

desk RESEARCH

Yes, that's our cover, because we
have to use all to use less.

greenACT

PREFACE

GreenACT is a 20 months' project designed to enhance ENVIRONMENTAL EDUCATION and AWARENESS of YOUNG PEOPLE through the organisation of SUMMER SCHOOL PROGRAMME to familiarize young people with the idea of environmental citizenship, based on the fact that the future depends on each and one of us by acting responsibly and positively towards our environment and developing sustainable solutions for addressing environmental challenges. In a period where Earth faces the consequences of climate change and global warming crisis and the need for mitigation of climate change is emerging, Green-ACT aims to support further these YOUTH INITIATIVES and raise more awareness in the 6 countries, by educating young people on environmental issues, inspire them in developing a firm ecological mind-set, and invite them to have a positive impact in their communities as active agents.

The partnership is composed of 6 partners from 6 countries: Romania, Lithuania, Cyprus, Slovenia, Bulgaria, Portugal

Furthermore, it aims:

- o To promote the idea of establishing SUMMER SCHOOLS for raising young people's environmental awareness;

- o To set up the GreenACT MOVEMENT (a network of young activists) for coordinating their actions and engaging citizens;
- o To build/increase the capacity of partner organizations to take action regarding the reduction of waste in the partner countries by encouraging local communities to recycle and reuse.
- o To equip youth workers with new sustainable environmental skills in order to empower more young people;
- o To facilitate brainstorming on challenges and possible solutions of topics such as alternative forms of socio-economy, biodiversity and food production, sustainable production and consumption, transport, etc.

The Desk Research template will be developed in each partner country with the purpose of recording gaps in policies related to environmental protection and awareness in partner countries and whether there are any good practices or not. As well-known from before, there is a lack of reports based on what young people's opinion on climate crisis, eco-lifestyle, basic environmental issues, environmental awareness and reports to show their level of environmental education and awareness. Furthermore, this desk research will show the policies or good practices applied in the 6 partner countries for tackling the climate crisis and environmental degradation at the local level. The Desk Research along with the survey that will be later on realised, there will be provided evidence-based data in the participating countries on young people's attitudes towards climate crisis and eco-lifestyle and the EU policies in the 6 countries related to the protection of the environment.

The Desk Research template follows the below given structure, proposed by the Intellectual Output leader partner, D.G.T. Association, in order to allow an easier comparability of reported information and outcomes across GreenACT partner countries and includes the following chapters (that each will have 2 subchapters) :

- o Chapter 1: Recording gaps in policies related to environmental protection and awareness Cyprus
- o Chapter 2: Best practices in policies related to environmental protection and awareness Cyprus

TABLE OF CONTENTS

EXECUTIVE SUMMARY	5
EXECUTIVE SUMMARY [IN NATIONAL LANGUAGE]	6
INTRODUCTION	7
1. Recording gaps in policies related to environmental protection and awareness [Cyprus]	7
1.1. Already existing gaps in Cyprus	7
2. Best practices in policies related to environmental protection and awareness [Cyprus]	10
2.1. Already existing best practices in Cyprus	10
CONCLUDING REMARKS	13
BIBLIOGRAPHICAL REFERENCES	14

EXECUTIVE SUMMARY

Based on the Desk research, in terms of gaps in policies regarding environmental protection and awareness, Cyprus still faces challenges on nature protection, waste and water management areas. The Ministry of Environment in Cyprus needs to: a) eliminate challenges presented on the designation of the terrestrial and coastal part of the Natura 2000 network, b) establish an adequate network of facilities and equipment that would effectively manage all of its waste in order to reach higher recycling rates, c) take action and reduce the over-abstraction of groundwater, monitor effectively any changes in water quality, and review the results of the new legal framework on water pricing (if it encourages users to use water efficiently). In terms of the ways the ministry interacts with citizens and environmental organizations, Cyprus environmental governance needs to better inform the public regarding their environmental rights, by providing adequate online practical information on access to justice in environmental matters and ensure that there is legal standing for environmental NGOs to bring legal issues on air pollution and nature before the courts.

