TÜRKİYE ULUSAL AJANSI
TURKISH NATIONAL AGENCY

SOBRIETY4YOU

# Sobriety4you
# Methodological Framework & Research

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# Introduction

Our planet has experienced constant change since its inception, with events like volcanic eruptions, meteor showers, and ice ages causing significant ecosystem shifts. These changes led to the evolution of some life forms and the extinction of others. Over millions of years, life forms adapted to these natural changes. Human impact on the ecosystem was minimal until the industrial age, when the use of fossil fuels like oil and coal began causing serious environmental damage. Modern reliance on fossil fuels has led to species extinction, ecological imbalance, ozone layer depletion, increased carbon emissions, and severe air pollution. This rapid change over just three centuries is unprecedented and unsustainable. Without a shift towards sustainable energy, our planet may become uninhabitable.

The depletion of non-renewable resources and advancing climate change require urgent, effective, and coordinated action globally and locally. Education plays a pivotal role in these efforts. Since the 1970s, various reports and agreements, such as the Club of Rome's "Limits of Growth," the 21 Agenda 1990, and the Intergovernmental Panel on Climate Change (IPCC) reports, have highlighted the need for sustainable development. The Conference of the Parties (COP) and the Paris Agreement have strengthened international responses to climate change and biodiversity loss, emphasizing collective action.

The European Green Deal, adopted in 2019, aims to transform the EU into a resource-efficient and competitive economy with no net greenhouse gas emissions by 2050. It seeks to protect natural capital and citizens' health from environmental risks. Energy efficiency is a key priority. The European Commission's 2021 proposal aims to reduce greenhouse gas emissions by at least 55% below 1990 levels by 2030. It stresses the importance of education, training, and information on energy efficiency, and the need for investment in education and skills for both users and energy suppliers. Energy education is seen as crucial for changing consumer behavior and energy consumption practices.

In October 2014, EU leaders agreed about the 2030 policy framework for climate and energy, which aims to make the European Union's economy and energy system more competitive, secure and sustainable and will drive continued progress towards a low-carbon economy.

**The main targets of the 2030 framework are:**

- Reducing greenhouse gas emissions by at least 40%
- Increasing the share of renewable energy to at least 27%
- Increasing energy efficiency by at least 27%

The framework also aims to build a competitive and secure energy system that ensures affordable energy for all consumers, increases the security of the EU's energy supplies, reduces dependence on energy imports and creates new opportunities for growth and jobs.

**Reducing greenhouse gas emissions by at least 40%**
The main goal of the framework is the binding target to reduce EU domestic greenhouse gas emissions by at least 40% below the 1990 level by 2030.

This target will ensure that the EU is on the cost-effective track towards meeting its objective of cutting emissions by at least 80% by 2050. To achieve the overall 40% target, the sectors covered by the EU emissions trading system (EU ETS) would have to reduce their emissions by 43% compared to 2005. Emissions from sectors outside the EU ETS would need to be cut by 30% below the 2005 level, which will need to be translated into Member State targets.

**Increasing the share of renewable energy to at least 27%**
The European Council approved a binding target of increasing the share of renewable energy to at least 27% of the EU's energy consumption by 2030, which will play a key role in the transition towards a competitive, secure and sustainable energy system.

**Increasing energy efficiency by at least 27%**
The European Commission proposed a 30% energy savings target for 2030, following a review of the Energy Efficiency Directive. The European Council, however, endorsed an indicative target of 27% to be reviewed in 2020 having in mind a 30% target.

**Reform of the EU emissions trading system**
The EU ETS will be reformed and strengthened. Instead of the declining rate of 1.74% up to 2020, the cap will be declining by 2.2% annually from 2021 onwards, to be able to reach the 43% greenhouse gas reduction target in 2030.

In January 2014 the Commission proposed to establish a market stability reserve from 2021 onwards to ensure more robust and effective EU ETS in promoting low-carbon investments. This is to address the surplus of emission allowances in the EU ETS that has built up in recent years and to improve the system's resilience to major shocks. The European Council underlined that a reformed, well-functioning ETS will be the main instrument to achieve greenhouse gas emission reductions (2030 Framework for Climate and Energy Policies - Climate Changes, 2017).

In summary, the world has been warned about the limits of growth and the need for sustainable development. International agreements and reports have underscored the importance of education in achieving these goals. The EU's efforts, including the European Green Deal, highlight the critical role of energy efficiency and education in addressing climate change. The active involvement of youth is essential for driving sustainable change and ensuring environmental stewardship for future generations.

# Objectivities

The objectivities of project Sobriety4you is raise energy sobriety & ecological change among the young population by creating dedicated online trainings targeted to raise awareness and readiness in those topics. We are facing long-lasting environmental change and rising energy costs to what especially young people need to be prepared and adapt. We observed high interest rate of youngsters to change the world by adapting their behavior, we wish to give them tools to succeed in their dreams and face actual & new challenges to come.

The project innovates in youth education and training and bring forward our youth centers and trainings to adapt, but also young people to environmental impact sobriety.

The project develops an innovative approach to using interactive example-based pedagogical tools as digital tools.

Based on the above, our main objectives are:

- Environment and climate change adaption
- In detail, our project is also linked to the following topics:
- Initial and continuous development of youth workers.
- Supporting the adoption of innovative approaches and digital technologies for teaching and learning.

- Social/environmental responsibility of youth institutions

The project aims to address young people on environmental and energy sobriety in an inter-national perspective.

The project will be carried out at EU level, in different national contexts characterized by different policies in the youth sector. Partners of this project come from several countries:

- International Public, Municipal and Non-Governmental Organizations Project Support Association - Proder NGO (Türkiye)
- Asociación Socio-Cultural VerdeSur Alcalá (Spain)
- Compass - Beratung, Begleitung und Training Gemeinnützige GmbH (Austria)
- ACTIVE CITIZENS PARTNERSHIP (Greece)
- OAZA SIGURNOSTI (Serbia).

# Energy Sobriety

## Energy Sobriety in Türkiye

Türkiye has undertaken numerous initiatives to save energy and promote energy sobriety, notably mandating thermal insulation in buildings from January 1, 2011. Residential buildings account for a significant portion of energy consumption, with urban consumption dominating natural gas usage. In April 2016, energy consumption in Türkiye was divided among natural gas (55%), electricity (25%), and diesel fuel (15%). Urban areas consumed 44% of natural gas, while industry and power plants consumed 22% and 34%, respectively. Consequently, compulsory thermal insulation in buildings has led to substantial savings.

Industry, which accounts for 43% of Türkiye's energy consumption, was the initial focus of energy-saving efforts. The General Directorate of Electrical Power Resources Survey and Development Administration (EİE) began planned energy-saving studies in 1981, establishing the National Energy Conservation Center (UETM) in 1992. The Department of Energy Efficiency in Industry, within EIE/UETM, promotes energy efficiency through various initiatives. The "Regulation on Increasing Efficiency in Energy Consumption of Industrial Establishments," effective from November 11, 1995, mandates factories with annual energy consumption of 2000 or more Tons of Oil Equivalent (TOE) to establish an energy management system.

Examples of these measures include Türk Ytong's Pendik plant, which achieved 30% energy savings and 5% raw material savings between 1996 and 2001 through steam batteries, efficient steam boilers, and a waste steam recovery system, saving $935,000 over five years. Oyak-Renault's "Efficient Use of Energy" project in 2001-2002 resulted in 47.9% electricity and 28% natural gas savings.

The transportation sector, consuming about 20% of Türkiye's energy (19.7% in 2005), relies almost entirely on fossil fuels, making energy savings crucial for sustainable policy. Despite limited steps, there has been a shift towards alternative fuels like compressed natural gas (CNG) and liquid petroleum gas (LPG) since 1990, reducing emissions and fuel costs.

Türkiye's first National Energy Efficiency Action Plan (2017-2023), effective from February 1, 2018, aims to save 23.9 million tons of oil equivalent (MTEP) of energy by 2023, with a $10.9 billion investment, reducing primary energy consumption by 14%. By 2033, expected savings amount to $30.2 billion.

Working groups under the National Energy Efficiency Action Plan target energy savings in various areas, including developing a national energy efficiency financing mechanism, proposing impact analysis and support for thermal insulation in existing buildings, assessing technical and economic potential for renewable energy systems at airports and ports, utilizing municipal solid waste-derived fuels in cement plants, and harnessing industrial waste heat.

# Energy Sobriety in Austria

Inspired by France's initiatives, it aims to adapt similar strategies for Austria, focusing on youth engagement. Recognizing the influential role of young people in shaping future energy consumption, the report seeks to educate and empower Austrian youth about responsible energy use. Drawing from France's comprehensive approach, which includes policy interventions, educational programs, and community engagement, the report outlines a roadmap for fostering a culture of energy sobriety among Austrian youth.

Austria's Energy Efficiency Act, effective since 2015, mandates energy suppliers to implement efficiency measures, although the impact of educational initiatives on actual energy savings remains under-researched. Existing studies suggest education can significantly reduce CO2 emissions, but comprehensive evaluation tools for energy literacy are lacking. Addressing this gap, the report highlights the development of the "Energy Literacy Questionnaire" by DeWaters et al., which aims to measure energy literacy effectively, albeit limited to English-speaking students in the U.S.

Ultimately, the report advocates for a multi-faceted approach, combining policy, education, and community engagement, to promote energy sobriety and sustainable practices among Austrian youth, contributing to global environmental stewardship.

**Energy Sobriety in Austrian Education**

Energy sobriety, defined by conscious and restrained energy consumption, is essential for mitigating climate change and fostering sustainability. This literature review examines pedagogical, training, and methodological models for ecological skilling in Austria, focusing on their effectiveness in educational settings.

**Pedagogical Models**

In Austria, pedagogical strategies for fostering energy sobriety among students utilize diverse methods to nurture critical thinking and behavioral shifts regarding energy consumption. Central to this approach is the Education for Sustainable Development (ESD) framework by UNESCO, which integrates energy sobriety principles into curricula. The Austrian Network of Education for Sustainable Development (ANE) leads collaborative efforts among educators, policymakers, and civil society to innovate teaching methodologies and resources. ESD's interdisciplinary approach combines STEM, social sciences, and humanities to help students understand the complex interplay between energy systems and societal and environmental impacts. Experiential learning, such as project-based initiatives, field trips, and hands-on activities, is emphasized to create a personal connection to energy conservation. ESD also fosters critical thinking, problem-solving, and inquiry-based learning, empowering students to address energy challenges in their communities and become proactive agents of change.

