bins for mixed waste is considered insufficient, especially in areas that are under a lot of pressure due to tourist flows (Therma, camping, Kamariotissa and Chora). Similarly, a shortage is also observed in the blue bins for recyclable materials (paper, glass,

plastic, aluminum, tin), where in some areas with a large presence of tourists (camping and Thermen Square) they are absent.

The application of the Regional Waste Management Planning of the A.M.Th Region. is expected to significantly improve the situation, through the creation of a Waste Treatment Unit and a landfill, as well as the placement of two "Green Points" for bulky waste. However, additional initiatives are deemed necessary to reduce and more rationally manage all the waste on the island, but to deal with more specific problems, such as plastic pollution which has significant effects on the natural landscape and local biodiversity, especially in the sea Zoe.



Pollution and aesthetic degradation from the uncontrolled disposal of waste. @inevros.gr

1.2.3 Agri-food

The agri-food sector on the island (besides the structural problems regarding agricultural production and livestock breeding) faces two main challenges which are linked to the inability of producers/breeders to give an increased added value to their products, which means that despite the relative ease of their availability, however this is not accompanied by the price that would correspond to such high nutritional value products of the island.

The first challenge concerns the lack of certification of a range of products that show particular dynamics, which are: a) olive oil and edible olives, b) wine, c) honey, d) aromatic plants and e) cheese products.

The second is related to the challenge of further highlighting the local gastronomy and in particular the local traditional recipes especially among catering and accommodation businesses, which will strengthen the identity of the island as a tourist destination.

1.2.4 Alternative tourism

The development of tourism in Samothraki has always been based on alternative forms (ecotourism, mountaineering tourism, cultural tourism, spa tourism), giving the island the profile of a mild destination. However, despite the observed increase in tourist flows on the island, in recent years, tourism on the island has to face the following challenges:

- The improvement of the performance of the sector in terms of specific tourist indicators, such as the average length of stay and the average expenditure per night.
- Alleviating the effect of seasonality.
- The enrichment of the tourist product and the improvement of the offer of tourist services (high standard accommodation) and thematic tourism services (e.g. outdoor activities, water sports).

In order to address these challenges, relevant research data should be taken into account, such as the ITB World Travel Trends Report, from which the following tourism demand trends emerge:

- The increased demand for real experiences linked to contact with nature, local culture, local tradition and gastronomy of the destination.
- The increased environmental awareness of the most dynamic groups of tourists (profile of the "green" tourist), which is a key criterion when choosing a destination, in other words destinations characterized by a low environmental footprint are preferred.

CHAPTER II –

DESCRIPTION OF THE KEY POINTS OF THE PROPOSED INITIATIVE

The proposed initiative includes the production of a Guide to enhance the profile of Samothrace as a "green destination". This Guide is entitled "Guide to the implementation of Green Development and its self-assessment through the use of Metrics".

Through this, the planning and implementation of "green" actions or interventions is sought, as well as the evaluation of performance, in accordance with the guidelines of the European Green Agreement and the individual Sectoral (Sustainable Development Strategy) and National Strategies (National Climate Plan)) in individual aspects of the operation and economic activity of the island.

In addition, this Guide is in line with existing sustainable destination standards applied in regions of Europe and includes a series of criteria and indicators to be measured and monitored, covering the environment, local community, cultural heritage, economy and nature. Measurable and continuous growth will be ensured through the evaluation of the performance of the destination to be carried out every 3 years.

Based on the above, the content of this Guide is developed in all the dimensions that characterize a destination as "green" (a) Energy, b) Transportation, c) Waste Management, d) Agri-food and e) Tourism) and presupposes the involvement of local society, local businesses and institutional bodies.

According to the above axes of intervention, the central objective of the Guide is the transformation of the island of Samothraki (as a case study) into:

- ✓ **“Carbon-neutral”** destination, in terms of energy production.
- ✓ **“Smoke-less”** destination, in terms of transportation.
- ✓ **“Plastic-free”** destination, in terms of eliminating plastics.
- ✓ **“Organic-zone”** destination, as far as agricultural products are concerned.
- ✓ **“Green-tourist”** destination, in terms of the destination profile.

The following sections describe the main axes of development of the Guide.

2.1 ENERGY AUTONOMY (USE OF RES) AND ENERGY UPGRADING

As mentioned, the fundamental objective of the European Climate Strategy is to make the EU the first climate-neutral continent with a horizon of 2050. The island of Samothraki, with its strong wind potential (the area is included in the "wind priority zone" of the AMTH Region) can contribute to this goal, through the production of clean energy, achieving its goal of climate neutrality.

2.1.1 Energy Autonomy through the use of R.E.S.

The goal here is the penetration of R.E.S. in the island's electrical system at a rate greater than 85% and at the same time maximizing the coverage of the needs of residents and visitors in heating and hot water for use by R.E.S.. Moreover, this proposal enjoys the wide acceptance of the representatives of the Municipality but also of the island's inhabitants², that is, the installation of small-scale wind turbines only for the needs of the island.

Taking into account the assessment of electricity consumption needs, as well as similar projects implemented in islands with similar characteristics in relation to the number of inhabitants (under 3,000) and visitors (up to 30,000), such as Tilos, and the average size of the wind potential, it was calculated that the above objective can be met through the creation of a small wind farm, which will have the following characteristics:

- In terms of capacity: It is proposed to install four wind turbines with a total power of 1.2 MW (0.3 MW each).
- Regarding the location: This is limited by two factors. The first concerns the spatial restrictions from the inclusion of Mt. Saos in the status of "Deceited Mountains". The second concerns the appropriate location in terms of local wind potential (height, physical or technical obstacles, average wind speed, etc.). Based on these, the area of the initial installation of the first wind turbines on the island is proposed by PPC (of course, this should be determined through the relevant technical studies that will be included in the file that will be submitted for licensing to the R.A.E.).
- Regarding the need for additional investments: The existence of a double submarine cable connecting the island to the national inland electricity distribution network solves a key problem found in other islands that are not interconnected to the mainland system. Therefore, the installation of a storage system is not required, making the investment plan more economically feasible.
- Regarding the production/consumption regime: Net Metering is preferred as the preferred regime, according to which the netting of the electricity produced by a renewable energy station of the self-producer with the consumed electricity in an installation of the self-producer, which is located in the same or adjacent area as the R.E.S. station.
- Regarding the implementing body: The solution of the Energy Community (E. Co.), i.e. a municipal cooperative of exclusive purpose (L. 4513/2018, Article 1, 2, N. 4759/2020 Article 160) with the aim of promoting of the social and solidarity economy. Already in 2017, the Municipality of Samothraki has jointly established with the Municipality of Alexandroupolis and the Holy Metropolis an energy community, which could cover the high cost (given the financial situation of the Municipality of Samothraki) of construction and installation of such a R.E.S. project. Citizen groups and businesses of the island will be able to participate in this scheme, as is also provided for by the relevant legislation.

² According to the results of research carried out as part of the project «Islands of Hope»
<https://statusradio.gr/2021/11/samothraki-nai-stis-anemogennitries-a>.

2.1.2 Energy Efficiency of Road Network

The island's road network covers 68 kilometers of paved road that connects 13 scattered settlements and beaches. The shift of the Municipality of Samothraki in the direction of the green transition presupposes the upgrading of street lighting with the aim of saving energy and includes the supply and installation of LED type lighting fixtures alongside the use of the most modern technologies (projection lighting, lamps, lighting brackets, street lighting and outdoor spaces).

2.1.3 Energy Upgrade of Municipal Buildings

As mentioned, the municipal buildings of the island include the Town Hall, the Technical Service as well as buildings that house the structures of the Social Protection Solidarity & Education Center, as well as, in terms of education structures, and 3 Kindergartens, 2 Primary Schools and a High School / High School. The goal for the energy "greening" of the island includes the energy autonomy of all the buildings in question, through the installation of photovoltaic panels to cover their energy needs from clean forms of energy.

2.1.4 Energy Upgrade of Accommodations

There are approximately 2,600 buildings on the island, of which 100 are for accommodation of various types (hotels, rooms for rent, etc.). The goal here foresees the improvement of the operational infrastructure of the businesses in the sector, through the gradual energy upgrade of the accommodation so that they are included in higher energy categories, which implies the improvement of the energy efficiency of the building facilities as well as the saving of energy during use them (solar water heaters, photovoltaic panels, heat pumps, inverter air conditioners, etc).

2.2 ELECTRIC MOTION AND SUSTAINABLE MOBILITY

The green transition in the transport sector incorporates all the "clean" (in terms of emissions) and "smart" mobility options that can be developed on the island, partially replacing the existing transport system. The driver's action plan includes the following categories of intervention:

2.2.1 Shift to Electrification of Public Vehicles, Public Transport Vehicles and Vehicles for Hire

The goal of entering the traffic of electric vehicles should start from the replacement of conventional public use and utility vehicles as well as mass transport vehicles with electric ones. These include the vehicles of the local police, the fire brigade, as well as the fleet of buses operating on the island, namely the municipal buses (2) and the intercity buses (2) of KTEL Evros.



Electric municipal bus in Rethymnon. @flashnews.gr

Furthermore, since the main objective of this Guide focuses mainly on the transformation of the character of the island as a "green destination", electric mobility should also be an option for the movement of tourists visiting the island. Therefore, for the two companies operating on the island in the area of vehicle rental and small displacement engines, the goal is set to offer at least 50% (by 2030) of electric vehicles of both categories.

2.2.2 Installation of Electric Vehicle Charging Stations

In order to facilitate the introduction of electrification to the island, a necessary condition is the installation of an integrated network of charging stations at key points in the area, adapted to the particularities and needs of the island's residents and visitors during the summer (tourist) season. For the design of this proposal, the Union Strategy for low-emission mobility is taken into account, which foresees the installation of charging stations every 60 km along the road network.

The existing road network of the island includes the following provincial/municipal roads:

- The main provincial network "Pachia Ammos - Lakkoma - Kamariotissa - Therma - Kipoi", 44 km long, which connects the port with the two main beaches as well as the most popular tourist destination (Therma).
- The provincial road "Kamariotissa - Chora", 5 km long that connects the two largest settlements of the island.
- The provincial road "Chora - Paleopolis", 7 km long that connects the traditional settlement of Chora with the archaeological site of Paleopolis.
- The provincial road "Kamariotissa - Prophet Ilias", 21 km long that connects the port with the mountainous settlements of the southern part of the island.

