GREEN JOBS AND SKILLS ASSESSMENT: GEORGIA

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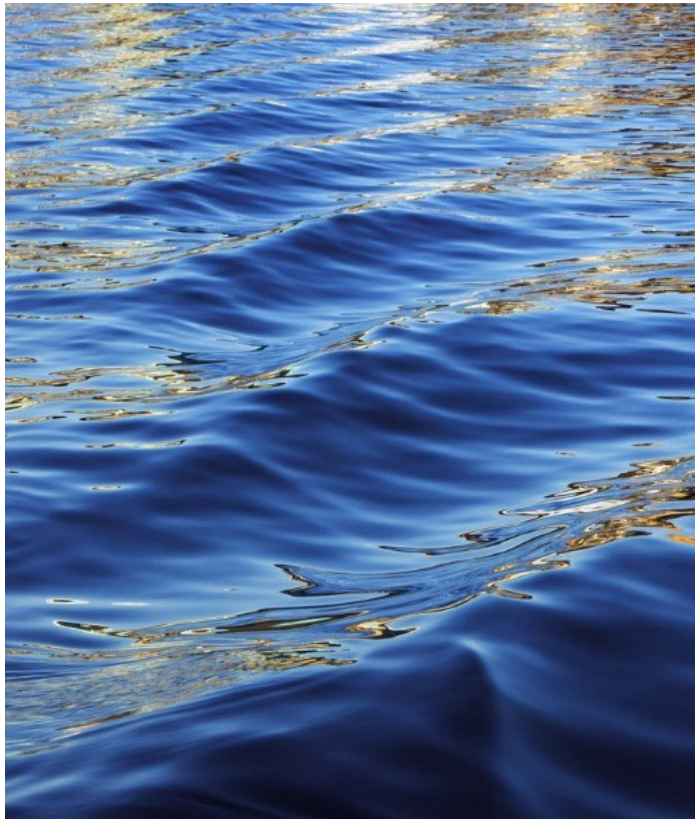
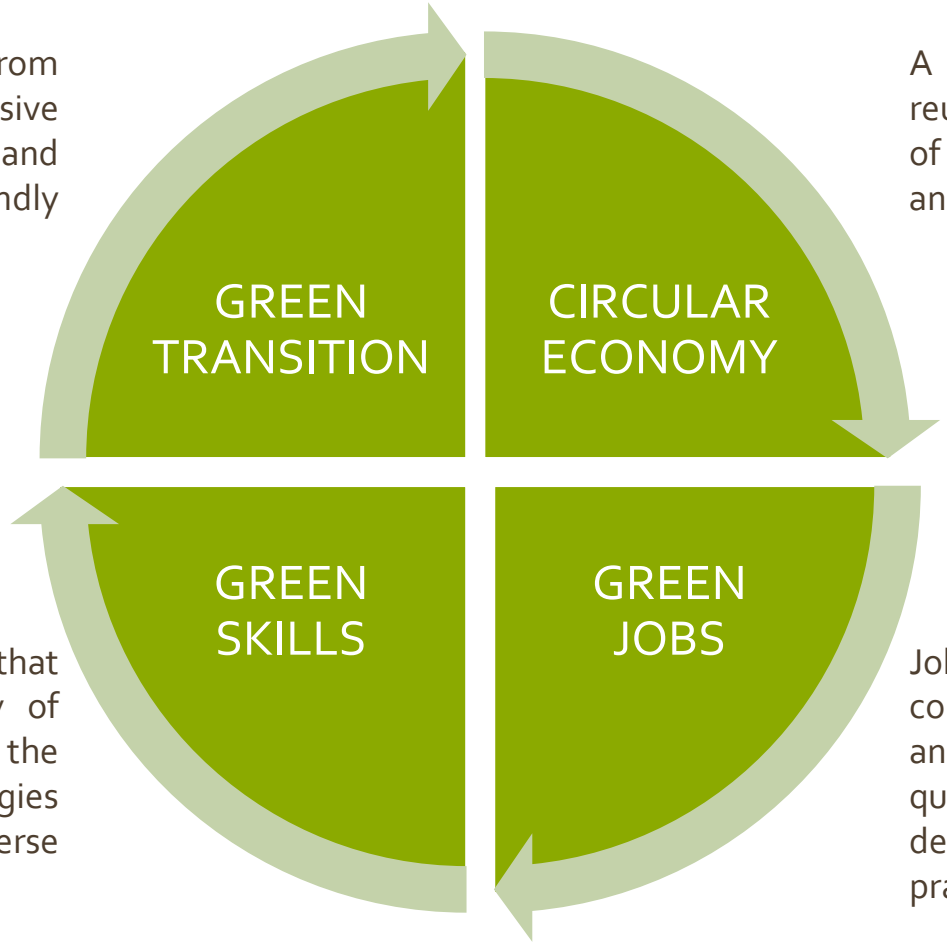


