



NATIONAL BACKGROUND PAPER: **Just Transition, Lifelong Learning and Adult Education in Cyprus**



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1. Introduction

As the impacts of climate change become increasingly evident, nations around the world are recognizing the urgent need to transition to more sustainable and just societies. This report explores the multifaceted efforts and challenges associated with climate change mitigation and just transition in Cyprus, with a particular focus on vulnerable groups such as women, migrants, and low-skilled workers. It also examines the role of formal and non-formal education, civil society mobilization, and cross-border collaborations in fostering a green transition.

Cyprus, an island nation in the Eastern Mediterranean, is no exemption in climate change challenges. The island faces significant climate-related risks, including rising temperatures, more frequent and severe droughts, and coastal erosion. These changes have far-reaching implications for various sectors, including agriculture, tourism, and public health. The education sector is also impacted, with the need for energy-efficient school infrastructures becoming increasingly pressing. On a global scale, countries are making ambitious climate pledges and implementing green transition policies to mitigate these impacts. Cyprus aligns its strategies with European Union policies and participates in global climate initiatives. The nation submits biennial reports on its climate actions and has developed comprehensive plans, albeit with limited public access to detailed information.

Cyprus's national recovery and transition plans are pivotal in outlining the path towards a sustainable future, focusing on renewable energy, energy efficiency, and green job creation. Despite these efforts, most these initiatives do not specifically target just transition, with a focus on vulnerable groups. Rather, these efforts indirectly benefit vulnerable groups, through various programmes and trainings targeting a wider population.

Education is a cornerstone of the green transition. In Cyprus, both formal and non-formal education systems are evolving to incorporate climate, environmental, and sustainable development topics. The Human Resource Development Authority (HRDA) plays a crucial role in offering free training programs to unemployed individuals, women, and other vulnerable groups. These programs aim to equip participants with the necessary skills to thrive in a green economy. Additionally, initiatives by organizations such as the Cyprus Pedagogical Institute provide educators and trainers with the tools and knowledge needed to address climate justice and just transition issues effectively.

Collaboration among education stakeholders is vital for a comprehensive approach to sustainability education. Despite the lack of a formalized framework for such collaboration in Cyprus, efforts are underway to foster partnerships and share best practices. Conferences and workshops serve as platforms for educators, policymakers, and Civil society organizations (CSOs) to exchange ideas and strategies for integrating climate justice into educational curricula.

CSOs in Cyprus are at the forefront of advocating for environmental and climate action. Groups such as the Cyprus Youth Council, Terra Cypria, and Friends of the Earth Cyprus engage in various advocacy campaigns to raise awareness and influence policy. These organizations also play a significant role in providing education on climate and just transition issues through both formal and non-formal learning platforms. They employ diverse methodologies and tools to reach different audiences, from community workshops to digital campaigns. However, the consultation process between CSOs and government agencies often faces challenges such as limited funding and bureaucratic obstacles, which hinder the full potential of their work on climate and just transition plans.

Transnational networking and coalition-building are essential for addressing climate change, which transcends national borders. Cyprus participates in various cross-border projects and networks, facilitating the exchange of knowledge, technology, and best practices. Programs under the ENI CBC Med Programme, the LIFE Programme, and Interreg exemplify successful cross-border collaborations that contribute to the green transition.

The journey towards a just and sustainable future in Cyprus involves a multi-pronged approach that includes education, advocacy, collaboration, and international cooperation. While Cyprus seems to be in initial steps for just transition policies in the framework of Lifelong Learning and Adult Education, with a focus on women, migrants and adults with low level of formal qualifications, these steps signify the progresses made so far and the commitment to fostering an inclusive green transition.

2. Climate change impacts and just transition policies and programmes

2.1. Overview of Climate Change in Cyprus

Cyprus, an island nation in the Eastern Mediterranean, is particularly vulnerable to the effects of climate change. The country is already experiencing significant climate shifts, including risings in temperature, decreased precipitation and sea level rise.

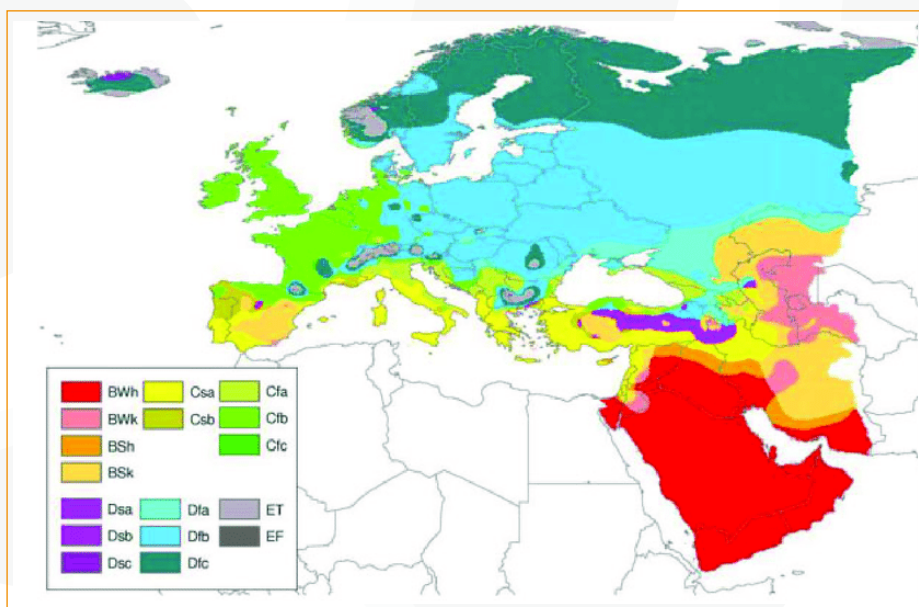
Risings in temperature

Cyprus exhibits a temperate and dry Mediterranean climate, as indicated by the Köppen-Geiger climate classification scheme, specifically falling within the Csa and Bsh climate categories (Kottek et al., 2006). The climate varies across different regions of the island. The western part and mountainous areas are characterized by a Temperate with Dry and Hot Summers climate, while the central plains and eastern part experience a Dry Semi-arid and hot climate. The summer season, which

lasts from mid-May to mid-September, is characterized by hot and dry conditions, with an abundance of cloudless days and minimal rainfall (Pantavou et al., 2020).

Since the start of the collation of data in Nicosia, for the period of 1892 until 2016 marks an increase in mean atmospheric temperature of 1,5°C. Meanwhile, the station in Limassol for the period of 1903 to 2016 has recorded an increase of 2,3 °C (Department of Environment, 2024). Data from the same stations in both cities describe the upward trend, with the average minimum temperature to be increasing. Although, days with temperature above 40 °C has been increasing in Nicosia, in Limassol on the other hand the highest mean temperature is showing a decrease (Department of Environment, 2024). One can assume that the reduction in hottest days is a result of an increase in Relative Humidity due to an increase in the temperature of the Mediterranean Sea, a statement that will be explored further down.

FIGURE 1: KÖPPEN-GEIGER CLIMATE TYPE MAP OF EUROPE (REPRINTED FROM PEEL ET AL., 2007)



To examine the potential future temperature patterns in Cyprus, researchers have utilized the reference period of 1961-1990 to calibrate (large-scale) Regional Climate Models (RCMs) to enhance spatial resolution. This approach allows for a more comprehensive and detailed analysis, better suited to the specific scale (small scale) of Cyprus. The findings indicate ongoing climatic shifts, including a noticeable increase in temperatures, a decrease in precipitation, and heightened occurrences of extreme weather events.