Based on the above, but also taking into account the tourist concentration (according to the previous tourism analysis), the goal is set for the installation of 2 charging stations in two key points of the island, one in Kamariotissa and a second in the area of Therma.



Electric vehicle charging station in Samothraki through the project GUT

Already, within the framework of the present "Green Urban Territories - Better Place to Live" project, an Electric Car Charging Station has been installed in the Municipality of Samothraki, specifically in the area of Kamariotissa, therefore one more station remains to be installed (in Therma) to achieve this goal.

2.2.3 Promotion of Alternative Forms of Zero Pollutant Mobility

The age and social composition of visitors to the island are in line with the profile of the "green" and environmentally responsible tourist, who pays great attention to reducing his environmental footprint during his stay at the destination. In addition, the natural environment of the island is suitable for modes of transportation that combine the transportation of the visitor with the enjoyment of the natural beauty of the island, an element that is also based on the character of the island as an alternative and nature-loving destination.

Therefore, taking into account the size of tourist traffic during the summer season as well as the observed shortages in economic means of transport, this Guide foresees the installation of an automatic rental system (with a time charge) of shared bicycles as an alternative means of economic and ecological movement for permanent residents and visitors. Fleet capacity is defined as the total final supply target:

- 25 electric bicycles, and
- 50 conventional bicycles.

Already the set goal is partially covered through the implementation of the current program ("Green Urban Territories - Better Place to Live"), where the Municipality of Samothraki has received 5 electric and 5 conventional bicycles in Chora and Kamariotissa which will be available for use in residents and visitors through a digital application. Added to these are the 20 or so bicycles owned by a local bicycle rental company operating on the island.



Electric bicycles in the Municipality of Samothraki through the project «GUT». @evros24.gr

2.2.4 Electrification of Fishing Boats and Recreational Boats

The shift to clean energy is not only limited to land but also extends to the sea. The two main categories of vessels included are:

- a) fishing boats operating on the island, and
- b) pleasure boats (tour services).

Achieving the goal of reducing pollutant emissions and increasing energy efficiency is done through investments in vessel equipment and concern the following categories:

- Installation of equipment that utilizes renewable energy sources, such as sails and photovoltaic panels.
- Actions to improve cooling, freezing or insulation systems.
- Actions to encourage on-board heat recycling and re-use of heat in other on-board ancillary work.



Photovoltaic panels on a fishing boat. @greek-shops.gr

2.2.5 Improving Road Network Safety with Biodiversity-Enhancing Techniques

As pointed out, the island of Samothraki faces significant problems in its road network which is due on the one hand to the great slope of the slopes around the network (in several places it is more than 30%), on the other hand to their intensifying erosion due to overgrazing which removes the sensitive layer flora that holds the ground at these points. This results in the high incidence of landslide phenomena in many parts of the roads, especially after an intense weather phenomenon (high intensity rainfall), with high rehabilitation costs. Therefore, addressing the problem requires new, innovative methods of maintaining and restoring them.



Current state of slopes in Samothraki

The method proposed is the hydroseeding technique. Through this, the bare soil is covered with the appropriate endemic plant species. This is carried out with special machines and the use of a mixture of materials which is fired with strong pressure. The covering material (chips and straw) creates a "carpet" that holds the seed in place, conserves soil moisture, resists wind erosion and creates a favorable environment for seed germination (Egnatia Odos, 2006). With this method, the erosion of the surface is achieved as well as the improvement of the soil structure, resulting in the reduction of landslides while enhancing plant cover and biodiversity.



Hydroponics technique (source: Galatsianou A.)

2.3 SUSTAINABLE AND SMART WASTE MANAGEMENT

Waste management is a huge challenge for every Greek destination, as the absence of integrated systems and infrastructure combined with the increased amounts of waste that accompany the presence of tourists during the tourist season (during which the population multiplies), causes not only the creation of hotspots contamination and a significant aesthetic degradation, alongside the environmental impacts (landfills in habitats, water pollution, loss of fauna).

The plan for sustainable and smart waste management on the island supports the current Regional Waste Management Plan (as highlighted above) and incorporates additional innovative and stylish initiatives at the Council and business level to reduce the volume and more rationally manage all waste in the island, as detailed below.

2.3.1 Placement of Special Recycling Bins in Public Spaces

During the summer period, an excessively increased volume of waste of specific categories, such as aluminum beer cans and plastic bottles of soft drinks and water, has been found, which are concentrated in specific parts of the island, and in particular in the squares of Thermen and Kamariotissa and in the two municipal campsites that operate on the island (it should be noted that the return system for the glass bottles of alcoholic beverages already operates in catering or retail stores).

Given the lack of recycling bins as well as the infrequent collection of waste by the Municipality, due to a chronic lack of staff (the collection of recyclable waste is the responsibility of the Municipality, on the contrary, the collection of mixed waste is entrusted to a private person), the problem of the accumulation of waste creates significant problems in the natural environment but also in the aesthetics of popular tourist destinations of the island.

Therefore, this plan provides for the installation of 8 special bins, 4 for aluminum and 4 for plastic (in pairs), for depositing these two types of waste in the 4 points mentioned above, namely:

- ⇒ The 2 Squares of Kamariotissa and Therma.
- ⇒ The 2 Camping Platia and Varades.

The selection of these points is based on the following elements:

- The squares of Kamariotissa and Thermen host a large number of visitors as there are many catering, entertainment and entertainment shops operating in the settlements, while their squares host a number of cultural events.
- The two campsites during the peak season accommodate more than 400 and 1,000 campers.

These interventions should be accompanied by an increase in access points to drinking water (shared taps), especially for Kamariotissa where such points are absent.



The squares in Kamariotissa and Therma, which host a large number of people in the summer season.

As for the format, "innovative" recycling bins in the form of "trash art" have already been installed in various tourist destinations. An indicative example is the neighboring Municipality of Alexandroupolis with the recycling of plastic caps, where heart-shaped bins intended for recycling were placed in various parts of the city (see adjacent photo). This system works in the logic of reciprocity and social corporate responsibility, as the revenues obtained are directed towards the purchase of wheelchairs or the supply of school equipment.



Therefore, the proposal provides for cooperation with a remunerative recycling company for the installation of a total of 8 special construction bins, which will be designed in the spirit of "trash art" (that is, the bins will have the form of an artistic creation - "installation"), and will be governed by specific commitments regarding the regime of reciprocity.

In addition to the above proposal, it is also proposed to place 2 special recycling bins for used clothes and shoes (as in the adjacent image) in Chora and Kamariotissa, as there is no option for recycling clothing items on the island. This practice is governed by the same framework (collaboration with a private company) and the same conditions regarding reciprocity and will complement the policy for the production of zero waste on the island.



2.3.2 Installation of Special Composting Bins with Natural Materials

Based on the fact that approximately 30-35% of household waste is organic, this project proposes the creation of a Neighborhood Composting Network, through the installation of 20 wooden bins in all the settlements of the island. The distribution of these is proposed as below:

| Village | Number of Composting Bins |
|-----------------------|---------------------------|
| Kamariotissa | 7 |
| Chora | 3 |
| Lakomma | 2 |
| Alonia | 1 |
| Prophet Elias | 2 |
| Xiropotamos | 1 |
| Paleopolis | 1 |
| Therma | 1 |
| Ano and Kato Kariotes | 2 |

The aim here is the collective management of organic waste by the inhabitants of the island concerned, on the one hand to reduce the volume of mixed waste, on the other hand to use the compost produced by them for domestic use as a soil conditioner (in the gardens of the houses, within which apart from small orchards are also grown from ornamental plants to cover the household's needs in fruits and vegetables).

Already on the island, at the initiative of the "Sustainable Samothraki" Association, and in collaboration with the environmental group RE:Think (rethink-project.gr), three wooden composting bins were pilot installed in central parts of the island (Kamariotissa and Lakkoma Municipalities as well as in KDAP of the Country), carrying out information actions, through educational learning games, for students, parents, residents and visitors of the island regarding the importance of composting and the correct use of the bin, contributing among other things to the awareness of both residents and visitors.



Wooden composting bin from the team project “Re:Think”. @sustainable-samothraki.net

2.3.3 Creating a Network of Environmentally Responsible Businesses

In related studies on the effects of tourism on waste production, it has been calculated that each visitor produces about 1 kg per day, a quantity which is particularly important, therefore solutions should be promoted to reduce the total volume and to manage it more rationally of them, especially those that burden the environment the most (e.g. plastics). This is achieved through the introduction of the 4R rule (Reduce - Reuse - Recycle - Replenish). It has also been estimated that at least 30% of the waste produced can be recovered and recycled.

The business sector can be an agent of change through the adoption of ecological and economically sustainable practices in terms of waste prevention and residual waste management. It is important to mention that many practices are already adopted by several of them, which will facilitate the wider acceptance by all (if possible) businesses of the proposed measures.

The proposed measures to be adopted concern the following:

| Measure | Category of Enterprise | Description |
|--------------------------------|--|---|
| Eliminate single-use packaging | Food shops | – Eliminate the plastic bag and replace them with either biodegradable or reusable bags. |
| | Cafe – (Beach) Bar | – Removal of plastic coffee/beverage cups and replacement with ecological ones (from organic raw material). – Removal of plastic packaging in mixers and replacement with paper ones. |
| | Food Services | – Eliminating plastic water bottles and replacing them with jugs or glass bottles. – Removal of other packaging (aluminum) in soft drinks or alcoholic beverages and replacement with glass (returnable). |
| Waste separation | Hotels / accommodation Food Services / Cafe Food Shops Production Units Ship / Boats | – Separate sorting of waste with special emphasis on organics. – Organic waste utilization plan for each business (composting for fertilizer or disposal for domestic use, e.g. as feed for domestic animals). – Circular economy applications in the production process (e.g. waste management of an olive growing cooperative). |

2.4 SHIFT TO ORGANIC PRODUCTION / BIODIVERSITY PROTECTION

From the relevant analysis of Action 3.4.2 (WP3) it emerged that the structure of the agricultural economy of Samothrace depended to a large extent on the special geomorphology and the limited available arable land of the island.