THE INTERCONNECTED PATH TO SUSTAINABILITY

The process of shifting from traditional, resource-intensive practices to sustainable and environmentally friendly alternatives.



A model that emphasizes the reuse, recycling, and repurposing of resources to minimize waste and environmental impact.

Knowledge, abilities, and values that contribute to the sustainability of economic activities and the integration of green technologies and processes into diverse professional settings.

Jobs in any economic sector that contribute to preserving, restoring, and enhancing environmental quality and/or support the development of sustainable practices.

GREEN JOBS: ESTIMATED DATA BY ILO

1.2 billion jobs will only be preserved by supporting a stable and healthy environment

The transition to a circular economy will generate 6 million new jobs

Achieving the Paris Agreement will result in 18 million more jobs

There is a risk of job displacement, green skill gaps, supply chain disruptions, and an exacerbation of social inequality

ORGANIZATIONAL STRUCTURE OF THE PROJECT

GREEN TRANSITION FRAMEWORK

- LEGAL AND POLICY MEASURES
- GREEN BUSINESS TRENDS
- CHALLENGES AND RECOMMENDATIONS

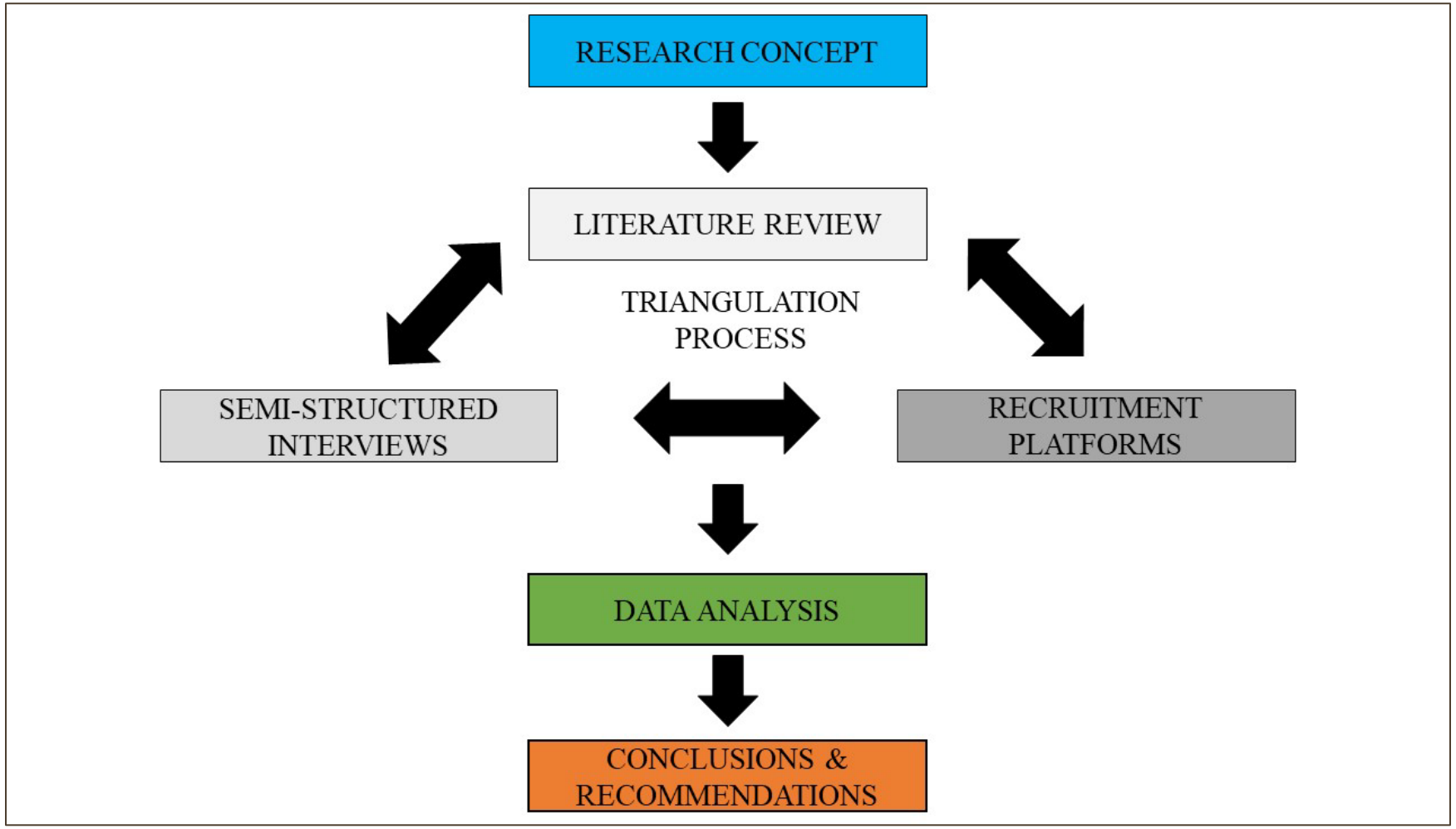
GREEN JOB MARKET ANALYSIS

- STATE OF GREEN EMPLOYMENT
- JOB TYPES AND RELATED GREEN SKILLS
- CHALLENGES AND RECOMMENDATIONS

EDUCATION AND GREEN SKILLS

- GREEN EDUCATIONAL AND TRAINING PROGRAMS
- GAPS AND BARRIERS
- ACTION PLAN TO FOSTER GREEN SKILLS

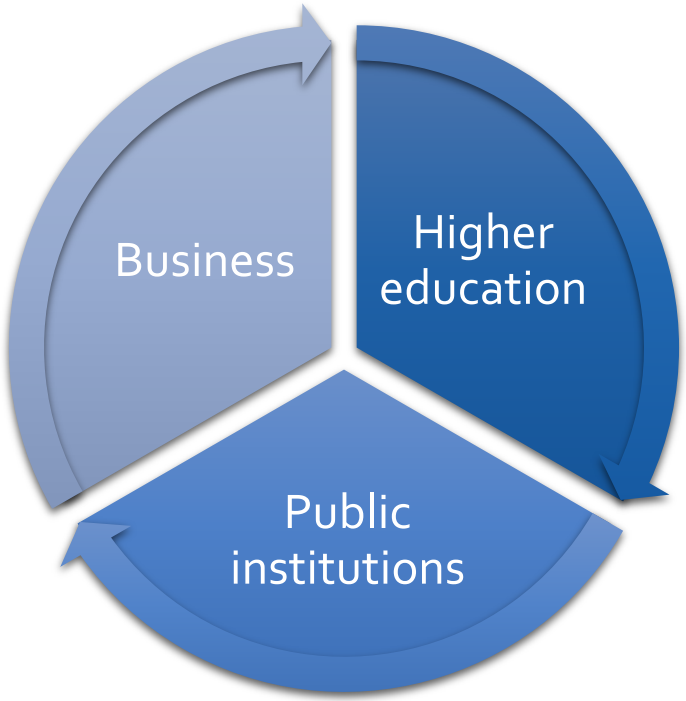
METHODOLOGICAL APPROACH

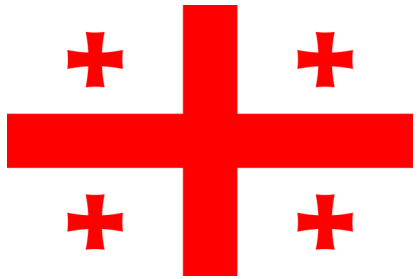


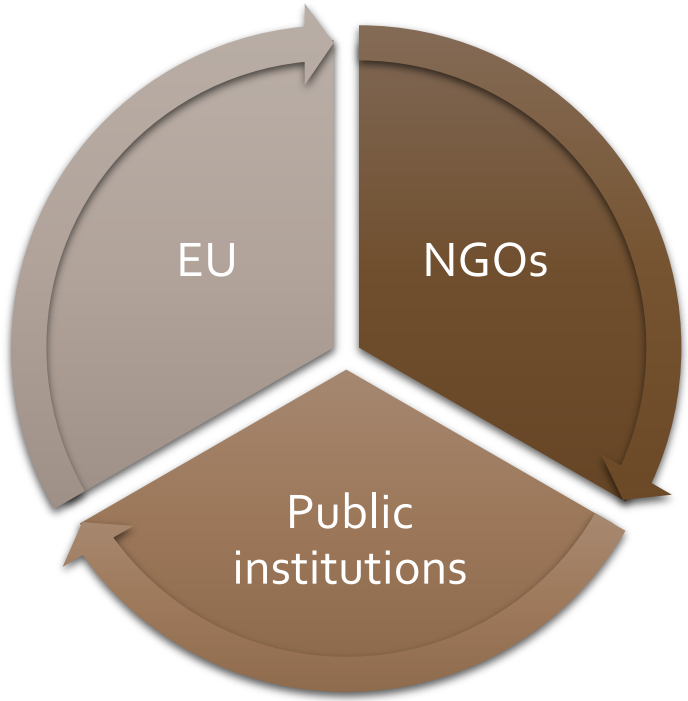
LIST OF INTERVIEWED SPECIALISTS: GEORGIA

ANNEX 1. RESPONDENTS TO THE SEMI-STRUCTURED INTERVIEWS		
ACADEMIA		
NAME AND SURNAME	UNIVERSITY	FOCUS AREA
Giva Tvauri	Grigol Robakidze University	• Sustainable Development • Business Administration • Renewable Energy
Ioseb Berikashvili	Caucasus University	• Green transition • Circular economy • Education
Kakha Artsivadze	Georgian Institute of Public Affairs (GIPA) & Centre for Biodiversity Conservation and Research – NACRES	• Biodiversity conservation • Climate change • Natural resources
PUBLIC INSTITUTIONS		
NAME AND SURNAME	INSTITUTION	FOCUS AREA
Konstantin Barjadize and Liana Garibashvili	Energy Efficiency Centre (EEC)	• Energy efficiency • Renewable energy • Sustainability
Tamar Aldashvili	LEPL Environmental Information and Education Centre	• Environment • Education • Sustainability
NON-GOVERNMENTAL ORGANIZATIONS		
Levan Gagoshvili	Caucasus Environmental NGO Network (CENN)	• Agriculture • Forestry • Sustainability
Manana Kochladze	CEE Bankwatch Network (CEEBN)	• Democracy • Environment • Human Rights