Training models in Austria include interdisciplinary teacher training, vocational training, apprenticeships, and continuing professional development (CPD). These programs focus on curriculum development, practical skills, and professional networking to equip educators with the necessary tools for effective energy education. Vocational and apprenticeship programs prepare young people for energy-related careers through industry partnerships and hands-on experiences, while CPD offers ongoing support and training for educators.

Methodological frameworks for ecological skilling in Austria emphasize critical thinking, problem-solving, and practical skills for sustainable living. Approaches like systems thinking and participatory learning enable students to analyze complex energy systems and explore innovative solutions. The "Education for Sustainable Development Goals" (ESDGs) framework aligns with the UN SDGs,

promoting holistic solutions to energy issues. Digital technologies, including VR simulations, enhance experiential learning in energy education.

Adapting young people to energy sobriety involves educational interventions that impart knowledge and cultivate values of environmental stewardship. Youth-led projects and community programs empower active roles in energy futures, while sustainable practices within educational institutions reinforce energy sobriety. These efforts aim to nurture a generation poised to champion energy conservation and sustainability.

Agriculture:

- Austria's Agricultural Environmental Program (AEP) supports renewable energy adoption (solar panels, wind turbines, biomass boilers) and energy-efficient farming practices.
- Financial incentives, advisory services, and training programs help farmers reduce their environmental footprint.
- The AEP includes measures for reduced tillage, organic farming, and agroforestry, which enhance energy efficiency and promote biodiversity.

Industrial Complexes:

- Policies enforce energy efficiency standards and encourage technological innovation.
- Integration of renewable energy sources is supported through subsidies and partnerships.
- Advanced energy management systems and regulatory frameworks (carbon pricing, emissions trading) incentivize sustainable practices.
- Public-private partnerships and training programs facilitate the implementation of energy-efficient measures.

Schools and Education Institutions:

- Schools prioritize energy-efficient design, smart technologies, and regular maintenance.
- Educational campaigns and student-led initiatives promote a culture of energy conservation.
- Institutions integrate renewable energy sources and resource management efforts.
- Policies are embedded in curricula and regularly evaluated, fostering community-driven sustainability.

Residential Places:

- Energy-efficient building standards, smart home technologies, and renewable energy systems (solar panels, heat pumps) are encouraged.
- Government incentives and energy audits support homeowners in adopting energy-saving measures.
- Community engagement and educational campaigns promote sustainable lifestyle choices.

- Collective self-consumption (CSC) models, introduced in 2017, enable energy sharing within multi-apartment buildings, although public grid use for energy sharing is not permitted.

Legislative Framework:

- The Renewables Expansion Law (EAG) of 2021 establishes frameworks for Renewable Energy Communities (RECs) and Citizen Energy Communities (CECs), promoting the adoption of renewable energy.
- Austria's comprehensive approach aims to reduce its carbon footprint, enhance energy security, and build resilient communities for future challenges.

# Energy Sobriety in Greece

Greece faces significant environmental challenges, including recurrent wildfires, climate change impacts, biodiversity loss, and the need for sustainable development. High temperatures, dry conditions, strong winds, and human activities such as arson and negligence exacerbate wildfires, particularly during hot summer months. Notable examples include the 2018 Attica wildfires, which claimed over 100 lives, and the 2007 Greek forest fires, which caused extensive destruction in the Peloponnese and Euboea regions.

Climate change poses additional threats with rising temperatures, changing precipitation patterns, and more frequent extreme weather events, leading to droughts, heat waves, and water scarcity. These impacts affect agriculture, tourism, and public health. Biodiversity in Greece is also at risk due to habitat degradation, pollution, and unsustainable land use, threatening forests, wetlands, and coastal areas.

In response, Greece has initiated several environmental measures. To mitigate wildfires, the country has implemented fire prevention strategies, early detection systems, improved firefighting capabilities, and public awareness campaigns. Despite these efforts, public outrage persists due to perceived inadequacies in government preparation and response.

Climate change adaptation efforts in Greece focus on enhancing resilience through infrastructure development, land-use planning, and community-based initiatives. Biodiversity conservation involves establishing protected areas, nature reserves, and conservation programs. A notable example is the National Marine Park of Zakynthos, aimed at protecting the endangered loggerhead sea turtle and its nesting beaches.

Greece promotes sustainable development by integrating environmental considerations into economic activities and decision-making processes, in alignment with EU frameworks like the European Green Deal and the Sustainable Development Goals (SDGs). Strategies include supporting renewable energy projects, promoting energy efficiency, and implementing sustainable tourism practices. However, challenges persist in infrastructure development, particularly in protecting against natural disasters such as floods, fires, or earthquakes.

International cooperation is a key component of Greece's environmental initiatives. The country actively participates in regional and international efforts to address climate change, biodiversity conservation, and sustainable development. An example is Greece's involvement in the Mediterranean Action Plan (MAP) under the United Nations Environment Programme (UNEP), aimed at protecting

the marine and coastal environment of the Mediterranean Sea. Through these collaborative efforts, Greece seeks to enhance its capacity to tackle shared environmental concerns and achieve common goals.

Environmental education in Greece has its roots in ancient Greek philosophy, with thinkers like Aristotle and Plato emphasizing the human-nature connection and environmental stewardship. The 20th-century global environmental movement spurred interest in Greece, leading to early efforts focused on pollution, deforestation, and habitat destruction. Over time, environmental education was integrated into the Greek educational system, with the Ministry of Education supporting initiatives to promote environmental literacy.

Legislation and policies provided a framework for these efforts, leading to the establishment of Environmental Education Centers (ECCs) across the country. These centers offered resources, training, and support for teachers and students, emphasizing experiential learning, hands-on activities, and outdoor education. Teachers received guidance from Environmental Education Officers and ECC staff to incorporate environmental topics into their curricula.

Environmental education initiatives extended beyond schools, involving local communities, families, and civil society organizations through community-based projects, environmental campaigns, and public awareness events. Greece also engaged in international networks and initiatives, collaborating with European partners, UNESCO, and other organizations for knowledge exchange and capacity-building.

Today, Greece continues to evolve its environmental education to address emerging challenges, focusing on interdisciplinary approaches, new technologies, and promoting sustainable behaviors. This historical development reflects Greece's commitment to fostering environmental awareness, responsibility, and action for sustainable development and natural heritage conservation.

Greece has significantly advanced environmental education, earning international recognition through its active role with UNESCO. As a UNESCO World Heritage Convention participant, Greece has helped spotlight environmental education within the broader agenda of sustainable development. Its involvement in UNESCO initiatives and EU frameworks, such as the Environmental Action Program and the EU Strategy for Sustainable Development, underscores Greece's commitment to environmental literacy and sustainability. Greece has ratified key international agreements, including the United Nations Framework Convention on Climate Change (UNFCCC) and the Convention on Biological Diversity (CBD), reinforcing its dedication to addressing climate change and conserving biodiversity through education.

Greece also engages in global environmental campaigns like Earth Hour and World Environment Day, fostering citizen involvement in conservation efforts. The nation's contributions extend to academic and research spheres, where Greek scholars and institutions collaborate internationally, producing valuable studies and insights on environmental education. These collaborations enhance Greece's profile within the global environmental education community. By engaging with international organizations, aligning with EU policies, ratifying global conventions, participating in worldwide initiatives, and contributing to academic research, Greece continues to play a crucial role in promoting environmental literacy and sustainability on the global stage.

# Energy Sobriety in Serbia

Ecology in Serbia is a crucial aspect of current social, economic, and political landscapes. Various environmental projects are implemented at multiple levels, from local initiatives to national strategies, aiming to protect the environment, preserve natural resources, and enhance ecological sustainability.

In the formation of the ecological awareness of modern man, the system of ecological education and upbringing plays an important role. Quality ecological education enables the necessary synthesis of knowledge, skills, and habits from natural and social sciences. Therefore, the role of the educational system in every country is irreplaceable. Given the increasingly difficult ecological situation in the world, poor relationship with nature, and weak progress in the conservation of natural resources, eco-education is gaining importance both in Serbia and globally. All countries and their educational policies strive for the highest quality ecological education, while economic development policies often do not pay heed to environmental protection. Hence, the motto should be: 'Economy proposes, ecology decides,' and not the other way around, as it usually is. Differences in the preservation of nature around the world are visible at every step. Only 20% of the most developed countries control 85% of the world's wealth, and thus also control natural resources. Their role in nature protection should be greater, but it is not. Serbia lags behind developed countries in environmental protection, according to some estimates, by as much as 25 years.

The process of implementing education for sustainable development in all educational cycles is underway. The Law on the Education System envisions achieving ecological literacy through the curriculum, at all levels and across all educational areas, that is, through the goals and outcomes for all educational cycles. For the first cycle, in addition to introducing an ecological approach that involves integrating the principles of a new philosophy of living, ecological ethics, and sustainable development into general goals and outcomes, a proposal for an elective subject in the field of environmental protection has been adopted. In the subsequent cycles, an elective subject is also envisaged (at a higher level as Man and the Environment).

In 2009, the "Clean Up Serbia" campaign was launched by the Ministry of Environmental Protection and Spatial Planning, prioritizing the reduction of pollution, increasing the capacity of the ECO industry, and changing public habits. The goals include::

1. Reduction of Pollution:
    - Removal of illegal landfills
    - Addressing hazardous waste issues
    - Improving waste management systems

2. Increasing ECO Industry Capacity:
    - Adoption of new regulations
    - Financial support for equipment
    - Formation of a public database

3. Improving Environmental Awareness:

- Educational campaigns
- Greater representation of environmental protection in education
- Respecting ecological principles during public events(Html https://ekologija.gov.rs/, 2009)

Numerous projects have been implemented at all levels, driven by both state and non-governmental sectors. Training on ecological projects in Serbia covers a wide range of topics to provide comprehensive education, including:

- Environmental Protection: Projects aimed at preserving areas through activities like biodiversity monitoring, protection of endangered species, ecosystem restoration, and visitor education. (Milak, 2024)
- Waste Management: Projects promoting recycling and reuse, constructing recycling centers, educating citizens on waste sorting, and encouraging the use of degradable materials (Dobra Energija | Mreža Dobre Energije, n.d.).
- Renewable Energy Sources: Supporting new technologies and increasing the share of renewable energy in the country's mix (EkoSistem, 2023).
- Environmental Education: Programs educating citizens, especially young people, about environmental issues through lectures, workshops, field visits, and educational materials.
- Preservation of Water Resources: Projects aimed at preserving rivers, lakes, and groundwater, protecting watercourses from pollution, revitalizing aquatic ecosystems, and improving water management systems (Projekti I Donacije - Dečija Ekološka Akademija, 2024)..

