The Policy Toolkit for ASSET

Assistance for Skilled Environmental Teaching

ASSET

ASSISTANCE FOR SKILLED ENVIRONMENTAL TEACHING

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ASSET Project: 2023-1-ES01-KA220-SCH-000153474

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Instituto de Ecología Litoral

www.ecologialitoral.com

PROJECT COORDINATOR

The Instituto de Ecología Litoral is a Foundation of the Valencian Community (Spain), established in 1989, whose primary function is to contribute to the conservation of marine, coastal, and terrestrial ecosystems through research, technical work, consulting, and promoting respect for the natural environment.

FOCUS ECO CENTER
TÂRGU - MUREȘ
ROMÂNIA

http://www.focuseco.ro/

Focus Eco Center is an NGO with extensive experience in the field of environmental education, with a special focus on the implementation of research projects and the development of training materials on sustainable development. In collaboration with international partners, Focus Eco Center has managed several educational projects involving students and teachers, in close cooperation with local authorities in the area of Tirgu Mures. The organization has particular expertise in rural development, agriculture, rural landscape management and wetland restoration.

„Djuro Pilar" primary school

A school where good ideas become reality

http://os-djpilar-sb.skole.hr

Djuro Pilar primary school (OSDP) is a public primary school from Slavonski Brod, Croatia, Brodsko-Posavska County in eastern Croatia. It has 68 employees and about 510 pupils aged from 6-15. Our past (and future) goal is to develop environmental protection awareness and sustainable development in our school and community. In our projects so far, we have introduced green practices in our projects and achieved a significant effect on the participants (students, teachers), and we hope also on the local community, the general public, and of course, on our surrounding nature.

https://ceraeu.org/

CERA Europe is a Brussels-based NGO tackling climate and environmental challenges across Europe. It operates under two main pillars: education & training and research, targeting different audiences. In line with the SDGs and EU Green Deal, CERA develops projects, delivers trainings, and builds partnerships. Core values include environmental justice, equity, sustainability, and scientific integrity.

https://www.imro.hu/

IMRO-DDKK was founded in 2009 with the aim of providing effective support to environment-friendly policies and initiatives in Hungary and the border regions of the neighbouring countries by carrying out projects focusing on environmental protection, urban resilience, humanitarian aid, the promotion of renewable energy sources and energy efficient solutions. IMRO also implements activities which foster the environmentally conscious thinking by applying sustainable lifestyle education methods.

https://zslsmo.edupage.org/

The school proudly bears the name of Ljudovit Štúr - the codifier of the Slovak literary language, poet, publicist. The equipped facility provides all the conditions for work during curricular and extracurricular activities. Classes are held in Slovak and Serbian. The school is attended by a total of 335 students. Students from Serbian classes also learn the Slovak language with elements of national culture. The school fosters the spirit of tolerance, friendship, unity and multiculturalism.

https://konakbilsem.meb.k12.tr/

Konak ŞÖH Science and Art Center, provides education for gifted students aged 8-18. It has 750 students and 35 teachers, selected through talent exams. The curriculum is tailored to individual talents in Music, Art, and General Mental Ability. Teachers, holding master's or doctoral degrees, are required to pass a competitive exam and have project experience. The center boasts extensive facilities including a fablab, technology and design workshops, coding workshop etc., fostering a dynamic educational environment.

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1. Executive Summary

Climate education plays a crucial role in equipping future generations with the knowledge, skills, and competencies necessary to address the growing environmental challenges of the 21st century. The **ASSET Project (Assistance for Skilled Environmental Teaching)** aims to support the integration of climate education into school curricula by providing research-based policy recommendations, fostering stakeholder engagement, and promoting best practices in teacher training and educational methodologies. This report presents key findings from a multi-method research process, offering insights into the current landscape of climate education policies, stakeholder perspectives, and exemplary educational initiatives across partner countries.

Key Findings

The research process employed three primary methods of data collection: a **comparative analysis of climate education policies**, a **stakeholder survey**, and a **best practice case study review**. The findings from these methods highlight significant trends and challenges in climate education across Europe:

1. **Comparative Analysis of Climate Education Policies:**
    - A brief desk research and a structured **National Policies Form** were used to examine climate education frameworks across partner countries.
    - While many countries have integrated climate education into their national curricula, the extent and depth of implementation vary widely.
    - Key gaps include a lack of standardized assessment tools, limited teacher training opportunities, and inadequate financial support for schools to implement sustainability initiatives.
2. **Stakeholder Survey on Climate Education:**
    - Conducted with NGOs and civil society organizations from partner countries, this survey provided insights into the challenges and opportunities in climate education.
    - The most commonly reported challenges include insufficient integration of climate topics into national curricula, lack of teacher training, and limited availability of educational resources.
    - Stakeholders emphasized the importance of collaboration between schools, policymakers, and civil society to strengthen climate education initiatives.
3. **Best Practices in Climate Education and Teacher Training:**
    - A structured **Best Practice Case Studies Form** was completed by project partners, showcasing successful climate education initiatives from diverse educational contexts.
    - Effective strategies include hands-on sustainability projects, interdisciplinary climate education approaches, and school-community partnerships.

- Programs that integrate experiential learning, such as outdoor education and project-based climate action, have demonstrated significant impact in increasing student engagement and environmental awareness.

Policy Recommendations

Based on the research findings, the report outlines several strategic recommendations for policymakers, educators, and stakeholders to enhance climate education initiatives:

- It is recommended to integrate climate and environmental education into national curricula and develop standardized frameworks to ensure consistent implementation across all educational levels. This will be a critical step in enhancing students' climate literacy and achieving sustainable development goals.
- Continuous professional development opportunities should be provided for teachers to effectively deliver climate-related topics. These training programs should focus not only on knowledge transfer but also on equipping educators with the skills to encourage practical actions among students.
- Regular evaluations should be conducted to measure the impact of climate education on student learning and behavioral change, and tools should be developed to assess both knowledge acquisition and practical application.
- Schools should promote environmental responsibility through hands-on projects such as recycling campaigns, energy-saving initiatives, and community gardening. These activities will help bridge the gap between awareness and action, fostering a culture of environmental stewardship among students.
- Collaboration between schools, policymakers, and civil society should be strengthened to create a cohesive approach to climate education. Clear policy frameworks should be established to support long-term sustainability goals, and financial incentives should be provided to schools for implementing climate initiatives.
- Dedicated funding should be allocated to support climate education programs, particularly in underserved regions, and international funding opportunities, such as EU grants and partnerships with NGOs, should be explored to enhance resource availability.

By adopting these recommendations, education systems can become more resilient, empowering students to address environmental challenges and contribute to a sustainable future.

Conclusion

The findings of this report highlight the critical need for structured and well-supported climate education policies across partner countries. While there are existing efforts to integrate climate education into national curricula, challenges remain in implementation, resource allocation, and teacher training. By adopting the recommended policy measures, decision-makers can create more resilient education systems that equip students with the knowledge and skills necessary to tackle environmental challenges. The ASSET Project seeks to contribute to this transformation by providing actionable insights and fostering a collaborative approach to advancing climate education in schools.

2. Introduction

2.1. Project Background

The *Assistance for Skilled Environmental Teaching (ASSET) Project* is an Erasmus+ initiative aimed at enhancing climate education for teachers and students. Its primary objective is to develop and implement an innovative climate education methodology toolkit, along with related learning materials, to support teachers in improving their instructional practices. By equipping educators with knowledge and tools, the project seeks to foster environmental awareness and key competencies among students aged 12-14. The initiative follows a multidisciplinary approach, integrating climate education into various subjects to enhance students' understanding of environmental issues.

The project activities are designed to equip educators from partner schools with the necessary skills to integrate this methodology into their daily teaching practices, regardless of their subject areas. Additionally, opportunities for students to engage in interactive learning experiences, discussions, and collaborative activities are intended to deepen their understanding of environmental issues. Efforts will also be made to raise awareness among key stakeholders, including policymakers, educational institutions, and teacher training organizations, by showcasing best practices and addressing challenges in climate education. By serving as a model initiative, the ASSET Project aims to lay the groundwork for new collaborations and long-term impact, contributing to the broader advancement of climate education across Europe and beyond.

2.2. Purpose of the Policy Toolkit

The ASSET Policy Toolkit has been developed to provide strategic guidance for decision-makers in integrating climate education into primary school curricula and enhancing teacher training frameworks. As part of the ASSET Project, this toolkit serves as a research-based advisory document designed to promote the adoption of climate education methodologies at the European, national, and regional levels.

A key objective of the Policy Toolkit is to support policymakers in embedding climate education into school systems by offering evidence-based recommendations, best practices, and practical strategies. Given the critical role of decision-makers in shaping educational policies, the toolkit aims to facilitate a systematic approach to incorporating climate education into teacher training programs, curriculum development, and professional learning. Without their engagement, the long-term impact of climate education efforts remains limited. Therefore, the toolkit provides a roadmap for integrating environmental literacy into school curricula, ensuring that educators have the necessary resources and institutional support to implement climate-focused teaching methodologies effectively.

Beyond guiding decision-makers, the Policy Toolkit also plays a crucial role in promoting environmental education and teacher skill development. It is structured around key thematic chapters, including statistical research on climate education, international best practices, and policy

recommendations, offering a comprehensive framework for improving climate education across different educational settings. The document also addresses the need for stronger collaboration between educators and policymakers, highlighting strategies for bridging the gap between policy and classroom practice.

To ensure wide dissemination and engagement, the Policy Toolkit will be shared through multiplicator events, workshops, and a final conference, reaching policymakers, educational institutions, and other key stakeholders. Additionally, its availability in multiple languages will enhance accessibility and adaptation across various national contexts. By fostering informed decision-making, the ASSET Policy Toolkit aspires to lay the groundwork for long-term improvements in climate education, ultimately contributing to the development of environmentally conscious and skilled future generations.

2.3. Target Audience

The ASSET Policy Toolkit has been developed to support policymakers, educational experts, school administrators, and educators in their efforts to integrate climate education into primary school curricula and teacher training programs. Given the influence of decision-makers on education policies, the toolkit aims to provide research-based recommendations and best practices that can contribute to strengthening climate literacy at both institutional and systemic levels. Educational experts and school administrators play a crucial role in shaping curriculum development, teacher training frameworks, and resource allocation, while educators are at the forefront of implementing climate education in classrooms. By fostering collaboration among these key stakeholders, the toolkit is intended to facilitate a more structured and sustainable approach to improving climate education within schools and education systems.

3. Methodological Overview

This study employed a multi-method approach to analyze climate education policies, stakeholder perspectives, and best practices in climate education and teacher training. Data collection was conducted through three primary methods, each corresponding to key sections of the report.

Comparative Analysis of Climate Education Policies and Global Trends

To assess climate education policies across partner countries and global trends, two complementary data collection methods were utilized:

Desk Research: A concise review of international reports, policy documents, and educational frameworks was conducted to examine existing international reports, policy documents, and educational frameworks related to climate education. This analysis provided a global perspective on best practices and emerging trends.

National Policies Form: A structured survey was administered to project partners, who provided country-specific insights on policy frameworks, teacher training mechanisms, student learning outcomes, and stakeholder involvement. The findings from this form informed the comparative analysis presented in *Section 4.* The survey are presented in *Appendix 10.1: . National Policies Form.*

Stakeholder Survey on Climate Education

To capture the perspectives of key stakeholders engaged in climate education, a targeted survey was conducted. Unlike the National Policies Form, this survey was distributed to organizations identified by project partners, including NGOs actively involved in environmental education.

Stakeholder Survey Form: This structured questionnaire, detailed in *Appendix 10.2: Stakeholder Survey*, was aimed completed by four organizations per partner country. The survey gathered data on the role of civil society in climate education, challenges faced in implementing climate-focused educational initiatives, and policy recommendations for strengthening environmental education. The findings from this survey are presented in *Section 5: Stakeholder Survey on Climate Education: Data Collection and Finding*s.

Best Practices in Climate Education and Teacher Training

To identify effective educational practices in climate and environmental education, project partners were asked to provide case studies of exemplary initiatives implemented in their respective countries.

Best Practice Case Studies Form: This structured data collection tool, outlined in A*ppendix 10.3: Best Practice Case Studies Form*, was completed by partner institutions. It collected detailed descriptions of successful climate education programs, including their objectives, methodologies, and impact. The results informed *Section 6: Best Practices in Climate Education and Teacher Training*, offering insights into replicable strategies for integrating climate education into school curricula and teacher training programs.

Partner Contributions

Project partners played a central role in data collection by responding to structured forms, facilitating outreach to relevant stakeholders, and providing contextual insights into national education policies and best practices. Their contributions ensured that the analysis reflects a diverse range of perspectives and educational contexts across partner countries.

This multi-method approach enabled a comprehensive assessment of climate education policies, stakeholder engagement, and effective practices, forming the foundation for the policy recommendations presented in later sections of this report.

4. Comparative Analysis of Climate Education Policies and Global Trends

4.1. Global Insights: Key Data and Trends in Climate Education

Within the scope of the existing section, firstly, a review of curriculum structures on environmental education and climate education content, students' competencies in environmental and climate education, and teachers' knowledge levels across various education systems worldwide has been compiled. The recommendations on environmental and climate education in international reports are also briefly summarized under this section.

A review of curriculum structures

An important report published by UNESCO (2021) reveals a significant gap in global education regarding climate change, with nearly half (47%) of the national curriculum frameworks from 100 countries reviewed lacking any reference to climate change. Among those that do mention it, the depth of coverage is generally minimal. Countries most vulnerable to climate change impacts, rather than those responsible for the majority of emissions, tend to be more proactive in including climate change content in their educational frameworks. When these findings are reviewed in a regional context, the proportion of no focus in national curriculum frameworks in Europe and North America is 60%, while the remaining 40% is very minimal.

The report highlights that climate change education primarily focuses on primary and secondary education (90% of countries), while fewer nations have frameworks for climate change education in technical and vocational education (70%), higher education (70%), or teacher training programs (55%). This suggests a concentration on foundational education levels and a lack of integration into higher levels of education and teacher preparation.

According to UNESCO's (2024) report titled Education and Climate Change – Learning to Act for People and Planet, the role of education in addressing climate change is significantly overlooked in international agendas. In the report it is mentionda that Sustainable Development Goal 4 (SDG 4) was incorporated into only 2 of 72 transnational climate initiatives. Additionally, the content of climate change education is unevenly distributed across curricula. An analysis of curricula from 76 countries revealed that green content reached only 50% of the maximum possible score in grades 3, 6, and 9. Critical topics such as biodiversity (12%) and climate change (21%) were particularly underrepresented. Moreover, less environmental content was found in grade 3 compared to grade 9, and in social science curricula compared to science curricula.

UNESCO's (2024) report also gives important insights on which dimensions are predominantly focus in education systems on imparting knowledge about climate change. According to the report, a review of country submissions to the United Nations Framework Convention on Climate Change showed that 67% of references in primary education emphasized cognitive learning, while only 7%

addressed social and emotional learning, and 27% focused on behavioral learning. Authors mentions that these findings highlight a lack of comprehensive and balanced integration of environmental topics in primary school curricula.

A review of students' and teachers' competencies

Although the PISA assessment, widely recognized globally for its focus on students' competencies, does not explicitly target environmental or climate education, it incorporates environmental and sustainability issues under the science domain. And it is the assessment that provides the most comprehensive information on students' competencies in environmental or climate education worldwide and for OECD countries. In this context, PISA 2018 examined several key aspects, including young people's awareness of climate-change dynamics, their confidence in understanding these issues, their sense of responsibility for the state of the planet, and their actions to protect it.

Based on data collected from 12 OECD countries and economies participating in PISA 2018, young people's awareness of climate-change dynamics was assessed under five main topics. The average percentage of correct responses across OECD countries for each unit was as follows:

- Rising Sea Levels Unit: 32.2%
- Ethical Clothing Unit: 44.7%
- Palm Oil Unit: 29.1%
- Blue River Dam Unit: 47.8%
- Oil Exploration Unit: 41.1%

In addition to the cognitive domain, PISA 2018 also examined students' attitudes and beliefs regarding environmental issues. Across OECD countries, the findings indicated that:

- 78.4% of students demonstrated a sense of environmental purpose,
- 74.3% displayed environmental awareness,
- 63% exhibited self-efficacy in understanding environmental issues.

Furthermore, an environmentally enthusiastic group, representing 48.2% of students on average across OECD countries, demonstrated all three of these characteristics. Conversely, 5.5% of students were categorized as environmentally indifferent, meaning they did not exhibit any environmental attitudes.

Another key focus of PISA 2018 was young people's engagement in environmental actions, which was analyzed under five main categories. On average, across OECD countries and economies:

- 66.8% of students reported reducing energy consumption at home to protect the environment,
- 42.6% chose certain products for environmental or ethical reasons, even if they were more expensive,
- 36.5% participated in activities in favor of environmental protection,
- Only one-fourth of students reported boycotting products or companies for environmental or other reasons,
- A similar proportion signed environmental or social petitions online.

These findings provide valuable insights into students' awareness, attitudes, and actions concerning environmental and sustainability issues, highlighting the areas where further educational efforts may be needed.

The UNESCO (2021) report provides the most extensive information on teachers' competencies in this area. The report surveys teachers, revealing strong support for teaching about climate change—95% of teachers believe it is important, yet fewer than 40% feel confident teaching the subject. A smaller proportion (about 20%) are able to effectively teach students how to take action on climate change. Additionally, only 55% of teachers have received relevant training on climate change and sustainable lifestyles, and less than half of schools have an action plan addressing climate change. This indicates a critical need for comprehensive teacher training and institutional support to effectively address climate change in education.

Key themes ın envıronmental&clımate educatıon recommendatıons

When examining the recommendations on environmental and climate education from the OECD (2022), OECD (2024) and UNESCO (2021), UNESCO (2024) reports, key recommendations emerge under six main themes. These recommendations can be summarized as follows:

1. **Integrating Climate Change Education into Curricula and Policies**
   - Climate change education should be embedded across all levels and disciplines.
   - National education policies should prioritize climate literacy, supported by cross-sector collaboration (e.g., Ministries of Education and Environment).
   - Formal and non-formal education approaches should be utilized to develop climate-related knowledge, skills, and values.
2. **Teacher Training and Capacity Building**
   - Educators and school leaders need training to effectively teach climate change concepts.
   - Professional development should emphasize not only cognitive learning but also social-emotional and action-oriented approaches.
3. **Enhancing Research, Monitoring, and Assessment**
   - More research is needed on climate education’s impact on student learning and behavioral change, particularly in climate-vulnerable regions.
   - Curriculum assessments should evaluate both knowledge acquisition and practical application in climate action.
4. **Promoting Pro-Environmental Attitudes and Student Engagement**
   - Schools should actively encourage environmental responsibility and climate action.
   - Education systems should strengthen the link between scientific literacy and pro-environmental behaviors.
   - Addressing the gap between environmental concern and actual student action is essential.
5. **Leveraging Leadership, Policy, and Community Engagement**
   - Strong leadership and clear policy frameworks are essential for scaling up climate education.
   - Schools, communities, and policymakers must collaborate to implement effective climate initiatives.

