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UNICEF Europe and Central Asia Regional Office

A Gender Mapping of the Green Economic Transition in Europe and Central Asia

November 2023

Contents

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List of Abbreviations

ADB	Asian Development Bank
CEDEFOP	European Centre for Development of Vocational Training
EBRD	European Bank for Reconstruction and Development
ECA	Europe and Central Asia
ECAR	Europe and Central Asia Region
ETF	European Training Foundation
EU	European Union
ICT	Information Communication and Technology
ILO	International Labour Organisation
IRENA	International Renewable Energy Agency
NDC	Nationally Determined Commitments
NEET	Not in Education, Employment or Training
OECD	Organisation for Economic Co-operation and Development
OSCE	Organization for Security and Cooperation in Europe
SDGs	Sustainable Development Goals
STEM	Science, Technology, Engineering and Math
UN	United Nations
UNDP	United Nations Development Programme
UNICEF	United Nations Childrens Fund

Acknowledgements

This regional assessment of gender in the green economic transition for Europe and Central Asia was completed by the UNICEF Europe and Central Asia Regional Office (ECARO) Gender Section. The report was researched and written by Rukayat Omolade Tokosi and Temitope Adeyemi Taiye, Gender Interns for UNICEF ECARO, and Haley Powers, Gender Consultant for UNICEF ECARO under the guidance of Sheeba Harma, Regional Gender Advisor for UNICEF ECARO.

The authors would like to thank Maria Osbeck (Senior Programme Specialist UNICEF ECARO), Maida Pasic (Regional Adviser Education UNICEF ECARO), and Rui Nomoto (Gender Specialist UNICEF ECARO) for their guidance and assistance in the development of this report. Additionally, the authors would like to extend their thanks to Nazar Mammedov (Education Specialist) and Valeirya Danilchenko (Emergency Officer) from UNICEF Turkmenistan, Bore Pucoski (Education Officer) from UNICEF North Macedonia, Milena Timotijevic (Emergency Officer) from UNICEF Serbia, Zorana Kataranovski from UN Women Serbia and Romain Boitard (Human Capital Development Expert-Focal Point for Green Transition-Country Liaison for Albania) from the European Training Foundation (ETF) for their contributions and insights.

Executive Summary

In 2018, it was estimated GDP for the Europe and Central Asia region (ECAR) could increase by 1.1 trillion USD if female labour force participation rates were equal to that of men.[1] While collectively female labour force participation has increased since 2018, it largely has not grown to meet the rapidly changing needs of the regional economy's green transition. Across the globe, female representation in the green economy is low and this is true for the Europe and Central Asia region as well. To better incorporate women and girls into the ever-changing green economy, it is critical to understand where girls and women are now and why, and what can be done to facilitate their engagement.

This report navigates through the multifaceted landscape of the rapidly expanding green economy within the ECAR. A light analysis of international, regional, and national commitments reveals an overall lack of gender mainstreaming within these commitments which is slowly being amended. Voices from the field indicate focus on the greening of the economy is being placed in male dominated sectors when female dominated sectors should also be considered.

The blend of technical expertise (in STEM fields) and transferable cross-cutting skills like creativity, problem-solving, and cognitive adaptability are increasing as critical for successful employment in the green economy. Overall, women are not engaging in fields where they might be able to attain these skills, nor are they receiving encouragement to consider them. Instead, this report finds that although girls and women perform better in math and science across the region, they are often steered to study areas and topics considered to be traditionally feminine, such as education and health and are largely represented in such professions. From hostile work environments to a lack of family friendly policies or networking opportunities, women who do pursue careers in the green economy in ECAR face many challenges to stay in their various fields.

As the transition to a greener economy evolves, additional programmes for upskilling and the introduction of new green concepts take center stage. Already initiatives exist through the private sector, government and non-government agencies to encourage girls and young women to develop interests in green economic skills. This report finds largely girls and young women with intersecting discriminations are absent from such programmes, as they are from legislation and commitments.

Based on the findings and conclusions of this report, it is recommended programmes, legislation, and commitments be expanded to include all girls and women from ECAR. Parents must be encouraged to support girls towards careers and learning pathways in the green economy, and workplace environments in green economy sectors must adapt to meet the needs of women. In doing so, female participation in the labour market can expand from simply growing, to growing in the right directions and allowing girls and women an equal space and participation at greening the world.

[1] ILO Bureau for Employers' Activities (ACT/EMP), Women in business and management: Gaining momentum in Eastern Europe and Central Asia, March 2018, <www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---act_emp/documents/publication/wcms_624225.pdf>, pp.viii

Introduction

As the effects of climate change are being felt more intensely, countries within the Europe and Central Asia (ECA) Region (ECAR) work to mitigate, prepare and respond to climate crises. The inception of the Sustainable Development Goals (SDGs) has led to a notable increase in the development of green sectors and opportunities aimed at fulfilling the 2030 agenda towards a green transition. These emerging sectors in ECAR encompass various initiatives and technologies, but they also reveal disparities in gender equality within them. Between 2015 and 2021, the European Union saw a twofold increase in labor shortages related to the green transition. The solar energy industry has issued warnings about an unprecedented lack of skilled workers, with estimates suggesting that over 500,000 employees will be required by 2030.[2]

Women and girls are the missing piece to the puzzle, who can fill the labour shortages and drive forward ECAR's transition to a green and sustainable economy. However, across the region, gender dimensions are missing in the policies, commitments and action plans that are paving the way for future economies. An already persistent gender gap in regional economies will be widened if girls and women are continued to be left behind. For stakeholders to understand how to move forward, they must know where they, and girls and women in the region, currently stand.

Section 1 of this mapping report discusses important international, regional, and national commitments, policies, and action plans related to the developing green economy and reviews them critically with a gender lens. Emerging sectors and skills relevant to the green transition are highlighted.

Section 2 introduces the position of women and girls in education and employment, specifically looking at the emerging sectors and skills discussed in section 1. Barriers to the engagement of women and girls in the green economy are identified followed by a brief overview of just some programmes implemented by regional stakeholders to address the barriers and gender gaps.

Finally, Section 3 provides recommendations for governments, civil society actors, and private sector on how to ensure women and girls move with the green economy transition equally across the ECA region.

[2] Schmela, Michael, EU Market Outlook for Solar Power 2022-2026, December 2022, <https://api.solarpowereurope.org/uploads/5222_SPE_EMO_2022_full_report_ver_03_1_319d70ca42.pdf>, pp.75, accessed 23 September 2023.

Section 1: The Green Economy and Green Skills in the Europe and Central Asia Region

1.1 International, Regional and National Commitments of Countries in Europe and Central Asia

International Commitments

Countries in the Europe and Central Asian (ECA) region (ECAR) have embarked on a path towards a sustainable and environmentally conscious future, driven by their commitments to green skills development and a transition to a green economy. All countries in the region participate in the United Nations (UN) 2030 Agenda for Sustainable Development, which includes target goals both for improvement on gender equality and clean and sustainable futures. The other primary international agreements on climate change to which all but one country (Kosovo[3] is not a signatory) in the region have committed is The Paris Agreement, seeking to reduce greenhouse gases, provide financing to countries, strengthen their resilience and abilities to adapt to climate change[4] and the Kyoto Protocol which entered into force in 2005.[5] Within the first section of The Paris Agreement, calls on signatories to consider not only gender equality but the empowerment of women as they develop their plans to address climate change.[6] Countries must submit updated national climate action plans, also called Nationally Determined Contributions (NDCs) which are a blueprint for how countries aim to reach their targets under the Paris Agreement.

In the first generation of NDCs in the ECA region, only Georgia and Tajikistan mentioned gender in their NDCs.[7] Their updated NDCs additionally incorporate a gender lens, Tajikistan specifically mentioning consultations with the Committee on Women's Affairs and Family to enhance the domestic response and improving women's awareness regarding climate change risks. The government additionally plans to develop indicators for climate-change and disaster risk management that are gender-sensitive, which extend to other sectors as well.[8] Georgia's NDC mentioned a commitment to identifying the needs of women and incorporating them into climate adaptation measures, empowering them as agents of change through incorporation in decision-making processes, and asking stakeholders and organizations to adapt resources to be gender responsive.[9] To date, 15 countries have submitted a revised NDC,[10] 11 of which now incorporate

[3] All references to Kosovo in this document should be understood in reference to the United Nations Security Council Resolution 1244.
[4] United Nations, 'The Paris Agreement,' Climate Action, <www.un.org/en/climatechange/paris-agreement>, accessed 23 September 2023.
[5] United Nations Climate Change, 'What is the Kyoto Protocol,' Processes and Meetings, <https://unfccc.int/kyoto_protocol>, accessed 23 September 2023.
[6] The United Nations, Paris Agreement, 2015, <https://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf>, pp.2, accessed 23 September 2023.
[7] UNDP, The State of Climate Ambition: Regional Snapshot: Europe and Central Asia, New York, NY, June 2022, <https://climatepromise.undp.org/sites/default/files/research_report_document/UNDP%20-%20Europe%20and%20Central%20Asia%20Regional%20Snapshot%202022-%20State%20of%20Climate%20Ambition%20.pdf> accessed 20 September 2023
[8] Government of the Republic of Tajikistan, Tajikistan: Updated Nationally Determined Contributions (NDC) of the Republic of Tajikistan, 2021, <https://policy.asiapacificenergy.org/sites/default/files/Updated%20Nationally%20Determined%20Contributions%20%28NDC%29%28EN%29.pdf>, accessed 23 September 2023
[9] The Government of Georgia, *Georgia's Updated Nationally Determined Contribution (NDC)*, 2021, <https://unfccc.int/sites/default/files/NDC/2022-06/NDC%20Georgia_ENG%20WEB-approved.pdf>, accessed 23 September 2023.
[10] UNDP, 'Where We Work: Climate Promise,' <https://climatepromise.undp.org/what-we-do/where-we-work#4>, accessed 20 September 2023.

gender.[11] Out of all countries with submitted NDCs, Belarus and Bosnia and Herzegovina have no gender specific considerations in their NDCs.[12] In their NDC, Türkiye mentions accomplishments in incorporating gender as part of their climate action but has not specifically included gender and women's right perspectives in its Intended NDC (INDC).[13] In place of individual member states, the European Union submitted a joint NDC which mentions gender responsive planning among all its members.[14]

Six countries have given gender significant consideration in their updated NDCs (Georgia, North Macedonia, the Republic of Moldova, The Republic of Kyrgyzstan, Tajikistan, Turkmenistan), however most are still largely gender blind (Uzbekistan[15] mentions women and gender mainstreaming once in their document but without many specifics). Women are mentioned rarely while girls are almost everywhere not mentioned. Several countries, such as Türkiye mentioned above, discuss outside achievements in improving overall gender equality, or the impact of climate change on women and girls in the country. If gender is mentioned, it is often in tandem with "other vulnerable groups" and rarely with specific steps of action. The Republic of Moldova and Tajikistan, specifically mention in their NDC's consultations with women's groups in the updating process. Additionally, the Republic of Moldova is the only country to have specifically mentioned women with intersectional disparities, identifying a need to conduct in-depth gender reviews for the impact of climate change on rural women.[16]

In Focus: The Republic of Moldova

The NDC for the Republic of Moldova[17] provides an excellent blueprint for a gender responsive policy. Not only is gender taken into consideration throughout the entire document, but a single section is also devoted to gender specific activities and actions. Activities and actions include capacity building, knowledge sharing and communication, climate action and access to finance, and monitoring and evaluation. Among these activities and actions include participation and leadership on climate coordination bodies as well as focused trainings and other education plans for women related to climate change.

The document demonstrates how the Republic of Moldova has already interlinked gender and climate action, through inclusion in some national legislation and assessments, and how it plans to improve and scale up. Specific considerations are given to understanding the different needs of women and girls from vulnerable groups, specifically those from rural areas who are identified as those most at risk.

Among all the planned investments, in each identified priority sector, the NDC includes to what level (from low to high) there is a gender impact.

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[11] UNDP, 'Where We Work: Climate Promise,' <https://climatepromise.undp.org/what-we-do/where-we-work#4>, accessed 22 September 2023.

[12] UNDP, *The State of Climate Ambition: Regional Snapshot: Europe and Central Asia*, New York, NY, June 2022, <https://climatepromise.undp.org/sites/default/files/research_report_document/UNDP%20-%20Europe%20and%20Central%20Asia%20Regional%20Snapshot%202022-%20State%20of%20Climate%20Ambition%20.pdf> accessed 20 September 2023

[13] Republic of Türkiye, *Republic of Türkiye Updated First Nationally Determined Contribution*, 2021, <https://unfccc.int/sites/default/files/NDC/2023-04/T%C3%9CRK%C4%B0YE_UPDATED%201st%20NDC_EN.pdf>, accessed 23 September 2023; Care About Climate, 'NDC Equity Tracker: Türkiye,' <https://www.ndcequitytracker.org/turkey-en>, accessed 22 September 2023.

[14] Germany and the European Commission, *Update of the NDC of the European Union and its Member States*, Berlin, December 2020, <https://unfccc.int/sites/default/files/NDC/2022-06/EU_NDC_Submission_December%202020.pdf>

[15] Republic of Uzbekistan, Updated Nationally Determined Contributions, 2021, <https://climate-laws.org/documents/uzbekistan-first-ndc-updated-submission_29c8?id=uzbekistan-first-ndc-updated-submission_380c>, pp.24, accessed 25 September 2023.