According to climate models, the period from 2021 to 2050 is projected to witness a rise in annual maximum temperatures ranging from 1.3 to 1.9 °C. The mountainous regions are expected to experience a more pronounced increase, reaching up to 1.9 °C. Specifically, inland areas, which are already facing prolonged drought conditions, are anticipated to see a temperature rise of 1.6 °C. Even the typically wetter and cooler western and northern regions of the island are predicted to experience temperature increases of 1.4 °C and 1.5 °C, respectively. In comparison, the eastern region is projected to have a temperature increase of 1.3 °C.

From 2071 to 2100, the rate of temperature increase is projected to accelerate significantly, with a range of 3.0 °C to 4.2 °C. The mountainous regions will endure the greatest impact, experiencing the highest increase of 4.2 °C. Inland areas can expect a temperature increase of 3.5 °C, while the western, northern, eastern, and coastal regions are estimated to experience an increase of approximately 3 °C (Department of Environment, 2024).

Due to notable shifts in temperature and precipitation that surpass the global average, Cyprus is recognized as a hotspot for Climate Change. The island's ecosystems are already experiencing swift transformations, and given the projected circumstances, it is imperative for Cyprus to implement its adaptation measures on a large scale in order to preserve its natural environment and support its population effectively.

Sea level Rise

Sea level rise is one of the direct results of climate change and has significant effects on communities living along coastlines worldwide. This phenomenon is caused by global-scale processes that contribute to the ongoing rise in sea levels. The primary factor responsible for this is global warming, which leads to the melting of ice, the thermal expansion of the oceans caused by excess heat being absorbed by the ocean, and changes in the elevation of coastal land. These changes can either accelerate or reduce the submergence of low-lying coastlines (Antonioli et al., 2020).

Tourism plays a vital role in Cyprus's economy, serving as the primary driving force behind its economic activities. However, since most economic operations are concentrated along the island's coastlines, they face the risks associated with Sea Level Changes. Additionally, various sectors and critical infrastructures, including the two main airports, the primary energy hub, wastewater treatment and desalination plants, seaports and Marinas and fishing shelters, may also be affected by rising sea levels.

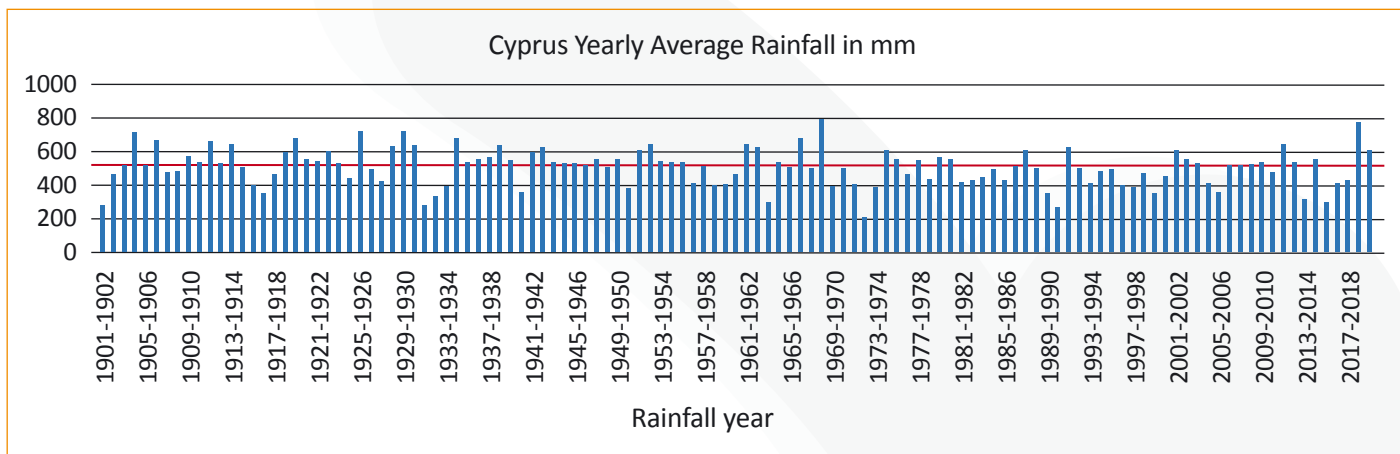
Cyprus is already encountering coastal erosion, although is not directly connected with sea level rise but certainly is accelerating it. Since the 1950s, Cyprus has constructed 108 dams with a combined capacity of 331.951.000 m³, a significant achievement in water management that has ensured self-sufficiency in irrigation and drinking water (Water Development Department, 2017). However, freshwater retention through damming has led to a decrease in the supply of sediment to coastal areas, exacerbating erosion. To address this challenge, Cyprus is continuously constructing wave breakers, altering the coastal geomorphology in an effort to mitigate coastal erosion.

Elevated sea levels and decreasing underground freshwater resources from excessive groundwater extraction will cause further saltwater intrusion and further degradation of groundwater quality inland. According to the National Action Plan, coastal Sea Level Rise is considered low risk in Cyprus (Department of Environment, 2024).

Decreased precipitation

Cyprus has experienced a consistent decline in precipitation since the early 1900s. The recorded data reveals a reduction of approximately 17% in precipitation during the period from 1971 to 2000 (463 mm) compared to the initial data period of 1901 to 1930 (559 mm). Chart 1 illustrates the decreasing trend in precipitation from 1901 to 2019.

CHART 1: YEARLY AVERAGE RAINFALL IN CYPRUS FROM 1901 UNTIL 2019 (DOM, 2019)



Climate models simulate precipitation patterns for the period of 2021 to 2050, indicating a relatively small decrease of 10 to 20 mm in average annual rainfall. This reduction is primarily observed in the mountainous regions. However, the most significant shift in precipitation is anticipated between 2071 and 2100. During this period, the average yearly rainfall is projected to decrease by 100 to 130 mm in the mountainous and western regions, particularly in the Akamas peninsula. The northern areas of the island may experience a reduction in the range of 90 to 100 mm. In contrast, the eastern part of the island and inland regions are expected to see a relatively smaller decrease of less than 50 mm (Department of Environment, 2024).

Natural Disasters: Despite being situated in an active earthquake zone, Cyprus has experienced a relatively low number of fatalities directly attributed to earthquakes over the past 120 years. Only two fatalities have been recorded as a direct result of earthquake impact, with an additional two fatalities linked to secondary causes. Incidences of injuries resulting from earthquakes are also recorded, but they remain below 50 per incident. Prior to 1960, residential buildings in Cyprus suffered significant damage from earthquakes (Geological Survey Department, 2019). However, since then, there has been minimal damage, particularly following the implementation of the earthquake building code in the

1990s and the adoption of the European Union’s Eurocode 8 earthquake standards in 2012.

When Cyprus experiences prolonged periods of drought, particularly when they occur in consecutive years, the consequences can be devastating for its population, wildlife, and vegetation. The year 2008 stands out as one of the most severe periods for the population, with the average annual rainfall for the hydrological year 2007-2008 reaching only 272mm. This made it the second-worst year since 1901 (DOM, 2024). The agricultural sector suffered significant crop failures due to major water cuts, and even municipal water supplies were reduced for domestic use. In response, the Cyprus Government implemented an action plan and sought assistance from the European Solidarity Fund for the first time to address this challenge. A grant of 7.6 million euros was awarded, leading to the transportation of drinking water tankers from Greece. To facilitate this large-scale water transportation, Cyprus constructed an anchorage and a 1.1km pipeline to connect to the Limassol water supply facilities. The 2008 action plan encompassed various measures, notably paving the way for the development of major desalination facilities that have since ensured the independence of the drinking water infrastructure from climate conditions (Water Development Department, 2024).

