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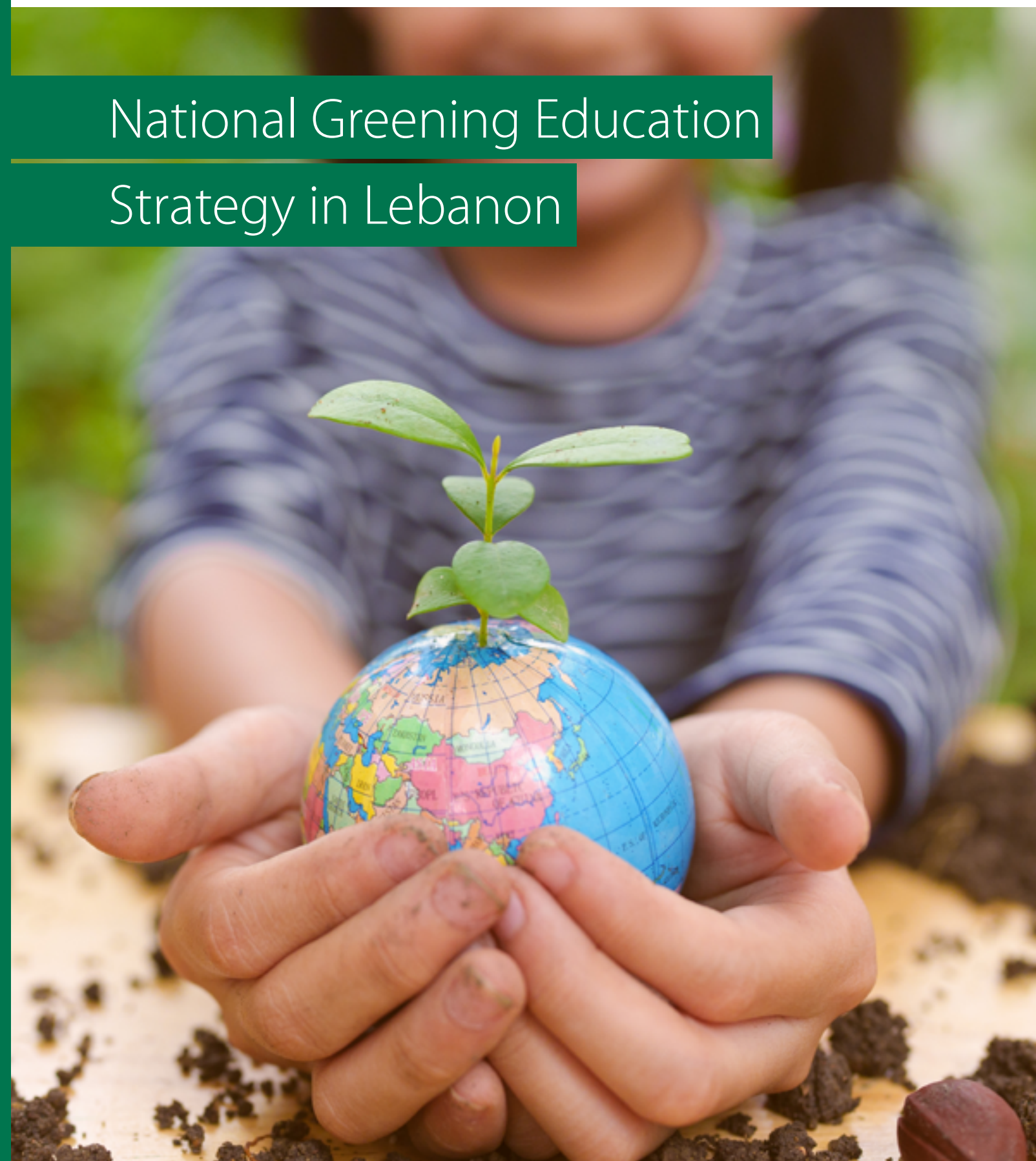
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National Greening Education Strategy in Lebanon



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UNESCO, as the United Nations' specialized agency for education, is entrusted to lead and coordinate the Education 2030 Agenda, which is part of a global movement to eradicate poverty through 17 Sustainable Development Goals by 2030. Education, essential to achieve all of these goals, has its own dedicated Goal 4, which aims to "*ensure inclusive and equitable quality education and promote lifelong learning opportunities for all*". The Education 2030 Framework for Action provides guidance for the implementation of this ambitious goal and commitments.



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National Greening Education Strategy in Lebanon



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Foreword

Greening Education is no longer a choice; it is a national imperative and a defining pillar of Lebanon's vision for a sustainable and future-ready society. Today, as the Government advances its broader agenda for green recovery and responsible development, the Ministry of Education and Higher Education (MEHE) stands firmly at the center of this transformation. Our role is not only to educate, but also to mobilize, convene, and build the alliances needed to turn national aspirations into collective action.

At this critical moment, MEHE is focused on the path forward: strengthening coordination, deepening partnerships, and ensuring that our efforts are fully aligned across government entities, national institutions, international partners, local authorities, and community actors. By bringing all stakeholders around one table, we are completing the circle, ensuring that each contribution complements the others, and that the education sector becomes a unifying force for environmental responsibility and sustainable progress.

Building on Lebanon's longstanding tradition of innovation, the Lebanese Strategy on Greening Education emerges as a catalyst for long-term reform. It empowers learners, educators, and communities with the skills, values, and leadership needed to shape a greener and more prosperous future. More than a policy document, it represents a national commitment to embed environmental stewardship, sustainable development, and climate awareness across teaching, learning, and the daily life of every school.

Rooted in the global Education for Sustainable Development (ESD for 2030) agenda and aligned with the Sustainable Development Goals, this strategy offers a comprehensive framework for curriculum development, teacher training, school operations, youth participation, and community engagement. It calls for whole-school approaches that transform each school into a living laboratory for sustainability: spaces where learners experience firsthand how environment, economy, and society connect, and where they are empowered to become champions and defenders of environmental well-being in their communities.

We extend our deep appreciation to former Minister of Education and Higher Education, Dr. Abbas El-Halabi, whose leadership initiated this strategy and launched the national Greening Education Partnership Call to Action. This strategy is the result of an extensive participatory process led by MEHE and the Center for Educational Research and Development (CERD), with the support of UNESCO Regional Office in Beirut, and in collaboration with line ministries, public and private schools, universities, municipalities, NGOs, youth groups, parents' associations, and international partners.

It is both a promise and a call to action: a promise that Lebanon is committed to investing in a greener, fairer, and more sustainable future for every learner, and a call for all partners, public and private, local and international, to join forces so that Greening Education becomes a lived reality in every classroom, every school, and every region of the country.

Rima Karami Akkary
Minister of Education and Higher Education

Foreword

Education is not only a fundamental human right, it is the foundation of peace, tolerance, and sustainable development. In 2020, the Transforming Education Summit (TES) reaffirmed the global commitment to harness education as a catalyst for human dignity, prosperity, and sustainability. Its call to “transform education to transform the world” set a bold agenda: education must empower learners not only to thrive but to shape a more just, inclusive, and sustainable future.

Answering this call, UNESCO launched the Greening Education Partnership, a global initiative designed to equip every learner with the knowledge, skills, values, and attitudes needed to confront climate change and drive sustainable development. This initiative is about more than education, it is about shaping the leaders, innovators, and change-makers of tomorrow.

Lebanon has joined this global movement with renewed purpose. On 23 January 2023, the country’s Ministers of Education and Environment officially launched the Call to Action for Greening Education in Lebanon, signaling a national commitment to education as a vehicle for sustainability and transformative change.

Guided by this vision, the UNESCO Regional Office in Beirut, in close collaboration with the Ministry of Education and Higher Education (MEHE) and the Center for Educational Research and Development (CERD), has worked to translate ambition into action. The National Greening Education Strategy embodies a collective effort, bringing together ten ministries, public institutions, NGOs, UN agencies, and local communities under MEHE’s leadership. Together, they are defining a shared national vision for education that equips learners to thrive in, and contribute to, a rapidly changing world.

This Strategy is both a compass and a call to action. It aligns with the four pillars of the Greening Education Partnership, greening schools, greening learning, greening capacity and readiness, and greening communities, while advancing Lebanon’s broader education reform agenda. More than a plan, it represents a commitment to cultivate learners who are resilient, responsible, and prepared to shape a sustainable future.

At the heart of this transformation is partnership. By harnessing the collective power of government, civil society, academia, and youth, education can become a force for environmental stewardship, social cohesion, and innovation. Together, we can ensure that education in Lebanon does not merely reflect the world as it is, but helps create the world as it should be, a greener, more inclusive, and sustainable world for all.

Paolo Fontani
Director, UNESCO Regional Office in Beirut

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List of Acronyms

ALESCO	Arab League Educational, Cultural and Scientific Organization
ALMEE	Association Libanaise pour la Maîtrise de l'Energie et pour l'Environnement The Lebanese Association for Energy Saving and for the Environment
AFDC	Association for Forests, Development and Conservation
ASP Net	Associated Schools Project Network
CCE	Climate Change Education
CRDP	Center for Educational Research and Development
CSR	Corporate Social Responsibility
DOPS	Direction de l'Orientation Pédagogique et Sociale
DRR	Disaster Risk Reduction
ECDE	Early Childhood Development and Education
EE	Environmental Education
EFA	Education for All
EIMSB	Educational Installations and Material Support Bureau
ESD	Education for Sustainable Development
GAP	Global Action Programme
GCED	Global Citizenship Education
ICESCO	Islamic World Educational, Scientific and Cultural Organization
JAD	Joint Academic Departments
LNFGPE	The Lebanese National Framework for General Pre-university Education
MOA	Ministry of Agriculture
MOE	Ministry of Environment
MOEW	Ministry of Energy and Water
MOIM	Ministry of Interior and Municipalities
MOSA	Ministry of Social Affairs
MOYS	Ministry of Youth and Sports
NEEAP	National Energy Efficiency Action Plan 2011-2015 for Lebanon
NEEREA	The National Energy Efficiency and Renewable Energy Action
NGO	Non-Governmental Organization
OER	Open Educational Resources
PITB	Pre-service and In-service Training Bureau

SD	Sustainable Development
SDGs	Sustainable Development Goals
TTCM	Teacher Training Curriculum Model
TU	Technical Units
TVET	Technical and Vocational Education and Training
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNICEF	United Nations Children’s Fund

Definitions

Education for Sustainable Development	A general and evolving concept that can be broadly interpreted as holistic and aiming for transformational education. It addresses learning content and outcomes, pedagogy and the learning environment to achieve societal transformation. It incorporates key sustainable development issues into teaching and learning. Such issues are climate change, disaster risk reduction, gender equality, biodiversity, poverty reduction, and sustainable consumption.
Formal Education	Learning activities carried out at school, college and university systems based on an established curriculum and on approved teaching and assessment methods.
Global Citizenship Education	A form of civic learning that aims to empower learners to assume active roles to resolve interconnected global challenges and become proactive contributors to a more peaceful, tolerant, inclusive, and secure world.
Green Curriculum	An educational program or approach that emphasizes environmental awareness, sustainability, and the conservation of natural resources. A green curriculum may focus on a wide range of topics, including climate change, renewable energy, waste reduction, conservation of biodiversity, and sustainable agriculture.
Green Economy	A shift towards a development path that promotes resource efficiency and sustainable management of natural resources, social inclusion, resilience, and sustainable infrastructure development.
Green Jobs	Jobs that contribute to preserve or restore the environment whether in traditional sectors such as manufacturing and construction, or in new, emerging green sectors such as renewable energy and energy efficiency.
Informal Education	Informal education refers to learning/education taking place outside the formal education systems. It usually arises from the learners’ daily life activities. It is provided within families, religious organizations, community groups and traditional culture, as well as by news organizations, social media and various forms of entertainment.
Non-Formal Education	It refers to any organized educational activity taking place outside the framework of the formal education system. It targets specific groups/categories of people with life skills, values and attitudes for personal and community development.
Sustainable Development	Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.
Whole-School Approach	A whole-school approach to ESD means that a school shall incorporate teaching and learning for sustainable development not only through aspects of the curriculum, but also through sustainable school operation such as integrated governance, stakeholder and community involvement, long- term planning, and sustainability monitoring and evaluation.



Chapter 1

INTRODUCTION

1.1 Background

The concept of sustainability has emerged as an indispensable guiding principle for the well-being of both current and future generations as a result of a world confronted by mounting environmental, social, and economic challenges. Education for Sustainable Development (ESD) is the means by which individuals can develop knowledge, skills, and values necessary to navigate a complex and rapidly changing global landscape. It empowers learners to comprehend the relationships between environmental, social, and economic systems and equips them to make informed decisions that prioritize the health of the planet and the welfare of all its inhabitants.

Significantly, the international community emphasized focusing on global sustainable development challenges, with climate change being one of them, as it represents one of the major concerns influencing countries' paths toward sustainable development.

1.2 International Context

Greening education has been introduced following a number of agreements and regulations. Agenda 21, adopted in 1992 at the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro summit, known as "Earth Summit", represents a comprehensive worldwide approach to tackling issues related to sustainable development and the environment. It provided a course of action for governments, the UN, and other international, national, and local players.

In 2015, The United Nations launched a comprehensive strategy to solve urgent global issues such as poverty, inequality, environmental degradation, and climate change. In order to create a more just, sustainable, and prosperous

world for all people, 193 United Nations member states committed to achieving 17 Sustainable Development Goals (SDGs) by 2030. This commitment is known as Agenda 2030.

The UN SDGs have had a special influence on the worldwide priorities for education. *Education for Sustainable Development (ESD for 2030)* has become the global framework for implementing ESD from 2020 to 2030 with the goal of achieving the SDGs. ESD for 2030 was adopted by the UN General Assembly at its 74th Session in 2019 and by the General Conference of the United Nations Educational, Scientific, and Cultural Organization (UNESCO) at its 40th Session, building on the knowledge gained during the Global Action Programme on ESD (GAP, 2015-2019).