[16] The Government of the Republic of Moldova, *Updated Nationally Determined Contribution of the Republic of Moldova*, March 2020, <https://unfccc.int/sites/default/files/NDC/2022-06/MD_Updated_NDC_final_version_EN.pdf>, pp.31, accessed 23 September 2023.

[17] Ibid.

Regional Commitments

In addition to international commitments, countries in ECAR have committed to regional policies, designed to cater to local economic conditions, foster foundational skills, integrate digital technologies to empower individuals and underscore the pivotal role of education.[2] Across the region, 10 countries are part of the Organisation for Economic Cooperation and Development (OECD)'s Green Action Task Force.[18] In Central Asia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan (in addition to Afghanistan) have developed, in partnership with Deutsche Gesellschaft Fur Internationale Zusammenarbeit (GIZ), a regional climate action plan known as the Green Central Asia Initiative.[19] The participating countries prioritized several topics in themed clusters on which to focus their greening efforts.[20]

The European Union has implemented several commitments, not just for member states but additionally for neighboring countries or "partner countries". For example, Armenia, Azerbaijan, Belarus, Georgia, the Republic of Moldova and Ukraine participate in the 2019 programme "European Union for the Environment" which strengthens management of natural resources and seeks to improve the populations environmental well-being[21] as well as the EU Industrial Emissions Directive.[22] However, the primary initiative from the EU is their Green Deal which addresses climate related legislation, develop climate resilient societies and recover Europe's biodiversity, among other targets.[23]

Of the regional commitments mentioned, only the European Green Deal incorporated gender considerations. Through the policy, the EU encourages member states to "integrate dimensions of human rights and gender equality" in their national action plans and strategies and align new policies for greening sectors such as energy and transport to align with EU policies in gender and LBGTIQ equality. Among some of the reskilling and upskilling achievements cited by the EU4Environment programme is the training of more than 150 stakeholders from the business sector and government on gender sensitization.[24] However, according to a study conducted by Friedrich Ebert Stiftung, the strategies and laws under the Green New Deal are largely gender blind or lack sufficient gender analysis.[25]

National Commitments

At the national level, while overall there is a lack of gender mainstreaming in climate action plans and strategies, this is beginning to change. All countries in the region have either developed or are developing legislation related to climate action with components addressing the shift to a greener economy. In Armenia a short-term work programme in their agriculture sector was developed

[18] OECD, 'GREEN Action Task Force: Greening the Economy in Eastern Europe, Caucasus and Central Asia,' < www.oecd.org/environment/outreach/green-action-task-force>, accessed 23 September 2023
[19] GIZ, 'Regional Action Plan for a Joint Political Dialogue on Climate, Environment and Security,' November 2021, <http://greencentralasia.org/en/doc/1649309482/1636624593>, accessed 23 September 2023.
[20] Ibid, pp.3
[21] EU4Environment, Towards a green economy in the Eastern Partner countries: Progress at mid-term, October 2021, <www.eu4environment.org/app/uploads/2021/10/Towards-a-green-economy-in-the-Eastern-Partner-countries-web.pdf>, accessed 23 September 2023.
[22] OECD, Green Economy Transition in Eastern Europe, the Caucasus and Central Asia: Progress and Ways Forward, October 2022, <www.oecd-ilibrary.org/environment/green-economy-transition-in-eastern-europe-the-caucasus-and-central-asia_c410b82a-en>, accessed 23 September 2023.
[23] European Council, 'European Green Deal,' September 2023, <www.consilium.europa.eu/en/policies/green-deal/>, accessed 23 September 2023.
[24] EU4Environment, 'Educational courses to scale up a green transition in the Eastern Partnership countries,' June 2023, <www.eu4environment.org/app/uploads/2023/06/Eductional-courses-flier-1.pdf>, accessed 23 September 2023.
[25] Heffernan, Rose et al. *A Feminist European Green Deal Towards an Ecological and Gender Just Transition*, Bonn, Germany, March 2022, <https://eeb.org/wp-content/uploads/2022/03/18990.pdf>, pp.23, accessed 23 September 2023.

through the Green Task Force which provided work to vulnerable communities while Georgia and Moldova both provided financial support to innovative and green enterprises.[26] In Italy, the government developed a national recovery plan which included investments meant to "boost gender equality and the transition to a low-carbon economy."[27] However, while governments claim gender-responsive legislation and programming, the result is not always so. In the Italian recovery plan, the investments went to male dominated sectors without the application of a gender lens or programmes which encourage female participation.[28]

Within Central Asian countries, the analyzed commitments and policies related to green skill development as a whole lack a gender lens. Nonetheless, Kyrgyzstan stands out in Central Asia for its explicit commitment to promoting gender mainstreaming in its sustainable finance roadmap. Meanwhile, in the Balkans and Europe, there are indications of progress in terms of gender inclusivity, exemplified by Moldova's efforts to include women in capacity-building webinars[29] and Armenia's alignment with international agreements, such as the EU-Armenia Comprehensive and Enhanced Partnership Agreement (CEPA),[30] signifying steps toward a more gender-inclusive approach in climate action and green initiatives.

In Focus: The Kyrgyz Republic

The Republic of Kyrgyzstan provides a key look at how gender can be well incorporated into national climate legislation and action plans. In addition to a gender sensitive NDC, the Kyrgyz Republic incorporated gender equality in their Operational Framework for Managing and Accessing Climate Finance[31] as well as in their National Financing Facility which stimulates financing for sustainable green development.[32]

The updated National Development Strategy 2040 discusses a need to expand the economic opportunities of women through "support, training, support on business issues, financial and digital literacy," connected to an ability to adapt to changes in the labour market. The strategy highlights a need for targeted projects to engage women in science, the development of digital skills, and a regulatory framework to increase the participation of women in vocational technical education.[33]

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[26] OECD, *Green Economy Transition in Eastern Europe, the Caucasus and Central Asia: Progress and Ways Forward*, Paris, October 2022, <www.oecd-ilibrary.org/environment/green-economy-transition-in-eastern-europe-the-caucasus-and-central-asia_c410b82a-en>, accessed 23 September 2023.
[27] Tostado, Lisa and Katy Wiese, 'Report Chapter: European Green Deal: Integrate gender and intersectional approach into green budgeting and taxation,' Heinrich Boll Stiftung, July 2021, <https://eu.boell.org/en/2021/07/16/green-gender-budgeting-taxation>, accessed 23 September 2023.
[28] Ibid.
[29] EU4Environment Green Economy in Eastern Partner Countries, 'Towards a Green Economy with EU4Environment in the Republic of Moldova,' <www.eu4environment.org/app/uploads/2022/08/Moldova-profile-2022.pdf>, pp.8
[30] OECD, Green Economy Transition in Eastern Europe, the Caucasus and Central Asia Progress and Ways Forward Policy Highlights, 2022, <www.oecd.org/environment/outreach/Policy-Highlights-Green-Economy-Transition-in-Eastern-Europe-the-Caucasus-and-Central-Asia.pdf>, pp.4
[31] Government of the Kyrgyz Republic, *Climate Investment Programme Operational Framework for Managing and Accessing Climate Finance in the Kyrgyz Republic*, May 2018, <www.cif.org/sites/cif_enc/files/ppcr_strategic_programme_for_climate_resilience_for_kyrgyz_republic_final.pdf>, accessed 23 September 2023.
[32] Omuraliev, Talant, *Results of the Research: "An Assessment of the Green Finance Market in the Kyrgyz Republic,"* Bishkek, Kyrgyzstan, 2023, <www.undp.org/sites/g/files/zskgke326/files/2023-05/AN%20ASSESSMENT%20OF%20THE%20GREEN%20FINANCE%20MARKET%20IN%20THE%20KYRGYZ%20REPUBLIC.pdf>, pp.17, accessed 23 September 2023.
[33] The President of Kyrgyz Republic, 'National Programme for the development of the Kyrgyz Republic until 2026,' October 2021, <https://president.kg/national-strategy>, accessed 23 September 2023.

1.2 The Green Economy in Europe and Central Asia

Emerging Sectors

In a review of the regional and national commitments present in ECAR, several sectors have presented themselves as being critical to the green economy in the region. The EU's Green Deal, for example, focuses highly on the development of the renewable energy sector, also a focus of several national commitments in the Central Asian region. Uzbekistan has implemented significant policy changes to enhance the utilization of renewable energy sources.[34] Hydropower is the largest source of renewable energy in Central Asia, however, wind and solar are becoming highly competitive energy sectors in the region.[35] In 2013, Kazakhstan began increasing their shares of renewable energy and as of 2022 130 new renewable energy facilities were created, with twelve of them commissioned.[36] Kazakhstan inaugurated the first major solar power plant in Central Asia back in 2019.[37] Hyrasia One, which operates as a subsidiary of the European project developer SVEVIND, plays a significant role in advancing renewable energy initiatives in Central Asia and are developing a wind-solar-hydrogen plant in Central Asia.[38] According to the European Training Foundation (ETF) and the International Renewable Energy Agency (IRENA), solar photovoltaics hosted the most global renewable energy jobs in 2020, followed by bioenergy and hydropower.[39]

In addition to the renewable energy sector, the EU and countries in Central Asia have adopted a 'circular economy' concept that recognizes waste as resources to be recycled instead of the traditional approach to disposal.[40] It is a strategic approach to economic growth that aims to tackle major global issues like 'climate change, biodiversity loss, waste, and pollution' by addressing their underlying causes, all while revealing improved prospects for economic growth.[41] Initiatives like the EU's Central Asia Water, Environment, and Climate Change Cooperation and Circular Economy Action Plan were put in place to advance the circular economy and achieve the objectives of the 2030 Sustainable Development Goals (SDGs). Waste management and sustainable water resource management are two growing sectors within the circular economy that play vital roles in this green transition. These initiatives create a prospect for new green economic opportunities. The EU's Circular Economy Action Plan is expected to generate approximately 700,000 new jobs, particularly in areas related to sustainable production, recycling, and the information and communication technology (ICT) sector.[42] In 2019, the Republic of Türkiye launched the Zero Waste Action Plan as part of the Zero Waste Project, aiming to reduce non-recyclable waste and promote a circular

[34] FAO, 'Uzbekistan: Strategy for the transition of the REpublic of Uzbekistan to a Green economy in the period of 2019-2030,' October 2019, <www.fao.org/faolex/results/details/en/c/LEX-FAOC197240>, accessed 23 September 2023.
[35] ADB, 'Five Things to Know About the Future of Energy in Central Asia,' January 2023, <www.adb.org/news/features/five-things-know-about-future-energy-central-asia>, accessed 23 September 2023.
[36] Satubaldina, Assel, 'Kazakhstan Powers Ahead, Unleashing Potential of Renewable Energy Under Critical Challenges,' The Astana Times, Astana, June 2023, <https://astanatimes.com/2023/06/kazakhstan-powers-ahead-unleashing-potential-of-renewable-energy-under-critical-challenges>, accessed 23 September 2023.
[37] Uatkhanov, Yerbolat,, 'Karaganda Region Launches Third Solar Power Plant,' The Astana Times, Nur-Sultan, September 2019, <https://astanatimes.com/2019/09/karaganda-region-launches-third-solar-power-plant>, accessed 23 September 2023.
[38] 'Hyrasia Energy,' <https://hyrasia.energy>, accessed 23 September 2023.
[39] European Training Foundation, Presentation for UNICEF ADAP Network Meeting, Helsinki, 2023, pp.11
[40] Investment Promotion Agency Under the Ministry of Investments and Foreign Trade of the Republic of Uzbekistan, 'European Union supports Green Energy and Waste Recycling in Central Asia,' Nur-Sultan, Kazakhstan, <https://invest.gov.uz/mediacenter/news/european-union-supports-green-energy-and-waste-recycling-in-central-asia>, accessed 23 September 2023.
[41] Albaladejo, Manuel, Laura Franco-Henao, Paula Mirazo, 'What is the Circular Economy?' *UNIDO,* Vienna, March 2021, <https://iap.unido.org/articles/what-circular-economy#fn-642-0>, accessed 23 September 2023.
[42] European Commission, 'Changing how we produce and consume: New Circular Economy Action Plan shows the way to a climate-neutral, competitive economy of empowered consumers,' Brussels, March 2020, <https://ec.europa.eu/commission/presscorner/detail/en/ip_20_420>, accessed 23 September 2023.

economy.[43] The project aims to bring the recycling rate to 35% by the end of 2023. It is estimated that it will bring about 100,000 job opportunities and $2.7 billion in annual salaries.[44] Tetra Pak, a Swedish company, has been actively involved in sustainable waste management and circular economy efforts across Europe. From 2013 to 2019, Tetra Pak collaborated with the Environmental Ambassadors for Sustainable Development (EASD) in Serbia on the 'Eco-Package' initiative, educating students in Eco-schools and communities on proper beverage carton disposal and recycling.[45]

