PROGRAMME BRIEF:
Harnessing the Transformative Potential of Education for Climate Change Mitigation, Adaptation and Resilience Building in Europe and Central Asia

unicef
for every child

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Introduction

Climate change is a planetary and child rights crisis. Climate change can have adverse effects on the health and well-being of children and adolescents, who are much more vulnerable than adults to weather variations and climate related natural disasters.[i]

Education for Climate Change Mitigation, Adaptation and Resilience has become a priority area for UNICEF Europe and Central Asia (ECA) as climate change threatens many of the rights enshrined in the Convention on the Rights of the Child (CRC), including the rights to health, safety, access to a healthy and sustainable environment, and the right education.

Education is a crucial component of climate change mitigation and adaptation. Education systems need to be able to prevent and mitigate the risks of climate related disasters to protect the right of every child to education.

This Brief presents the approach of UNICEF in ECA Region in supporting education systems, education stakeholders and children and adolescents in ECA to develop the policies, structures and skills to mitigate and adapt to climate change and become more resilient to the environmental challenges and natural hazards ahead.

Children and Climate Change in Europe and Central Asia

According to UNICEF Children's Climate Risk Index (CCRI)[ii], in the ECA region:

71.4 million children

(96%)[iii] are exposed to **ambient air pollution** (PM$_{2.5}$ ≥10 µg/m^3), which has a devastating impact on children's health and brain development.[iv] Ambient air pollution is particularly high in Bishkek, Dushanbe, Sarajevo and Skopje.

32.4 million children

(49%) are highly exposed to **water scarcity**. A reliable access to water sources is already a serious concern in Turkey, Central Asia and in the Caucasus. By 2040s, 50% of countries in the ECA region will be extremely vulnerable, while 75% will be highly vulnerable to water stress.[v]

7.5 million children

(10%) are exposed to **riverine** floods, causing natural hazards that impact infrastructures and disrupt services. Climate projections show increased risks of floods and landslides throughout the region, particularly in the Western Balkans and Central Asia.

46.3 million children

(62%) live in areas with high levels of **pesticide pollution**, which also affects their health.

41.9 million children

(57%) are exposed to more than **six heatwaves per year.**

6.9 million children

(9%) have **blood lead levels over 5 ug/dl** which can cause mental impairment and developmental delays.[vi]

Climate change could force
5 million people

in Europe and Central Asia **to move** within their countries by 2050.[vii]

Children's Climate and Environment Risk Index (CCRI), 2020
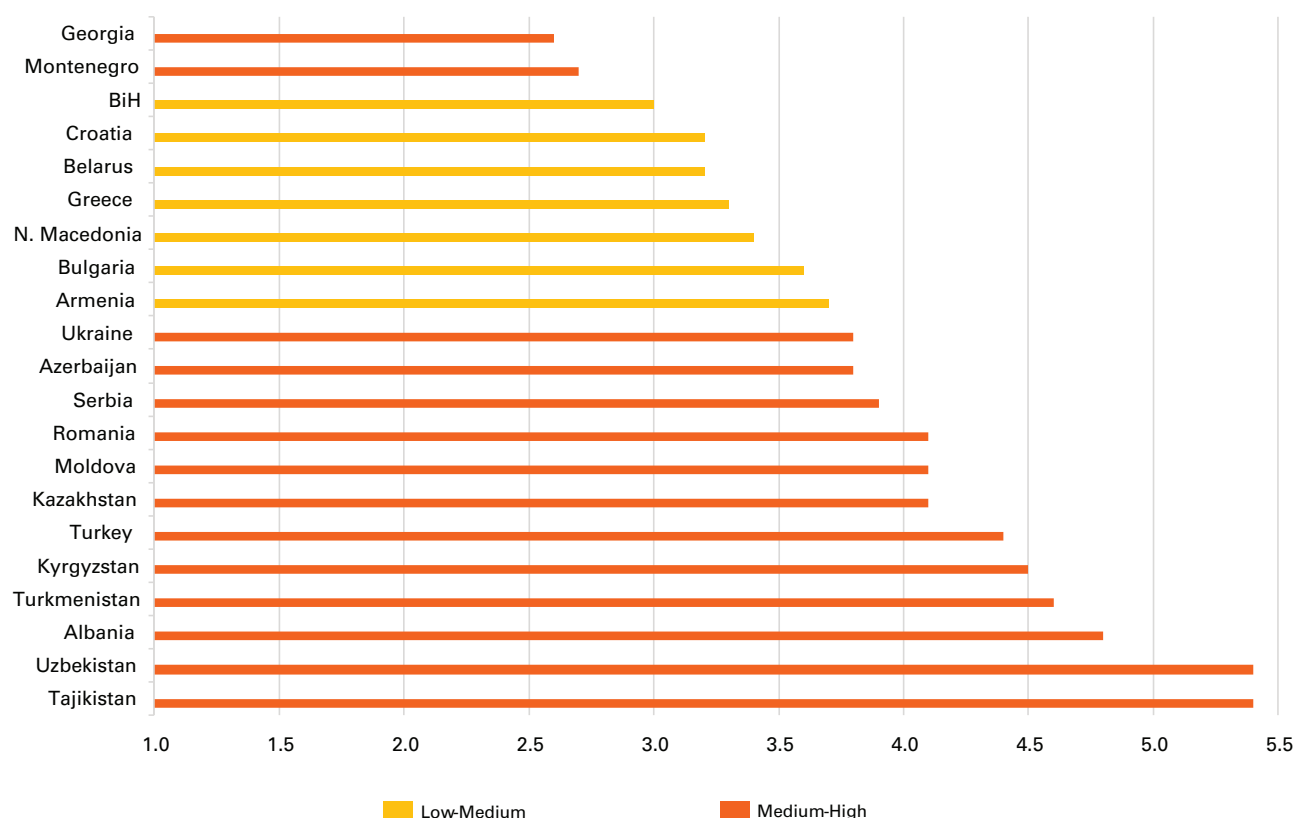
Source: Compiled from UNICEF (2021), The Climate Crisis is a Child Rights Crisis: Introducing the Children's Climate Risk Index. New York: United Nations Children's Fund.