In 2020 UNESCO published the document *Education for sustainable development: a roadmap*, which aims to support member states and other stakeholders in achieving ESD by 2030. The roadmap highlights both the individual and social transformation required to solve the urgent sustainability issues and the crucial role that ESD plays in ensuring that the 17 SDGs are effectively addressed. It provides particular strategies for quickening progress in five key areas of action: Policy, education environments, building educator capacities, youth, and local level action. By identifying the key areas in which the ESD for 2030 framework must be implemented, this roadmap serves as the main manual for creating the "Greening Education" Strategy, offering a structure of important topics to focus on and assisting in coordinating with the SDGs.

The UNESCO World Conference on Education for Sustainable Development, which took place in Berlin, Germany, 2021, adopted the *Berlin Declaration on Education for Sustainable Development* which emphasizes the central role of ESD across all educational levels and labels it as a key player in achieving all SDG.

In September 2022, the Transforming Education Summit was organized in response to a global education crisis centered on issues of relevance, equity, and quality. The Summit offered a rare chance to push education to the top of the international political agenda, organize action, ambition, solidarity, and solutions to make up for learning losses caused by pandemics, and plant the seeds of change in education for a rapidly changing world.

The European Union approved many initiatives towards Greening Education; *GreenComp, the European sustainability competence framework (2022)* are considered important references to the “Greening Education Strategy.” The framework presents a well comprehensive guide for greening education in formal, non-formal, and informal educational and training programs and policies based on four sustainability related competence groups, embodying sustainability values, embracing complexity in sustainability, acting for sustainability and envisioning sustainable futures.

UNESCO has launched the *Greening Education Partnership* that seeks to give all students the knowledge, skills, attitudes, and values they need to combat climate change and advance sustainable development. It extends an invitation to institutions, organizations, and member states to provide comprehensive, coordinated, cooperative, and robust initiatives in the field of sustainability education. As of today, 81 countries and more than 1100 stakeholders from all regions of the world have joined the Partnership.

Concerning the Arabic regional context, the Arab Ministerial resolution in 2012 underscored the rising attention of drafting an Arab strategy for Education for SD calling on specialized organizations like ALESCO, ISESCO, UNESCO and civil society to participate in drafting this strategy. In addition, the report *Environmental Education: For Sustainable Development in Arab Countries (AFED)* drafted in 2019, highlights the importance of environmental education in achieving sustainable development in the Arab countries.

1.3 Lebanese Context

1.3.1 Environmental Situation and Challenges in Lebanon¹

For the past four years, Lebanon has been assailed by compound crises—specifically, an economic and financial crisis, followed by COVID-19, and lastly, the explosion at the Port of Beirut on August 4, 2020. Lebanon’s economy and finances have been affected by many crises since the mid-nineteenth century².

Major challenges may be summed up as follows: Energy crisis, economic and monetary crisis, Syrian refugees, lack of security, lack of financial and technical support to the public institutions, and finally lack of monitoring of the application on the Environmental Protection Law No. 444/200.

Environmental degradation is occurring on a global scale, and Lebanon is not an exception. Environmental damage in Lebanon has reached critical levels. Problems in relation with poor air and water quality, inadequate treatment and disposal of hazardous waste, land contamination, and deforestation are among the most severe environmental threats that the country is currently facing and should begin to effectively deal with.

1.3.2 Climate change

The Mediterranean region has been identified as one of the most important “hot spots” in projections of future climate change³. It has experienced drastic climate changes over the years and has shown significant changes in the past.

According to the Biennial update report for Lebanon (BUR4_2021)⁴, for the Mediterranean region, climate experts predict during this century an increase in air temperature, a significant drop in precipitation, an increase in periods of drought manifested, and a rise in sea level. The impact of rising temperatures, decreasing precipitation, increasing the number and intensity of extreme events and possible sea level rise overlap and amplify already existing pressures of anthropogenic origin on the natural environment. Because of the scarcity of water resources, their

impacts have had serious consequences in the 21st century on human activities, notably agriculture, fishing, tourism, infrastructure, urbanized coastal zones and hydroelectric production. In order to minimize economic losses and damage, several options must be considered and implemented.

1.3.3 Energy

Lebanon is ranked among the countries that are rich in three sources of renewable energy (solar, wind, and hydro). The cost price of electricity produced through these energies is far lower than that paid by the Lebanese for electricity produced using fuel. Although the exploitation of renewable energies is currently one of the few available resources that could assist in overcoming the electricity crisis, and meet a critical criterion of ecological buildings, the Lebanese Government efforts have remained insufficient for the past 20 years. Thus, only 2% of the electricity produced had been through renewable energies (mainly the hydro-electric energy production) before the crisis.

There is a huge lack of reform and investment in the energy transition in Lebanon. Policies set for Renewable Energies and Energy Efficiency were mostly unsuccessful, and the financial mechanisms in favor of renewables didn’t succeed in making considerable transformations in the energy sector at the national level. Wind farms project (Hawa Akkar-between 100 and 200 MW until 2014) launched by the Government for an IPP partnership had failed so far: No wind farms were installed. Most of the regulations concerning the energy sector (exploitation, privatization, fiscal and monetary incentives, electricity regulatory body, BOT, Net-metering, etc.), had not been applied and had fallen into disuse.

1.3.4 Built Environment

Buildings are responsible for energy consumption and raw materials utilization, therefore, contributing to more than 40% of the GHG emissions. Particularly, green buildings consist of conserving energy and materials by focusing on energy efficiency measures and technologies, renewable energy for heating and electricity production, passive effect of the envelope, building location and orientation, conserving natural resources, managing water,

producing healthier indoor environment, using eco-friendly materials, producing less waste and integrating green sites.

In Lebanon, there is No Energy Efficiency building code to-date, with no sustainable construction law (only few incentives) and no regulations.

It should be noted that Environmental Impact Examination and Assessment reports are required for big construction projects determined in the Decree No 8633/2012.

1.3.5 Waste

There is no sustainable and integrated solid waste management in Lebanon at the moment, and this has deprived the Lebanese of their right to good health. The MoE with the World Bank are developing an executive strategy for the country that needs technical and financial intervening bodies.

Civil society as well as some local authorities are proposing some initiatives to raise awareness for sorting from the source to collect and treat some recyclables.

1.3.6 Water

Lebanon’s expenditure on the water and wastewater sector over the past 30 years, which is around US\$ 4 billion, has been insufficient to meet growing water demands and wastewater generation⁵. In addition, water pollution is rampant, with no control measurement, and water conservation remains largely a slogan. This results in chronic water shortage, with limited access to safe and improved water resources.

It is worth noting that there is no management of water-related ecosystems and biodiversity at the national level that is being implemented; also, there are no management instruments to reduce impacts of water-related disasters from the national level that are being implemented.

Moreover, the deteriorated conditions of wastewater network and facilities in Lebanon have always been presented as a major concern with lack of serious intervention from the Lebanese government. Subsequently, both ground and

¹ This abstract is extracted from a report, prepared for the purpose of this Strategy by ALMEE.

² Spring 2021 Lebanon Economic Monitor.

³ F. Giorgi, Climate change hot-spots. Geophysical Research Letters (2006). <https://doi.org/10.1029/2006GL025734>.

⁴ MoE/UNDP/GEF (2021). Lebanon’s Fourth Biennial update report the UNFCCC. Beirut, Lebanon.

⁵ Garios, G. & Farajalla, N. (2020). Investment Plans in the Water Management Structure of a Post-War Country: The Case of Lebanon Challenges (aub.edu.lb).

surface water pollution aggravated with time due to free discharge to sea and rivers and random septic tanks, creating a health-threatening dilemma.

The reason behind that deficiency of wastewater service in Lebanon is the lack of investments by the Lebanese Government in this sector along with the absence of convenient management.

1.3.7 Air Pollution

The degradation of air quality is considered one of the major environmental risks affecting public health in Lebanon.

The main anthropogenic sources of air pollution in Lebanon are traffic, diesel generators, power plants and industries, and natural sources such as dust storms and forest fires.

1.3.8 Eco-Systems

Lebanon exhibits extensive diversity in bioclimatic conditions inspiring elevated richness in ecosystem, habitat and microhabitat variation, thus expanding the potential for a broad range of biological elements to exist and a number of endemics to typify its land.

The major ecosystems of Lebanon include the terrestrial, the mountainous, the river valley, the aquatic ecosystems such as rivers, streams, springs, boggy lands and wetlands encompass high diversity, the semi-arid and arid ecosystems (northern Bekaa in their natural extension toward the desertic internal plains of Syria) and the coastal and marine ecosystems.

Currently, Lebanon suffers from forest degradation due to wildfires and built environment. MoE reported in “Lebanon state of the environment and future outlook (MOE – 2020)”⁶, that forest wild fires have caused the fragmentation, loss and degradation of sizable hectares of forested land affecting ecosystem services as well as local community’s livelihood. Based on the MoE database, Lebanon lost 837.96 ha, 206.52 ha, 1851.93 ha, and 1870.54 ha of vegetation cover (forests and other wooded lands) during the years 2012, 2013, 2014,

and 2016 respectively. Forest fires are the major cause of soil degradation, especially in the areas that have been consecutively exposed to fires, which limits their chances for forest regeneration.

1.3.9 Biodiversity

Lebanon’s biodiversity is facing various threats, namely habitat loss and fragmentation, unsustainable exploitation of natural resources, pollution, invasive species, introduction of new improved varieties (agro-biodiversity), and climate change.

1.4 Greening Education and ESD in Lebanon

“Preserving Lebanon’s resources and its natural environment and working to protect, improve and constantly maintain it” is among the general objectives of the current Lebanese curriculum which was established in 1997 by CRDP. In fact, Lebanon has been exerting efforts towards environmental education and the reinforcement of Education for Sustainable Development supported by UNESCO Multisectoral Regional Office.

MEHE and CRDP, participated in the Connecting Classrooms Global Project - Middle East and North Africa Region 2008 to 2021 with the cooperation of the British Council in Lebanon. The goal of the project was to achieve and develop sustainable educational products in the participating schools, taking into account the Lebanese curriculum. Partnerships and networks have been established with schools in the United Kingdom and other countries participating in the project.

In 2012, MEHE issued the decree: 8924/21-9-2012⁷ that addresses community service in public and private sector for secondary students only.

In addition, CRDP launched in 2012 with AFDC (a Lebanese NGO) the National Strategy for Environmental Education along with environmental education curriculum for cycle 1, followed by cycle 2 in 2014.

In 2013, Lebanon and Jordan proposed the project “Preparation and development of ESD Resource Modules in Basic and Secondary Education” at the Regional Expert Consultation Meeting on Education for Sustainable Development in the Arab States: Final Assessment of the Decade and Post-2014 ESD Framework (Beirut, May, 15 – 16, 2013).

The paper consumption reduction project was conducted in 2018 by CRDP with the cooperation of AFDC, on paper waste in schools. The project included a policy for reducing paper consumption, curricular activities, and training for principals, teachers, and administrators in participating schools.

In 2017, the on-going Green Demonstration Room project was launched by CRDP with the cooperation of local NGOs (the Lebanon Green Building Council and the Makhzoumi Foundation), to support educational curricula regarding environmental conservation and the use of alternative energies. Lately, the Green Demonstration Room has been reactivated with the support of UNESCO.

The most recent [5-year plan of MEHE \(2019-2025\)](#) recognizes that education is an essential part of human development; quality education is a stand-alone sustainability goal, and also an enabler of all 17 sustainability goals. The plan addresses ESD through the Sustainable Facility Management at Public Schools in Lebanon project (SUFA) which is to be put into action and expanded. The project, introducing the idea of “green Schools,” was initiated in 2019 with support from GIZ Lebanon; thus, the project entails setting up outdoor classrooms, school gardens, eco-friendly hardware, and environmental instruction at the school level.

Currently, MEHE is considering a 2-year plan reform that will focus on extracurricular activities, home support and school leadership as areas of educational policies priorities.

Moreover, MEHE DOPS is working on an on-going initiative “Green, Health, Food” in schools that addresses the goals of green and sustainable school.

In addition, there is an ongoing project called E twinning, supported by EU, that addresses sustainability through various means to state extra-cellular activities, projects awards, and teachers’ professional development.

At the [Transforming Education Summit](#), Lebanon was represented by the Minister of Education and Higher Education, Dr. Abbas El Halabi, who reaffirmed Lebanon’s support for the six proposals and call for action. The call for action for greening education in Lebanon was issued on January 23, 2023, by the Minister of Education and Higher Education and the Minister of Environment.

A first step towards transforming the Lebanese educational system has already started through the adoption of the National Curriculum Framework in November 2022. Citizenship, sustainability and education for sustainable development are core competencies referred to in the framework. The curriculum aims towards raising citizens that adopt the concept of sustainable development, and face sustainability challenges with accountability, transparency, liability and justice.

The Higher education sector has also been involved to some extent in developing ESD at both the public and private sectors.

At the Faculty of Education at the Lebanese University, there are three main courses delivered addressing ESD: Environmental Education and Health Education for undergraduate students, and Education for Sustainable Development for postgraduate students. In addition, there is a major research axe in the faculty dedicated for ESD resulting in a number of thesis dissertations as well as published articles about ESD in Lebanon.

Another initiative, is the Chair of ‘Foundation Diane’ for Education in Eco-citizenship and Sustainable Development (CEEDD) launched by the Saint Joseph University, a private university in Lebanon. It is a platform for eco-citizen awakening and education for sustainable development that is committed to raising awareness, providing education, and generating knowledge on eco-citizenship and sustainable development.

Other initiatives are found at the American University of Beirut, mainly the Faculty of Education, where ESD is integrated in pre-service teachers training program along with other Stem related projects. The faculties of Agriculture and Health Science also deliver ESD related projects.

⁶ https://www.moe.gov.lb/ledo/soer2001pdf/chpt3_ind.pdf.

⁷ <https://www.mehe.gov.lb/ar/SiteAssets/community-service-%2021-9-2012-%208924-%20رقم%20خدمة-المجتمع/امر%20رقم%208924-%20تاريخ%202012-9-21.pdf>

Many Lebanese NGOs are addressing environmental issues from awareness perspectives. The situation analysis carried out for the purpose of this strategy shows that Lebanese NGOs specialized in environment, citizenship and education have not yet established a holistic approach for ESD.