In recent years, there has been increasing attention on managing water resources in a sustainable way to ensure fair access to clean drinking water and sanitation, especially in the aftermath of the COVID-19 pandemic. This is particularly the case in Central Asia, where water scarcity remains a major issue.[46] The Water, Sanitation, and Hygiene sector has become more prominent as it tackles these critical concerns. The significance of Water, Sanitation, and Hygiene extends beyond improving public health opening various environmentally friendly prospects in the region.[47] This sector underscores the value of using water efficiently and the creation of sustainable infrastructures and technologies that support this goal. In 2022, the World Bank granted $45 million for the Tajikistan Water Supply and Sanitation Investment Project, overseen by the Ministry of Energy and Water Resources and State Unitary Enterprise. This initiative focuses on improving sustainable water supply and reinforcing the capacity of institutions in the water supply and sanitation sector to enhance service delivery by 2027. [48] The shift toward an environmentally sustainable, resource-efficient economy (green economy), entails significant changes that extend beyond the introduction of new products and services. It also entails reconfigurations in production methods and business practices. Consequently, this transformation in the economy will naturally result in changes in the skills demanded and the responsibilities associated with numerous existing jobs.[49]

Emerging Skills Requirements for the Green Economy

According to the United Nations Environmental Programme (UNEP), a ‘green economy is one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities.[50] By achieving gender equality in the green economy, men and women can equally contribute to the full realization of the sustainable development where economic prosperity, social inclusion and environmental sustainability go hand in hand. To promote the

[43] UNDP Türkiye, ‘The Zero Waste Project receives UNDP Turkey's first Global Goals Action Award,’ March 2021, <www.undp.org/turkiye/press-releases/zero-waste-project-receives-undp-turkeys-first-global-goals-action-award>, accessed 23 September 2023.
[44] Daily Sabah, ‘Turkey goes zero waste in agriculture,’ Istanbul, Türkiye, March 2021, <www.dailysabah.com/turkey/turkey-goes-zero-waste-in-agriculture/news>, accessed 23 September 2023.
[45] Mihajlov, Anđelka, Aleksandra Mladenović , Filip Jovanović, *Circular Economy in Serbia: Process Started*, Environmental Ambassadors for Sustainable Development, 2019, <https://circulareconomy.europa.eu/platform/sites/default/files/circular_economy_in_serbia_-_the_process_started.pdf>, pp.24, accessed 23 September 2023.
[46] United Nations Suatainable Development Group, ‘UN teams in Central Asia leading the way in sustainable water action,’ August 2022, <https://unsdg.un.org/latest/stories/un-teams-central-asia-leading-way-sustainable-water-action>, accessed 23 September 2023.
[47] UNICEF, ‘Water Sanitation and Hygiene (WASH),’ <https://www.unicef.org/wash>, accessed 23 September 2023.
[48] The World Bank, ‘Tajikistan to Improve Access to Safe Drinking Water, with World Bank Support,’ June 2022, <www.worldbank.org/en/news/press-release/2022/06/23/tajikistan-to-improve-access-to-safe-drinking-water-with-world-bank-support>, accessed 23 September 2023.
[49] Arthur, Charles, ‘What are Green Skills?,’ UNIDO, August 2022, <www.unido.org/stories/what-are-green-skills>, accessed 23 September 2023.
[50] Fedrigo-Fazio, Doreen and Brink, Patrick ’Green Economy: What do we Mean by Green Economy?’ UNEP, 2012, <https://wedocs.unep.org/bitstream/handle/20.500.11822/8659/-%20Green%20economy_%20what%20do%20we%20mean%20by%20green%20economy_%20-2012Main%20briefing%202012--Final.pdf>, pp.3.

development of a greener economy and enable the sustainable management of economic activities, having and learning green skills are vital.[51]

Green skills are ‘’skills and knowledge concepts needed to live in, develop and support a society which reduces the impact of human activity on the environment.”[52] They are important in the promotion and further development of a greener economy, as they enable the sustainable management of economic activities.[53] The ETF expands upon this definition, explaining green skills are “(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.”[54] These skills can be categorized into two main sets: technical skills such as science, technology, engineering and mathematics (STEM) skills and transferable cross-cutting skills such as ‘creativity, problem-solving, and cognitive adaptability’.[55]

UNICEF ECAR aligns green skills programming into three primary areas:

- **STEM education** which improves understanding of the world and encourages exploration and discovery to solve problems. UNICEF programming related to STEM education aims to transform gender norms and facilitate the transition of girls from education to employment. STEM education is geared towards all age groups and aspects of learning to build strong green skills developmental foundations.
- **Digital learning and skilling** which is critical to the teaching of green skills. UNICEF works to aid in the development of solutions and content, promote the use of digital skills to solve environmental challenges, and improve teacher’s competency in using digital tools.
- **Transferable skills in formal, non-formal and TVET education streams**, as guided by the Global Framework on Transferable Skills, aims to develop skills for lifelong learning, engaging with the community, general employability, personal empowerment as creating a foundation for promoting other green skills.[56]

The ETF categorizes their skills as a pyramid, with positive attitudes towards sustainable practices at the bottom (skills everyone can achieve), while increasing technical knowledge skills until the top where “specific green skills for new occupations” sits, which could relate to jobs such as wind mill turbine installer and sustainability officer.[57] These skills contribute to growing green jobs such as sustainability manager, wind turbine technician, ecologist, risk advisor, and environmental health safety specialist among many others.[58]

[51] LinkedIn, Global Green Skills Report 2022, <https://economicgraph.linkedin.com/content/dam/me/economicgraph/en-us/global-green-skills-report/global-green-skills-report-pdf/li-green-economy-report-2022.pdf>, pp.6, accessed 23 September 2023.
[52] UNICEF ECARO, Programme Brief: Harnessing the Transformative Potential of Education for Climate Change Mitigation, Adaptation and Resilience Building in Europe and Central Asia, October 2023, pp.7
[53] LinkedIn, Global Green Skills Report 2022, <https://economicgraph.linkedin.com/content/dam/me/economicgraph/en-us/global-green-skills-report/global-green-skills-report-pdf/li-green-economy-report-2022.pdf>, pp.6, accessed 23 September 2023.
[54] UNICEF ECARO, Programme Brief: Harnessing the Transformative Potential of Education for Climate Change Mitigation, Adaptation and Resilience Building in Europe and Central Asia, October 2023, pp.7
[55] Margarita Langthaler, Simon McGrath, Presha Ramsarup, Skills for Green and Just Transitions: Reflecting on the role of Vocational Education and Training for Sustainable Development, OFSE Briefing Paper, No. 30, Austrian Foundation for Development Research, Vienna, February 2021, <www.econstor.eu/bitstream/10419/231419/1/1750043505.pdf>, pp.14, accessed 23 September 2023.
[56] UNICEF ECARO, Programme Brief: Harnessing the Transformative Potential of Education for Climate Change Mitigation, Adaptation and Resilience Building in Europe and Central Asia, October 2023, pp.7, accessed 25 October 2023.
[57] European Training Foundation, Presentation for UNICEF ADAP Network Meeting, Helsinki, 2023, slide 10.
[58] Ibid., slide 10.

Across the region, countries are integrating green skills and climate related education into their curricula. In Hungary, a whole institution approach is being integrated by the Green Kindergarten Network and the Eco-School network, which in the future will seek to expand into TVET institutions.[59] Italy has incorporated climate change into their curriculum and has encouraged students to "assume ecologically sustainable behaviours and personal choices."[60] UNICEF programming in several different countries aims to incorporate green skills and disaster risk reduction into national education plans and curricula across the region.[61] Examining the different documents discussing the integration of the green transition into education, such as the Council of the EU's Recommendation on learning for the green transition and sustainable development or the OECD's "Think Green Education and climate Change", gender is only lightly incorporated.[62]

[59] UNESCO, Getting every school climate-ready: How countries are integrating climate change issues in education, 2021, <https://unesdoc.unesco.org/ark:/48223/pf0000379591/PDF/379591eng.pdf.multi>, pp.10
[60] Ibid., pp.8
[61] UNICEF ECARO, Programmeme Brief: Harnessing the Transformative Potential of Education for Climate Change Mitigation, Adaptation and Resilience Building in Europe and Central Asia, October 2023, accessed 25 October 2023.
[62] Official Journal of the European Union, Council Recommendation of 16 June 2022 on learning for the green transition and sustainable development, June 2022, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022H0627(01)>, accessed 15 October 2023.; OECD, Think Green: Education and climate change, November 2021, <www.oecd-ilibrary.org/docserver/2a9a1cdd-en.pdf?expires=1698252210&id=id&accname=guest&checksum=A2C4B6B6CED720E3DE1286128B175C1D>, accessed 25 October 2023.

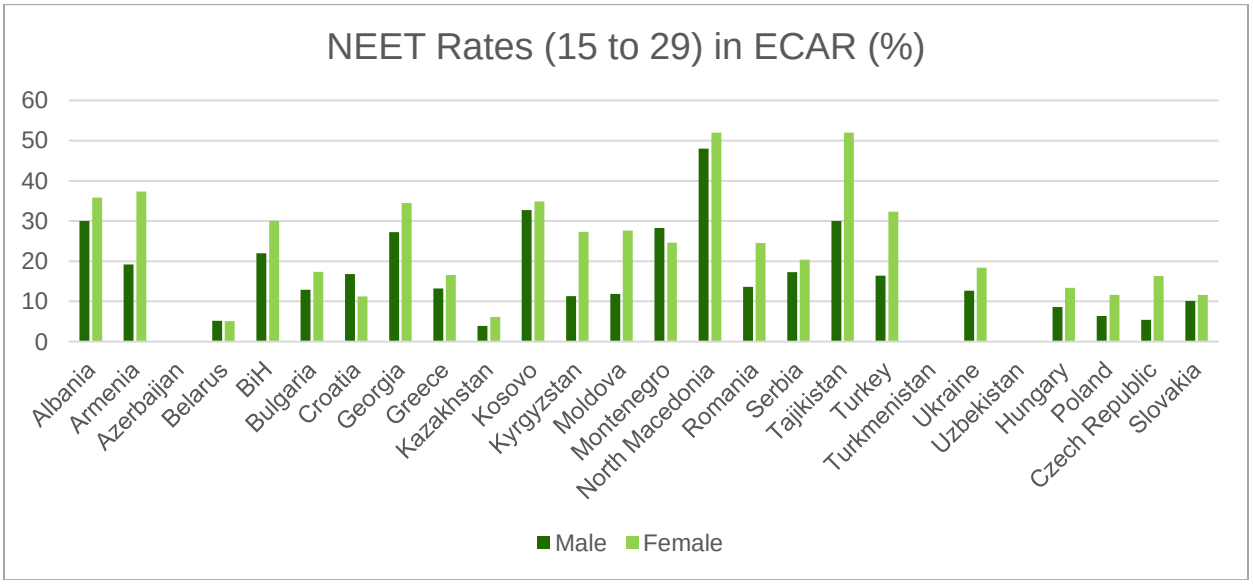
Section 2: The Situation of Girls and Women in Europe and Central Asia

2.1: Position of Girls and Women in Education and Employment

In the ECA context girls and women, just like their counterparts across the globe, face challenges starting from an early age which inhibit their ability to achieve success in both the economy as a whole and in the developing green economy.

In ECAR, primary and secondary school enrolment[63] and completion[64] rates are high, on average higher among girls than boys. The same can be said for tertiary enrolment and attainment. In all but two countries where data was available, girls had higher tertiary enrolment rates than boys. In all countries where data was available, girls had higher levels of tertiary attainment.[65] Despite girls having high levels of primary and secondary school enrolment and higher levels of tertiary educational attainment than their male counterparts, overall girls are absent in regional economies with generally higher rates of not being in education, employment or training (NEET) or unemployment and lower labour force participation rates.

Figure 1: Youth NEET Rates in ECAR (ages 15 to 29) based on most recent available data (Source: Listed in the first Annex)



[63] As per, World Economic Forum, Global Gender Gap Report 2023: Insight Report, Geneva, June 2023, <www3.weforum.org/docs/WEF_GGGR_2023.pdf?_gl=1*1r12v3m*_up*MQ..&gclid=CjwKCAjwrranBhAEEiwAzbhNtaXWcMDWsSUArOYmCt6zEcdcsDjPDnDgzBWW6Zh6b2d3UhToJTB6OxoCGtQQAvD_BwE>, accessed 23 September 2023. Kosovo, Turkmenistan and Uzbekistan are not included in the report.

[64] As per, UNICEF, State of the World's Children 2023: For every child, vaccination, UNICEF Innocenti-Global Office of Research and Foresight, Florence, April 2023, <www.unicef.org/media/108161/file/SOWC-2023-full-report-English.pdf>, accessed 23 September 2023. Kosovo was not included in this report.

[65] As per, World Economic Forum, Global Gender Gap Report 2023: Insight Report, Geneva, June 2023, <www3.weforum.org/docs/WEF_GGGR_2023.pdf?_gl=1*1r12v3m*_up*MQ..&gclid=CjwKCAjwrranBhAEEiwAzbhNtaXWcMDWsSUArOYmCt6zEcdcsDjPDnDgzBWW6Zh6b2d3UhToJTB6OxoCGtQQAvD_BwE>, accessed 23 September 2023. Kosovo, Turkmenistan and Uzbekistan are not included in the report.

Exemplified in figure 1, in all but three of the countries where data is available, women aged 15 to 29 are more likely than men of the same age to be NEET. NEET rates among young women are highest in Albania and Armenia at over 35 per cent. In just one country are female labour force participation rates higher than those of men, with rates reaching 21 per cent in Kosovo. Of countries with available data, young women had higher rates of unemployment than their male counterparts.[66] Women who do engage in the labour force across ECA largely do not engage in the green economy as it has emerged in the region.