The main (or those showing significant prospects) products (primary and processed) produced on the island are as follows:

| <i>Manufactured Products</i> | <i>Production Entity and Method of Disposal</i> |
|-------------------------------------|--|
| ✓ Olive oil and edible olives | As a rule, it is available without standardization and label except for a small quantity traded by 2 private individuals (private label). There is the prospect of standardization through the island's olive growing cooperative. |
| ✓ Honey and propolis | There are honey and propolis products on the market through private labels, which utilize the results of AUTH research on their unique properties. Most of it, however, is available without standardization. |
| ✓ Wine | Viticulture, after many decades, shows signs of recovery through the creation of branded private labels with an emphasis on domestic varieties (malagouzia). |
| ✓ Aromatic plants | The production of essential oils from the cultivation of aromatic plants is a dynamic agricultural activity, but without the required volume of production and recognition. |
| ✓ Beer | A small brewery producing local beer has been operating on the island in recent years. |
| ✓ Goat and sheep meat | Cattle breeding is an important activity on the island and is practiced by individual breeders in an extensive form. |
| ✓ Cheese products | There is a small cheese factory on the island with excellent quality branded cheese products made from goat and sheep milk. |
| ✓ Pasta (flomaria) | They are produced and sold by a Women's Cooperative of the island, with local raw materials (goat's milk and eggs) but in small quantities. |
| ✓ Jams and spoon sweets | They are produced and sold by a Women's Cooperative of the island, with local raw materials (local fruits) but in small quantities. |

The main characteristic of the purchase conditions of the above products is their availability locally, either through catering or through standard on-site distribution channels (stations, specialized stores or small supermarkets). In some cases (oil, wine, honey, beer) there is an attempt to place these in markets of the wider area (mainly in the urban centers of Alexandroupolis and Thessaloniki).

The existing agricultural production system on the island is indicated for its complete transformation into a model of organic agriculture and animal husbandry, an action that will give a significant boost to the agricultural economy of the island, alongside the protection of the natural environment and the rich local biodiversity. The agricultural structure of the island, with a number of olive groves and a significant development of vineyards, as well as pastures, favors the preservation of biodiversity as in these areas, with the appropriate practices (maintenance of plant cover and the diversity of the landscape) they can constitute an important reserve of local biodiversity, alongside the increase in profitability at farm level, actions that for these sectors are already being carried out in other regions of the Mediterranean ("Living Olive Trees" project).

This process is possible due to the favorable conditions that prevail, where two important conditions are met. The first is related to cultivated species, olive groves, vines, grains and livestock plants, crops that do not require special interventions to convert to organic ones (they do not have special needs for pesticides and chemical fertilizers). The second relates to the fact that most farmers and breeders already apply environmentally friendly practices and methods, which facilitates their conversion to organic.



Olive grove in Samothraki @ focustonevro.gr



Animal husbandry in Samothrace (same illustration)

The main step that should be followed concerns the conclusion of an individual or collective contract with a certified organization, which will also provide guidelines regarding the implementation of organic production in practice.

For the more effective and wider participation of the beneficiaries, collective inclusion in the organic certification systems is proposed, through groups of producers or through the existing cooperatives (livestock, olive growing), while reducing the cost of certification and also facilitating the beneficiaries to comply with the requirements of the certification.

In this effort, significant help is expected to be given through the system of agricultural advisors (expected to be put into operation this year) and from studies and implemented projects on the island, such as the program of sown pastures of high biodiversity, which has been implemented since 2018 (see . below photos) and the "Program for the protection and management of critical habitats in the protected areas of Samothrace from overgrazing" which is being developed during this period.

In particular, the first practice, which has been piloted on the island, concerns sowing with seed mixtures (20 species/varieties of legumes and grasses found on Greek islands and capable of being self-sustaining for at least 10 years) that improve productivity and quality of the soil, while at the same time they are more resistant to grazing. This particular practice has given encouraging results (see photos below), however its application is limited (only 13 fields) due to low response of farmers where various social factors do not make them receptive to changes.



State of private pasture before the implementation of the practice of sown pastures (πηγή: sustainable-samothraki.net/).



Pasture condition after application (source: sustainable-samothraki.net/).

These proposals can therefore also contribute to the reduction of the problem of overgrazing on the island, which is mainly found in the excessively large number of sheep and goats (3 times more than the permitted number defined by the carrying capacity of the island)³.



Landscape condition due to overgrazing (same illustration)

The shift to organic production lays the groundwork for improving farmers' income (through increased quality and certification leading to higher selling prices), which is expected to motivate farmers to focus on producing quality products rather than maintaining a large number of animals, just to be financially supported through the C.A.P. subsidies.

³ As pointed out, overgrazing has caused large-scale losses to the natural vegetation and local biodiversity of Samothrace, with the risk of the irreversible situation being visible for the natural environment.

2.5 CONNECTING TOURISM WITH LOCAL PRODUCTION: THE CONCEPT OF THE LOCAL AGREEMENT

One of the main challenges faced by tourism in Samothraki concerns the increase of the added value of the tourist product, alongside the improvement and the diffusion of the income from tourism in the local community. The problem here is found in the value chain of the tourism product and in particular in the low degree of connection of agricultural and processed as well as traditional local products with tourism businesses such as hotels and catering businesses.

It is a joint agreement between businesses and other entities of a region with the aim of ensuring certain minimum criteria related to their operating conditions, the quality of the products produced and the services provided. The concept of quality also includes elements related to the local culture, the particular production practices and finally the physiognomy of the region, which ensures the integrated nature of the project.

The Local Quality Compact is a collective effort that manages the good name and environment of an area. Producers of local products such as farmers, breeders, fishermen, laboratories for standardization or processing of local products, municipalities, chambers of commerce, agricultural and craft cooperatives can participate and be involved in this. The Local Quality Agreement manages, with specifications drawn up and agreed upon for its members, the production and marketing specifications of products and services, environmental requirements, labor relations and conditions, job creation, correct and healthy production conditions and it gives birth to all that can develop with sustainable characteristics an area.

In a few words, the Local Quality Pact aims at an overall positive result, which can be obtained by exploiting the comparative advantages of the area, whether these are local branded quality products or services provided, all tied to the identity of the place.

The creation of a Local Pact is also qualified for the island of Samothraki, which is characterized by high quality and nutritional value products and dishes which, however, in several cases are not preferred by local businesses. In a related research, it was observed that there is considerable scope for local businesses on the one hand to use locally produced products for the preparation of their dishes or breakfasts, on the other hand for the integration of additional traditional recipes and local dishes of the local gastronomy into their menu.

From the above description, two categories of products emerge that can be incorporated into the Local Agreement. The first concerns local products as such, such as:

- a) Fruit and vegetables: vegetables and fruits produced in sufficient (marketable quantities).
- b) Animal products: goat meat from extensive grazing.
- c) Standardized / Processed products: oil, wine, honey, cheeses (with local milk) and local pasta.

On the contrary, the second category concerns local dishes and traditional recipes, the most basic of which are the following:

1. Grilled Goat (free-range) on a spit or in parchment paper
2. Festive Fagi (food = meat): Pilaf with goat or goat and milk.
3. Gorgobrasto with Pilaf: Quickly cooked water-boiled meat of a large animal from the juice of which Pilaf with milk is prepared.
4. Mandi: With roasted minced meat and a sheet of dough in a kettle or oven tray.
5. Molten: Reddish with melted walnuts.
6. Xerotyria: Dried cheeses - myzithres.
7. Pasta: Flomaria, trachanas xinos, gorgi nuts, with seven-yeast batter (kirkoot).
8. Pan-fried with zucchini flowers.
9. Traditional Sweets: Haslamas, halva in a pan and pan respectively.
10. Sweets of the spoon. Cherry fig, quince, prausti (wild plums), walnut, apricot.



Local traditional products and xerotiria @samothraki-tourism.gr



Goat with honey and homemade bean salad @tripadvisor.com.gr, sweet spoon @samothraki-tourism.gr

The three main axes developed through the Local Pact include the following:

- ❖ "Greek Breakfast of Thrace", with the aim of highlighting the local traditional breakfast and connecting it with tourist businesses (hotels, accommodation). This includes more than 30 total local products, namely: a) Pastries (yeasted bread, sesame buns), b) Jams and honey, c) Dairy products (fresh yogurt, ariani), d) Traditional pies ("Milina", "Yufkades", spanakopita), e) Meats ("Kavourmas"), f) Soups ("Varvara", trachanas), g) Sweets ("Sujuk - lokum", halvah with tahini, "malebi", spoon sweets).
- ❖ "Local Gastronomy", with the aim of using local ingredients in the preparation of the dishes but also the inclusion in the menu of local traditional recipes, as described above.
- ❖ "Local Products", with the aim of promoting through local marketing channels locally produced, standardized and non-standard products, as described in the previous pages of this study (vegetables, fruit, oil, wine, honey, cheese, local pasta, etc).

Regarding the categories of businesses that will be included in the Local Agreement, they include the following:

- i. Businesses in the primary sector (fruit and vegetable olive oil production, wineries, beekeepers, livestock breeders, etc.) individual or in collective forms.
- ii. Businesses of standardization - processing of agricultural products (cheese factories, breweries, foundries).
- iii. Trading companies (super markets, local shops, etc.).
- iv. Catering businesses (taverns, cafes - bars).
- v. Accommodation businesses (hotels, guesthouses, traditional accommodations).

Regarding the implementation steps of a Local Quality Agreement, these include the following (in detail in the "Implementation Plan" section):

- Step 1^o Preliminary Procedures:
- Meeting of institutional bodies (Municipality of Samothraki, Association of Professionals, etc.).
 - Informational meetings with businesses in the relevant sectors (hotels, restaurants, cafes, producers, processors, etc.).
- Step 2^o Creating a Pact:
- Setting goals and basic principles.
 - Creation of a business register.
 - Regulation of operation and definition of specifications.
- Step 3^o Agency Recommendation:
- Establishment of a Management Body with the purpose of checking the compliance of businesses with the requirements of the Agreement, the development of training programs (through the provision of certified consultants) and the implementation of

product promotion and promotion activities.

Step 4^o Website creation:

A website will be created on the internet with the aim of informing those interested in joining the business system, informing the consumer public and the market about the certified businesses, as well as promoting and promoting the products and services.

CHAPTER III – CONNECTION WITH GOALS AND EXPECTED RESULTS

The present initiative fulfills a dual goal for the island of Samothrace. On the one hand, it seeks to contribute, in its share, to the achievement of the Union and national objectives for dealing with climate change and the transition to a more sustainable and "green" model. On the other hand, it aims, by making use of the possibilities and opportunities provided by the European Green Agreement, to improve the quality of life of the island's permanent population and also to strengthen its profile as a tourist destination.