Concerning best practices in Cyprus in terms of policies/actions/programmes/initiatives related to environmental protection and awareness, Cyprus promotes measures towards a circular economy for minimising the creation of waste/pollution and carbon emissions, the majority of Cypriot SMEs have included the implementation of green practises in their operations and more than 50% of their turnover generated by green products or services, and the majority of Cypriots are concerned about the negative impact of humans on the environment and are willing to contribute for its protection. Regarding protecting, conserving and enhancing natural capital, Cyprus made progress with the completion of Natura 2000 Network, and the development of an Action plan on risk assessment of invasive alien species in terrestrial and coastal zone. Regarding ensuring citizens' health and quality of life, the government proceed with the development of an Air Quality Portal. The portal aim to protect and inform the public regarding the air quality in Cyprus by providing the current air quality information from a network of monitoring stations, assessing the quality of the atmospheric environment and at the same time, continuously monitoring the air pollution. Furthermore, in terms of greener cities, Cyprus invested EUR 68.25 million under the European Regional Development Fund (ERDF) for making cities greener and the municipalities are generally involved in EU urban initiatives and networks on environment protection and climate change. Last, in terms of Environmental Education in schools, from 2011, a course called Environmental Education-Education for Sustainable Development (E.E.-E.S.D.) was officially included in the curriculum for Cypriot primary schools for the implementation of intervention education programs for the environment and sustainability in schools and communities.

EXECUTIVE SUMMARY [IN NATIONAL LANGUAGE]

Σχετικά με την προστασία του περιβάλλοντος και την ευαισθητοποίηση/και συμμετοχή των πολιτών σε περιβαλλοντικά θέματα, η Κύπρος εξακολουθεί να αντιμετωπίζει προκλήσεις σε θέματα προστασίας της φύσης, αποβλήτων και διαχείρισης νερού. Το Υπουργείο Περιβάλλοντος στην Κύπρο πρέπει: α) να εξαλείψει τις προκλήσεις που παρουσιάζονται στον προσδιορισμό του χερσαίου και παράκτιου τμήματος του δικτύου Natura 2000, β) να δημιουργήσει ένα κατάλληλο δίκτυο εγκαταστάσεων και εξοπλισμού με τέτοιο τρόπο, ούτως ώστε να διαχειρίζεται αποτελεσματικά όλα τα στερεά απόβλητά προκειμένου να επιτύχει υψηλότερα ποσοστά ανακύκλωσης, γ) να αναλάβει δράση για τη μείωση της υπερβολικής άντλησης υπόγειων υδάτων, την αποτελεσματική παρακολούθηση της ποιότητας του νερού και να αξιολογήσει κατά πόσο το νέο νομικό πλαίσιο τιμολόγησης νερού, ενθαρρύνει τους πολίτες να εξοικονομούν αποτελεσματικά το νερό. Όσον αφορά τους τρόπους με τους οποίους οι δημόσιες αρχές αλληλοεπιδρούν με πολίτες και περιβαλλοντικούς οργανισμούς, η περιβαλλοντική διακυβέρνηση της Κύπρου πρέπει να ενημερώνει καλύτερα το κοινό σχετικά με τα περιβαλλοντικά τους δικαιώματα, παρέχοντας επαρκείς πρακτικές πληροφορίες διαδικτυακά σχετικά με το νομικό πλαίσιο γύρω από περιβαλλοντικά θέματα και να διασφαλίζει ότι ΜΚΟ είναι σε θέση να θέτουν νομικά ζητήματα σχετικά με την ατμοσφαιρική ρύπανση και τη φύση ενώπιον των δικαστηρίων.