While this phenomenon is not universal across the region, women studying at the tertiary level overwhelmingly choose faculties in education, social science or health,[67] with more men enrolling in STEM fields of education.[68] Across the region, a third of graduates from a STEM programme at the tertiary level were female. In Azerbaijan, for example, in the 2021-2022 school year, 3.9 per cent of women studying at a private higher educational institution studied a natural science while 4.9 per cent studied a technical or technological subject.[69] Among students in Türkiye, 14.2 per cent of female students had attained a qualification in a STEM field opposed to 26 per cent of their male counterparts.[70] In Bosnia and Herzegovina, in 2020, women made up 64 per cent of Masters students in the faculty of Science and specialists but just 41 per cent of doctoral students of science. They were also the minority in the faculty of information and communication technologies, engineering, and manufacturing and construction,[71] all fields of study providing critical skills for success in the green economy.

The share of women in green jobs varies across the region, from 20 per cent in Italy, to 22 per cent in the Czech Republic and 33 per cent in Poland. Overall, engagement remains low, with the OECD average at just 28 per cent.[72] In 2017, 10.48 per cent of female employment was in a STEM field.[73] In Ukraine, female employment in the energy sector for 2017 was at 27 per cent,[74] while in Kazakhstan, women make up a quarter of energy sector employees, averaging around 24 per cent.[75] Rates of women within senior management across the green economy are incredibly low ranging from 13.9 per cent in Greece to 32.7 per cent in Ukraine.[76] Therefore not only are women largely missing from the green economy in Europe and Central Asia, they are missing from the tables and board rooms which could make changes across sectors and remove the barriers keeping women away.

[66] Rates of youth 15 to 29 not in education, employment or training, labour force participation and unemployment are based on latest available data.
[67] Boudet, Munoz, et al., *Women in STEM in ECA*, World Bank Publications, Washington D.C., 2021, <https://files.eric.ed.gov/fulltext/ED612413.pdf>, pp.35, accessed 23 September 2023.
[68] Ibid., pp. 36
[69] The State Statistical Committee of Azerbaijan, '1.8.9 Number of women in total number of students of non-state higher educational institutions', <www.stat.gov.az/source/gender/?lang=en>, accessed 23 September 2023.
[70] Deutsche Energie-Agentur, *The Role of Women in Energy – Female Empowerment in Eastern Europe and Central Asia*, Berlin, May 2021, <www.dena.de/fileadmin/dena/Dokumente/Themen_und_Projekte/Internationales/Laenderdialog/2022-03-03_Study_The_Role_of_Women_in_Energy.pdf>, pp.35, accessed 23 September 2023.
[71] Agency for Statistics of Bosnia and Herzegovina, Women and Men in Bosnia and Herzegovina, Sarajevo, 2022, <https://bhas.gov.ba/data/Publikacije/Bilteni/2022/FAM_00_2021_TB_1_EN.pdf>, pp.47, accessed 23 September 2023.
[72] OECD, *Job Creation and Local Economic Development 2023: Bridging the Great Green Divide*, OECD Publishing, Paris, 2023, <www.oecd-ilibrary.org/employment/job-creation-and-local-economic-development-2023_21db61c1-en>, accessed 23 September 2023.; Zakrzewska, Ada, Lana Fitzgerald, 'Empowering Women to Power the Green Transition,' COGNITO OECD, March 2023, <https://oecdcogito.blog/2023/03/08/empowering-women-to-power-the-green-transition>, accessed 23 September 2023.
[73] Boudet, Munoz, et al., *Women in STEM in ECA*, World Bank Publications, Washington D.C., 2021, <https://files.eric.ed.gov/fulltext/ED612413.pdf>, pp.47, accessed 23 September 2023.
[74] Deutsche Energie-Agentur, *The Role of Women in Energy – Female Empowerment in Eastern Europe and Central Asia*, Berlin, May 2021, <www.dena.de/fileadmin/dena/Dokumente/Themen_und_Projekte/Internationales/Laenderdialog/2022-03-03_Study_The_Role_of_Women_in_Energy.pdf>, pp.7, accessed 23 September 2023.
[75] Ibid., p.13
[76] IEA, 'Gender and Energy Data Explorer', last updated July 2023, <www.iea.org/data-and-statistics/data-tools/gender-and-energy-data-explorer?Topic=Employment&Indicator=Gender+wage+gap+conditional+on+skills>, accessed 23 September 2023.

2.2 Barriers for Girls and Women to Engaging in the Green Economy

The question remains, if gender parity has nearly been met across the region for primary and secondary schooling, at those levels girls tend to outperform boys in STEM related subjects, and almost universally girls are more engaged at the tertiary level than boys, why does the gap in employment, STEM and green economy engagement exist.

At a fundamental level, barriers to girls' engagement in the green economy and STEM careers includes poverty, the location in which they grew up, having a disability, and having an ethno-linguistic background different to the majority of the population in which they lived.[77] However, there are additional challenges girls and women must overcome.

Gender Stereotypes and Biases

Gender barriers and stereotypes begin permeating the minds of children from an early age.[78] Therefore, the very first barrier women and girls face globally and within ECAR when looking to engage in the green economy are gender biases and stereotypes. Girls at a young age are conditioned by gender stereotypes to believe the role of women and girls in society are that of domestic and child carers and that certain career paths belong only to men.[79] The rate to which women and men believe these stereotypes varies across the region, between different ethnic groups, women and men, and even between the older generations and the youth.[80] The influence of gender normative stereotypes which can be found in all areas of life such as school textbooks, television shows, advertisements and more are backed up by parents and family members. Negative stereotypes and family-influence have been found to lower young girls' opinions of their ability to succeed STEM fields, despite the fact girls outperform boys in STEM subjects in almost every country in ECAR.[81] In 2012, Hungary, Italy and Croatia provided students taking the PISA exam with a questionnaire for their parents. The results of the questionnaire found statistically significant differences between careers they expected of their sons and those for their daughters. In Hungary, the gender gap between parents who believed their sons or daughters would go on to a career in STEM was 33 per cent in favour of boys. In Italy the gap was 30 per cent and in Croatia 25 per cent.[82]

Looking at the expectations of girls and boys themselves on their participation in STEM, data from the 2012 PISA cycle was only available in 11 countries in ECAR. In each of the 11 countries, boys were more likely to see themselves working in a STEM field in the future. The smallest gender gap was in Montenegro where 4.3 percent of girls and 4.7 per cent of boys expected a future in STEM, whereas the largest gap was in Poland (7.2 per cent for girls and 32.6 per cent among boys). During the 2018 PISA cycle, an additional nine countries provided data on the expectations of girls and boys in STEM fields. Of the original 11 countries from 2012, each one saw a growth in girls

[77] Bjerde, Anna, 'Europe and Central Asia Economies Need More Women Entrepreneurs and Business Leaders,' The World Bank, March 2022, <www.worldbank.org/en/news/opinion/2022/03/08/europe-and-central-asia-economies-need-more-women-entrepreneurs-and-business-leaders#:~:text=The%20pandemic%20has%20also%20likely,female%20business%20leaders%20and%20entrepreneurs>, accessed 23 September 2023.
[78] Phair, Rowena, 'Gender norms are clearly evident at five years of age,' OECD Education and Skills Today, March 2021, <https://oecdedutoday.com/gender-norms-clearly-evident-at-five-years-of-age>, accessed 23 September 2023.
[79] World Economic Forum, '3 Things to Know About Women in Stem,' February 2020, <www.weforum.org/agenda/2020/02/stem-gender-inequality-researchers-bias>, accessed 23 September 2023.
[80] UN Women Regional Office for Europe and Central Asia and UNFPA Regional Office for Europe and Central Asia, *Baseline Study: On Gender Norms and Stereotypes in the Countries of the Eastern Partnership*, February 2022, <https://eca.unwomen.org/sites/default/files/2022-03/BASELINE%20STUDY-5_0.pdf>, accessed 23 September 2023.
[81] Boudet, Munoz, et al., *Women in STEM in ECA*, World Bank Publications, Washington D.C., 2021, <https://files.eric.ed.gov/fulltext/ED612413.pdf>, pp.22, accessed 23 September 2023.
[82] OECD, *The ABC of Gender Equality in Education: Aptitude, Behaviour, Confidence*, PISA, OECD Publishing, Paris, 2015, <http://dx.doi.org/10.1787/9789264229945-en>, pp.139-140, accessed 23 September 2023.

expecting to have a career in STEM in 2018, whereas for boys, several countries experienced a decrease. Despite an overall increase in girls' expectations, however, in participating in STEM and their outperformance of boys in STEM fields, societal pressure and expectations keeps them on a different track. Gender stereotypes also tend to prescribe certain jobs to certain genders. Largely, STEM subjects which teach identified skills critical for success in the growing green economy, are considered strictly for men.[83] It could be due to this that girls are less likely than their male counterparts to participate in vocational training or choose STEM related areas of study at the tertiary level.

Absence of Female Role Models and Networks

The lack of women participating in STEM or green related jobs leaves girls and young women without role models, evidence that existing stereotypical beliefs on the position of girls and women in society are untrue. Therefore, girls often lack confidence in their math and science related skills.[84] Research from the OECD found the chance of girls succeeding early on in math or choosing to pursue math could be influenced by other girls around them.[85] Therefore, by seeing successful women engaging in STEM or green skill careers, young girls may be more inclined to follow a budding interest in technology, engineering or math. A study conducted by the German Energy Agency in 2021 found in three out of four European and Central Asian countries, female energy workers cited a lack of female role models as a barrier for women in their country.[86] Anecdotal evidence can be found from participants of STEM programmes across the region. For example, a participant from Girls Go IT in Moldova, said she was inspired by a speech given by the female project coordinator encouraging the participants not to believe in traditional gender stereotypes.[87] Further findings of a 2018 Deloitte study of Turkish women in the energy sector, which found the best way to bring more women into the sector was to "increase visibility of female managers who can act as role models."[88] Every speaker participating in a virtual event for International Day of the Girl in 2022 and 2023 hosted by UNDP and UNICEF's STEM4ALL Platform mentioned the importance of finding a mentor who could provide support, give advice, and push girls and young women to achieve their goals.[89]

It is clear through studies on engaging women and girls in the green economy that the importance of having women involved in STEM extends beyond role models. In order for women to continue in the green economy, they need a support system, a network. In the same study conducted by the German Energy Agency, women overwhelming expressed a barrier to engagement in the green economy was a lack of women networks. This is supported by a global study of barriers to women in STEM related careers, where a third of women in private sector technical jobs felt isolated 40 per cent of female engineers expressed a lack of role models and around half said they lacked

[83] UNDP Europe and Central Asia, 'Our Focus: Gender Equality', <www.undp.org/eurasia/our-focus/gender-equality>, accessed 23 September 2023.
[84] OECD, *The ABC of Gender Equality in Education: Aptitude, Behaviour, Confidence*, PISA, OECD Publishing, Paris, 2015, <http://dx.doi.org/10.1787/9789264229945-en>, pp.140, accessed 23 September 2023.
[85] Ibid., p.141
[86] Deutsche Energie-Agentur, *The Role of Women in Energy – Female Empowerment in Eastern Europe and Central Asia*, Berlin, May 2021, <www.dena.de/fileadmin/dena/Dokumente/Themen_und_Projekte/Internationales/Laenderdialog/2022-03-03_Study_The_Role_of_Women_in_Energy.pdf>, accessed 23 September 2023.
[87] Bradetchi, Aurelia, Andrei Ciobanu, Dumitru Slonovschi, *Motivations and Barriers for Girls and Women in STEM and ICT Domains*, Magenta Consulting SRL, 2020, <https://moldova.unwomen.org/sites/default/files/Field%20Office%20Moldova/Attachments/Publications/2020/EN%20GGITRaport%20FINAL240820.pdf>, pp.57, accessed 23 September 2023.
[88] Deutsche Energie-Agentur, *The Role of Women in Energy – Female Empowerment in Eastern Europe and Central Asia*, Berlin, May 2021, <www.dena.de/fileadmin/dena/Dokumente/Themen_und_Projekte/Internationales/Laenderdialog/2022-03-03_Study_The_Role_of_Women_in_Energy.pdf>, pp.35, accessed 23 September 2023.
[89] UNDP and UNICEF, '6 Inspiring Tips for Success from Professional Women in STEM: International Day of the Girl,' STEM4ALL Europe and Central Asia, October 2022, <https://stem4alleurasia.org/connect/stories-for-change/6-inspiring-tips-for-success-from-professional-women-in-stem-international-day-of-the-girl-2022>, accessed 23 September 2023.

mentors.[90] The 2018 Deloitte study found 93 per cent of female respondents were not organized into a women's network.[91] Networks and mentorship programmes can be entrepreneurial in nature, foster relationships, and provide women a safe space and guidance for navigating environments which are traditionally male with antiquated and gendered working cultures.[92] A World Bank study from 2016 found young women looking to enter the green economy did not know how or where to find jobs, which was made more difficult by the lack of female networks.[93]