6. **Investing in Climate Education and Finance**
   - Increased funding is needed to support climate education, particularly in low-income countries.
   - Climate finance should include provisions for education to enhance adaptation and mitigation strategies.

These themes collectively highlight the urgency of integrating climate change education into national policies, strengthening teacher capacity, and ensuring students are equipped with the knowledge and motivation to act.

4.2. National Perspectives: Climate Education Policies Across Partner Countries

The main objective of the Policy Toolkit is to develop broad-scale and long-term policy recommendations. Therefore, it is essential to examine the existing policies implemented in the participating countries regarding environmental and climate education. As previously explained in detail in Methodological Overview section, project partners were asked to share information about policy implementations in specific areas within their respective countries (Spanish, French, Turkish, Romanian, Serbian, Croatian, Hungarian). These areas of analysis consist of four main categories: **Policies and Frameworks**, **Teacher Training and Resources**, **Student Learning Outcomes**, and **Stakeholder Involvement** in environmental and climate education. This section of the report provides a comparative summary of the responses received from project partners under those mentioned categories.

Policies and Frameworks on Environmental Education and Climate Education

Under the Policies and Frameworks category, respondents were asked to provide information on four main aspects of their country's climate and environmental education policies. These included the existence of national or regional policies mandating climate or environmental education, their objectives and recent updates. They were also asked whether climate education is integrated into national curricula and at which levels of education. The existence of specific objectives related to climate literacy in these policies was also examined. Finally, respondents were asked to report on any incentives or funding mechanisms that support schools in the implementation of these policies. Under this heading, the participating countries' responses on the relevant contexts in their respective countries are first summarized separately and then an overall summary is provided for each section.

National Or Regional Policies

Belgium: Belgium has implemented region-specific policies mandating climate and environmental education. In Flanders, the Environmental Education Act (2003) integrates sustainability and climate education into the curriculum, supported by an Environmental Education Unit that coordinates policies and fosters collaboration among practitioners and policymakers. In

Wallonia, climate education is included in the citizenship education framework, focusing on sustainable development. Brussels promotes climate action in schools through initiatives like the "Good Food Strategy." The main objectives of these policies are to equip students with the knowledge and skills necessary to tackle climate challenges while fostering sustainable behavior and environmental responsibility.

These policies are periodically updated; for example, Flanders renewed its focus on climate literacy in 2020. Sustainability education is a key aspect of Belgium's ecological strategies, with Flanders implementing the Nature and Environmental Education program to meet regional climate and sustainability goals. The French Community's Transversal Plan for Ecological Transition emphasizes teacher training and the development of pedagogical tools for climate and energy education. Since 2011, a partnership among the French Community, Brussels Capital Region, and Wallonia has supported sustainability education through various resources and initiatives, including the 2021-24 Action Programme, which promotes outdoor education and integrates sustainability into school management and curricula. Across all three Communities, sustainability is incorporated into the curriculum as a core or cross-disciplinary competence, focusing on systems thinking, valuing nature, and encouraging both individual and collective action. The German-speaking Community further emphasizes future literacy and political agency.

Croatia: Croatia has integrated climate and environmental education into its national education policies, although it is not established as a mandatory subject. Since 2019, the national curriculum has incorporated cross-curricular topics such as sustainable development, civic education, and personal and social development, which are embedded across all subjects in primary and secondary schools. Although Croatian educational system does not use laws to incorporate climate change education it is well incorporated in various school subjects mandatory (national) curricula by which it has made climate change topics obligational for teachers in their instruction and/or extracurricular activities. The primary objectives of these policies and efforts are to equip learners with the knowledge and skills necessary to promote sustainable development, raise awareness about the importance and threats of climate change for society, and encourage the integration of climate change adaptation concepts into existing and new policies. These efforts aim to reduce environmental, economic, and societal vulnerabilities, fostering a more informed and proactive approach to addressing climate challenges within the educational framework.

Spain: Spain has implemented comprehensive national and regional policies mandating climate and environmental education. The Law 3/2020, amending the Organic Law 2/2006, integrates education for sustainable development and global citizenship into all compulsory education curricula. It emphasizes ecological transition, civic and ethical values, and fostering critical thinking, human rights respect, and active citizenship, while promoting awareness of environmental impacts and sustainability. The National Plan for Adaptation to Climate Change 2021-2030 (PNACC) provides a strategic framework to mitigate climate change impacts and build societal resilience. Complementing this, the Action Plan for Environmental Education for Sustainability 2021-2025 (PAEAS) outlines specific objectives and annual priorities for enhancing environmental education. Additionally, the Law 7/2021 on Climate Change and Energy Transition aligns with the Paris Agreement, emphasizing education, research, and innovation in combating climate change. These

policies collectively aim to equip students with the knowledge and skills to address climate challenges and foster responsible, informed citizenship.

Hungary: Hungary has integrated climate and environmental education into its national policies, primarily through the National Core Curriculum (NAT), which mandates sustainable development, environmental protection, and responsible citizenship in primary and secondary schools. The NAT aims to develop environmental awareness, teach climate change impacts, promote sustainability, and encourage community engagement through local ecological projects. These topics are embedded across subjects like geography, ethics, and biology. Hungary also supports sustainability education through initiatives like the Eco-School Program, which began in the early 2000s and now includes around 1,500 schools (40% of all schools). The program integrates sustainability into curricula and daily activities. The NAT was updated in 2020 to strengthen sustainability themes, and the National Sustainable Development Framework Strategy (2025–2036) further emphasizes education as a key focus area. This strategy promotes curriculum revisions, teacher training, and community partnerships to address climate and sustainability challenges effectively.

Romania: Romania has integrated climate and environmental education into its policies, primarily through the National Strategy for Sustainable Development and the "Green Schools" initiative. Key policies include the National Strategy on Education for the Environment and Climate Change (2023–2030), which aims to embed climate education in the national curriculum at all levels. This strategy introduces compulsory Săptămâna Verde (Green Week) in schools, develops a digital library for educational resources, and invests in green infrastructure for schools. Approved in 2023, it aligns with the European Green Deal. The National Recovery and Resilience Plan (PNRR) 2021–2026 allocates €3.6 billion to education reform, promoting sustainable practices and climate education. The Eco-Schools Program (Școli Eco) encourages schools to engage in sustainability projects, awarding a "Green Flag" for high standards in environmental education. Regional and NGO-led initiatives include Harta Reciclării (The Recycling Map) for waste reduction education, Nature Talks for teacher training, and ViitorPlus Programs for interactive environmental education. The Green Transylvania Initiative focuses on biodiversity conservation in rural schools. Overall, these efforts aim to raise environmental awareness, promote sustainable development, and align with EU climate goals, particularly the Sustainable Development Goals (SDGs). The National Strategy for Sustainable Development was implemented in 2013 and updated in 2020, while the Green Schools Program has been active since 2015, with annual updates based on performance.

Serbia: Serbia has established national policies mandating climate and environmental education, starting with the First Framework Action Plan for Environmental Education for Sustainable Development (2008). This policy integrates sustainable development principles across all educational levels, focusing on four key objectives: embedding sustainability in education, raising public awareness, building educator capacity, and developing educational materials. Since 2010, sustainability topics have been incorporated into elective subjects and extracurricular activities in primary and secondary schools. The Climate Change Adaptation Programme (2023-2030), adopted in 2023, includes an action plan (2024-2026) to reduce vulnerability to climate change, emphasizing education and public awareness. The Law on Climate Change (2021) establishes a framework for reducing greenhouse gas emissions and creates the National Council for Climate Change,

underscoring education's role in achieving its goals. Additionally, youth-led initiatives by UNICEF Serbia (since 2019) engage young climate leaders in awareness campaigns, advocacy, and policy influence, including school outreach and youth advocate groups. These efforts reflect Serbia's commitment to fostering sustainability and environmental stewardship through education.

Turkey: Turkey has implemented national policies mandating climate and environmental education to promote sustainability and awareness. The National Environmental Strategy and Action Plan (2010) integrates environmental protection and sustainable development into education. The Zero Waste Regulation (2019), expanded in 2023, includes school-based initiatives to foster waste reduction and recycling practices. The Climate Change Action Plan (2011-2023), revised to cover the period 2024-2030 and enacted as a new action plan, emphasizes education in addressing climate change impacts and solutions. These policies aim to integrate sustainability into education, raise awareness of climate issues, and align with the Sustainable Development Goals (SDGs), particularly Goals 4 (Quality Education) and 13 (Climate Action). Together, they reflect Turkey's commitment to embedding climate and environmental education within its national framework.

Summary

Various countries have integrated climate and environmental education into their national and regional policies, emphasizing sustainability and environmental awareness. These efforts focus on embedding climate-related topics into school curricula, promoting sustainable development, and fostering responsible citizenship. Key initiatives include cross-curricular integration of environmental education, teacher training, and the development of educational resources. Programs often encourage hands-on activities like recycling, tree planting, and community projects to engage students and raise awareness. Policies also aim to align with broader sustainability goals, such as reducing vulnerability to climate change and promoting low-carbon development. Youth-led initiatives and partnerships with NGOs further enhance these efforts, fostering a culture of environmental stewardship and proactive climate action. Overall, these strategies reflect a commitment to equipping students with the knowledge and skills needed to address environmental challenges and promote sustainable practices.

Integration of Climate Education

Belgium: In Belgium, climate education is integrated into the national curriculum at both primary and secondary levels, particularly in the regions of Flanders and Wallonia, though the implementation varies. In Flanders, approximately half of the schools are part of the MOS (Sustainable Schools, Smart Schools) network, which supports kindergartens, primary, and secondary schools in creating sustainable learning environments. Established in 2001, the MOS network offers tailored guidance for schools to adopt a whole-school sustainability approach and provides opportunities for schools to become eco-schools, allowing them access to public subsidies for sustainability initiatives. Additionally, the Flemish sustainability education hub supplies teaching materials and tools designed for climate education. In Wallonia and the Brussels Capital Region, schools can participate in the international Eco-Schools program.

Croatia: In Croatia, climate education is integrated into the national curriculum through the cross-curricular topic of "Sustainable Development," which addresses all three dimensions of sustainability—environmental, social, and economic—and highlights their interdependence. This approach aims to prepare students for effective action in society, promoting both personal and collective well-being, although the specific term "climate education" is not explicitly used. Education on environmental topics is mandatory in the regular curriculum, requiring coverage in all school subjects for a minimum of two classes per year. This applies to both primary and secondary education, ensuring that students engage with sustainability concepts throughout their academic journey.

Spain: The integration of climate literacy and sustainability education is supported by key legislative measures. The Royal Decree 157/2022 for Primary Education and Royal Decree 217/2022 for Compulsory Secondary Education embed climate change topics in subjects like "Biology and Geology" and "Education in Civic and Ethical Values," focusing on causes, impacts, and ethical responsibilities. The Royal Decree 243/2022 for High School Education promotes critical analysis of sustainability in subjects such as "Environmental Sciences" and "Economics." Vocational training also includes climate-related topics. Additionally, the National Plan for Adaptation to Climate Change (PNACC) and the Action Plan for Environmental Education for Sustainability (PAEAS) support curricular changes, teacher training, and community engagement. The Law 7/2021 on Climate Change and Energy Transition mandates sustainability integration in education, updates vocational training, and promotes informal education. These measures aim to equip students with the skills to address climate challenges and foster sustainable development.

Hungary: In Hungary, climate education is integrated into the National Core Curriculum at various educational levels. In primary school, lower grades (Grades 1–4) introduce basic environmental awareness, covering fundamental scientific concepts such as weather, nature conservation, and respect for living organisms through playful and practical methods. In the upper grades (Grades 5–8), students learn more detailed knowledge about climate change, its causes, and impacts, particularly in geography and biology, with an emphasis on energy resources, waste management, and sustainable lifestyles. At the secondary school level (Grades 9–12), the curriculum provides in-depth scientific knowledge about climate change and sustainable development, especially in subjects like biology, geography, chemistry, and social studies. Students engage in activities such as analyses, project-based learning, and local environmental programs. Climate and environmental education are integrated across multiple subjects rather than taught as a standalone subject, with ethics and civics classes addressing responsible citizenship, including environmental awareness and sustainability. Additional initiatives, such as the Eco-School Program and competitions on environmental topics, further enhance students' engagement and understanding of real-world issues.

Romania: In Romania, climate education is integrated into the national curriculum at both primary and secondary educational levels. It is embedded within subjects such as geography, biology, and chemistry. Additionally, the Săptămâna Verde program is mandatory in all schools, providing practical activities that include energy-saving campaigns, waste audits, and outdoor

lessons. This comprehensive approach ensures that students engage with climate and environmental topics throughout their education.

Serbia: In Serbia, climate education is integrated into the national curriculum, though it is not taught as a standalone subject. Instead, it is embedded within broader themes of environmental education, sustainability, and science-related subjects. In primary education, environmental and climate-related topics are introduced through subjects like Nature and Society, Science, and various extracurricular activities, focusing on basic environmental awareness, understanding ecosystems, and promoting sustainable habits. In secondary education, particularly in general secondary schools (gymnasiums), climate education is incorporated into subjects such as Biology, Geography, Chemistry, and Physics. Vocational schools also include elements of environmental and climate education, tailored to the specific field of study. Elective courses and project-based learning offer opportunities for more in-depth exploration of climate and environmental topics. The Serbian curriculum encourages project-based and experiential learning, allowing schools to implement activities related to climate and environmental education. Additionally, some schools participate in international programs like Eco-Schools or regional initiatives, which complement the national curriculum with focused climate education. These integrations reflect Serbia's commitment to fostering environmental awareness and sustainability among young learners.

Turkey: In Turkey, climate education is integrated into the national curriculum under the umbrella of environmental education. Topics such as energy conservation, sustainable development, and climate change are covered within science and social studies courses at both primary and secondary educational levels. This integration ensures that students gain a comprehensive understanding of climate-related issues throughout their education.

Summary

Climate education is integrated into national curricula across various countries, often embedded within subjects like geography, biology, and social studies, rather than being taught as a standalone subject. In primary education, students are introduced to basic environmental awareness, while secondary education delves deeper into climate change causes, impacts, and mitigation strategies. Many countries emphasize interdisciplinary approaches, incorporating sustainability topics into ethics, civics, and science classes, alongside project-based learning and extracurricular activities. Programs like Eco-Schools and mandatory initiatives such as energy-saving campaigns or waste audits further enhance practical engagement. Teacher training, community involvement, and international collaborations also play a key role in supporting climate education. These efforts aim to equip students with the knowledge and skills to address climate challenges and promote sustainable development, fostering a culture of environmental responsibility and awareness.

Specific Goals Or Targets Related To Climate Literacy

Belgium: In Belgium, specific goals related to climate literacy within educational policies include increasing the number of schools that adopt sustainability projects and aligning educational outcomes with the Sustainable Development Goals (SDGs), particularly focusing on Goal 4 (Quality Education) and Goal 13 (Climate Action).

Croatia: In Croatia, while climate and environmental literacy is acknowledged through various projects and activities, such as those initiated by the Croatian water company in 2017, the existing policies do not specify explicit goals related to climate literacy as a defined term.

Spain: In Spain, specific goals and targets related to climate literacy are embedded within various legislative frameworks and national plans. The Royal Decree 157/2022 establishes a comprehensive curriculum for primary and secondary education that promotes responsible consumption, sustainable development, and social awareness of climate change. It emphasizes evaluating alternatives to mitigate climate change and achieving the Sustainable Development Goals (SDGs). Subjects such as "Knowledge of the Natural, Social, and Cultural Environment" and "Education in Civic and Ethical Values" address climate change causes, impacts, and mitigation strategies, fostering an interdisciplinary understanding of eco-dependence. The National Plans on Climate Change and Sustainability (PNACC and PAEAS) further outline specific objectives, including curricular changes to incorporate sustainability competencies, teacher training in environmental education, and promoting community programs for sustainable transitions. Additionally, the Law 7/2021 on Climate Change and Energy Transition sets goals for enhancing societal involvement in climate action, reviewing sustainability education curricula, and updating vocational training for sustainable practices. Overall, Spain demonstrates a robust commitment to integrating climate literacy into its educational policies through structured legislation and comprehensive national plans.

Hungary: In Hungary, educational and environmental policies explicitly outline goals and guidelines for climate education and awareness development, aligning with global and European Union sustainability frameworks. The objectives include developing environmental awareness by helping students understand the impact of human activities on the environment and fostering environmentally friendly decision-making. Additionally, there is a focus on ensuring students understanding the fundamental workings of climate systems, including the roles of greenhouse gases and the consequences of global warming, making scientific knowledge accessible at all educational levels. Understanding adaptation and mitigation strategies is also emphasized, teaching students how to reduce their carbon footprint and the importance of techniques like sustainable agriculture and energy efficiency. Furthermore, policies encourage strengthening community responsibility by recognizing students' roles in environmental protection and promoting participation in local projects, such as tree planting and waste collection campaigns. Shaping a sustainability mindset is another key goal, instilling principles of sustainable development that focus on nature conservation and responsible consumption. While specific quantitative targets include involving at least 70% of students in sustainability projects, ensuring the successful acquisition of scientific knowledge as defined in the National Core Curriculum (NAT), and achieving 50% participation of educational institutions in the Eco-School Program. These initiatives aim to cultivate climate-conscious generations and fulfill the Sustainable Development Goals (SDGs).

Romania: In Romania, specific goals related to climate literacy within educational policies include educating 75% of students on sustainability topics by 2030 and reducing waste generation in schools by 50% by 2025.

Serbia: In Serbia, specific goals and targets related to climate literacy are outlined in educational policies, aiming to foster knowledge, skills, and behaviors that support sustainable development and climate action. Key objectives include increasing awareness and understanding of climate issues among students, integrating sustainability principles across subjects, and empowering learners to engage in sustainable practices and advocate for climate-resilient behaviors. This involves embedding climate-related knowledge into curricula, promoting project-based learning, and encouraging community engagement. Additionally, capacity building for educators is prioritized through training, resources, and teaching materials. Serbia aligns these efforts with global frameworks like the UN Sustainable Development Goals (SDGs), particularly SDG 4.7, aiming to integrate climate education into formal and non-formal education by 2030. These goals ensure learners are equipped to understand and address climate challenges effectively.