Όσον αφορά τις βέλτιστες πρακτικές/ πολιτικές / δράσεις / προγράμματα / πρωτοβουλίες που σχετίζονται με την προστασία του περιβάλλοντος και την ευαισθητοποίηση του κοινού, η Κύπρος γενικότερα στηρίζει την μετάβαση προς μια κυκλική οικονομία. Η πλειονότητα των κυπριακών ΜΜΕ(μικρό-μεσαίων επιχειρήσεων) έχουν συμπεριλάβει την εφαρμογή πράσινων πρακτικών στις επιχειρήσεις τους και περισσότερο από το 50% των εσόδων τους προέρχεται από περιβαλλοντικά προϊόντα ή υπηρεσίες. Επίσης, βάση ερευνών, η πλειοψηφία των Κυπρίων ανησυχεί για τις αρνητικές επιπτώσεις των ανθρώπων στο περιβάλλον και είναι πρόθυμοι να συμβάλουν στην προστασία του. Σε σχέση με την προστασία, τη διατήρηση και την ενίσχυση του φυσικού κεφαλαίου, η Κύπρος σημείωσε πρόοδο με την ολοκλήρωση του δικτύου Natura 2000 και την ανάπτυξη ενός σχεδίου δράσης για την εκτίμηση κινδύνου των χωροκατακτητικών ξένων ειδών στην επίγεια και παράκτια ζώνη. Σχετικά με τη διασφάλιση της υγείας και της ποιότητας ζωής των πολιτών, η κυβέρνηση έχει προχωρήσει στην ανάπτυξη μιας Πύλης Ποιότητας Αέρα, μιας δημόσιας υπηρεσίας που παρέχει τρέχουσες πληροφορίες για την ποιότητα του αέρα από ένα δίκτυο σταθμών παρακολούθησης, με στόχο την προστασία και την ενημέρωση του κοινού σχετικά με την ποιότητα του αέρα στην Κύπρο αξιολογώντας την ποιότητα του ατμοσφαιρικού περιβάλλοντος και ταυτόχρονα παρακολουθώντας συνεχώς την ατμοσφαιρική ρύπανση. Επιπλέον, όσον αφορά τις πράσινες πόλεις, η Κύπρος επένδυσε 68,25 εκατομμύρια ευρώ στο πλαίσιο του Ευρωπαϊκού Ταμείου Περιφερειακής Ανάπτυξης (ΕΤΠΑ) για να καταστήσει τις πόλεις πιο πράσινες και οι δήμοι συμμετέχουν γενικά σε αστικές πρωτοβουλίες και δίκτυα της ΕΕ για την προστασία του περιβάλλοντος και την αλλαγή του κλίματος. Τέλος, από την άποψη της Περιβαλλοντικής Εκπαίδευσης στα σχολεία, από το 2011, ένα εκπαιδευτικό πρόγραμμα « Περιβαλλοντική Εκπαίδευση - Εκπαίδευση για Βιώσιμη Ανάπτυξη (ΕΕ-ESD)» συμπεριλήφθηκε επίσης στο πρόγραμμα σπουδών των Κυπριακών δημοτικών σχολείων με σκοπό την οργάνωση εκπαιδεύσεων για το περιβάλλον και τη βιωσιμότητα σε σχολεία και κοινότητες.

INTRODUCTION

This Desk Research was developed with the main aim to introduce the gaps and best practices in terms of environmental protection and awareness in Cyprus. The main source of information used for its preparation is the Environmental Implementation Review (EIR) 2019 for Cyprus, a tool to improve the implementation of EU environmental law and policy. EIR aims to address the causes of implementation gaps and try to find solutions before problems become urgent. The main problems encountered during the development of this research were the limited online resources regarding recent (2020-2021) reports on environmental policies/gaps/challenges/practices in Cyprus.