Lack of Training Opportunities

Due to increased difficulty accessing professional networks, women often lack access to career information and skills training for emerging roles in the green economy.[94] This is of particular concern for women and girls from remote areas of the region. Based on research conducted in Serbia, a significant proportion of female entrepreneurs lack knowledge regarding environmental regulations and struggle to familiarize themselves with these regulations. In addition, a noteworthy segment of women entrepreneurs displays a limited comprehension of "green business" practices, posing as a barrier to their implementation.[95] Provision of training to women could address this lack of knowledge and prepare women effectively. Often, those who are engaged in the green economy hold lower skilled jobs and complete non-STEM related tasks. In Armenia, one ICT company found women made up 40 percent of their staff but were largely not engaged in high skilled work.[96] The digital skills gap, which in Uzbekistan for example is at 24 per cent, also sets women and girls at a disadvantage.[97] A lack of training opportunities to allow for re-training or "upskilling," keeps them from transitioning into higher skilled jobs within the green economy.[98] A survey of women working in water utility companies in Eastern Europe found women did not feel training opportunities were provided equally to men and women in their companies.[99] Further, in the same Deloitte survey mentioned in the previous section, it was found Turkish women working in the energy sector were overwhelmingly pleased to be employed in that sector primarily due to the learning, development and career opportunities.[100]

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[90] Corbett, Christianne, Catherine Hill, *Solving the Equation: The Variables for Women's Success in Engineering and Computing*, AAUW, 2015, <www.aauw.org/app/uploads/2020/03/Solving-the-Equation-report-nsa.pdf>, pp.35, accessed 23 September 2023.
[91] Deutsche Energie-Agentur, *The Role of Women in Energy – Female Empowerment in Eastern Europe and Central Asia*, Berlin, May 2021, <www.dena.de/fileadmin/dena/Dokumente/Themen_und_Projekte/Internationales/Laenderdialog/2022-03-03_Study_The_Role_of_Women_in_Energy.pdf>, pp.35, accessed 23 September 2023.
[92] IRENA, *Renewable Energy: A Gender Perspective*, IRENA, Abu Dhabi, 2019, <www.irena.org/-/media/Files/IRENA/Agency/Publication/2019/Jan/IRENA_Gender_perspective_2019.pdf?rev=bed1c40882e54e4da21002e3e1939e3d>, pp.50, accessed 23 September 2023.
[93] Boudet, Munoz, et al., *Women in STEM in ECA*, World Bank Publications, Washington D.C., 2021, <https://files.eric.ed.gov/fulltext/ED612413.pdf>, pp.42-43, accessed 23 September 2023.
[94] IRENA, *Renewable Energy: A Gender Perspective*, IRENA, Abu Dhabi, 2019, <www.irena.org/-/media/Files/IRENA/Agency/Publication/2019/Jan/IRENA_Gender_perspective_2019.pdf?rev=bed1c40882e54e4da21002e3e1939e3d>, pp.35, accessed 23 September 2023.
[95] UN Women Serbia, Women's Entrepreneurship in Serbia: 10 Years Later, March 2023, <https://serbia.un.org/en/234234-womens-entrepreneurship-serbia-10-years-later>, p.68
[96] Boudet, Munoz, et al., *Women in STEM in ECA*, World Bank Publications, Washington D.C., 2021, <https://files.eric.ed.gov/fulltext/ED612413.pdf>, pp.48, accessed 23 September 2023.
[97] UNICEF Europe and Central Asia, 'Forward to dream: In Uzbekistan UNICEF Skills4Girls programmeme equips women and girls with much-needed digital skills,' July 2023, <www.unicef.org/eca/stories/forward-dream#:~:text=Equipping%20women%20and%20girls%20with,more%20than%20men%20(12.1%25)>, accessed 23 September 2023.
[98] OECD, 'The Green Transition may deepen divides within local labour markets,' Chapter 2: The Green Transition in Local Labour Markets, *Job Creation and Local Economic Development 2023: Bridging the Great Green Divide*, OECD Publishing, Paris, 2023, <www.unicef.org/eca/stories/forward-dream#:~:text=Equipping%20women%20and%20girls%20with,more%20than%20men%20(12.1%25)>, accessed 23 September 2023.
[99] World Bank, *Women in Water Utilities: Breaking Barriers*, World Bank Publishing, Washington, DC., 2019, <https://openknowledge.worldbank.org/server/api/core/bitstreams/61ce4696-1ea1-52f7-90b5-2a9e4f0548c5/content>, pp.45, accessed 23 September 2023.
[100] Deutsche Energie-Agentur, *The Role of Women in Energy – Female Empowerment in Eastern Europe and Central Asia*, Berlin, May 2021, <www.dena.de/fileadmin/dena/Dokumente/Themen_und_Projekte/Internationales/Laenderdialog/2022-03-03_Study_The_Role_of_Women_in_Energy.pdf>, pp.35, accessed 23 September 2023.

Women who do work in high-skilled STEM jobs, often have difficulty getting promotions. In 2021, a survey of people employed in the private sector across Central and Eastern Europe found 43 per cent of women were not confident in reaching top leadership positions because they felt they lacked the necessary skills for the job.[101] Leadership training in the green economy, however, extends beyond individual economic sectors and into the political landscape. As was detailed in the first section of this report, women are overall missing from legal agreements and commitments. As advocated by the ILO in 2015, "green investments are not necessarily guaranteeing equal access to green and decent jobs for women."[102]

Unsupportive Workplace Environments

The pervasive stereotypes and norms which keep girls and young women from engaging in STEM early on contribute to policies in the workplace which discourage women from entering certain sectors or staying in STEM positions long term.[103] Women in ECA are often forced to carry an unequal care burden, since traditional stereotypes across the region do not support an equal division of care and domestic responsibilities between partners. In Central and Eastern Europe for example, women do almost 2.5 times more unpaid work per day than men.[104] Therefore, once women have children, they often do not feel they can return to the workforce either because they are afraid they cannot balance paid and unpaid work.[105] Parental leave policies vary across the region. All countries provide some type of paid maternity leave while just a handful allow for either paid or unpaid paternity leave or split parental leave. Almost universally, women in ECAR struggle to access quality and affordable childcare which would enable their transition back into the workforce.[106]

In some green economy sectors, such as the water sector, women globally (inclusive of ECA) complain of inflexible working hours, where a culture of overworking is encouraged.[107] Additionally, women across the region receive less pay for doing the same jobs as their male counterparts with a

[101] Iszkowska, Joanna, et al., *Win-win: How empowering women can benefit Central and Eastern Europe*, McKinsey & Company, 2021, <www.mckinsey.com/~/media/mckinsey/featured%20insights/europe/closing%20the%20gender%20gap%20in%20central%20and%20eastern%20europe/20210917_win%20win_cee%20women%20report_final.pdf>, pp.36, accessed 23 September 2023.
[102] International Labour Organization, *Gender Equality and Green Jobs*, 2015, <www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/documents/publication/wcms_360572.pdf>, pp.2, accessed 23 September 2023.
[103] IRENA, *Renewable Energy: A Gender Perspective*, IRENA, Abu Dhabi, 2019, <www.irena.org/-/media/Files/IRENA/Agency/Publication/2019/Jan/IRENA_Gender_perspective_2019.pdf?rev=bed1c40882e54e4da21002e3e1939e3d>, pp.50, accessed 23 September 2023.
[104] Iszkowska, Joanna, et al., *Win-win: How empowering women can benefit Central and Eastern Europe*, McKinsey & Company, 2021, <www.mckinsey.com/~/media/mckinsey/featured%20insights/europe/closing%20the%20gender%20gap%20in%20central%20and%20eastern%20europe/20210917_win%20win_cee%20women%20report_final.pdf>, pp.37, accessed 23 September 2023.
[105] Ibid, p.38
[106] Bjerde, Anna, 'Europe and Central Asia Economies Need More Women and Entrepreneurs and Business Leaders,' The World Bank, 2022, <www.worldbank.org/en/news/opinion/2022/03/08/europe-and-central-asia-economies-need-more-women-entrepreneurs-and-business-leaders#:~:text=The%20pandemic%20has%20also%20likely,female%20business%20leaders%20and%20entrepreneurs.> accessed 23 September 2023.
[107] World Bank, *Women in Water Utilities: Breaking Barriers*, World Bank Publishing, Washington, DC., 2019, <https://openknowledge.worldbank.org/server/api/core/bitstreams/61ce4696-1ea1-52f7-90b5-2a9e4f0548c5/content>, pp.31, accessed 23 September 2023.

regional gender pay gap of around 30 per cent.[108] While in some countries, like Kazakhstan, the gap is slowly getting smaller, it remains persistent particularly in sectors of the green economy.[109]

As the green economy is a male dominated field, physical workplace challenges present themselves. some women, such as those in Belarus, complain of a lack of women's toilets or sanitary facilities.[110] In many sectors across the region women report facing harassment and discrimination from their male colleagues and superiors.[111] In one study on gender equality within the energy industry in Türkiye, 74.2 per cent of women surveyed reported they were exposed to an experience called "mobbing" or the attempt to force an individual from a workplace through acts of harassment and abuse.[112]

2.3 Enabling Pathways for Girls and Women in Europe and Central Asia

To enhance employment opportunities for women and girls and create a more equitable presence in emerging sectors and social domains, it is essential to improve their skill sets. This requires training in emerging energy technologies and establishing local economic networks. Several women's networks are already engaged in the region, such as the European Association for Women in Science, Technology, Engineering and Mathematics and the European Center for Women and Technology. Internationally, there is the Global Women's Network for the Energy Transition which is inclusive of some areas of Europe.[113] Additionally, as the transition towards a greener economy takes place, many existing jobs will be redefined and adapted to the emerging sector. In these cases, supplementary programmes are required to teach new green concepts and practices (or upskilling) rather than new skills training.[114] Across ECA, stakeholders at all levels, government, CSOs, NGO and INGOs and private companies are working to increase female participation in such training programmes and open new job pathways.

Non-Governmental Stakeholders and Initiatives

The Organization for Security and Cooperation in Europe (OSCE), a key stakeholder in the region, has developed several programmes focusing on empowering women in the energy sector. Through their programmes, young girls and women in the region are equipped with skills and knowledge

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[108] International Labour Organization, *Gender Equality and Green Jobs*, 2015, <www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/documents/publication/wcms_360572.pdf>, pp.2, accessed 23 September 2023.; Bjerde, Anna, 'Europe and Central Asia Economies Need More Women and Entrepreneurs and Business Leaders,' The World Bank, 2022 <www.worldbank.org/en/news/opinion/2022/03/08/europe-and-central-asia-economies-need-more-women-entrepreneurs-and-business-leaders#:~:text=The%20pandemic%20has%20also%20likely,female%20business%20leaders%20and%20entrepreneurs.>, accessed 23 September 2023.

[109] Syzdykbayeva, Rizagul, 'Exploring gender equality in STEM education and careers in Kazakhstan,' *STEM education for girls and women: breaking barriers and exploring gender inequality in Asia*, UNESCO Office Bangkok and Regional Bureau for Education in Asia and the Pacific, 2020, <https://unesdoc.unesco.org/ark:/48223/pf0000375106/PDF/375106eng.pdf.multi>, pp.191, accessed 23 September 2023.

[110] World Bank, *Women in Water Utilities: Breaking Barriers*, World Bank Publishing, Washington, DC., 2019, <https://openknowledge.worldbank.org/server/api/core/bitstreams/61ce4696-1ea1-52f7-90b5-2a9e4f0548c5/content>, pp.36, accessed 23 September 2023.

[111] Giner-Reichl, Irene, Maria van Veldhuizen, *Europe's Energy Transition: Women's Power in Solving the Labour Bottleneck*. Just Climate by FES, 2023, <www.globalwomennet.org/wp-content/uploads/2023/06/FES-Study.pdf>, pp.7, accessed 23 September 2023.

[112] Cakmak, Zafer, et al.,*Gender Equality in Energy Industry Report,* GIZ, 2023, <www.globalwomennet.org/wp-content/uploads/2023/02/TWRE_REMI_Gender-Equality-in-Energy-Industry-Report_2022.pdf>, pp.30, accessed 23 September 2023.

[113] IRENA, *Renewable Energy: A Gender Perspective*, IRENA, Abu Dhabi, 2019, <www.irena.org/-/media/Files/IRENA/Agency/Publication/2019/Jan/IRENA_Gender_perspective_2019.pdf?rev=bed1c40882e54e4da21002e3e1939e3d>, pp.46, 48, accessed 23 September 2023.

[114] Girls Go Circular, 'Digital and Entrepreneurial Skills for the Circular Economy,' <https://eit-girlsgocircular.eu>, accessed 23 September 2023.

necessary for the energy sector, while boosting their confidence to pursue technical roles within the field through internship and mentorship opportunities.[115] In 2023, among other projects, the OSCE launched a scholarship programme to engage more young women from Central Asian countries in the renewable energy sector.[116]

The EU, another key stakeholder in improving the situation of girls and women in the Europe region, organized the Girls Go Circular Project. This project, with partners in Hungary, Italy, and Romania (among several others) offers digital, entrepreneurial, and circular economy education to girls aged 14 to 19. The primary goal of this initiative is to reduce the gender disparity in STEM skills by improving both their hard and soft skills.[117]

The European Bank for Reconstruction and Development (EBRD), as well as the European Centre for Development of Vocational Training (CEDEFOP) are two other organizations which work to address the gender skills gap and aid in a gender inclusive transition to a greener economy. The EBRD, is the largest institutional investor in Central Asia and provides financial support and technical expertise to governments, businesses, and communities, facilitating the shift toward a more environmentally sustainable economy. CEDEFOP collects research and data, investigates the impact of the European Green Deal and other climate change policies in the EU on vocational education and training, and provides forecasts on new skills and the effective education and training policies on these skills.[118] Their involvement in shaping EU skills training policies positions them as a key player in tackling the issues of bridging the gap in green skills and promoting gender equality in vocational education and training.

