

National Workshop on implementing the United Nations Economic Commission for Europe Strategy for Education for Sustainable Development



Main Conceptual Provisions of the UNECE Strategy for Education for Sustainable Development and its implementation framework 2021-2030

Dr Aravella Zachariou
Chair of the UNECE ESD Steering Committee
Chair of the ESD Med. Committee
Head of the Unit of Education for Environment and Sustainable
Development, MoESY, Cyprus
aravella@cytanet.com.cy

THE UNECE ESD STRATEGY Adapted in Vilnius High Level Meeting (2005-2015)

A Strategy it's a practical tool that provides guidance to MS on how to develop and incorporate ESD, in all forms of education, in their national contexts



Establishing
Policy,
Regulatory and
implementation
frameworks on
ESD



Integrating SD in formal, nonformal and informal education



Integrating SD in training systemsteachers ESD competences



Ensuring
adequate
tools and
materials on
ESD



Promoting research and development on ESD



Strengthening cooperation on ESD at all levels within ECE regions and with other regional and international policies and mechanisms



Useful outcomes and recommendations on ESD Strategy implementation in the UNECE Region

https://unece.org/publications/education-for-sustainable-development

Aims of the framework of implementation UNECE Strategy for ESD 2021-

2030



Strengthening the position of ESD in education and training systems from early childhood-till life long.



Assessing the national and regional progress on ESD and propose tangible ways to improve as well as learn from the experience of member states.



Identifying realistic and measurable targets that helps us to achieve our commitment to ESD during this decade.



Strengthening people to reconsider their current lifestyles as an emergency for creating sustainable futures.



Supporting education systems, educational community and institutions to respond sufficiently to the necessary changes for addressing with optimism a safer and more sustainable post-COVID-19 era.



Establishing collaborations with other regional process and initiatives such as UNEP, UNESCO, EU and ESD Med Strategy, GENE etc. to take forward our joint ambitions on ESD and SDGs.

TIMELINE AND PROCESS OF DEVELOPMENT UNECE ESD FRAMEWORK2021-2030 PARTICIPATORY AND COLLABORATIVE PROCESS



Where is based the UNECE ESD 2021-2030 framework;

Coordinators of the UNECE ESD 2021-2030: Prof. Michael Scoullos (Greece), Dr. Roel van Raaij (NL)

Quality Education
Stand Leader:

Whole Institution Approach
Strand Leaders:

ICT AND ESD
Strand Leaders:

Entrepreneurship, employment, innovation Strand Leaders:

YOUTH

THE FOUR STRANDS PROPOSED ACTIONS IN 4 LEVLES:

System

Educators

Learners

Institution

Structure

- 1. Introduction
- 2. Vision
- 3. Policy Framework
- 4. Strategic Directions/Goals
- 5. Recommendations
- 6. Work plan activities 2022-2025

Reflects to SDGs.
Emergencies
such as climate
change,
consumption
and production,
biodiversity,
linked with
social, political,
cultural and
economical
aspects.



Vision: Embed ESD into quality standards, frameworks, mechanisms and resources (including available tools, etc.) associated with formal quality assessments and institutional reviews in all UNECE Member States and in international standards.



Indicative work Plan activities:

Collect good practice examples from countries and share experiences in efforts for potential collective work on "quality and ESD".

- 2) Develop quality criteria frameworks for embedding ESD into each educational level -
- 3) Develop a "benchmarking tools" to assess practice.
- 4) Consider an Ad hoc expert group or other international alliance scheme that makes connection to SDG4 communities, UNESCO, UNEP, EU, MCESD and others to work together.

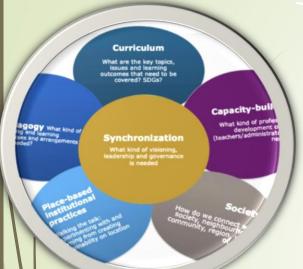
Strategic directions/Goals:

Engagement of education quality professionals, systems and authorities in ESD dialogues.

Embedding ESD into education quality systems, e.g. in 'benchmarking tools' to assess practice and invest in Quality criteria frameworks for each educational level.

programme(s) for education quality professionals, authorities and agencies as well as education managers and leaders.

Vision: Every institution and organization in formal and in-formal education implement ESD within WIA and reviews its actions in the light of learning, programs, governance, infrastructure, community.



Indicative work plan activities:

- 1) Create and promote a Whole Institution Framework based on areas of generic interest and shared experiences).
- 2) Develop a set of quality criteria for institutions seeking to adopt a WIA to help them identify what they have achieved; what they still need to work on; what obstacles they face and how to overcome them;
- 3) Create a guide for developing a WIA plan to promote ESD, within the institutions they study or work.