1. Recording gaps in policies related to environmental protection and awareness [Cyprus]

Key findings of Chapter 1:

In terms of gaps, Cyprus needs to:

- o Proceed to the adoption and implementation of new economic instruments such as landfill tax, pay-as-you-throw schemes which have been included in the national waste management plan but not fully applied. In this way, Cyprus will set up a more efficient and effective waste management system to reach EU waste targets, by increasing separate collection and recycling, and putting an end to the illegal landfilling of waste.
- o Improve nature conservation by ensuring that necessary assessments are carried out correctly, that mitigation measures are put in place and properly applied and that illegal bird trapping is eliminated.
- o Make more efforts in dealing with water scarcity and over-abstraction.
- o Consider the establishment of more environmental taxations to be applied such as water abstraction tax, aggregates tax and landfill tax.
- o Improve overall environmental governance system by better informing the public regarding their environmental rights, providing adequate online practical information on how citizens have access to justice when it comes to environmental matters and ensuring that courts deal with legal challenges concerning air pollution and nature cases that environmental NGOs report.

1.1. Already existing gaps in Cyprus

According to the Environmental Implementation Review 2019 for Cyprus, despite some progress, Cyprus need to do more for the protection of the environment, particularly in:

- **Policy for Waste management:**

- a) Illegal landfills must close and put in place the necessary infrastructure for an effective waste management system:

Municipal waste is still significantly higher in comparison to 2017 EU average (637 vs around 487 kg/y/inhabitant). Although there has been a decrease in landfilling and a slight increase in recycling and composting in Cyprus, the illegal landfilling rate increased again in 2016. In 2019, the illegal landfills at Kotsiatis and Vati closed down as part of the government's environmental policy to reduce the uncontrolled disposal of waste in landfills. This was an obligation based on European directives for the management of waste. Cyprus faced fines due to the delay to close the landfills, ordered by the EU in 2013. Although many large landfills have closed, people are still creating 'illegal landfills' in Cyprus, i.e in Filousa, in the Paphos district¹.

Furthermore, Cyprus does not tax landfills or MBT (Mechanical and Biological Treatment), so no economic incentives encourage citizens to recycle. Cyprus must make significant efforts to improve the performance of its waste management system and meet the EU's waste targets, by increasing separate collection and recycling, and putting an end to the illegal landfilling of waste.

Cyprus still faces difficulties in implementing the relevant EU waste policy. This is mainly due to: (i) the lack of infrastructure and equipment for collecting recyclables and diverting biodegradable waste and (ii) lack of coordination at the national level of the administrative system and lack of capacity at the local level. Some measures to address these weaknesses have been introduced, including the implementation of ongoing capacity building training and the establishment of technical assistance programmes for public administration, local authorities, stakeholders and the public.

In general, there has been some progress on developing a national waste management plan, as the strategic framework for waste is been developed, new economic instruments have been set out in the national waste management plan, but there is a significant delay in their adoption and implementation. Only in one Municipality in Cyprus, the pay as you throw scheme has been applied.

According to the Country Review report, Cyprus needs to:

- a) Introduce and increase landfill taxes for eliminating landfilling of recyclable and biodegradable waste.

¹ Illegal landfills creation in Cyprus: <https://cyprus-mail.com/2021/04/14/illegal-dump-blights-picturesque-reservoir/>

- b) Improve and extend a separate collection of waste, including bio-waste. Establish minimum service standards for separate collection (e.g. frequency of collections, types of containers, etc.) in municipalities to ensure higher recyclable waste.
 - c) Use economic instruments such as 'pay-as-you-throw' scheme, and set mandatory recycling targets for municipalities with fines for non-compliance.
 - d) Develop and run support programmes for municipalities to help them implement separate collection policies and increase recycling rates.
- **Policy for Protecting, conserving and enhancing natural capital (Cyprus' stock of natural resources, such as geology, soils, air, water and all living organisms)**

Regarding the setting up of a coherent network of Natura 2000 sites, Cyprus' terrestrial Natura 2000 network which covers 28.8 % of the national land under the Birds and Habitats Directive is now largely completed. Cyprus has designated 63 Natura 2000 sites, (40 Sites of Community Importance-SCIs under the Habitats Directive and 30 Special Protection Areas-SPAs under the Birds Directive. Despite its size, there are still a number of shortcomings on the terrestrial part of the Natura 2000 network. There are also significant shortages at sea, both for SCIs and SPAs, especially in the offshore marine areas. The six-year period set out in the Habitats Directive to designate the SCIs - Sites of Community Importance as Special Areas of Conservation (SACs) and establish appropriate conservation objectives and measures have expired for all 40 SCIs. Until July 2018, only 29 SCIs have been designated as SACs.