Climate change disproportionally affects vulnerable communities, which can exacerbate existing socio-economic inequalities, including health and life outcomes. The gendered effects of climate change means that girls and young women will face disproportionate impacts as they are more affected by disasters and face increased vulnerabilities in context of economic, political, and social tensions.[viii]

In the ECA region, about half of the countries are highly vulnerable to the impacts of climate change and have low capacities to adequately respond. Only 6 countries[ix] in the region have Nationally Determined Contributions (NDCs)[x] that are considered "child sensitive" by UNICEF and two that are considered partly child and youth sensitive.[xi] Despite education being part of the answer to climate change, some evidence shows that few countries include education in national priorities for climate adaptation and mitigation through the NDCs.[xii]

Education and Climate Change

Climate change has wide-ranging negative impacts on the education sector. Extreme weather events, such as heatwaves or floods and climate-related disasters such as wildfires can disrupt education services, alter school year calendars and schedules, pose risks to students' safety and lead to temporary or permanent closure of schools as well as population displacement. School disruptions cause both loss of instruction time and psychological distress for students that might in turn affect their learning. Rising temperatures or air pollution can also make it harder for students to concentrate, learn and perform well academically. Climate change related disasters can destroy education infrastructures, including school buildings, education equipment and school transportation systems, significantly impacting on the quality of the learning environment.

Inequalities in education are likely to be exacerbated by climate change as the most marginalized communities are more impacted, particularly in deprived, remote and rural areas. Where education systems lack resources to ensure quality education for all, education outcomes will be impacted first in marginalized communities, jeopardizing education rights.

The education sector has a key role to play in climate change mitigation and adaptation efforts, in terms of: (i) providing students and teachers with the knowledge, skills and attitudes to cope with profound change and shape innovative adaptation and mitigation solutions, (ii) developing green skills to contribute to a workforce prepared for a low-carbon economy, (iii) building the capacity of all actors in the education system to prevent, prepare for, respond to and recover from the climate change risks facing education systems and ensure education continuty, especially for the most marginalised children when climate-related disruptions occur.[xiii] and (iv) providing young people with opportunities to voice their concerns and priorities, to participate in national and local decision-making processes, and to become agents of climate action.

Resilient education systems will be better able to contribute to climate change mitigation and climate action. To this end, **urgent action is needed to transform the education sector**, promote climate-smart education investments and actions, and ensure that systems can protect the most vulnerable children and adolescents from the impacts of climate change, including on their education rights.[xiv]

Climate change, education and young people

There is a growing awareness and desire among young people globally and in Europe and Central Asia to engage in climate issues. A 2022 Eurobarometer also indicated that young people in the EU considered environmental protection and the fight against climate change to be a key priority of focus for the 2022 European Year of Youth.[xv] Green jobs rank first among the climate solutions that young people want to see, according to the recent UNICEF USA survey.[xvi]

Yet, children and adolescents do not feel adequately informed and equipped to tackle climate change. A UNESCO survey found that 70% of young people cannot explain climate change, or can only explain its broad principles, or do not know anything about it.[xvii] Data from the Programme for International Student Assessment (PISA) demonstrates that students need stronger scientific knowledge and skills in environmental issues than they currently have, especially in countries and economies where student performance in science tends to be lower.[xviii]

This underlines **the need for education systems to respond to children and young people's need for quality learning opportunities that enable and empower them to take climate action** in schools and communities so that they can become agents of change and play a meaningful role, now and in the future, in demanding their right to access to a healthy and sustainable environment, in developing innovative adaptation and mitigation solutions, and in supporting transition to a low carbon economy.