In the period from the 1950s to the 1990s, environmental issues in Serbia were treated as public health issues embedded in the body of laws related to health and sanitary supervision, Radulovic (2021).With the adoption and coming into force of the Environmental Protection Act in 1991, a period began where the environment was singled out as a separate legal entity. However, this law did not succeed in regulating existing problems in environmental protection, as it was not accompanied by appropriate legal and sub-legal acts that would more thoroughly regulate this area (issues related to air quality, water, noise protection, nature protection, chemical management, waste management, etc., require individual regulations for each of these areas). A very important set of laws in the field of environmental protection was adopted in 2004: the Environmental Protection Act, the Strategic Environmental Impact Assessment Act, the Environmental Impact Assessment Act, and the Integrated Pollution Prevention and Control Act. The implementation of this package represented the next key challenge in the period from 2004 to 2009. Weak capacities of the state administration, the state's unwillingness to apply the adopted laws, the state of the economy, and the unequal position of those who were supposed to comply with the legal provisions were key factors in the insufficient implementation. With the submission of the candidacy for membership in the European Union in 2009, the Republic of Serbia adopted the Law on Amendments and Supplements to the Environmental Protection Act and a large number of sectoral laws that same year, as a reflection of political will, but without prior serious analyses. Although their adoption brought about desirable changes, they were still characterized by the absence of serious resolution of accumulated environmental problems, Milovanovic (2014). The adopted laws envisaged a large number of sub-legal acts within a year of their adoption, to ensure that the provisions were as accurate and changeable as possible. Many of the sub-legal acts were adopted years later, and some not even today, which created a legal vacuum and thus adversely affected the implementation process.

# Energy Sobriety in Spain

Spain is in a disadvantaged situation when it comes to the energy efficiency and usage of resources. Spain's geographical location and its dependency on the tourism and building sector puts itself on a fragile position in front of the climate change due to increased temperatures as well as the frequent extreme weather events. Thus, mitigation strategies to tackle with these issues are not seen only as a liability but an opportunity by promoting the renewable energy sector (Lara Esther, 2008). Therefore, it can be argued that the increasing and pressing need on the promoting energy sobriety is prevalent in Spain due to its fragility to increase its resilence to the extreme climate events.

Spain faces challenges in promoting energy sobriety and reducing dependency on gas and oil. The country's geographical location and reliance on tourism and construction make it vulnerable to climate change. Moreover, Spain has the highest household water consumption in Europe, exacerbated by frequent droughts and intensive agricultural water use. These factors highlight the urgent need for energy sobriety to enhance resilience against extreme climate events.

Spain's energy consumption is heavily reliant on natural gas and oil, constituting 41.36% of total consumption, while renewable energy accounts for only 15.71%. This low adoption rate underscores the necessity for greater awareness and education on renewable energy benefits. Studies, such as those by Sánchez-Torija, López, and Nieto (2023), demonstrate the effectiveness of educational campaigns in reducing energy consumption. Their EuroNET 50/50 project in schools resulted in significant reductions in water, electricity, and heating usage.

In conclusion, while Spain has implemented numerous measures and incentives to promote energy sobriety and renewable energy, there remains a critical need for increased awareness and education. The country's vulnerability to climate change and its high dependency on non-renewable resources necessitate a holistic approach to energy efficiency and sustainability.

In Valencia, within the ESMES project involving nine schools, students were trained to create action plans to engage the entire school community in becoming more environmentally responsible. Competitions and training activities, conducted by a private electricity company, promoted energy-efficient models to reduce energy consumption in schools (Med ENI CBC, 2020). These practices can be expanded by state authorities to further reduce energy consumption. However, despite the EURONET 50/50 project being implemented almost a decade ago, these practices are not widely adopted in daily educational institutions, highlighting the need for greater energy awareness and reduction efforts in educational buildings and non-profits.

There is a significant need to promote energy sobriety among young people and children in educational institutions and youth centers across Spain. Additionally, higher education lacks coordinated initiatives, with only individual institutions taking steps. An example of successful implementation at the higher education level is the University of Valencia's pilot project two decades ago. The university identified consumption patterns and, by changing lighting and installing solar energy, reduced energy consumption by 40% and CO2 emissions by 4.49 tonnes annually (Gómez-Amo et al., 2004). Despite this, state incentives to reduce dependency on gas and similar resources were not taken until the Ukraine-Russia war.

Reducing electricity consumption alone does not ensure energy efficiency or mitigate the impact of excessive energy use. In metropolitan cities like Madrid, car sharing is popular among young people, and e-mobility (electric cars) is promoted. Zero-emission zones prevent high CO2-emitting cars from entering certain areas. Young Spaniards increasingly plan not to own cars, unlike previous generations (IOKI, 2020). This indicates state measures to curb excessive energy consumption and a shift towards

sustainable mobility among young people.

The COVID-19 pandemic introduced remote working, reducing energy use in offices. Studies show that full-time remote work saves more energy than hybrid work schemes. Although the impact of remote working was less than anticipated, it promoted energy efficiency in private sector companies (Edmond, 2020). Raising awareness about the benefits of remote and hybrid working in both private and public sectors can enhance energy efficiency.

Within the project, focus group meetings were held to understand young people's tendencies and perceptions towards energy sobriety. Policy recommendations were developed based on these findings. The literature review indicates a substantial need for awareness-raising and educational resources to promote these practices in educational and youth sectors in Spain. Energy sobriety requires a holistic approach, using intelligent consumption strategies to reduce excessive energy use by individuals and households. Therefore, awareness-raising is crucial for implementing such strategies. The project aims to promote energy sobriety by educating young people and youth workers in Spain. The focus group methodology was designed to understand young people's tendencies and interests regarding energy use, consumption, and efficiency.

# Methodology

## Need Analyse and Focus Group Implementation

The implementation of the project in countries with different levels of development and the existence of various cultural patterns was best observed through the responses obtained in the focus groups.

In the field studies organized within the scope of the Sobriety4You project, 20 people were selected from the young audience, the focus group of the project, and the questions determined by the partners were directed to the young people. In this context, the participants were made to read a letter written by an Indian chief to the US President.

"*The President in Washington sends word that he wishes to buy our land. But how can you buy or sell the sky? The land? The idea is strange to us. If we do not own the freshness of the air and the sparkle of the water, how can you buy them? ...*

*The shining water that moves in the streams and rivers is not just water, but the blood of our ancestors. If we sell you our land, you must remember that it is sacred. Each glossy reflection in the clear waters of the lakes tells of events and memories in the life of my people. The water's murmur is the voice of my father's father.*

*The rivers are our brothers. They quench our thirst. They carry our canoes and feed our children. So, you must give the rivers the kindness that you would give any brother.*

*If we sell you our land, remember that the air is precious to us, that the air shares its spirit with all the life that it supports. The wind that gave our grandfather his first breath also received his last sigh. The wind also gives our children the spirit of life. So, if we sell our land, you must keep it apart and sacred, as a place where man can go to taste the wind that is sweetened by the meadow flowers.*

*Will you teach your children what we have taught our children? That the earth is our mother? What befalls the earth befalls all the sons of the earth.*

*This we know: the earth does not belong to man; man belongs to the earth. All things are connected like the blood that unites us all. Man did not weave the web of life; he is merely a strand in it. Whatever he does to the web, he does to himself." (2011, September 15)*

The topics and questions discussed by the participants:

**Attitudes towards nature**

Questions: How do you understand the words of this Indian chief? Why is he addressing the future inhabitants of America in this way? How relevant are his messages today?

**Attitudes towards environmental crisis and problems**

Questions: What is ecology? What environmental problems do you consider a priority? (eg water and air pollution, climate change, nuclear facilities, testing and warfare, industrial waste, excessive use of plastic, dirty industry and mining, excessive use of natural resources, something else...) Why do environmental problems and crises arise?

**Sources of knowledge and information on environmental topics**

Questions: From which sources you personally get information about environmental topics. From which the most and most often, and from which the least? (school, faculty, media, internet, environmental political parties, environmental NGOs, family, friends...) How much environmental topics were represented during your schooling and in which school subjects? List and describe an example of good practice (workshops, lectures or actions) in which an environmental topic was dealt with in an impressive way.

**Understanding the concept of sustainable development**

Questions: How informed are you about the goals and policies of sustainable development? How do you understand this concept? What is the relationship between this concept and the ruling concept of economic development - do they agree or disagree? What are the key themes of the concept of sustainable development?

**Understanding the concept of energy sobriety**

Questions: How informed are you about the goals and policies of energy sobriety? How do you understand this concept? Comment on the following sentence: Environmental requirements are: save resources, restore and restore resources, recycle, while economic requirements are: use resources efficiently and effectively. How do you evaluate your city's, region's and country's energy and resource use plans? How do you personally and your family use resources and to what extent do you plan their use and consumption?

**Attitudes towards the limitation of natural goods and resources**

Questions: Try to determine the raw materials used in the production of a product that you often use and that you like, and which is not necessary for life? Where do these raw materials come from and in what quantities are they extracted from nature? How would you react if it were announced that those raw materials were exhausted and that there were no more possibilities to produce your favorite products?

**Personal and collective responsibility towards natural resources**

Questions: How does an environmentally responsible person behave? What special skills does she have? What depends on whether those skills and forms of behavior are present in someone's behavior? Who in society should solve environmental problems: the government, politicians, experts,

economists, whose responsibility is it? How much is your personal liability? What does that responsibility consist of? How aware are you of the consequences of your behavior on nature and society?

**Motivation to acquire new skills, change behavior, habits and attitudes**

Questions: What environmental skills do we need most? (Select and describe at least the three most important ones).

What should you change yourself? How ready are you to change, acquire new life ecological skills? Explain why.

**Suggestions and recommendations**

Questions: what would a more energy sober life look like globally? What are your suggestions for achieving those goals? What are your recommendations for acquiring environmental skills?

# Energy Young people in Türkiye and Energy Sobriety

**a. Basic information about the participants:**

The focus groups consist of 20 young people: 9 male and 11 female.

**b. Working methods:**

Qualitative research through 2 focus groups

**c. Summary of the answers given from each of the questions:**

Question 1 - Attitudes towards Resources:

Responses to this question usually include that ownership does not give the right to disrupt the order of nature, that the earth is our home, and that owning something does not mean that we can use it as we wish.