Strategic directions/Goals:

- (a) Frameworks that foster participatory approaches enhancing commitment, ownership and responsibility for promoting a WIA in ESD in diverse contexts.
- (c) Tools and resources that facilitate stakeholders (particularly youth) and institutions to participate in a whole institution transformation.
- (d) Mobilize youth in the design of WIA plans to promote ESD in their respective institutions and adopt a leading role in reinforcing the focus on SDGs (especially SDG4.7).
- strengthening of UNECE ESD SC synergies with organizations, mechanisms and networks (e.g. UNESCO, EU and WHO) that also develop policies for a WIA.

Vision: A systematic, balanced and updated use of ICT and all digital tools and resources as a means for promoting ESD and new educational practices facilitating access to sustainable development learning, throughout life.



Indicative work plan activities:

- 1) Collection of good practices and develop specific pilot programmes for media education and *illectronism* for those who do not have the keys to the use of electronic resources.
- 2) Creation of an Open Science framework allowing the use, reuse, creation and sharing of Open Education Resources and good practices at all levels of education and training.

Strategic directions/Goals:

- (a) Understand the advantages of digital technology to teaching sustainable development and rethinking the processes implemented to develop ESD for the benefit of learners, teachers, manager, researchers.
- (b) understand and appreciate, with a critical sense, the various digital messages and content dealing directly or indirectly with sustainable development, and to formulate personal views. The latter is particularly important since the issue of misinformation, fake news 'is a fast growing major socio-political and cultural challenge.

SOME FINDINGS FOR BEING ENTREPRENEURSHIP, EMPLOYABILITY, INNOVATION AND ESD KEY PRIORITY AT THE UNECE ESD STRATEGY 2021-2030

The radical changes required for fast transformation on a global scale can be brought about Entrepreneurship, Innovation and new Employment routes:

- A sustainable transformation will see jobs disappearing and new jobs coming into play (Frey & Osborne, 2017), creating a gap in skills and competencies.
- As the COVID-19 pandemic has shown, there is an urge for even faster digital transformation and agility in the workforce.
- •Both innovation and entrepreneurship are bound to be important in ensuring sustainable employment in an ever-changing world by turning climate and environmental challenges into opportunities, and making the transition just and inclusive for all which is crucial in meeting the <u>Agenda-2030 Targets</u> (UN, 2015)
- •Systems innovation is necessary to boost efforts in the transition while ensuring that people are adequately trained to be employable in an agile, future and competitive job market, since unemployment, and particularly youth unemployment, is a major concern (UN Agenda 2030).

IN THE UNECE CONTEXT (challenges and Problems)

The lack of connection between education, research, policy and the market needs.

The lack of desired competencies in the labour market in the present and future workforce, including the formal education process.

The lack of ecosystems to nurture entrepreneurial mindset.

Increasing gender equality will boost employability for all, also through entrepreneurship.

Lack of intergenerational approach and focus on inclusive education (people with disabilities, vulnerable and marginalized groups).

Entrepreneurship, employment, innovation and ESD needs national, regional, international collaboration between people, institutions, mechanisms, processes and organizations

How the key priority (4) can be achieved through the New Implementation Framework of the UNECE ESD Strategy 2021-2030;



Vision: Use ESD in stimulating entrepreneurial and innovation mind setting in learners in order to accelerate transformations towards sustainable development and enlarge employability of young in existing or emerging new jobs



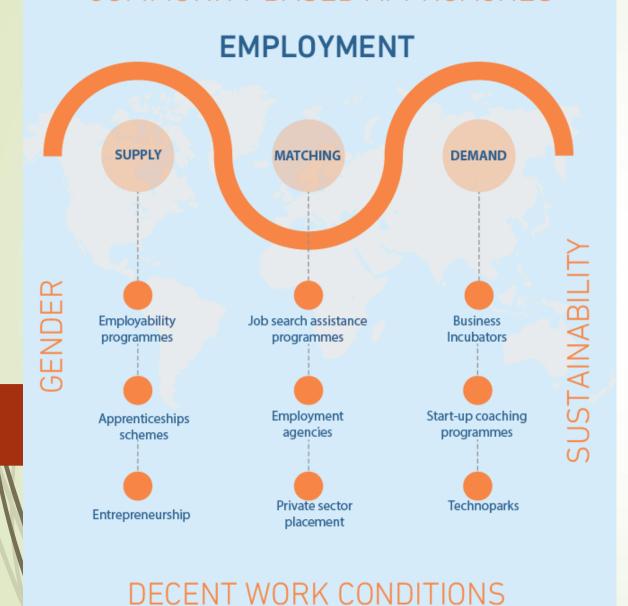
Indicative work plan activities:

- 1) Identify qualifications and skills in the field of sustainable development, green and circular economy and green technologies in order to integrate them into professional profiles.
- 2) Networking of ESD with other stakeholders and local communities with the aim to develop and strengthen an ecosystem of champions agile in employability, entrepreneurship and innovation.
- 3) Create guidelines to benchmark the levels of education institutions' readiness in infusing/ encompassing entrepreneurial skills and support employability related to innovation

Strategic directions/Goals:

- (a) Preparation of students for the green labour market, thorough revision of the content and methodologies of the curricula and learning conditions and standards/
- (b) Strengthen entrepreneurial ecosystems, including platforms of interaction and funding mechanisms that enable entrepreneurial and intrapreneurial activity.
- (c) Strengthen women participation in green entrepreneurship and support intergenerational approaches, and inclusive education where policies for urgent employment for the young should not overlook the experienced older generations and people with disabilities or marginalised

COMMUNITY BASED APPROACHES



Multi-stakeholder approach to tackle employment in the Med Region

Source: UoM (2022). Towards a Union for the Mediterranean Strategy on developing new Vocational pathways in Higher Education. Barcelona.

YENESIS PROJECT

Yenesis project

- Through the YENESIS project, the partners aim to address the challenge of unemployment in not in education, employment, or training (NEET) professionals in islands of beneficiary states.
- The main objective of the project is to reduce unemployment of the target group (TG) by creating green jobs in islands
- Four thematic areas: energy efficiency, renewables, sustainable tourism, and mobility.
- The project will work with participants of the TG in an elaborate process to equip and prepare them for employment in green jobs.



Yenesis project approach

- Includes educational programme on business innovation and the 4 thematic areas,
- a mobility scheme,
- a mentoring scheme and a final stage,
- where participants will work on projects offered by local, regional and national authorities for 6 months





10/2018

Sustainability competences for green

NEET

In educational programme

NEET

In showcasing In apprenticeship

trips in Norway in an EU island



6-month local placement Business mentoring

Application

NEET

In networking opportunities







Long lasting impacts for **NEETs**

Sustainable **Employment Opportunities** Green jobs Start-ups

Learning

Train target group in 4 thematic areas & business innovation 3-days showcasing trips 1-month apprenticeship



NEET

Receivin business mentorin g

NEET

In local placeme nt

Capitalisation

Stakeholder engagement Policy recommendations





yenesis

Guide on sustainability competences for green jobs





The YENESIS project benefits from €2.3M grant from Iceland, Liechtenstein and Norway through the EEA and Norway Grants Fund for Youth Employment. The project aims at creating employment opportunities, for NEETs in islands.



3. What skills do I need to get a green job?

There are a number of horizontal skills, which are considered particularly important and necessary for all green professions, regardless of the particular sector of employment.

Management

- Managerial skills
- Initiative
- Leadership capacity
- Multitasking
- Transdisciplinarity
- Sustainable planning
- Entrepreneurial spirit
- Sustainable business models
- · Time management

Marketing competencies

Analytical

Critical thinking

Problem solving
 Learning ability
 Risk management

Creative

- Innovation
- Creative thinking
- Adaptation capacity
- Flexibility

Relationship

- Teamwork
- Cooperation skills
- Accepting diversity
- Networking
- Integration skills
- Intercultural knowledge
- High mobility
- Environmental awareness
- Responsibility

Communication

- Social skills
- Social intelligence
- Foreign languages



Technical

- Digital literacy
- · Coding and programming
- Big data analysis
- Information & communication technology (ICT)
- New media literacy
- Financial literacy





4. Where can I find a green job?

4.1. Renewable Energy Sources

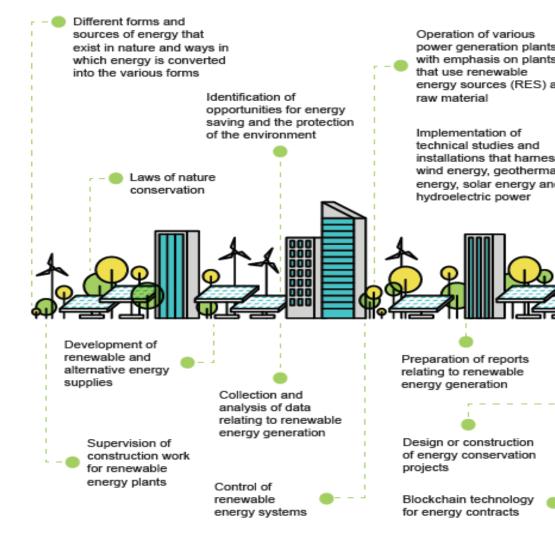
What is it? Why is it important?