UNICEF ECAR's approach to Harnessing the transformative potential of education for Climate Change Mitigation, Adaptation and Resilience

UNICEF strives to realise the right of every child and adolescents to live in a safe, clean, healthy and sustainable climate and environment. In line with the new UNICEF ECAR Education Strategy, the aim of UNICEF's programming for climate change in education is to support governments in the region to support education systems to integrate environmental and climate change considerations into national education policies and programmes and across all their operations, and to equip learners and educators with the knowledge, skills and attitudes needed for a green transition and sustainable development, including integrating sustainability into teaching and learning.

UNICEF ECARO's approach to harness the transformative potential of education for climate adaptation and resilience is embedded in its key principles for interventions in the region.

1 Strongly grounded in human and **children's rights**.

2 **Alignment** with UN, UNICEF, and regional policy commitments;

3 Focused on **equity, gender-sensitive** and responding to the needs of the most vulnerable children;

4 Demonstrated **value-added**;

5 Building on **programmatic experience** and calling on **cross-sectoral** expertise;

6 Ability to leverage **partnerships** and mobilize **resources**;

7 **Evidence** for learning.

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Normative and policy framework related to education and climate change

UNICEF believes that children have the right to know, to understand how to prepare and to explore how they can contribute to climate mitigation and adaptation and to a sustainable future and strives to empower children and young people to adapt and create a better world.

UNICEF ECARO's approach responds to and is in line with:

- **The Convention on the Rights of the Child (CRC)[xix] and 'Access to healthy and sustainable environment', which became a universal right in 2022,**
- **The UN Committee on the Rights of the Child General Comment No. 26** (2023) on Children's Rights and the Environment with a Special Focus on Climate Change,
- **Article 6 of the UN Framework Convention on Climate Change (UNFCCC)** on education, training and public awareness,[xx] including Action for Climate Empowerment which includes education and training as core pillars,
- **Article 12 of the Paris Climate Agreement (UNFCCC COP 21, 2015)** which reiterates the need for Parties to take measures to enhance climate change education and training.
- Priority Actions of **the Sendai Framework for DRR and the Comprehensive School Safety Framework**
- **Sustainable Development Goal 4** on education, particularly **target 4.7**, which calls for all learners to acquire by 2030 the knowledge and skills needed to promote sustainable development.
- **UNICEF's Global Strategy 2022-2025**, particularly (i) Goal 2 on access to quality learning opportunities and learning, skills, and children's participation and engagement, (ii) Goal 4 which focuses on water, sanitation and hygiene (WASH) and climate change, disaster risks and environment degradation, and (iii) the cross-sectoral priority Climate, Energy, Environment, and Disaster risk reduction (CEED).
- **The European Green Deal[xxi]** which guides policy and implementation for many countries from the region. In the education sector, UNICEF ECARO's programmatic efforts are aligned with the European Commission's efforts to (i) equip learners and educators with the knowledge, skills and attitudes needed for a greener and more sustainable economy and society; (ii) help education and training institutions to integrate sustainability into teaching and learning and across all aspects of their operations; and, (iii) create a shared understanding on the deep and transformative changes needed in education and training for sustainability and the green transition.

Implementation pillars: an overview

UNICEF ECARO's approach to transformative education for climate change mitigation, adaptation and resilience is articulated around four programmatic pillars:

1 Green Skills for Green Transition

2 Building Climate-resilient Education Systems

3 Greener and Safer Learning Facilities

4 Youth-led Climate Action

Source: Adapted from UNICEF Global Framework on Education for CCA and Resilience (UNICEF 2023).
Photo credits: © UNICEF/UN0398132/Ruslan; © UNICEF/UN0534107/Mahari; © UNICEF/RYuldashev/2020; © UNICEF/UN0302772

UNICEF programming for climate change in education builds on promising initiatives, actions and practices which are taking place in education in ECA, and which reflect both the growing interest of children and youth for climate change and UNICEF's commitment to harness the transformative potential of education for climate change adaptation and resilience. Countries have mostly focused on green skills, curricular reform, teacher training, STEM (Science, Technology, Engineering and Math) and greener and safer learning environments.[xxii]

I. Green Skills for Green Transition

Climate change adaptation and resilience requires awareness, knowledge and skills about the environment broadly and climate change, particularly its causes, consequences, and how to adapt to and mitigate its effects in all areas of life. In addition, as many economies aim to transition to low-carbon and resource efficiency, the new set of skills is required for jobs and occupations as some jobs are replaced, others redefined, and new jobs created. Countries in the region need a workforce that is environmentally conscious and equipped with technical and transferable skills to support their transition into a green and sustainable economy.