Turkey: In Turkey, within the framework of the 12th Development Plan (2024-2028), specific goals related to climate literacy and sustainability in education aim to enhance environmental awareness and promote sustainability practices in schools.

Summary

Educational policies across various countries emphasize integrating climate literacy and sustainability into curricula, aiming to equip students with the knowledge and skills to address climate challenges. Key goals include increasing awareness of climate issues, embedding sustainability principles across subjects, and fostering environmentally responsible behaviors. Many policies focus on project-based learning, community engagement, and teacher training to enhance climate education. Efforts are aligned with global frameworks like the Sustainable Development Goals (SDGs), particularly SDG 4.7, with targets such as involving a significant percentage of students in sustainability projects, reducing waste in schools, and achieving measurable progress in climate literacy by 2030. These initiatives aim to cultivate a sustainability mindset and empower learners to contribute to climate action and environmental protection.

Incentives Or Funding Mechanisms To Support Schools

Belgium: The federal government and regional authorities provide annual funding for sustainability initiatives in schools. For example, €2.5 million was allocated in 2021 to support such projects.

Croatia: Croatia offers multiple funding mechanisms to support schools in implementing environmental education policies. These include EU funding through Erasmus+ programs, national funding from the Ministry of Science and Education and the Ministry of Economy and Sustainable Development, and local government support. Additionally, schools can access EU structural and cohesion funds, private sector sponsorships, and resources through the Eco-Schools program coordinated by the Association for Nature, Environment, and Sustainable Development (SUNCE).

Spain: Funding mechanisms to support schools in implementing climate and sustainability policies are limited, with expenses typically covered by institutional budgets. While occasional one-

off subsidies are available, the application process is often cumbersome, requiring extensive documentation and facing delays in approval or fund disbursement. The Action Plan for Environmental Education for Sustainability (PAEAS) highlights the Next Generation Funds and the 2021-2027 Multiannual Financial Framework (MFF) as primary funding instruments. Additionally, national-level support mechanisms, such as the Environmental Boost Plans (PIM), are suggested to provide further assistance.

Hungary: Hungary provides various incentives and funding mechanisms to support schools in implementing climate and environmental education policies. These include financial support for the Eco-School Program, grant opportunities through programs like KEHOP+ and the Green Source Grant, and funding for sustainability projects from international organizations. Additionally, schools can access state and EU funds for infrastructure development, teacher training, and local government support for eco-friendly initiatives.

Romania: The Romanian Ministry of Education allocates annual funding for climate and environmental education projects. In May 2024, the ministry announced €225 million in funding for the construction and development of a pilot network of green schools. Romania also benefits from EU grants, such as those under Erasmus+, and partnerships with organizations like UNICEF to promote sustainable and safe school environments.

Serbia: Serbia offers several incentives and funding mechanisms for schools to implement climate and environmental education policies. These include national funding through the Environmental Protection Fund, international support from UNESCO and UNECE initiatives, and EU programs like Erasmus+ and IPA. Serbia also participates in the global Eco-Schools Program, collaborates with private sector and NGO partners, and provides awards and recognition for schools excelling in sustainability practices.

Turkey: Within the scope of the Zero Waste Project, awards and incentives are implemented as part of awareness and educational activities in schools

Summary

Various funding mechanisms and incentives are available to support schools in implementing climate and environmental education policies. These include government grants, EU funding programs like Erasmus+, and national or regional budgets allocated for sustainability projects. Schools can also access financial support from international organizations, private sector sponsorships, and initiatives like the Eco-Schools program. Funding is often directed toward infrastructure development, teacher training, recycling campaigns, and energy-saving projects. However, there are countries face challenges with bureaucratic processes and delays in accessing funds. Overall, these financial resources aim to enhance sustainability practices and climate education in schools, fostering a culture of environmental responsibility.

Teacher Training and Resources

Under the Teacher Training and Resources category, information is provided under three main headings: teacher training programs for climate and environmental education, available resources, and challenges faced by educators. Participant countries' responses on the relevant contexts in their respective countries were summarized separately under each heading, followed by an overall summary for each section.

Teacher Training Programs for Climate And Environmental Education

Belgium: Belgium offers national programs like the "Green Teachers Academy" to train teachers in climate and environmental education. Approximately 42% of teachers receive some form of climate education training annually. These programs are optional but encouraged by regional education authorities.

Croatia: Croatia has both national and regional programs for teacher training in climate and environmental education, including the Eco-Schools Program, Ministry of Science and Education initiatives, and EU-funded programs like Erasmus+. While there is no specific data on the number of participating teachers annually, geography, science, biology, and chemistry teachers are required to attend at least three regional meetings, which often include environmental education topics.

Spain: Spain provides national and regional teacher training programs, such as those organized by ECOEMBES and the Ministry of the Environment. These programs train thousands of teachers annually, with specific initiatives like "Naturaliza" reaching 2,700 teachers over six years. Participation in these programs is optional.

Hungary: Hungary offers national and regional programs, including the Eco-School Program and training by Educational Authority and the Hungarian Environmental Education Association (MKNE). Partly projects supported by civil and international organizations. These programs collectively reach 500–1,000 educators annually, with additional training sessions organized by the Educational Authority engaging 200–300 participants each year. Participation is optional but encouraged.

Romania: Romania has national programs like the Green Schools Initiative and Săptămâna Verde (Green Week), which train thousands of teachers annually. NGO-led initiatives, such as those by WWF Romania and ViitorPlus, also provide training. While some elements are mandatory for schools seeking eco-certification, most programs are optional but highly encouraged.

Serbia: Serbia offers national programs through the Institute for the Advancement of Education (IIE), Environmental Protection Fund and international initiatives like Erasmus+, UNESCO and UNECE. While exact participation numbers are unavailable, depending on the program it is estimated that hundreds to thousands of teachers engage in these programs annually. Participation is optional and based on teacher interest.

Turkey: Turkey provides national programs like "Environmental Awareness in Education" and "Zero Waste Education," various training programs to support the professional development of teachers. These programs are optional but strongly encouraged, particularly in urban areas.

Summary

The responses from the partner countries reveal a shared commitment to training teachers in climate and environmental education, though the scale, structure, and mandatory nature of these programs vary significantly. Belgium, Spain, Hungary, and Turkey offer optional but encouraged training programs. Croatia and Romania blend optional and mandatory element. Serbia relies heavily on optional programs, with participation driven by teacher interest and school priorities. While all countries leverage national and regional initiatives, almost all partner countries also benefit from EU-funded programs like Erasmus+, highlighting the role of international collaboration. Overall, the effectiveness of these programs depends on participation rates, accessibility, and the balance between mandatory and voluntary engagement.

Types Of Resources Available For Teachers

Belgium: Belgium provides resources such as lesson plans and digital tools through platforms like EduClimat, workshops conducted by NGOs like GoodPlanet Belgium, and project funding from the government and local municipalities.

Croatia: Croatia offers a wide range of resources, including lesson plans from the Ministry of Science and Education and the Eco-Schools Program, digital tools like the EduPortal and interactive apps, and workshops organized by NGOs such as Zelena Akcija and ZMAG. These resources are provided by government institutions, NGOs, and international organizations like UNESCO and WWF.

Spain: Spain's resources are primarily created by private organizations and NGOs, often subsidized by the government. Examples include ECOEMBES's Naturaliza project, which provides teacher training and curricular materials, and initiatives like Climántica and Programa Aldea. Resources are also provided by regional governments and organizations like AEMET and CENEAM.

Hungary: Resources supporting climate and environmental education are widely available and can be categorized into various types in Hungary. Hungary offers thematic lesson plans, digital tools like the "Green Math" program, and workshops provided by the Hungarian Environmental Education Association (MKNE) and local governments. Additionally, printed and digital publications are also available in Hungary. There are also school project supports such as local environmental actions. Resources are supported by government institutions, NGOs, and private companies.

Romania: In Romania lesson plans and guides, digital tools, printed materials, workshops, and webinars are provided for teachers. Additionally, outdoor activities like tree planting, biodiversity observation are also can be taken as important resources for teachers in Romania. Resources are offered by the Ministry of Education, NGOs, and private organizations, with additional support from EU-funded programs.

Serbia: Serbia offers lesson plans and curriculum guides from the Institute for the Advancement of Education (IIE), digital tools through UNESCO and UNECE platforms, and workshops via Erasmus+ and NGOs like Green Action. Additionally educational campaigns and materials also seen as important resources for teachers for climate education. There are also climate education apps and

interactive tools for teachers to be used in their teaching. There are also online courses and e-learning platforms for teachers to develop their own competencies in climate education. All those resources are provided by government institutions, NGOs, international organizations, and private companies.

Turkey: Turkey provides lesson plans and digital tools from the Ministry of National Education, workshops and educational materials from NGOs like the TEMA Foundation, and interactive tools developed by private organizations involved in the Zero Waste initiative. These resources aim to support teachers in delivering climate and environmental education.

Summary

The resources available to teachers in the project partner countries are broadly similar. Belgium, Croatia, Spain, Hungary, Romania, Serbia, and Turkey all provide lesson plans, digital tools, and workshops to support climate and environmental education, though their approaches vary. Belgium and Croatia rely on government institutions, NGOs, and international organizations, while Spain emphasizes private organizations with government subsidies. Hungary integrates sustainability into its National Core Curriculum, whereas Romania mentions that they benefits from EU funding. Serbia focuses on professional development and interactive learning through Erasmus+ and international partnerships. Turkey, like other countries, utilizes government resources, NGOs, and private initiatives, particularly emphasizing the Zero Waste initiative.

Challenges For Teachers In Accessing Training Or Resources

Croatia: Teachers in Croatia face several barriers to accessing training and resources for environmental education. Limited availability of specialized training programs, especially in rural areas, makes it difficult for teachers to develop expertise in the subject. Financial constraints, including a lack of funding for professional development and high travel costs for in-person training, further limit access. Teachers also struggle with time constraints due to heavy workloads and competing curriculum priorities. Digital access is another challenge, as some schools lack the necessary technology, and teachers may have limited digital literacy. Additionally, environmental education is not fully integrated into the curriculum, making it harder for teachers to prioritize it. Resource distribution is uneven, and language barriers prevent teachers from using many high-quality materials. Limited awareness of available resources, inadequate support for practical implementation, resistance to new teaching approaches further hinder progress, and lack of feedback mechanism are also barriers for teachers to access training and resources.

Spain: In Spain, accessing resources for environmental education is relatively easy, with most online materials being free and user-friendly. In this case, there can be difficulties as funding is required to print online materials. However, attending exhibitions can be costly, as schools must cover transportation or printing costs. The main challenge lies in training, as free courses have limited spots, while paid programs are often too expensive for teachers. Additionally, many training sessions are held outside of working hours, making it difficult for teachers to balance them with their personal and family commitments.

Hungary: Hungarian teachers face several challenges despite the availability of environmental education training and resources. Lack of time is a major issue, as busy schedules make it difficult to attend training or develop new materials. While some training programs are free or subsidized, hidden costs such as travel and accommodation can be prohibitive, especially for teachers in smaller communities. Training sessions are often concentrated in larger cities, making them less accessible to rural educators. Additionally, information about available programs is often fragmented, meaning that many teachers remain unaware of training and funding opportunities.

Romania: Teachers in Romania, especially those in rural areas, face accessibility issues due to distance and inadequate digital infrastructure. Many high-quality environmental education resources are available only in English, limiting their usefulness for non-English-speaking teachers. Time constraints also pose a challenge, as teachers struggle to balance training with their existing workload. Insufficient promotion of training opportunities means that many teachers are unaware of available resources. Additionally, financial constraints prevent schools from covering costs associated with training and materials.

Serbia: Serbian teachers encounter multiple challenges in accessing training and resources for environmental education. Financial constraints are a significant barrier, as schools have limited budgets for professional development, and training programs often require out-of-pocket expenses for travel and materials. Geographical barriers also limit access, as training programs are usually held in major cities, making it difficult for rural teachers to participate. Additionally, uneven digital development prevents online participation in training programs, further restricting access for teachers in underserved areas. Heavy workloads leave little time for professional development, and due to the insufficient number of teachers, they often cannot find colleagues to replace them in class, which objectively limits their ability to attend additional education. Many teachers are unaware of available resources due to insufficient communication and the lack of a centralized platform for climate education materials. Teacher training programs do not emphasize sustainability, and there is limited pedagogical support for new teaching methods. Cultural and institutional resistance further complicates efforts to integrate environmental education into school curricula, especially when teachers are under pressure to meet national standards. Language barriers and a lack of localized materials also hinder access to international resources. Furthermore, insufficient points are awarded for improving knowledge, which demotivates teachers from pursuing professional development opportunities.

Turkey: In Turkey, teachers struggle with a limited availability of region-specific environmental education materials, particularly those need adaptation for local contexts. Digital infrastructure remains a challenge, especially in rural schools where access to technology is limited. Additionally, teachers face time constraints due to heavy workloads, leaving little room for additional training or professional development opportunities.

Summary:

Across all partner countries, teachers face common challenges in accessing training and resources for environmental education, primarily related to financial constraints, time limitations, and geographical barriers. Countries like Croatia, Serbia, and Hungary highlight the financial burden

of training, including travel and material costs, particularly for teachers in rural areas. Similarly, Romania and Turkey emphasize the lack of digital infrastructure, which limits access to online resources. Spain, while noting that resources are generally accessible, faces a shortage of free training spots, making cost a barrier. Limited awareness of available opportunities is a recurring issue in Croatia, Hungary, Romania, and Serbia, where fragmented communication prevents teachers from fully benefiting from existing programs. Additionally, language barriers affect countries like Romania, Serbia, and Croatia, as many high-quality resources are only available in English. While some countries, like Spain, report relatively easy access to materials, the challenge of balancing professional development with teachers' heavy workloads remains a widespread issue.

Student Learning Outcome

The Student Learning Outcomes category focuses on two main areas: assessment of students' knowledge and awareness of climate issues and their participation in sustainability-related school activities. Participating countries' responses on the relevant contexts in their respective countries are summarized separately under each heading, followed by an overall summary for each section.

Assessment Of Student Knowledge Or Awareness On Climate Issues

Belgium: A 2020 OECD survey found that 68% of students aged 12-14 in Belgium have moderate to high climate literacy.

Croatia: In Croatia, there are no standardized national assessments specifically measuring student climate literacy. However, various studies have been conducted to identify students' awareness and knowledge of climate issues. Even if those studies give general sense, they do not offer a comprehensive national overview. While environmental education is included in the national curriculum, no comprehensive national data on climate literacy percentages are currently available.

Spain: Spain has some statistical information on public perceptions of climate change, but there is limited data specifically on the climate literacy of school-aged students. Results of PISA (2022) gives some information about the literacy level of students in Spain. Study shows that 88% of respondents see climate change as an important problem. Some academic studies have assessed climate knowledge among specific student groups. However, there is no nationally standardized assessment that measures climate literacy levels across the country. Despite this, climate education is increasingly emphasized within the Spanish education system, reflecting growing awareness of environmental issues.

Hungary: In Hungary, surveys and research on climate awareness are periodically conducted by civil society organizations and research institutes. However, there is no nationally standardized climate awareness survey within the education system. Although environmental topics are covered in school curricula, the extent to which students develop climate literacy varies.

Romania: Various initiatives in Romania aim to assess students' climate knowledge. These include UNICEF's World's Largest Lesson, WWF Romania's Youth Climate Awareness Survey, and reports from the Green Schools Program and Săptămâna Verde. While no precise national

percentage is available, WWF reports indicate that 60-70% of participating students understand key climate concepts. Studies also show that urban students generally demonstrate higher awareness levels compared to their rural counterparts.

Serbia: In Serbia, there are no specific national assessments solely focused on climate literacy. However, related initiatives help gauge students' environmental awareness. Serbia participates in the PISA 2022 assessment, which includes questions on environmental sustainability. Additionally, surveys conducted by the Institute for the Advancement of Education, environmental NGOs, and the Eco-Schools program provide some insight into students' knowledge of climate issues. Despite these efforts, there is no specific publicly available percentage that measures Serbian students' climate literacy levels on a national scale.

Turkey: The Ministry of National Education's 'Environmental and Climate Change Literacy Skills' document highlights efforts to enhance students' knowledge and skills in climate and environmental literacy. These initiatives aim to foster a deeper understanding of climate change and sustainability among secondary school students.

Summary:

Information gathered from project partner countries reveals that, in general, there is a lack of national or regional assessments specifically designed to evaluate students' knowledge and awareness levels regarding climate-related issues. Most of the existing data comes from limited studies conducted by non-governmental organizations (NGOs) or local researchers, which often have a narrow scope and may not provide a comprehensive understanding of the situation. While assessments such as those conducted by PISA focus on environmental education, they offer only limited insights into climate education, as their scope is broader and not specifically tailored to climate issues. This highlights the need for more targeted and systematic evaluation mechanisms to better understand and address gaps in climate education, ensuring that students are adequately equipped to engage with one of the most pressing challenges of our time.

Engagement Of Students In Sustainability-Related School Activities

Belgium: Around 24% of schools in Belgium participate in sustainability programs such as Eco-Schools. Common activities include waste reduction campaigns, energy audits, and biodiversity projects. Programs like "Youth for Climate" engage students in climate activism and practical sustainability initiatives. While sustainability education improves students' knowledge, studies show that its impact on behavioral change remains limited. Research on Flemish eco-schools indicates that these programs enhance environmental awareness but do not significantly influence long-term preservation actions. Policies in the French and Flemish Communities emphasize outdoor education to connect students with nature, though material and cultural barriers persist, especially in early childhood education.

Croatia: Student engagement in sustainability-related activities in Croatia varies by region, depending on school resources and community support. Many schools integrate sustainability into their curriculum and extracurricular programs, including recycling, tree planting, and energy-saving

campaigns. The Eco-Schools program is widely implemented, encouraging student participation in waste management and energy efficiency projects. NGOs collaborate with schools on sustainability initiatives, further promoting student involvement. While participation is high in well-supported schools, engagement is lower where resources and leadership in environmental education are lacking.

Spain: Interest in sustainability-related school activities is growing in Spain, though engagement levels vary by region, school, and available resources. Recycling is the most widespread initiative, with most schools providing separate waste bins for paper, plastic, and organic waste. Energy-saving campaigns and school gardens are also becoming more common, helping students develop sustainable habits and understand environmental issues. However, student participation depends largely on the commitment of individual schools and teachers.