Renewable Energy Sources (RES) are sources from which energy can be generated, without the source ever being exhausted. These include solar, wind, hydraulic, the chemical energy stored in plants (biomass), the thermal energy stored in the Earth (geothermal) and ocean energies. Exploiting these sources to produce the energy that we, the humans, require to satisfy our everyday needs in electricity, air and water heating and cooling, and transportation, saves on the raw material resources and does not pollute the natural environment. RES are the alternative environmental-friendly option to burning fossil fuels for energy production. Fossil fuels are not only limited in quantities on the planet, but also the process of burning them as fuel produces significant amounts of carbon dioxide and other greenhouse gases that contribute to the climate change. RES technologies are currently a blooming market that will continue to expand even further the coming years. In fact, it is estimated that by 2050, RES will contribute by at least 55% in the final energy consumption of Europe.

What green jobs can I follow?

Renewable Energy Sources	 Designers of solar PV, solar thermal systems and wind installations Electrical/Mechanical/ Environmental/ Energy Engineers Engineers of industrial process solarisation Geologists and geophysicists Renewable energy project engineers Sales Engineers Biomass boiler systems technicians Biomass collection and transformation companies – Refuse workers Biomass (wood) fuel supply operators Biomass plant technicians Electrical engineering technicians Installers of solar photovoltaics, solar thermal systems and wind installations IT experts Power production plant operators Project managers Solar facility managers Technicians of solar PV, solar thermal systems and wind farms
--------------------------------	--

What are the key elements of these jobs?



How does it contribute to the development of the green market?

- Renewable energy generation offers less dependence on imported fuel, thus coun less vulnerable to the global fuel prices fluctuations
- RES enhance the diversification of the energy supply, which directly means incre energy security and reliability
- The further development of RES will create additional job positions in manufainstallation and maintenance of renewable energy technologies

4.3. Sustainable Tourism

What is it? Why is it important?

Sustainable tourism is an industry committed to making a low impact on the environment and local culture, while helping to generate future employment for local people. It prioritises interaction with the local traditions, local people, and natural resources, such as actions are contributing to the sustainable development of the local community. Adopting sustainable practises in the tourism industry is important because it preserves and protects the natural resources and the environment, such as the future generations can also enjoy it, it mitigates the negative impacts of travelling, and contributes to the socio-economic growth and regeneration of local and poorer communities, that are not engaged in mass tourism activities.

What green jobs can I follow?

Tourism

- A	 Adventure travel organisers 					
- A	gricultural,	forestry ar	nd fishery	labourers		

- Agrotourism managers
- Biology and geology nature guides
- Conservation scientists
- Crafters/ Crafts entrepreneurs
- Ecotourism rangers
- Energy experts
- Environmental and occupational health and hygiene professionals
- Environmental auditors
- Free walking tour guides
- Green/eco builders
- Heritage tourism officers Life science technicians
- Mountain guides
- Organic farming, livestock beekeeping, viticulture and winemaking
- Producers of food at the place of consumption
- Professionals of mountain ludic activities
- Professionals of sea ludic activities
- Spa services providers
- Sustainability instructors
- Sustainable buildings project developers and builders
- Sustainable managers of hotel facilities/eco-hotels
- Sustainable tourism service providers
- Waste management experts
- Water resource specialists
- Wildlife scientists

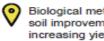
What are the key elements of these jobs?



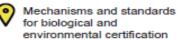
lceland

Liechtenstein

Norway grants



Biological methods for soil improvement and for increasing yield of crops



Interpretation of scientific data for the assessment of water quality

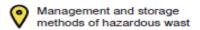
Conduction of physicochemical analysis for food ingredients

Risks associated with physical, chemical, biological parameters of food and beverages

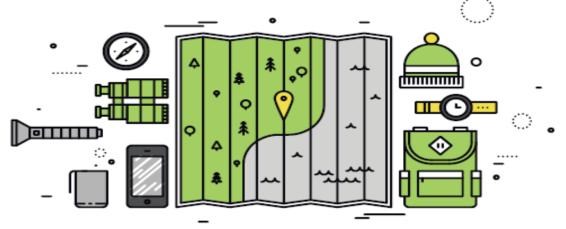
Botany and animal biology

Services practises

Hotel and food arts







How does it contribute to the development of the green market?