Green skills encompass *"skills and knowledge concepts needed to live in, develop and support a society which reduces the impact of human activity on the environment"*.[xxiii] They are further defined by the European Training Foundation (ETF) as: *"(i) technical knowledge and skills that enable professionals to effectively use green technologies and processes (i.e. resource efficient technologies or processes that reduce waste and minimize the environmental impact of human action); and (ii) transversal skills, as well as knowledge, values and attitudes that help them take pro-environmental decisions in their work and lives"*.[xxiv]

UNICEF is aligned with above definitions and brings into promotion of green skills three areas of programming expertise:

Science Technology Engineering, and Mathematics (STEM) teaching and learning

Digital learning and skilling

Transferable skills in formal, non-formal and TVET education streams

STEM education allows learners to understand how the world works, driving exploration and discovery.[xxv] STEM teaching and learning is grounded in real life problems and lived experiences and uses practices unique to science, technology, engineering and mathematics to solve them.[xxvi] UNICEF has traditionally supported STEM education with the aim to transform gender norms in education and accelerate girls' transition between education and jobs in STEM industries. While the focus remains on girls, UNICEF's intervention in the area encompasses all children across ages and stages of learning with the aim to build the strong foundations for green skills development in children.

Teaching of green skills requires **quality digital learning solutions and content, students' digital skills and teacher competencies.** UNICEF's work in ECA on digital transformation of education focuses on 1) developing relevant solutions and content, 2) promoting digital skills among children and youth to harness the potential of technologies in solving environmental challenges and taking action, as well as 3) supporting teachers in using digital tools and education technologies in their practice to enhance, among other things, teaching and learning for the green transition.

For several decades now, UNICEF has worked with governments in the region to promote **transferable skills** through formal and nonformal education. Guided by its **Global Framework on Transferable Skills**, UNICEF's skills programmes in ECA focuses on development of transferable skills for lifelong learning, personal empowerment, community engagement and employability, providing a solid basis for the promotion of green skills.

In ECA, UNICEF promotes learning and green skills for green transition and sustainability by supporting countries to:

- Develop or review national skills or competence framework for green skills;

- Develop or review curricula and syllabi on environmental education, climate change education and sustainability from preschool onwards, with a focus on indigenous knowledge and social climate justice;

- Develop or review STEM curricula considering green skills and the need to create sustainable technologies and innovative solutions for climate adaptation and mitigation and for sustainability;

- Mainstream green skills throughout curriculum subjects and school practices;

- Develop and improve action-oriented pedagogy for green skills development;

- Train teachers on the content and methodologies needed to pormote green skills, including through use of digital tools and developing teachers digital competencies;

- Develop teaching and learning materials for green skills and climate change that are available in local languages;

- Develop green skills assessment frameworks and practices;

- Develop or update career guidance and counselling programmes to better inform students about green jobs and green skills; Encourage schools to forge strong partnerships with local businesses, industries, and environmental organizations, which offer students valuable insights into real-world applications of green skills and provide opportunities for hands-on learning experiences.

- Promote the integration and use of the Learning4ClimateAction platform in national education platforms.

Green skills support and youth empowerment in Armenia

UNICEF Armenia, with funding support from Austrian Development Agency, has developed a comprehensive approach to scaling up climate action by addressing climate change simultaneously in the education sector, through project-based learning in formal and non-formal education, and with adolescent climate change engagement in their communities.

UNICEF, jointly with the Ministry of Education, integrated climate change into the curriculum (7th to 12th Grade) and developed climate change manuals. Using a cascade model, trained teachers became trainers in their own communities to equip other teachers with skills to implement climate change-related projects.

To support adolescents in becoming agents of change in their communities, UNICEF facilitated their participation in the preparation for and during COP27 and the signing of the Declaration on Children, Youth, Climate Action and Adolescents. UNICEF also supported setting up the online platform for young people to engage with policy makers and climate change experts and engaged in advocacy to ensure that the national vision, commitments and policies around climate change are child and youth sensitive. In addition, municipalities were encouraged to adopt and implement climate change and disaster risk reduction plans considering the needs of children, youth, and education institutions.

Overall, more than 28,000 adolescents and 2500 educators engaged in 420 schools in 99 municipalities across Armenia. Next steps include nationwide scaleup of the implementation of the climate change curriculum and blended approach: expanding it to preschool and 1-6th grade, the adoption of the multi-sectoral action plan for the implementation of the commitments taken by Armenia in the context of COP and the Declaration, and interventions to accelerate behavioral and social change efforts around climate change in schools and among young people.

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Textbooks and educational materials in Kyrgyzstan

UNICEF is going to support the provision of educational materials to expand learners' knowledge and understanding of climate change. Materials, developed by the government, UNDP and other partners in 2019 are packaged in a "Climate Box", which includes:

- A textbook with information materials, learning tasks, questions and games. Country examples of climate change impacts and response are included.
- "Climate Quiz"- cards with multiple-choice questions
- A poster/map "Climate change consequences by the end of 21st century if the world nations are not taking urgent measures to reduce GHG (greenhouse gas) emissions"
- A poster "How to reduce your carbon footprint"
- A CD/flash card with the Climate Box materials.

UNICEF is currently coordinating with UNDP to review and update the contents of the Climate Box, including the contextualization of the contents.