3.1 CONNECTION WITH STRATEGIC OBJECTIVES (EUROPEAN GREEN DEAL, JOINT PROJECT STRATEGY) AND REGIONAL AND TARGET AREA PLANNING

The measures proposed in this plan are consistent with the following Union, National, Cross-Border, Regional and Local strategies, as summarized below.

3.1.1 Link to the European Climate Strategy Objectives and the European Green Deal

| | |
|---|--|
| 1. Objectives of the E.U. for Climate for 2030 and 2050 | |
| Achieving climate neutrality by 2050. An intermediate target was set to reduce emissions by at least 55% by 2030, compared to 1990 levels. | |
| <i>Contribution of the Initiative</i> | Contribution to the reduction of the emissions balance but also to the convergence towards the climate neutrality of the island. |
| 2. Union Green Energy Policy | |
| The Renewable Energy Directive envisages the production of 40% of energy from renewable sources by 2030, with an emphasis on addressing the risk of energy poverty. | |
| <i>Contribution of the Initiative</i> | <ul style="list-style-type: none"> – Creation of a wind park for energy production to cover part of the Municipality's needs. Energy production through the Energy Community -> ensuring energy democracy and reducing energy poverty. |

3. Union Policy for the Circular Economy

Aiming that the resources used will remain in the economy as much as possible, including through:

- a) strengthening the reuse of packaging, and the abolition of single-use plastics,
- b) the reduction of produced waste, its separate collection and recycling.

Contribution of the Initiative

- Creation of an integrated waste management system with an emphasis on aluminum and plastic packaging, as well as organic waste.
- Support for remunerative recycling and utilization of waste (organic waste for compost production).
- Encouraging the use of packaging from the circular economy chain (such as biodegradable bags, disposable cups made from recyclable material).

4. Union Policy for the Energy Upgrade of Buildings

Doubling the renovation rate of the building stock compared to today (around 1%), with an emphasis on their energy efficiency, energy saving and energy autonomy (for public buildings).

Contribution of the Initiative

- Encouraging the energy autonomy of municipal buildings through the installation of photovoltaic panels.
- Encouraging the energy upgrading of hotel units.

5. Union Policy for Sustainable Transport and Green Mobility

It aims to reduce transport emissions by 90% by 2050, including by encouraging electrification of road transport.

Contribution of the Initiative

- Encouraging the use of electric vehicles, through the installation of charging stations and the rental of electric vehicles. to visitors.
- Encouraging the use of environmentally friendly means (residents and visitors) such as electric bicycles.

6. EU Agri-Food Policy: The Farm to Fork Strategy

Seeks to change the food production and consumption system towards a sustainable model of healthy and affordable food production with a low environmental footprint.

Contribution of the Initiative

- Encouraging organic production in basic agricultural products.
- Strengthening of local gastronomy through the inclusion of local materials and recipes in the focus and highlighting of local products.

7. European Strategy for the Conservation of Biodiversity

It aims to protect habitats and local biodiversity.

Contribution of the Initiative

- Promotion of local varieties used in agriculture.
- Protecting the environment by reducing waste, especially in the sensitive Natura 2000 areas of the island.

3.1.2 Link to National Climate and Green Development Policies

| | |
|--|---|
| 1. Link to the Revised National Climate Goals (E.S.E.K.) | |
| – Share of RES in Gross Final Energy Consumption | ≥35% |
| – Reduction of Greenhouse Gases | ≥42% compared to 1990, ≥56% compared to 2005 |
| – Participation in clean electricity production (for 2030) | 17% |
| 2. Link to the Objectives of the National Strategy for the Circular Economy | |
| – <i>Circular City Guide</i> , for the support of LGs through the use of smart cities technologies. | |
| – <i>Sustainable Consumption</i> , through the abolition of single-use plastics and taking actions to reduce food waste and increase household and shop recycling. | |
| 3. Link to the Objectives of the National Built Environment Policy | |
| – Combined use of energy saving technologies, efficient lighting systems and use of renewable energy sources in public and private buildings. | |
| 4. Link to the National Policy Objectives for Sustainable Transport and Green Mobility | |
| – Creating infrastructure and undertaking actions to promote electrification in road transport. | |
| – Taking actions to strengthen cycling (according to the National Strategy for Cycling). | |
| 5. Link to the Objectives of the National Plan for the Agri-Food Sector | |
| – Encouraging the implementation of agri-environmental measures, such as organic farming and animal husbandry and the establishment of agroforestry systems. | |
| – Contribution to increasing the added value of the products. | |
| – Promotion of quality food products of high nutritional value and connection of the agricultural sector with other sectors, such as tourism. | |
| 6. Link to the Goals of the National Strategies for Biodiversity and Adaptation to Climate Change | |
| – Preservation of the genetic material of plant genetic resources. | |
| – Mitigating the effects of climate change on basic infrastructure. | |
| – Preservation of the diversity of the landscape and elements of the countryside in areas whose character is the result of the action and interaction of natural and/or anthropogenic (economic, social and cultural) processes. | |
| – Promotion of areas through the promotion of alternative forms of tourism (ecotourism, nature tourism, agrotourism) in protected and other areas. | |

3.1.3 Connection with the Objectives of the Joint Strategy of the Project

This Guide with the Action Plan to be implemented is developed in accordance with the general directions, priorities and thematic and specific objectives of the Cooperation program "INTERREGV-A Greece-Bulgaria 2014-2020".

In particular:

| | |
|----------------------------------|--|
| <i>Priority Axis 2:</i> | Sustainable and climate adaptable cross-border region. |
| <i>Thematic Objective 06:</i> | Preserving and protecting the environment and promoting resource efficiency. |
| <i>Investment Priority (6d):</i> | Protecting and restoring biodiversity and promoting ecosystem services, including the NATURA 2000 network. |
| <i>Special Target 5:</i> | Enhancing the effectiveness of biodiversity protection activities. |
| <i>Action Category:</i> | Development of common strategies and processes (and their pilot applications) for sustainable resource management, green infrastructure development and biodiversity protection. |

At the same time, this Action Plan contributes to the implementation of the objectives of the Joint Strategy developed in the context of the "Green Urban Territories - Better Place to Live" project, which sets as its General Strategic Objective:

“increasing the well-being of the population while protecting the environment and achieving sustainable and balanced development”.

In more detail, the implementation of this contributes to the following Strategic Goals and Priorities:

| | |
|---------------------------------|---|
| <i>Strategic objective № 1:</i> | Improving the status of components and environmental factors. |
| <i>Priority 1.1:</i> | Maintaining and improving the quality of environmental resources. |
| <i>Applicable measures:</i> | |
| <i>Measure 1.1.1:</i> | Conducting information campaigns to motivate the population to switch to alternative sources of heating. |
| <i>Measure 1.1.3:</i> | Improving the condition of the road network through energy saving interventions. |
| <i>Measure 1.1.7:</i> | Conducting campaigns for awareness and responsibility in the implementation of ecological agricultural and livestock practices. |

| | |
|---------------------------------|---|
| <i>Priority 1.3:</i> | Sustainable waste management, aiming to reduce the volume of waste that ends up in landfills and increase the share of waste that is separately collected and recycled to support the circular economy and the protection of the environment. |
| <i>Applicable measures:</i> | |
| <i>Measure 1.3.1:</i> | Improving systems for the collection, pretreatment and recovery of different waste streams. |
| <i>Measure 1.3.2:</i> | Stimulation of home composting. |
| <i>Measure 1.3.3:</i> | Application of good practices in waste management and experience of Svilengrad Municipality in the territory of other Municipalities. |
| <i>Measure 1.3.4:</i> | Public awareness and education actions. |
| <i>Strategic objective № 2:</i> | Reduction of negative impacts on flora, fauna, soil and water. |
| <i>Priority 2.1:</i> | Restoration, reforestation and maintenance. |
| <i>Applicable measures:</i> | |
| <i>Measure 2.1.4:</i> | Reducing wildlife losses. |
| <i>Strategic objective № 3:</i> | Reducing harmful emissions into the atmosphere and carbon footprint. |
| <i>Priority 3.2:</i> | Use of environmentally friendly forms of transport |
| <i>Applicable measures:</i> | |
| <i>Measure 3.2.2:</i> | Implementation of measures to stimulate cycling and pedestrian traffic. |
| <i>Measure 3.3.1:</i> | Creating possibilities for the implementation of an infrastructure for charging vehicles powered by electric energy. |
| <i>Strategic objective № 9:</i> | Developing an environmentally friendly local economy. |
| <i>Priority 9.1:</i> | <p>Transition to a more sustainable, responsible and intelligent tourism, with objectives (among others):</p> <ul style="list-style-type: none"> ✓ Conservation of natural and man-made resources and prevention of their degradation (especially for protected areas). ✓ Reduction of the environmental footprint of tourist activities. ✓ Improving the conditions of the visitors' stay at the destination (options for light means of transport, waste management, etc). ✓ Connecting tourism with other sectors (agricultural production, processing). |

| | |
|--|--|
| <p><i>Applicable measures:</i></p> <p><i>Measure 9.1.4:</i></p> <p><i>Measure 9.1.5:</i></p> <p><i>Measure 9.1.6:</i></p> <p><i>Measure 9.1.8:</i></p> | <p>Protection of the environment from the tourism sector.</p> <p>Stimulating the introduction of sustainable environmental management systems.</p> <p>Stimulating the application of a circular tourism management model.</p> <p>Networking / synergies (local brand).</p> |
| <p><i>Priority 9.2:</i></p> | <p>Transition to sustainable, responsible and smart businesses.</p> |
| <p><i>Applicable measures:</i></p> <p><i>Measure 9.2.1:</i></p> <p><i>Measure 9.2.3:</i></p> | <p>Promotion of environmentally friendly practices, introduction of ecological certificates and a circular approach to operation.</p> <p>Strengthening the image of the area as an ecological destination.</p> |
| <p><i>Strategic objective № 10:</i></p> | <p>Building sustainable food supply chains.</p> |
| <p><i>Priority 10.1:</i></p> | <p>Reducing the carbon footprint of agri-food.</p> |
| <p><i>Priority 10.2:</i></p> | <p>Reducing impacts on agricultural ecosystems.</p> |
| <p><i>Applicable measures:</i></p> <p><i>Measure 10.1:</i></p> <p><i>Measure 10.2:</i></p> <p><i>Measure 10.3:</i></p> | <p>Reducing food waste and the use of plastic food packaging.</p> <p>Increase areas for organic farming, establish and comply with clear rules to protect protected areas from agricultural activities.</p> <p>Creating short food supply chains.</p> |

3.1.4 Connection with the Regional and Municipal Development Strategies

This Guide with the Action Plan to be implemented is also in line with the aspirations and development priorities at the level of the AMTH Region, as reflected in its Operational Plan, which is oriented towards the following:

- ✓ In changing the philosophy of its production model towards a more sustainable model.
- ✓ In improving accessibility and creating a more sustainable transportation system.
- ✓ In the transformation of the area as a tourist destination of excellence.
- ✓ In the strengthening of social cohesion.