Extended periods of drought and elevated temperatures are frequent occurrences in Cyprus, creating a heightened susceptibility to forest fires. The Cyprus Forest Department reports that in 2020, there were 108 recorded forest fire incidents, and in 2021, there were 111 incidents. While the number of outbreaks remains relatively consistent, the extent of the burned area experienced a significant difference. In 2020, the burned area encompassed 1,305 hectares, whereas, in 2021, it expanded to 6,612 hectares. Out of the identified outbreaks, which account for 88% of the total, 85% are attributed to human activities, while only 15% are caused by natural factors such as lightning (Department of Forests, 2024).

Overall, these climate impacts pose significant challenges for Cyprus's economy, natural resources, and public health, necessitating a robust response through a just and inclusive green transition.

2.2. Economic and social impacts of climate change

The Department of Environment under the Ministry of Agriculture, Rural Development and Environment (MARDE) is responsible for documenting climate change impacts and drafting the National Adaptation Strategy (NAS) in Cyprus. The national strategy is outlined in the 2017 report titled "National Strategy on Adaptation to Climate Change," which was legislated with Ministerial approval Number 82.855. This document is accompanied by the National Adaptation Plan (NAP) "Climate Change Action Plan," which details the risks for each sector, the adaptation actions required, and the authorities responsible for implementation and monitoring. Both documents are based on the 2016 "Climate Change Risk Assessment" report from contract 22/2014 of the Ministry of Agriculture (Department of Environment, 2024).

The Department of Environment focuses on eleven sectors: water resources, soils, coastal zones, biodiversity, agriculture, forests, fisheries, public health, energy, tourism, and

infrastructure. For the 2017 National Strategy, the department commissioned five actions targeting the most urgent climate change impacts: the national action plan combating desertification, the future of agriculture in Cyprus, an experimental investigation of the impact of reduced irrigation, increased sun exposure, and temperature on specific crops, a climate change forest impact assessment, and a plan to reduce dependency on rainfall for drinking water needs.

As previously mentioned, Cyprus is recognized as a "hotspot" for climate change, experiencing more pronounced changes compared to other regions, despite its negligible contribution to global greenhouse gas emissions. The country has been monitoring and continuously adapting its critical infrastructure to address climate change risks. This requires substantial economic investment not only to meet the growing needs of its population but also to accommodate the millions of tourists who visit Cyprus annually. In 2019, tourism arrivals reached a peak of 3.5 million (Statistical Service, 2021), which exceeds the population of the Cyprus government by more than 3.5 times.

Ongoing development, particularly in coastal regions, presents additional challenges such as the loss of habitat, biodiversity, and critical ecosystems. These factors contribute to increased vulnerability to climate change for both the natural world and societies. Urban expansion in Cyprus continues to grow, leading to intensified urban sprawl. Consequently, urban areas in Cyprus suffer from significant Urban Heat Island effects and are prone to flooding due to insufficient vegetation, lack of green spaces, and soil sealing. The local authorities in Cyprus face financial constraints that hinder their ability to implement adequate measures or employ specialized personnel, primarily due to the government's lack of prioritization in this regard.

The intensification of desertification, soil erosion, and the decline of ecosystem services continues due to the persistence of unchanged agricultural practices. There is limited recognition among farmers regarding the challenges posed by

climate change, as land use is predominantly driven by profit rather than environmental considerations due to a lack of awareness and economic incentives. The absence of stringent policies aimed at mitigating these issues can be attributed to insufficient incentives provided by the government.

Planning zones undergo frequent shifts without proper monitoring of their environmental impact. There is minimal consideration given to changes in land use, particularly when agricultural land is converted into residential areas, leaving little remaining uncovered land for green spaces. The elevation and geology of an area, which can offer nature-based solutions for mitigating climate change and promoting ecosystem services, are not taken into account. Green spaces are fragmented, and the concept of green belts is absent. Green belts have the potential to create specific microclimates that can contribute to addressing urban atmospheric challenges. Additionally, they can serve recreational purposes for residents and provide a sanctuary for wildlife.

Additional challenges emerge due to the division of the island between two communities, resulting in isolated and fragmented efforts within each community. While some bi-communal projects exist that assess biodiversity in both communities and within the buffer zone, like the IPSI project “Cyprus Buffer Zone as a Socio-Ecological Landscape” (IPSI, 2014), the current political situation poses significant obstacles to developing a comprehensive strategic plan for the entire island.

Impacts in the education sector, on women, migrants and low skilled workers or adults with low levels of education

Currently, there are scarce data, to record the economic and social impacts of climate change for vulnerable groups, i.e. women, migrants and low skilled workers or adults with low levels of education. The Eighth National Communication & Fifth Biennial Report, under the United Nations Framework Convention on Climate Change, Report of Cyprus (Kythreotou

& Mesimeris, 2022) reports expected impacts and vulnerabilities of climate change in Cyprus for biodiversity, infrastructure, energy, health, forestry, agriculture, nutrition and water. However, only for some of these categories correlates possible impacts specifically for vulnerable groups. As stated in the report, there is insufficient data and scientific evidence to assess or link all consequences and indicators to potential future climate changes. As a result, more investigation is needed to produce specific data for a more thorough and descriptive evaluation of the sector’s potential vulnerabilities. Specifically, the report provides climate-related effects upon nutrition, noting that incidents of malnutrition are more likely to be detected in population groups with lower socio-economic status as well as to infants and young children. Also the reports documents that vulnerable groups and particularly children, pregnant women, people over 65 years of age, and persons suffering from cardiovascular and respiratory diseases (e.g. asthma) are more likely to be affected by air-pollution-related diseases.

Economic and social impacts of high temperatures have also been recorded in the education sector. The Cyprus Ministry of Education, Sports and Youth announced various measures to schools on how to tackle heat, while taking measures to installing air-conditioners in schools affected by heat (AlphaNewsLive, 2024).

2.3. Global climate pledges, green transition policies, regulations, and plans

Cyprus, as a member of the European Union (EU), aligns its climate pledges with the broader commitments of the EU under the Paris Agreement. The EU aims to achieve climate neutrality by 2050, with an intermediate target of reducing greenhouse gas emissions by at least 55% by 2030 compared to 1990 levels. Cyprus contributes to these targets through national plans and policies that aim to reduce its carbon footprint and enhance climate resilience.

Cyprus has established a comprehensive framework for its green transition through its Integrated National Energy and Climate Plan (NECP) for 2021-2030. The NECP report (Mesimeris et al., 2020) outlines how Cyprus complies with Article 9(1) of Regulation (EU) 2018/1999, which requires each Member State to develop and submit a national energy and climate plan to the European Commission. In line with this, Cyprus created its NECP. In October 2014, the European Council adopted four key objectives for the EU's 2030 energy and climate policy framework:

- (a) A binding EU target of 40% less greenhouse gas emissions by 2030, compared to 1990;
- (b) A target of at least 32% renewable energy consumption;
- (c) A 32.5% improvement in energy efficiency;
- (d) An electricity interconnection of at least 15%.