A major challenge in managing the Natura 2000 areas effectively is protecting them from activities or developments that degrade them, especially the protected areas located within private land. The sound management of these areas is also undermined by the lack of understanding and acceptance of Natura 2000 rules by some local communities and private land owners as a big part of Natura 2000 areas is private land.

Another major challenge is the illegal trapping of wild birds. Although progress has been achieved through controls and fines through the new national legislation approved in July 2017, the trapping numbers still remain unacceptably high.

In November 2019, the European Commission sent a letter of formal notice to Cyprus, required by the government to make the needed actions and correct this 'systemic failure' to protect its Natura 2000 sites. According to the letter, Cyprus, since its accession to the EU, '*failed to ensure that its authorities subject plans or projects to appropriate assessment of their implications on the Natura 2000 sites and/or that it has agreed to plans or projects without having ascertained that they will not adversely affect the integrity of the Natura 2000 site concerned*'.

In general:

Despite some progress in regards to Nature 2000 zones and offshore marine areas and tackling illegal bird trapping, challenges still exist on the designation of the terrestrial part of the Natura 2000 network.

Moreover, there are significant insufficiencies at sea, especially in the offshore marine areas, where incompatible activities i.e. marine litter caused by shipping or developments that fragment or degrade those areas, remains a problem.

Based on the report, Cyprus needs to:

- a) Complete SCI and SPA designations, especially in offshore marine waters.
- b) Set up a broad awareness raising campaign among target stakeholders (farmers, hunters, tourism sector, private owners, etc.) and the public on Natura 2000 and its benefits.
- c) Eliminate illegal bird trapping by establishing stricter penalties, and monitoring the situation more efficiently, through more effective controls and inspections in restaurants and in trapping fields, enhancing the capacity and means of authorities involved, and increasing the awareness of judges.

- **Policy for improving water management**

The major problem in Cyprus is the over-abstraction of groundwater. Due to the country's warm, Mediterranean climate, Cyprus has limited water resources, resulting in water scarcity. To tackle the issue, the Cyprus government invests in the desalination and recycling of water. More efforts are needed in order for Cyprus, to deal with water scarcity and over-abstraction.

- **Environmental taxation**

Cyprus could reconsider the implementation of taxes, such as water abstraction tax, and landfill tax.

- **Making cities more sustainable**

Transport emissions are also a major concern, as they are increasing in Cyprus (by 8 % from 2013 to 2016). This is due to the fact that in terms of urban mobility, the majority of the citizens uses cars (81%). The remaining percentage uses buses and trolley buses. As it seems, cars remaining the preferable mean of transport. As a result, traffic congestion is a huge problem in the large cities, especially in Nicosia. Although the buses are safe and low cost, buses are of limited use, especially by Cypriots. Based on the above, there is a need to encourage people to get out of their car and take the bus as cars are a major contributor to environmental pollution, but also in causing thousands of deaths and illnesses every year. By catching the bus instead of driving, citizens will contribute to the reduction of emissions caused by pollution from burning fossil fuels.

- **Overall environmental governance**

According to a World Bank Report strategic planning and environmental policy integration are generally weak in Cyprus and need improvement. It is of crucial importance that environmental information is shared efficiently and effectively towards the public. The participation of the public allows authorities to make decisions based on citizens' concerns. Also, the government need to allow citizens and NGOs to use national courts to protect the environment.

For example, the Environmental Authorities in Cyprus need to:

- a) Better inform the public about their rights to access justice, notably in relation to air pollution and nature.
- b) Ensure that there is legal standing for environmental NGOs to bring legal challenges on air pollution and nature before the courts
- c) Better inform the public about compliance promotion, monitoring and enforcement by (i) ensuring that online information about how to comply with obligations on nitrates and nature is available to Cypriot farmers; (ii) providing online information on inspection plans and reports on inspections; and (iii) making it easier to file environmental complaints.
- d) Publish information on outcomes of administrative and criminal enforcement actions
- e) Improve the collection and publication of information about environmental damage.