More specifically, the priorities per intervention area that coincide with the aims of this Action Plan are located in the following:

| <i>Sector</i> | <i>Priorities</i> |
|----------------------------|--|
| <i>Natural environment</i> | Development of environmental responsibility through information/awareness of citizens. |

| | |
|-------------------------------------|--|
| <i>Natural resources</i> | Promotion of energy savings in production, transport and the building sector. |
| <i>Energy</i> | Attracting investments in the production of energy from RES (wind, PV, biomass) with the aim of increasing the installed capacity from clean energy sources. These investments should be in harmony with the environment and the energy transmission network. |
| <i>Environmental Infrastructure</i> | Improvement of the waste management system by better utilization of the various flows (recycling, composting, energy production). |
| <i>Tourism</i> | <p>Improvement of infrastructure with certified services.</p> <p>Development of soft tourism with protection and sustainable management of the environment while providing certified pro-environmental services and products.</p> <p>Increasing the recognition of the region as a tourist destination</p> |
| <i>Agri-food</i> | Ensuring a dynamic endogenous development by exploiting dynamic (emerging) products and strengthening the competitiveness of businesses, completing the value chain and strengthening extroversion. |
| <i>Social cohesion</i> | Services to combat extreme poverty and support social solidarity. |

Regarding the island of Samothraki, the Initiative comes to promote the guiding political options at the level of the Municipality for its sustainable development course, which are specialized in the following:

- The promotion of quality agricultural and livestock products.
- The upgrading and utilization of municipal tourist infrastructures.
- The improvement of waste management.
- The protection of the flora and fauna of the island.

Also, it is noted that this Action Plan aspires to strengthen, at the implementation level, the philosophy of the submitted application of the island for the inclusion of Samothrace in the World Network of Biosphere Reserves of Unesco, i.e. as a protected area with characteristics sustainable development.

3.2 EXPECTED RESULTS AND BENEFITS FROM ITS APPLICATION

The main objective of this Guide together with the proposed Action Plan is to contribute to the development of the main economic pillars of the island, i.e. tourism and the agri-food sector, as well as to the improvement of social cohesion, especially for the most sensitive groups of the local population.

In detail, the expected benefits from the implementation of this Initiative per axis of intervention are presented below:

| | |
|--|---|
| Axis of Intervention | <p><i>Energy Autonomy using R.E.S. / Energy upgrade</i></p> <ul style="list-style-type: none"> ● Wind farm installation through Energy Community. ● Upgrade of street lighting (LED). ● Energy autonomy of municipal buildings. ● Energy autonomy of accommodation buildings. |
| <i>Expected Benefits</i> | |
| <ul style="list-style-type: none"> ☑ Creation of an additional source of revenue for the Municipality -> their utilization for development purposes. ☑ Saving resources from the reduction of energy costs borne by the Municipality through energy savings in municipal buildings and in street lights (more than 70%). ☑ Upgrading of lighting, especially in areas of great tourist interest which are nevertheless not sufficiently lit (e.g. Therma), with the added benefit of improving the safety of movement of drivers and pedestrians. ☑ Participation of the local population in energy production (energy democracy). ☑ Mitigating the phenomenon of energy poverty, through the reduction of electricity bills in the most vulnerable households (through net metering). ☑ Reduction of the environmental footprint as well as the operating costs of municipal businesses. | |
| Axis of Intervention | <p><i>Electric mobility and sustainable Mobility</i></p> <ul style="list-style-type: none"> ● Electrification of public vehicles, public transport vehicles and vehicles for hire. ● Installation of electric vehicle charging stations. ● Enhancing the use of bicycles (electric and conventional). ● Electrification of fishing boats and pleasure boats. ● Slope restoration with biodiversity enhancing practices. |
| <i>Expected Benefits</i> | |
| <ul style="list-style-type: none"> ☑ Reducing the energy costs of municipal transport. ☑ Preventing the destruction of the road network and increasing the plant cover of degraded areas. ☑ Possibilities of serving residents and visitors of the island who bring electric vehicles (as it is largely road tourism). ☑ Alternative service possibilities for residents and visitors for their movements in the various parts of the island. | |

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| <input checked="" type="checkbox"/> Reduction of the environmental footprint of tourist services. | |
| Axis of Intervention | <i>Sustainable and Smart Waste Management</i> <ul style="list-style-type: none"> ● Placement of Special Recycling Bins. ● Placement of Special Composting Bins. ● Creation of a Network of Environmentally Responsible Businesses. |
| <i>Expected Benefits</i> | |
| <input checked="" type="checkbox"/> Reduction of waste that ends up in waste management units -> reduction of waste management costs. | |
| <input checked="" type="checkbox"/> Reduction of pollution of natural areas, protection of wild fauna from the disposal of plastics in the environment. | |
| <input checked="" type="checkbox"/> Utilization of recyclable materials (plastic, aluminum, glass) or organic waste for the production of new products (reuse of aluminum materials, compost production). | |
| <input checked="" type="checkbox"/> Improving the attractiveness of the area as a tourist destination. | |
| Axis of Intervention | <i>Turning to Organic Production</i> <ul style="list-style-type: none"> ● Production of organic agricultural and livestock products. ● Implementation of environmentally friendly farming and animal husbandry practices. ● Certification of agri-food products. |
| <i>Expected Benefits</i> | |
| <input checked="" type="checkbox"/> Improving the quality and nutritional value of the products produced. Reduction of the need for inputs (fertilizers, pesticides) -> reduction of production costs. | |
| <input checked="" type="checkbox"/> Creation of added value to produced products -> increase in producer prices and farm income. | |
| <input checked="" type="checkbox"/> Enhancing biodiversity and addressing soil erosion and degradation. | |
| Axis of Intervention | <i>Connecting tourism with Agricultural Production (Local Pact)</i> <ul style="list-style-type: none"> ● Application of "Greek Breakfast of Thrace" in the hotel industry. ● "Local Gastronomy" (local ingredients and recipes) in catering. ● "Local Products" in distribution channels. |
| <i>Expected Benefits</i> | |
| <input checked="" type="checkbox"/> Upgrading the tourist product and the tourist identity of the island, through the integration of local gastronomy. | |
| <input checked="" type="checkbox"/> Upgrading the quality of the products and services provided. | |
| <input checked="" type="checkbox"/> Increasing demand for local products and improving the business environment through strengthening partnerships between local businesses. | |
| <input checked="" type="checkbox"/> Development of agricultural holdings with complementary alternative tourism activities (agritourism, culinary tourism, wine tourism, etc.). | |
| <i>Possibilities from the Implementation of the Plan in a wider context for the Island</i> | |
| <input checked="" type="checkbox"/> Utilization of the island's rich wind potential for the benefit of Municipalities and residents (energy that enjoys wide acceptance by the local population), with the aim of limiting carbon dioxide emissions and protecting the environment. | |
| <input checked="" type="checkbox"/> Strengthening the profile of the island as an area for attracting investment projects with an | |

emphasis on green development and green technologies, following the example of other islands with similar characteristics, such as Astypalaia, Chalki, Ai Stratis, etc.

- ☑ Improving the living conditions of residents and visitors.
- ☑ Strengthening the awareness of residents and visitors about environmental issues.
- ☑ Improving the development prospects of the agri-food sector and by extension the agricultural income and the local economy.
- ☑ Development of environmental awareness of tourism businesses and improvement of their environmental performance, resulting in the reduction of tourism's environmental footprint.
- ☑ Strengthening the attractiveness of the island and establishing it as a "green" destination, giving further impetus to its recognition in the international tourist market and penetrating categories of tourists who carry the profile of the "green/responsible tourist" (with its main characteristic being awareness of environmental issues, chooses local products and services with a low footprint and seeks information about the practices implemented by a destination).
- ☑ Strengthening the local economy, through the increase in demand for local products and services and the interconnection of tourism with the environment and agri-food.

CHAPTER IV – SWOT ANALYSIS OF THE PROPOSED INITIATIVE

The proposed initiative includes an integrated action plan for the island of Samothrace which is developed in 5 main thematic axes (a) energy production, b) transport, c) waste management, d) agricultural sector, e) tourism), actions which include all levels of local government (Region of A.M.Th., Municipality of Samothraki), the institutional representatives of the economic activity of the island (professional association, cooperatives), the professionals (hotels / accommodation, restaurants, shops, etc.) and the farmers / livestock farmers, as well as the organized and non-collectivities of the civil society, and of course the households and the residents and visitors of the island.

The response of the target groups to the implementation of the proposed projects, actions, practices or actions depends on a series of factors linked to the character of the island as an administrative, economic and social whole, but also the prospects arising from the developments of the external environment (promoted strategies, development tools, etc).

Therefore, in this section a brief analysis of the current position of the intervention area (Samothraki Municipality) and an assessment of the internal environment (strengths and weaknesses) as well as an assessment of the perspectives of the external environment (opportunities and threats) presented in the immediate and long-term future, on the basis of a diagnostic SWOT analysis, from which the possibility and the degrees of difficulty in implementing the proposals of this research will emerge.