1.5 Challenges of Sustainability Implementation

Despite promising efforts of different stakeholders in the context of ESD, there are many challenges that face the proper implementation of ESD, some are global, and some are specific to the Lebanese context. Some of these challenges include the following:

- Inadequate collaboration among ESD institutions. ESD is a complex issue that needs coordination among several stakeholders and public and private partnerships.
- Insufficient funding and training opportunities, with limited emphasis on promoting equal partnerships.
- Scarce availability of resource materials for tasks like policy development, curriculum design, and teacher training.
- The role of NGOs in promoting ESD lacks clear definition and direction.
- The limitation of ESD scope to the provision of knowledge on environment.
- Absence of the holistic approach addressing environmental and social and economic pillars. when addressing ESD. Mekhael and Shayya (2018)⁸ reported that environmental and social pillar knowledge, skills and attitudes are more highlighted than that of the economic pillar.
- The economic instability and prevailing security issues in Lebanon continue to pose challenges not only for ESD but also for the overall development.

1.6 Rationale

Lebanon's need for a Greening Strategy is driven by both global considerations and the urgency of addressing national sustainability and environmental challenges. These challenges include the need to combat pollution, address waste management issues, transition to renewable energy sources amid an economic decline, and ensure food security and sustainable agriculture in the face of currency devaluation. To effectively tackle these issues, a societal transformation is imperative, and education, particularly through "Greening Education," plays a pivotal role in achieving this transformation. As previously described, there are many initiatives and efforts to implement ESD in Lebanon, but the efforts lack the shared vision, stakeholders' partnerships, and community involvement.

The development and the implementation of the "Greening Education"/ESD Strategy is indispensable to unify the vision and join the efforts of UNESCO, MEHE/DGE and CRDP, other line ministries, Faculties of Education in different universities in Lebanon, NGOs and local community leaders (municipalities) and other UN agencies as well as donors to create a harmonized impactful work on Greening Education.

This Strategy is initiated and supported by UNESCO and is included in the MoU between UNESCO and CRDP.

1.7 Methodology

Following the Transforming Education summit, the Ministers of Education and Higher Education and Environment issued a call for action on January 23, 2023, for greening education in Lebanon during the 'Greening Education Seminar' organized by UNESCO.

Therefore, a comprehensive review of the above mentioned ESD documents both at the international and national level formed the basis of the initial approach to the drafting of the Greening Education Strategy. [*Education for sustainable development: a roadmap*](#) was adopted as the primary guiding

document for the Strategy, while other documents were utilized as supplementary references.

Subsequently, a country-level working group has been formed to oversee the comprehensive coordination of planning, execution, networking, monitoring, reporting, and communication related to Greening Education. This inclusive and dynamic working group consists of education policy-makers and practitioners at various levels, encompassing institutional, local, national, regional, and global domains. This group includes representatives from Ministries, NGOs, representatives of parents' associations, private educational institutions, UN agencies specially UNESCO who is the major support for this strategy, youth representatives, and academia. The aim of forming such a group is to foster broad-based and cross-sectoral collaborations and partnerships.

In a previous step to the drafting of this strategy, a situation analysis was conducted to map the existing ESD related policies, plans and activities in Lebanon while also identifying the relevant stakeholders involved in these efforts. This situation analysis was supported by AFDC.

Special tools were prepared and validated by the expert-lead of this strategy in order to collect data from public sector (line ministries), NGOs, private schools and Higher Education Institutions.

Four national consultations were held to design the approach shaping the strategy and to feed its objectives and identify priority areas. In parallel, data was also collected through interviews and focus groups carried out by CRDP staff

⁸ Mekhael, E. & Shayya, J. K. (2018). Measuring grade 10 students' knowledge, skills and attitudes of sustainable development. International Journal of Learning and Teaching, 10(3), 269-291.



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Chapter two

VISION, MISSION, AND OBJECTIVES



- ❑ **Vision** - The vision of the green education is to foster the responsibility of the Lebanese people towards sustainability and to empower children and youth to become agents of change towards a sustainable and harmonious future for Lebanon.
- ❑ **Mission** - The strategy aims to create a framework that clarifies explicitly roles and responsibilities and bring coherence among diverse stakeholders, including educational institutions, non-governmental organizations, government entities, and local communities, to collectively advance Greening Education into educational policy, sustainability culture and practices.

2.1 General Objectives

The general objectives of the strategy include the following:

- Aligning policy, legislation, and operational frameworks to bolster support for greening education.
- Advancing greening education in an ESD framework through various learning approaches, including formal, non-formal, and informal education.
- Empowering educators with the necessary competencies to seamlessly incorporate Sustainable Development into their teaching.
- Empowering youth to increase their involvement in the achievement of sustainability.
- Encouraging research on and the development of ESD initiatives.
- Enhancing collaboration on greening education at all levels within Lebanon.

2.2 Scope and Target Audience

The Greening Education Strategy will be setting guidelines for formal and non-formal education in Lebanon from early childhood classes until grade 12 of the academic track; for the time being, TVET and higher education tracks will be excluded. The strategy will be setting the foundation for the future development of an aspired Greening Education Strategy in TVET and higher education institutions.

The target audience of this strategy is diverse and encompasses various groups, including the following:

- **Learners:** ESD primarily aims to empower learners of all ages with the knowledge, skills, values, and attitudes needed to address sustainability challenges and make informed, responsible decisions.
- **Educators and Schools:** Teachers, principals, parents, and educational institutions play a pivotal role in delivering ESD by incorporating sustainable development principles into curricula and teaching practices.
- **Policy-Makers:** Government officials and policymakers at the local, national, and

international levels (specially UNESCO) are essential stakeholders in shaping educational policies that promote ESD and integrate sustainability into educational systems.

- **Community and Civil Society:** NGOs, municipalities, community leaders, and civil society organizations work to foster environmental awareness, social engagement, and sustainable practices within local communities.
- **Businesses and Industry:** Private companies can support ESD through sustainable business practices, as well as by collaborating with educational institutions to promote sustainability in the workforce.
- **Academia and Researchers:** The academic community contributes to ESD by conducting research, developing educational materials, and sharing knowledge related to sustainable development.
- **International Organizations:** Organizations like UNESCO and other UN agencies, and other international bodies provide guidance, resources, and frameworks for the global advancement of ESD.
- **Media, general Public:** ESD promotes awareness and understanding of sustainability issues among the general population, encouraging responsible behaviors and choices in daily life.

In essence, greening education strategy seeks to engage a wide range of individuals and groups to create a holistic approach to sustainable development that involves education at all levels and across all sectors of society.

2.3 Guiding Principles

The guiding principles of the greening education/ESD strategy in Lebanon shape its vision and provide the framework for transformative action in the realm of Education for Sustainable Development.

- ESD is founded on a rights-based approach to education; it is concerned with the provision of quality education and learning that is relevant today.
- Recognizing children and youth participation is critical for addressing sustainability issues: Active democratic citizenship and inclusion as well as accountability as a means of

empowering people and community.

- ESD must instill systemic, critical, and creative thinking in learners at all levels, fostering the essential mindset for sustainable development actions, both locally and globally.
- Shift the focus in ESD from mere knowledge provision to problem-solving and solution identification, necessitating changes in the structure of education programs and teaching methods, and fostering a collaborative approach between educators and learners.
- Embrace ESD as a lifelong process, integrating it into educational programs at all levels, including continuous professional development for educators and decision-makers.
- Strengthen the effective implementation of multilateral environmental agreements and relevant international agreements concerning sustainable development through ESD.
- Balance the consideration of diverse local, national, and global contexts in ESD, and ensuring harmony between global and local interests.
- Promote multi-stakeholder collaboration and partnership in ESD, involving governments, education and scientific sectors, the private sector, media, NGOs, communities, and international organizations.
- Recognize the role of formal education institutions in shaping capacities, knowledge, attitudes, and behavior for sustainability and emphasize the principles of sustainable development throughout educational communities.
- Support non-formal ESD activities as a vital complement to formal education, acknowledging their learner-centered, participatory, and lifelong learning-promoting nature.
- Addressing the issues of equity, solidarity and interdependence, as well as relationships between humans and nature, is vital for ESD.

Chapter 3

ADVANCING POLICIES

3.1 Introduction

In order to achieve systemic changes toward sustainable development, the alignment of educational and the sustainable development policies is central and essential. As a matter of fact, research has shown that ESD is relevant to ensure quality education as it plays a vital role in implementing not only SDG4 but all the 17 SDGs.

In Lebanon there is no clear and specific national framework or policy for ESD that can ensure quality education and clarify the complementarity and coordination between sustainable and educational policies, though there are some initiatives that highlight the importance of ESD within the educational sector, yet it lacks that vision on policies alignment and integration. There is still work to be done to guarantee complete policy coherence between the nation's development goals, which will be accomplished through the education sector and by incorporating other relevant sectors for sustainable development.

The situation analysis has shown several actions and initiatives taken by line ministries (see Annex 1).

Referring to the policies and actions taken by the line ministries, it is obvious that the Lebanese law and policies neglect explicit reference to Climate Change education and communication. It is also well noticed that the integration of ESD into sectoral strategies and national development policies in Lebanon is not well articulated. The desired transformation would be crucial for the Lebanese educational system to become sensitive, responsive and resilient to the current and upcoming sustainability and Climate Change Education issues.

Policy instruments such as funding, infrastructure development and capacity support are necessary to strengthen the education sector in support of

sustainable development. Education policy-makers at local, national, regional and global levels should integrate ESD into education policies, including those that concern learning environments, curricula, teacher education, student assessment, while keeping a gender perspective in mind.

3.2 Objectives and Actions

Based on the above, five main objectives are proposed for the advancing policies along with their actions:

Advancing policies		
Objectives	Actions	Stakeholders
1 Integrate ESD in all ministerial sustainable policies and plans	- Designate a structure responsible for education, awareness and communication and strengthen its capacity within each ministry. - Outline the procedures of collaboration and coordination with CRDP. - Develop professional ESD workshops to train the personnel. - Cooperate with CRDP for educational resources.	- MEHE - Line Ministries - CRDP
2 Enable an educational system that develops ESD educational policy, strategies and plans in covering all educational sectors centrally and regionally (Mohafazat, casas and municipalities)	- Conduct an ESD situation analysis in the Lebanese educational sector. - Enact some existing and/ or create new educational laws, policies that highlight ESD. - Sensitize and train focal points and ESD professionals. - Develop an ESD competency-based framework. - Integrate ESD into education programs, curriculum, policies and plans. - Develop a framework to promote and encourage a whole institution approach to sustainability and ESD in all educational and training institutions.	- MEHE - CRDP
3 Promote policy coherence and alignment: Encourage coherence and alignment of this ESD advising policy and strategy within and across all other governmental and non-governmental policies centrally and regionally	- Encourage sustainable practices in pertinent initiatives, policies, and action plans by active collaboration between government departments and seeking agreement with ESD principles and this advising policy. - Create a national platform to set guidelines and procedures for the implementation of all priority actions mentioned in this strategy; this platform will have similar structure at several regional, casa, municipality levels. - Institutionalize the active participation of all stakeholders in implementation, design new frameworks, monitoring and evaluation. - Encourage collaborations between the ESD Strategy and other formal and non-formal educational initiatives. - Make all action priorities defined into this strategy operationalized: clear structure and procedures. - Collaboration with the Lebanese Parliament and the relevant ministries to develop relevant legislations.	- All line Ministries - NGO - Country-level working group

Objectives	Actions	Stakeholders
4 Make the educational system sensitive, responsive and resilient to climate change crisis	- Create a multi- sectoral coordination platform/mechanism for climate change education and resilience with clear roles and responsibilities for stakeholders. - Develop education sector policies/frameworks: formal and non-formal education programmes, teacher capacity development programmes aligned with climate change mitigation and adaptation priorities - Establish clear and transparent implementation mechanisms, together with necessary resource allocations.	- MEHE - Line ministries - Municipalities - NGO
5 Funding	- MEHE budget that considers ESD funding - Environmental violations fine to fund ESD activities - Line ministries allocate funds from their budgets to fund raising awareness and communication activities - Corporate social responsibility (private sector) - Orientation of donations: international NGOS - Local funding (municipalities; private business sector; local NGO)	- MEHE - Line ministries - Municipalities - NGO - Private local business sector



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Chapter 4

TRANSFORMING LEARNING ENVIRONMENT

4.1 Introduction

The Lebanese National Framework for General Pre-University Education LNFGE⁹ focused on the concept of sustainable development and the importance of achieving its goals, as well as developing competencies related to sustainable development. “Physical, health, and environmental competencies” were identified as transversal competencies. LNFGE also addressed environmental risks and climate change in its rationale and stated that “the developed curriculum should include the elements that define the “green curriculum.” This means exposure to natural environments, and issues related to man-made, and the means to protect learners efficiently and responsibly, starting with daily behavior, and ability to solve issues in working on projects and serving the community. The curriculum fosters learners’ local and global environmental awareness, and develops their ability to engage in public and professional affairs, with the aim of ensuring sustainable development directed towards the development of their local communities.

In addition, CRDP has launched a number of reference frameworks, guides, and literature that contribute to promoting school development and improvement and are in the interest of achieving sustainable development goals. Some of these

references are the following: National framework for Academic Accreditation: Updated Effective School Standards (CRDP, 2022)¹⁰, Active Community Partnership Framework (CRDP, 2022)¹¹, Framework for Citizenship Education (CRDP, 2021)¹² and Community Service Project Guide (CRDP, 2016)¹³.

The situation analysis on ESD initiatives revealed the following: the Green Schools Certification Program was implemented by EcoSolutions from 2017 to 2019 with the support of MEHE and CRDP. About 100 schools from different areas in Lebanon joined this program. The UNESCO Associated Schools Network (ASPNET) had a successful experience in the whole institution approach. In 2018, ten private school institutions across Lebanon underwent a training and pilot implementation process.