As the report describes, on energy security, the European Council endorsed further measures to reduce the EU's energy dependence and increase the security of its electricity and gas supplies. Moreover, under EU legislation adopted in May 2018, EU Member States have to ensure that greenhouse gas emissions from land use, land use change or forestry are offset by at least an equivalent removal of CO₂ from the atmosphere in the period 2021 to 2030. The Regulation on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry (LULUCF) into the 2030 climate and energy framework was adopted by the Council on 14 May 2018, following the European Parliament vote on 17 April 2018. The Regulation implements the agreement between EU leaders in October 2014 that all sectors should contribute to the EU's 2030 emission reduction target, including the land use sector. It is also in line with the Paris Agreement, which points to the critical role of the land use sector in reaching our long-term climate mitigation objectives.

At national level, the drafting of Ministries' Strategic Plans in 2014 with the first reference period 2015-2017 began. These strategic plans have been drafted at Ministry level and are reviewed annually. The annual review concerns the strategic plans for the next financial period, which is the Medium-Term Financial Framework and covers a period of three years.

Strategic plans include at ministry level, i.e. mission, vision, values, strategic pursuits and at ministry / department / service level of each ministry. i.e. objectives, activities, performance indicators, performance indicators and costing of goals, objectives and activities of each Department, which is budgeted. Along with the preparation of the budget for each subsequent year and the three-year Medium Term Financial Framework, Activity-Based, budgeting is also incorporated to ensure that the costs are included in each Ministry's strategic plans. These strategic plans, along with the "traditional" budget, are approved by the Council of Ministers and then submitted to the House of Representatives. The medium-term goal is to transition from the "traditional" budget to a budget based on strategic plans. It is important to note that during budget implementation, the objectives and activities of each Department are also evaluated.

The key strategic documents related to climate and energy policy include:

1. **National Strategy and Action Plan for Adaptation to Climate Change:** Adopted in May 2017 by the Council of Ministers (decision no. 82.555).
2. **National Action Plan for the Improvement of Air Quality in Cyprus:** Adopted in May 2018.
3. **EU Council Conclusions on Climate Neutrality by 2050:** Adopted on December 13, 2019.

As the same report describes, achieving the energy policy while meeting climate and environmental targets necessitates

a substantial transformation of the energy system over the next decade. This will require significant investments in energy infrastructure and efficiency. Planned investments include renewable energy projects, network transformation, smart meter implementation in power distribution, power transmission network upgrades, and the import and use of natural gas to enhance power generation efficiency. Additionally, efforts will focus on improving energy efficiency in households, businesses, the public sector, and the water sector, as well as in transport infrastructures and sustainable mobility, and technological research.

The plan details mid-term national targets up to 2030, which will form the foundation for an ambitious long-term strategy aimed at minimizing greenhouse gas emissions by 2050. Decarbonization is the primary focus of the NECP. The national plan addresses the five dimensions of the Energy Union: decarbonization (with separate sections for greenhouse gas emissions and renewable energy sources), energy efficiency, energy supply security, the internal energy market, and research, innovation, and competitiveness.

Although Cyprus does not have a comprehensive Just Transition plan, various policies related to green transition aiming to benefit vulnerable groups are in place. Measures to reduce electricity tariffs have been implemented, alongside financial incentives for upgrading the energy efficiency of homes and installing Photovoltaics using the net metering method, aimed at protecting vulnerable consumers.

2.4. National recovery and transition Plans

The National Recovery and Transition Plan (NRTTP, 2023) of Cyprus includes various elements in relation to Green Transition, while including few elements of Just Transition. The NRTTP aims to facilitate the green transition, through the following components (pp 70 – 90):

i Meeting the greenhouse gas emission reduction targets and diversifying energy supply:

Cyprus' energy and climate objectives present opportunities and benefits for the national economy, energy system, and society, while also posing challenges. The National Energy and Climate Plan (NECP) and Recovery and Resilience Plan (RRP) aim to implement cost-effective policies to meet medium- and long-term goals, promote economic development, and address environmental challenges.

Key targets for 2030 include:

- A 21% reduction in non-ETS greenhouse gas emissions compared to 2005.
- Offsetting greenhouse gas emissions from land use, land use change, or forestry by equivalent CO₂ removal.
- 23% renewable energy (RES) penetration in gross final energy consumption.
- Specific RES sub-targets: 26% in electricity, 39% in heating and cooling, and 14% in transport.
- Energy efficiency targets: 2.0 Mtoe final energy consumption and 2.4 Mtoe primary energy consumption.
- Introduction of natural gas by 2023 to reduce CO₂ emissions and increase supply security.
- Establishing Cyprus as a competitive economy driven by research, innovation, and entrepreneurship, and as an energy hub in the Eastern Mediterranean.

Major initiatives include the EuroAsia Interconnector, Market Management System for electricity market competition, a digital platform for RES licensing, Green Tax reform, installation of smart meters, the “I plant for Climate” campaign, encouraging biofuel use in shipping, and the construction of an LNG import terminal.

ii Ensuring sustainable and green mobility.

Key initiatives include developing sustainable urban mobility plans (SUMP) for major cities, promoting cycling and walking, and enhancing public transport infrastructure. Additionally, the New National Road Safety Strategic Plan aims to halve road fatalities and injuries by 2030. Further efforts include

the implementation of intelligent transport systems and incentivizing cleaner transport modes.

iii Transition to renewable energy sources.

The National Energy and Climate Plan (NECP) sets quantitative targets for 2030 to increase the share of renewable energy sources (RES) in energy consumption: 23% in gross final energy consumption, 1.1% annual increase in heating-cooling from RES, and 14% in the transport sector. In 2021, RES comprised 18.42% of total final energy consumption, surpassing the projected 14.80%. This represents a 9.12% increase from 2020. Specifically, RES accounted for 14.84% in electricity generation, 41.34% in heating and cooling, and 7.29% in the transport sector. Main RRP reforms and investments include ***'Promoting renewables and individual energy efficiency measures in dwellings and tackling energy poverty in households with disabled people'***, aiming to subsidize small-scale energy renovations in energy-poor households and households with people with disabilities.

iv Improving the energy efficiency of buildings

To achieve Cyprus's greenhouse gas reduction and energy efficiency targets, various measures focus on upgrading government buildings, including schools and hospitals. All new buildings must be Nearly Zero Energy Buildings (NZEB), and existing buildings undergoing major renovations must meet higher energy standards. Specific projects include thermal insulation and photovoltaic installations in schools and fire stations, energy upgrades in water treatment plants, and smart metering infrastructure. Vulnerable groups benefit from subsidized energy renovations and efficiency measures in households, particularly for energy-poor families and those with disabilities. Additional investments target SMEs, non-profits, and military camps to further improve energy efficiency and sustainability.

v Encouraging water saving behaviour.

Cyprus's Ministry of Agriculture, Rural Development, and Environment focuses on efficient water resource management through the Water Development Department. Key reforms include merging District Water Boards, reducing water

losses, and improving water reuse and infrastructure safety. Significant investments target infrastructure upgrades, smart monitoring systems, and wastewater treatment improvements. Vulnerable groups benefit from projects ensuring water adequacy and quality, such as the Choirokoitia-Famagusta Conveyor Replacement and Eastern Nicosia wastewater reuse. Additional initiatives include urban water network replacements and new desalination plants, aiming to address droughts, water scarcity, and climate adaptation challenges.

vi Improving the conservation status of habitats of community interest (biodiversity).

Cyprus's Natura 2000 network covers its terrestrial area, with new and expanded sites addressing minor gaps. Efforts now focus on marine areas, with "Oceanid" designated as a Special Protection Area in 2022. Ministerial Decrees are being prepared to set specific targets and prohibitions to enhance conservation. The LIFE Nature Integrated Project (2019-2029) with a €17 million budget, aims to improve the conservation status of species and habitats. Managed by multiple authorities, this initiative involves 14 partners working on various sites. Priority measures target high-pressure habitats and species, aligning with the EU Biodiversity Strategy for 2030.

vii Promoting education, training and skills for the green transition.