Greentech skills for girls – an approach to STEAM in Kazakhstan, Kyrgyzstan and Uzbekistan

The programme "UniSat" is a pioneering approach supported by UNICEF to promote greentech skills development with and for girls. The programme was launched in 2020 by UNICEF Kazakhstan jointly with the Al-Farabi Kazakh National University, and was extended in 2022 to two other countries- Kyrgyzstan and Uzbekistan. The UniSat programme aims to promote STEAM (Science Technology Engineering Arts and Math) and transferable, 21st century skills among girls for their employment opportunities and empowerment.

Through the programme, UNICEF supported the development of a UniSat Nano-satellite learning platform for girls to better understand and effectively interact with satellite technologies for the purpose of gathering data on environmental issues, such as urban air pollution. After completing a course, 190 young women and girls engaged in a research workshop to analyze data received from the returned nanosatellites and developed a project for their communities based on their analytics. The programme has a great potential to break prevailing negative gender stereotypes in Central Asia and it encourages young women and girls to envisage studies and careers in STEAM, particularly aerospace technologies, environment studies and climate adaptation.

Schools for Better Air Quality - promoting STEM in Serbia

Schools for Better Air Quality project was implemented by UNICEF, in partnership with the Ministry of Education of the Republic of Serbia and the financial support of the Government of Norway, with the aim of developing functional knowledge about harmful consequences of air pollution and the importance of environmental protection. Three online interdisciplinary courses were designed for primary and secondary school students, and they include lectures from official curriculum (see trailers for courses [Air pollution](#), [What is polluting my air?](#) [The air in our world and beyond](#)). Around 5,600 students and their teachers from 46 schools passed these online courses and increased their knowledge of air pollution and the possibilities to prevent the negative impact on health. The STEM online courses remain available and fully open for all schools. In addition, 350 teachers from selected schools passed programme on inquiry-based teaching and learning. Science fairs were organized in 14 municipalities where 575 students made 225 STEM project group presentations to 2,650 participants.

An online community (a Facebook group) for STEM teachers and other partners in the project was formed in order to continue engagement with the teachers, keep the momentum gained, and build a community for peer exchanges. A horizontal exchange for students was created on the discord server where students could exchange their gained knowledge as well as experiences with school STEM projects.

II. Building climate-resilient systems

In the past decades, UNICEF has shifted part of its work in education towards system strengthening to support sector-wide analysis, planning, implementation and accountability. UNICEF has developed strong partnerships with Ministries of education, national education agencies, local governments, academia, civil society and increasingly the private sector. In many countries, UNICEF is a partner of choice for education, with multiple entry points for organizational and institutional capacity building across the sector.

In ECA, UNICEF contributes to building climate-resilient systems by supporting countries to:

- Articulate and advocate for the roles and responsibilities of the education sector in climate change adaptation and mitigation and disaster risk reduction;

- Ensure that Education policy, planning and strategy documents (aligned with climate change mitigation and adaptation national priorities) are climate-risk informed and have clear and transparent implementation mechanisms and necessary resource allocations;

- Prioritize green skills in education sector analyses, and develop education policies and programmes across all education levels, general and TVET education, formal and informal pathways and services;

- Anticipate green skills needs and adjust training and qualification frameworks to match the future demands of green skills in various occupations and jobs;

- Develop pre-service and in-service training and professional development programmes to equip teachers with the knowledge, skills, attitudes and behaviour required to teach climate education programmes, promote green skills, support climate action and contribute to low-carbon and sustainable school environments;

- Include green skills, climate change and sustainability in school quality and teacher professional standards;

- Work with national governments to include climate-change related indicators as well as school safety indicators into Education Management Information Systems (EMIS) to collect data such as absences or school closures due to natural disasters.

- Develop cross-sectoral and multi-stakeholder partnerships with a wide range of ministries, national stakeholders, international organisations, the private sector, universities and civil society to support developing, implementing, funding and researching the green skills agenda, young people empowerment for climate action, greener and safer education facilities and climate-resilient education systems;

- Conduct costing studies, develop budget frameworks and sustainable financing mechanisms for all aspects of climate resilient education systems including ensuring learning continuity;

- Raise awareness on education stakeholders' understanding on the links between climate change and education systems and support social and behavioural change (SBC) activities at individual and organisational levels to transform education systems into climate-resilient systems;

- Generate evidence and learning including climate change impact data on the education sector and good practices at local, national and international levels;

- Advocate for greater education-related commitments in NDCs and National Adaptation Plans.

Sample climate related EMIS Indicators:

1. Number of unplanned school closure days for each of the following reasons: "climate hazard (drought, flood, storm, extreme heat, air pollution)", "health", "other"

2. Number of students who could not access school due to climate hazard(s) (drought, flood, storm, extreme heat, air pollution)

3. Are there alternative education modalities in place when school is closed? a. Temporary learning spaces (yes/no) b. Distance learning (yes/no); c. Radio/TV-based education (yes/no);

4. Number of buildings and rooms destroyed (cannot be used for teaching) by climate hazards

5. Number of buildings and rooms damaged (can still be used for teaching) by climate hazards

6. Loss of teaching and learning materials due to: climate hazards, and/or other reason

7. "Disaster management and risk reduction plan" a. Does the school have a disaster management and risk reduction plan or programme in place?; b. Does the school carry out disaster management and risk reduction training for 1.teachers, 2. non-teaching staff, 3. students?; c. Can school serve as a shelter or community center post-disaster?