Creating transformation in learning environments towards education for sustainable development and greening education requires considering the four main aspects:

- School administration and governance
- Facilities and operations
- Involvement of the local community
- Education and learning

It is necessary for all stakeholders in the school community to interact and express themselves freely and participate in decision-making. It is

⁹ -10122022- الإطار الوطني اللبناني لمنهاج التعليم العام ما قبل الجامعي website- AS-10-56pm.pdf (crdp.org).

¹⁰ الإطار المرجعي للإعتماد الأكاديمي-المعايير المُحدثة للمدرسة الفعالة.pdf.

¹¹ الإطار المرجعي للشراكات المجتمعية النشطة.pdf.

¹² <https://www.crdp.org/project-details/132982/1627>

¹³ <https://www.crdp.org.pdf>

also necessary to harness the school’s resources to serve the goals of sustainable development. This is in addition to the necessity of involving the local community, which has a major role in the development of the school and its development and improvement of its outcomes.

4.2 School Administration and Governance

4.2.1 Introduction

The school administration constitutes the cornerstone of achieving the goals of education for sustainable development and of transforming the school into a green school. By committing to sustainability, the school guides the school community towards achieving desired goals in order

to achieve the school’s common vision centered on sustainability and greening education. Performing this role requires a number of commitments, the most important of which are implementing the whole school approach, building the capabilities of the school community, developing productive values, and careful planning. The latter should be based on scientific and practical methodological foundations for the change process within the framework of prioritization based on the needs of the learners, the school environment, and the community surrounding the school.

4.2.2 Objectives and Actions

Four main objectives with their actions, and based on the above, are proposed for School Administration and Governance:

School Administration and Governance		
Objectives	Actions	Stakeholders
1 Develop a school policy that achieves sustainable development and greening education	- Develop a common and clear vision and mission linked to the goals of ESD and greening education, centered around learners’ needs and values and their connection to improving achievement, and consistent with local and external developments. - Develop a joint school plan with clear goals, strategies, priorities, resources, and time stages centered around school development, ESD, and greening education. Decide how the latter may be achieved by all members of the school community. - Activate the work of councils and committees in schools (mentioned in the internal regulations articles) and involving them in achieving the school’s vision for sustainable development and greening education. - Form councils, committees and clubs that help achieve the school’s vision for sustainable development and greening education (Board of Trustees, Learners’ Council, Environmental Club, Green Committee, Emergency Response Team...). - Strengthen cooperative teamwork and creating a spirit of collective responsibility. - Involve the school community in making decisions and developing work at the school which contributes to creating a sustainable, positive and professional work environment.	- CRDP - MEHE - General Directorate of Education - Other parties - Teachers, learners and other members of the school community - Local community

- 2 Promote a culture of continuous professional development and sustainable learning communities

 - Activate continuous professional development programs in terms of ESD, greening education, the climate-friendly school, and crisis and disaster management, to build individual and collective capabilities in the school community and enable individuals and teams for sustainable cooperative and participatory teamwork.
 - Monitor the training and development needs of the school community’s members, individually and collectively, in terms of sustainable development, greening education, and teamwork.
 - Encourage members of the school community to be creative, innovative, and self-developed to promote sustainable practices.
 - Create sustainable learning environments within the school that promote practical experiences on climate change, and other aspects of sustainability
 - Host community events, such as exhibitions, festivals, presentations, seminars, workshops and courses, to raise public awareness about the importance of tackling climate change and showcase school green initiatives

- 3 Activate communication channels

 - Organize meetings and workshops that include stakeholders to discuss, propose ideas, exchange experiences, and contribute effectively to the school agenda on climate change and other aspects of sustainability.
 - Provide technological and information services, and modern communication techniques to facilitate the communication process regarding school achievements and initiatives on climate change and other aspects of sustainability.
 - Collaborate with other schools in joint projects that promote climate action, collective responsibility, and aspects of sustainability.

- 4 Activate councils and clubs

 - Involve the parents’ council in developing and implementing the school’s plan for ESD and greening education.
 - Activate the school’s teachers’ council in line with the whole school approach and in a manner that enhances education on ESD.
 - Activate students’ councils and class councils, and involving them in developing and implementing the school plan for ESD, taking their opinions and maximizing their level of participation.
 - Activate environmental and health clubs or forming teams led by learners, which work to enhance their leadership spirit, cooperate and participate in planning environmental protection activities and other sustainability initiatives, as well as cooperating in searching for practical solutions to environmental problems.

4.3 Facilities and operations

4.3.1 Introduction

Facilities and operations refer to the physical infrastructure, systems, and daily operations within the school. They focus on the implementation of sustainable practices in areas such as energy and water use, waste management, transport, building design, and procurement practices that can reduce the school’s ecological footprint. Besides tangibly reducing negative environmental impacts,

sustainable facilities and operations transform schools into living laboratories of sustainability, in which students experience first-hand sustainability in action and understand the consequences of their actions.

4.3.2 Objectives and Actions

Considering the above, four main objectives are proposed for Facilities and Operations along with their actions:

Facilities and Operations		
Objectives	Actions	Stakeholders
1 Provide effective rationalization of resource management	■ Prepare an annual budget that reflects the school’s needs at all levels to ensure its sustainability and administrative and technical development. ■ Use available spaces in the school to maximize learning for all learners.	■ MEHE/DGE ■ CRDP ■ Other parties ■ Health educators, teachers, learners and other members of the school community ■ Local community
2 Provide climate-friendly infrastructure	■ Establish measures to rationalize energy use in the school. ■ Conduct awareness meetings with the school community to rationalize energy use. ■ Adopt procedures to rationalize water use in the school. ■ Conduct awareness meetings with the school community to rationalize water use. ■ Establish measures to reduce waste at the source and its treatment. ■ Issue monthly reports that include waste treatment and how to mitigate and reduce it. ■ Conduct awareness meetings with the school community to reduce waste. ■ Adopt procedures for exchanging books among learners. ■ Conduct periodic maintenance of buildings, facilities, energy sources, water and sanitation to reduce waste and leakage and preserve the environment. ■ Develop measures to increase green spaces in the school. ■ Adopt procedures for how to benefit from green spaces as educational classes that connect the learner with the environment. ■ Develop measures to reduce and organize the use of transportation to and from school for all elements of the school community. ■ Adopt measures to promote active mobility to reduce the use of transportation to and from school for all elements of the school community.	

Facilities and Operations		
Objectives	Actions	Stakeholders
3 Sustainability of the school environment	■ Meet the school’s conditions and standards for the safety and security of buildings and facilities. ■ Use energy-efficient lighting in the school. ■ Use energy-efficient and appropriate air conditioning and heating methods. ■ Conduct awareness meetings for members of the school community about regulating the use of lighting, air conditioning and heating means. ■ Provide healthy and safe classrooms in the school isolated from internal and external noise sources and which size is proportional to the number of learners. ■ Provide healthy and safe rooms to help make the teaching-learning process successful, including a school library, laboratories, studios, an activity hall, and a place designated for the school shop and/or the school cafeteria. ■ Supervise the school shop and the school cafeteria, and ensure the safety and suitability of the healthy foods and drinks it provides. ■ Provide restrooms equipped with health, hygiene, and security conditions. ■ Establish measures to ensure general cleanliness in the school internally and externally. ■ Provide a safe educational environment free of risks in all changing situations and circumstances. ■ Establish procedural measures that facilitate the access of learners, including those with special needs, to school buildings, classrooms and facilities. ■ Organizing programs, projects and activities to develop health awareness and environmental safety.	■ MEHE/DGE ■ CRDP ■ Other parties ■ Health educators, teachers, learners and other members of the school community ■ Local community
4 Implement the plan for emergencies and disasters management prepared by MEHE-DGE	■ Identify the relevant authorities during emergencies to request assistance and evacuate school facilities. Conduct regular training for the school community on emergency and crisis plans, and evaluate their results. ■ Hold school community workshops with community organizations that are able to provide support, advice and appropriate services related to health, safety and child protection, dealing with crisis and emergencies and that are officially recognized.	

4.4 Community Engagement

4.4.1 Introduction

Community engagement provides a Green School with a wealth of resources and learning opportunities. Schools can benefit from practical advice, support, and guidance on the implementation of initiatives from local experts. Students can also engage in community services related to sustainability that, besides benefiting the community, instill in them a sense of responsibility and commitment. Interaction with the community exposes students (and schools) to local knowledge. It facilitates the alignment of sustainability actions with the specific needs, concerns, and values of

the community, making them more relevant and effective. Green school-community initiatives need to be communicated and celebrated to reinforce commitment and inspire neighboring schools and organizations, encouraging them to adopt eco-friendly practices and cultivate a culture of sustainability in their contexts. All these actions transform Green Schools into community hubs of resilience and climate action.

4.4.2 Objectives and Actions

Considering the above, five main objectives along with their actions are proposed for Community Engagement:

Community Engagement		
Objectives	Actions	Stakeholders
1 Activate volunteer work and community services	- Conduct studies for awareness and teaching purposes, by the administration, teachers and learners on the local and regional environment, climate change and sources of pollution. - Prepare training programs for the school community in planning ESD and environmental projects. - Involve learners in the planning process for volunteer programs. - Conduct collaborative research projects between teachers, learners, and community members that enhance community climate action and enable learners to address community issues. - Conduct participatory volunteer projects that serve the local community and address climate change, preserve natural biodiversity, and promote sustainable actions. - Encourage alumni participation programs to support on-going school and community initiatives. - Create community green spaces in which members of the school community and the local community cooperate. - Lead learners to development projects inside and outside the school. - Activate the implementation of the community service project decree in public and private secondary schools and amend it to include the various cycles of education. - Organize joint community cleaning campaigns between members of the school community and the local community. - Organize periodic competitions on the best volunteer projects.	- MEHE/DGE - CRDP - Other parties - Health educators, teachers, learners and other stakeholders of the school community - Local community

2 Establish joint planning to prevent and protect society from climate change and disasters risks	- Develop a joint plan between the school and the local and civil society to prevent and protect from environmental risks and natural disasters. - Implement workshops and lectures for parents and the local community on protection and prevention. - Create records, maps, and instructions related to public safety and how to act in emergency situations. - Organize discussion and consultation sessions between learners, teachers, parents, and specialists on prevention, protection, preparedness, and crisis and disaster management. - Produce guidance materials or videos prepared by learners under the supervision of specialists for prevention and protection measures. - Conduct disaster simulation exercises to enable learners and members of the school community with prevention and protection measures.	- MEHE/DGE - CRDP - Other parties - Health educators, teachers, learners and other members of the school community - Local community
3 Activate community awareness	- Develop a joint annual plan between representatives of the school community and the local community regarding awareness programs and their means. - Prepare community awareness programs with the participation of learners in various fields. - Organize workshops and lectures for members of the school community and the local community related to awareness in the areas of ESD, climate change, immunization, and preparedness measures, and crisis and disaster management. - Prepare monthly awareness periodicals or awareness campaigns via electronic platforms and social media sites. - Hold cooperation protocols between the school, the relevant ministries, and local and international non-governmental organizations related to raising awareness in the fields of ESD, greening education, and climate change. - Conduct a sustainable evaluation of the awareness plans and programs implemented by the school in cooperation with the local and civil society.	- MEHE/DGE - CRDP - Other parties - Health educators, teachers, learners and other members of the school community - Local community
4 Activate the relationship with parents	- Involve parents in setting the vision, mission, plans and strategies. - Create a guide for parents that includes study areas specialization, labor market and skills. - Benefit from specialists' parents in prevention, protection and awareness measures, and in volunteer work and community service.	- MEHE General Directorate of Education - Local community Parents
5 Activate the communication with the community	- Monitor the active and influential forces in society. - Build a public relations network with various sectors of society. - Communicate with active forces and community sectors to advocate awareness campaigns, protection and prevention, volunteer work and community service. - Create a communication strategy for the schools to enhance exchange and openness to the surrounding environment and society. - Activate community activities that involve the local and civil society in school activities to enhance the connection between the community and the school.	

4.5 Curriculum Integration: Teaching and learning

4.5.1 Introduction

The LNFGPE emphasizes the attainment of quality education and the provision of equal opportunities for all learners to achieve the concepts of ESD and Climate Change Education (CCE) in a fair and comprehensive manner. This tends to ensure that climate justice is experienced by all learners and by this they will be able to express their opinions, decisions and initiatives freely in a democratic and encouraging atmosphere. Such learners will develop to become active citizens who are aware of the different environmental issues related to their immediate environment, as well as the global ones, and act wisely to ensure the sustainability of environmental resources for future generations while combatting the causes and consequences of climate change.

To achieve this profile of learners, ESD and CCE seeks to enhance their comprehensive development at the cognitive, metacognitive, emotional, social, and psychomotor levels through Holistic Learning Approach within their authentic surroundings. Such a learning approach requires concerted efforts of all stakeholders in the community in a synchronized and consistent manner to ensure effective cooperation, collaboration, and partnership among various sectors like governmental institutions, public and private educational organizations, vocational education, higher education, and community partners like families, municipalities, other ministries, governmental organization, and non-governmental associations.

This is essential to prepare and develop learners who are ready for the requirements of the labor market and who are capable of innovating effective solutions to environmental problems; that is, learners - citizens who are environmentally aware, at the local level, and contributors to finding solutions at the local and global levels.

Based on this, CRDP seeks, through the curriculum development process, to intersect with the SDGs including Goal 4.7 issued by UNESCO (Education

2030, 2016). Thus, CRDP seeks to empower learners of all ages with the knowledge, skills, values, and attitudes to make informed decisions and take actions, individually and collectively, to change society, and pay attention to global issues. In parallel, the response to United Nations (UN) Secretary-General calls for societies to transform to reach the 1.5-degree path recommended by the 2015 Paris Agreement.

Thus, the curriculum will highlight climate change education focusing specifically on the climate crisis and aiming to help “youth understand and address the impacts of the climate crisis” and empower them with the knowledge, skills, values and attitudes needed to act as agents of change that lead to the green transition of societies as demanded by the SDGs, in the entire 2030 Agenda (UNESCO, 2023a, p. 1)¹⁴. Through this mission, CRDP provides all the needs for effective curriculum implementation that would achieve the curriculum vision and goals including ESD and CCE.