- Sustainable tourism diversifies the touristic product, tackles seasonality, safeguards the unique local natural and cultural heritage and helps create more local green and sustainable jobs
- · The demand for local and sustainably sourced foods contributes to the community's economic resilience, reduces environmental impacts, and also cultivates an authentic sense of place and culture for visitors
- Sustainable tourism promotes the greening of hotel infrastructures and supports ventures for the creation of new services in alternative forms of tourism
- Sustainable tourism planners navigate strategies to address to both the needs of travellers and hosts with regard to human rights and social justice
- Outdoor activities such as free walking tours and mountain tours create additional specialised job positions that are often excluded from the mass tourism industry and establishes SMEs specialised on outdoor activities
- Sustainable tourism encourages the renovation of traditional buildings into guesthouses at the countryside

4.4. Sustainable Mobility

What is it? Why is it important?

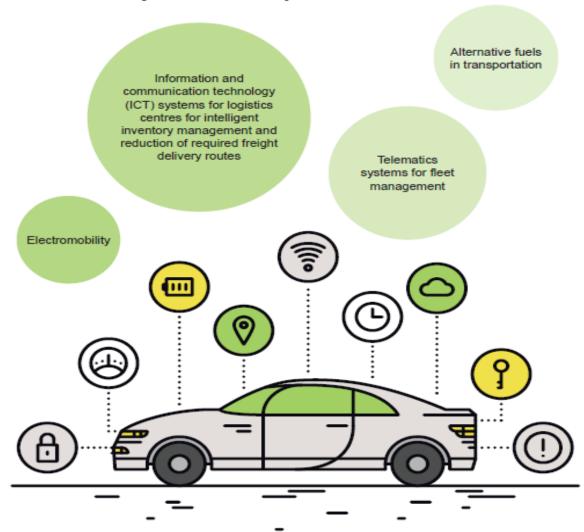
Current systems of mobility are highly reliant on private vehicles, which cause negative consequences, including pollution, congestion and land use change in both urban and rural areas. Sustainable mobility is the mobility model that enables movement with minimal environmental and territorial impact. The adoption of an efficient and flexible transport system, which incorporates intelligent and sustainable patterns of mobility, can contribute to the improvement of the economy, as well as the quality of life and standards of living. Sustainable mobility is promoting co-modality: optimally combining various modes of transport within the same transport chain. Technical innovations and a shift towards the least polluting and most energy efficient modes of transport, especially in the case of long distance and urban travel, also contribute to more sustainable mobility.

What green jobs can I follow?

Sustainable Mobility

- Alternative fuel distributors and operators
- Augmented reality experts
- Automation and robotics experts
- Big Data experts
- Charging station managers and maintenance
- Car-sharing
- Digital transformation experts
- Eco driving instructors
- Electric bike mechanics
- Electric bus drivers
- Electric motor mechanics
- Entrepreneurs in electric vehicle rental
- Entrepreneurs in the logistics services
- Info mobility experts
- Information and communication technology (ICT) technicians
- Installation and service of electric charging stations
- Operators of electric vehicle charging infrastructures
- Rent of electric vehicles and electric bicycles
- Sustainable mobility managers for public and private fleets
- Transport planners/Transportations engineers

What are the key elements of these jobs?



How does it contribute to the development of the green market?

- In times of rising fuel prices, sustainable mobility modes such as public transport, walking, cycling and eco-driving are saving money for the general public, as well as enhance the country's economy
- Public transport, walking, cycling and eco-driving are more energy efficient and sustainable than passengers cars as they emit reduced greenhouse gases such as carbon dioxide and other health-threatening air pollutants such as particulate matter, thus keeping our air cleaner.
- The incorporation of Information and Communication Technology (ITC) systems in the transport sector will create additional job positions in the sector



National Workshop on implementing the United Nations Economic Commission for Europe Strategy for Education for Sustainable Development



Main Conceptual Provisions of the UNECE Strategy for Education for Sustainable Development and its implementation framework 2021-2030

THANK YOY!

Dr Aravella Zachariou
Chair of the UNECE ESD Steering Committee
Chair of the ESD Med. Committee
Head of the Unit of Education for Environment and Sustainable
Development, MoESY, Cyprus
aravella@cytanet.com.cy