8. Number of days that school has shortage of electricity

9. Number of days that school has shortage of water

10. Solar power: 1.Yes / 2. No If possible, schools should provide a percentage of solar-derived energy use out of all their energy use. Alternatively, schools can report how much energy they obtain from solar power as "Less than half of school needs" or "More than half of school needs"

Source: Adapted from UNICEF EAPRO work on climate-smart education.

Experiential learning and innovative solutions to mitigate climate change impact – North Macedonia

UNICEF **North Macedonia** supported experiential learning programmes with focus on environment and climate change. Programmes included in-service teacher training events aimed to support teachers to integrate hands-on learning activities for climate change adaptation and the environment in preschool and primary education.

Trained teachers guided more than 10,000 children through inclusive experiential learning activities. A handbook compiling experiential learning activities for environment and climate change for preschool and primary education was also developed and adapted for children with disabilities, particularly those with hearing and visual impairments, and developmental delays. UNICEF worked with the network of science centres to develop a framework that supports experiential learning activities when delivering the science curricula. The Science Learning Network (SLN) has so far shown massive potential to provide robust institutional support to the teaching quality in schools and convene young people through practical engagements and skill building opportunities. Additionally, the establishment of the Science Learning Network showed strong potential to accelerate the practical collaborations between governmental and science institutions with environment CSOs.

As part of Generation Unlimited activities, UNICEF developed a partnership with the Telekom Foundation for Macedonia under which young people developed and submitted their own solutions to mitigate climate change effects. Selected young people benefited from additional skills development programmes to pitch their ideas. The five best solutions were selected and received seed funding for implementing their innovation. Young people's solutions spanned waste reduction, promotion of circular economy through swaps and trades, home composters, and smart bins sorting waste in preparation for recycling.

In collaboration with **Türkiye** Ministry of National Education (MoNE), UNICEF is implementing the Education for Sustainable Development (E4SD) programme, which supports strengthening the national policy framework and improving teaching and learning processes and stakeholders' awareness of green skills in K-12; and development of the Sustainable Development Literacy Skills Framework. In the upcoming phases of the programme, UNICEF will support development of teaching materials to raise awareness among students, teachers, parents, administrators, and other personnel on sustainable development and climate change.

UNICEF and the Ministry of National Education are also implementing Green Competence of Adolescents programme, which aims to strengthen the green competence of adolescents, defined as the knowledge, abilities, values and attitudes needed to live, work and act in economies and societies seeking to reduce the impact of human activity on the environment. The program includes integrating green and digital skills into TVET curricula, capacity development of teachers on these subjects, the establishment of Green Comp Labs in TVET high schools, and providing opportunities for adolescents to participate and innovate. A comprehensive programme, "Twin Transition", will be delivered by UNICEF and MoNE focusing on green and digital transformation. The programme prepares adolescents for the job market, facilitates access to green jobs, and promotes sustainable work practices.

Through a partnership with the Turkish Economy Bank (TEB), UNICEF also aims to increase both the awareness of climate literacy among the public, families, adults, children, and young people through a structured Green Skills (Climate Literacy) Learning Package, and climate literacy skills through creation and dissemination of adult, children & youth-friendly communication resources. This package will include informative videos, capacity building and awareness raising sessions, story books and brochures to increase the public awareness of climate change related issues and to support them with practical day-to-day skills needed to build a greener society. These resources are likely to be used in non-formal education settings. Parents/caregivers will receive training sessions to provide them with tools and ways to communicate climate change-related topics with children and adolescents.

III. Greener and Safer Learning Facilities

UNICEF has robust experience in mainstreaming Disaster Risk Reduction (DRR) in the education sector and supporting school based DRR planning to support resilient development. Its work is firmly guided by the Sendai Framework for Disaster Risk Reduction (2015-2030). UNICEF has also promoted the Comprehensive School Safety Framework (2022-2030) and guidelines for WASH in schools.