These needs include the provision of the convenient and adequate learning resources, the conception of convenient instructional models and assessment models and tools. Furthermore, the effective implementation of these models by teachers and effective acquisition by learners requires high quality continuous professional development that encourages the elaboration of professional learning communities.

4.5.2 Objectives and Actions

To operationalize the intended goals of ESD and CCE and the domains of ESD and CCE framework, the following actions are suggested.

1. Written Curriculum Areas

Objectives	Actions	Stakeholders
1 Integrate the transversal competencies identified by NLCF in ESD and CCE	■ Integrate creative thinking in developing innovative solutions to global environmental issues including CCE and local immunity issues. ■ Integrate critical thinking competency to deal effectively with the global environmental issues, analyzing it from different perspectives, and reinforcing effective actions to combat its consequences. ■ Integrate ethical competency to reinforce climate justice. ■ Employ cooperative competency to enhance the partnership among the school, the community and the organizations for the sake of finding effective solutions to real environmental problems through cooperative team work. ■ Employ communication competency to promote effective and ethical communication that enables learners and all concerned stakeholders to clearly describe the existing or anticipated environmental issues/problems in their immediate and distant environment and to reinforce the effective communication channels and professional lobbying skills to raise awareness about these issues to influence legislation, regulation, or other government decisions, actions, or policies with or against the issue. ■ Employ self-management/ Self-Regulation competency to enhance social emotional learning for better management of conflict resolution. This is accompanied by setting goals and well-defined plans to achieve these goals. ■ Employ digital literacy competency to develop the learners' ability to build digital resources and evaluate the quality of available digital resources like multimedia (videos, interactive simulations, and online platforms) that enhance their understanding of issues related to ESD and CCE through interactive learning. Furthermore, digital literacy competency enriches the teaching learning process in authentic learning opportunities and opens the floor for effective communication among groups within the same country and/or different countries through online projects, participatory national platforms, and global platforms in a precise manner that is consistent with the Lebanon constitution and laws of the country. ■ Employ citizenship competency by participating in solving problems, addressing, managing and resolving conflicts in a peaceful manner by directing the conflicting parties towards optimal solutions acceptable to all, taking into account national human values. ■ The health competency develops the learners' capabilities to ensure the sustainability of healthy life style in an unpolluted healthy environment.	■ MEHE/ DGE ■ CRDP ■ Concerned ministries and NGOs.

¹⁴ UNESCO (2023) GREENING CURRICULUM GUIDANCE, DRAFT.

2	Develop Specific ESD and CCE competencies	- Develop ESD and CCE competencies which address the content in the following content domains: ENVIRONMENT DOMAIN (Climate Science, Ecosystem and Biodiversity, Disaster Risk Reduction, and Sustainable Consumption and Production, ...). SOCIETY DOMAIN (food crises, health risks, social vulnerability and insecurity, Building the Resilience of Nations and Communities to Disasters, Climate Justice. ECONOMY DOMAIN (Green economy, Circular economy, Post-Carbon Economies, Sustainable Lifestyles...).	- MEHE/DGE - CRDP

2. Teaching Learning Resources

Objectives	Actions	Stakeholders
1 Amplify the accessibility of teachers and learners to interactive resources on ESD and CCE	- Develop interactive educational resources on ESD and CCE that belong to authentic situations. - Curate interactive educational resources on ESD and CCE that belong to authentic situations by abiding to open educational resources (OER) policy guidelines. - Validation of educational resources on ESD and CCE which belong to authentic situations. - Study the impact of these resources on the development of learners' competencies. - Integrate the concepts, skills, attitudes and values related to ESD and CCE into the teaching-learning process in various subjects.	- MEHE/DGE - CRDP - NGOs - Ministries

3. Instructional Strategies within Formal Education and Non-Formal/Informal Education

Objectives	Actions	Stakeholders
1 Conceive instructional strategies that address ESD and climate change outcomes and reinforce the development of active citizens within a community of practice	- Design and create learner-centeredness instructional approaches to reinforce students as autonomous learners who hold agency for their learning and are actively involved and engaged in constructing their knowledge (learner-driven pedagogy). - Design and create instructional strategies within a discipline or interdisciplinary that enhance the development of community of practice to solve issues related to SDGs and CC in authentic situation. These strategies can be: - Active/participatory learning strategy that includes experiential learning through group work, debates, class discussions, and case study analyses, hands-on labs, etc. - Instructional strategies that enhance empathy among learners by engaging them in understanding other perspectives in a community through field trip, role-plays and simulations that mimic reality contexts.	- MEHE/DGE - CRDP

	- Collaborative learning that enhances the development of nurture learning environments outside the classrooms through strong partnership between teachers and learners from one side and participants from the institution and the community to achieve a common goal revolving around a shared concern to find solution(s) to certain problem. - Combining community services with learning (service-learning projects which are action projects that encourage students to plan and implement environmental action projects which served the Sustainable Goals).	
2 Conceive instructional strategies that enhance digital transformation	Design models for the integration of media literacy and new technologies such as visual imagery, animated educational videos, capture interest of learners, increase attention and responses, and reach a wide array of audiences and lead to significant learning gains.	- MEHE/DGE - CRDP

4. Assessing and evaluating the achievement of ESD and CCE goals aligned with LNFGE

Objectives	Actions	Stakeholders
1 Develop an effective assessment plan for ESD and CCE	- Identify the duration of the assessment plan for a specific period - Identify the different types of assessment that are effective for ESD and CCE	- MEHE/DGE - CRDP
2 Develop authentic assessments methods	- Adopt authentic assessment and Performance Based Assessment (nature, strategies, evaluation tools, what will be assessed? How will it be assessed?). - Develop valid measurement tools that match the requirements of the assessment strategies.	- MEHE/DGE - CRDP
3 Design methods for reporting of results and for communicating results with stakeholders	Develop appropriate means for the communication of the assessment results (Collaborative platforms, paper records, Teacher Student Conference/Teacher, Learner, Student Conference/Teacher, Learner, Community expert, parents, peers Conference, etc).	CRDP

¹⁵ UNESCO (2023) GREENING CURRICULUM GUIDANCE, DRAFT.

4.6 Application Requirements at the Level of Regulations and Legislation

Transforming learning environments for ESD and greening education requires a number of legislative and regulative requirements.

Kindergarten and formal basic education schools in Lebanon operate according to internal regulations stipulated in Resolution No. 1130/M/2001 dated 09/10/2001.

Public secondary schools operate according to the internal regulations issued by Resolution No. 590/M/1974 dated 6/19/1974.

Private schools in Lebanon operate based on Decree No. 1436 dated March 23, 1950 and its amendments (the license for opening private schools) and the Law Organizing the Educational Staff in Private Schools dated 6/15/1956 and its amendments and in accordance with internal regulations established by their institutions.

These internal regulations require reconsideration, whether at the level of the school structure, or the administrative, educational, and technical staff in the schools, or the tasks and responsibilities, or the councils, or other subjects and fields.

In order for schools to be able to achieve the goals of ESD and to transform the school into a green school, it is important to introduce amendments to the internal regulations (for example: developing a school policy that achieves SD and greening education, forming environmental councils, committees and clubs, activating the relationship with parents and with local and civil society,...), and proposing new measures for school operations, such as issuing a decree specifying green-sustainable school standards.

Chapter 5

CAPACITY BUILDING FOR EDUCATORS AND STAKEHOLDERS

5.1 Introduction

Education and training systems (both formal and non-formal, public and private sectors), pedagogy and content require a major transformation to accommodate the complex changes that have taken place in the world over the past century. ESD addresses not only learning content, but also learning outcomes, pedagogy and the learning environment. Through ESD, learners are empowered with the knowledge, skills (technical skills, soft skills, and Social and Emotional Learning (SEL) skills), values, attitudes, and behaviors to achieve a sustainable, inclusive and greener future.

Building the capacities of all stakeholders involved in the educational sector and participating in the spread of awareness including teachers, coordinators, principals, and representatives of parents/parent committees, is a key variable in promoting changes in education and enabling ESD. This entails incorporating ESD into early childhood, primary, and secondary school teachers' pre-service and in-service training. Higher education institutions must incorporate ESD into faculty training in order to improve their abilities to educate sustainability concerns and to provide information for the creation of sustainable development and ESD policies. The ability of educators to integrate ESD into teaching and learning activities must be developed in all the sectors of education including public and private educational institutions and training providers.

In this vein, CRDP in collaboration with UNESCO, organized a training in September 2023 for a group of trainers from CRDP. This training was designed to equip educators with the knowledge and skills necessary to foster sustainable practices and environmental stewardship within educational institutions. The trainers will then disseminate the information to Lebanese teachers, principals,

coordinators, and representatives of parents/parents' committees. The training of trainers, organized and delivered in September 2023, brought together multiple trainers from across the entire country, enabling them to share experiences conducted in their respective regions. Both a pre-assessment and post-assessment exercises were organized for this training to assess the evolution of their capacities.

In addition, the Green Demonstration Room initiative was launched in Dar Louis Abou Charaf-Jounieh by CRDP in 2017 in collaboration with Makhzoumi Foundation and Lebanon Green Building Council (LGBC) in addition to sponsors. It was reactivated by the president of CRDP and in collaboration with UNESCO in May 2023. This initiative supports educational curricula regarding environmental conservation and the use of alternative energies. It has contributed to the training of 210 public school teachers of sciences and geography on "My Green School" module, who then participated in projects implementation as well as in competitions.

The innovative training methods rely mainly on the needs of the trainees that are detected mainly from their daily practices. Tailored training kits would be designed and the trainers would be accompanied and monitored after their training to assure the quality of the designed training kit and also the achievement of the desired outcomes.

In ESD context, training would target two main types: (1) formal education personnel, and (2) non formal and informal education providers.

5.2 Objectives and Actions

Considering the below, nine main objectives along with their actions are proposed for building capacities of educators and stakeholders.

Building Capacities of Educators and stakeholders			
Objectives	Actions	Stakeholders	Beneficiaries
1 Develop Training for in-service teachers and school administrative staff	- Establish a specialized ESD training team needs to be formed under CRDP-PITB. - Prepare ESD training materials and resources for teachers and school administrative staff in accordance with national circumstances, sectoral approaches and the cultural context and in alignment with the national curriculum of relevant subjects. - Pilot and conduct training for trainers (TOT). - Monitor and evaluate the TOT. - Develop training forum for TOT. - Develop online training MOOC. - Create on MAWARIDY¹⁵ a space for ESD resources and useful training products, and link it to CRDP website and make access to them public. - Conduct action research projects with the cooperation of CRDP Research Bureau. - Design coaching training on the basis of best practices.	- MEHE/DGE/DOPS (regional directors, schools principals...) - CRDP - The educational inspectorate	- Inservice teachers - Principals - Educational personals in schools - DOPs - Councilors - Educators - Ministries focal points - NGOs focal points - Youth - Media focal points - Technical and managerial personnel in the public and private sectors - Parents/families, local community members and organizations, office support staff, cafeteria staff, custodians and building operators - Focal points in municipalities
2 Develop training for focal points in ministries	- Develop training kits designed for each ministry depending on their specialty. - Plan the training according to the TTCM design¹⁶ adopted by PITB. - Pilot the training. - Monitor and evaluate the training. - Develop training forum.	- MEHE/DGE - CRDP - Ministries benefiting from program - The educational inspectorate	- Focal points in ministries - Office Support Staff, Custodians and Building Operators

¹⁵ MARARIDI is a platform launched by CRDP as a response to Covid-19 pandemic crisis. Then, it was developed to become a digital resource for both students and teachers. <https://mawaridy.crdp.org/>.

¹⁶ The Teacher Training Curriculum Model (TTCM) https://www.crdp.org/pdf/uploads/Training_Handbook_2019_inside_V5.pdf.

3 Develop Training for youth	- Prepare ESD educational training kits for youth - Pilot and conduct the training - Monitor and evaluate the training - Develop training forum for youth trainees - Develop online training modules using different modalities (self-paced, blended, synchronous sessions, asynchronous work) and including all necessary tools such as forums (supervised by experts in ESD), interactive material. - Design peer training programs - Develop online seminars and training means	- MEHE/DGE/Scout - CRDP - Scout organizations - NGOs - Local communities - Municipalities	- Youth - Parents and mentors
4 Develop Training for NGOs	- Develop training kits designed for NGOs' focal points - Pilot and conduct the training - Monitor and evaluate the training - Develop training forum for NGOs trainees	- CRDP - NGOs - Ministry of interior affairs	NGOs focal points
5 Develop training for media focal points	- Develop training kits designed for media focal points - Plan the training - Pilot the training - Monitor and evaluate the training - Develop training forum	- MEHE/DGE - CRDP - Media - Ministry of Information	Media focus points
6 Develop training for local communities/ focal points in municipalities	- Develop training kits designed for municipalities focal points - Plan the training - Pilot the training - Monitor and evaluate the training - Develop training forum	- CRDP - Municipalities	Municipalities focal points

7	Develop training for pre-service teachers	- Integrate ESD in preschool teachers' preparation programs in higher education institutes and TVET - Integrate ESD in primary teachers' preparation programs in higher education institutes - Integrate ESD in secondary teachers' preparation programs in higher education institutes - Employ a range of assessment modalities (formative assessment modalities in particular) ESD related themes such as for climate change learning - Help pre-service teachers to address ESD related themes such as climate change, health and wellbeing, child protection, water, sanitation and hygiene, affordable and clean energy, partnerships for the achievement of goals. - Follow-up support and reinforcement of teacher training.	- MEHE/DGE/Higher Education Directorate - Higher education institutes	- Preschool pre-service teachers - Primary pre-service teachers - Secondary pre-service teachers
8	Duplicate Green Demonstration Room initiative in several regions	- Equip a room for the initiative having the 7 stages and following green guidelines - Provide training for each center specialized trainers' team on activities to be implemented there - Provide training for the training center administrative staff on the organization of youth and school students ESD training visits and filling the required forms - Regular maintenance and operations revision plan	- MEHE/DGE - CRDP - UNESCO	- Youth - Schools (principals, teachers, students) - Visitors from other centers/ establishments
9	Develop training for the army and internal security forces	- Empower the army and internal security forces' on greening education. - Pilot and conduct the training - Monitor and evaluate the training - Develop training forum for trainees	CRDP	- Army - Internal security forces

Chapter 6

EMPOWERING AND MOBILIZING YOUTH

6.1 Introduction

Empowering and mobilizing young people for sustainable development necessitates educating them about the consequences of their everyday choices as this will lead to creating opportunities that enable them to realize sustainable actions and projects that serve their community and enrich their civic engagement.