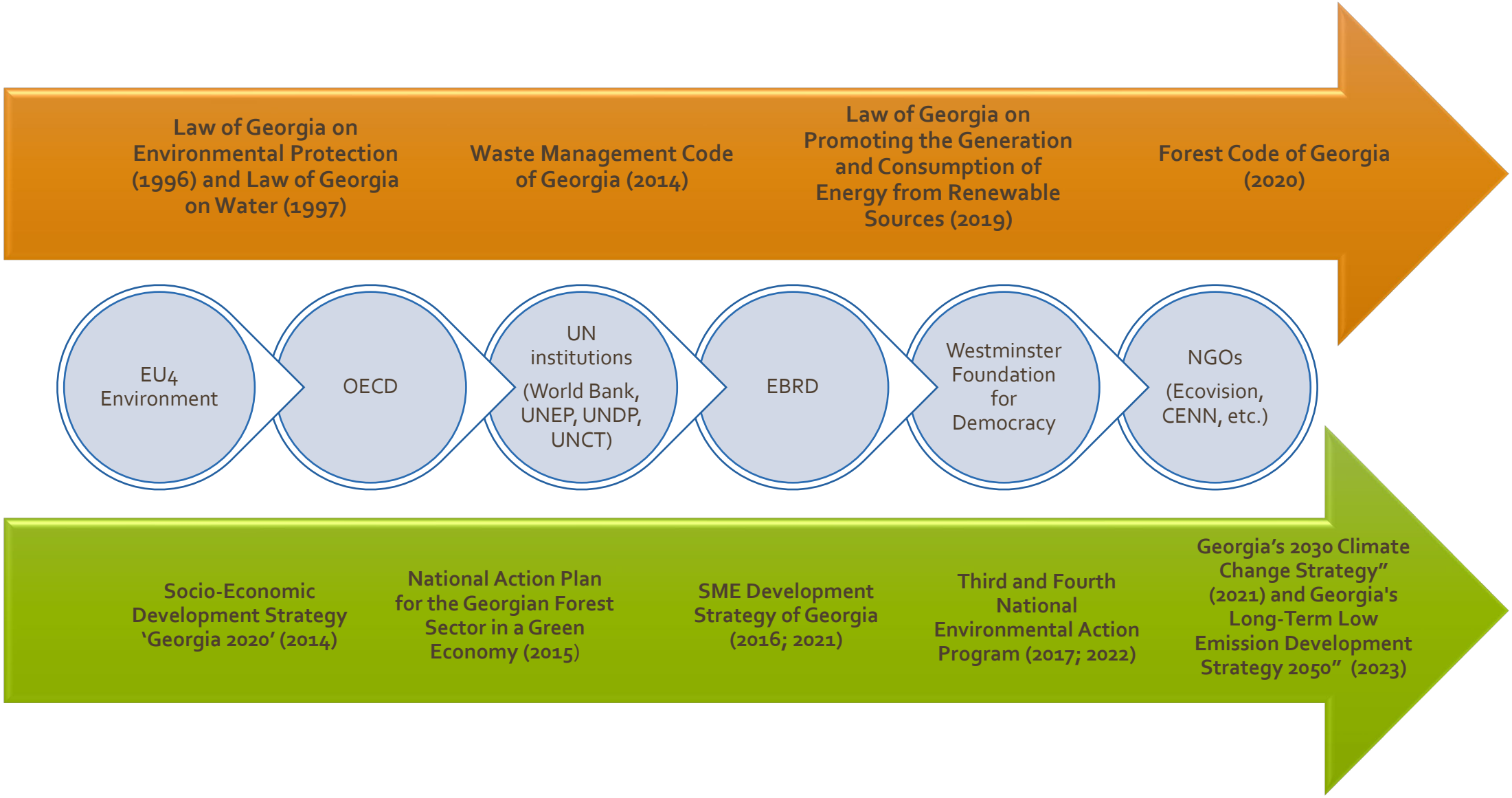
WHO IS DRIVING THE GREEN TRANSITION: KAZAKHSTAN & GEORGIA





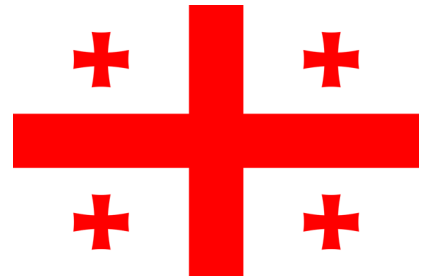


LEGAL AND POLICY FRAMEWORK: GEORGIA



EMERGING GREEN BUSINESS AREA: KAZAKHSTAN & GEORGIA

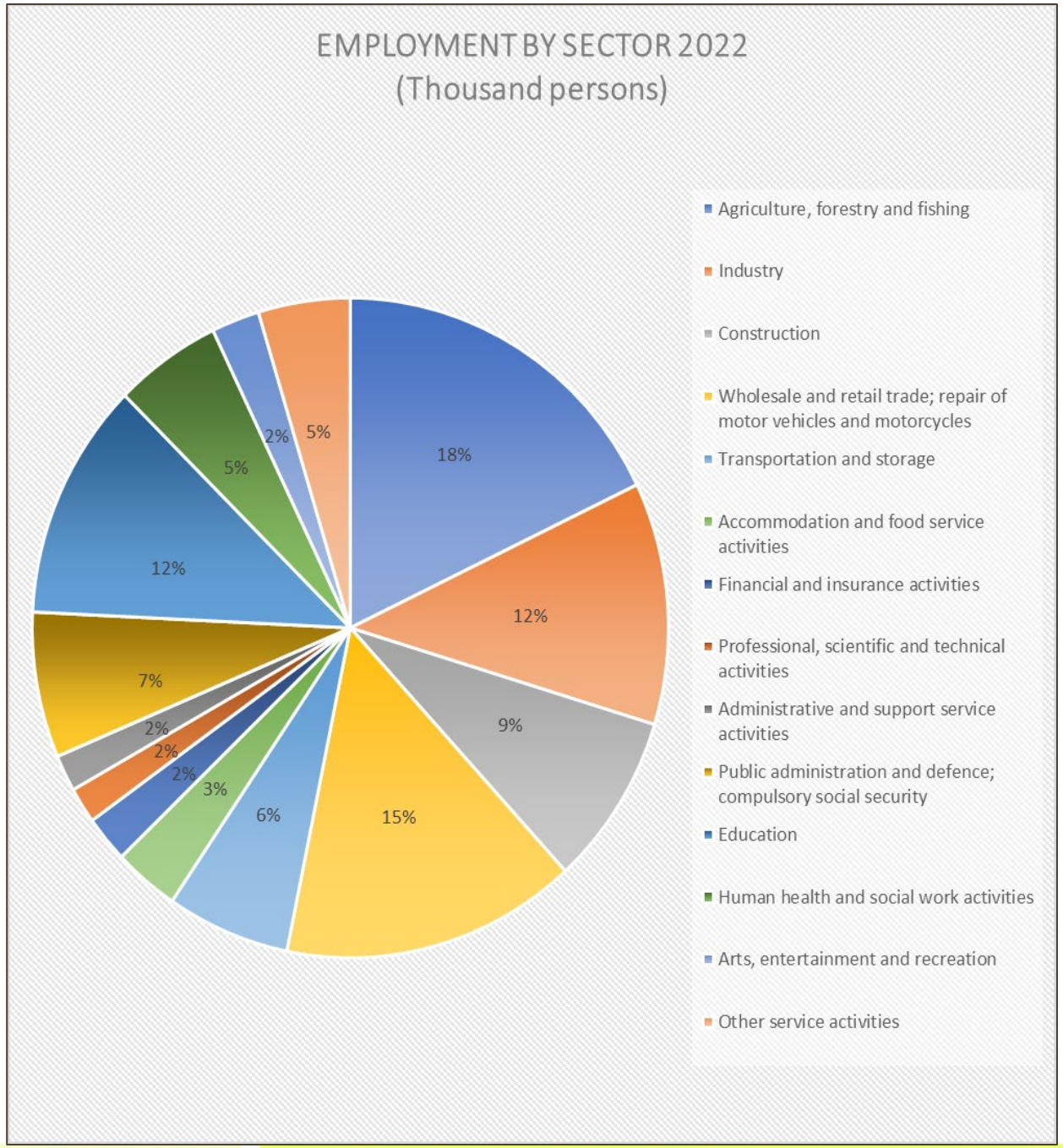
- Climate change and carbon reduction
- Renewable energies and energy efficiency
- Sustainable water management
- Agroecological transformation
- Green entrepreneurship
- Natural resources management
- Green finance
- Sustainability audit
- Green construction
- Integrated planning and policy making



- Green banking/financing
- Green NGOs
- Green policy making
- Green tourism
- Renewable energy
- Sustainable bio-production
- Sustainable manufactoring
- Sustainable urban planning
- Sustainable waste management