UN organizations such as UNICEF, UN Women, and UNDP are actively involved in creating awareness and providing skill development opportunities for women and young girls in the region. UNICEF programmemes targeting early education and development, aiming to spark interest in STEM and ICT subjects from an early age and collaborate closely with educational institutions, schools, and local communities ensuring girls have access to quality education and support networks. Through partnerships, they establish mentorship programmes connecting girls with STEM and ICT professionals, dispelling stereotypes and biases that might deter them from pursuing careers in these fields, further enhancing the green economy. Partnerships such as UNICEF and UNDPs on the STEM4ALL Platform is key in furthering the connection between “STEMinists” and opportunities to engage in the green economy across the region, linking girls to mentors and careers prospects.

Private Sector Stakeholders and Initiatives

Private companies are also working to encourage the participation of women and girls, either by engaging with outside partners for girls and women as a whole or working to improve their own internal structures. In Georgia, for example, the United Water Supply Company hired an outside expert firm to design a performance and incentive system to better enable promotion of female employees.[119] In North Macedonia, EVN, a power distribution and supply company, began a bring

[115] OSCE, ‘Empowering Young Central Asian Women in the Energy Transition,’ 2022, <www.osce.org/oceea/524055>, accessed 23 September 2023.
[116] OSCE, ‘OSCE Scholarship Programme for Young Women in Renewable Energy,’ <www.osce.org/oceea/548503>, accessed 23 September 2023.
[117] Girls Go Circular, ‘Digital and Entrepreneurial Skills for the Circular Economy,’ <https://eit-girlsgocircular.eu>, accessed 23 September 2023.
[118] European Center for Development of Vocational Training, ‘Skills and jobs for the green transition,’ <www.cedefop.europa.eu/en/projects/skills-and-jobs-green-transition>, accessed 23 September 2023.
[119] World Bank, *Women in Water Utilities: Breaking Barriers*, World Bank Publishing, Washington, DC., 2019, <https://openknowledge.worldbank.org/server/api/core/bitstreams/61ce4696-1ea1-52f7-90b5-2a9e4f0548c5/content>, pp.49, accessed 23 September 2023.

your daughter to work day to inspire young girls about future careers in the sector as well as adopted a competency-based hiring approach which would assist in reducing gender biases in their hiring.[120] Dushanbe Vodokanal, a water and sanitation utility company in Tajikistan created an outreach and recruitment programme among universities and technical schools to encourage women to apply and plan to implement quotas for female interns within their internship programmes as well as generate gender-disaggregated data on interns and interns who continue to work in the company.[121]

Industry leaders such as Mastercard, Microsoft, and Deloitte, have taken proactive steps to promote and empower women and young girls in the growing green economy. Their initiatives center on equipping women and girls with necessary technical skills to actively participate in green sectors such as STEM and ICT. At Mastercard, the Girls4Tech programme is specifically designed to inspire girls aged eight to 16 to explore and consider careers in STEM.[122] Through hands-on training and interactive workshops, the programme offers a platform for girls to delve into STEM concepts and technologies. Girls4Tech has had a remarkable reach, impacting over 4 million girls across 63 countries, including regions like Kazakhstan, Poland, and Ukraine.[123]

Microsoft's DigiGirlz programme is an initiative which strives to provide young girls with the knowledge and skills necessary for success in technology-related careers. DigiGirlz encompasses two essential components: DigiGirlz Day and High-Tech Camp. DigiGirlz Day is a one-day event held in multiple countries, affording girls the opportunity to interact with Microsoft employees, gain insights into the workings of the tech industry, and chart their future career paths. High Tech Camp, offered at no cost, spans multiple days and encourages girls to enhance their technical proficiency while gaining exposure to cutting-edge technologies. The programme's scope transcends geographical boundaries and exists throughout Europe and Central Asia.[124]

Another prominent initiative is the Google Women TechMakers programme which seeks to foster 'visibility, community, and resources' for women in the technology field. It offers a range of opportunities, including mentorship, scholarships, workshops, and hackathon events, with the overarching aim of stimulating women's involvement in innovative tech projects and facilitating their career progression. This initiative is active in Europe, Turkey, and Central Asia with ambassadors in Kyrgyzstan and Kazakhstan among others.[125] It plays a pivotal role in narrowing the gender gap within the technology sector. By actively supporting women's education and skill development, it indirectly contributes to a more diverse and sustainable green economy, aligning with the region's broader objectives of gender equality and green innovation.[126]

The collaborative efforts of private sector organizations like Mastercard, Microsoft, and Google, coupled with their innovative programmes, are making significant strides in encouraging women and girls to participate actively in the green economy and technology sectors. These initiatives have not only expanded opportunities for women in these fields but have also positively impacted the region's goals for gender equality and sustainable, green innovation.

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[120] Ibid., p.24
[121] Ibid., p.16
[122] MasterCard, 'Girls4tech' < www.mastercard.us/en-us/vision/corp-responsibility/social-sustainability/corporate-philanthropy-volunteering/girls-4-tech.html>
[123] Girls4tech < https://www.girls4tech.com/>
[124] STEM Alliance, 'Digi Girlz' <www.stemalliance.eu/stem-initiatives/detail?articleId=1942672>
[125] Women Techmakers, 'Ambassadors' < https://developers.google.com/womentechmakers/ambassadors/directory>
[126] Google TechMakers < https://developers.google.com/womentechmakers>

Conclusion and Recommendations

Conclusion

In the context of achieving gender equality in the green economy, international and regional development organizations like the EU, as well as the private sector, play vital roles in influencing the development of policies at both national and regional levels. While the EU Green Deal and some national commitments in the ECA region have started to consider gender aspects, the primary focus remains largely on economic growth. This underscores the need for a more significant emphasis on issues related to gender.

Various commitments in the ECA region highlight the importance of renewable energy and the circular economy. However, transitioning to a green economy requires extensive changes, extending beyond sectors and products to a fundamental shift in the skills required and the retraining of the workforce.

This transition relies on the development of 'green skills,' which include two essential skill sets: technical skills and transferable cross-cutting skills. While both are valuable, the current emphasis tends to favor technical skills, particularly in male-dominated sectors like energy, which require skills in science, technology, engineering, and mathematics (STEM) and information and communication technology (ICT). Globally and within the ECA region, persistent gender barriers contribute to the underrepresentation of women in STEM education and roles. It's essential to recognize that these disparities don't reflect women's capabilities, as they often outperform men in these fields.

At the grassroots level, various obstacles hinder girls' involvement in the green economy and STEM careers. These include poverty, geographical constraints, disabilities, and ethno-linguistic backgrounds. Additionally, deeply ingrained gender biases and stereotypes, originating from cultural and social norms, are significant hurdles. A lack of female role models, limited access to professional networks, and difficulties in obtaining training opportunities compound the challenges. The absence of supportive work environments further complicates the issue.

Governments, international and regional development organizations, and the private sector hold significant sway in advocating for and implementing policies that affect gender equality within the green economy. While progress has been made in providing women and girls from diverse backgrounds with opportunities to gain skills, it is imperative that all stakeholders take more decisive steps to bridge the gender gap and work toward achieving genuine equity and a just transition in the green economy.

Recommendations

Government and Policy Makers

- To ensure the greening of their economies ensure the inclusion of women and girls in green skills by building their capacities, investing in and mainstreaming gender in climate and green economy related legislation, budgeting and commitments, taking into consideration the unique needs of girls and women with intersectional deprivations, and by conducting policy consultations with women and girls' networks and CSOs.

- To ensure sex and age disaggregated data and gender analysis informs gender responsive planning, financing and commitments to advance the green initiatives and to achieve defined

gender equality outcomes in the green job sectors. This is important to inform and support equitable participation in green economy sector jobs and enhance the position of girls and women in the green economy.

- To ensure that capacity building of stakeholders and decision makers on green jobs and green economies includes creating gender sensitization and awareness on the importance and benefits of mainstreaming gender in the green job sectors.

- To ensure that market driven skills mapping and trainings in green sectors at the national level include the specific skills required by both men and women to equally participate in the green job sectors, and young people both girls and boys are included in green skills development, mentorship and training initiatives through vocational skills development, and in education settings and out of school platforms.

- To assist in building climate-resilient education systems by incorporating gender sensitive climate related educational curriculum, pedagogy and teacher trainings.

- To strengthen and include youth-led climate action, ensuring girls' participation in leadership and climate action and promoting women and girls' representation in climate related decision-making.

- To ensure women and girls are benefitting from new and existing climate resiliency programmemes, gender responsive budgeting should be incorporated by governments, specifically in how funding and sustainable investments dedicated to the green economy and development of green skills is allocated with a gender inclusive lens.

Private Sector

- Engage in partnerships with government and the development sector to support initiatives that promote the inclusion of women and girls in the green economy and skill building such as through scholarships, mentorship programmes, skills building workshops and targeted trainings and capacity building for women and girls.

- Implement and support gender-inclusive work policies and family friendly practices such as parental leave, breastfeeding rooms and flexible working arrangements, to encourage female participation, career growth and retainment in green economy sectors.

- Engage employees at all levels in gender capacity trainings to address negative social norms, biases and stereotypes which foster gender discriminatory behavior that limits female participation, equal pay, career growth and retention.

- Encourage the development of and actively participate in female professional and mentoring networks to provide women and girls with a sense of belonging, a safe space to discuss issues related to their work and a community with which to network for opportunities.

Development Community

- Advocate for gender responsive budgeting of climate change funds specifically those related to the green economic transition, particularly in sectors that are male dominated to improve participation among women and girls.

- Provide technical assistance, funding, and expertise to support initiatives that aim to engage women and girls in the green skills economy, partnering with private and government sector stakeholders.

- Sensitize government and private sector stakeholders on gender equality and gender mainstreaming within their workplace by conducting gender capacity trainings.

- Advocate for the greening of all sectors in the economy, inclusive of those dominated by women, to promote the up skilling of “associated” green skills. Additionally, promote gender mainstreaming across all sectors, particularly those dominated by men.

- Collaborate with UN agencies and other non-governmental organizations to promote gender-responsive green skills curricula to normalize girls' engagement in green skills from an early age.

- Ensure green skills and green economy programmeming takes into consideration the unique needs of and directly engages girls with intersecting discriminations, such as those from minority ethnic groups or girls and women with disabilities.

- Partner with government and private sector stakeholders to develop girls' skills building programmemes which encourages active parent participation, thereby altering their outlook and beliefs concerning their daughters' potential in engineering and related disciplines.

- Conduct studies to fully understand the obstacles hindering girls' and women’s engagement and success in the green economic transition, particularly girls and women with intersectional deprivations, using the data to advocate gender inclusive climate policies, agreements and programmemes.

- Ensure and advocate for the collection and analysis of sex, and age disaggregated data on STEM education and careers to better inform on how girls and young women engage in the green skills early in their lives and aid in addressing any gender stereotypes, norms and barriers earlier in the life cycle that would limit their engagement in STEM and green economy sectors and support to make an inclusive transition into male-dominated occupations in the green economy.

Annex 1: Snapshot of Gender and Green Skills in Central Asia

Introduction

Over the last several years, countries in Central Asia[127] have worked to embrace the transition to a green economy through legislation, actions and joining international commitments.[128] At the international level, all five countries participate in the Paris Agreement,[129] the Kyoto Protocol[130] and the United Nations (UN) 2030 Agenda for Sustainable Development. As part of the Kyoto Protocol, all countries have submitted at least a first edition of their Nationally Determined Contributions (NDC). These NDCs have contributed to the development of national policies to facilitate the shift to the green economy. How the national and international commitments lend themselves to the needs of women and girls in Central Asia requires further research and understanding.

National Policies and Commitments

The mainstreaming of gender equality principles differs across each country's national policy and commitments. All NDCs from the five Central Asian countries mentions women at least once while Tajikistan and Turkmenistan mention girls just once. Some NDCs have taken a strong gender approach. For example, Tajikistan incorporates an entire subsection on "gender aspects of climate change" which details how existing legislation contributes to addressing the impact of climate change on women and girls. Kyrgyzstan has developed their NDC similarly, identifying challenges women face related to climate change and demonstrates their integration into mitigation measures. Some NDCs simply have consulted women's groups in the development of the NDC while Uzbekistan mentions women and mainstreaming gender just once.

Consulting with UNICEF country office teams, however, highlights a problem between concept and practice. While the NDCs are gender sensitive this often does not translate into real programmes and actions. For example, of all climate related, green skills programmes identified in Central Asia during a desk review, just seven (across Kazakhstan, Kyrgyzstan, Turkmenistan and Uzbekistan) were being directly implemented by the national government and two of those (one in Turkmenistan focused on Conservation and Sustainable Land Management and one in Uzbekistan focused on youth employment) seven had a gender component incorporated. The two programmes with a gender component were jointly being conducted by an international NGO (INGO). In regards to policies and actions, in the Government of Kazakhstan's 2013 *Concept for transition of the Republic of Kazakhstan to Green Economy*, women or gender are not mentioned once[131] (in the National report on the transition of the Republic of Kazakhstan to a "Green Economy" for 2017-2019, however, there is a discussion of women in agriculture.)[132] This is also the case for the *National*

[127] UNICEF Central Asian countries include Kazakhstan, the Kyrgyz Republic (Kyrgyzstan), Tajikistan, Turkmenistan and Uzbekistan

[128] OECD, *Green Economy Transition in Eastern Europe, the Caucasus and Central Asia: Progress and Ways Forward*, OECD Green Growth Studies, OECD Publishing, Paris, 2022, <www.oecd-ilibrary.org/environment/green-economy-transition-in-eastern-europe-the-caucasus-and-central-asia_c410b82a-en>, accessed 11 December 2023.