In Lebanon, policies aimed at empowering and mobilizing youth are primarily found in the private sector, non-governmental sectors and scouts; however, they are also found in several government institutions: MEHE, MOSA, Youth and Sport Ministry, and Culture Ministry.

Youth as change agents and stakeholders are acknowledged in fewer initiatives within the education system. In the last decade, MEHE has launched several initiatives addressing youth empowerment in schools, such as the Active Citizenship program (with the support of British Council) and the Community Service in Secondary School decree:8924/21-9-2012¹⁷ that addresses community services in public and private sector for secondary students only.

In 2012, the National Youth Policy was issued and included a list of 137 policy recommendations to improve the lives of young people. In 2022, Ministry of Youth and Sports MOYS issued the National Youth Policy Action Plan¹⁸; however, there is no clear mention to youth role regarding sustainable development, nor regarding the structures and measures necessary for mobilizing youth towards sustainability.

A remarkable initiative launched by MOSA is the “We Are Volunteers”¹⁹ Platform that aims to involve youth in volunteer work to bring about positive change. in their communities. It provides equal opportunities for everyone to enhance skills and contribute effectively to social impact and encourage building partnerships with civil society organizations, non-governmental organizations and the private sector in Lebanon.

To help youth becoming change agents, more learner-centered non-formal and informal learning activities must be provided. In addition, the educational system must acknowledge youth as partner in designing and reviewing policies and plans by taking into account their aspirations and interests. For ESD, this entails creating and improving e-learning and mobile learning options. MEHE must establish coordination structures to coordinate the work of the different sectors to engage youth in sustainable development as change agents, leaders, entrepreneurs and trainers to make their voices heard by creating forums and platforms.

MEHE issued in June 2000, decree no. 213 concerning establishing school clubs which some of them are now active; MEHE-CRDP in June 2015, with USAID support, issued the National Strategy for extra curricula activities.

CRDP, with the support of UNESCO, has reactivated the “green room” with the aim of supporting the national curriculum in covering environmental education topics, seeking to reach an environmentally and socially responsible

¹⁷ <https://www.mehe.gov.lb/pdf>.
¹⁸ https://lebanon.un.org/sites/default/files/2022-09/Unicef_National%20Youth%20Policy_AR_12092022.pdf.
¹⁹ <https://www.nahno-volunteers.com/>.

and coherent community, and seeking to raise awareness on the principles of sustainable societies while considering learners as the pillars for the future of their communities. The green room has seven learning stages that youth and school students explore during their training/visit to the center: The first stage includes activities with sensitization to green issues; the second focuses on nature preservation; the third deals with water resources preservation; the fourth covers the topic of energy preservation; the fifth allows for the discovery of sources of renewable energy; the sixth provides visitors with real-life examples and experiences of greening education with environmentally sound measures are implemented; and the seventh stage shows the path towards a better world achieved by implementing such measures. By the end of the training visit, learners sign up a commitment to apply these measures in their real lives, which shows the direct effect of this

experience on their attitude towards the protection of the environment.

Establishing sustainable clubs in schools must be prioritized. These clubs provide a space to develop planning, organizing, and communication skills that will help students in their future lives²⁰. For example, the student council is a representative body that allows post-primary students to participate in all environmental, social and economic activities - and to cooperate with parents, staff and administration for the mutual benefit of the school and the learners.

6.2 Objectives and Actions

Considering the above, three main objectives are proposed for empowering and mobilizing youth along with their actions:

Empowering and Mobilizing Youth		
Objectives	Actions	Stakeholders
1 Empower youth by providing adequate ESD knowledge, and promote positive attitudes and practices.	- Amend the decree: 8924/21-9-2012 that addresses community service in public and private sector for secondary students only, to include early intermediate schooling age and TVET. - Develop an integrated ESD curriculum that is aligned with extracurricular activities and community services. - Develop youth entrepreneurial skills and project management skills through workshops based on sustainable development and green economy principles. - Develop and enhance e-learning and mobile learning ESD opportunities for the youth.	- MEHE/DGE - CRDP - NGO

²⁰ Mekhael, E. & Shayya, J. K. (2018). Measuring grade 10 students' knowledge, skills and attitudes of sustainable development. International Journal of Learning and Teaching, 10(3), 269-291.

2 Mobilize and motivate youth to realize their potential as agents of change by favorizing opportunities to make their voices heard	- Participate in ESD-related policy and programs decision- making process at all levels. - Activate platforms and forums mentioned in MOYS action plan. - Mobilize youth participation through established ESD networks such as representative committees in schools and universities and municipalities councils. - Invest in the existing forum to address ESD issues and challenges and develop new youth parliament, forum and youth- friendly municipalities in all Lebanese casa by theme e.g. climate change youth forum. - Activate school clubs by considering the decree 213 and the National Strategy on extracurricular activities. - Activate Alumni clubs and foster their role in supporting youth projects. - Empower youth led – NGOs, scouts and ESD projects by training and favorizing opportunities for funding to realize sustainable projects at all levels. - Encourage youth peer to peer training and communication. - Establish online forums and ensure social media platforms for youth. - Ensure space for youth in audio -visual media. - Design and produce educational and communication tools attractive to youth such as applications and educational games.	- MEHE/DGE - CRDP - MOYS - Line ministries - NGOs - Alumni - Scouts
3 Enhance career guidance towards green jobs	- Create public-private partnerships and collaboration framework with the private sector to promote youth access to new green employment streams. - Organize jobs fair, with career guidance activities. - Collaborate with NEO and other existing structures to ensure anticipation of the needed skills in the green economy. - Establish career guidance policy at the national level. - Establish a career guidance unit in schools, universities, and vocational and technical education. - Fund SME projects from various stakeholders mainly private sector and NGOs.	- MEHE/DOPS - CRDP - Private business sector - Line ministries - NGOs - NEO



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Chapter 7

ACCELERATING LOCAL ACTIONS

7.1 Introduction

Local communities have a critical role in fostering ESD in both rural and urban areas. Lebanon's urban and rural communities faces various challenges related to sustainable development. With culture as an underlying feature, the issues are related to the social, economic, and environmental pillars of sustainable development as well as to insufficient infrastructure, pollution, natural disasters, deforestation, inadequate water, and climate change. Because ESD is based on local experiences and activities, creative and effective solutions to these problems should be addressed locally. The fact is that local schools play a key role in the local socio dynamic development by offering its infrastructure for the awareness activities, by realizing local initiatives in identifying sustainability needs and problems, and by contributing scientifically to the solutions through the works of both learners and teachers.

Nonetheless, there has been few attempts across Lebanon to include ESD viewpoints and programs into local communities' and governments' planning and decision-making processes. Although the education system has not created sufficient policies and procedures to deal with long-term issues, there are a few initiatives to state such the National Framework for Community Partnerships developed

by CRDP (CRDP, 2022)²¹. More cooperation between the education sector and organizations dedicated to sustainable development and planning at the local level, such as social development centers (SDCs) that are related to the Ministry of Social Affairs (MOSA), networks of municipalities, rural development networks, and local NGOs, give additional impetus to the advancement of sustainable solutions at the local level. It is anticipated that local and regional leaders will enhance and expand educational options for their communities in formal, non-formal, and informal contexts.

In fact, there are few initiatives run by civil society organizations that are working on local networking with local schools, municipalities and NGOs in order to provide funding, coaching for school leaders and staffs, and conducting ESD local projects in schools.

7.2 Objectives and Actions

To achieve solutions at the local level, seven main objectives with their related actions are proposed below.

²¹ الإطار المرجعي للشراكات المجتمعية النشطة.pdf.

Accelerating Sustainable Solutions at the Local Level

Objectives	Actions	Stakeholders
1 Enhance the role of line ministers at the local level	■ Activate the SDCs centers to create local networks. ■ Produce customized local media products that address local sustainability issues and concerns. ■ Establish collaborations between MEHE (local schools) and other ministries involved in sustainable development to foster sustainable activities in rural areas. ■ Establish collaborations between line ministries involved in sustainable development and CRDP to produce ESD educational resources.	■ MEHE/DGE ■ CRDP ■ Line ministries
2 Enhance municipalities' role to foster ESD	■ Allocate ESD focal point structure into each municipality. ■ Develop ESD local policies. ■ Mainstream ESD activities into the local plans. ■ Cooperate with MEHE and other line ministries. ■ Develop, operationalize and strengthen local networks to facilitate multi-stakeholder learning on sustainable development and cooperation at local level. ■ Fund local small projects related to sustainable development. ■ Cooperate with local media to raise awareness about sustainable development locally, regionally and globally.	■ MEHE/DGE ■ CRDP ■ Local municipalities ■ Lines ministries ■ Schools ■ Parents ■ Alumni ■ Clubs ■ Local business ■ Local media
3 Enhance NGO role to foster ESD	■ Develop a unit/ESD focal point into the NGOs dedicated to education and communication. ■ Collaborate with MEHE and CRDP in elaborating advocacy and communication material, and in alignment of curriculum content to local community problems. ■ Collaborate with MEHE and CRDP to contribute to scientific content for several disciplines in the curriculum. ■ Collaborate with line ministries in advocacy for sustainable policies, participating on the elaboration of policies, raising awareness, managing and empowering youth forum. ■ Provide technical help and resources such as ESD training material and educational tools for formal and non-formal education. ■ Offer publications for educational purposes. ■ Offer funds, and support to raise awareness on sustainable development in schools and in non-formal education. ■ Organize award for specific themes related to sustainable development. ■ Organize exhibitions and seminars.	■ MEHE/DGE ■ CRDP ■ NGOs ■ MEHE ■ Lines Ministries

4 Enhance the private sector role to foster ESD	■ Encourage allocating ESD focal point in private companies. ■ Collaborate with municipalities on raising awareness on sustainable development. ■ Participate to the local, regional collaborative working group or task force or platform created for governing sustainability. ■ Provide funding and appropriate training for ESD related skills such as leadership, green skills and project management. ■ Promote the creation of green job opportunities. ■ Foster the access to ESD continuous training. ■ Offer internships and placement. ■ Identify the needs of ESD labor market. ■ Introduce the labor market through participation in specialized exhibitions in collaboration with municipalities, schools and NGO. ■ Offer technical help/personal resources/tools. ■ Offer fund/sponsoring events and activities in the framework of social corporate responsibility.	■ Local private business
5 Enhance School networking to foster ESD	■ Designate networking structures at the local level. ■ Create a collaborative local platform for schools in the neighborhood to exchange best practices. ■ Develop twinning programs between schools/public - public/public-private/private-private.	■ MEHE/DGE ■ CRDP
6 Enhance parents' role to foster ESD	■ Participate in decision making about school vision and governance and integration of sustainability principles into curriculum and extracurricular activities. ■ Monitor promotion of ESD (school vision, mission and practice). ■ Participate in schools' activities related to ESD. ■ Encourage youth to take part of volunteering work in the local communities. ■ Support and fund projects for schools, children and youth projects in community.	■ Parents ■ School ■ Municipalities
7 Enhance local media role in raising awareness and communication	■ Assign a media focal point into local network working for ESD. ■ Disseminate information and knowledge on local sustainable problems and solutions. ■ Collaborate with municipalities and NGOs to cover their ESD activities. ■ Organize special events to raise awareness. ■ Host youth group to share ideas and discuss local sustainability problems.	■ Local media ■ NGO ■ Municipalities



Chapter 8

STRATEGY'S GOVERNANCE

8.1 Introduction

MEHE/DGE and CRDP shall provide an enabling environment for implementing ESD through a multi-sectoral approach within the education sector and beyond. Clear coordination mechanisms shall be established to ensure smooth implementation of ESD activities. Institutionalizing the structures of coordination is required at all levels. At the national level, the National Working Group formed should be replicated at the Mohafaza, Casa, and Municipality levels. Similarly, NGOs, Forums and other youth bodies should be activated at all levels. Implementation of this strategy requires a multi-sectoral approach involving various education institutions, line ministries and NGOs, coordination, funding and capacity building in ESD. International donors, development partners, civil society and the private sector are expected to support CRDP -MEHE efforts in financing as well as in providing partnerships in ESD implementation. The specific roles of different stakeholders in facilitating, synergizing and supporting the integration of ESD in the education sector shall be defined and nurtured.

8.2 Centralized and Decentralized Measures

There are some measures that should be taken at both centralized and decentralized levels.

At the central level

- Ensure adoption and implementation of the strategy at various levels.
- Facilitate budgetary allocation.
- Coordinate review of the policy in collaboration with other stakeholders.
- Facilitate the development of Memorandum of Understanding (MoUs) with development partners, NGOs, Private sector, and other stakeholders.
- Monitor and evaluate the implementation of the policy.

At the decentralized level (Mohafaza, Casa, municipality)

- Establish an ESD implementation structure.
- Coordinate among stakeholders involved in ESD implementation at the Mohafaza and Casa level.
- Coordinate and facilitate capacity building in ESD at the regional and local level.
- Mobilize resources for ESD implementation and ensure efficient utilization of ESD resources.
- Monitor, evaluate and report on the status of ESD implementation at the regional and local level.

8.3 Multi-stakeholder Partnerships and Collaboration

MEHE/DGE and CRDP shall work with the public sector to convene actors and deploy instruments such as agendas and guidelines, financial resource allocation, training and capacity building, knowledge acquisition and sharing that will support ESD programs. MEHE/DGE and CRDP shall seek assistance from UNESCO, UNDP, UNEP, UNICEF, among others for the implementation of this strategy. MEHE/DGE and CRDP shall work with other line ministries and departments at the regional and local levels to create an enabling environment and to find resources needed to implement ESD. The private sector will play an important role in advancing ESD. As part of Corporate Social Responsibility (CSR) commitments, the private sector will provide support in ESD implementation through technical and financial assistance for research and innovation. This includes supporting demonstration projects in learning institutions as well as the development of curriculum support materials. Civil society organizations in Lebanon represent a good potential in undertaking a wide range of activities in support of ESD. ESD activities include carrying out research related to sustainable development, development of curriculum support materials and demonstration projects in learning institutions, capacity-building programs for educators, and strengthening networking and advocacy in ESD.