In ECA, UNICEF contributes to greener and safer learning facilities by supporting countries to:

Promote the Comprehensive School Safety Framework (CSSF) 2022-2030 and its adaptation in national education strategies, needs assessments, education plans and local planning frameworks;

- Develop, implement and mobilize funds for Child-centred Education sector and School-based Disaster Risk Preparedness Plans that integrate climate change adaptation planning;

- Conduct climate impact, climate risks and sustainability audits across the education sector, including the education infrastructure (building, energy, water, WASH) and procurement (equipment, food, transport, ICT, learning materials) departments and different types of education institutions to inform policies to make schools greener and safer;

- Develop equity-based resource allocations to schools for climate change adaptation and mitigation;

- Revise and update building and equipment procurement standards to minimize carbon footprints, maximize clean energy and address water scarcity through WASH climate-resilient programming;

- Introduce innovative water conservation and renewable energy technologies;

- Promote sustainable school feeding programmes linked to promotion of healthy lifestyles through teaching and learning;

- Develop whole-school approaches for greener, safer and more sustainable schools, spanning school vision and ethos, school governance, management of premises and equipment, teaching and learning, inclusive participation of teachers, students and parents, and partnerships with local communities;

- Encourage and model school practices promoting greener and safer schools and recognizing the potential of interdisciplinary interventions, curricular and extracurricular activities, intergenerational activities and cross-school actions;

- Promote behavioural change amongst school stakeholders regarding energy usage, recycling, repurposing, responsible consumption, low-carbon transport solutions to come to school;

- Update school internal and external evaluation systems and quality assurance mechanisms to reflect commitments to green skills, youth-led climate action, climate-resilient education systems, and greener and safer schools;

- Promote school activities that enhance students' understanding of and connection with nature, including outdoor schools, forest schools and other experiential learning activities.

Climate resilient infrastructure, Aral Sea in Uzbekistan

Since 2020, UNICEF Uzbekistan has implemented the United Nations Joint Programme "Investing in a resilient future of Karakalpakstan by improving health, nutrition, water, sanitation, hygiene and well-being of adolescents and by harnessing the talents of youth during and after COVID- 19", funded by the Multi-Partner Human Security Trust Fund (MPHSTF) for the Aral Sea Region. The programme is supporting 25 schools around vulnerable areas of the Aral Sea with climate resilient infrastructure, complemented by a capacity building and educational components, including innovative low-cost solutions such as solar-based water heaters for hygiene facilities. Along with WASH renovation, UNICEF supported SBC campaigns, nutrition interventions in schools, and training of teachers and students on climate resilience to create greener and safer learning facilities.

School safety assessments in Kyrgyzstan and Armenia

In 2013/2014, UNICEF **Kyrgyzstan** supported the Government to carry out safety assessments on 806 preschools and 2,222 schools, identifying 81 percent of the schools and up to 89 percent of the preschool buildings and structures that are structurally unsafe and do not meet the legislative requirements on several safety measures. This was followed up by intense advocacy and technical support to the government resulting in the adaptation of the Strategy on "Safe Schools and Preschool Educational Institutions in the Kyrgyz Republic for 2015-2024" and the Roadmap for Disaster Risk Reduction in Educational Institutions of the Kyrgyz Republic for 2021-2025. UNICEF supports the school safety and implementation of the Roadmap by enhancing the resilience of children to climate and disaster risks in the Kyrgyz Republic programme.

Similarly in **Armenia,** UNICEF supported nationwide School Safety Assessment, which resulted in the adaptation of the Government's School Seismic Improvement Programme for 2015-2030. Following the adaptation of the Programme, the Government of Armenia mobilized over USD 150 million in investments (ADB, WB, state budget) to improve the seismic safety of prioritized schools. In addition, the Government of Armenia adopted a Safer School Budget Programme and invested in building 22 schools located in remote rural areas with less than 100 students based on the inclusive, safe and resource-efficient school design developed by UNICEF CO in Armenia.

IV Youth-led Climate Action

UNICEF ECA has a long experience in mobilizing and providing youth with opportunities to voice their concerns and priorities at the highest level, to participate in national and local decision-making processes, and to become agent of change in their local communities. UNICEF has also promoted activities focusing on adolescent engagement and advocacy to address climate change and environmental degradation over the years.

UNICEF entry points are multiple for youth-led action, within and beyond the education system.

In ECA, UNICEF promotes youth-led climate action by supporting countries to:

- Engage young people in climate discussions and policy-making at: (i) international, such as the Intergovernmental Declaration on Children, Youth and Climate Action and the participation in the Youth Delegate Programme in the UNFCCC, and (ii) national and local levels, including education specific ones;
- Support leadership skills and collective action programmes in schools and in communities for young people to engage in climate action, including through school competition and collaboration;
- Promote existing youth leadership and youth engagement programmes such as UPSHIFT, PODIUM and PONDER, within and beyond schools, for amplifying youth-led climate action;
- Include children 'eco-representatives' in schools, through child-parliaments and other children representation mechanisms in schools, to support climate action and enhance school accountability mechanisms towards sustainability and low-carbon commitments;
- Engage young people in U-Report polls on climate, environment and sustainability issues. Polls can focus on general climate issues or specific perspectives on actions that can be taken at school, community and individual level;
- Conduct Knowledge, Attitudes, Practice and Behaviour (KAPB) studies to explore the knowledge and perceptions of adolescents on climate change and their level of individual, collective and political action for climate change adaptation and climate justice.
- Support young people in contributing to their school and community resilience through exploring safety and resilience issues and proposing solutions for enhancing preparedness and risk reduction in schools and communities as well as in their families.