[129] United Nations, 'The Paris Agreement,' Climate Action, <www.un.org/en/climatechange/paris-agreement>, accessed 23 September 2023.

[130] United Nations Climate Change, 'What is the Kyoto Protocol, Processes and Meetings', <https://unfccc.int/kyoto_protocol>, accessed 23 September 2023.

[131] Government of the Republic of Kazakhstan, *Concept for transition of the Republic of Kazakhstan to Green Economy*, May 2013, <https://policy.asiapacificenergy.org/sites/default/files/Concept%20on%20Transition%20towards%20Green%20Economy%20until%202050%20%28EN%29.pdf>, accessed 11 December 2023.

[132] Ministry of Ecology, Geology and Natural Resources of the Republic of Kazakhstan, *National report on the transition of the Republic of Kazakhstan to a "Green Economy" for 2017-2019*, Nur-Sultan, 2020, <https://igtipc.org/images/docs/2021/nd2021en.pdf>, pp.32, accessed 11 December 2023.

Climate Change Strategy of Turkmenistan[133] and the *Strategy on the Transition of the Republic of Uzbekistan to a "Green" Economy 2019-2030*.[134]

In Tajikistan' s *National Review Towards a "Green" Economy,* women are mentioned just four times. There is no specific detail in the document of how women and girls or gender equality will participate in the green economic transition.[135] However, the 2021 Medium-Term Development Programme of Tajikistan for 2021-2025 does recommend the development of gender-sensitive indicators related to climate change.[136] In the *National Development Strategy of the Kyrgyz Republic for 2018-2040*, aspects of gender equality are slightly clearer, however not necessarily specific to the green transition.[137] In the government's more specific, *Comprehensive Action Plan for Climate Change Education*, women are just mentioned once.[138] By reviewing each of these documents, it is apparent that while international commitments made by Central Asian nations towards a green economy might include gender mainstreaming strategies and considerations, national strategies, action plans and implementation activities remain lacking.

Key Industries and Sectors

Across the five Central Asian countries, common working sectors emerge. Agriculture, energy, forestry and other land use are common across all five countries.[139] The waste sector and industrial processes and product use are a focus in both Uzbekistan and Kazakhstan.[140] In Tajikistan, biodiversity, industry and construction, transport and infrastructure are added.[141] Turkmenistan includes healthcare, water, and soils and land.[142]

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[133] The Government of Turkmenistan, *National Climate Change Strategy of Turkmenistan*, June 2012, <https://faolex.fao.org/docs/pdf/tuk180723.pdf>, accessed 12 December 2023.
[134] Government of Uzbekistan, *Strategy on the Transition of the Republic of Uzbekistan to a "Green" Economy 2019-2030*, 2019, <https://climate-laws.org/documents/strategy-on-the-transition-of-the-republic-of-uzbekistan-to-a-green-economy-2019-2030_d41d?l=uzbekistan&id=strategy-on-the-transition-of-the-republic-of-uzbekistan-to-a-green-economy-2019-2030_6bed>, accessed 12 December 2023.
[135] The Government of the Republic of Tajikistan, *National Review Towards a "Green" Economy in Tajikistan*, Dushanbe 2012, <https://sustainabledevelopment.un.org/content/documents/1021tajikistan.pdf>, accessed 12 December 2023.
[136] International Energy Agency, *Tajikistan 2022: Energy Sector Review*, <https://iea.blob.core.windows.net/assets/ab8f5f01-4b54-4636-b2e8-7818e2ed55a8/Tajikistan2022.pdf>, pp.90, accessed 12 December 2023.
[137] The Government of the Kyrgyz Republic, *National Development Strategy of the Kyrgyz Republic for 2018-2040*, Bishkek, November 2018, <https://policy.asiapacificenergy.org/sites/default/files/National%20Development%20Strategy%20of%20the%20Kyrgyz%20Republic%20for%202018-2040%20%28EN%29.pdf>, accessed 12 December 2023.
[138] The Government of the Kyrgyz Republic, *Strategic Training Priorities on Climate Change in the Kyrgyz Republic*, Bishkek 2021, <https://archive.un-page.org/files/public/strategic_training_priorities_on_climate_change_in_the_kyrgyz_republic.pdf>, accessed 12 December 2023.
[139] Ministry of Ecology and Natural Resources of the Republic of Kazakhstan, *Updated Nationally Determined Contribution of the Republic of Kazakhstan to the global response to climate change*, Astana 2023, <https://unfccc.int/sites/default/files/NDC/2023-06/12updated%20NDC%20KAZ_Gov%20Decree313_19042023_en_cover%20page.pdf>, pp.4; The Kyrgyz Republic, *Updated Nationally Determined Contribution 2021*, < https://unfccc.int/sites/default/files/NDC/2022-06/%D0%9E%D0%9D%D0%A3%D0%92%20ENG%20%D0%BE%D1%82%2008102021.pdf >, pp.5; The Republic of Tajikistan, *The Updated NDC of the Republic of Tajikistan*, October 2021, <https://unfccc.int/sites/default/files/NDC/2022-06/NDC_TAJIKISTAN_ENG.pdf>, pp.1; The Government of Turkmenistan, *Nationally Determined Contribution of Turkmenistan under the Paris Agreement*, Turkmenistan 2022, <https://unfccc.int/sites/default/files/NDC/2023-01/NDC_Turkmenistan_12-05-2022_approv.%20by%20Decree_Eng.pdf>, pp.14; The Republic of Uzbekistan, *Updated Nationally Determined Contribution*, 2021, <https://unfccc.int/sites/default/files/NDC/2022-06/Uzbekistan_Updated%20NDC_2021_EN.pdf>, pp.11, all accessed 20 September 2023.
[140] Ministry of Ecology and Natural Resources of the Republic of Kazakhstan, *Updated Nationally Determined Contribution of the Republic of Kazakhstan to the global response to climate change*, Astana 2023, <https://unfccc.int/sites/default/files/NDC/2023-06/12updated%20NDC%20KAZ_Gov%20Decree313_19042023_en_cover%20page.pdf>, pp.4; The Republic of Uzbekistan, *Updated Nationally Determined Contribution*, 2021, <https://unfccc.int/sites/default/files/NDC/2022-06/Uzbekistan_Updated%20NDC_2021_EN.pdf>, pp.11, all accessed 20 September 2023.
[141] The Republic of Tajikistan, *The Updated NDC of the Republic of Tajikistan*, October 2021, <https://unfccc.int/sites/default/files/NDC/2022-06/NDC_TAJIKISTAN_ENG.pdf>, pp.1, accessed 20 September 2023.
[142] The Government of Turkmenistan, *Nationally Determined Contribution of Turkmenistan under the Paris Agreement*, Turkmenistan 2022, <https://unfccc.int/sites/default/files/NDC/2023-01/NDC_Turkmenistan_12-05-2022_approv.%20by%20Decree_Eng.pdf>, pp.14, accessed 20 September 2023.

Position of Women and Girls in Central Asia

The sectors previously mentioned, with the exception of health care and agriculture, are traditionally dominated by men throughout Central Asia. For example, in the renewable energy sector, women in Kazakhstan made up just 30% of sector jobs in 2021.[143] Women in Uzbekistan make up roughly 44% of their industrial sector.[144] As mentioned in the main report, the lack of women in the targeted green sector fields, can be attributed to conditioning of children to gender biases and stereotypes,[145] a lack of female role models and networks,[146] an absence of training and skills development opportunities, and unsupportive workplace environments.[147]

Education

Gender parity in both primary and secondary net enrolment has almost been reached in Kazakhstan, Kyrgyzstan, and Tajikistan.[148] Female secondary completion rates in Central Asia vary between 44% in Turkmenistan to 97% in Tajikistan. In just Kyrgyzstan and Turkmenistan is the rate of secondary completion lower for girls compared to their male counterparts. Tertiary attainment levels are higher among young women in all Central Asian countries with data available. Despite this, NEET rates for girls were higher than boys in all countries with data available.[149] Barriers to education exist for both girls and boys, however, barriers for girls include limitations to accessing the job market, whereas such barriers do not exist for boys. Girls in Central Asian countries looking to attend or graduate school must overcome lack of access, socio-economic barriers as well as societal pressure to enter marriage at a young age.[150] This tends to be particularly true for women in rural areas, specifically highlighted in Uzbekistan.[151]

For girls who can attend school at any level, societal norms drive students to choose topics of study along a gendered line. For example, despite there being more women enrolled in tertiary education across all Central Asian countries, very few women study areas of science, information and technology or math. In Kazakhstan and Kyrgyzstan, women make up around 30% of STEM students.[152] In Uzbekistan, women make up less than five percent of students in the fields of engineering, construction or manufacturing.[153] Jobs related to STEM fields are generally considered

[143] UNDP and the Global Environment Facility, *Gender Balance in the Renewable Energy Sector in Kazakhstan: Current Status, Challenges and Solutions*, October 2023, <https://drive.google.com/drive/folders/1XpbyC3qSQUzvDR47erhJrvL99pHtnN4Q>, pp.V, accessed 13 December 2023.
[144] Deutsche Energie-Agentur, *The Role of Women in Energy – Female Empowerment in Eastern Europe and Central Asia*, Berlin, May 2021, <www.dena.de/fileadmin/dena/Dokumente/Themen_und_Projekte/Internationales/Laenderdialog/2022-03-03_Study_The_Role_of_Women_in_Energy.pdf>, pp.27, accessed 21 December 2023.
[145] World Economic Forum, '3 Things to Know About Women in Stem,' February 2020, <www.weforum.org/agenda/2020/02/stem-gender-inequality-researchers-bias>, accessed 23 September 2023.
[146] Deutsche Energie-Agentur, *The Role of Women in Energy – Female Empowerment in Eastern Europe and Central Asia*, Berlin, May 2021, <www.dena.de/fileadmin/dena/Dokumente/Themen_und_Projekte/Internationales/Laenderdialog/2022-03-03_Study_The_Role_of_Women_in_Energy.pdf>, accessed 23 September 2023.
[147] IRENA, *Renewable Energy: A Gender Perspective*, IRENA, Abu Dhabi, 2019, <www.irena.org/-/media/Files/IRENA/Agency/Publication/2019/Jan/IRENA_Gender_perspective_2019.pdf?rev=bed1c40882e54e4da21002e3e1939e3d>, pp.35, accessed 23 September 2023.
[148] UNESCO Office in Almaty, *Policy brief: gender equality in and through education in Central Asia*, 2021, <https://unesdoc.unesco.org/ark:/48223/pf0000377910>, pp.2, accessed 21 December 2023.
[149] Based on most recently available data, found in Annex 1
[150] UNESCO Office in Almaty, *Policy brief: gender equality in and through education in Central Asia*, 2021, <https://unesdoc.unesco.org/ark:/48223/pf0000377910>, pp.3, accessed 21 December 2023.
[151] Deutsche Energie-Agentur, *The Role of Women in Energy – Female Empowerment in Eastern Europe and Central Asia*, Berlin, May 2021, <www.dena.de/fileadmin/dena/Dokumente/Themen_und_Projekte/Internationales/Laenderdialog/2022-03-03_Study_The_Role_of_Women_in_Energy.pdf>, pp.28, accessed 23 September 2023.
[152] UNESCO Office in Almaty, *Policy brief: gender equality in and through education in Central Asia*, 2021, <https://unesdoc.unesco.org/ark:/48223/pf0000377910>, pp.4, accessed 21 December 2023.
[153] Deutsche Energie-Agentur, *The Role of Women in Energy – Female Empowerment in Eastern Europe and Central Asia*, Berlin, May 2021, <www.dena.de/fileadmin/dena/Dokumente/Themen_und_Projekte/Internationales/Laenderdialog/2022-03-03_Study_The_Role_of_Women_in_Energy.pdf>, pp.28, accessed 23 September 2023.

male jobs (such as the jobs in the water sector in Tajikistan),[154] therefore women often choose fields of study related to education, the social or health sectors and follow those paths into the labour force. The same generally holds true for students participating in vocational education. In 2022, just 9.8% of students enrolled in energy education in Kazakhstan's vocational schools were women.[155]

Labour Force

For women who do study a field related to the green economy and make it into their designated field, the workplace environment can be difficult. Of the 40% of women in Kazakhstan working in the solar energy sector in 2019, and the 21% working in wind energy, 65% of those surveyed by IRENA noted substantial gender barriers within their industries.[156] Women in the energy sector, for example in Uzbekistan, highlight "antiquated working cultures and corporate structures mainly dominated by men" as a reason women struggle to succeed in green jobs.[157] Women are often found in low-paying and low skilled jobs within the green economy,[158] with just 36.2% of women in Kyrgyzstan found in managerial positions in 2017.[159] The number of women in management positions across Central Asia are similar. Women working in high-skilled STEM jobs, as mentioned in the main report, typically find getting promoted difficult.[160]