This recording is very important as it will provide the opportunity, at the implementation level, to make a first assessment of the implementation possibilities of the proposed actions, and to contribute to the better adaptability and effectiveness of the adopted tools, in order to achieve the set goals. The above can be grouped in the table below:

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| <p>Strengths</p> <ul style="list-style-type: none"> ○ Existing (natural and artificial) infrastructures ○ Institutional framework ○ Adopted practices ○ Human resources | <p>Weaknesses</p> <ul style="list-style-type: none"> ○ Existing problems ○ Availability of resources and funds ○ Social restrictions |
| <p>Opportunities</p> <ul style="list-style-type: none"> ○ Promoted growth strategies ○ Economic and political developments ○ Availability of financing | <p>Threats</p> <ul style="list-style-type: none"> ○ Institutional obstacles ○ Environmental degradation ○ Inability to change |

The results of the SWOT analysis (per thematic field) are summarized in the following tables.

| Strengths | Weaknesses |
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| <p>1. Energy Production from R.E.S. (small wind farm)</p> <ul style="list-style-type: none"> ✓ Existence of rich wind potential and inclusion of the island in the spatial planning of the A.M.Th Region as a "high wind priority" area. ✓ Connecting the island to the national electricity distribution network through a double submarine cable 92 km long that ends at the PPC installation north of Kamariotissa, which does not require the installation of a storage system, making the investment plan more economically feasible. ✓ The decision of the Minister of for the inclusion of Mount Saos in the status of "Deceited Mountains", which protects the island from the installation of large-scale RES projects which will alter the natural environment. ✓ The establishment of an Energy Community in which the Municipality of Samothraki participates, which could cover the high cost of its construction. ✓ The installation of a wind farm to meet the needs of the island is widely accepted among the local population. | <p>1. Energy Production from R.E.S. (small wind farm)</p> <ul style="list-style-type: none"> ✓ The high investment cost (close to €1.5 million) which makes it prohibitive to undertake such a scale of investment exclusively by the Municipality (limited resources) and the local community (low savings). ✓ The limited capacity of the network in the area of P.E. Evros in terms of power absorption from RES stations. ✓ Yearly bureaucratic procedures for the licensing by the Energy Regulatory Authority (RAE) of each application. ✓ The increasing number of applications to the R.A.E in the area. ✓ The existing submarine cable is old, resulting in the loss of electricity in the network and, by extension, lower efficiency and profitability of the investment. ✓ The established Energy Community remains inactive. ✓ The amended legislation (Law 4843/2021) takes away important privileges from the Energy Communities (e.g. regarding the priority in the granting of licenses and connection conditions). |
| <p>2. Energy upgrade of municipal buildings and accommodation</p> <ul style="list-style-type: none"> ✓ The rich solar potential on the island. ✓ The existence of sufficient surface area (rooftops and roofs) in municipal buildings and hotels / accommodation, which offers the possibility of installing photovoltaic panels for the needs of each building. | <p>2. Energy upgrade of municipal buildings and accommodation</p> <ul style="list-style-type: none"> ✓ The majority of municipal buildings, as well as private buildings that function as accommodation, are old (before 1990) and consequently of low energy class, which makes their energy upgrade quite costly. ✓ The limited available resources of the Municipality and the owners of the accommodation are an obstacle to the possibility of implementing an energy upgrade or saving project. |

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| <p>3. Electrification and sustainable mobility</p> <ul style="list-style-type: none"> ✓ The installation of an electric vehicle charging station and the supply of electric bicycles through the "Green Urban Territories" project. ✓ The profile of the island's visitors characterized by high ecological sensitivities, consequently they choose low-emission means of transportation. ✓ The existence of large companies that can support interventions in the context of its social corporate responsibility (CSR). | <p>3. Electrification and sustainable mobility</p> <ul style="list-style-type: none"> ✓ The lack of electric vehicles on the island during the summer season. ✓ The non-existence of a cycle path network. ✓ The poor condition of the road network with continuous landslides due to erosion of the slopes. |
| <p>4. Sustainable waste management</p> <ul style="list-style-type: none"> ✓ The non-use of plastic water bottles in restaurants and other businesses thanks to the abundance of clean and potable water. ✓ Large number of households with garden yards and domestic animals, which consume organic household waste, instead of throwing it in bins. ✓ The existence of several initiatives aimed at stimulating environmental awareness and the implementation of recycling methods (such as action on composting). ✓ The visitor profile characterized by environmental sensitivities evidenced by the good condition of the island's natural attractions in terms of littering them. | <p>4. Sustainable waste management</p> <ul style="list-style-type: none"> ✓ The low recycling rate (blue bins) of the island's residents. ✓ The problematic situation of the waste collection system (inland transportation), especially during the summer months. ✓ The increased volume of waste during the tourist season, which leads to foci of pollution and aesthetic degradation in important tourist centers of the island. |
| <p>5. Organic production and biodiversity enhancement</p> <ul style="list-style-type: none"> ✓ The existence of a rich stock of biodiversity that composes a unique natural landscape. ✓ The applied cultivation practices of low inputs and plant protection applied to the crops of the island, which makes it relatively easy to convert them into organic ones (olive groves, vineyards). ✓ The existence of local varieties of plant production. | <p>5. Organic production and biodiversity enhancement</p> <ul style="list-style-type: none"> ✓ The small size of the agricultural holdings and the low turnover. ✓ The excessively large number of goats that exceeds the limits of the carrying capacity of the island, with the result that the phenomenon of overgrazing is an important factor that causes a decrease in biodiversity, soil erosion and degradation, and a decrease in the productivity of pastures. |

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| <ul style="list-style-type: none"> ✓ The excellent quality of the produced products of vegetable (oil, wine, olives, vegetables, grains) and animal origin (goat meat, cheese products). ✓ The contribution of agri-food products to shaping the island's tourism product and the island's popularity as a culinary destination. | <ul style="list-style-type: none"> ✓ The low response of livestock farmers to practices to improve their pastures. ✓ The continued increase in the cost of feeding animals, both due to increasing imports and due to the increase in feed prices. ✓ The limited quantities of agricultural products produced due to low yields and limited areas. ✓ The limited quantities of cheese products due to lack of basic infrastructure and equipment (cheese making facilities, ice trays). ✓ The limited actions of standardization and generally increasing the added value of local products}. |
| <p>6. Link tourism - local production (local pact)</p> <ul style="list-style-type: none"> ✓ The existence of processing units for specific categories of products (cheese, oil, wine, sweets, pasta, beer, etc.). ✓ The presence of shops catering and selling local products that emphasize local tastes, products and recipes. ✓ The existence of informal synergies between farmers - stores, as well as cases of verticalization (agricultural holding / restaurant). ✓ The existence of organized bodies that represent the specific sectors (association of professionals, olive growing and livestock cooperatives) but also other business schemes (Com.Co.En.). | <p>6. Link tourism - local production (local pact)</p> <ul style="list-style-type: none"> ✓ The small production volume of some high-quality product categories. ✓ The limited quantities of certain categories of high-value products (fruits, vegetables, dairy, olive oil, spirits). ✓ The small number of certified or standardized products. ✓ The limited number of catering outlets. ✓ The difficulties (due to production volume and high transport costs) of selling the products to other markets. |

| Opportunities | Threats |
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| <p>1. Energy Production from R.E.S. (small wind farm)</p> <ul style="list-style-type: none"> ✓ The opportunities presented by the Union Strategy for the production of 40% of energy from renewable sources by 2030. ✓ The expected completion of the new special zoning for R.E.S. but also the new legislative framework for speeding up the procedures for investments in R.E.S. ✓ The investment opportunities from the implementation of the new NSRF (2021-2027) and the new P.E.P. of the A.M.T. Region, which selects investment projects in R.E.S. ✓ In the same context, the Ministry of Environment and Energy has announced the commitment of one billion euros for investment projects for the green transition and energy autonomy of the islands (project GR - Eco Islands), with the aim of mobilizing public and private resources. ✓ Additional financing opportunities from bank lending that promote "green" investments. ✓ Financing from the Recovery Fund ("Greece 2.0" Project) of projects to upgrade the national distribution network and projects to increase the capacity of DEDDIE substations in order to be able to receive more energy from RES units. ✓ Opportunities to attract investors projects from the inclusion of the island in the category of "green islands". | <p>1. Energy Production from R.E.S. (small wind farm)</p> <ul style="list-style-type: none"> ✓ The risk that the region will be left out of the plans for investment in RES projects of this category. ✓ The risk of saturation of the network and its non-upgrading in the area under study, with the consequence that all new applications for licensing will be frozen. ✓ The risk from the impossibility of implementing such an investment by the Municipality and the local population (through the energy community) and the undermining of these by "big", private investors. ✓ The bureaucratic procedures, which can significantly delay the project in question (at least 5 – 8 years for the completion of the project according to similar cases). ✓ The risk that Samothraki will be left out of the eligible islands of the GR - Eco Islands project, as it is currently excluded in this planning, while other small (up to 5,000 inhabitants) island destinations (40 in total) are qualified. ✓ The risk (in case of implementation) of burdening the ecosystem and biodiversity from the installation of the wind farm. |
| <p>2. Energy upgrade of municipal buildings and accommodation</p> <ul style="list-style-type: none"> ✓ The planned announcement of the "ELEKTRA" public buildings energy upgrade program with a significant budget (640 million euros). ✓ The possibility of financing municipal buildings (schools, etc.) for their | <p>2. Energy upgrade of municipal buildings and accommodation</p> <ul style="list-style-type: none"> ✓ Risk of non-participation in the "ELEKTRA" program due to inability to cover own participation and due to inability to fulfill certain conditions (property status, surface area > 500 sq.m.). |

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| <p>energy upgrade from the P.E.P. of the Region A.M.Th.</p> <ul style="list-style-type: none"> ✓ The availability of various financial tools for the energy upgrade of accommodation and energy saving ("Green Tourism" program, LEADER, etc.). ✓ The improvement of the economic viability of accommodation through reduced energy costs and the possibility of extending their operation over time are an important incentive for the adoption of such measures. ✓ The opportunities to increase tourist traffic on the island through the improvement of the conditions of stay of the visitors (upgrading of accommodation conditions). ✓ The opportunities opened up to increase tourist demand and extend the tourist season both from the availability of accommodation and from the promotion of the island as a "green destination", which is demonstrated by the current tourist trends to choose climate-responsible accommodation. | <ul style="list-style-type: none"> ✓ The limited availability of resources for the energy upgrade of municipal buildings from the P.E.P. of the Region and the high competition. ✓ The financial difficulties in funds for most accommodations due to limited income coming from the limited tourist season. |
| <p>3. Electrification and sustainable mobility</p> <ul style="list-style-type: none"> ✓ The availability of resources from the Ministry of Environment for smart transport and interventions in street lighting (to save energy). ✓ The existence of additional funds from EU programs (Connecting Europe initiative) to implement "green" actions in the transport sector. ✓ The opportunities to stimulate road tourism by attracting tourists who own electric cars. ✓ The opportunities from the improvement of the road network and the increase of the plant cover of the island. ✓ The opportunities to increase tourist traffic on the island through the improvement of the conditions of stay of the visitors (choices of gentle forms of transport) but also through the improvement of the tourist | <p>3. Electrification and sustainable mobility</p> <ul style="list-style-type: none"> ✓ Risk of not expanding the choice for electric vehicles, due to the reluctance of rental companies to acquire electric cars for rent. ✓ The poor condition of the road network which can cause problems (e.g. damage to tourists' electric vehicles which are expensive models, a cyclist accident due to lack of cycle paths or generally unsafe road network), which can lead to reduced interest for zero-emission transport options. ✓ Likewise, the poor condition of the road network which makes accessibility to tourist attractions difficult. ✓ The geographical isolation of the island which makes it difficult for the presence of machinery to restore the slopes. |