Question 2 - Attitudes towards Environmental Crisis and Problems:

Responses to this question generally included the depletion of clean water resources and nuclear war as the greatest environmental threats.

Question 3 - Sources of knowledge and information on environmental topics:

According to the responses to this question, participants mostly get information on environmental issues from the media. The contribution of educational institutions (schools, faculties, etc.) on environmental issues is quite low. The contribution of NGOs on environmental issues is above average.

Question 4 - Understanding the concept of sustainable development:

Most of the participants had no idea about sustainable development. When we explained the concept of sustainable development to the participants, they thought that sustainable development should form the basis of economic development in our age. They concluded that countries developing with the dominant development model could not sustain this development.

Question 5 - Understanding the concept of energy sobriety:

Most of the participants had limited knowledge on energy efficiency. In their comments to the sentence stated in the question, they stated that they found it positive that our country uses hydroelectric power plants to a large extent due to its dependence on foreign energy, but that we are still quite deficient in energy efficiency. They said that they personally pay enough attention to their energy use.

Question 6 - Attitudes towards the limitation of natural goods and resources:

Most respondents gave the example of plastics, which are found in almost all the products they use. They know that these raw materials have are derived from petroleum. They think that if it is announced that products containing plastics will no longer be produced, their quality of life will decrease considerably.

Question 7 - Personal and collective responsibility towards natural resources:

Participants think that environmentally responsible individuals should be more cautious in energy consumption, produce less waste and support recycling. They believe that the government is the most effective institution in solving environmental problems. They think that the society also has a great responsibility in the government's efforts to solve this problem. They believe that they are individually responsible for energy consumption and recycling. They are not sufficiently aware of the consequences of their behavior on nature and society.

Question 8 - Motivation to acquire new skills, change behavior, habits and attitudes:

Participants do not consider themselves adequate in terms of environmental skills. The environmental skills they feel most in need of are awareness on recycling, energy saving and sustainability. The most important thing they think needs to change is energy sobriety. Participants feel ready to change and acquire new ecological skills.

Question 9 - Suggestions and recommendations:

Participants think that a more energetic and sober life gives more hope for the future world. They are of the opinion that we need to face future environmental problems and that this confrontation will be possible through effective trainings. They think that NGOs in the region where the participants are located should work for young people to gain environmental skills and guide them on these issues.

**d. Conclusions of the focus group**

The contribution of educational institutions (schools, faculties, etc.) to environmental issues is quite low. Most of the participants had limited knowledge about energy efficiency, sustainable development and insufficient awareness of the consequences of their behavior on nature and society. Nevertheless, focus group participants believe that we must face future environmental problems and that this will be possible through effective training.

# Energy Young people in Austria and Energy Sobriety

**a. Basic information about the participants**

The focus group workshop for the Sobriety4you project, held in Innsbruck, Austria, included a diverse group of 20 young individuals aged between 18 and 30. Among the participants, there were 13 females and 7 males. The group comprised both students and youth from migrant backgrounds who

are working in Innsbruck. This diverse mix of voices provided valuable insights into the perspectives and challenges faced by young people regarding energy sobriety. Their active engagement and contributions were instrumental in identifying potential solutions and strategies for promoting sustainable energy consumption habits.

**b. Working methods:**

The Sobriety4you workshop in Innsbruck was conducted over a 3-hour session with a single coffee break. During the workshop, participants engaged in guided discussions on various questions related to energy sobriety. This interactive format encouraged open dialogue and the sharing of diverse perspectives. The structured discussions provided us with substantial input and insights, helping to identify key challenges and potential strategies for promoting energy sobriety among young people.

**c. Summary of the answers given from each of the questions**

Question 1 - Attitudes towards the resources:

Participants exhibited a conscientious approach towards resource consumption, particularly water and fuel. Strategies to reduce water usage included turning off taps while brushing teeth and minimizing water usage while washing dishes. Similarly, participants expressed awareness of their carbon footprint associated with fuel consumption, opting for biking or public transport over driving. Additionally, participants demonstrated an understanding of the importance of knowing the origin of food and its environmental impact. Efforts to reduce personal carbon footprints were highlighted, such as minimizing meat consumption and choosing renewable energy sources.

Question 2 - Attitudes towards Environmental Crisis and Problems:

There was a unanimous acknowledgment of environmental crises, with participants citing scientific evidence and observable changes in climate patterns as key factors. Concerns about melting glaciers, warmer temperatures, and changing weather patterns underscored the urgency of addressing environmental issues. Participants emphasized the need for immediate action at individual, governmental, and industrial levels to mitigate the impacts of climate change and protect natural ecosystems.

Question 3 - Sources of knowledge and information on environmental topics:

Participants perceived the media's portrayal of environmental issues as occasionally sensationalist but recognized its role in raising awareness. Formal education on ecology and environmental topics was deemed limited, with participants relying on extracurricular activities, such as engagement with NGOs and participation in environmental protests, to supplement their knowledge.

Question 4 - Understanding the concept of sustainable development:

Sustainability, they emphasized the need for transformative changes to align economic growth with environmental protection. Suggestions included investments in renewable energy, regulatory measures to reduce carbon emissions, and promoting sustainable consumption patterns.

Question 5 - Understanding the concept of energy sobriety:

Energy sobriety emerged as a key theme, with participants expressing varying levels of familiarity with the concept. While some participants associated it with reducing energy consumption, others viewed it as a broader approach encompassing sustainable lifestyle choices. Discussions revolved around energy-efficient practices, such as insulation and minimizing single-use plastics, as well as behavioural changes to reduce carbon emissions.

Question 6 - Attitudes towards the limitation of natural goods and resources:

Participants demonstrated a willingness to adopt practices that minimize waste and conserve natural resources. Strategies included donating or upcycling old furniture, reducing food waste through mindful consumption, and embracing the principles of reduce, reuse, and recycle.

Question 7 - Personal and collective responsibility towards natural resources:

Reflections on personal environmental responsibility highlighted the complexity of individual actions within broader structural contexts. While participants recognized the importance of individual efforts, they also emphasized the need for systemic changes, including government regulations and corporate accountability, to address environmental challenges effectively.

Question 8 - Motivation to acquire new skills, change behavior, habits and attitudes:

Participants expressed a willingness to change behaviours and habits for environmental conservation, citing motivations such as raising awareness, reducing personal carbon footprints, and advocating for policy changes.

Question 9 - Suggestions and recommendations:

Suggestions for increasing environmental awareness among youth included climate literacy training and support for youth-led initiatives..

**d. Conclusions of the focus group**

Participants demonstrated a conscientious approach to resource consumption, especially water and fuel, the importance of knowing the origin of food and emphasized the need for urgent action at individual, government and industry levels. Formal education on ecology and environmental topics is considered to be limited, and participants relied on extracurricular activities, such as engagement with non-governmental organizations and participation in environmental protests, to supplement their knowledge. While participants recognized the importance of individual efforts, they also emphasized the need for systemic change, including government regulations and corporate accountability.

# Junge Menschen in Griechenland und Energy Sobriety

**a. Basic information about the participants**

The study circle conducted with 20 participants: youths, youth workers, students and trainers.

**b. Working methods:**

Two focus groups were held, aimed to explore perceptions, attitudes, and knowledge gaps related to environmental education and climate action. Participants engaged in discussions, activities, and reflections to deepen their understanding of environmental issues and identify learning and training needs in this field.

**c. Summary of the answers given from each of the questions:**

Question 1 - Attitudes towards the resources:

Participants expressed a will to preserve natural resources. They highlighted the importance of sustainable management and the need for balanced use to ensure long-term availability. Many voiced concerns about overexploitation and emphasized the significance of conservation practices and the

development of renewable resources. There was a shared belief that both technological innovation and traditional knowledge should be leveraged to manage resources effectively.

Question 2 - Attitudes towards Environmental Crisis and Problems:

The importance of critical thinking in assessing environmental problems was emphasized. Critical thinking emerged as a recurring theme in discussions, with participants emphasizing the need to approach environmental issues with analytical rigor and open-mindedness. They highlighted the importance of questioning assumptions, challenging biases, and thinking creatively to develop innovative solutions to complex environmental problems. The following are singled out as the most important problems: Climate change, biodiversity Loss and Suitable Development. Participants recognized the interconnected nature of climate issues and advocated for a holistic approach to climate action. Rather than prioritizing one specific climate issue over another, they emphasized the importance of addressing multiple environmental challenges simultaneously and tailoring solutions to the context and needs of different communities.

Question 3 - Sources of knowledge and information on environmental topics:

Role of Education: Education was identified as a powerful tool for driving climate action and sustainability. Participants emphasized the need for education systems to play a more pivotal role in developing climate-literate individuals equipped with the knowledge, skills, and mindset to navigate environmental challenges and contribute to solutions.

Question 4 - Understanding the concept of sustainable development:

Participants had a general understanding of sustainable development as a concept that integrates economic, social, and environmental dimensions. They recognized it as a holistic approach that seeks to meet current needs without compromising the ability of future generations to meet their own. However, there was a noted gap in deeper comprehension, particularly regarding its practical application and the specific ways it can be implemented in various sectors.

Question 5 - Understanding the concept of energy sobriety:

Despite their academic backgrounds, many participants revealed gaps in their understanding of basic environmental terminology and concepts. Terms such as ecology, sustainable development, and climate change, energy sobriety were not universally familiar, highlighting the need for foundational education in environmental science and sustainability.

Question 6 - Attitudes towards the limitation of natural goods and resources:

Participants acknowledged the finite nature of natural resources and expressed a sense of urgency regarding their conservation. There was a consensus on the necessity of imposing limits on the use of natural goods to prevent depletion. The discussions reflected a recognition of the importance of sustainable consumption and the need to develop policies that promote equitable access to resources while ensuring their preservation for future generations.

Question 7 - Personal and collective responsibility towards natural resources:

Participants expressed diverse views on the responsibility for addressing climate change. While some emphasized the role of governments and international agreements in enacting policy changes and regulations, others emphasized the importance of individual actions and personal lifestyle choices in contributing to climate solutions.

Question 8 - Motivation to acquire new skills, change behavior, habits and attitudes:

Participants showed a strong willingness to acquire new skills and change their behaviors and attitudes toward environmental sustainability. They expressed a desire to be more informed and proactive in their personal and professional lives, seeking to adopt practices that contribute to environmental protection and sustainability. This included a willingness to participate in training, workshops, and educational programs focused on developing skills relevant to climate action and sustainable living.