Other barriers include unequal pay, care burden, a lack of fair parental leave policies and unequal access to finance or land. In Kazakhstan, women spend roughly 17.1% of their time on unpaid care work, in addition to their regular paid jobs. Men on the other hand spend just 7.1% of time on unpaid care work.[161] Women in Kyrgyzstan often spend 6.5x more time on domestic work than men.[162] In Tajikistan, where women make up the majority of those working in agriculture, just 8% of farms are owned by women.[163] Across Central Asian countries the gender wage gap varies. In Kyrgyzstan, women earn 75.1% of a man's salary.[164] The gap in Kazakhstan is 21.7%,[165] 60% in Tajikistan as of

[154] World Bank, *Women in Water Utilities: Breaking Barriers*, World Bank Publishing, Washington, DC., 2019, <https://openknowledge.worldbank.org/server/api/core/bitstreams/61ce4696-1ea1-52f7-90b5-2a9e4f0548c5/content>, pp.13, accessed 23 September 2023.
[155] UNDP and the Global Environment Facility, *Gender Balance in the Renewable Energy Sector in Kazakhstan: Current Status, Challenges and Solutions*, October 2023, <https://drive.google.com/drive/folders/1XpbyC3qSQUzvDR47erhJrvL99pHtnN4Q>, pp.14, accessed 21 December 2023.
[156] Ibid., pp.V
[157] Deutsche Energie-Agentur, *The Role of Women in Energy – Female Empowerment in Eastern Europe and Central Asia*, Berlin, May 2021, <www.dena.de/fileadmin/dena/Dokumente/Themen_und_Projekte/Internationales/Laenderdialog/2022-03-03_Study_The_Role_of_Women_in_Energy.pdf>, pp.29, accessed 23 September 2023.
[158] UNDP and the Global Environment Facility, *Gender Balance in the Renewable Energy Sector in Kazakhstan: Current Status, Challenges and Solutions*, October 2023, <https://drive.google.com/drive/folders/1XpbyC3qSQUzvDR47erhJrvL99pHtnN4Q>, pp.12, accessed 21 December 2023.
[159] CAREC and ADB, *CAREC Gender Assessment Supplementary Document for the CAREC Gender Strategy 2030*, January 2021, <www.adb.org/sites/default/files/institutional-document/681711/carec-gender-assessment_0.pdf>, pp.viii, accessed 12 December 2023.
[160] Iszkowska, Joanna, et al., *Win-win: How empowering women can benefit Central and Eastern Europe*, McKinsey & Company, 2021, <www.mckinsey.com/~/media/mckinsey/featured%20insights/europe/closing%20the%20gender%20gap%20in%20central%20and%20eastern%20europe/20210917_win%20win_cee%20women%20report_final.pdf>, pp.36, accessed 23 September 2023.
[161] CAREC and ADB, *CAREC Gender Assessment Supplementary Document for the CAREC Gender Strategy 2030*, January 2021, <www.adb.org/sites/default/files/institutional-document/681711/carec-gender-assessment_0.pdf>, pp.vii, accessed 12 December 2023.
[162] UN Women, 'Press Release- Women in Kyrgyzstan spend almost 5 times more time than men on unpaid care and domestic work: How does gender equality look like in Kyrgyzstan,' March 2023, <https://eca.unwomen.org/en/stories/press-release/2023/03/press-release-women-in-kyrgyzstan-spend-almost-5-times-more-time-than-men-on-unpaid-care-and-domestic-work-how-does-gender-equality-look-like-in-kyrgyzstan>, accessed 3 January 2024
[163] UNDP, 'Women's role in adapting to climate change challenged by massive out-migration of men from rural Tajikistan,' <www.unpei.org/women_s-role-in-adapting-to-climate-change-2/>, accessed 3 January 2024
[164] UN Women, 'Women's economic activity: What is the situation in Kyrgyzstan?,' Gender Snapshot, 2023, <https://eca.unwomen.org/sites/default/files/2023-03/SDG%20WEE%20eng.pdf>, accessed 3 January 2024.
[165] UN Women Europe and Central Asia, 'Kazakhstan', <https://eca.unwomen.org/en/where-we-are/kazakhstan>, accessed 3 January 2024.

2018,[166] while in Uzbekistan it is estimated the wage gap is between 50 and 60%.[167] In Turkmenistan, the average hourly wage for women is 2,0087.5 manats compared to 2,376.4 manats for men.[168]

Green Skills Building Programmes for Girls

Across Central Asia, private sector, government, local NGOs and INGOs are working to better engage women and girls within the green economic transition. Within Kazakhstan, there has been some movement to address the lack of female participation, in the energy sector specifically. The Kazenergy Women's Energy Club was established in 2013 to identify and discuss barriers for women in the energy sector then create solutions. Roughly one third of companies in Kazakhstan have a gender strategy and have implemented measures to promote women's engagement and opportunities.[169] In all countries, there has been an increase in climate-related educational programmes, hosted by agencies such as ADB in partnership with government ministries.

UN agencies continue to be at the forefront of climate-related gender programming, with UNICEF programmes particularly focusing on digital skills development and acquisition. Other programmes focus on capacity development for teachers and other professionals or the enhancement of the vocational education system. Across a mapping of green skills building programmes in Central Asia (Annex 2), 39 of the 49 programmes identified were not specific to girls and women. Ten of the identified programmes do or did have a gender equality component, but it does not remain the primary focus of the programme. Of the programmes specific to girls and young women, there was an array of topics and strategies. One programme, which was available to all girls in Central Asia, focused on understanding glaciers in the region and geoscience as a larger topic. Girls embarked on a ten-day expedition, led by an all-female team, and designed their own scientific projects once returned. In Kyrgyzstan, the UNICEF led STEM4GIRLS project targeted girls from poor and under-resources backgrounds. Girls engaged in internships with private sector companies and improved their knowledge of STEM, child rights and gender equality.

The above are just two examples of ongoing projects in the Central Asian region targeted towards girls and young women to engage them further in the green economic transition. Each country takes their own approach based on their areas of focus in the green transition. International NGOs play a crucial role in almost every programme and particularly in ensuring the engagement of girls and young women. Based on the mapping, the private sector in each country has room for more engagement, particularly in the renewable energy, water, and waste management sectors which are a key focus for all countries in their transitions.

[166] The World Bank, *Tajikistan Country Gender Assessment*, 2021, <https://documents1.worldbank.org/curated/en/874641637562869105/pdf/Tajikistan-Country-Gender-Assessment.pdf>, pp.21, accessed 3 January 2024.
[167] UN Uzbekistan, *United Nations Common Country Analysis: Uzbekistan*, 2020, <https://uzbekistan.un.org/sites/default/files/2020-10/United%20Nations%20Common%20Country%20Analysis%20Uzbekistan_en.pdf>, pp.30, accessed 3 January 2024.
[168] TurkmenStat, '8 Decent Work and Economic Growth: Indicator 8.5.1: Average hourly earnings of employees by sex, age, occupation and persons with disabilities,' Sustainable Development Goals, <https://sdg.stat.gov.tm/en/indicator/8-5-1>, accessed 3 January 2024.
[169] UNDP and the Global Environment Facility, *Gender Balance in the Renewable Energy Sector in Kazakhstan: Current Status, Challenges and Solutions*, October 2023, <https://drive.google.com/drive/folders/1XpbyC3qSQUzvDR47erhJrvL99pHtnN4Q>, pp.11, accessed 3 January 2024.

Annex 2: Figure 1 Sources

Albania: ILO Office for Central and Eastern Europe, *Decent Work Country Programmeme 2023-26: Albania,* 2022, <www.ilo.org/wcmsp5/groups/public/---ed_mas/---programme/documents/genericdocument/wcms_865259.pdf>, pp.6

Armenia: Armstat, 'Indicator 8.6.1,' Sustainable Development Goals Platform, <https://sdg.armstat.am/8-6-1/>

Azerbaijan: No data found.

Belarus: Belstat, 'Indicator 8.6.1,' Sustainable Development Goals Platform, <https://sdgplatform.belstat.gov.by/datasets/8.6.1>

Bosnia and Herzegovina: European Training Foundation, *Youth Disengagement and Skills Mismatch in the Western Balkans Working Paper,* October 2021, <www.etf.europa.eu/sites/default/files/2021-11/02_youth_western_balkans_final.pdf>, pp.30

Bulgaria: Republic of Bulgaria National Statistical Institute, 'Specific Indicators, Based on the Labour Force Survey, 2022,' site updated 27 October 2023, <www.nsi.bg/en/content/4018/specific-indicators>

Croatia: Eurostat Data Browser, 'Young people neither in employment nor in education and training (NEET), by sex and age-quarterly data,' site updated 14 September 2023, <https://ec.europa.eu/eurostat/databrowser/view/LFSI_NEET_Q__custom_6712187/default/bar?lang=en>

Czech Republic: Eurostat Data Browser, 'Young people neither in employment nor in education and training (NEET), by sex and age-quarterly data,' site updated 14 September 2023, <https://ec.europa.eu/eurostat/databrowser/view/LFSI_NEET_Q__custom_6712187/default/bar?lang=en>

Georgia: National Statistics Office of Georgia, 'Employment and Unemployment: Share of youth not in education, employment or training (NEET) by sex,' <www.geostat.ge/en/modules/categories/683/Employment-Unemployment>

Greece: Eurostat Data Browser, 'Young people neither in employment nor in education and training (NEET), by sex and age-quarterly data,' site updated 14 September 2023, <https://ec.europa.eu/eurostat/databrowser/view/LFSI_NEET_Q__custom_6712187/default/bar?lang=en>

Hungary: Eurostat Data Browser, 'Young people neither in employment nor in education and training (NEET), by sex and age-quarterly data,' site updated 14 September 2023, <https://ec.europa.eu/eurostat/databrowser/view/LFSI_NEET_Q__custom_6712187/default/bar?lang=en>

Kazakhstan: Bureau of National Statistics Agency for Strategic Planning and Reforms of the Republic of Kazakstan, 'Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all: Proportion of youth (aged 15 to 24 years) not in education, employment or training,' <https://stat.gov.kz/en/sustainable-development-goals/goal/8/>

Kosovo: Kosovo Agency of Statistics, *Anketa e Fuqise Punetore TM4 2022*, August 2023, <https://askapi.rks-gov.net/Custom/dd0cea1b-2419-4d77-b4c4-a81751ca37fc.pdf>, pp.30

Kyrgyzstan: National Statistical Committee of the Kyrgyz Republic Department of Labor and Employment Statistics, 'Indicator 8.6.1,' <https://sustainabledevelopment-kyrgyzstan.github.io/8-6-1/>

Moldova: National Bureau of Statistics of the Republic of Moldova, 'Youth NEET in the Republic of Moldova for the first quarter of 2023,' June 2023, <https://statistica.gov.md/en/youth-neet-in-the-republic-of-moldova-for-the-first-9430_60458.html>

Montenegro: Statistical Office of Montenegro, 'Chapter 5: Employment and Earnings,' *Statistical Yearbook 2022,* <https://monstat.org/uploads/files/publikacije/godisnjak%202022/5.pdf>, pp.61

North Macedonia: International Labour Organization, Republic of North Macedonia: Young people not in education, employment or training (NEET) Mapping and Policy Pointers, March 2022, <://northmacedonia.un.org/sites/default/files/2022-09/MKD_NEET%20Mapping%20and%20Policy%20Proposals_EN.pdf>, pp.10

Poland: Eurostat Data Browser, 'Young people neither in employment nor in education and training (NEET), by sex and age-quarterly data,' site updated 14 September 2023, <https://ec.europa.eu/eurostat/databrowser/view/LFSI_NEET_Q__custom_6712187/default/bar?lang=en>

Romania: Eurostat Data Browser, 'Young people neither in employment nor in education and training (NEET), by sex and age-quarterly data,' site updated 14 September 2023, <https://ec.europa.eu/eurostat/databrowser/view/LFSI_NEET_Q__custom_6712187/default/bar?lang=en>

Serbia: Statistical Office of the Republic of Serbia, 'Decent Work and Economic Growth: Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all,' site updated 28 April 2023, <https://sdg.indikatori.rs/en-us/area/decent-work-and-economic-growth/?subarea=SDGUN080601&indicator=240002090106IND02>

Slovakia: Eurostat Data Browser, 'Young people neither in employment nor in education and training (NEET), by sex and age-quarterly data,' site updated 14 September 2023, <https://ec.europa.eu/eurostat/databrowser/view/LFSI_NEET_Q__custom_6712187/default/bar?lang=en>

Tajikistan: Kanzaki Izawa et al., *Technical and Vocational Education and Training in Tajikistan and Other Countries in Central Asia,* The Asian Development Bank, March 2021, <www.adb.org/sites/default/files/publication/691671/tvet-tajikistan-central-asia.pdf>, pp.19

Türkiye: TurkStat, 'Youth in Statistics, 2022,' May 2023, <https://data.tuik.gov.tr/Bulten/Index?p=Youth-in-Statistics-2022-49670>

Turkmenistan: No data found.

Ukraine: European Training Foundation, *Ukraine: Education, Training and Employment Developments 2021,* 2021, <www.etf.europa.eu/sites/default/files/document/CFI_Ukraine_2021.pdf>, pp.6

Uzbekistan: No data found.

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