Hungary: Student engagement in sustainability-related activities in Hungary is increasing, with schools implementing various initiatives such as selective waste collection, energy conservation, and environmental awareness campaigns. Many students actively participate in school "green teams" that organize waste reduction and sustainability programs. Energy-saving and water conservation campaigns are also common, with students often leading these efforts. Schools regularly host tree-planting events and sustainability-themed competitions, which encourage student involvement. However, maintaining long-term engagement can be challenging, as student interest tends to decrease with age. Resource availability also influences participation, with urban schools generally offering more sustainability opportunities than rural ones.

Romania: Romanian students actively participate in sustainability initiatives, particularly through the Eco-Schools program, where schools meeting environmental standards receive the International Green Flag. Nationwide efforts such as "Săptămâna Verde" (Green Week) engage students in energy audits, recycling, and biodiversity projects. Additional initiatives, such as "Harta Reciclării" and "ViitorPlus," promote student involvement in recycling drives and tree-planting campaigns. WWF Romania and the Youth in Action program further support student-led sustainability projects. Participation is high, especially in urban areas, where schools have better access to resources and external partnerships.

Serbia: Student engagement in sustainability-related school activities in Serbia is increasing, particularly in schools participating in environmental education programs. The Eco-Schools initiative plays a significant role in encouraging student involvement in recycling, energy conservation, and waste reduction efforts. Many schools also run independent recycling programs in partnership with local municipalities and NGOs, with student environmental clubs leading awareness campaigns. Energy-saving initiatives, such as turning off unused lights and promoting energy-efficient appliances, are growing in popularity, often driven by student-led committees. While engagement is strong in schools with structured programs, limited resources and infrastructure pose challenges, particularly in rural areas. Sustainability-related events, such as Earth Day celebrations and clean-up campaigns, further encourage student participation.

Turkey: Turkey has been implementing the Eco-Schools Program since 1995, which aims to promote environmental awareness and sustainable development education in preschool, primary,

and secondary schools. The program, along with the Zero Waste School initiatives, includes various sustainability-focused activities such as recycling campaigns, energy-saving efforts like 'Green Energy Days,' and biodiversity projects, including the creation of school gardens.

Summary

Student engagement in sustainability-related activities varies across the partner countries, influenced by factors such as school resources, policy support, and cultural attitudes toward environmental education. Belgium and Romania show strong institutional backing, with well-established Eco-Schools programs and structured initiatives like Green Week. Croatia, Spain, and Hungary also demonstrate active participation, though engagement levels depend largely on individual school efforts and teacher commitment. Serbia has increasing student involvement, but resource limitations, particularly in rural areas, pose challenges. While all countries implement recycling and energy-saving initiatives. Overall, schools with external partnerships and policy support tend to achieve higher student engagement in sustainability.

Stakeholder Involvement

Heading Stakeholder Involvement focuses on three main topics. One of these topics focuses on the role of NGOs in climate education, while the second topic addresses the involvement of local governments in this field. Finally, the third one addresses the partnership of schools with each other and with community organizations. Under this heading, the participating countries' responses on the relevant contexts in their respective countries are first summarized separately and then an overall summary is provided for each section.

The Role of NGOs in Climate Education

Belgium: NGOs like WWF Belgium and GoodPlanet actively support schools by providing resources, workshops, and project funding. GoodPlanet conducts over 1,200 school workshops annually, enhancing climate education and awareness among students.

Croatia: In Croatia, NGOs such as Green Action and Sunce Association significantly contribute to climate education by developing teaching materials, organizing teacher training, and implementing hands-on sustainability projects in schools. NGOs like WWF organizes teacher training and workshops and they collaborate with schools by school-based projects and programs. NGOs run awareness campaigns, advocate for stronger climate education policies, secure international funding for programs, and engage youth in climate advocacy initiatives.

Spain: In Spain, NGOs play a fundamental role in climate education, often forming alliances with local environmental organizations and renewable energy companies to develop joint educational projects. This collaboration maximizes the reach and impact of initiatives aimed at promoting climate awareness.

Hungary: NGOs have significant role in promoting climate education, as they often fill gaps in the state education system. NGOs help raise climate awareness among students, teachers and

communities through various activities. Hungarian NGOs, including Greenpeace Hungary and WWF Hungary, are pivotal in promoting climate education by organizing thematic school programs, training opportunities for teachers, and public awareness campaigns. They provide educational materials and online resources, fostering community engagement through hands-on sustainability activities. NGOs also run public campaigns to shape societal perspectives on climate change and mobilize students and youth.

Romania: In Romania, NGOs play a vital role in climate education. Many NGOs run programs aimed at supporting schools and teachers in this field. These programs focus on a wide range of topics, from reforestation and recycling to biodiversity. They provide resources for teacher training, organize workshops, and engage students in hands-on environmental projects. Additionally, these NGOs advocate for the integration of climate education into the national curriculum, ensuring a more structured and widespread approach to addressing climate issues in the education system.

Serbia: NGOs in Serbia play a multifaceted and vital role in supporting and advancing climate education. They provide educational materials and resources, conduct training and capacity-building activities for teachers, and organize school programs and campaigns. Additionally, they work to raise public awareness, run advocacy campaigns, and foster collaborations with government bodies and international organizations. NGOs also promote community engagement and environmental activism, offer grants and financial support for school initiatives, and collaborate on research and surveys to strengthen the impact of climate education efforts.

Turkey: In Turkey, NGOs like TEMA Foundation and the Turkish Environmental Education Foundation (TÜRÇEV) organize workshops for students and teachers, provide educational materials on biodiversity and waste management, and offer funding for school-based sustainability projects.

Summary:

NGOs play a crucial role in advancing climate education in partner countries, tailoring their approaches to fit local contexts. In many countries, NGOs directly provide resources and organize workshops to support climate education. Their activities often include offering teaching materials, conducting teacher training, and facilitating hands-on sustainability projects. Additionally, NGOs act as key facilitators in building partnerships between schools and other national or international institutions. Advocacy efforts related to climate education are also a common focus for NGOs, as they work to promote systemic change and greater awareness of environmental issues. Through these diverse activities, NGOs significantly contribute to strengthening climate education and fostering sustainable practices.

Involvement Of Local Governments Or Municipalities

Belgium: Local governments in Belgium actively support climate education by providing financial and logistical assistance for school-led projects. In Wallonia, municipalities collaborate with the Coren association to manage the Eco-Schools program, while in the Flemish community, they offer subsidies for sustainability initiatives like greening playgrounds. Cities like Antwerp, Liège, and

Brussels run specific initiatives, such as funding energy-saving audits and promoting urban agriculture in schools.

Croatia: In Croatia, local governments are significantly involved in promoting climate education through collaboration with schools, NGOs, and other stakeholders. They provide financial and logistical support for eco-friendly programs, such as the Eco-Schools Program and recycling initiatives. Municipalities also fund environmental education projects, organize climate-related events, partner with NGOs to enhance community awareness and participation in sustainability projectsi and gives support for EU-funded projects. In some regions, municipalities work with educational authorities to tailor local curricula or extracurricular activities to include climate-related topics.

Spain: Spanish local governments offer comprehensive support for climate education, including direct funding for educational projects, budgeting for school activities, and grants for sustainability initiatives. They promote climate education through local policies, complementary curricula, and municipal sustainability plans, while also providing educational materials, training for teachers, and funding for educational projects. However, the effectiveness of these actions can vary depending on the priority each municipality assigns to climate education in its political agenda.

Hungary: Hungarian local governments play a crucial role in climate education by various ways. Financial support and funding for green investments and community programs, political backing through the local climate policies and regulations, and support for educators and school via training and awareness programs are key areas where Hungarian local governments contribute to climate education. Municipalities also face challenges like financial constraints and misalignment with national policies.

Romania: Local governments in Romania are increasingly involved in climate education by developing strategies that include policy development and implementation, funding and resource allocation, and collaborations with NGOs and schools for environmental programs.

Serbia: In Serbia, local governments support climate education by integrating it into municipal plans and providing financial aid to schools. Their efforts include incorporating climate topics into local programs, assisting schools and education centers, and developing sustainability plans. They collaborate with teachers, promote environmental education centers, and encourage public participation in climate initiatives. Additionally, they incentivize sustainable practices and focus on climate adaptation and resilience education to prepare communities for future challenges.

Turkey: In Turkey, municipalities support climate education by providing logistical and financial assistance for recycling programs and environmental awareness events in schools.

Summary:

Local governments in various partner countries play a crucial role in advancing climate education, although their approaches and levels of involvement differ significantly. In many countries, their activities include providing financial support, regulating local policies, and directly developing and implementing education and awareness programs. Additionally, local governments

often collaborate with NGOs to enhance their efforts. However, they face several challenges, such as limited financial and human resources, as well as the need to align with national or regional policies, which can create barriers to their effectiveness.

Partnerships Between Schools And Community Organizations

Belgium: In Belgium, schools actively collaborate with local organizations, including NGOs, to promote sustainability through various initiatives. These partnerships, particularly with NGOs, play a significant role in fostering cooperation among schools, enabling them to work together on joint projects and share best practices in sustainability efforts.

Croatia: Croatian schools forge partnerships with community organizations to foster sustainability, particularly through education programs. Schools collaborate with NGOs to implement hands-on projects such as community gardens and energy-saving initiatives. Local governments also support these efforts by organizing tree-planting campaigns and clean-up activities, creating a network of collaboration that enhances environmental awareness among students and the broader community.

Spain: In Spain, particularly in the Valencian Community, schools collaborate with community organizations to promote sustainability. These initiatives include workshops that educate students about recycling and waste management, fostering a culture of responsibility and sustainability within the educational community.

Hungary: Hungarian schools increasingly collaborate with community organizations to promote sustainability through joint projects and educational workshops. Partnerships often focus on community gardening, tree planting, and awareness campaigns. NGOs provide resources and training for teachers, while schools engage in events that promote climate awareness and sustainable practices, enhancing both student involvement and community engagement.

Romania: In Romania, schools actively collaborate with community organizations and NGOs to promote sustainability through joint environmental projects and extracurricular activities. Initiatives such as tree-planting campaigns highlight these partnerships. Schools gain access to shared resources and expertise, strengthening their ability to deliver impactful sustainability education and engage with the community.

Serbia: Serbian schools collaborate with community organizations, local governments, and NGOs to promote sustainability. These partnerships focus on educational programs, environmental projects, and resource support. Additionally, schools work with local farmers, youth and community activism groups, cultural and environmental institutions, the private sector, and research organizations to further their sustainability efforts and foster broader community engagement.

Turkey: In Turkey, schools actively partner with community organizations to promote sustainability. These collaborations focus on initiatives such as developing recycling infrastructure and organizing workshops on tree-planting and water conservation. Through these efforts, schools

and local organizations work together to foster environmental awareness and encourage sustainable practices within the community.

Summary:

Partnerships between schools and local organizations play a vital role in advancing sustainability efforts across various countries. Schools actively collaborate with community organizations, NGOs, local governments, and other stakeholders to promote environmental awareness and implement sustainable practices. These partnerships often focus on initiatives such as recycling infrastructure development, tree-planting campaigns, community gardening, water conservation workshops, and energy-saving projects. NGOs and local organizations frequently provide resources, training, and expertise, enabling schools to enhance their sustainability education programs and engage students in hands-on activities. Additionally, collaborations with local governments, private sector entities, cultural institutions, and research organizations further strengthen these efforts, fostering a culture of responsibility and sustainability within both educational and broader communities. Despite the diversity in approaches, the common goal of these partnerships is to empower students and communities to adopt sustainable practices and contribute to environmental conservation.

4.3. Overview of Environmental and Climate Education Policies in Partner Countries

This section provides a comparative analysis of existing policies and practices related to environmental and climate education across the seven partner countries involved in the project. Drawing on information shared by project partners, it examines the key elements and challenges faced in the educational policies of these participating countries. This analysis aims to contribute to the identification of best practices in environmental and climate education and to inform policy development processes in this field. Below, the common elements and challenges addressed in this section are detailed.

Common Elements in Environmental and Climate Education Policies

1. **Integration into National Curriculum**: Many countries have made significant strides in embedding environmental and climate education within their national curricula. This integration ensures that students encounter these topics consistently across different educational stages, from primary through secondary education. It emphasizes the importance of sustainability as a core component of education.
2. **Cross-Curricular Approach**: Environmental education is not confined to a single subject but is often interwoven across various disciplines, such as science, geography, and social studies. This approach fosters a holistic understanding of sustainability, allowing students to see the interconnectedness of environmental issues with social, economic, and cultural factors. However, while this cross-curricular integration is a positive aspect, it also raises some concerns. The lack of a dedicated focus on environmental education as a standalone subject

may suggest that the importance of these topics is not fully recognized within the educational framework. This dual perspective highlights the need for a balanced approach that both integrates environmental education across disciplines and emphasizes its significance as a distinct area of study.

3. **Policy Frameworks**: Established national or regional policies provide a structured framework for implementing climate education. These policies often include specific objectives, guidelines, and mandates that outline how climate education should be taught and assessed, ensuring a consistent approach across schools and regions.
4. **Teacher Training Programs**: A variety of professional development programs are available to help educators gain the skills necessary for teaching climate and environmental topics effectively. These programs may include workshops, online courses, and in-service training sessions, focusing on both content knowledge and pedagogical strategies.
5. **Resource Availability**: Access to a range of teaching materials, including lesson plans, digital tools, and educational resources, is crucial for effective climate education. Many countries provide these resources through government initiatives, NGOs, and educational organizations to support teachers in delivering engaging and informative lessons.
6. **Stakeholder Involvement**: Collaboration with various stakeholders, including NGOs, local governments, and community organizations, plays a vital role in enhancing climate education. These partnerships can provide additional resources, expertise, and support, facilitating hands-on projects and initiatives that engage students in real-world environmental challenges.
7. **Focus on Student Engagement**: Many educational programs emphasize the importance of student participation in sustainability-related activities, such as recycling campaigns, tree planting, and energy conservation projects. Engaging students in these practical initiatives fosters a sense of ownership and responsibility towards environmental issues.

Common Challenges in Environmental and Climate Education Policies

1. **Lack of Standardized Assessment**: The absence of standardized tools to measure climate literacy and awareness on a national scale limits the ability to gauge students' understanding effectively. This lack of assessment can hinder the identification of areas needing improvement and the overall evaluation of educational effectiveness.
2. **Resource Limitations**: Many educators encounter challenges related to inadequate access to teaching materials and financial resources necessary for implementing effective climate education programs. Budget constraints can restrict schools from acquiring updated or high-quality resources.
3. **Training Accessibility**: Access to professional development opportunities can be limited, particularly for teachers in rural or underserved areas. Geographical barriers, high travel costs, and the availability of training sessions can restrict educators' ability to enhance their skills in climate education.

4. **Integration Difficulties**: Environmental education is not always fully integrated into existing curricula, making it challenging for teachers to prioritize these topics. Competing academic demands and standardized testing pressures can lead to environmental education being deprioritized.
5. **Language Barriers**: In regions where high-quality educational resources are primarily available in dominant languages, non-native speakers may struggle to access and utilize these materials effectively. This can create disparities in educational quality and understanding of climate issues.
6. **Time Constraints**: Teachers often face heavy workloads and tight schedules, which can limit their ability to engage in additional training or implement new teaching strategies related to climate education. Time pressures can lead to a focus on core subjects, sidelining environmental education.
7. **Awareness and Communication Gaps**: Limited awareness of available resources and training opportunities can prevent educators from fully utilizing existing support systems. Effective communication about available programs and resources is essential for maximizing their impact.
8. **Cultural Resistance**: In some contexts, cultural or institutional resistance to integrating environmental education into school curricula can complicate efforts to foster sustainability. This resistance may stem from differing values, beliefs, or priorities within communities, making it challenging to gain widespread support for climate education initiatives.

5. Stakeholder Survey on Climate Education: Data Collection and Findings

In the ASSET Project, a questionnaire was disseminated to partners in the seven participating countries. The objective of the questionnaire, designated as the Stakeholder Survey Form, was to ascertain the current situation and best practices regarding environmental education, teacher training, and education policies in the respective countries. The information gathered through this survey is intended to inform a series of policy development processes aimed at raising climate awareness in education within the project. Each partner was tasked with encouraging four NGOs in their respective countries to complete the questionnaire. In this section of the report, the data collection instrument is first introduced, followed by the presentation of the profiles of the organizations that completed the survey. The section concludes with the presentation of the survey findings.

5.1. Data collection instrument

The data for this study was collected through the Stakeholder Survey Form, a structured questionnaire designed to assess the current landscape of climate and environmental education

within the ASSET Project. The survey consists of 14 questions, gathering both quantitative and qualitative insights from organizations involved in climate education. Key areas of inquiry include organizational characteristics (such as name, type, main areas of focus, and location), duration of engagement in environmental education, primary activities, and target age groups. Additionally, respondents provided input on major challenges in climate education, necessary teacher support mechanisms, and critical policy changes required to advance environmental education.

The questionnaire also included open-ended questions to capture successful initiatives and best practices at national and local levels. Participants were asked to share specific examples of effective projects, outlining their objectives, target groups, and measurable outcomes. Finally, an optional section invited additional feedback on further areas that should be addressed to enhance climate education and policy development. The collected responses will be analyzed to inform the development of policies aimed at fostering greater climate awareness in education. The full questionnaire can be accessed in Appendix.

5.2. Profile of the organizations

The Stakeholder Survey Form was completed by 25 organizations from seven participating countries. As intended, data was successfully collected from Belgium, Hungary, Romania, Serbia, and Türkiye. Additionally, three organizations from Croatia and two from Spain participated in the survey.