Cyprus aims to strengthen its economy by transitioning to a sustainable growth model. Key initiatives focus on green practices supporting vulnerable groups, including adults with low qualifications, migrants, and women. The national centre for Agri-tech excellence provides centralized access to information, services, and funding, enhancing digital skills and productivity in agriculture. A cloud-based fresh produce platform utilizes innovative technologies to improve market access and trade transparency for small farmers. The genetic improvement of livestock project implements sustainable breeding practices, boosting efficiency and digital skills in the agricultural community. Upskilling farmers through tailored education and scholarships increases employment

opportunities in agriculture, focusing on inclusion and future-ready skills. The eco-industrial science park encourages investment in renewables and Agri-tech, creating jobs and fostering innovation. Lastly, the industrial strategy policy emphasizes sustainable development, digitalization, skill enhancement, and market access, particularly benefiting SMEs and fostering inclusive economic growth.

Outside the RRP framework, there is a variety of reforms and investments supporting education, training and skills for the green transition. These include:

- **Educational programs for farmers and livestock breeders:** the Department of Agriculture runs an Advisory System providing state-funded educational programs. These focus on sustainable practices, including the correct use of plant protection products, alternative energy development, animal welfare, and efficient water use.
- **Vocational training and skill development actions for existing and young first-time farmers:** Targeting both new and existing farmers, these programs offer skill development in areas such as plant protection, sprayer use, and water efficiency. Participants receive small financial support, promoting accessibility for vulnerable groups.
- **National strategy for green transition and education for sustainable development (ESD) 2030:** Revised to align with new international policies, this strategy aims to transform schools into learning communities focused on sustainability. It emphasizes inclusive policies, competence-based curricula, practical learning, and teacher development, addressing the needs of vulnerable groups by fostering equitable educational opportunities.
- **AELIA Project:** Funded by Erasmus+, this project promotes sustainability in education, supporting institutions in implementing and monitoring sustainability plans. It aims to equip educators and citizens with the skills needed for green transition, supporting vulnerable groups.

- **SUSEDI Project:** Also funded by Erasmus+, SUSEDI helps educational institutions adopt a whole-institution approach to sustainability, providing resources and certification aligned with ISO standards. It focuses on developing the sustainability competence of educators and staff, promoting a comprehensive inclusion of all educational stakeholders.

viii Promoting training and strengthening skills (green, digital, blue) to low-skilled and unemployed people

As described in the Cyprus National Recovery and Resilience Plan, Cyprus ranks 21st in the EU for human capital, falling below the EU average. Regarding basic digital skills, only 50% of people aged 16 to 74 in Cyprus have at least basic digital skills, compared to the EU average of 54%. Furthermore, 21% of the population possess more than basic digital skills, and 60% have basic content creation skills, compared to EU averages of 26% and 66%, respectively. These highlight the need for targeted training programs, especially for vulnerable groups. To address this, the Cypriot government has launched various initiatives to promote green, digital, and blue skills among low-skilled and unemployed individuals. These programs aim to improve the nation's digital economy standing and overall societal well-being. Key efforts include skilling, reskilling, and upskilling initiatives targeting public and private sector employees, the self-employed, and the unemployed. By 2025, these programs aim to train at least 25,600 participants. The Human Resource Development Authority (HRDA) offers training in digital, green, blue economy, and entrepreneurial skills, which began in April 2023. Additionally, the Cyprus Productivity Center (CPC) has been providing training for individuals over 55 since March 2022, with 57 programs completed and 604 participants trained by the end of 2022. Outside the RRP framework, the CPC, in collaboration with the Department of Electronic Communications, supports e-business and digital skills training programs aimed at private and public sector employees, the unemployed, and people aged 55+. These comprehensive efforts aim to enhance the digital literacy and employability of Cyprus's workforce, supporting a green transition and inclusive economic growth for vulnerable groups.

3. Formal and non-formal education on climate, environment, and Just Transition

3.1. Formal and non-formal education on environment, climate, sustainable development, and just transition issues in formal and non-formal education

Formal Education Activities

1. Education for the Environmental and Sustainable Development, Ministry of Education, Sports and Youth

The unit of Education for the Environmental and Sustainable Development (EESD) (EESD, 2024) established in 2018, is the designated body of the Ministry of Education, Sports and Youth (MESY) for promoting environmental education and sustainable development within formal, non-formal, and informal education. This unit collaborates with various directorates of education, government departments, universities, research centers, and NGOs to strengthen environmental education (EE) and education for sustainable development (ESD) across all life areas. Its goal is to foster a civil society that prioritizes environmental protection and quality of life to create a sustainable world. The primary responsibility of the EESD Unit is implementing and updating the National Strategic Plan for Education for the Environment and Sustainable Development across all educational levels. The unit aims to integrate environmental and sustainable development education throughout the country's educational system, fostering critically thinking and responsible environmental citizens within a sustainable school framework that promotes environmental and social change. Key actions include managing the Network of Environmental Education Centres (such as Pedoulas, Athalassa, and Akrotiri), incorporating environmental issues into curricula, training educators, developing educational materials, participating in international programs, promoting research, and fostering local and international collaborations. Although the unit's

activities may not particularly aim for a just/green transition for vulnerable groups, they equip students with the skills and knowledge necessary to address environmental challenges and promote sustainable practices.

2. University Programs

Higher education institutions in Cyprus offer specialized programs and courses focused on sustainability, environmental science, and climate change. For instance, the University of Cyprus and the Cyprus University of Technology provide undergraduate and postgraduate degrees in environmental engineering, marine sciences, and sustainable development. The programme of University of Cyprus aims to foster critical thinking on sustainability and educational interventions, integrating various learning theories and addressing formal and non-formal education challenges. This education supports vulnerable groups by training environmental educators and teachers to implement effective environmental and sustainability practices.

Non-Formal Education Initiatives

1. Human Resource Development Authority (HRDA, 2024)

The HRDA plays a significant role in promoting non-formal education related to the environment, climate, sustainable development, and just transition. HRDA's initiatives include:

- **Training Programs:** HRDA offers various training programs aimed at enhancing skills in green and blue economies. These programs target public and private sector employees, self-employed individuals, and the unemployed. Key training areas include renewable energy technologies, sustainable agricultural practices, waste management, and environmental management systems. The goal is to align the workforce with the evolving needs

of the green economy. Many of these programs target specifically vulnerable groups, including unemployed, adults with low qualifications and women.

- **Digital Skills for Green Economy:** HRDA has recognized the importance of digital skills in the green transition. They provide training on digital tools and technologies that support environmental sustainability, such as geographic information systems (GIS), data analytics for environmental monitoring, and digital platforms for sustainable business practices.

2. Cyprus Productivity Centre (CPC, 2024)

The CPC collaborates with the Human Resources Development Authority, running various programmes/training seminars that focus on green skills. These programs target various demographic groups, including those over 55, aiming to enhance their digital literacy and capabilities in using online tools for sustainable practices. On many occasions, these programmes are tailored for low-skilled and unemployed individuals. This ensures that vulnerable groups are not left behind in the green transition and provide them with opportunities to acquire relevant skills and improve their employability in emerging green sectors.