2. Best practices in policies related to environmental protection and awareness [Cyprus]

Key findings of Chapter 1:

- Cyprus made progress in fostering measures towards a circular economy, for minimising the creation of waste, pollution and carbon emissions
- The majority of Cypriots are concerned about the negative impact of humans on the environment and are willing to contribute to its protection.
- The majority of Cypriot SMEs, which provide more than 75% of the total value of the island's economy, has included the implementation of green practices in their operations. Cyprus has one of the highest percentages of SMEs with more than 50% of their revenue generated by green products or services.
- Regarding protecting, conserving and enhancing natural capital, Cyprus made progress with the completion of Natura 2000 Network, and the development of an Action plan on risk assessment of invasive alien species.
- Regarding ensuring citizens' health and quality of life, the Cypriot government proceed with the development of an Air Quality Portal, a public service which provides current air quality information from a network of monitoring stations, with the aim to protect and inform the public regarding the air quality in Cyprus by assessing the quality of the atmospheric environment and at the same time, continuously monitoring the air pollutant content of the atmosphere.
- Cyprus has assigned the 22.8 % of the European Regional Development Fund (ERDF) for Cyprus for making cities greener.
- Cypriot municipalities are generally involved in EU urban initiatives and networks on environment protection and climate change.
- Regarding Environmental Education in Cyprus, from 2011, a course called Environmental Education-Education for Sustainable Development (E.E.-E.S.D.) was officially included in the curriculum of Cypriot primary schools for the implementation of education programs for the environment and sustainability in schools and communities,

2.1. Already existing best practices in Cyprus

The Environmental Implementation Review 2019 report highlighted the following examples of good practices in Cyprus:

- **Regarding measures towards a circular economy, an economic system based on the principles of reusing, sharing, repairing, refurbishment, remanufacturing and recycling to eliminate waste, pollution and carbon emissions dominate.**
- a) The number of people employed in the circular economy is above the EU-28 average (1.99 % of total employment in 2016 vs the EU-28 average of 1.73 %).
 - b) According to the 2017 Special Eurobarometer on attitudes of EU citizens towards the environment, 92 % of Cypriot people said they were concerned about the environmental pollution caused by plastic products and the impact of chemicals. Cypriots appear to strongly support circular economy system and environmental protection strategic planning.
 - c) SMEs and resource efficiency: Cypriot SMEs continue to perform above the EU-28 average for the environmental aspects of the small business act. Although fewer companies invest in resource efficiency measures, and the number of SMEs in Cyprus that receive public support to produce green products is one of the lowest in the EU, Cyprus has one of the highest percentages of SMEs that have more than 50% of their revenue comes from the development green products or services. More and more SMEs offer green products and services.
 - d) A wide range of national, regional and EU funds help drive **eco-innovation** (any innovation resulting in significant progress towards the goal of sustainable development, by reducing the impacts of our production modes on the environment, enhancing nature's resilience to environmental pressures, or achieving a more efficient and responsible use of natural resources) .
 - The Action Plan for the implementation of S3Cy - Smart Specialisation Strategy of Cyprus carried out by the programme "RESTART 2016-2020", allocates 142 million EUR for Research and Innovation in several sectors, such as energy and environment.
 - Numerous of projects under the LIFE programme, the EU's funding instrument for the environment and climate action have been implemented in Cyprus by public administration, local authorities, SMEs, NGOs etc. such as "SmartPV - Smart net metering for promotion and cost-efficient grid-integration of PV technology in Cyprus", "LIFE-FOR BIRDS- Improving lowland forest habitats for Birds in Cyprus", "UrbanProof - Climate Proofing Urban Municipalities", the "Oroklini Project for Restoration and Management of Oroklini Lake Special Protection Area in Larnaca" etc.
 - Numerous of projects developed by NGOs, SMEs, Research Centres etc. are also being implemented in Cyprus using EU funds such as Erasmus+, Research and Innovation Foundation Cyprus and others:

1. The ASTROTOURISM, a 36-month long project funded by the Research and Innovation Foundation in Cyprus. Astrotourism's research objective is to initiate a new section in the Cyprus tourism industry by increasing the number, the quality, the expenditure of the tourists and the number of local jobs in the periphery. Within this objective, the project aims to research and create direct and indirect experiences within real, virtual and blended augmented reality environments where the visitor could expand his/her astronomical knowledge in a practical, simple and efficient way. This experience will be an added value tool for Cyprus, where the weather conditions secure clear skies for most of the days and nights.

2. The SEANERGY PROJECT, implemented by CYMEPA, the Center for Research and Research AKTI together with the restaurant chain Ocean Basket. Within the project, partners announced the launch of the action Fishing for Litter, on July 2020 in collaboration with the Association of Fishermen of Paphos. The aim was to inform fishermen, the authorities and the public of Cyprus about the issue of marine litter. The action "Fishing for garbage" is considered by the European Commission as a good practice for reducing marine litter. It started in a port in the Netherlands and today is implemented in over 70 fishing ports throughout Europe.

3. GARDENS OF THE FUTURE initiative, which aims to enable locals become agro-entrepreneurs in the heart of Nicosia, so that the city can become a catalyst for sustainable action. Gardens of the Future is a collective initiative to install the first pilot garden, in the heart of the old city and transform it into a green paradise open to public access, where people gather, co-create, learn and experiment, share stories and experiences together. As a result, the initiative promotes sustainable entrepreneurship and strengthens social cohesion among neighbors and communities.

4. BALANCE: An E+ project which aims to develop and provide SMEs decision-makers with an innovative program, based on ECVET, that will help them transform into greener operations while improving their financial literacy and enhancing their environmental awareness.

5. SCHOOLS GO GREEN: An E+ project which aims to provide an upskilling pathway programme for teachers in order to strengthen their profiles in dealing with environmental and green issues, so that they can support young pupils (pre-primary and primary) aged 5-12 years old to explore environmental issues, engage in problem-solving, and take action to improve their community and school environment.

6. SEALIVE, a HORIZON 2020 project, which aims at demonstrating innovative circular strategies for bio-based plastics in land and sea applications. The project is driven by economically and technically sustainable business models based on materials with advanced properties, design for circularity techniques and end-of-life solutions. The project establishes a partnership of raw material providers, converters, end-users, recyclers, policy experts, certification organizations and NGOs to demonstrate solutions within a shared vision for circular plastic strategies. Solutions for reusable, recyclable and biodegradable bio-based plastics to prevent and significantly reduce marine pollution of all kinds will be demonstrated in four pilot territories (Cyprus, Ireland, France

and Denmark, or Non-European site) and will be applied to 8 end-applications with high potential for pollution reduction of soils and water media: rigid food containers, flexible packaging, agricultural films, fish crates, fishing nets and aquaculture mesh bags.

- **Protecting, conserving and enhancing natural capital:**

a) Setting up a coherent network of Natura 2000 sites

Cyprus' terrestrial Natura 2000 network under the Birds and Habitats Directive is now considered to be largely complete. Cyprus has used LIFE funds to effectively establish its designated 63 Natura 2000 sites: 40 sites of Community importance (SCIs) under the Habitats Directive and 30 special protection areas (SPAs) under the Birds Directive.

b) Invasive alien species: Cyprus has informed the Commission that it is working on a risk assessment for lionfish (*Pterois miles*) pufferfishes *Lagocephalus sceleratus* and *Torquigener flavimaculosus*.

- **Ensuring citizens' health and quality of life**

a) Water quality: According to the European Environment Agency report on European bathing water quality, in 2017, 97.3 % of Cyprus' 113 bathing waters were of excellent quality.

b) Cyprus' revenue from environment-related taxes is above the EU average. Revenues from consumption and environmental tax are high, increasing Cyprus' tax structure and making it more environmentally friendly.

c) On environmental information, the first-rate air quality portal can be used as an example for other environmental areas such as energy, waste management etc.