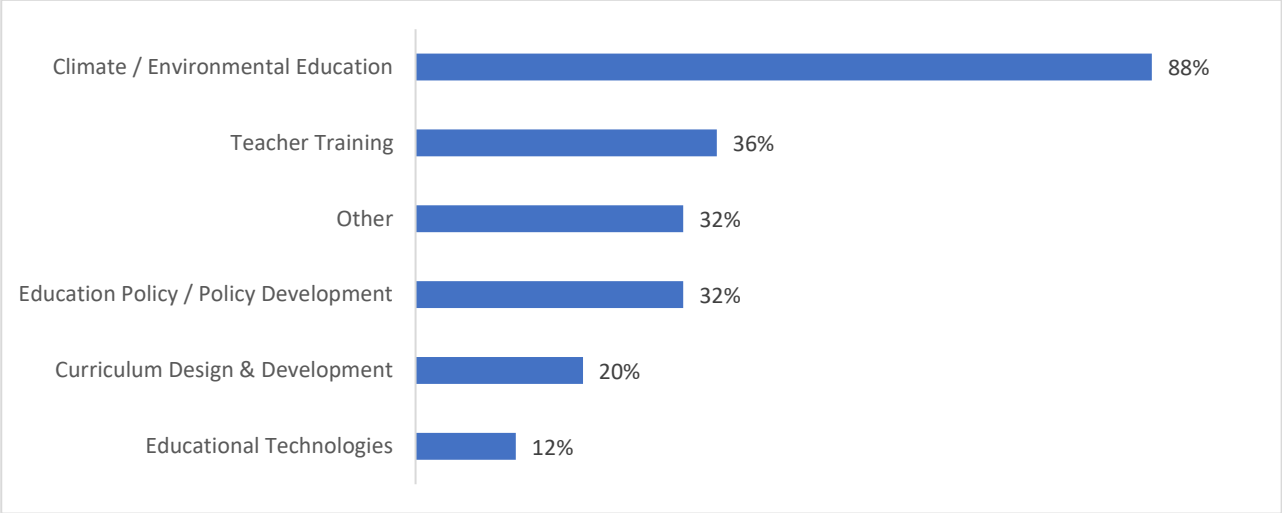
Regarding the organizational types, 68% of the respondents identified themselves as associations, while 20% classified themselves as NGOs. Additionally, 12% of the organizations are foundations. One organization identified itself as a CSO, and another as an institute.

In terms of operational experience, 80% of the organizations have been active for five years or more, while 16% have been operating for 1-3 years. Only one organization has been active for less than a year.

When asked about their primary target groups in educational activities, 76% of the organizations indicated that they target all age groups. This was followed by 15+ age groups (12%). Additionally, one organization targets ages 6-18, another focuses on ages 11-14, and one organization primarily works with individuals aged 18 and above.

Participants were also asked to indicate their main areas of focus across five predefined categories. The most dominant focus area, selected by 88% of the organizations, is climate/environmental education. Additionally, 36% focus on teacher training, 32% work in education policy/policy development, and 20% are engaged in curriculum design & development. Only 12% of the organizations include educational technologies as part of their work, Graphic 1.

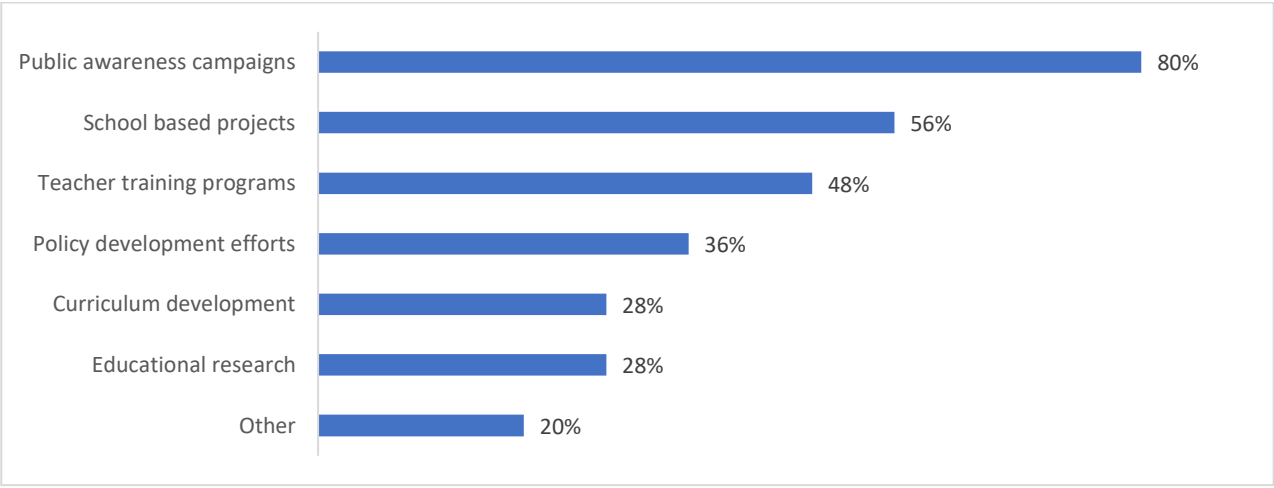
Furthermore, eight organizations reported additional focus areas beyond the predefined categories. These areas include environment and nature protection (site-based), policy and education, nature and self-awareness education, climate/environmental media, outdoor education, SDG education, youth education, investigative research, and sustainable urban mobility & cycling education for students and teachers.



GRAPHIC 1 MAIN AREAS OF FOCUS

Another key question in the survey asked organizations to identify their key activities related to climate and environmental education. Participants were presented with six options and asked to select the ones relevant to their work. The most commonly reported activity was public awareness campaigns (80%). Additionally, 56% conduct school-based projects, and 48% run teacher training programs. Policy development efforts were reported by 36% of the respondents, while 28% engage in curriculum development and educational research, Graphic 2.

Beyond the predefined options, five organizations mentioned additional key activities. These include green library programs, media communication and information, outdoor training for students and youth, education camps and experiential learning in nature (forest education), and sustainability education for young people.



GRAPHIC 2. KEY ACTIVITIES OF THE ORGANIZATIONS

5.3. Findings on Climate Education, Teacher Training, and Policy Practices

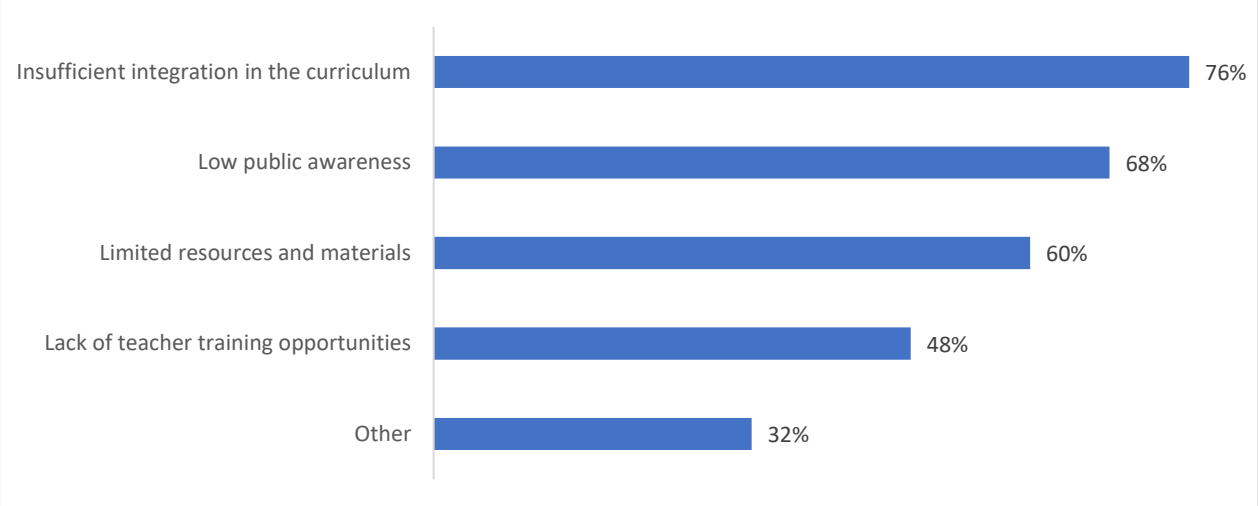
The Stakeholder Survey Form aimed to gather key insights into the major challenges related to climate and environmental education in the countries participating in the ASSET Project. The survey also sought to identify the types of support teachers need to enhance their skills in climate and environmental education, as well as the most crucial policy changes required to advance this field.

Additionally, the survey aimed to collect information on good practices from organizations specializing in environmental education across the participating countries. By analyzing these examples, the study aimed to gain insights into the criteria for effective best practices in climate and environmental education.

The survey participants were asked to identify the major challenges in climate and environmental education in their respective countries. Four predefined challenges were listed, and respondents could select multiple options or specify additional challenges in an open-ended section.

The results indicate that insufficient integration in the curriculum is perceived as the most significant challenge, with 76% of respondents selecting this option. This is followed by low public awareness, reported by 68% of participants. Limited resources and materials were identified as a major challenge by 60% of respondents, while 48% highlighted a lack of teacher training opportunities as a critical barrier to effective climate and environmental education (Graphic 3).

In addition to these predefined categories, eight respondents provided further insights into other significant challenges. These include: lack of financial support from relevant ministries and local governments, rising climate misinformation, insufficient infrastructure, non-compliance with legislation, heavy teacher workload, low interest and difficulties in establishing collaboration with formal educational institutions, limited budget allocation for environmental education programs, and insufficient integration in the curriculum.



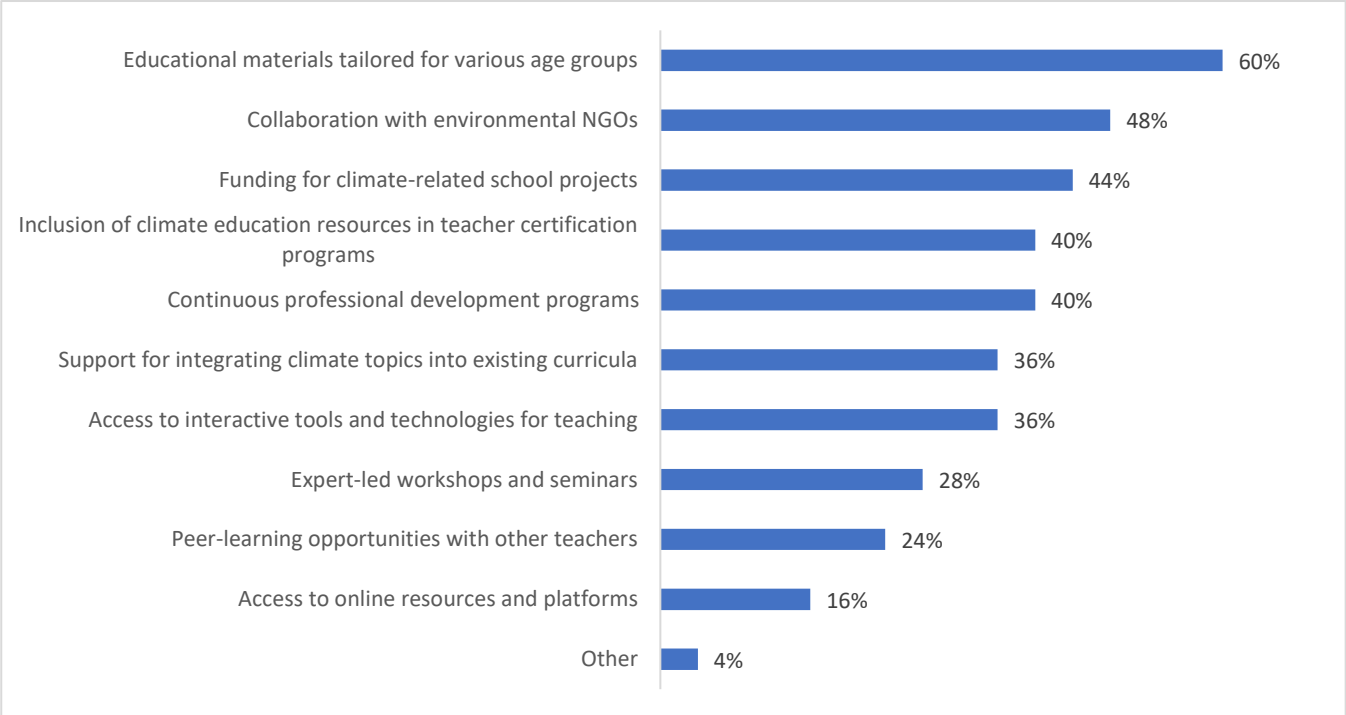
GRAPHIC 3. MAJOR CHALLENGES IN CLIMATE AND ENVIRONMENTAL EDUCATION

Another key question in the Stakeholder Survey Form explored the types of support needed to enhance teachers' climate and environmental education skills. Respondents were presented with ten predefined options and asked to select the most relevant ones. As with previous questions, participants were also given the opportunity to provide additional suggestions in an open-ended format.

As illustrated in Figure X, the most frequently identified support area was **Educational materials tailored for various age groups**, selected by 60% of respondents. Nearly half of the participants (48%) highlighted **Collaboration with environmental NGOs** as an effective way to enhance teachers' competencies. Additionally, 44% of respondents emphasized the importance of **Funding for climate-related school projects** in supporting teachers' skill development.

Two support mechanisms were equally recognized by 40% of participants: **Inclusion of climate education resources in teacher certification programs** and **Continuous professional development programs**. Similarly, **Support for integrating climate topics into existing curricula** and **Access to interactive tools and technologies for teaching** were both identified by 36% of respondents as crucial for strengthening teacher competencies.

Support options with lower response rates included **Expert-led workshops and seminars** (24%), **Peer-learning opportunities with other teachers** (24%), and **Access to online resources and platforms** (16%). Additionally, one participant emphasized the need for providing funding and extra time for teachers, highlighting it as a critical factor for professional development.



GRAPHIC 4. TYPES OF SUPPORT NEEDED FOR TEACHERS

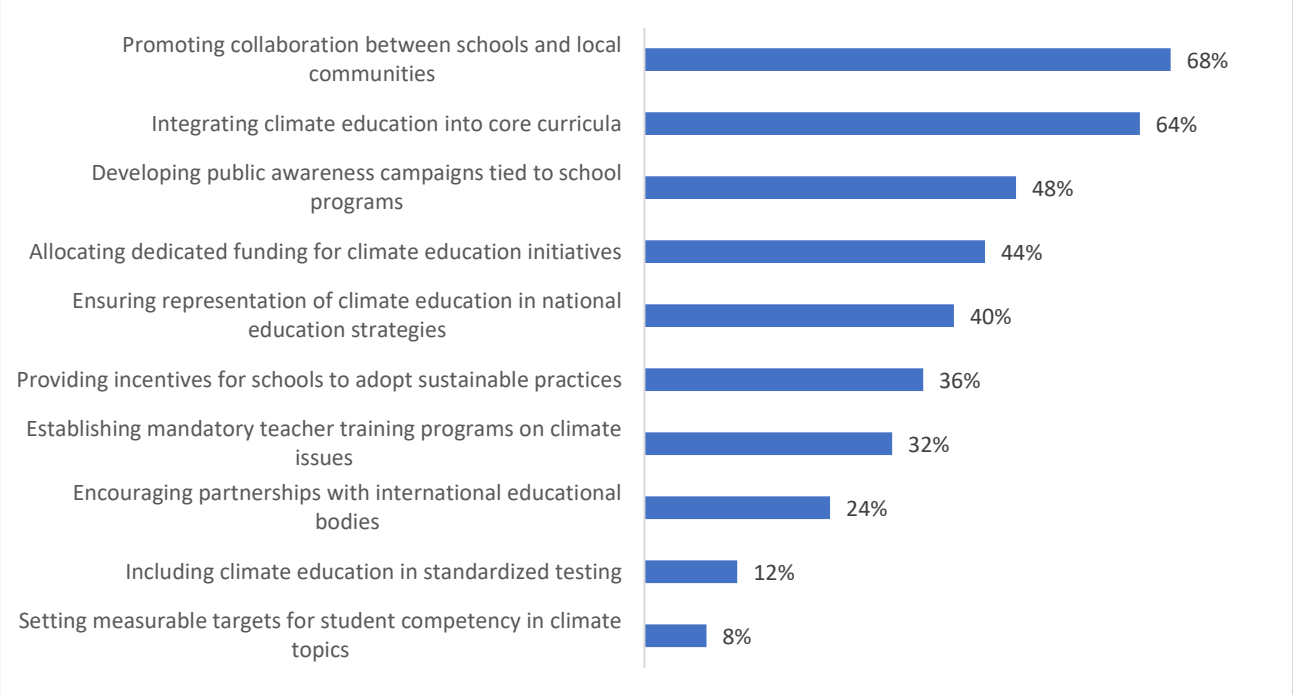
Another critical question in the Stakeholder Survey Form focused on identifying the most crucial policy changes needed to advance climate and environmental education. Respondents were provided with a list of ten predefined options and asked to select those they deemed most

important. Participants also had the opportunity to offer additional suggestions in an open-ended format.

As shown in Graphic 5, the most widely supported policy change was Promoting collaboration between schools and local communities, selected by 68% of respondents. This was closely followed by Integrating climate education into core curricula, which was identified as essential by 64% of participants. Additionally, developing public awareness campaigns tied to school programs was highlighted by 48% of respondents as a key policy measure.

Other significant policy changes included Allocating dedicated funding for climate education initiatives (44%) and Ensuring representation of climate education in national education strategies (40%). Furthermore, providing incentives for schools to adopt sustainable practices was recognized by 36% of respondents as an important step forward.

Policy changes with moderate support included Establishing mandatory teacher training programs on climate issues (32%) and Encouraging partnerships with international educational bodies (24%). Less frequently selected options were Including climate education in standardized testing (12%) and setting measurable targets for student competency in climate topics (8%).