3. Environmental NGOs and Community Initiatives

Several non-governmental organizations (NGOs) and community groups in Cyprus also contribute to non-formal education on environmental and sustainability issues. Organizations like [Terra Cypria](#) (2024) and [Friends of the Earth Cyprus](#) (2023) conduct workshops, seminars, and awareness campaigns. Also, organisations like [CARDET](#) organise workshops focusing on topics such as recycling, composting, reducing plastic consumption and energy saving; organise visits to nature parks, organic farms, renewable energy sources farms (e.g. wind farms, solar farms) and recycling centres. CARDET also organises voluntary actions to clean up beaches, forests and other natural areas. Overall, these activities educate the public on climate change, biodiversity

conservation, and sustainable living practices. They also involve community participation in conservation projects and local sustainability initiatives.

4. Erasmus+ Projects

Cyprus participates in various Erasmus+ projects that focus on environmental education and sustainability. These projects often involve partnerships between schools, universities, and community organizations across Europe. They provide opportunities for students and educators to engage in exchange programs, collaborative research, and best practice sharing on sustainability and environmental education.

3.2. Educators and trainers' capacities on climate justice and Just transition issues

In Cyprus, initiatives to build educators' capacities on climate justice and just transition issues are primarily led by the Unit of Education for the Environment and Sustainable Development under the Ministry of Education, Sports, and Youth (see also section 'Formal Education Activities'). The unit's initiative involve:

- **Training programs:** the unit offers specialized training programs for educators aimed at integrating climate justice and just transition themes into the curriculum. These programs enhance educators' knowledge and pedagogical skills to effectively teach about environmental issues and sustainable practices.
- **Curriculum integration:** The unit works to embed climate justice and just transition topics into educational curricula at all levels, ensuring that students receive comprehensive education on these critical issues from an early age.
- **Educational resources:** the unit develops educational materials, toolkits, and resources that support educators in delivering engaging and informative lessons on climate

justice and sustainable development. These resources cater to diverse learning environments and enable educators to adapt content to suit different educational settings.

- **Collaborative projects:** the unit engages in collaborative projects with international partners, educational institutions, and local communities to promote research, innovation, and best practices in EE/SD. These projects enhance educators' understanding of global environmental challenges and equip them to address local implications effectively.

Despite these efforts, several challenges persist in enhancing educators' capacities on climate justice and just transition in Cyprus. Limited funding for training programs, varying levels of institutional support, and gaps in standardized curriculum integration pose obstacles to comprehensive education on these topics. Moreover, the dynamic nature of climate science and policy necessitates ongoing professional development for educators to stay abreast of emerging trends and research findings. Also, it is important to note that this unit specifically aims to strengthen educators' capacities in primary and secondary education, while adult educators receive few or no training to teach these issues. Furthermore, the training programmes available seem to give less attention to foster social innovation for a just transition, with a special focus on adult migrants, women and adults with low qualifications.

3.3. Collaboration between education stakeholders on climate justice and Just Transition issues

In Cyprus, education frameworks and collaboration among education stakeholders are essential pillars in addressing climate justice and Just Transition issues. This collaboration involves various entities, including government agencies, educational institutions, civil society organizations, research centers, and the private sector, all working together to

integrate environmental sustainability into education frameworks and practices.

Government Agencies and Educational Institutions, such as the Ministry of Education, Sports and Youth play a central role in coordinating and implementing environmental education and sustainable development initiatives through its Unit of Education for the Environment and Sustainable Development (EESD). The unit of EESD collaborates closely with educational institutions across Cyprus to integrate climate justice and Just Transition themes into curricula, teacher training programs, and school activities. Also, universities and research centers in Cyprus engage in research, innovation, and capacity building related to climate change education. They contribute expertise in environmental science, policy analysis, and curriculum development, supporting the integration of climate-related content into higher education programs and promoting interdisciplinary approaches to sustainability.

Civil Society Organizations (CSOs) and Non-Governmental Organizations (NGOs) like [BirdLife Cyprus \(2020\)](#), [Terra Cypria \(2024\)](#), and [CYMEPA \(Cyprus Marine Environmental Protection Association\) \(2024\)](#) play important roles in advocating for environmental protection and sustainability. They collaborate with schools to deliver environmental education programs, organize community events, and conduct advocacy campaigns to raise awareness about climate change impacts and solutions. Youth groups such as the [Cyprus Youth Council \(2024\)](#) and youth branches of environmental NGOs mobilize young people in climate action initiatives. They collaborate with schools to organize workshops, youth forums, and environmental projects that empower students to become environmental stewards and advocates for climate justice.

Companies in Cyprus increasingly recognize their role in promoting sustainability and support educational initiatives focused on climate change through their corporate social responsibility initiatives. They partner with schools and NGOs to fund environmental education programs, sponsor

educational materials, and engage employees in volunteer activities that benefit local communities and promote environmental stewardship. Partnerships between educational institutions and industry sectors such as renewable energy, agriculture, and tourism foster collaborative research and innovation in sustainable practices. These partnerships create opportunities for students to gain practical experience, internships, and career opportunities aligned with green economy principles.

On the EU level, Cyprus participates in European Union initiatives like Erasmus+ and Horizon Europe, which support collaborative projects, exchanges, and capacity-building activities in climate education. These programs facilitate knowledge exchange, policy alignment, and the development of shared resources and best practices across EU member states. Also, Cyprus engages in international partnerships and networks focused on climate education and sustainability. These partnerships provide opportunities for joint research, training programs, and policy dialogue with global counterparts, enhancing Cyprus's capacity to address transboundary environmental challenges and promote global citizenship education.

While collaboration among education stakeholders in Cyprus has expanded, challenges persist, specifically within the efforts of promoting just transition, with a focus on green transition for vulnerable groups.

4. Civil society consultation, collaboration, and coalition building

4.1. Advocacy/campaigns - CSOs' mobilisation on environmental/climate action

Advocacy and campaigns led by Civil Society Organizations (CSOs) play a crucial role in mobilizing environmental and climate action in Cyprus. These organizations, comprising environmental NGOs, youth groups, and community-based initiatives, leverage advocacy strategies to raise awareness, influence policy, and drive grassroots movements towards sustainability.

Key CSOs in Cyprus:

- 1. BirdLife Cyprus:** Specializing in bird conservation and habitat protection, BirdLife Cyprus conducts advocacy campaigns focused on biodiversity conservation and sustainable land use practices. They engage with policymakers, organize public events, and collaborate with schools to promote environmental education and citizen science initiatives.
- 2. Terra Cypria:** As the oldest environmental NGO in Cyprus, Terra Cypria focuses on nature conservation, environmental awareness, and sustainable development. They run campaigns on topics such as marine conservation, sustainable tourism, and climate change adaptation. Terra Cypria collaborates with local communities, schools, and businesses to promote sustainable practices and advocate for policy reforms.
- 3. CYMEPA (Cyprus Marine Environmental Protection Association):** CYMEPA works towards marine conservation and pollution prevention in Cyprus. They organize coastal clean-ups, educational workshops on marine biodiversity, and advocacy campaigns to promote sustainable fishing practices and marine pollution reduction.
- 4. Friends of the Earth Cyprus:** affiliated with Friends of the Earth International, this CSO focuses on various environmental issues including climate change, biodiversity, and sustainable development. They advocate for renewable energy, waste reduction, and environmental justice through public campaigns, lobbying efforts, and collaborative projects with local communities and international networks.