Question 9 - Suggestions and recommendations:

Call for Action: The study circle concluded with a call to action for increased investment in environmental education and climate literacy programs. Participants underscored the urgency of addressing climate change and emphasized the role of education in mobilizing collective action and fostering a culture of sustainability.

**d. Conclusions of the focus group**

Overall, the study circle provided valuable insights into the learning and training needs of higher education students in the field of environmental education. By addressing knowledge gaps, promoting critical thinking, and fostering a sense of responsibility and agency, environmental education has the potential to empower individuals to become active agents of change in the transition to a more sustainable future.

Collaborations between schools, local communities, NGOs, and government agencies can provide valuable resources, expertise, and support for environmental education projects and activities. Community-based projects, environmental campaigns, and public awareness events can foster collective action and environmental stewardship among students and the broader community.

# Energy Young people in Serbia and Energy Sobriety

**a. Basic information about the participants**

A total of 20 young people participated in both focus groups, 11 girls and 9 boys. All participants are young people who are finishing high school, are of legal age, and differ in the types of educational profiles they attend and by gender. All attend schools in the territory of the city of Kragujevac, most also live in Kragujevac, while a number (three) of participants are from smaller places around Kragujevac.

**b. Working methods:**

In accordance with the project requirements, two focus groups were conducted in Serbia, in the city of Kragujevac. Based on the participants' discussions on the topics and questions, a qualitative analysis of their answers and attitudes was conducted.

**c. Summary of the answers given from each of the questions:**

Question 1 - Attitudes towards the resources:

Modern man considers himself the master of nature and behaves accordingly: he thinks that he can control it, that he can sell and buy it. Thus, about half of the participants believed that the words of the Indian chief are still relevant today, a call to modern man to change his attitude towards nature and take more care of it, while the rest of the participants believed that Indian perceptions are incomprehensible to today's man, mostly because of the different values of that culture .

Question 2 - Attitudes towards Environmental Crisis and Problems:

All students showed awareness regarding ecology and its problems. A difference in knowledge was observed among students who attend the STEM fields in high school compared to others, as they were able to define it more precisely and formulate the most important ecological problems. The key ecological problems for participants of both groups are: water and air pollution, disruption of balance in nature, and climate change. Man is responsible for the emergence of ecological crises and problems, believe the majority of participants in focus groups.

Question 3 - Sources of knowledge and information on environmental topics:

Young people are mostly informed about environmental topics via the Internet. The influence of certain popular social networks on the attitudes and behavior of young people in accordance with environmental trends was pointed out - for example, the use of so-called vegan makeup. One group denied the role of the school, while the other cited the school as an important source of information. None of the participants belongs to any environmental organization or political party. They participated in organized environmental actions only when they were in elementary school. One student mentioned family and another mentioned TV as a source of information on environmental topics.

Question 4 - Understanding the concept of sustainable development:

Only a few participants had heard of the concept of sustainable development, and only one participant tentatively offered its explanation. The majority agreed that it is possible to align ecological and economic goals within a community, even though they may seem contradictory at first glance. According to the participants, the state should play a key role in this alignment. The mention of the word "politics" caused negative associations among some participants, which is not uncommon and turns young people in Serbia towards an apolitical lifestyle.

Question 5 - Understanding the concept of energy sobriety:

The responses of all participants in both groups were unanimous: no one had heard of or knew what the term energy sobriety meant. Upon understanding the meaning, participants suggested translating it into Serbian as: energetska savesnost (energy thriftiness). They commented on sobriety as a form of saving, abstaining from certain needs and replacing means of satisfying needs. This motto now provoked deeper thought, so a part of the respondents believed that the demands of ecology and economic prosperity are incompatible, while others believed that they can be aligned, again with the help of the state. Participants are generally not informed about the measures and plans that the state and local authorities are implementing in the field of environmental conservation.

Question 6 - Attitudes towards the limitation of natural goods and resources:

They would have a hard time adjusting to life if their favorite products were no longer produced. They believe that this is not just their opinion, but that young people are not ready to give up the comforts offered by modern life. They prefer immediate pleasures and do not think about the effects of such a lifestyle on nature. They are also aware that they would have to adapt to changes if they occur. They are unable to quantify the quantities of raw materials required for the global production of their favorite product.

Question 7 - Personal and collective responsibility towards natural resources:

The profile of an environmentally responsible person includes the following traits and skills: recycles everything possible and has made it a habit, knows how to make environmentally correct decisions, is determined in implementing those decisions, is willing to learn, is ready to change their habits if necessary, is ready to spend more of their time to complete a task in an environmentally correct

manner, is not afraid to act differently from others and is not bothered by others' reactions (such as mockery), is not selfish, condemns unreasonable and cruel killing of animals, condemns product testing on animals and cruel treatment towards them, nurtures love towards other people, other living beings, and nature as a whole. The realization of these traits should involve: family, schools, media, state. The emphasis is placed on the state and its agencies. Participants have mostly accepted their own responsibility for the state of our natural environment. One participant believes that the key responsibility lies with large companies.

Question 8 - Motivation to acquire new skills, change behavior, habits and attitudes:

The most important traits and skills are: readiness to acquire new knowledge and habits, selflessness, responsibility towards others and nature. Changes in people should involve rejecting all forms of greed, apolitical attitudes, shame, fear, apathy, irresponsibility. Although they generally concluded that young people are unwilling to change, during the discussion, they suggested a series of actions that should be implemented in the city of Kragujevac: to promote and create conditions for ecological urban transport, to enable the use of free paper bags in stores, to reward participants of ecological actions.

Question 9 - Suggestions and recommendations:

They called for the strengthening of youth activism in secondary schools. Also, to educate young people in order to raise awareness and change habits in order to preserve natural resources.

**d. Conclusions of the focus group**

Participants showed a high level of awareness of environmental issues. They recognized the differences in values between earlier cultures, which were in direct contact with nature, and the values of modern Western society. They realized that changes are necessary in modern human behavior towards nature.

Their answers indicated that the Internet, rather than school, has the greatest influence on acquiring knowledge and forming attitudes on environmental topics. This should signal the school system to improve its role in educating young people by using more attractive methods.

Young people recognize their responsibility regarding environmental problems and appeal to the state to create conditions for an ecologically acceptable way of life. They showed a lack of knowledge and awareness about sustainable development and energy sobriety, indicating a need for education in that field. Although they are reluctant to give up modern life comforts, they are ready to change their behavior, learn, and develop a sense of responsibility.

Participation in focus groups led to changes and crystallization of participants' views during the discussions. In this sense, the project goals of the focus groups were fully met.

# Energy Young people in Spain and Energy Sobriety

**a. Basic information about the participants**

20 Young people (13 female, 7 male) participated

**b. Working methods:**

The focus groups were implemented twice and each was implemented with 10 young people in March and April 2024 in Almeria, Spain, in Spanish.

**c. Summary of the answers given from each of the questions:**

Question 1 - Attitudes towards the resources:

Regarding the resources that young people identify, their answers varied, including water, wood, and land. They provided examples of reducing resource usage, emphasizing the need to reduce consumption to address environmental challenges. Their ideas indicate an internalization of sustainable resource use to minimize consumption. Three participants specifically highlighted water as the main resource of life, stressing its protection as essential for providing food and maintaining a clean environment.

Additionally, the concept of reuse was mentioned in both focus groups. Young people are more aware of ways to reduce water consumption than expected. Droughts and water consumption are seen as major issues in Spain, acknowledged equally by young people. There were no contradictory opinions about water consumption and natural resource usage. They also proposed seawater technology as a solution to address droughts.

Lastly, young people understand the finite nature of resources and believe solutions exist to overcome these challenges. However, they indicated that for most young people, "comfort" often takes precedence over "climate change," highlighting a key issue that needs addressing to tackle environmental challenges, especially among the youth.

Question 2 - Attitudes towards Environmental Crisis and Problems:

Spain has faced extreme environmental events in recent decades, including sandstorms and high temperatures, causing deaths and health issues. These events have also affected seasonal changes, leading to agricultural and food security problems. Young people are aware of these issues. One participant, despite not caring, acknowledged that environmental issues will impact society, habits, and comfort, with long-term rather than short-term effects.

They are also aware of pollution issues beyond energy usage, noting that pollution affects not just local or regional areas but globally. This is especially evident in large cities like Madrid, where air quality exceeds WHO limits, posing health risks. One participant mentioned the visible impact of pollution.

Additionally, sandstorms with rain, bringing contaminated air, frequently disrupt cities and significantly affect air quality and daily life. Young people's responses indicate awareness of local environmental crises but less understanding of global climate change issues. They can compare changes from their childhood to the present, providing insight into community challenges.

Question 3 - Sources of knowledge and information on environmental topics:

Young people identified social media and online newspapers as their main sources of information on environmental issues. However, they pointed out the possible misuse of the Internet and misinformation. They mentioned the lack of reliable resources and called for awareness campaigns to prevent confusion about pollution and environmental topics. There are no official networks in the country for informing and motivating young people about environmental issues. It is necessary to increase the visibility of reliable information. Mistrust of information on social networks and the Internet prevailed due to insufficient knowledge of local problems. Only one participant joined environmental protests, but was unsure of the impact. They emphasized the need for mechanisms that allow young people to express their concerns and mobilize effectively.

Question 4 - Understanding the concept of sustainable development:

When asked about Sustainable Development Goals (SDGs), young people associated sustainability with economic development. They expressed skepticism about achieving SDGs soon due to

corporate greed and lack of profit, citing solar panels as an example where electricity companies would lose revenue. This indicates a lack of belief in the impact of SDGs, seeing them more as economic rather than sustainable development goals. Additionally, they don't find SDGs youth-friendly or understandable, viewing them as tied to economic development rather than social, cultural, or political aspects.

Question 5 - Understanding the concept of energy sobriety:

The young people are not at all aware about the concept of energy sobriety as a terminology. Throughout both focus group meetings, they often mixed with the energy efficiency and energy sobriety topics. Due to this reason, they have given examples concerning to the energy sobriety and intelligent consumption. They have discussed about the differences between the countries and Spain by emphasizing the recycling practices. They believe the possibility of implementing some measures in Spain and they are eager to do it but there is a need on creating awareness on the state level to implement such measures. The young people try to avoid their comfort area to reduce the energy consumption and environmental impacts of their behavior.