GRAPHIC 5. POLICY CHANGES IDENTIFIED AS CRUCIAL FOR ADVANCING CLIMATE AND ENVIRONMENTAL EDUCATION

In response to the questions "Can you share an example of a successful climate or environmental education initiative in your country?" and “Are there other national or local best practices you recommend?”, stakeholders provided a wide range of initiatives from their countries. These initiatives demonstrate innovative approaches to climate and environmental education, targeting diverse groups such as students, teachers, and local communities. When examining the examples of successful climate and environmental education initiatives shared by participants, several key trends and patterns emerge. Below is a summary of the findings:

1. **Focus on Primary and Secondary Education**: Many of the initiatives target elementary and secondary school students. For instance, some projects focus on engaging young students (ages 7-14) through activities such as school volunteering, tree planting, and environmental awareness campaigns. These initiatives highlight the importance of early education in fostering long-term environmental stewardship. Other examples include programs that equip children aged 8-12 with climate literacy through hands-on science activities. Similarly, initiatives aimed at increasing environmental awareness among primary and secondary school students demonstrate a clear focus on younger age groups.
2. **Collaboration with NGOs and Local Communities**: Many successful initiatives emphasize collaboration between schools, NGOs, and local communities. For example, some projects strengthen partnerships between schools and ecological organizations to develop school volunteering programs. Others involve large networks of schools in adopting sustainable practices through collaboration with local stakeholders.
3. **Hands-On and Practical Learning:** Participants highlighted the effectiveness of hands-on, experiential learning in engaging students and fostering environmental awareness. Projects that involve students in practical activities such as tree planting and citizen science make climate education more tangible and impactful. Some initiatives also stand out for their use of hands-on science modules to teach climate literacy, demonstrating how interactive methods can enhance learning outcomes.
4. **Teacher Training and Capacity Building**: Several initiatives focus on strengthening the capacities of teachers and educators to deliver effective climate education. For instance, some programs provide training in environmental education for teachers and community members, while others offer free online training materials for educators to integrate sustainability into their teaching practices. Certain projects also include capacity-building components, training teachers and representatives in volunteer management and curriculum development.
5. **Use of Digital Tools and Innovative Methods**: The integration of digital tools and innovative teaching methods is another recurring theme. Some initiatives provide digital platforms with free resources for teachers to design blended learning environments, emphasizing critical thinking and problem-solving skills. Similarly, other projects use hands-on science modules to engage students in climate education.
6. **Public Awareness and Community Engagement**: Many initiatives extend beyond schools to include public awareness campaigns and community engagement. Programs that involve local communities in environmental monitoring and education broaden the impact of these efforts. Some initiatives also promote sustainable practices not only among students but also within the wider school community.

In response to the question, "What other areas should be addressed to improve climate and environmental education and policy development?" stakeholders provided a comprehensive overview of necessary reforms and initiatives. To enhance climate and environmental education, a significant educational reform is needed in Croatia, integrating environmental justice with social and economic justice. This includes revising curricula in primary and secondary schools to actively

incorporate climate change topics and providing training for educators. Youth engagement is crucial, necessitating policies that involve them in decision-making processes. Additionally, promoting interdisciplinary approaches across various fields, alongside the use of technology such as digital tools and virtual reality, can create more engaging learning experiences.

Building partnerships among schools, NGOs, governments, and the private sector is essential, as is addressing political resistance to climate education. Lastly, acknowledging the link between mental health and environmental issues will further enrich the educational framework. At the end of the survey, participants were also asked if there was anything else they would like to add regarding the areas that should be addressed to improve climate and environmental education and policy development.

5.4. Summary of Stakeholder Survey Findings on Climate Education

The Stakeholder Survey conducted within the ASSET Project provided valuable insights into the current landscape of climate and environmental education across the seven participating countries. The survey aimed to identify best practices, challenges, and necessary policy changes to enhance climate education.

Key Findings:

1. **Data Collection and Organization Profiles**: The survey successfully gathered responses from 25 organizations, primarily associations and NGOs, with a significant majority having over five years of experience in climate education. The organizations primarily target all age groups, emphasizing a broad approach to environmental education.
2. **Major Challenges**: Respondents identified several key challenges, including insufficient integration of climate education into existing curricula, low public awareness, and limited resources. These challenges reflect a need for improved collaboration and support at both educational and governmental levels.
3. **Support Mechanisms for Teachers**: The survey highlighted the importance of tailored educational materials, collaboration with NGOs, and funding for school projects as crucial support mechanisms for enhancing teachers' competencies in climate education. Continuous professional development and inclusion of climate education in teacher certification programs were also emphasized.
4. **Policy Changes Needed**: Participants identified several essential policy changes, such as promoting collaboration between schools and local communities, integrating climate education into core curricula, and allocating dedicated funding for climate initiatives. These changes are vital for advancing the effectiveness of climate education.
5. **Successful Initiatives**: The survey revealed a range of successful initiatives that demonstrate innovative approaches to climate education. Many of these initiatives focus on primary and secondary education, highlighting the significance of early engagement. Collaboration with

NGOs and local communities, hands-on learning experiences, and capacity-building for teachers were common themes among successful projects.

6. **Recommendations for Improvement**: Stakeholders suggested the need for educational reforms that integrate environmental justice with social and economic justice, enhance youth engagement in decision-making, and promote interdisciplinary approaches. Addressing political resistance and recognizing the connection between mental health and environmental issues were also noted as important areas for further development.

Conclusion

The findings from the Stakeholder Survey underscore the critical role of collaborative efforts in enhancing climate education across the participating countries. While there are notable challenges to overcome, the commitment of organizations and the identification of effective practices provide a strong foundation for future policy development and educational initiatives. The insights gained from this survey will serve as a guiding framework for fostering a more integrated and impactful approach to climate and environmental education.

6. Best Practices in Climate Education and Teacher Training

6.1. Brief Information of Best Practices

As explained in detail in the methodology section of the report, the partner organizations were asked to present three best practices in the field of climate and environmental education in their countries. They were asked to describe each best practice in a wide range of areas, from objectives to key activities and important outcomes. They were also asked to provide information on challenges, lessons learned and potential for replication for each best practice. In this section of the report, the best practices from the countries are summarized by highlighting their salient features.

Belgium

Eco-Schools Programme: This programme, initiated by the Foundation for Environmental Education, aims to empower students in sustainability practices, integrate environmental principles into the education system, and foster a sense of responsibility towards the environment among young learners. Utilizing a seven-step framework, the programme establishes environmental committees in schools, these committees conduct experiential activities and develops and implements action plans. It focuses on key areas such as biodiversity, climate change, energy, waste management, water, and health. Successful schools are awarded symbolic recognitions, such as the Green Flag. Reports from participating schools indicate that the programme enhances student leadership and environmental awareness while reducing waste and energy consumption. Additionally, the project contributes to increased community collaboration and awareness. However, challenges include maintaining long-term participation of students and teachers due to

academic priorities and securing funding for infrastructure projects, such as renewable energy initiatives. Key insights from the programme highlight that involving the entire school community amplifies its impact, experiential learning methods strengthen environmental consciousness, and symbolic awards like the Green Flag effectively encourage participation.

The Idee Network: This network, comprising 148 different organizations, promotes environmental education and sustainable development. It aims to align human activities with the planet's ecology by fostering responsible environmental management, accessible and relevant education, and the development of individuals and communities through their connection to nature. The network organizes a variety of activities, including nature exploration walks, school garden projects, recycling workshops, and sustainability-themed games. Students, teachers, and communities gain ecological awareness, while teachers are provided with educational materials and tools. The network model brings together diverse stakeholders, creating strong collaboration among educators, schools, and decision-makers. Challenges include the complexity of managing a multi-stakeholder network, the need for sustainable funding, and the time-consuming process of adapting educational content to local cultural and linguistic contexts. Key lessons learned highlight that stakeholder collaborations enhance the effectiveness of environmental education, tailoring programs to local contexts increases participation, and providing experiential learning opportunities for students fosters lasting behavioral change.

Energy Challenges: This project, implemented by GoodPlanet Belgium, aims to reduce energy consumption in schools, lower CO_2 emissions, educate students and school staff on sustainable energy practices, and foster long-term behavioral change through active participation. Students and teachers receive training on energy efficiency, renewable energy, and climate action, conduct energy audits, and implement energy-saving projects. Within the framework of the program, active student involvement has led to significant energy savings, with reports indicating a reduction of over 15% in school energy bills. The program raises energy awareness while promoting sustainable behavioral changes. One of the main challenges highlighted by the project partner is the lack of sufficient national data to measure the specific impact of participating Belgian schools. Key lessons learned include the importance of nationwide data collection, the role of collaborations with local governments and NGOs in enhancing project success, and the effectiveness of regular energy monitoring processes in encouraging sustainable behavioral changes.

Croatia

GLOBE Programme - How many trees were saved by collecting waste paper?: This project aims to increase students' environmental awareness by involving them in waste paper collection and recycling processes. It guides students in developing scientific literacy, promoting ecological sustainability, and understanding the impact of recycling on natural resources. Key components include recycling campaigns organized in schools, teachers integrating sustainability themes into the curriculum, and the involvement of local communities. Through the program, students learn by experience how recycling contributes to water and energy savings, reduction of greenhouse gas emissions, and conservation of natural resources. The main challenges encountered in the program include engaging students in long-term projects, encouraging continuous community participation in recycling, and effectively communicating the economic and environmental importance of

recycling to the public. Key lessons learned from the project highlight that recycling initiatives not only provide environmental benefits but also enhance students' analytical thinking and problem-solving skills. Additionally, it has been observed that fostering collaboration among schools, local governments, and businesses is crucial for increasing community engagement.

My Environment, My Future: By engaging students in sustainable projects, this educational model aims to cultivate volunteerism and environmental responsibility. Implemented at both primary and secondary school levels, the program enables students to take direct environmental responsibility through activities such as recycling, tree planting, biodiversity studies, and environmental clean-ups. Additionally, by aiming to include parents, teachers, and local communities in the projects, it ensures that environmental awareness spreads not only within schools but also throughout society. The main challenges faced during the implementation of the program include teachers' inability to allocate sufficient time to sustainability topics due to a crowded curriculum and the difficulty of engaging students in long-term projects. Key lessons learned from the project highlight that even small-scale environmental initiatives can create significant changes over time and that hands-on learning tends to be more impactful than theoretical education. Another notable achievement of the project is the inclusion of local communities and parents, which has helped spread environmental responsibility to a broader audience.

Spain

Programa Aldea / Proje Terral: This project, implemented by the Andalusian Government, aims to raise climate change awareness in schools, reduce greenhouse gas emissions, and promote ecological sustainability. Schools are considered educational centers within the project framework, and educational institutions develop strategic plans to calculate and reduce their carbon footprint, as well as implement adaptation plans for educational centers to address the climate emergency. The project includes various activities such as establishing open green classrooms, implementing water conservation projects, and setting up points for rainwater collection. Awareness-raising activities are organized for students, while schools also develop solutions to reduce emissions from energy use and transportation. The main challenges include ensuring the long-term continuity of sustainable practices in schools and making behavioral changes within the school community permanent. Key lessons learned highlight that engaging the entire school community in projects enhances the success of environmental education programs, and providing students with hands-on experiences strengthens their awareness and understanding.

Project Naturaliza: The primary target audience of the project is teachers. While the main objective is integrating the environment and education for sustainability in schools, the project also focuses on increasing awareness of climate change through teacher training, the creation of resources, and experiential learning. As part of its activities, the project offers online courses that guide teachers in environmental education, resources for curricular adaptation, and hands-on workshops. This enables students to interact directly with nature, observe environmental issues, and develop problem-solving skills. The main challenge is that many teachers lack sufficient knowledge about climate change and environmental sustainability. Key lessons from the project

highlight that experiential learning and field trips to local environments are highly effective in raising students' environmental awareness.

Project Climántica (İspanya): Project Climántica aims to raise students' awareness of climate change and integrate environmental sustainability into curricula through an interdisciplinary approach. It includes different applications for primary school, secondary school, and the general public. For primary schools, the project provides playfully designed educational content that incorporates technological tools. At the secondary school level, it offers eight lessons designed for use across various subjects and modules. While these lessons are primarily aligned with Biology and Geology, they can also be applied in Geography and History, Physics and Chemistry, Technology, and Economics. Additionally, e-learning courses for teachers support educators in integrating climate change topics into their lessons. The main challenge is ensuring long-term curricular integration in schools. Key takeaways from the project highlight that digital tools (ICTs) effectively engage students and enhance scientific literacy, interdisciplinary approaches strengthen environmental education, and teacher training plays a crucial role in promoting sustainability awareness. Moreover, collaborative work platforms provide a valuable space for specialized subject groups to work together.

28.000 por el Clima: This project is run by Teachers for Future Spain, the program raises educators' awareness of the climate emergency, empowering them to engage students and school communities in climate action. As part of the project, teachers are provided with educational materials on environmental sustainability, and various action plans are developed for schools, including zero-waste breaks, ecological cafeterias, sustainable transportation options, carbon footprint calculations, and greening schoolyards. The main challenge is ensuring teachers' active participation in the project. Key lessons learned emphasize that collaboration among teachers is crucial for building a collective climate movement and that simple, practical action plans can accelerate environmental transformation in schools.

Hungary

Forest School Program: This program is implemented through a collective organization involving both public and private institutions, including the Association of Environmental and Nature Protection Education Centers, the Hungarian Environmental Education Association, and National Park Directorates. It aims to provide students with hands-on experiences in nature, promote interactive learning, develop community and social skills, foster respect for and protection of the natural environment, and encourage a sustainable lifestyle. In Hungary, the establishment of forest schools is legally regulated. A qualification system monitors the content of programs implemented by different institutions, ensuring that schools have suitable locations and equipment for forest school activities. Forest schools face several challenges, including funding limitations, as many rely on grants to operate. Unpredictable weather conditions can create difficulties for outdoor learning, while logistical issues, such as accessibility and transportation, are particularly challenging in remote areas. Another key issue is curriculum integration, as fitting forest school activities into existing school schedules can be complex. Despite these challenges, forest schools offer significant benefits. Among the key benefits of forest school programs are active participation, such as direct engagement with wildlife, which is more effective than traditional lectures; longer-term programs,

like multi-day camps, which have a greater impact on shifting participants' mindsets; and collaboration with local communities and educators, which plays a crucial role in their successful implementation.

Eco-Schools Programme [1] : This program aims to involve all stakeholders in shaping environmental awareness and achieving sustainable development. The primary focus is to increase environmental awareness in schools and develop ecological literacy by engaging students in sustainability practices. Coordinated by the Hungarian Institute for Education Research and Development, the Eco-School Program supports educational institutions in integrating environmental awareness and sustainable practices into their daily operations and teaching. Its main objectives are to raise environmental awareness among students, teachers, and school communities, establish sustainable operations by improving energy efficiency and reducing waste, promote community responsibility through student involvement in sustainability projects, and foster international collaboration by connecting schools with a global eco-school network. The Eco-School Program integrates sustainability into education through activities such as teacher training, student-led projects, environmental audits, and curriculum integration. It encourages community involvement and connects schools to global Eco-School networks. Regular monitoring and Eco-School certifications recognize sustainability achievements. However, the program faces challenges, including securing consistent funding, engaging all stakeholders (students, teachers, and parents), balancing curriculum demands with sustainability education, and adapting to schools' varying resources and capacities. Key lessons emphasize the importance of stakeholder engagement, where active participation from students, teachers, parents, and communities is crucial. Small actions, like waste reduction and energy conservation, lead to significant environmental improvements. Hands-on learning enhances sustainability understanding, and the program's adaptability allows it to meet the unique needs of schools. Sharing success stories motivates others to join, while ongoing support and funding are necessary to sustain the program. These lessons highlight the importance of collaboration, flexibility, and continuous improvement for long-term sustainability.

Green Kindergartens Programme: The Green Kindergartens Programme is a nationwide initiative designed to instill awareness of nature and foster sustainable living habits in preschool children. Launched by the Hungarian Ministry of Environment and Water, the program aims to raise awareness of sustainable practices, encourage young children to adopt sustainable lifestyles, and support community-level engagement in environmental protection. Built on a playful approach, the program includes activities such as environmental education programs, hands-on projects like tree planting and composting, as well as events and campaigns. Additionally, it incorporates teacher training and facilitates networking to promote experience-sharing and collaboration. Despite its success, the program has encountered several challenges. Funding issues have made it difficult to ensure long-term sustainability, while raising awareness in underserved areas has been challenging due to limited infrastructure. Moreover, teachers' heavy workloads often leave them with little time to implement and coordinate program activities. However, important lessons have been learned throughout the implementation process. The program has highlighted the significance of local adaptation, demonstrating that environmental education initiatives must be tailored to regional

[1] The Eco-Schools program is implemented in various countries. Within the scope of this report, the variation in program content across countries is due to differences in the information provided by partner institutions.

needs. It has also emphasized the importance of community involvement, particularly the engagement of parents and local governments, to strengthen program impact. Lastly, the program has shown that continuous support for schools is essential for maintaining its effectiveness and sustainability.

Romania

Natural Entrepreneurs: The Natural Entrepreneurs project is designed to encourage secondary school students to develop sustainable economic models inspired by nature. The program is built on the idea of analyzing ecosystems to generate nature-based business ideas and transforming these ideas into practical community initiatives. As part of the program, students identify an environmental issue aligned with the United Nations Sustainable Development Goals (SDGs), explore nature-based solutions, and turn their findings into actionable initiatives. By the end of the process, students share their projects with their communities, fostering motivation to launch eco-friendly ventures. Additionally, they collaborate with international partners to exchange solutions and insights. While the program offers valuable learning experiences, it also presents some challenges. These include motivating teachers and students to engage in this new approach, which connects nature and society; moderating international collaborations to ensure effective knowledge exchange at a global level; and overcoming resistance to behavioral changes within the school community.

Change the Future: This project provides an interactive platform that encourages secondary school students to adopt more sustainable daily consumption habits and lifestyles. Implemented by Climate Alliance, the program helps students develop eco-friendly habits in areas such as food consumption, transportation, and energy use. Participating teams earn points by completing as many of the 24 sustainable activities as possible within a set timeframe, fostering friendly competition between cities. In the long term, the program aims to reduce students' individual environmental impact and promote community-wide sustainability. By encouraging carbon footprint reduction and collaboration with local communities, the program generates positive environmental outcomes. However, the program also presents challenges, such as motivating students to form teams voluntarily, integrating sustainable activities into daily life, and overcoming resistance to changing traditional consumption habits in the teams' communities. Key lessons learned from the program include the importance of small, consistent habit changes, the motivational power of gamification and competition, and the potential for individual behavior shifts to drive broader societal transformation. Additionally, engaging the whole school, making sustainability practical and actionable, and recognizing achievements like seeing results on the platform enhance participation to the project.

Serbia

Climate Pact for Impact: This project aims to raise environmental awareness and encourage active participation in sustainability efforts among young people in Serbia, with a focus on climate change. Led by WWF Adria/Serbia, the program offers a series of training modules, the "Voice for Our Planet!" campaign, and opportunities for citizen collaboration. It provides climate change education for teachers, encourages young people to develop climate-friendly projects, and

organizes large-scale media campaigns to raise public awareness. Key challenges faced by the project include increasing teacher participation in training sessions, integrating climate change education into school curricula, and motivating citizens to engage in the process on an individual level. Lessons learned from the project highlight the importance of experiential learning as a key teaching method in driving changes in the daily habits of students and citizens. Additionally, creating online training modules has proven to be an effective tool in accelerating the program's reach and impact.