CSOs in Cyprus utilize multimedia platforms, social media campaigns, and public events to raise awareness about environmental issues. For example, campaigns may focus on reducing plastic pollution, conserving biodiversity hotspots, or promoting renewable energy adoption among businesses and households. They also engage in policy advocacy to influence legislation and government policies related to environmental protection and climate action. They participate in consultations, draft policy briefs, and collaborate with policymakers to integrate environmental considerations into national planning and development strategies. Furthermore, CSOs mobilize local communities through participatory initiatives such as tree planting drives, eco-tours, and community gardening projects, while focus on youth engagement through educational programs, youth councils, and leadership training.

Despite their significant impact, as organisations participating in the online survey reported, CSOs in Cyprus face several challenges in accelerating the green transition, ensuring a just transition, and promoting education on these issues. They often struggle with stable and adequate funding, which limits their ability to implement large and long-term projects. There is also a lack of educational materials and public participation, compounded by insufficient resources. Systemic efforts are hampered by inadequate implementation of relevant laws and regulations, and barriers to accessing financial resources.

Furthermore, CSOs find it difficult to reach decision-makers and communicate their insights to legislators, as political decisions often overlook the input of social organizations. However, ongoing support from international donors, partnerships with academia, and grassroots mobilization efforts provide opportunities for CSOs to expand their reach, influence policy reforms, and drive sustainable development agendas at local, national, and international levels.

4.2. Education - CSOs engagement on formal and non-formal learning on climate and just transition issues

CSOs actively engage in advancing climate change and just transition education through diverse methodologies and tools across formal and non-formal learning settings.

Within formal education, CSOs collaborate closely with educational authorities to integrate climate and sustainability topics into school curricula. They employ methodologies such as curriculum development workshops, where experts from CSOs collaborate with educators to design interdisciplinary lesson plans that embed environmental sustainability, biodiversity conservation, and climate adaptation strategies across various subjects. These workshops often incorporate interactive teaching methods, case studies, and practical exercises to enhance teachers' capacity to deliver engaging and informative lessons on climate-related issues. CSOs also facilitate teacher training programs and workshops focused on climate education methodologies. These initiatives equip educators with the latest research findings, teaching techniques, and educational resources. Workshops may include simulations, role-playing exercises, and peer-to-peer learning opportunities to foster innovative approaches to teaching climate change concepts effectively. By incorporating these methodologies, CSOs empower educators to engage students actively in critical thinking about climate issues and inspire them to take action for sustainability within their communities.

In non-formal education settings, as confirmed by participants of the survey, CSOs organize a wide range of community-based workshops, events, and public campaigns aimed at raising awareness and promoting climate action. These activities utilize participatory methodologies such as community dialogues, interactive exhibitions, and citizen science projects to engage diverse audiences in discussions about climate change impacts, mitigation strategies, and principles of just transition. CSOs often employ multimedia tools, including videos, infographics, and social media campaigns, to reach broader audiences and facilitate knowledge-sharing on environmental issues.

Youth engagement is a cornerstone of CSOs' efforts in Cyprus, facilitated through initiatives like environmental youth camps, leadership training programs, and youth-driven climate action projects. These programs utilize participatory methodologies such as youth forums, art competitions, and eco-challenges to empower young people to become climate advocates and change-makers in their schools and communities. By providing platforms for youth to voice their concerns and ideas, CSOs nurture leadership skills and promote active citizenship among the next generation of environmental stewards. Furthermore, CSOs promote capacity-building among local communities through practical training workshops and demonstrations on renewable energy technologies, sustainable agriculture practices, waste management, and community resilience strategies. These capacity-building initiatives often incorporate hands-on learning experiences, site visits to sustainable projects, and collaborative problem-solving exercises to empower community members with the skills and knowledge needed to address climate challenges effectively at the grassroots level.

Collaboration is fundamental to CSOs' approach in Cyprus, as they partner with educational institutions, government agencies, international organizations, and local communities to amplify their impact on climate education and advocacy. CSOs leverage partnerships to access funding opportunities, share best practices, and advocate for policy reforms that support climate resilience and sustainability. They utilize digital platforms, online learning modules, and virtual workshops to adapt their methodologies to the evolving needs of diverse audiences and enhance their outreach and engagement in climate education and advocacy efforts.

4.3. Consultation of CSOs on just transition by government agencies and challenges

In Cyprus, the consultation of civil society organizations (CSOs) by government agencies on just transition plans is an essential process aimed at ensuring that climate policies are inclusive and equitable. This engagement seeks to incorporate diverse perspectives, particularly from communities and groups most affected by climate change and the transition to a green economy.

Government agencies, such as the Cyprus Ministry of Agriculture, Rural Development, and Environment (2024), often invite CSOs to participate in policy formulation processes through public consultations, roundtable discussions, and advisory committees. For example, organizations like Friends of the Earth Cyprus and Terra Cypria regularly engage in forums, offering evidence-based recommendations and highlighting the need for social justice in environmental policies.

Despite these efforts, several challenges impede the effectiveness of CSOs consultations, as reported by the participants of the online survey. One significant challenge is the limited access to comprehensive and timely information. CSOs often find it difficult to obtain detailed data and reports

from government agencies, which hinders their ability to provide well-informed input. Furthermore, the consultation processes can sometimes be perceived as tokenistic, with CSOs' recommendations not always being fully integrated into final policy decisions. This can lead to frustration and a sense of marginalization among CSOs.

Another challenge as reported by the participants of the online survey, is the disparity in resources and capacities among CSOs. Smaller organizations, in particular, may lack the technical expertise and financial resources to participate effectively in consultations. They may struggle to conduct the necessary research, mobilize stakeholders, or attend numerous meetings, thereby limiting their influence on policy outcomes. Additionally, the bureaucratic nature of government processes can be daunting for CSOs, especially those with limited administrative capabilities.

Moreover, there is often a disconnect between the urgency of climate action advocated by CSOs and the pace of governmental response. While CSOs push for rapid and transformative changes, government agencies may proceed more cautiously due to political, economic, and social considerations. This misalignment can lead to tensions and hinder collaborative efforts.

To address these challenges, it is necessary to enhance the transparency and accessibility of consultation processes. Government agencies should provide CSOs with timely and comprehensive information and ensure that their feedback is genuinely considered in policy-making. Capacity-building initiatives can also help smaller CSOs strengthen their technical and advocacy skills. Creating more inclusive and participatory platforms, where diverse voices can be heard and respected, is essential for fostering effective collaboration between CSOs and government agencies on just transition plans. Such efforts can ultimately lead to more equitable and sustainable climate policies in Cyprus. Also, as reported by the participants of the online survey, CSOs envision cooperation

between education providers at the national and local levels through shared leadership and the development of common education materials. These participants, suggested that collaboration should be both direct and indirect, face to face or remote, aiming for short-term and long-term benefits. Finally, participants advocated for the development of national curricula that integrate sustainability and just transition topics across all education levels, aligning with international standards and practices.

5. Cross-border solidarity

5.1 Transnational networking and coalitions in green transition for vulnerable groups in Cyprus

Transnational networking and coalitions are central in green transition for vulnerable groups in Cyprus. As previously mentioned, green transition with focus on just transition for vulnerable groups are limited in Cyprus. However, networks and coalitions on Climate Change and Sustainability, still may be instrumental in driving, directly and indirectly, the green transition for vulnerable groups in Cyprus.

One prominent example is the Mediterranean Information Office for Environment, Culture, and Sustainable Development (MIO-ECSDE, 2019). This federation of Mediterranean NGOs focuses on promoting sustainable development in the region through advocacy, education, and capacity-building. By participating in MIO-ECSDE, Cypriot organizations gain access to a wealth of knowledge and experience from other Mediterranean countries, enabling them to develop more effective strategies for addressing environmental challenges and supporting vulnerable groups.