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| <p>product (establishment of the institution of an annual bicycle ride along the coastal zone of the island).</p> | |
| <p>4. Sustainable waste management</p> <ul style="list-style-type: none"> ✓ The launch of the construction of a Waste Treatment Unit and a landfill, as well as the placement of two "Green Points" for bulky waste. ✓ The possibility of entering into partnerships with remunerative recycling companies. ✓ The improvement of the waste management system with "sorting at source" practices. ✓ The prospects for the tourism development of the island through strengthening its profile as a "green and plastic free destination". | <p>4. Sustainable waste management</p> <ul style="list-style-type: none"> ✓ The risk of over-accumulation of waste from the continued non-taking of additional actions by the creation of pollution hotspots that, apart from the health and environmental effects, create a negative impression, from an aesthetic point of view, on visitors. |
| <p>5. Organic production and biodiversity enhancement</p> <ul style="list-style-type: none"> ✓ The promoted Strategy for the new C.A.P. "From Farm to the Fork", which emphasizes organic farming and animal husbandry and more generally the production of quality and high nutritional value products with a low environmental footprint. ✓ The orientation of the resources of the new C.A.P. for the "green" transformation of the agricultural and livestock sector (ecological schemes, agroforestry systems, organic agriculture and animal husbandry, etc.). ✓ Leveraging existing knowledge from proven rangeland improvement practices (such as the Biodiversity Enhanced Sown Rangeland programme). ✓ The use of grazing management plans to be implemented and other related studies (study of protection and management of critical habitats in Samothrace from overgrazing). ✓ The continued increase in the demand of tourists and consumers for the supply of quality and organic products (by extension also the increase in | <p>5. Organic production and biodiversity enhancement</p> <ul style="list-style-type: none"> ✓ The risk of further burdening the ecosystem due to not taking timely measures to protect them, a development that will undermine the sustainability of this effort. ✓ The inability (due to additional financial burden or lack of technical training) or the reluctance of producers and breeders to engage in such a change in their production method. |

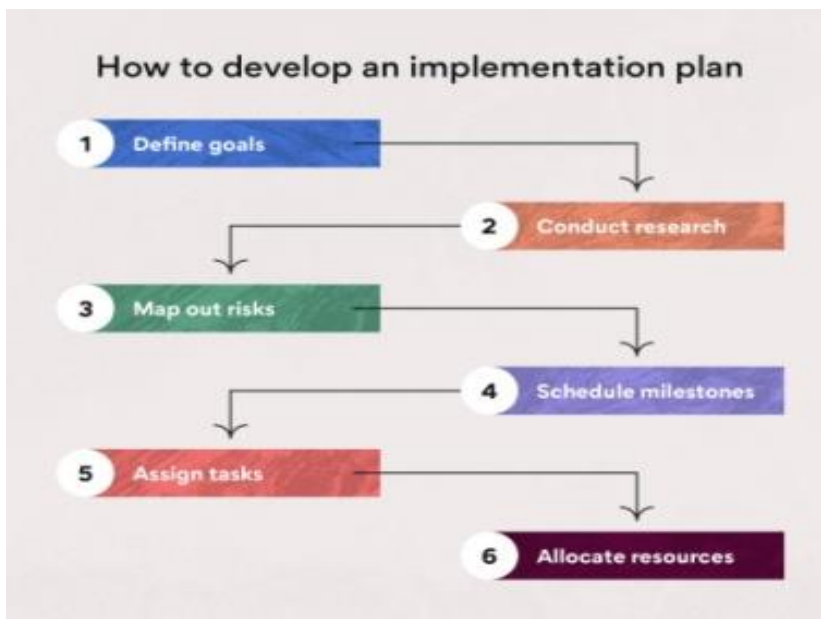
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|---|---|
| <p>producer prices and agricultural income) as a motivation for the shift to organic production.</p> <ul style="list-style-type: none"> ✓ Prospects for the development of agricultural holdings through complementary activities ✓ The contribution to the profile of the island, as a tourist destination, from its potential characterization as a biological island. | |
| <p>6. Link tourism - local production (local pact)</p> <ul style="list-style-type: none"> ✓ The creation of a new understanding of the importance of promoting local products, as an integral part of the place's identity as a destination, mobilizing the productive potential of the island. ✓ The utilization of existing synergies and networks as a model for the development of the local pact. ✓ Taking advantage of the growing tourist flow during the summer season as well as the shift of tourists to local flavors and products. ✓ The possibility of improving the tourism product of the island through actions to promote culinary tourism or agritourism (visitable farms), with multiple benefits for local (commercial and agricultural) businesses. | <p>6. Link tourism - local production (local pact)</p> <ul style="list-style-type: none"> ✓ The observed reluctance to cooperate or engage in cooperative schemes, which entails the risk of not reaching the desired number of professionals in the Pact. ✓ The limited quantities in product categories that can in practice create problems for the implementation of the Agreement. ✓ The risk of incorrect application of the specifications by some members, with the consequence that there is a risk of undermining the solvency of the Pact. |

CHAPTER V –

IMPLEMENTATION PLAN, FINANCIAL ANALYSIS AND IMPLEMENTATION SCHEDULE

The implementation plan ("implementation plan") of this initiative follows the appropriate methodology (development by stages) that is followed in every implemented project that includes actions to capitalize on the research results that precede it (see also Joint Strategy of this Project).

Schematically, the stages of actions that lead to the completion of the implementation of the initiative are illustrated in the figure below:



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For the successful planning and implementation of the initiative, the following parameters were taken into account:

- Targeting** The target price is recorded for each action of the initiative, depending on the nature of each one (e.g. number of businesses that are part of the quality agreement, number of placed recycling bins, number of electric bicycles, etc).
- Economic / Financial** It refers to the financial possibility of implementing each proposal. Here the level of implementation costs and the possibility of covering them through financial programs or other sources are examined.
- Institutional / Legal** The institutional framework that frames the implementation of the initiative is mentioned, which can speed up or delay its implementation.
- Time fame** An assessment of the implementation schedule of each stage / sub-action is carried out.

In detail, the course of implementation of the initiative is reflected in the following table:

| a/a | Category of Intervention | Action | Implementation Cost | Stages/ Implementation Timeframe | Expected Results | |
|-----|----------------------------------|----------------------------------|---|---|--|--|
| 1.1 | Energy Autonomy / Energy Upgrade | Wind farm installation | 1.500.000€ | <ul style="list-style-type: none"> ○ Decision of the Agency (En.Com.) for the implementation of the project. ○ Assigning file compilation. ○ License granted by R.A.E. ○ Commitment of funds (own resources, bank loan, grant). ○ Announcement of a tender to find a contractor for project construction. ○ Project completion and commissioning. | <ul style="list-style-type: none"> - 4^o semester 2022 - 2^o semester 2023 - 1^o semester 2025 - 4^o semester 2026 - 2^o semester 2027 - 2^o semester 2028 | Creation of a wind farm to cover the energy needs of the island. |
| 1.2 | | Road network upgrade | 400.000€ | <ul style="list-style-type: none"> ○ Decision of the municipality's Council. ○ Drafting of a technical study of street lighting. ○ Project inclusion in a financial program. ○ Announcement of a tender to find a contractor for project construction. ○ Project completion. | <ul style="list-style-type: none"> - 4^o semester 2022 - 1^o semester 2023 - 4^o semester 2024 - 2^o semester 2025 - 2^o semester 2026 | Upgrading street lighting with LED lamps and reducing lighting costs. |
| 1.3 | | Upgrading of municipal buildings | 2.000.000€ (for the total of buildings) | <ul style="list-style-type: none"> ○ Decision of the municipality's Council. ○ Drafting of technical studies for the energy upgrading of buildings. ○ Inclusion of projects in a financial program. ○ Announcement of a tender to find a contractor for project construction. ○ Project completion. | <ul style="list-style-type: none"> - 4^o semester 2022 - 4^o semester 2023 - 4^o semester 2025 - 3^o semester 2026 - 4^o semester 2027 | Energy upgrade of municipal buildings and reduction of heating / electricity costs |