How Trees Grow?: This project aims to foster environmental sustainability awareness among elementary and secondary school students by engaging them in tree-planting activities in their schoolyards. Led by the Institute for Sustainable Development and Environmental Protection Novi Sad, the project focuses on expanding green spaces, improving air quality through tree planting, and providing students with opportunities to connect with nature. By observing the growth process of trees, students gain a deeper understanding of ecosystem dynamics while actively contributing to environmental change. Additionally, the project engages local communities, encouraging parents, teachers, and local businesses to support school-based ecological initiatives. Tree planting efforts also generate positive environmental impacts, such as better air quality, cooling effects, and wind speed regulation. Key challenges include identifying participating schools, integrating activities that are not part of the formal curriculum, motivating families and local communities, and securing funding for afforestation efforts. A major lesson learned is that when communities take ownership of the tree-planting process, they are more likely to stay engaged and committed to long-term sustainability. Furthermore, active participation has helped students and other community members develop a stronger connection with trees and a deeper appreciation for nature.

Baštologija – Sustainable Gardening: This project is an educational initiative aimed at encouraging elementary school students to engage in sustainable agriculture within their school gardens. The program, run by Ecoconcept Pogon Novi Sad, provides students with hands-on training in topics such as soil cultivation, planting techniques, composting, and the efficient use of natural resources. By growing seasonal vegetables in their school gardens, students learn to produce their own food and develop sustainable eating habits. The program also strengthens community solidarity by involving parents, teachers, and local communities in the process. Although the project includes teacher training, unlike many other projects, the teacher training is conducted through mentors and progresses simultaneously with the school projects. This ensures that teachers learn while they work. The main challenges have been identifying schools to participate, finding suitable time for implementation due to the lack of integration of gardening projects into the curriculum, ensuring regular participation of students and parents, and obtaining sufficient support from local governments. The lessons learned indicate that involving students directly in hands-on learning processes increases their ecological awareness, community collaborations support the long-term success of sustainable gardening projects, and interaction with nature contributes to children's development.

Turkey[2]

Zero Waste Project: The Zero Waste Project, run by the Turkish Ministry of Environment, Urbanization, and Climate Change, aims to improve waste management in schools and increase environmental awareness. As part of the project, recycling bins have been placed in schools, students have been educated on waste separation, and waste reduction campaigns have been organized. By integrating Zero Waste principles into the curriculum, students are encouraged to adopt sustainable consumption habits.

TEMA Vakfı Eğitim Programları: The TEMA Foundation offers nature conservation and sustainability-focused education programs for students from preschool to high school. Within the scope of the program, students receive training on topics such as soil conservation, forest ecosystems, sustainable use of water resources, and biodiversity. Through local tree-planting events, water-saving workshops, and environmental awareness campaigns, students are given the opportunity to apply their theoretical knowledge in practice.

Eco-Schools Program[3]: The Eco-Schools Program, run by the Foundation for Environmental Education in Turkey (TÜRÇEV), aims to raise students' environmental awareness and promote sustainable practices in schools. The program uses a seven-step framework to encourage the establishment of environmental committees in schools, conduct environmental audits, create action plans, and implement these plans. Students develop projects on waste management, energy efficiency, water conservation, and biodiversity enhancement. Successful schools are awarded the Green Flag as a recognition of their achievements.

Challenges and Lessons Learned: Across the Zero Waste Project, TEMA Foundation Education Programs, and the Eco-Schools Program, several common challenges have been identified. Sustaining the long-term engagement of students and teachers remains a significant obstacle, particularly due to competing academic workloads and priorities. Another recurring challenge is securing consistent funding for infrastructure improvements, which are often necessary to support sustainability initiatives. Additionally, overcoming resistance to behavioral changes within school communities has proven difficult, as shifting established habits and mindsets requires time, effort, and continuous encouragement.

These programs have collectively demonstrated the value of adopting a whole-school approach, which amplifies the impact of sustainability efforts by involving all stakeholders. Practical, hands-on learning experiences—such as energy audits, tree-planting activities, and waste reduction projects—have been highly effective in reinforcing theoretical knowledge and fostering a deeper understanding of environmental issues. Furthermore, recognition and awards, such as the “Green Flag” in the Eco-Schools Program, have served as powerful motivators, encouraging schools to maintain their commitment to sustainability goals and celebrate their achievements. These insights

[2] In the content from Turkey, lesson learned and challenges are written together for all three projects and are therefore titled separately.

[3] The Eco-Schools program is implemented in various countries. Within the scope of this report, the variation in program content across countries is due to differences in the information provided by partner institutions.

underscore the importance of collaboration, practical engagement, and recognition in driving successful environmental education initiatives.

6.2. Common Elements of Best Practices in Climate and Environmental Education

This section aims to highlight the essential characteristics that define successful initiatives in climate and environmental education. By examining these common traits, insights into effective strategies are provided that not only enhance educational outcomes but also foster a deeper commitment to sustainability among students and educators. Understanding these characteristics is crucial for developing and implementing impactful programs that address the pressing challenges of climate change and environmental degradation.

1. **Focus on Environmental Education:** Although there are practices related to climate education; it is observed that most of the initiatives are centered around environmental education. This focus emphasizes the importance of integrating climate and ecological topics into school curricula. The aim is to cultivate awareness and stewardship among students from an early age, fostering a generation that is knowledgeable about environmental issues and committed to sustainability.
2. **Collaboration with NGOs, Local Communities and Other stakeholders:** Practices regarded as best practices by partners frequently involve collaboration between schools, non-governmental organizations (NGOs), and local communities. This partnership enhances resource sharing, provides diverse perspectives, and strengthens the impact of educational programs. Collaborative efforts often lead to community engagement, which is crucial for the sustainability of environmental initiatives.
3. **Hands-On and Experiential Learning:** Many effective practices incorporate hands-on, experiential learning opportunities. Activities such as tree planting, recycling campaigns, and outdoor education not only engage students but also provide practical experiences that deepen their understanding of environmental issues. This approach has been shown to create lasting behavioral changes and a stronger connection to nature.
4. **Teacher Training and Capacity Building:** A common theme among successful programs is the emphasis on teacher training and professional development. Providing educators with the necessary skills and resources to effectively teach climate and environmental education is vital. This training often includes workshops, online courses, and access to teaching materials that promote best practices in sustainability education. Additionally, efforts related to teacher training generally focus on enhancing teacher capacity to support projects aimed at improving student learning outcomes.
5. **Use of Digital Tools and Innovative Methods:** The integration of digital tools and innovative teaching methods is prevalent in many initiatives. These technologies facilitate interactive learning experiences and can enhance student engagement. Programs that utilize online

platforms or gamification strategies have been particularly effective in reaching a broader audience and promoting environmental awareness.

6. **Community Engagement and Public Awareness:** Effective practices extend beyond the school environment to include community engagement and public awareness campaigns. Initiatives that involve local communities not only broaden the impact of educational efforts but also encourage collective action towards sustainability. By raising awareness among the general public, these programs aim to create a culture of environmental responsibility.
7. **Interdisciplinary Approaches:** Many successful initiatives adopt interdisciplinary approaches that integrate environmental education across various subjects. This strategy allows for a more comprehensive understanding of climate issues and encourages critical thinking. By connecting environmental or climate education topics to subjects like science, social studies, and economics, students can see the relevance of sustainability in multiple contexts.
8. **Recognition and Incentives:** Programs that provide recognition and incentives, such as awards or certifications, motivate schools and students to engage in sustainability practices. These acknowledgments serve as powerful motivators for continued participation and improvement, fostering a sense of pride and accomplishment within the school community.
9. **Adaptability and Local Relevance:** Best practices demonstrate adaptability to local contexts and needs. Tailoring programs to fit cultural, geographical, and socio-economic conditions enhances their effectiveness and ensures that they resonate with the target audience. This adaptability allows for the successful implementation of initiatives in diverse environments.
10. **Integration of Climate Justice Concepts:** Many initiatives emphasize the importance of climate justice, addressing the social and economic inequalities exacerbated by environmental issues. By incorporating discussions on equity and justice, these programs aim to foster a more inclusive understanding of climate change impacts and solutions.
11. **Focus on Student Leadership and Empowerment:** Successful programs often encourage student leadership and active participation in environmental initiatives. By empowering students to take charge of projects, they develop critical skills such as teamwork, problem-solving, and advocacy, which are essential for driving change within their communities.
12. **Long-Term Commitment and Sustainability:** Many effective programs demonstrate a long-term commitment to sustainability, ensuring that initiatives are not merely one-time events but part of a broader, ongoing effort. This commitment is crucial for creating lasting change and embedding environmental education within school cultures. Although this situation may be seen as a challenge for some projects, it ultimately fosters resilience and adaptability, allowing programs to evolve and thrive in the face of changing environmental conditions.
13. **Resource Accessibility and Support:** Successful initiatives often provide accessible resources and support for educators and students. This includes materials, funding, and training that enable schools to implement effective environmental education practices without significant barriers.

14. **Engagement of Parents and Families:** Involving parents and families in environmental education initiatives is a common feature. Programs that promote family engagement help to reinforce learning at home and foster a community-wide commitment to sustainability.

Above, the common elements of projects regarded as best practices by the partner countries have been presented. In addition, there are common challenges observed in these projects. These challenges can be summarized as follows:

1. **Sustaining Engagement:** One of the primary challenges is maintaining long-term engagement from students and teachers, especially when faced with competing academic priorities and workloads. Keeping participants motivated over time can be difficult.
2. **Funding Limitations:** Many programs struggle with securing consistent funding for infrastructure improvements and ongoing initiatives. Financial constraints can hinder the development and sustainability of effective environmental education practices.
3. **Curriculum Integration:** Integrating climate and environmental education into existing curricula can be complex. Educators often face challenges in balancing mandated subjects with the need to incorporate sustainability topics, leading to potential conflicts in scheduling and content delivery.
4. **Resistance to Change:** Overcoming resistance to behavioral changes within school communities poses a significant challenge. Established habits and mindsets can be difficult to shift, requiring ongoing support and encouragement.
5. **Community Awareness and Involvement:** Engaging the wider community in environmental education efforts can be challenging. Programs may struggle to raise awareness and encourage participation among parents and local stakeholders.
6. **Measuring Impact:** Evaluating the impact of environmental education initiatives can be difficult. Some of the programs lack standardized metrics or data collection methods to assess their effectiveness, making it challenging to demonstrate success and secure future support.
7. **Cultural and Contextual Relevance:** Ensuring that programs are culturally relevant and adaptable to local contexts is essential but can be challenging. Initiatives must resonate with the specific needs and values of different communities to be effective.
8. **Balancing Theory and Practice:** Striking a balance between theoretical knowledge and practical application can be difficult. Students may benefit more from hands-on experiences, but educators often feel pressured to cover theoretical content within limited timeframes.

6.3. Adaptability for European and National Contexts

The integration of climate and environmental education into educational systems refers to the systematic incorporation of these subjects into the curriculum and teaching practices across various educational levels. This process aims not only to enhance students' understanding of environmental issues but also to cultivate a culture of sustainability within schools and communities. The goal is to

replicate and scale effective practices identified from various countries, ensuring that educational initiatives are relevant, effective, and sustainable in both European and national contexts.

This section focuses on two main themes: 1) Lessons Learned from Best Practices and 2) Implementation Strategies. Drawing on recommendations from good practice examples submitted by project partner countries, this section aims to provide actionable insights for adapting these initiatives to local contexts.

Lessons Learned from Best Practices

1. Identifying Local Needs

Successful implementations emphasize the importance of tailoring educational programs to address the specific needs and characteristics of local communities. This involves assessing the unique environmental challenges faced by each region, as well as understanding the socio-economic factors that influence educational practices. By aligning educational initiatives with local priorities, programs become more effective and foster greater community ownership.

2. Collaboration and Partnerships

Effective climate and environmental education initiatives often rely on strong partnerships among schools, local governments, non-governmental organizations, and community groups. These collaborations enable resource sharing, knowledge exchange, and increased community engagement. Involving local stakeholders not only enhances the relevance of educational programs but also ensures that they are supported by a network of advocates committed to sustainability.

3. Experiential and Practical Learning

Experiential learning methods have proven to be highly effective in engaging students and facilitating a deeper understanding of environmental issues. Programs that incorporate hands-on projects, field trips, and community-based activities allow students to connect theoretical concepts with real-world applications. This approach not only enhances students' environmental literacy but also empowers them to take meaningful action in their communities.

4. Teacher Training and Capacity Building

Teachers play a crucial role in the successful implementation of climate and environmental education. Ongoing professional development programs that focus on enhancing educators' knowledge and skills in these areas are essential. By providing teachers with the necessary training and resources, they can effectively guide students in understanding complex environmental challenges and inspire them to develop sustainable practices.

5. Utilizing Digital Tools

The integration of digital technologies into climate and environmental education can significantly enhance the learning experience. Online platforms and digital resources provide educators and students with access to a wealth of information and tools that can facilitate collaborative learning. By leveraging technology, educational programs can reach broader audiences and promote interactive learning experiences.

Implementation Strategies

1. Flexible Program Design

Educational programs should be designed with flexibility in mind, allowing for adjustments based on local contexts and needs. This flexibility enables schools to develop initiatives that are tailored to their specific resources and community dynamics. Programs should encourage creativity and innovation, allowing educators to experiment with different approaches to teaching climate and environmental topics.

2. Continuous Monitoring and Evaluation

Establishing mechanisms for ongoing monitoring and evaluation is critical for assessing the effectiveness of educational initiatives. By regularly collecting data on program outcomes, educators can identify areas for improvement and make necessary adjustments. This iterative process ensures that programs remain relevant and effective in achieving their educational goals.

3. Encouraging Community Engagement

Active involvement of community members in educational initiatives is vital for fostering a culture of sustainability. Programs should encourage participation from parents, local businesses, and community organizations to create a supportive environment for climate education. Engaging the broader community not only enhances the impact of educational efforts but also reinforces the importance of collective action in addressing environmental challenges.

4. Promoting Interdisciplinary Approaches

Climate and environmental education should not be confined to science subjects alone. Integrating these topics across various disciplines—such as social studies, language arts, and the arts—can provide students with a more holistic understanding of the issues at hand. Interdisciplinary approaches encourage critical thinking and help students make connections between environmental challenges and their own lives.

5. Fostering a Culture of Sustainability

Educational programs should aim to instill a culture of sustainability within schools and communities. This involves promoting eco-friendly practices, such as waste reduction, energy conservation, and biodiversity conservation, as part of daily routines. By creating an environment where sustainability is valued and prioritized, schools can empower students to become responsible stewards of the planet.

Conclusion

The effective integration of climate and environmental education requires a nuanced understanding of local contexts and the ability to adapt best practices accordingly. By learning from successful initiatives and implementing flexible, collaborative, and experiential approaches, educational programs can foster a generation of environmentally conscious individuals. The adaptability of these programs is essential for ensuring their relevance and impact in diverse European and national contexts, ultimately contributing to a more sustainable future.

7. Policy Recommendations for Decision-Makers

Climate change is one of the most urgent and complex global challenges of our time. Addressing this issue requires the transformation of education systems and the implementation of effective decisions by policymakers. Within this context, this Policy Toolkit has been developed to support policymakers in integrating climate education into school systems through evidence-based recommendations and practical strategies.

During the preparation of the Policy Toolkit, four main data sources were collected, three of which were provided by project partners. The information derived from these data sources has been compiled and thoroughly analyzed in the previous sections of the report. These sections, which include detailed and comparative evaluations, serve as the primary data sources for generating policy recommendations.

The core objective of this section is to provide policymakers with actionable and sustainable policy recommendations in the field of climate education. Specifically, it focuses on how education systems can be leveraged as a tool in the fight against climate change.

7.1. Strategic Recommendations

Concrete Actions for Policymakers to Improve Climate Education from Early Childhood to High School:

1. **Integrate Climate Education Across All Educational Levels:**
    - Policymakers should mandate the inclusion of climate and environmental education as a core component of national curricula from early childhood education (kindergarten) through high school. This integration should be age-appropriate, with simpler concepts introduced in early years and more complex topics, such as climate science, policy, and activism, covered in secondary education.
    - Develop clear guidelines and standards for climate education at each educational level, ensuring continuity and progression in students' understanding of environmental issues.
2. **Develop Comprehensive Teacher Training Programs for All Levels:**
    - Establish national and regional training programs for teachers at all levels, from early childhood educators to high school teachers. These programs should focus on equipping educators with the knowledge and skills to teach climate and environmental topics effectively.
    - Provide continuous professional development opportunities, including workshops, online courses, and hands-on training, to ensure teachers stay updated on the latest climate science and educational methodologies.
3. **Allocate Dedicated Funding for Climate Education Initiatives:**
    - Governments need to be encouraged to prioritize funding and resources for climate education initiatives, ensuring that schools at all levels have access to the necessary

tools, materials, and training to effectively integrate climate and environmental topics into their curricula. This support could include grants for developing innovative teaching materials, subsidies for teacher training programs, and funding for school-based sustainability projects, such as renewable energy installations, recycling programs, or community gardens. By investing in climate education, governments can empower schools to become hubs of sustainability, fostering a generation of environmentally conscious students who are equipped to address the challenges of the future.

- Encourage collaborations between governments, private companies, and NGOs to provide additional resources, funding, and expertise for climate education programs, especially in underserved areas. Private sector contributions could include financial support, innovative educational tools, or hands-on learning opportunities, such as field trips or sustainability projects.

4. **Promote Interdisciplinary Approaches Across All Grades:**
    - Encourage the integration of climate education across various subjects, such as science, geography, social studies, arts, and literature, from kindergarten through high school. This interdisciplinary approach will help students understand the interconnectedness of environmental issues with other aspects of society and culture.
    - Develop cross-curricular projects that allow students to explore climate topics from multiple perspectives, fostering critical thinking and problem-solving skills at every stage of their education.
5. **Support Student-Led Initiatives at All Levels:**
    - Policymakers should encourage and support student-led sustainability projects at all educational levels, from kindergarten – like recycling programs- to high school – like climate action clubs. These initiatives not only enhance students' understanding of climate issues but also empower them to take action in their communities.
    - Provide grants or awards for schools that demonstrate excellence in student-led environmental projects, fostering a culture of innovation and responsibility from an early age.

Focus on Integrating Climate Education into National Teacher Training Programs:

1. **Mandatory Climate Education Modules for All Teachers:**
    - Introduce mandatory climate education modules in pre-service teacher training programs for educators at all levels, from early childhood to high school. These modules should cover the basics of climate science, environmental sustainability, and effective teaching strategies for climate education.
    - Ensure that all new teachers graduate with a solid foundation in climate education, enabling them to confidently teach these topics in their classrooms.