Another key player is the European Environmental Bureau (EEB) (2023), Europe's largest network of environmental citizens' organizations. The EEB works to promote environmental sustainability and social justice across Europe. Cypriot NGOs benefit from the EEB's extensive lobbying efforts at the European Union level, promoting their concerns in EU policy-making processes. This support is important for advocating for policies that protect vulnerable populations during the green transition.

The Climate Action Network (CAN) (n.d.) is another significant coalition, comprising over 1,500 environmental NGOs from around the world. CAN's focus on climate justice and equitable

solutions aligns with the needs of vulnerable groups in Cyprus. By engaging with CAN, Cypriot organizations can collaborate on global climate campaigns, participate in international conferences, and gain insights into successful climate adaptation and mitigation projects implemented in other regions.

Additionally, the Union for the Mediterranean (UfM) (n.d.) provides a regional framework for cooperation on environmental and climate issues. The UfM's initiatives, such as the Mediterranean Strategy for Sustainable Development, aim to address the unique environmental challenges faced by Mediterranean countries. Through the UfM, Cypriot stakeholders can engage in regional projects that promote sustainable development and resilience among vulnerable communities.

These transnational networks and coalitions use various methodologies and tools to support their member organizations. They offer capacity-building workshops, online training sessions, and knowledge-sharing platforms to enhance the skills and expertise of local NGOs. They also provide funding opportunities and technical assistance for implementing sustainable development projects. By fostering collaboration and solidarity among member organizations, these networks enable Cypriot NGOs to amplify their impact and drive meaningful change for vulnerable groups.

5.2 Cross-border projects

Cross-border projects are essential for promoting a green transition and supporting vulnerable groups in Cyprus. These projects often involve collaborations between Cypriot organizations, international institutions, and neighboring countries. They aim to address common environmental challenges, enhance resilience among vulnerable communities,

and promote sustainable development practices. Here, we explore some notable cross-border projects focusing on environmental sustainability and climate change.

- ENI CBC Med Programme (2018): The European Neighbourhood Instrument Cross-Border Cooperation Mediterranean Sea Basin Programme (ENI CBC Med) is a key initiative fostering collaboration across Mediterranean countries, including Cyprus. It aims to address common challenges related to environmental sustainability, economic development, and social inclusion.
- LIFE Programme (n.d.): The LIFE Programme is the EU's funding instrument for the environment and climate action. It supports various projects across Europe, including Cyprus, focusing on biodiversity, circular economy, and climate change mitigation.
- LIFE Urban Proof Project (2016): The LIFE Urban Proof project aims to enhance the resilience of urban areas to climate change impacts. Cyprus collaborates with Italy, Greece, and Belgium to develop tools and strategies for climate adaptation in urban environments. The project involves engaging local communities, including vulnerable groups, in developing and implementing climate adaptation plans. Workshops and training sessions are conducted to raise awareness and build capacity among these groups, ensuring they are better prepared to cope with climate-related challenges.
- Interreg Balkan-Mediterranean Programme (2021): The Interreg Balkan-Mediterranean Programme fosters cooperation between Balkan and Mediterranean countries to promote sustainable development and economic growth.
- PRIMA Programme (2024): The Partnership for Research and Innovation in the Mediterranean Area (PRIMA) is a joint program by Mediterranean countries aimed at improving sustainable management of water and agri-food systems.
- SIMTAP Project (2019): The SIMTAP (Sustainable Integrated Multi-Trophic Aquaculture) project under the PRIMA programme involves partners from Cyprus, Greece, Italy, and Spain. It focuses on developing sustainable aquaculture practices that minimize environmental impact and promote food security. Vulnerable coastal communities benefit from the project through training in sustainable aquaculture techniques and the creation of new livelihood opportunities. By promoting environmentally friendly aquaculture, the project contributes to the green transition and enhances the resilience of these communities.

6. Conclusion and Recommendations

Efforts in Cyprus towards a green transition are diverse, incorporating policy initiatives, educational programs, advocacy campaigns, and cross-border collaborations. These initiatives aim for environmental sustainability and social inclusivity, focusing on vulnerable groups such as low-skilled adults, migrants, and women.

Educational programs play a significant role in this transition. The Ministry of Education, Sports and Youth, along with the Human Resource Development Authority, have been instrumental in integrating environmental education and sustainable development into formal and non-formal education. These efforts include specialized training for educators and broad-based programs designed to enhance digital and green skills across various demographics. Such programs prepare the next generation and current workers to contribute to a sustainable future.

Collaboration with civil society organizations (CSOs) is also vital. Groups like the Cyprus Youth Council, the Cyprus Federation of Environmental Organizations, Terra Cypria, and Friends of the Earth Cyprus are key players in advocacy, awareness campaigns, and educational initiatives. These CSOs mobilize communities, advocate for policy changes, and provide educational resources that complement government efforts. Their grassroots connections enable them to effectively engage with local communities and promote environmental awareness.

Cross-border and transnational projects further strengthen Cyprus's green transition efforts. Initiatives under frameworks like the ENI CBC Med Programme, the LIFE Programme, and Interreg foster international cooperation, bringing in expertise and funding to address environmental challenges. These projects facilitate knowledge transfer, capacity building, and the development of innovative solutions. By collaborating with

international partners, Cyprus can access new technologies and best practices that enhance its sustainability efforts.

Consultation with CSOs ensures diverse voices are heard in formulating climate and just transition policies. However, challenges such as limited funding, bureaucratic hurdles, and the need for greater public awareness persist. To overcome these obstacles, it is important to enhance educational programs, strengthen collaboration, boost funding and resources, promote public awareness, foster international cooperation, and implement robust monitoring and evaluation frameworks.

Expanding and diversifying educational programs to cover more aspects of environmental sustainability and green skills is essential. Ensuring these programs are accessible to all, especially vulnerable groups, through subsidies and targeted outreach will amplify their impact. Deepening partnerships with CSOs and leveraging their grassroots connections can enhance community engagement and advocacy efforts. Streamlining bureaucratic processes will facilitate smoother collaboration and resource allocation. As reported by the participants of the online survey, it is important to create meaningful and engaging learning environments by adopting a holistic approach, with curricula integrating interdisciplinary topics from natural sciences, social sciences, economics and technology.

Increasing funding for both government and CSO-led initiatives is critical. Establishing grant schemes and financial incentives can support small-scale community projects and innovative startups focused on sustainability. Launching comprehensive awareness campaigns to educate the public about the importance of green transition and sustainable practices is also necessary. Using diverse media channels and community events can help reach wider audiences.

Post-secondary vocational education and training institutes, technical schools, evening schools, public and private universities, along with institutions like the Human Resources Development Authority, Productivity Centre, and Pedagogical Institute, can play major roles. Curricula in schools could integrate interdisciplinary topics from natural sciences, social sciences, economics, and technology to provide a comprehensive view of Just Transition. Promoting interdepartmental cooperation within universities and schools to develop joint courses and projects can also enhance learning. Additionally, experiential workshops can offer hands-on learning experiences, making education more practical and impactful.

Continuing to engage in cross-border projects and seeking new international partnerships can provide valuable insights, technologies, and financial support. Developing robust frameworks for monitoring and evaluating the impact of green transition initiatives will ensure that goals are met efficiently and effectively. By addressing these recommendations, Cyprus can further solidify its commitment to a sustainable and inclusive green transition, benefiting both the environment and society, especially the most vulnerable.

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