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| 1.4 | | Accommodation upgrade | 3.500.000€ (for the total of buildings) | <ul style="list-style-type: none"> ○ Owners' decisions for the energy and environmental upgrade of their accommodation. ○ Inclusion of projects in a financial program. ○ Project completion. | <ul style="list-style-type: none"> - 4° semester 2022 - 2° semester 2025 - 4° semester 2027 | Improving the energy efficiency and environmental performance of the accommodation |
| 2.1 | Electrification and Sustainable Mobility | Electric vehicles | 600.000€ | <ul style="list-style-type: none"> ○ Decisions of municipality's Council (municipal vehicles), K.T.E.L. (city buses) and rental car owners for purchase / conversion of vehicles to electric ones. ○ Inclusion of projects in a financial program. ○ Project completion. | <ul style="list-style-type: none"> - 4° semester 2022 - 4° semester 2024 - 4° semester 2026 | Reduction of emissions in municipal and private transportation |
| 2.2 | | Installation C.S.E.V. | 12.000€ | <ul style="list-style-type: none"> ○ Municipality's Council decision for procurement of C.S.E.V. ○ Compilation of study for their placement. ○ Finding a financing tool. ○ Tender announcement for the supply of C.S.E.V. ○ Installation of C.S.E.V.. | <ul style="list-style-type: none"> - 4° semester 2022 - 3° semester 2023 - 4° semester 2024 - 4° semester 2025 - 2° semester 2026 | Enhancement of electric mobility through supporting facilities |
| 2.3 | | Promotion of alternative forms of transportation | 24.000€ | <ul style="list-style-type: none"> ○ Municipality's Council decision for the supply of electric bicycles. ○ Finding a financing tool. ○ Tender notice for the supply of electric bicycles. ○ Supply of electric bicycles. | <ul style="list-style-type: none"> - 4° semester 2022 - 3° semester 2023 - 1° semester 2024 - 2° semester 2025 | Strengthening cycling as a means of transport for residents and visitors |
| 2.4 | | Electrification of ships | 600.000€ | <ul style="list-style-type: none"> ○ Boat owners' decisions for the energy and environmental upgrading of their boats. ○ Inclusion of projects in a financial program. ○ Project completion. | <ul style="list-style-type: none"> - 4° semester 2022 - 4° semester 2024 - 4° semester 2026 | Improving the energy efficiency and environmental performance of vessels |
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|-----|------------------------------|--|---------|--|--|--|
| 2.5 | | Rehabilitation of the road network | 25.000€ | <ul style="list-style-type: none"> ○ Municipality's Council decision for actions to restore the road network. ○ Elaboration of a technical study. ○ Contact with a company (Egnatia Odos) for a machine offer and implementation (covering the cost) of the restoration of the slopes (hydroponic technique). ○ Implementation of the project. | <ul style="list-style-type: none"> - 4^o semester 2022 - 4^o semester 2023 - 2^o semester 2024 - 4^o semester 2024 | Restoration of the slopes along the road network and reinforcement of vegetation in degraded areas |
| 3.1 | Sustainable Waste Management | Placement of reciprocating recycling bins | 0€ | <ul style="list-style-type: none"> ○ Municipality's Council decision to undertake actions to support remunerative recycling. ○ Contact with a company for the supply of special recycling bins (plastic, aluminum). ○ Signing a contract and placing bins. | <ul style="list-style-type: none"> - 4^o semester 2022 - 1^o semester 2023 - 2^o semester 2023 | Enhancing recycling and reducing the volume of waste |
| 3.2 | | Installation of compost bins | 1.000€ | <ul style="list-style-type: none"> ○ Municipality's Council decision to undertake actions to support composting. ○ Contact with NGOs for the supply of special compost bins. ○ Placement of bins. | <ul style="list-style-type: none"> - 4^o semester 2022 - 1^o semester 2023 - 2^o semester 2023 | Enhancing composting and reducing the volume of waste |
| 3.3 | | Network of ecologically responsible businesses | 0€ | <ul style="list-style-type: none"> ○ Decision of the Association of Professionals for the creation of a network and approval of the specifications. ○ Creation of a network of businesses that will implement the agreed protocol. ○ Actions per business and control. | <ul style="list-style-type: none"> - 4^o semester 2022 - 1^o semester 2023 - 2^o semester 2023 | Sustainable waste management and reducing the environmental footprint of businesses |
| 4.1 | Organic Production / | Organic products | 8.000€ | <ul style="list-style-type: none"> ○ Decision of Cooperatives for the conversion of basic crops to organic ones. | <ul style="list-style-type: none"> - 4^o semester 2022 | Reducing the impact of agriculture and |

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| | | | | | | |
|-----|---------------------------------------|--------------------------------|--|---|--|--|
| | Biodiversity Protection | | | <ul style="list-style-type: none"> ○ Inclusion in the Biology program. ○ Signing a contract with a Certification Body. ○ Application of organic farming standards and certification. | <ul style="list-style-type: none"> - 1° semester 2024 - 2° semester 2024 - 1° semester 2025 | increasing the added value of products |
| 4.2 | Bio-diversity protection practices | 8.000€ | <ul style="list-style-type: none"> ○ Livestock Cooperative Decision to adopt the practice of sown pastures. ○ Inclusion in the "Agroforestry" program. ○ Signing a contract with agricultural consultants. ○ Implementation of sown pasture practices. | <ul style="list-style-type: none"> - 4° semester 2022 - 1° semester 2024 - 2° semester 2024 - 1° semester 2025 | Reducing the impact of livestock farming, increasing income and biodiversity | |
| 5.1 | Tourism Connection - Local Production | Conclusion of a local pact | 4.000€ | <ul style="list-style-type: none"> ○ Decision of the Association of Professionals to create a Local Quality Agreement. ○ Creation of a register of companies that will implement the agreed protocol (signing a memorandum of cooperation). ○ Establishment of a management body. ○ Actions per company, audit and certification. | <ul style="list-style-type: none"> - 4° semester 2022 - 1° semester 2023 - 2° semester 2023 - 2° semester 2023 | Promotion of the island's agri-food sector and strengthening of the island's tourism product |
| 5.2 | | Enhancement of tourist product | 40.000€ | <ul style="list-style-type: none"> ○ Cooperation between the Municipality and the island's agencies for the creation of annual gastronomy festivals. ○ Implementation of approved cultural proposals. | <ul style="list-style-type: none"> - 4° semester 2022 - 3° semester 2023 | Strengthening the local identity and the tourism product of the island |

CHAPTER VI –

DRAFT PERFORMANCE MEASUREMENT GUIDE FOR TRANSFORMING THE ISLAND INTO A “GREEN DESTINATION”

The draft Performance Measurement Guide is a tool for measuring the degree of implementation of the main axes of intervention promoted in this document for the island of Samothrace, in other words it aims to outline the evolution of the transformation of the island as an energy autonomous, "green" island, an island that will minimize waste production and implement smart management and recycling practices, an island that will be characterized by reducing the environmental footprint in agricultural production and tourism, with an emphasis on organic production and alternative forms of tourism.

The two key elements of the performance measurement tool in the intervention axes developed under this initiative include:

- a) The evaluation of the performances based on the planned schedule, where intermediate time stops are defined until the final date.
- b) The performance evaluation by category of body that each action concerns (Municipality, businesses, citizens and visitors).

Based on the above, the Results Measurement Guide Plan is developed in accordance with the set objectives of the project as recorded in the Joint Strategy and listed in the table below.

| DRAFT GUIDE FOR MEASURING THE PERFORMANCE OF SAMOTHRACE FOR ITS CONVERSION INTO A GREEN ISLAND | | | | | |
|---|--|--|--------------------------|----------------------|--------------------------|
| PILLAR | INDEX | EXISTING POSITION IN REPORTING YEAR | INDEX PERFORMANCE | TARGET (2028) | INDEX PERFORMANCE |
| A. MUNICIPALITY OF SAMOTHRAKI | | | | | |
| R.E.S. Production | Power produced by R.E.S. | 0 MW | 0.00 | 1,2 MW | 1.00 |
| Upgrading of municipal buildings | Number of buildings with PV on roofs | 1 from 10 in total | 0.20 | 5 buildings | 0.50 |
| Energy saving in street lighting | Number of km of road network covered with lighting | 0 km from 45 km in total | 0.00 | 45 km | 1.00 |
| Restoration of road network to protect against corrosion | Number of km of road network with erosion problems | 4 km from 20 km in total | 0.20 | 20 km | 1.00 |

| | | | | | |
|---|--|-------------------------------|------|----------------|------------------|
| Installation C.S.E.V. | Number of electric vehicle charging stations | 1 station from the 2 proposed | 0.50 | 3 stations | 1.00 |
| Shift to cycling | Number of electric bikes available | 5 bikes from the 20 proposed | 0.25 | 20 bikes | 1.00 |
| Installation of compensatory recycling bins | Number of compensatory recycling bins | 0 from 8 proposed | 0.00 | 8 bins | 1.00 |
| Installation of compost bins | Number of compost bins | 3 from 20 proposed | 0.15 | 20 bins | 1.00 |
| B. HOTEL ENTERPRISES | | | | | |
| Energy upgrade units | Number of units turning to energy saving investments | 5 from 100 units | 0.05 | 20 units | 0.20 |
| Sustainable waste management | Number of units turning to sustainable waste management methods | 0 from 100 units | 0.00 | 50 units | 0.50 |
| Participation in the Local Pact | Number of units included in the register of the L.P. | 0 from 100 units | 0.00 | 50 units | 0.50 |
| C. CATERING AND FOOD BUSINESSES | | | | | |
| Sustainable waste management | Number of businesses turning to sustainable waste management methods | 10 from 30 enterprises | 0.33 | 30 enterprises | 1.00 |
| Participation in the Local Pact | Number of businesses included in the register of the L.P. | 0 from 30 enterprises | 0.00 | 30 enterprises | 1.00 enterprises |
| D. MOVEMENT BUSINESSES | | | | | |
| Shift to the electrification of public transport | Number of electric buses | 0 from 2 city busses | 0.00 | 2 city busses | 1.00 |
| Electric vehicles | Number of rental | 0 from 30 in | 0.00 | 10 vehicles | 0.33 |

| | | | | | |
|---|---|--------------------------------------|------|----------------|------|
| for rent | electric vehicles | total | | | |
| Ship and pleasure craft waste management | Number of ships / vessels adopting sustainable waste management systems | 0 from 2 | 0.00 | 2 ship / boats | 1.00 |
| E. AGRICULTURAL / LIVESTOCK FARMS | | | | | |
| Shift to organic farming | Number of acres included in the organic certification system | Vine: 20 out of 120 strem | 0.17 | 120 strem | 1.00 |
| | | Olive trees: 400 out of 8,000 strem. | 0.05 | 4.000 strem | 0.50 |
| Shift to organic animal husbandry | Number of livestock included in the organic certification system | Goats: 2.000 from 20.000 | 0.10 | 10.000 | 0.50 |
| | | Sheep: 2.000 from 20.000 | 0.10 | 10.000 | 0.50 |
| | | Bees: 150 from 1.500 | 0.10 | 750 | 0.50 |
| Adoption of good practices in pastures | Area of pasture where good practices are applied | 2.500 strem. from 25.000 strem. | 0.10 | 25.000 | 1.00 |

CONCLUDING REMARKS

As pointed out, this initiative seeks to propose a series of large and small interventions that cover a wide range of the economic activity of productive and non-productive entities of the island, in order to become a "green" destination in the long run, achieving the objectives of the Union and National policy for the climate and green development alongside the improvement of the quality of life of its inhabitants as well as the improvement of the development conditions of the island.

Along with the proposed actions, a guide was drawn up to measure the island's performance as a whole as well as sectorally, by category of intervention, in order to facilitate but also to provide a motivation and a common vision that will involve every representative of the local society, from the institutions to businesses and residents and visitors individually.

Finally, an additional pursuit is through each initiative to create the appropriate conditions for the change of perceptions and behaviors ("behavioral change") at the level of society, which ultimately (in its various aspects) constitutes the main bearer of changes in practice, improving the effectiveness of the promoted measures.

For the implementation of the proposed proposals, the Local Action Group (LAG) will carry out a series of informative and educational / training activities of the target groups in order to transfer the required know-how to support in practice the implementation of the proposed actions by each target group (Municipality, Businesses, residents, etc).

The progress that will be made will also be the occasion for the continuation of the cooperation between the partners of the "Green Urban Territories" project in order to translate the results of the Joint Strategy into the participants' headquarters.