2. **In-Service Training for Current Teachers at All Levels:**
    - Offer in-service training programs for current teachers, focusing on climate education. These programs should be accessible and flexible, allowing teachers to participate without disrupting their teaching schedules.
    - Provide incentives, such as professional development credits, for teachers who complete climate education training.
3. **Collaboration with Universities and Research Institutions:**
    - Partner with universities and research institutions to develop advanced training programs for teachers at all levels, focusing on the latest climate science and educational research. These programs should be designed to enhance teachers' expertise and provide them with cutting-edge resources for their classrooms.
    - Encourage universities to offer specialized degrees or certifications in climate education, creating a pipeline of highly qualified educators in this field.
4. **Foster Peer Learning and Collaborative Networks Among Teachers:**
    - Establish platforms and opportunities for teachers to learn from each other through peer learning networks, professional learning communities (PLCs), and collaborative workshops. These platforms can be both physical (e.g., regional teacher meetups) and digital (e.g., online forums or social media groups).
    - Encourage experienced teachers who have successfully integrated climate education into their classrooms to mentor their peers, sharing best practices, lesson plans, and innovative teaching methods.
    - Organize regular "teacher exchange programs" where educators from different schools or regions can observe each other's classrooms, participate in joint projects, and share insights on effective climate education strategies.
    - Develop online repositories or databases where teachers can upload and access resources, such as lesson plans, activity ideas, and assessment tools, fostering a culture of collaboration and continuous improvement.

7.2. Guidelines for Collaboration Between Teachers and Decision-Makers

Steps for Improving Communication and Collaboration Between Educators and Policymakers:

1. **Establish Regular Dialogue Across All Educational Levels:**
    - Create formal channels for regular communication between teachers and policymakers, such as advisory committees, working groups, or annual conferences. These platforms should allow educators from all levels to share their experiences, challenges, and recommendations with decision-makers.

- Policymakers should actively seek input from teachers when developing or revising climate education policies, ensuring that these policies are practical and effective in real-world classroom settings.

2. **Involve Teachers in Policy Development:**
    - Include teachers from all educational levels in the policy development process, particularly when designing climate education curricula, training programs, and assessment tools. Teachers' firsthand experience in the classroom is invaluable for creating policies that are both impactful and feasible.
    - Establish teacher advisory panels at the national and regional levels, giving educators a direct voice in shaping climate education policies.
3. **Provide Clear Guidelines and Support for All Teachers:**
    - Policymakers should provide clear guidelines and support for teachers implementing climate education in their classrooms at all levels. This includes detailed curriculum frameworks, teaching resources, and access to professional development opportunities.
    - Ensure that teachers have access to ongoing support, such as mentorship programs or helplines, where they can seek advice and assistance related to climate education.
4. **Recognize and Reward Teacher Contributions at All Levels:**
    - Recognize and reward teachers who excel in climate education through awards, public recognition, or career advancement opportunities. This recognition will motivate teachers to prioritize climate education and innovate in their teaching practices.
    - Highlight successful climate education initiatives led by teachers at all levels, sharing their stories and best practices with the broader educational community.
5. **Foster Partnerships Between Schools and Policymakers:**
    - Encourage partnerships between schools and local or national policymakers, allowing schools to access resources, expertise, and funding for climate education projects. These partnerships can also help policymakers better understand the challenges and opportunities in implementing climate education at the school level.
    - Develop pilot programs where schools and policymakers collaborate on innovative climate education initiatives, testing new approaches and scaling up successful models.

7.3. Supporting Long-Term Policy Change

Suggestions for Creating Sustainable, Long-Term Improvements in Climate Education Policy:

1. **Develop a National Climate Education Strategy for All Levels:**
    - Policymakers should develop a comprehensive national strategy for climate education, outlining long-term goals, objectives, and action plans for all educational levels, from

early childhood to high school. This strategy should be aligned with international climate agreements, such as the Paris Agreement, and national sustainability goals.

- The strategy should include measurable targets for climate literacy, teacher training, and student engagement, ensuring accountability and progress tracking.

2. **Ensure Policy Continuity Across Administrations:**
    - Climate education policies should be designed to withstand changes in government, ensuring continuity and long-term commitment. This can be achieved by embedding climate education into national education laws or frameworks, making it a permanent part of the education system.
3. **Monitor and Evaluate Policy Impact Across All Levels:**
    - Implement robust and clear monitoring and evaluation mechanisms to assess the impact of climate education policies at all educational levels. This includes regular surveys, assessments, and data collection on student climate literacy, teacher training outcomes, and school-based sustainability projects.
    - Use the findings from these evaluations to refine and improve climate education policies, ensuring they remain effective and relevant.
4. **Promote Public Awareness and Advocacy:**
    - Policymakers should engage in public awareness campaigns to highlight the importance of climate education and build public support for related policies. These campaigns can involve media outreach, community events, and partnerships with NGOs and civil society organizations.
    - Encourage advocacy efforts by students, teachers, and parents at all educational levels, empowering them to demand stronger climate education policies from their governments.
5. **Invest in Research and Innovation:**
    - Allocate funding for research into effective climate education practices, teaching methodologies, and curriculum development across all educational levels. This research should inform policy decisions and help identify innovative approaches to climate education.
    - Support pilot projects and experimental programs that test new ideas in climate education, scaling up those that demonstrate success.
6. **Foster International Collaboration:**
    - Policymakers should engage in international collaboration on climate education, sharing best practices, resources, and expertise with other countries. This can be achieved through partnerships with international organizations, or participation in global climate education networks.

7. **Encourage Community and Parental Involvement:**
    - Policymakers should promote the involvement of parents and local communities in climate education initiatives at all levels. This can include community workshops, parent-teacher associations focused on sustainability, and local environmental projects that involve both students and their families.
    - Encourage schools to engage with local businesses, NGOs, and government agencies to create a supportive ecosystem for climate education, ensuring that students see the real-world relevance of what they are learning.

Conclusion

The recommendations outlined in this section provide a comprehensive roadmap for policymakers to enhance climate education from early childhood through high school. By implementing these strategies, policymakers can create a robust and sustainable framework for climate education, equipping students with the knowledge and skills they need to address the environmental challenges of the future. The long-term success of these efforts will depend on sustained commitment, adequate funding, and ongoing collaboration between all stakeholders involved in the education system.

8. Summary and Conclusions

8.1. Key Takeaways

The Policy Toolkit highlights that while countries face common challenges in integrating climate education into their policies, there are also numerous inspiring examples and best practices that can foster mutual learning. For instance, some countries have successfully embedded climate education into national curricula, while others have focused on teacher training programs to achieve impactful results.

However, challenges such as the lack of standardized frameworks, insufficient funding, and varying levels of institutional support persist. These challenges also present opportunities for collaboration and knowledge exchange. By adapting successful practices to local contexts while maintaining a global perspective, countries can ensure the effectiveness and sustainability of climate education initiatives.

To effectively address the challenges and opportunities highlighted in the Policy Toolkit, it is essential to adopt a multifaceted approach. First, countries should identify and adapt successful climate education strategies from other nations, ensuring these practices are tailored to local contexts while maintaining a global perspective. Second, investing in professional development programs for educators is crucial to equip them with the knowledge and skills needed to effectively teach climate-related topics. Third, the development of standardized frameworks will provide clear guidelines for integrating climate education into national curricula, ensuring consistency and quality

across educational systems. Fourth, fostering collaboration and knowledge exchange between countries, policymakers, and educational institutions will enable the sharing of resources and innovative solutions. Finally, allocating sufficient financial resources is vital to support the implementation and long-term sustainability of climate education initiatives. By implementing these recommendations, countries can collectively advance climate education and build a more informed and proactive global community.

In summary, the Policy Toolkit underscores that shared challenges coexist with valuable examples, offering a foundation for global progress in climate education, and within this framework, comprehensive recommendations are provided to guide effective implementation.

8.2. Expected Impact

If the recommendations outlined in this report are implemented, the projected outcomes are significant and far-reaching. Teachers will gain enhanced skills and confidence in delivering climate-focused lessons, enabling them to foster greater environmental awareness among students. Students, in turn, will develop a deeper understanding of climate change and its implications, empowering them to take informed actions in their communities. Furthermore, the integration of climate education into school systems is expected to contribute to broader societal changes, such as increased public engagement in environmental issues and the promotion of sustainable practices. Over time, these outcomes can lead to a more environmentally conscious and proactive generation, capable of addressing the challenges posed by climate change.

8.3. Next Steps

To ensure the successful implementation of the recommendations, further actions and dissemination strategies are essential. First, it is crucial to organize workshops and training sessions for policymakers and educators to familiarize them with the toolkit and its practical applications. Second, the findings and recommendations should be disseminated through various channels, including conferences, publications, and online platforms, to reach a wider audience. Additionally, partnerships with international organizations and educational institutions can help scale the impact of this initiative across different regions. Finally, continuous monitoring and evaluation should be conducted to assess the effectiveness of the implemented strategies and to identify areas for improvement. These next steps will not only reinforce the impact of the Policy Toolkit but also ensure its long-term sustainability and relevance.

9. Resources and References

Nusche, D., Fuster Rabella, M., & Lauterbach, S. (2024). Rethinking education in the context of climate change: Leverage points for transformative change. OECD Education Working Papers No. 307. Organisation for Economic Co-operation and Development.

OECD. (2022). Are students ready to take on environmental challenges? PISA. OECD Publishing.

UNESCO. (2021b). Learn for our planet: A global review of how environmental issues are integrated in education. UNESCO Publishing.

UNESCO & MECCE. (2024). *Education and climate change: learning to act for people and planet.* United Nations Educational, Scientific and Cultural Organization.

UNESCO. (2021a). *Getting every school climate-ready: How countries are integrating climate change issues in education*. United Nations Educational, Scientific and Cultural Organization.

Note: As explained in the methodology section, the information presented in the "National Perspectives: Climate Education Policies Across Partner Countries" and "Best Practices in Climate Education and Teacher Training" sections has been obtained from project partners through surveys included in the appendix. Therefore, references have not been provided for these sections.

10. Appendix

10.1. National Policies Form

OBJECTIVES

- Collect up-to-date and reliable data on climate and environmental education in each partner country.
- Identify key statistics, policy trends, and gaps in teacher training, curriculum integration, and school practices.
- Provide insights into the national context to support evidence-based recommendations in the Policy Toolkit.

PARTNERS CONTRIBUTION (to be filled by partners)

A. SCOPE OF THE REVIEW

1. Policies and Frameworks (please answer following questions as much as detailed with references)

- Are there any national or regional policies mandating climate or environmental education?
    - If yes, what are the main objectives of these policies?
    - When were they implemented, and are there any recent updates?
- Is climate education integrated into the national curriculum?
    - If so, at what educational levels (primary, secondary)?
- Are there specific goals or targets related to climate literacy within these policies?
- Are there incentives or funding mechanisms to support schools in implementing these policies?

2. Teacher Training and Resources (please answer following questions as much as detailed with references)

- Are there national or regional programs for training teachers in climate and environmental education?
    - If yes, how many teachers participate annually?
    - Are these programs mandatory or optional?
- What types of resources (e.g., lesson plans, digital tools, workshops) are available for teachers?
    - Who provides these resources (e.g., government, NGOs, private organizations)?
- What challenges do teachers face in accessing training or resources?

3. Student Learning Outcomes (please answer following questions as much as detailed with references)

- Are there national or regional assessments or surveys measuring student knowledge or awareness of climate issues?
    - If yes, what percentage of students demonstrate basic climate literacy?
- How engaged are students in sustainability-related school activities (e.g., recycling programs, energy-saving campaigns)?

4. Stakeholder Involvement (please answer following questions as much as detailed with references)

- What role do NGOs play in supporting or implementing climate education?
- Are local governments or municipalities involved in promoting climate education?
    - If yes, what kind of support do they provide (e.g., funding, policy enforcement)?
- Are there partnerships between schools and community organizations to promote sustainability?

DATA

We ask partners to collect quantitative data about environmental / climate education in their countries. Since each country have different type of data, there is no uniform data source or indicator for all partner countries. However, to facilitate and give a idea regarding the data collection, you can focus and use following questions and sources:

Partners can use a variety of sources to ensure comprehensive coverage, including:

- Government reports and policy documents.
- Academic publications and studies.
- National or regional statistics (e.g., ministry of education or environment).
- Reports from environmental NGOs and international organizations (e.g., UNESCO, UNFCCC).
- Media articles providing context or trends.

Partners can provide numerical and qualitative data where possible:

- Policies: Number of schools with mandatory climate education.
- Teacher Training: Percentage of teachers trained in climate education, funding allocated to teacher programs.
- Student Data: Results from surveys or assessments on climate literacy.
- Program Reach: Number of schools or students involved in NGO-led or government-supported initiatives.
- Impact Metrics: Reductions in waste, energy use, or carbon footprints in schools participating in climate programs.

10.2. Stakeholder Survey

1. Organization name: _____
2. Organization Type (association, foundation, research institute, platform etc.): _____
3. Main Areas of Focus (mark all appropriate answers)

   ⇒ Climate / Environmental Education
   ⇒ Education Policy / Policy Development
   ⇒ Teacher Training
   ⇒ Educational Technologies
   ⇒ Curriculum Design & Development
   ⇒ Climate/Environmental medias
   ⇒ Youth Education
   ⇒ Other: _____
4. Country & City
5. "Contact Info (website, email etc.) optional"
6. How long has your organization been involved in climate or environmental education?

   ⇒ Less than a year
   ⇒ 1-3 years
   ⇒ 3-5 years
   ⇒ More than 5 years
7. What are your organization's key activities related to climate or environmental education? (mark all appropriate answers)

   ⇒ Teacher training programs
   ⇒ School based projects
   ⇒ Public awareness campaigns
   ⇒ Policy development efforts
   ⇒ Educational research
   ⇒ Curriculum development
   ⇒ Other: _____
8. Which age groups does your organization primarily target in its educational activities?

   ⇒ 6 - 10 years
   ⇒ 11 - 14 years
   ⇒ + 15
   ⇒ All age groups
   ⇒ Other: _____
9. What are the major challenges in climate and environmental education in your country? (Select all that apply)

   ⇒ Insufficient integration in the curriculum
   ⇒ Lack of teacher training opportunities

⇒ Limited resources and materials
⇒ Low public awareness
⇒ Other: _____

10. "What types of support do teachers need to improve their climate and environmental education skills? (select only three)"

⇒ Educational materials tailored for various age groups
⇒ Expert-led workshops and seminars
⇒ Access to online resources and platforms
⇒ Peer-learning opportunities with other teachers
⇒ Continuous professional development programs
⇒ Funding for climate-related school projects
⇒ Access to interactive tools and technologies for teaching
⇒ Collaboration with environmental NGOs
⇒ Inclusion of climate education resources in teacher certification programs
⇒ Support for integrating climate topics into existing curricula
⇒ Other: _____

11. What policy changes are most crucial for advancing climate and environmental education? (select only three)"

⇒ Integrating climate education into core curricula
⇒ Establishing mandatory teacher training programs on climate issues
⇒ Allocating dedicated funding for climate education initiatives
⇒ Promoting collaboration between schools and local communities
⇒ Including climate education in standardized testing
⇒ Ensuring representation of climate education in national education strategies
⇒ Developing public awareness campaigns tied to school programs
⇒ Encouraging partnerships with international educational bodies
⇒ Setting measurable targets for student competency in climate topics
⇒ Providing incentives for schools to adopt sustainable practices
⇒ Other: _____

12. Can you share an example of a successful climate or environmental education initiative in your country?

(please mention: * Project Name * Objective * Target Group * Results): _____

13. Are there other national or local best practices you recommend?: _____

14. Additional Feedback: What other areas should be addressed to improve climate and environmental education and policy development?: _____

10.3. Best Practice Case Studies form

Template & Example Send To Partners

Country:	Belgium
Name of the Example (project / program / initiative etc.)	Eco-Schools Programme
Implementing Organization(s):	Foundation for Environmental Education (FEE)
Location of the Implementation:	School level in Belgium (part of an international network)
Target Audience:	Primary and secondary school students, teachers, and school communities
Objectives:	● To empower students to engage in sustainable development practices. ● To integrate environmental principles into the educational framework. ● To foster a sense of responsibility towards the environment among young learners.

Key Activities

- **Seven-Step Framework:** Schools follow a structured process involving the establishment of an Eco-Committee, conducting environmental reviews, creating action plans, monitoring progress, curriculum integration, community involvement, and developing an Eco-Code.
- **Thematic Focus:** Addressing areas such as biodiversity, climate change, energy, waste, water, and health through targeted projects and activities.
- **Certification:** Schools demonstrating significant achievements are awarded the Green Flag, symbolizing excellence in environmental action and learning.

Important Outcomes

Student Empowerment:

- Increased leadership and project management skills as students lead Eco-Committees.
- Enhanced environmental literacy and practical knowledge through hands-on activities.

Environmental Impact:

- Schools report significant reductions in waste and energy usage (e.g., a 25% drop in energy bills in participating schools).
- Improved biodiversity within school grounds due to tree-planting and wildlife-friendly initiatives.

Community Collaboration:

- Partnerships with local NGOs and businesses to support sustainability projects.
- Greater community awareness through events like open sustainability workshops and local clean-up drives.

Challenges (Optional)

- Sustaining long-term participation from students and staff amidst academic priorities.
- Securing funding for infrastructure projects like installing renewable energy systems.
- Overcoming resistance to behavioral changes within the school community.

Lessons Learned

- **Whole-School Approach:** Involving all members of the school community, including non-teaching staff, amplifies impact.
- **Practical Learning:** Experiential activities, such as energy audits conducted by students, reinforce classroom knowledge.
- **Recognition and Motivation:** The Green Flag award acts as a significant motivator for continued engagement and excellence.

Potential for Replication

The Eco-Schools Programme's flexible framework allows for adaptation across various educational contexts, making it a viable model for other regions aiming to promote environmental education. This structured analysis provides a comprehensive overview of the Eco-Schools Programme in Belgium, highlighting its approach to integrating environmental education within the school system.

The Eco-Schools Programme's modular framework and adaptability make it a scalable model for other schools worldwide.

- **Cost-Effective:** Small-scale interventions like recycling programs are feasible for underfunded schools.
- **Customizable:** The programme allows schools to choose themes that resonate with their local environmental priorities.

One Eco-School in Brussels transformed its schoolyard into a biodiversity hub by planting over 50 native tree species, installing rainwater harvesting systems, and creating an insect hotel. This project not only reduced water wastage but also became a living classroom for lessons on ecosystems and sustainability.

Resources (website, report, social media channel etc.)