Tackling Climate Change with Young Innovators in North Macedonia

In North Macedonia, the UPSHIFT programme has been specifically tailored to tackle climate change issues on a local level. As of September 2023, a total of six UPSHIFT cycles were organized with 295 young innovators. 30 teams received funding and implemented 30 social innovations to tackle climate change, including rainwater collection and distribution system and drop-by-drop system for the agriculture secondary school in Skopje. A crowdfunding aspect of the UPSHIFT programme was also implemented for the first time – it started with a workshop to prepare young people to raise funds and advocate for their solutions on the ECROWD platform. Through the campaign 79 donors donated 190,250 MKD.

Supporting youth climate action in Türkiye

UNICEF Turkey has supported youth engagement in climate action and policy dialogue, starting with their involvement at the first-ever Türkiye National Climate Summit, where Youth Climate Envoys developed their declaration. Together with the Ministry of Environment, Urbanisation and Climate Change (MoEUCC) and non-governmental organization Doga Koruma Merkezi, more than 200 Youth Climate Envoys were trained on public engagement skills and participated in national and global climate-related policy-level discussions. A pre-COP27 youth meeting identified four Youth Climate Envoys who joined the Turkish government delegation and engaged at COP27.

The Youth Climate Envoys were also engaged in the UNICEF Children's Climate Child Risk Index and its indicator mapping, using Climate Scorecards.

In addition, UNICEF and the Ministry of Family and Social Services and in close coordination with the Office of the First Lady, organized a central event at the World Children's Day based on a regional youth consultation on climate change. This led to the establishment of a regional network for youth to actively engage, exchange and unify their efforts in the fight against climate change, environment studies and climate adaptation.

Resources

Relevant resources to support programming around the 4 pillars of UNICEF's approach in ECA to harness the transformative potential of education for climate change adaptation and resilience

Green Skills for a Green Transition:

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- UNESCO (2012) Exploring Sustainable Development: A Multiple-Perspective Approach
- UNESCO (2020) Education for Sustainable Development: A roadmap.
- UNESCO (2021) Getting every school climate-ready: How countries are integrating climate change issues in education.
- UNICEF (2019) It is getting hot: Perspectives from East Asia and the Pacific. Call for education systems to respond to the climate crisis. Perspectives from East Asia and the Pacific.

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- UNICEF (2022) Building Climate Change Resilient Education Systems Worldwide
- UNICEF ROSA (2022). Towards Climate Resilient Education Systems. A Tool for Reflection, Dialogue and Progress Assessment for Ministries of Education and its Partners. Kathmandu: UNICEF Regional Office for South Asia.
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Greener and Safer Learning Facilities

- Gibb, N. (2016) Getting climate-ready: a guide for schools on climate action. UNESCO.
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i UNICEF (2021) The Climate Crisis is a Child Rights Crisis: Introducing the Children's Climate Risk Index. New York: United Nations Children's Fund.

ii Source: UNICEF (2021) The Climate Crisis is a Child Rights Crisis: Introducing the Children's Climate Risk Index. New York: United Nations Children's Fund.

iii The percentages shown were calculated by dividing the number of children exposed by the estimated total number of children in the region.

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x Under the Paris Agreement, Nationally Determined Contributions are national climate plans highlighting climate actions, including climate related targets and policies.

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xii UNICEF (2019) It is getting hot: Perspectives from East Asia and the Pacific. Call for education systems to respond to the climate crisis. Perspectives from East Asia and the Pacific.

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xv Council of the European Union (2022) Recommendation of 16 June 2022on learning for the green transition and sustainable development

xvi UNICEF USA (2023). FROM ECO-ANXIETY TO ECO-OPTIMISM: Listening to a Generation of Resilient Youth.

xvii Based on a Web survey of 17,471 young people from 166 countries across all regions. (88% aged between 11 and 19 years old). UNESCO (2022). Youth demand for quality Climate Change Education.

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xix Article 24 of the CRC recognizes the right of the child to the enjoyment of the highest attainable standard of health, which includes access to drinking water and consideration for the dangers and risks of environmental pollution. Article 28 asserts the right to education, and Article 29 agrees that the education of the child shall be directed, among other things, to the development of respect for the natural environment.

xx which states that countries shall: (ii) develop and implement educational and public awareness programmes on climate change and its effects, (ii) train scientific, technical and managerial personnel, and (iii) cooperate in and promote at the international level the development and implementation of education and training programmes.

xxi https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/delivering-european-green-deal_en

xxii Uzbekistan and North Macedonia, for instance, conducted a Knowledge, Attitude and Practice study on Climate Change and Disaster Risks to inform school curriculum development. Knowledge, attitudes and practices study on climate change and the environment (teachers) | UNICEF North Macedonia

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Acknowledgments

UNICEF Regional Office for Europe and Central Asia
Geneva, Switzerland
Telephone: +41 22 909 5111
Email: ecaro@unicef.org
www.unicef.org/eca

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