Chapter 9

MONITORING AND EVALUATION

9.1 Introduction

Monitoring and evaluation are a guarantee for the efficient implementation of ESD Strategy in all its actions. It is essential to put in place a monitoring and evaluation mechanism within the body or structure inside MEHE and CRDP that will be responsible to ensure efficient feedback on the implementation of this strategy.

Multi-level ESD monitoring and evaluation approaches will include large-scale assessments for learning outcomes as well as national assessments on the extent to which the strategy objectives will be realized.

Central and decentralized mechanisms and procedures should be elaborated at the level of Mohafaza and district (casa) with a list of targets and indicators for each of the priority actions identified in this strategy. The emphasis shall be on the increase in the number of the following:

- Sectoral educational policies, sustainable development policies and strategies that have integrated ESD into education.
- Education institutions that have adopted the whole-institution approach.
- Educators, trainers, decision - makers trained on ESD.
- Youth-led initiatives on ESD.
- Local ESD initiatives.

9.2 Objectives and Actions

Two main objectives are proposed for monitoring:

- **Objective 1:** Review and update of this strategy every five years and/or when the need arises to incorporate emerging issues and trends within ESD and the education sector.

■ **Actions:**

- 1 Develop and implement monitoring and evaluation frameworks for sustainable development in the education sector at MEHE/DGE and CRDP; link it to the established M and E for the SDG4 to align education sector target-setting processes with national and global targets and to the existing mechanisms of quality assurance
- 2 Set ESD targets, indicators and benchmarks for monitoring and reporting progress in implementing ESD in the education sector at the national and regional level (Mohafaza, casa, ...)

There is no climate change impact data on the education sector. The mechanisms/tools to identify climate change impact are absent.

- **Objective 2:** Ensure that country-specific climate change impact indicators are integrated into the existing monitoring mechanisms/ tools (Education Management Information Systems or school-level monitoring tools, SDG4 monitoring...).

■ **Actions:**

- 1 Establish data collection mechanisms
- 2 Set ESD targets, indicators and benchmarks for monitoring and reporting progress in implementing ESD in the education sector
- 3 Collect data, analyze and disseminate it to inform evidence-based policy making and planning
- 4 Give ESD focal points at the national and local level, ESD focal points within NGOs and the private sector, and learners the opportunity to contribute to data collection and analysis in an age-appropriate manner.



Chapter 10

COMMUNICATION AND OUTREACH

10.1 Introduction

Communication and outreach play a crucial role in promoting sustainability awareness and behavior change across the entire society.

The stakeholders are MEHE and CRDP communication department, Ministry of information, Ministry of Telecommunications, National and local Media, Private sector, NGOs, and Youth.

10.2 Components of Communication and Outreach

The key components of communication and outreach are the following:

- 1 Public awareness campaigns:** Develop and implement comprehensive public awareness campaigns focused on sustainability, climate change, and ESD principles. These campaigns should target diverse demographic groups to ensure broad reach.
- 2 Digital and traditional media engagement:** Leverage various media channels, including television, radio, newspapers, websites, social media, and podcasts, to disseminate information on sustainability, ESD initiatives, and success stories.
- 3 Educational materials:** Create and distribute educational materials such as brochures, pamphlets, infographics, and videos to convey key sustainability concepts and provide actionable tips for individuals and communities.
- 4 Community engagement:** Encourage community participation in sustainability initiatives through local events, workshops, and grassroots activities; collaborate with community leaders and organizations to promote ESD.
- 5 School outreach programs:** Implement outreach programs in educational institutions, involving students, teachers, and parents to raise awareness about sustainability; integrate ESD into the curriculum.
- 6 Partnerships and collaboration:** Collaborate with governmental bodies, non-governmental organizations, businesses, and civil society to align communication efforts and pool resources for a more significant impact.
- 7 Expert speakers and workshops:** Arrange lectures, workshops, and discussions led by experts and environmentalists to educate the public and provide opportunities for engagement.
- 8 Online platforms and mobile apps:** Develop and maintain online platforms and mobile applications dedicated to ESD, where people can access resources, engage in learning activities, and connect with like-minded individuals.
- 9 Public events and exhibitions:** Organize public events, sustainability fairs, and exhibitions that showcase innovative solutions and best practices related to sustainable living, technology, and business.
- 10 Awards and recognition:** Establish awards to recognize outstanding contributions to sustainability and ESD in various sectors, such as education, business, and community development.
- 11 Sustainable lifestyle challenges:** Launch and promote challenges and initiatives that encourage people to adopt more sustainable lifestyle choices, such as reducing waste, conserving energy, and promoting eco-friendly transportation.
- 12 Monitoring and evaluation:** Regularly assess the effectiveness of communication and outreach efforts, using metrics like reach,

engagement, and behavioral change to make necessary improvements.

- 13 Funding and resource allocation:** Allocate funding and resources to support communication and outreach programs, ensuring sustainability education remains a priority in the national agenda.
- 14 Multilingual content and accessibility:** Ensure that all communication materials and outreach efforts are accessible to different language speakers and people with disabilities to promote inclusivity.
- 15 Feedback mechanisms:** Create feedback mechanisms for the public to provide input, suggestions, and concerns related to sustainability education, allowing for continuous improvement.
- 16 Evaluation of impact:** Continuously evaluate the impact of communication and outreach efforts on individuals, communities, and the environment. Share success stories and lessons learned to inspire further action.
- 17 Advocacy campaigns:** Use media to promote advocacy campaigns aimed at influencing policies and practices that support sustainability.

10.3 Activities

The websites of MEHE and CRDP, their online platforms as well as those related to all stakeholders represented in the national working group can be the host for several activities.

- 1 Creating Educational Content:** Develop and share educational content through articles, blogs, videos, and infographics that explain key sustainability concepts, environmental challenges, and actionable steps for children and communities to make a positive impact.
- 2 Social Media Campaigns:** Use platforms like Facebook, Twitter, Instagram, and LinkedIn to share sustainability messages, facts, tips, and success stories. Encourage engagement through hashtags, challenges, and user-generated content.
- 3 Documentary Films and Videos:** Create and/or support the production of documentary films and videos that highlight important sustainability issues, showcase environmental success stories, and inspire action.

- 3 Podcasts:** Host or participate in podcasts focused on sustainability, featuring experts, activists, and individuals who can share their experiences and personal stories, insights, and ideas for a more sustainable future.
- 4 Virtual Reality (VR) and Augmented Reality (AR):** Develop immersive VR or AR experiences that allow users to explore and understand the environmental impact of various choices and the benefits of sustainable practices.
- 5 Online Webinars and Live Streams:** Host live webinars and streaming events with experts and thought leaders in sustainability to discuss current issues, trends, and solutions.
- 6 Interactive Apps and Games:** CRDP may partner with the private sector.
- 7 Create mobile apps and games that educate and engage users in sustainable practices.**
- 8 Online Courses and E-Learning:** Develop and promote e-learning courses and modules on sustainability topics, making them accessible to a wide audience.
- 9 Influencers Contribution:** Partner with social media influencers, bloggers, who have a strong following to promote sustainability messages and initiatives to their audiences.
- 10 Press Releases and News Stories:** Share updates and achievements related to sustainability efforts with local and national media outlets through press releases and news stories.

Chapter 11

PROMOTING RESEARCH ON GREENING EDUCATION AND ESD

11.1 Introduction

Interdisciplinary ESD research should provide an ongoing foundation for ESD advancement. Research and development initiatives are required in a number of ESD domains, including efficient learning environment, teaching and learning strategies, assessment tools, the development of attitudes and values, school and institutional advancement, ICT integration, and capacity building in both formal and informal education.

Research outcomes must be disseminated to stakeholders at the local, regional, and international levels and integrated into many facets of the educational framework. To do so, a variety of activities may be considered, such as forums, workshops, scientific journals, conferences for academic public and newsletters, and audio-visual media for general public.

Research in Lebanon is conducted in various institutions. In fact, there are university research centers that are active to some extent, CRDP research center has launched recently the “Think Tank” initiative where ESD is considered as a priority area.

Also, many educational institutes have research centers that carry mainly action researches for professional development purposes.

CRNS, the major public scientific research entity in Lebanon, is currently conducting scientific research addressing sustainable development goals with a clear shaping policy that may enhance the development of ESD research.

11.2 Key Actions and Plans

To create an enabling environment for research to inform effective policy and best practice for ESD, the following key action plans are recommended:

- Include ESD into the research policies and agenda of the research centers.
- Work with research funders to ensure that ESD research, such as climate change education, biodiversity, DRR and other sustainability issues are researched.
- Promote research on ESD related areas such as:
 - 1 Teaching and learning methods.
 - 2 Youth work methods.
 - 3 The economic impacts/benefits of and incentives for ESD.
 - 4 indicators and evaluation tools for impact and awareness ESD activities.
- Foster ESD local research on community level and acknowledge their work by awards.
- Build partnership with non-education stakeholders i.e. enterprises, local authorities, youth and civil society associations, CNRS, funding and dissemination.
- Share the results of research with relevant actors locally, regionally and globally, incorporate the results into different parts of the education system, and share examples of good practices.

11.3 Priorities Areas

The ESD research in Lebanon is still considered in its early stages. Many priority areas are outlined in the following list:

- 1 Evaluation of ESD program in formal, informal and non-formal education
 - **Curriculum assessment:** Investigate ESD learners' knowledge, attitudes and practice.
 - **Long term effect of ESD:** Investigate the citizens practice in their daily life.
- 2 Teacher Education:
 - **Initial preparation programs:** Evaluate teacher preparation programs offered by the faculties of educations in Lebanon in terms of equipping pre-service teachers with the knowledge and skills necessary to integrate ESD into their future teaching practices.
 - **Professional development:** Investigate the ESD component in professional development training program for in-service teachers.
- 3 ESD policies and implementation
 - Policy of ESD integration.
 - Barriers of ESD implementation.
- 4 ESD and environmental literacy
 - Curriculum assessment for the promotion of environmental literacy.
 - Investigating climate change education related issues.
- 5 ESD in Higher Education
 - Assessment of sustainability in undergraduate or graduate degree programs.
 - Assessment of the effectiveness of sustainability programs on university campuses in terms of their influence on the environment and their capacity to engage students.
- 6 ESD and technology
 - Investigate digital literacy.
 - Role of technology in the delivery of ESD and student participation.
- 7 ESD in local community
 - Conduct case studies action research to investigate various interventions in local communities.

- 8 Cross-cultural and global perspectives
 - Conduct comparative studies about implementing ESD in different countries (regional and international).
 - Global citizenship and ESD.

ANNEXES

ANNEX 1: MINISTRIES ACTIVITIES RELATED TO ESD/ GREENING EDUCATION

Ministry of Education and Higher Education and Center of Educational Research and Development MEHE-CRDP

At the educational level, Lebanon introduced in 1994, an education plan that aimed to build an integrated educational system, based on a specific philosophy and objectives.

In 2012, MEHE issued the decree:8924/21-9-2012²² that addresses community services in the public and private sectors for secondary students only.

In 2012, CRDP developed a strategy for greening education in cooperation with the Association for Forests, Development and Conservation AFDC the National Strategy for Environmental Education in Lebanon. In addition, in 2012, MEHE launched a strategic plan entitled "Learning in the Digital Age: Lebanon's National Educational Technology Strategic Plan" that recommended the shift to green digital education.

In 2015, MEHE and CRDP in cooperation with USAID, issued the "National Strategy for Extracurricular Activities, 2015" within the "DIRASATI" project. The *5-year plan of MEHE (2019-2025)* recognizes that education is an essential part of human development; quality education is a stand-alone sustainability goal, and also an enabler of all 17 sustainability goals. The plan addresses ESD through

the Sustainable Facility Management at Public Schools in Lebanon project (SUFA) which is to be put into action and expanded.

Currently, MEHE is considering a 2-year plan reform that will focus on extracurricular activities, home support and school leadership as areas of educational policies priorities.

Recently, in 2022, MEHE and CRDP have launched a national initiative for curriculum reform and the Lebanese National Framework for the Pre-University General Education LNFGE Curriculum was released (CRDP, 2022)²³. ESD was featured in the national curriculum framework to a large extent and was considered one of the main justifications that necessitated the need to develop the curriculum to provide Lebanese students with the knowledge, attitudes, and skills that enable them to understand sustainability issues and problems e.g., challenges of the environment on the local, national, and global scale. The National Curriculum framework also considered that ensuring a healthy and sound environment in schools enriches the learning environment and improves the quality of education.

CRDP, in collaboration with MEHE, has also launched a number of frameworks, guides and publications that address, to varying extent, ESD, including the Community Service Project Guide (CRDP, 2016)²⁴, Competencies Framework (CRDP, 2017)²⁵, National Action Plan for an inclusive, equitable and quality education in Lebanon (CRDP, 2020)²⁶, Framework

²² <https://www.mehe.gov.lb/2021-9-2012.pdf>.

²³ -10122022-الإطار الوطني اللبناني لمنهاج التعليم العام ما قبل الجامعي website- AS-10-56pm.pdf (crdp.org).

²⁴ https://www.crdp.org/files/0_مدلة%20خدمة%20المجتمع.pdf.

²⁵ https://www.crdp.org/sites/default/files/2020-11/Competency%20Frameworks_1.pdf.

²⁶ <https://www.crdp.org/sites/default/files/2022-11/Plan%20d%27Action%20National%20pour%20une%20education%20inclusive.pdf>.

for Citizenship Education (CRDP,2021)²⁷, National framework for Academic Accreditation, Updated Effective School Standards (CRDP, 2022)²⁸ Active Community Partnership Framework (CRDP, 2022)²⁹, National Policy on Inclusive Education for Children with Special Needs in Lebanon (CRDP, 2023)³⁰ and many other publications.