Question 6 - Attitudes towards the limitation of natural goods and resources:

In both of the focus group meetings, the young people are agreed with the reduction of the usage of natural goods and resources as they consider these as "resource of life". In that sense, they have provided examples from the incentives that the Spanish government has put to make it clearer and how it works in the reality. In addition to that, there is going to be measures to promote the natural goods and resources in a manner to promote the issues in the communities.

One young person indicated that, the environmental issues are not highly relevant to her daily life and most of the time for the others because it does not directly impacts but indirectly sees the impact of the environmental issues in her life. This tendency is highly prevalent among the Spanish young people. That's why, the issues concerning to the environment put in second place above others.

Question 7 - Personal and collective responsibility towards natural resources:

Young people don't believe in achieving collective responsibility to reduce natural resource consumption or limiting their own consumption. They claim there is widespread ignorance about environmental issues among both young people and the general population. Understanding these issues is essential for personal or collective responsibility, highlighting the need to develop attitudes towards collective action.

Spain lags in garbage collection and recycling compared to other countries. Waste separation is practiced but often fails due to contamination. Taxation or initiatives promoting individual responsibility could encourage recycling, especially among lower-income groups. Examples from the Netherlands and Germany, like recycling used bottles, were mentioned.

Young people are willing to take individual responsibility for their consumption but lack the initiative for collective action. Therefore, increasing awareness of collective responsibility for resource use is necessary.

Question 8 - Motivation to acquire new skills, change behavior, habits and attitudes:

The young people have motivation to acquire new skills and change their consumption behaviours, habits and attitudes. In example, there are several solutions to make this available for the future but they think that, these solutions are not viable for now to reduce their energy consumptions from mobility to taking shower.

Young people are motivated to acquire new skills and change their consumer behavior, habits and attitudes. For example, there are several solutions to make this available for the future, but they feel that those solutions are not sustainable for now to reduce energy consumption from mobility to showering. For example, young people suggest that traveling by plane should be replaced by traveling by train, that durable packaging should be used instead of disposable, etc.

But there is a tendency to understand the human condition of "comfort" and "ignorance". Even though, we know and we can change the situation and it is in our hand, we tend to leave it as it is or we choose the more comfortable way that fits to us. That's the ideas of young people when it comes to the change the behaviour even though they believe it is necessary.

Question 9 - Suggestions and recommendations:

The young people put an emphasis on increasing awareness on the early ages as that they should be aware about the issues in the planet. We are in not turning point already so that the younger generations become more resilient towards to the climate change issues as well as the extreme climate events.

Lastly, the both of the groups group meetings provided discussions to tackle with the issues concerning to the energy consumption as well as the usage of resources. However, they have suggestions for NGOs and state authorities to implement new strategies and interventions to promote the energy sobriety as well as increasing the awareness among the children more than the young people to create a sense of habit.

**d. Conclusions of the focus group**

Young people recognize the importance of reducing resource consumption and emphasize sustainability, but this is often incompatible with the lifestyle of comfort they aspire to. They are mostly aware of local environmental crises, but less knowledgeable about global issues. Social media and online newspapers are their primary sources of information, which they should be somewhat skeptical of, as these sources also contain a lot of misinformation. They associate sustainable development with economic growth, but are also aware of corporate greed. This casts doubt on the sincerity of the goals of sustainable development. Energy sobriety is unclear to young people and they often confuse it with energy efficiency. They are willing to take individual responsibility, but they lack collective action. Raising awareness.

# Conclusions of the focus group

Overall, the study circle provided valuable insights into the learning and training needs of higher education students in the field of environmental education. By addressing knowledge gaps, promoting critical thinking, and fostering a sense of responsibility and agency, environmental education has the potential to empower individuals to become active agents of change in the transition to a more sustainable future.

Collaborations between schools, local communities, NGOs, and government agencies can provide valuable resources, expertise, and support for environmental education projects and activities. Community-based projects, environmental campaigns, and public awareness events can foster collective action and environmental stewardship among students and the broader community.

# Policy suggestions

## Expansion of Incentive Programs

*The national reports of the countries involved in the project contain a whole range of different educational strategies for the environmental education of children and young people.*

The common elements of these strategies are that they are aimed at developing skills such as critical thinking, teamwork, decision-making etc.and are aimed at behavioral changes regarding environmental conservation. But, there are a lot of differences. Differences can be seen in the content of the training, the target groups of the training and the importance attached to educations. While in EU countries, education is focused on current problems such as climate change and energy sobriety, **in Serbia**, environmental trainings still have as their content general topics such as pollution and raising awareness about a clean environment. In Serbia, ecological content is taught more through teaching programs intended for kindergartens and primary schools, while it is less common in higher levels. They only appear in STEM school programs.

**In Austria,** by embracing inquiry-based learning methodologies, students develop agency to identify and address energy challenges in their local communities. They emphasize the imperative of action-oriented learning, motivating students to become proactive agents of change by leading energy-saving initiatives, advocating for the adoption of renewable energy, and participating in sustainability efforts. ANE serves as a key conduit for advancing ESD principles across the country, offering teacher training programs, fostering curriculum development, facilitating networking opportunities, and orchestrating community engagement efforts.

**In Greece,** as in Austria, there is an interdisciplinary way of observing environmental problems, as well as the training of teachers and students. Environmental education initiatives in Greece are integrated into the national curriculum, with environmental topics included in various subjects across different grade levels. From primary to secondary education, students are exposed to environmental concepts, issues, and practices through interdisciplinary approaches. The interdisciplinary approach helps students understand the interconnectedness of environmental, social, and economic systems, preparing them to address complex environmental challenges.

**In Spain,** the results of educational campaigns to reduce energy consumption are already available. Their EuroNET 50/50 project in schools resulted in significant reductions in water, electricity and heating consumption.

Numerous initiatives for saving energy and promoting energy sobriety in Türkiye are aimed mainly at the sphere of economy and everyday life, but they seem to have been absent in education.

In most countries, teachers are understood to be responsible for delivering environmental education content to students at different grade levels. That is why a lot of effort is invested in their training. In Serbia, professional development of teachers in the field of ecology is a matter of personal choice. Environmental seminars are mostly chosen by natural science teachers. There is a lack of a multidisciplinary approach, as well as organized mandatory training for all teachers.

## The good practices on youth work:

| | | | | | |
|---|---|---|---|---|---|
| **Name/Title of Good Practice/ project/ National, regional or local** | ECO-SYSTEM-Program | Regional hubs for environmental education | General Directorate of Electrical Power Resources Survey and Development Administration (EIE) | The Austrian Ecolabel | ESMES project |
| **Year of Good practice** | 2020-2024 | Ongoing | 1981-2002 | 2001-active | 2020 |
| **Promoting organisation/ institution** | Young Researchers of Serbia | Environmental Education Centers (ECCs) | The Department of Energy Efficiency in Industry | Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology | la Ribera |
| **Analyse the good practice considering cultural, generational or gender issues.** | The program focuses on changing attitudes toward environmental protection and practices among citizens, local authorities, and state institutions | By providing knowledge, skills, and tools for action, these programs enable individuals to make informed decisions and contribute to positive environmental outcomes in their communities. Participants become agents of change, leading initiatives such as tree planting campaigns, beach clean-ups, and habitat restoration projects | The energy saving efforts at Türk Ytong's Pendik plant, which started in 1996 and ended in 2001, were carried out in three stages: installation of steam batteries, increasing the efficiency of steam boilers and commissioning the waste steam recovery system. | The Austrian Eco-label encourages<br>• Protection of environment & climate<br>• Health care<br>• Quality of education<br>• Education for Sustainable Developme nt | The students were promoted to use the energy efficient models to reduce the energy consumption within the schools. |

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| **What are the main activities delivered during the good practice?** | program focuses on changing attitudes toward environmental protection and practices among citizens, local authorities, and state institutions | Educational programs, workshops, and events on environmental topics for students, teachers, and community members.<br><br>Providing access to educational materials, teaching resources, and multimedia tools related to environmental education. | Within the scope of the "Efficient Use of Energy" project, Oyak-Renault aimed to consume natural gas at an optimum level and carried out studies including the reduction of electricity and water consumption. In line with these efforts, approximately 47.9% electricity and 28% natural gas savings were achieved in the 2001-2002 period. | With the help of the Ecolabel, thinking and actions are changed in the interests of sustainable development and a better life for all (see also SDGs: www.bundeskanzleramt.gv.at/entwicklungsziele-agenda-2030). It creates structures to integrate the environment, health and educational quality into everyday school life. Participation, solid values and social cohesion support this path. It promotes commitment to future-oriented education, ecological school development and a school climate in which everyone feels comfortable. The Austrian Ecolabel - an initiative of the Ministry of the Environment and the Ministry of Education - is a well-known brand and a beacon among school programs of which the award winners are particularly proud. | 9 separate schools, the students were trained on the development of action plan to involve not only the students but involve the entire school community by improving the behaviour to become more responsible with their environment |
| **Wichtigste Errungenschaften der guten Praxis** | Dieses Programm zielt darauf ab, Reformen im Umweltschutz zu unterstützen, indem zivilgesellschaftliche Organisationen in die Umsetzung der rechtlichen Errungenschaften der EU einbezogen werden. | Vernetzung mit lokalen Interessengruppen, Organisationen und Behörden zur Förderung von Umwelterziehung und Lobbyarbeit | Rund 30 % Energieeinsparungen bei voller Produktionskapazität und 5 % Einsparungen bei den im Produktionsprozess verwendeten Rohstoffen | In 23 Jahren erreichte das Netz über 570 Schulen, darunter neun pädagogische Hochschulen und eine Bildungsdirektion. | Im Laufe des Jahres fanden mehrere Wettbewerbe statt, und die Ausbildungsmaßnahmen wurden von der privaten Elektrizitätsgesellschaft durchgeführt. |
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### Enhanced Public Transportation Initiatives

It can be noted that the national reports still do not have a precise differentiation of the concepts of energy efficiency and energy sobriety. It is important to emphasize that the first refers to the technical aspect of reducing energy consumption; the second concept is individual-psychological and includes rational, motivational and cognitive elements, as well as emotional ones regarding the use and consumption of natural resources. This is precisely why the project includes trainings that will raise individual awareness, information and motivation for energy sobriety.

It is necessary to develop the skills defined by young people as necessary for desirable behavior towards nature and consumption of resources: Environmental Literacy, Critical Thinking, Problem-Solving, Systems Thinking, Empathy and Ethical Decision-Making, Adaptability, Collaboration and Communication.