- **Making cities more sustainable:**

a) Financing greener cities:

Cyprus has assigned EUR 68.25 million or 22.8 % of its allocation under the European Regional Development Fund (ERDF) to sustainable urban development. Furthermore, the country participates in the European Urban Development Network, a network of cities that includes more than 500 EU cities responsible for carrying out integrated practices based on sustainable urban development strategies financed by ERDF in 2014-2020.

b) Participation in EU urban initiatives and networks

Municipalities in Cyprus are generally involved in EU initiatives on environment protection and climate change. Cyprus is involved in the URBACT programme for sustainable urban development. Several Horizon 2020 network projects have also contributed to the sustainability of Cypriot cities. 24 Cypriot cities are involved in the EU Covenant of Mayors' initiative. As of May 2018, eight of them have already implemented their action plans and they, currently, monitoring the results. Another 16 municipalities and communities have at least presented their climate action plan and their commitments to deliver by 2030. In 2017, 8.8 % of the Cypriot population living in cities said that

their neighbourhood was affected by pollution, grime or other environmental problems, a lower rate from 9.3 % in 2016.

- **Environmental Education in Cyprus**

From 2011, a course called Environmental Education–Education for Sustainable Development (E.E.-E.S.D.) was officially included in the curriculum for Cypriot primary schools. The authority which is in charge of the course is the Unit for Education for the Environment and Sustainable Development (EESD), under the Ministry of Education, Culture, Sports and Youth. The Unit aims to monitor the implementation and updating of the National Strategic Planning for Environmental Education, focusing on Sustainable Development, in formal and non-formal education.

Some of the key actions of the EESD Unit are:

- ✓ Management of the (7) Environmental Education Centres in Cyprus
- ✓ Professional development of teachers in matters of teaching and methodology of ESD, in the Sustainable Development Goals-SDGs of the United Nations Agenda 2030.
- ✓ Implementation of the Curriculum for Education for Sustainable Development (ESD),
- ✓ Implementation of educational programs for the environment and sustainability in schools and communities,
- ✓ Production of educational material on the SDGs,
- ✓ Promotion of a sustainable school based on a holistic school approach.

- **In terms of waste management,** the first pay-as-you-throw scheme was applied in the Municipality of Aglantzia from January 2021. This “Holistic Waste Management” program, aims to transform waste into valuable raw materials, by increasing the types and amount of waste that can be recycled. At the same time, the fixed, annual waste collection fee charged to every citizen is abolished. a variable new payment method is being introduced, with the amount of charge to be relative only to the amount of mixed waste that is not diverted to recycling streams.

CONCLUDING REMARKS

Concluding, environmental implementation is still a challenge for Cyprus. Although some progress has been made in waste and water management performance, Cyprus needs to put in place the necessary infrastructure for increasing separate collection and recycling, put an end to the illegal landfilling and invest more in dealing with over-abstraction of groundwater and water scarcity, which are major challenges. Its rich natural environment and biodiversity is one of the country’s strongest economic assets. However, in many cases of infrastructure development in Natura 2000 protected areas it can be observed that the necessary assessments set by European legislation are not being followed appropriately.

Cyprus is the leading EU country in terms of popular support for greater EU involvement (EU-28 average 85 %) towards environmental protection. Although, the country has made some progress in waste management, making cities greener and setting up the NATURE 2000 Network etc., Cyprus needs a stronger environmental governance. More efficient actions are needed, from all those involved in implementing environmental legislation at EU, national, regional and local levels, in order to ensure that the legislation and the law enforcement process respond to the need for protecting water, air and nature and manage waste. To this end, Cyprus economy will have the capacity to turn into a circular, resource-efficient, green and competitive low carbon economy, where raw materials, components and products are traded in cycles and do not lose their value.

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