Lately, CRDP has launched a three-year strategic plan about green education.

Concerning Technical Vocational Education, MEHE developed a Technical Vocational Framework in “The National Strategic Framework for Technical Vocational Education and Training in Lebanon 2018–2022”, that highlighted the required skills that learners need to develop for environmental protection. In addition, MEHE developed “The National Strategy for Women in Lebanon 2011-2012” where the role of women in eco-friendly education was highlighted.

Ministry of Environment MOE

The Ministry of Environment has contributed with a number of initiatives and actions to the promotion of ESD.

On the legislative level, the Lebanese Environmental Protection Law (law no. 444/2002) represents a principal legal document that addressed the environment protection and management. Other relevant legislative actions were documented, some of which are the following: the Minister of Environment’s decision 99/1 (April 2013) that tackled the greenhouse gas emissions; the law 87-2018 that addressed climate change in general, but non related to education.

In 2015, MOE with the cooperation of the United Nation Development Program introduced the

“Teacher’s Guidebook on Climate Change for Schools in Lebanon.” Although the guide was not produced in coordination with MEHE and CRDP, it still represents an important educational formal document that tackles Climate Change in Lebanon since it was not explicitly referred to in the strategies and plans mentioned above.

*A remarkable action plan is The National Biodiversity Strategy and Action Plan (2016)*³¹ developed by MOE, with the collaboration of other ministries and public institutions, universities, non-governmental and international organizations, United Nations agencies, experts/consultants, and the private sector. The strategy identified 13 priority areas with 18 national goals.

These goals are related to mainstreaming biodiversity in sectoral and non-sectoral strategies, plans and programs. Within each goal, a number of national activities were included that must be implemented until the year 2030 to protect national biodiversity. The total number of national activities specified in the strategy reached 91 activities. These activities fall within the powers of several public departments and institutions, research centers and academic institutions, and also to non-governmental associations.

It is noted that this strategy has addressed awareness of the importance of biodiversity for all Lebanese school and university students and at least 60% of the public. In addition, it stated that by 2030 government agencies should mainstream biodiversity priorities into policy-making and implementation processes. Moreover, research on biodiversity in Lebanon was addressed.

Although the plans for awareness are present, the implementation in the educational sector that

requires the collaboration with MEHE and CRDP is missing (there are no clear procedures for that cooperation).

A memorandum of understanding was signed between the MOE and CRDP in 2019, that aimed to launch an environmental educational and awareness program that includes several topics for all staff members in the education sector, as well as students and their families, in order to motivate them to become active representatives in the field of the environment.

“The National strategy for air quality management in Lebanon 2015-2030”³² was released in 2017; the latter is a project funded by the European Union; it was then updated in 2020. It identifies sectoral and multi-sectoral legal and policy frameworks related to air quality that must be addressed in order to strengthen decision-making for air protection in Lebanon.

The strategy addresses communication and awareness plan by the use of the MOE website, the Internet, newspapers, smartphone applications, etc.

In 2018, “The Sustainable Policy for Integrated Solid Waste Management”³³ was released by MOE, and it included an educational and guidance component that requires the cooperation with other ministries and governmental and non-governmental agencies namely MEHE, Ministry of Information, Ministry of Interior and Municipalities/Municipalities, private bodies.

In 2020, MOE released “The Reality of the Environment in Lebanon and Future Transfers: The “Turning Crises into Opportunities”³⁴ report aimed to describe the status and trends related to environmental resources, including water, air, ecosystems and lands at the state level. The report addressed the educational sector, by discussing the role of environmental clubs in schools.

Ministry of Interior and Municipalities MOIM

The Ministry of Interior and Municipalities have few

initiatives related to sustainability.

In 2019, the ministry developed with the cooperation of MOE “A practical guide for the municipal police to strengthen environmental management”³⁵. The guide addresses various topics including air quality, solid waste management, water resources management, waste water management, land use and ecosystem management, and crisis and disaster management. The guide lacks educational or awareness component.

A booklet entitled “Municipalities are at the forefront of efforts for sustainable energy environmental policies” (2019-2021)³⁶, was released based on the joint efforts of a number of local and international bodies. It is a project implemented by the United Cities Association of Lebanon/The Technical Office of Lebanese Municipalities, in partnership with the Lebanese Mayors Committee, the French Pays de la Loire region, and the French Development Agency (AFD), in collaboration with the MOE and the Ministry of the Interior and Municipalities. This booklet is intended to provide simplified and effective information to municipalities and federations of Lebanese municipalities, with the aim of defining the role of municipalities in the field of renewable energy, presenting technical and financial tools to support Lebanese municipalities in implementing their local policies based on renewable energy and encouraging Lebanese municipalities and unions of municipalities to develop local policies in the field of renewable energy. It is worth mentioning that the booklet does not address collaboration between municipalities and schools.

Ministry of Energy and Water MOEW

Regarding the policies and strategies, The National Water Sector Strategy was issued in 2012 and then was updated in 2020 (Updated National Water Sector Strategy 2020)³⁷. The updated strategy addressed some of the SDGs but failed to address the educational component.

²⁷ <https://www.crdp.org/project-details1/32982/1627>.

²⁸ الإطار المرجعي للإعتماد الأكاديمي-المعايير المُحدّثة للمدرسة الفعّالة.pdf.

²⁹ الإطار المرجعي للشراكات المجتمعية النشطة.pdf.

³⁰ <https://www.crdp.org/sites/default/files/2023-07/IE%20policy%20brief%20Digital%20file%20%281%29.pdf>.

³¹ <http://www.studies.gov.lb/getattachment/Sectors/Environment/2016/ENV-16-3/Arabic-NBSAP-2016.pdf>

³² ENV-17-9.pdf (studies.gov.lb).

³³ <https://www.moe.gov.lb/getattachment/191a0aff-30a4-45d4-8c57-a828d01b76a8/Policy-Summary-for-Jan-2018.aspx>.

³⁴ <https://www.undp.org/ar/lebanon/publications/waq-albyyt-fy-lbnan-waltwqwat-almstqblyt-thwyl-alazmat-aly-frs-2020>.

³⁵ دليل عملي للشرطة البلدية لتعزيز الإدارة البيئية moe.gov.lb .

³⁶ تقارير - دليل البلديات: سياسات بيئية للطاقة المتجددة MOE moe.gov.lb <https://www.moe.gov.lb>

³⁷ Republic of Lebanon, 2020, Ministry of energy and water, (Updated National Water Sector Strategy 2020 -2035)

Moreover, the Water Law was released in 2020 (Law No. 192, date: 10/16/2020). Currently, the work is still on its implementing decrees. The law addressed awareness and educating citizens about the concept of the right to water and water culture.

In addition, the ministry conducted some initiative with MEHE, to state the “Request for Proposal” project that aimed to implement green and environmentally friendly measures in fourteen public schools in Lebanon.

Ministry of Youth and Sports MOYS

In 2012, the Ministry of Youth and Sports issued the National Youth Policy, which included a list of 137 policy recommendations to improve the lives of young people.

In 2022, the Ministry of Youth and Sports issued in partnership with UNICEF and other local organizations, the National Youth Policy Action Plan³⁸ without a clear reference to the role of youth in sustainable development, but did not include actions and measures to prepare them towards sustainability.

The Ministry also implemented a group of sports activities that included environmental, artistic and exploratory activities. In addition, the ministry launched a cultural and artistic Forum within the framework of youth activities.

Ministry of Social Affairs MOSA

The “We Are Volunteers”³⁹ platform is a project that MOSA, supported by UNICEF, started with the goal of getting young people involved in volunteer work to improve their communities. It gives everyone the same opportunity to develop their skills and makes a meaningful social impact that foster partnership with non-governmental organizations, the commercial sector, and civil society groups in Lebanon.

The Ministry’s social development centers (SDCs), which cover all Lebanese regions, play a role in the field of awareness and community development, and coordinate their activities with municipalities and local community activities, which include:

- Establishing projects regarding the issue of waste sorting, in addition to training courses, and carrying out cleaning and afforestation campaigns
- Holding multiple awareness sessions targeting young people about social responsibility and sustainable development
- Preparing training courses for youth, in partnership with several associations and local authorities, on recycling, renewable energy, and public and environmental safety.
- In addition, the Supreme Council for Childhood carries out projects, including the Child-Friendly Cities Project, which is a project that includes a municipal children’s council of 24 children from some municipalities, where 4 children from each municipality or region apply; then, they get registered and undergo a training program on children’s rights.

Ministry of Information MOI

At the policy and strategic level there is nothing significant at this moment other than the Article 30 of Chapter Seven of the Audiovisual Law that obliges television and radio institutions to broadcast, at a rate of one hour per week, free programs on national guidance and educational, health, guidance, cultural and tourism programs.

Ministry of Agriculture MOA

The Ministry of Agriculture has launched “Lebanon National Agriculture Strategy 2020-2025”⁴⁰ that involves preparing the plan for the strategy, proposing the appropriate organizational structure and developing a monitoring plan for the sustainable development goals and integrating them into the plans of MOA. The issue of food security is one of the main goals that the strategy is addressing, in addition to food production, natural resources and adaptation to climate change.

A number of programs and initiatives within the framework of the strategy’s themes are based on the involvement of women and youth in the various activities included within these programs and initiatives, which aim to develop their capabilities and skills through training and awareness.

MOA has many initiatives aimed at environmental education and awareness, including launching an awareness booklet for forest fire prevention in cooperation with the MOE, and afforestation and seedling distribution campaigns in cooperation with environmental and civil associations and municipalities.

In addition, the Ministry has seven agriculture technical schools across Lebanon that offer advanced agricultural tents with the focus on teaching agriculture, its benefits and importance to our health, and the importance of trees and plants in purifying the air, maintaining health, and reducing air pollution.

Moreover, the ministry provides training and guiding courses for farmers that include in various extent awareness components. It was noticed that there is limited and non-systematic cooperation with some schools that are interested in agriculture and have spaces that are used in agriculture, by providing seedlings, fertilizers, and other materials necessary for agriculture, providing the necessary guidance for them, or conducting training courses.

Ministry of Tourism MOT

The “National Strategy for Sustainable Mountain Tourism” 2022⁴¹, was launched in partnership with the United Nations Development Programme. The strategy was considered as an extension of the Rural Tourism Strategy that was launched in 2015 with the necessary amendments.

In addition, there are some initiatives focusing on eco-tourism namely training of eco-tourist guides and the development of digital resources, a CD or disc was prepared and distributed, which was a guide for educators in schools about rural tourism in Lebanon and a documentary film for students about rural tourism in Lebanon.

³⁸ <https://www.unicef.org/lebanon/media/9146/file/National%20Youth%20Policy%20Action%20Plan.pdf>.

³⁹ <https://www.nahno-volunteers.com/>.

⁴⁰ NAS-web-Eng-7Sep2020.pdf (agriculture.gov.lb).

⁴¹ <https://www.nna-leb.gov.lb/ar/economy/521515/الاستراتيجية-الوطنية-للسياحة-الجبلية>.

ANNEX2: NGOS PROJECTS IMPLEMENTED WITHIN THE FRAMEWORK OF SUSTAINABLE DEVELOPMENT

The NGOs in Lebanon that were part of the consultation organized by CRDP have implemented a number of projects centered around the importance of the environment and ways to preserve it in a sustainable manner.

They address all segments of society, with no exception, but most of activities are not directly related to school curricula.

The most important projects are the following:

- The green economy
- The role of women in protecting the environment
- Lectures and seminars on the ecosystem, preserving living organisms and their importance, desertification, pollution and its types;
- A sea without plastic
- Setting sustainable specifications for buildings
- Preventing plastic pollution in the Mediterranean
- Environmental passport
- Teacher's guide for environmental education
- Developing forest crops for degraded lands in Lebanon
- Awareness meetings and activities on tree planting
- Training on the importance of energy
- Promoting civic participation in the town of Azza
- Improving the environment in the town of Arkeh
- Civil society for sustainable development
- Solar cooker
- Green room
- Carbon footprint
- Let's recycle

NGOs' suggestions for improving cooperation with the Ministry of Education and Higher Education and the Educational Center for Research and Development

- Activating the role of environmental clubs in schools, by motivating them to implement environmental projects with the participation of NGOs concerned with youth and developing their capabilities.
- Integrating the sustainable development goals into the topics of educational materials explicitly.
- Participation of NGOs in curriculum reform, and outlining the environmental aspect and the importance of preserving it.
- Organizing environmental competitions in cooperation with CRDP.
- Constructing an environmental education curriculum with CRDP.

Youth NGOs

Some youth associations and institutions have taken the initiative to implement some activities that contribute to implementing sustainable development at the local level, including:

- Conducting awareness courses in universities about FOODWAYS and sustainable agriculture in Hermel (planting the school garden with various plants and how to care for them and harvest the crop)
- Recycling in Akkar (at school and at home and doing artistic projects through it)
- Taking care of bees in Rashaya (a community project for financial gain).
- Abundant and continuous job creation
- Cleaning and maintaining Beirut Forest and Beirut Park
- Active participation in the Blue Beach campaign and sea turtle protection
- Planting campaigns around schools in cooperation with local authorities
- Establishing the environmental bank in Minieh
- Fire suppression courses
- First aid courses.

Youth NGO's suggestions to improve cooperation between them and the Ministry of Education and Higher Education and the Educational Center for Research and Development

Preparing change projects to enhance the values of active citizenship, social justice, and good governance in schools and society,

- Preparing training programs for school principals and the educational system on innovative education with the aim of greening education,
- Building the capabilities of the school community and the local community in leading change and managing crises and disasters to confront environmental and climate challenges,
- Strengthening partnerships between the school and the community in a systematic way that contributes to the implementation of environmental development projects that preserve the environment and contribute to reducing the risks of climate change and increasing green spaces.
- Promoting participatory projects aimed at serving sustainable development and climate change between schools from different communities, so that schools benefit from each other's experiences.
- Conducting regional youth development activities (involving the largest number of young people in each region to implement the proposed activity and benefit from it).
- Sustaining previously implemented activities, by benefiting from them in the curriculum development process.
- Building a national platform for youth and allocating a website for them on official platforms.