The joint proposals of focus group participants from different countries indicated a lack of motivation and organizational skills for more extensive joint action in the field of ecology. Workshops on this topic are an obvious need. Participants also identified schools as places where they do not get enough knowledge about environmental issues, so the focus shifts to NGOs that work with young people.

## Suggestions for youth workers and educators

### Definition of the ecological capabilities to be targeted

Ecological skills encompass a range of abilities, knowledge, and competencies that enable individuals to understand, interact with, and contribute to the natural environment in a sustainable manner. These skills are essential for addressing environmental challenges, promoting biodiversity conservation, and fostering ecological resilience. In the context of environmental education programs focused on energy sobriety and adaptation, several key ecological skills are targeted for development:

Environmental Literacy: Environmental literacy refers to the understanding of basic ecological concepts, principles, and processes. It includes knowledge about ecosystems, biodiversity, natural resources, and environmental issues such as climate change, pollution, and habitat destruction. Developing environmental literacy equips individuals with the foundation to comprehend the complexities of the environment and make informed decisions about environmental stewardship and sustainability.

Critical Thinking: Critical thinking involves analyzing, evaluating, and synthesizing information to make reasoned judgments and decisions. In the context of ecological skills development, critical thinking enables individuals to assess environmental problems, consider multiple perspectives, and propose effective solutions. It involves questioning assumptions, challenging biases, and applying evidence-based reasoning to environmental issues.

Problem-Solving: Problem-solving skills are essential for identifying, analyzing, and resolving environmental challenges. Effective problem-solving involves defining the problem, generating creative solutions, implementing action plans, and evaluating outcomes. Individuals with strong problem-solving skills can address complex environmental issues such as habitat degradation, resource depletion, and pollution through innovative and sustainable approaches.

Systems Thinking: Systems thinking involves understanding the interconnectedness and interdependence of ecological systems and human societies. It involves recognizing feedback loops, causal relationships, and unintended consequences within ecosystems. Systems thinkers consider the

long-term implications of environmental decisions and strive to balance human needs with ecological integrity, fostering resilience and sustainability.

Adaptability: Adaptability refers to the capacity to adjust to changing environmental conditions and respond effectively to new challenges and opportunities. In the face of climate change, biodiversity loss, and other environmental threats, adaptability is crucial for individuals and communities to survive and thrive. It involves flexibility, resilience, and the willingness to embrace change in pursuit of sustainability.

Collaboration and Communication: Collaboration and communication skills are essential for engaging with diverse stakeholders, building partnerships, and mobilizing collective action for environmental conservation. Effective communication involves listening, articulating ideas, and conveying complex environmental concepts in accessible ways. Collaboration requires teamwork, negotiation, and consensus-building to achieve common environmental goals.

Empathy and Ethical Decision-Making: Empathy involves understanding and valuing the perspectives, needs, and experiences of other living beings within ecosystems. Ethical decision-making entails considering the well-being of both present and future generations, as well as the intrinsic value of nature. Developing empathy and ethical awareness fosters a sense of responsibility and stewardship towards the environment, guiding individuals to act in ways that promote ecological integrity and social justice.

Ecological skills are fundamental for promoting environmental sustainability, resilience, and harmony between humans and the natural world. By targeting the development of these skills in environmental education programs, individuals can become informed, empowered, and engaged stewards of the environment, capable of addressing current environmental challenges and building a more sustainable future.

**Analysis of learning environments**

Online training platforms are more efficient than face-to-face training in closed spaces. However, the biggest shortcoming of online platforms is the inability to provide interactive training for a high number of users due to the capacity of the servers. Monologic trainings cannot be effective in developing ecological skills. In the field studies, it is understood that interactive trainings and creating discussion environments lead to permanent learning. In the workshops, our organization identified topics for discussion among the participants and provided a suitable environment for discussing these topics. One week later, when the same participants were asked about the results and solutions obtained in the workshop, largely satisfactory answers were received. Thus, the interactive environment created was found to be more effective than monologue speeches and written brochures. Therefore, the online platform should also be suitable for interactive training and discussion environments.

**Suggestion for the education platform**

The main purpose of the online education platform to be created is to raise awareness among individuals about energy. For this reason, it should be a platform that is suitable for interactive education, has discussion rooms and can create a team spirit. For this reason, the suggestions that we think should be included in the training platform to be created are as follows:

1) The platform's server must be powerful: In order to provide simultaneous training to many users and to create interactive environments, a server that can provide all these facilities is needed. Initially, the necessary subsystems should be set up for a platform that can be accessed by 500 users simultaneously and can also transmit audio and video.

2) Audio and video of users should be transmitted live: It will not be efficient for users to receive training via a single channel live broadcast. For this reason, training should be provided in a meeting room format where users can broadcast their audio and video.

3) Users should be enabled to make friends with each other: The platform should not only be a platform where users receive training, but also a meeting point where they can communicate with each other and form teams to do activities together.

4) The interface of the platform should be practical: The interface of the online education platform should be easy to use and aesthetically pleasing.

5) The content of the platform should be rich: An education platform with limited content will not be effective in the education of individuals. For this reason, the content of the education platform should be rich and capable of achieving the goals set within the scope of the Sobriety4You project.

6) Trainings should be spread over time: Trainings should not be given one after the other in a limited time, they should be scheduled over time and the program should be announced to all users. In order to avoid repetition, a certain period of time should be set between trainings.

7) Users must have profiles: Users will participate in the trainings on the online training platform with their profiles. The users' profile picture and the pages showing the trainings they have attended will be visible to everyone. Thus, a reward system will be created as users will be able to display the trainings they have attended on their profiles at the same time. Studies have shown that on platforms where people are visible, they show more effort for their profiles and participate at a high rate.

8) The training platform needs to be disseminated: The training platform should be promoted effectively to ensure the participation of large masses. The higher the number of users, the more successful the project will be. In addition, the increase in the number of users can create a domino effect and bring more users to the platform.

# Conclusion

The main goal of the Sobriety4You project is to raise awareness to create a sustainable world. The Sobriety4You project will further strengthen the belief and experience we have as the International Project Support Association of Public Municipalities and Non-Governmental Organizations (PRODER) due to the movement to support a sustainable world that we started in our foundation. For a brighter and cleaner tomorrow, it is necessary to introduce the concept of energy sobriety to the society and raise awareness. The online education platform to be established for this purpose should be implemented effectively by adhering to the principles in the national reports prepared by the project partner members. In order to create ecological balance and support a sustainable world, ecological awareness should be spread to all segments of society. Only in this way can we believe in the future and look to it with more confidence.

# Summary

Our planet has undergone constant changes since its existence. On a 4.5-billion-year-old Earth, the most intense ecosystem changes have occurred in the last 3 centuries, which is quite disproportionate. These change imply an enormous consumption of energy sources and raw materials. If the shift towards sustainable energy sources does not gain momentum, within a few centuries our planet, which is the home of all of us, may reach a point where life cannot be sustained. The imperative for energy sobriety has emerged as a critical avenue for mitigating environmental degradation. Inspired by the pioneering efforts of the French Government in promoting energy sobriety this report embarks on a journey to adapt and implement similar strategies tailored to the context of Austria, with a specific focus on engaging the youth demographic. Recognizing the pivotal role of young people in shaping the future trajectory of energy consumption patterns, this framework seeks to empower and educate Austrian youth about the importance of energy sobriety. Also, to implement similar models in partner countries.

**Educational Campaigns and Awareness Programs:**

The objectivities of project Sobriety4you Raise energy sobriety & ecological change among the young population by creating dedicated online trainings targeted to raise awareness and readiness in those topics.

Environmental Justice and Equity. By fostering awareness of environmental injustices and promoting inclusive participation in decision-making processes, environmental education advocates for environmental equity and the rights of marginalized communities.

Environmental sobriety: is a crucial aspect of environmental education that encourages individuals to reassess their consumption patterns and lifestyle choices in light of their environmental impact. It promotes a shift away from the prevailing culture of overconsumption and towards more sustainable and mindful living practices. Environmental sobriety encourages individuals to prioritize needs over wants, minimize waste generation, and reduce their ecological footprint.

Promotion of Remote Work:

The project develops an innovative approach to using interactive example-based pedagogical tools as digital tools.

Based on the above, our main objectives are:

- Energy and resources
- Environment and climate change adaption

In detail, our project is also linked to the following topics:

- Initial and continuous development of youth workers.
- Supporting the adoption of innovative approaches and digital technologies for teaching and learning.
- Social/environmental responsibility of youth institutions

The project aims to address young people on environmental and energy sobriety in an inter-national perspective.

The project will be carried out at EU level, in different national contexts characterized by different policies in the youth sector. Partners of this project come from several countries with a high impact of environmental and energy sobriety in their economy but different ways of dealing with the subject and with young people.

**Stringent Energy Efficiency Regulations**

Energy, whose value has continued to increase since the industrial revolution, is one of the most important material resources of our age. For this reason, sustainable energy has been an important topic for many researchers and many studies have been conducted in this field. In this context, the researches that are important for the Sobriety4You project will be examined and evaluated. Topics that are important to us are: Ensuring efficiency in energy production, Fossil fuels, Nuclear energy, Renewable energy, Efficiency in energy consumption, Use of energy-saving products, Sales personnel, Internet use, Residential heating, Reducing unnecessary electricity use, Maintenance of appliances.

**Enhanced Public Transportation Initiatives**

Each of the countries participating in the project emphasized in their national reports what are the key environmental problems they face. Also, what protection measures was taken by their goverment to protect the population and the rest of the living world from the unfavorable consequences of ecological crises.

**In Türkiye** one of the most important steps taken in this context is the mandatory thermal insulation in buildings according to the regulation dated January 1, 2011. A large portion of energy consumption in Türkiye is accounted for by residential buildings under the name of urban consumption. For this reason, thermal insulation in buildings has been made compulsory, resulting in significant savings. In order to carry out these studies more effectively and comprehensively throughout the country, the National Energy Conservation Center (UETM) was established within EIE at the end of 1992. The Department of Energy Efficiency in Industry, which is organized within EIE/UETM, carries out studies to increase energy efficiency. A good example of the effects of these measures is the energy saving efforts at Türk Ytong's Pendik plant.This company, after the investment measures taken, achieves approximately 30% energy savings.

The transportation sector almost entirely uses fossil fuels. Therefore, energy savings in this sector are important for creating a sustainable energy policy. However, the steps taken in this regard have been quite limited. The use of fuels such as compressed natural gas (CNG) and liquid petroleum gas (LPG) in motor vehicles has led to a reduction in exhaust emissions and fuel consumption costs, but the use of fossil fuels has not decreased.

The National Action Plan for Energy Efficiency (2017-2023) is the first action plan for energy efficiency in Türkiye, which entered into force on 2018. With the implementation of 55 actions in 6 different sectors, very significant savings were achieved.

Austria is well known for its commitment to environmental protection. Austria is making efforts to implement energy sobriety measures in key sectors, especially in agriculture, industrial complexes, schools, residential areas and public spaces, with a special emphasis on schools, residential areas and public spaces frequented by young people.

Policies promoting energy sobriety in agriculture include incentives for the adoption of renewable energy sources such as solar panels and biomass, as well as efficient irrigation systems to reduce water and energy consumption. The Agrarumwelt program Österreich (AEP), or Agricultural Environmental Program Austria, plays a pivotal role in advancing energy sobriety in the country's agricultural sector.

Also, Austria has developed robust Industrial Complexes Policies on Energy Sobriety to address the imperative of transitioning towards sustainable energy practices within the industrial sector. Mandates on energy efficiency standards encompassing equipment, processes, and management systems are rigorously enforced, alongside incentives for technological innovation and adoption of energy-efficient practices. Capacity building and training programs empower stakeholders to effectively implement energy-efficient measures. Public-private partnerships further drive progress through knowledge sharing, technology transfer, and co-investment in sustainable energy projects. Austria's holistic approach aims not only to mitigate climate change and enhance energy security but also to foster a resilient and prosperous industrial sector poised for a sustainable future.

**In Austria,** fostering energy sobriety in residential settings involves a multifaceted approach aimed at maximizing energy efficiency, minimizing wastage, and integrating renewable energy sources. The Government incentives and subsidies further incentivize homeowners to invest in renewable energy systems such as solar panels, heat pumps, and biomass heating, thereby reducing dependency on fossil fuels and mitigating carbon emissions. Support measures are also implemented at the municipal levels.

**Greece** faces recurrent wildfires, particularly during the hot summer months, which are often exacerbated by factors such as high temperatures, dry weather conditions, strong winds, and human activities like arson and negligence. Greece is vulnerable to the impacts of climate change, too. Environmental problems are also loss of biodiversity, as well as sustainable development.

Greece implemented some measures to mitigate the consequences of these phenomena: Wildfire Mitigation Measures - fire prevention strategies, early detection systems, improved firefighting capabilities, and public awareness campaigns; Climate Change Adaptation - Adaptation measures focus on enhancing resilience to climate-related risks through infrastructure development, land-use planning, and community-based initiatives; Biodiversity Conservation - designated protected areas, nature reserves and designed conservation programs to protect the rich biodiversity and ecosystem. Example of good practice: National Marine Park of Zakynthos established to protect the endangered loggerhead sea turtle.

**In Serbia,** environmental projects are being implemented at various levels, from local initiatives to national strategies. These projects encompass a wide range of activities aimed at protecting the environment, preserving natural resources, enhancing ecological sustainability and raising the level of environmental awareness among the population.

Training on ecological projects usually covers a wide range of topics to provide comprehensive education to participants. Here are a few common topics that are often covered in training on ecological projects in Serbia: environmental protection, waste management, renewable energy sources, environmental education, preservation of water resources. Good practice examples: The informal network "Green List of Serbia", the national campaign "Planetize! Recycle", The ECO-SYSTEM program, The Eco Culture project.

Since last year, the Government of Serbia has been approving incentives for individual households to increase energy efficiency and switch to renewable energy sources.

Unfortunately, no project related to energy sobriety has been implemented so far. It is a completely new environmental topic in Serbia. This is the firs one.

Due to the raising energy issues because of the war in Ukraine, alike the other countries (Mathe, 2023), Spain has taken necessary measures to address the energy dependency. With the Royal Decree-Law 14/2022, the Spanish government aimed to reduce the energy consumption by implementing several measures from mobility to usage of heating as well as the reduction of the consumption of gas, oil and likewise resources. So, the Spanish government promoted the mobility with public transportation, the energy saving and efficiency in state public sector entities, the

renewable energy resources. The government has been putting incentives in a manner to promote the energy sobriety among the general population. But, in comparison to the incentives put by the state to promote the usage of renewable energy resources, seems not to be reached out the general population. Therefore, the awareness raising in this regard is highly needed. There has been several studies to address and understand the energy consumption among the general population as well as the young people and children through awareness raising campaigns and educational resources in Spain. Good practice examples are: EuroNET 50/50 project and ESMES project, which raised awareness of the responsible attitude towards the consumption of resources among children and young people.

All partner organizations organized two focus groups each with the aim of qualitative analysis of the answers and discussion of young people to identify their educational needs. The participants of the focus groups were young, mostly unemployed people. By talking about the same topics and questions, the moderators came to a qualitative insight into their information, level of sensitization and motivation for energy sobriety.

Most of the young focus group participants found it difficult to single out specific environmental skills. Mostly they considered that these are some of the known skills, but applied for ecological purposes.

In Austria participants emphasize the cultivation of critical thinking, problem-solving, and practical skills necessary for sustainable living. In their country, approaches such as systems thinking, and participatory learning empower students to analyze complex energy systems and explore innovative solutions to environmental challengesexpressed a willingness to change behaviours and habits for environmental conservation, citing motivations such as raising awareness, reducing personal carbon footprints, and advocating for policy changes. Suggestions for increasing environmental awareness among youth included climate literacy training and support for youth-led initiatives.

The participants of the focus groups in Greece think that the environmental skills are awareness on recycling, energy saving and sustainability. The most important thing they think needs to change is energy sobriety. Participants feel ready to change and acquire new ecological skills.

For participants of focus groups in Türkiye, the environmental skills they feel most in need of are awareness on recycling, energy saving and sustainability. The most important thing they think needs to change is energy sobriety.

**In Serbia,** participants in focus group singled out the following skills as important: readiness to acquire new knowledge and habits, selflessness, responsibility towards others and nature.

Based on the answers of the young participants of the focus group, it is possible to conclude that there is a noticeable difference in the way of expressing and classifying the required skills, as well as common motivation and willingness to build new, environmentally desirable skills.

In Spain, participants pointed to a knowledge gap between the interpretations of ecological concepts, as well as actual environmental problems and challenges in life. They target several key ecological skills for development: environmental literacy, critical thinking, problem-solving, systems thinking, adaptability, collaboration and communication, empathy and ethical decision-making.

**Integration of Energy Education into Curriculum**

*Genaue Informationen im Rahmen des Projekts über das Wissen und die Informationen junger Menschen sowie ihrer ErzieherInnen zu Fragen der Energieeffizienz und Energienüchternheit.*

Accurate information within the project scope about knowledge and information of young people, as well as their educators, on issues of energy efficiency and energy sobriety:

Based on the focus groups, it was not possible to find accurate quantitative indicators about the awareness of young people regarding current environmental topics and challenges, particularly about environmental sobriety. Qualitative analysis of the group interactive conversation showed that:

- In all the countries participating in the project, young people know what ecology is and what the key environmental problems are. They chose different problems as priorities, but the phenomenon of climate change, pollution, and excessive consumption of resources were the most frequently mentioned.
- There is a clearly visible difference in the awareness of young people about energy sobriety issues in different countries. While in EU countries some young people are familiar with this concept, in Serbia they heard about it for the first time, both the term itself and the activities related to this concept. The concept is unknown to most of their educators, as well as to the general public.
- In Austria and Spain, education projects and youth activities are already being implemented in accordance with the concept of energy sobriety. Many steps have been taken in Türkiye to save energy and create energy sobriety as well. In Greece, more attention has been paid to the specific problems of their country, while in Serbia, there have been no such organized activities so far. However, the citizens themselves often save, not for environmental reasons, but because of low standards and concerns about the household budget.
- Training is required at both the basic and higher levels in all participating countries.

## Promotion of Remote Work and Investment in Research and Development

### Intersectoral collaboration:

One of the our project key term is the ecological skills concept. Definition of ecological skills has been given by our project Methodological Framework:

*"Ecological skills are the abilities of an individual to behave in accordans with the principles of enviromental protection. In this project by ecological skills we primarily mean individual behavior changing in accordance with energy sobriety."*

Partner organizations, project participants generally accepted the given definition as a basis and were free to supplement it in accordance with their understandings and priorities.

Ecological skills defined in this way can be classified as behavioral or soft skills. They are not generally linked to a single job. These qualities have the capacity to be applied in several jobs, in everyday life and can be cross-disciplinary skills. Soft skills include communication skills, critical thinking, problem solving, teamwork, creativity, organisation, conflict resolution, staying positive...). Also, ecological skills include some essential knowledge in ecological field and some ecological experience.

This concept should be distinguished from the concept ecologist skills. It refers to professional abilities and includes a combination of hard or technical skills (learned through education or hands on expirience) and soft skills applied in the work of the environmental profession.

The focus groups in all partners countries showed that the young people have motivation to acquire new skills and change their consumption behaviours, habits and attitudes.

The main purpose of the online education platform to be created is to raise awareness among individuals about energy. For this reason, it should be a platform that is suitable for interactive education, has discussion rooms and can create a team spirit. For this reason, the suggestions that we think should be included in the training platform to be created are as follows:

The platform's server must be powerful, Audio and video of users should be transmitted live, users should be enabled to make friends with each other, the interface of the platform should be practical, the content of the platform should be rich, trainings should be spread over time, users must have profiles, the training platform needs to be disseminate.

**Integration of Energy Education into Curriculum:**

Young people recommend that:

- have suggestions for NGOs and state authorities to implement new strategies and interventions to promote energy sobriety, as well as to raise awareness among children and among young people about creating a sense of habit.
- also call for the strengthening of youth activism in secondary schools.
- emphasize the urgency of solving the problem of climate change and emphasize the role of education in mobilizing collective action and fostering a culture of sustainability.
- believe that non-governmental organizations in the region where the participants are located should work to ensure that young people acquire environmental skills and guide them on these issues..

Environmental challenges and potential crises affect the majority of the planet's inhabitants, so the appeal of young people is reason enough to organize to try to save our common planet. In particular, young people are expected to cooperate in environmental actions, in order to use their way of communication, their modern knowledge and skills to achieve significant results through joint ventures.

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SOBRIETY4YOU

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# Methodological Framework & Research

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