CHALLENGES AND RECOMMENDATIONS FOR THE GREEN TRANSITION PROCESS IN GEORGIA

Financial barriers	Mobilize private finance through innovative financial mechanisms.
	Develop partnerships with international organizations to co-finance and implement green infrastructural projects.
	Create a clear, transparent, and consistent regulatory framework.
Legal and policy framework gaps	Establish a clear definition of green finance.
	Develop specific regulations for green bonds.
	Strengthen mechanisms to monitor and enforce compliance with regulations.
Environmental issues	Set strict standards, monitoring systems, and penalties for non-compliance.
	Empower regulatory agencies.
	Support diverse initiatives to encourage the adoption of sustainable practices across industries.
Renewable energy utilization obstacles	Increase investment and technological advancement.
	Enhance policies in the energy industry and mechanisms related to carbon emissions.
	Raise public awareness and engage local communities regarding plans for the development of renewable energy.
Agricultural sector stagnation	Accelerate the development of agricultural infrastructure.
	Stimulate the production and export of bioproducts.
	Provide training to farmers on agroecological innovative practices and promote soil conservation measures.
Socioeconomic and educational challenges	Implement awareness-raising campaigns.
	Develop capacity-building programs.
	Enforce stringent rules to direct enterprises and individuals toward sustainable practices.

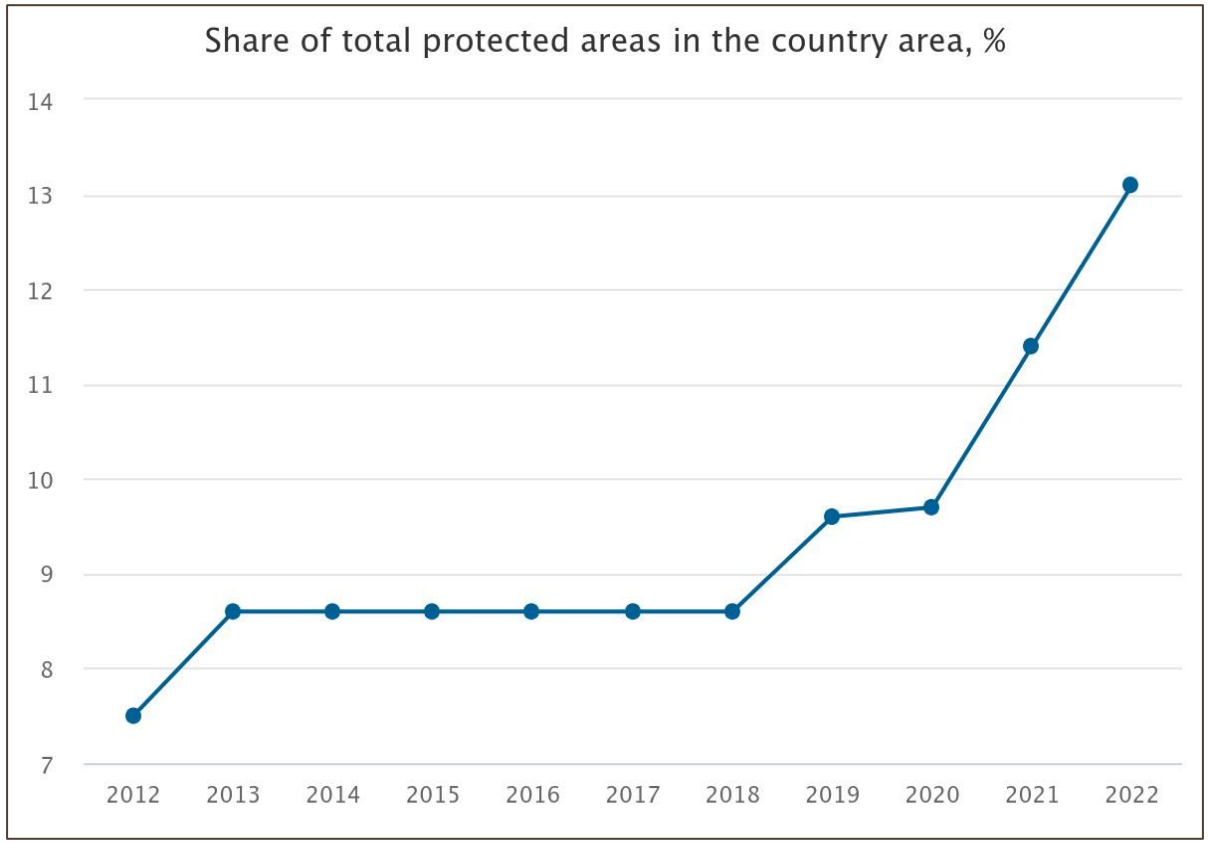


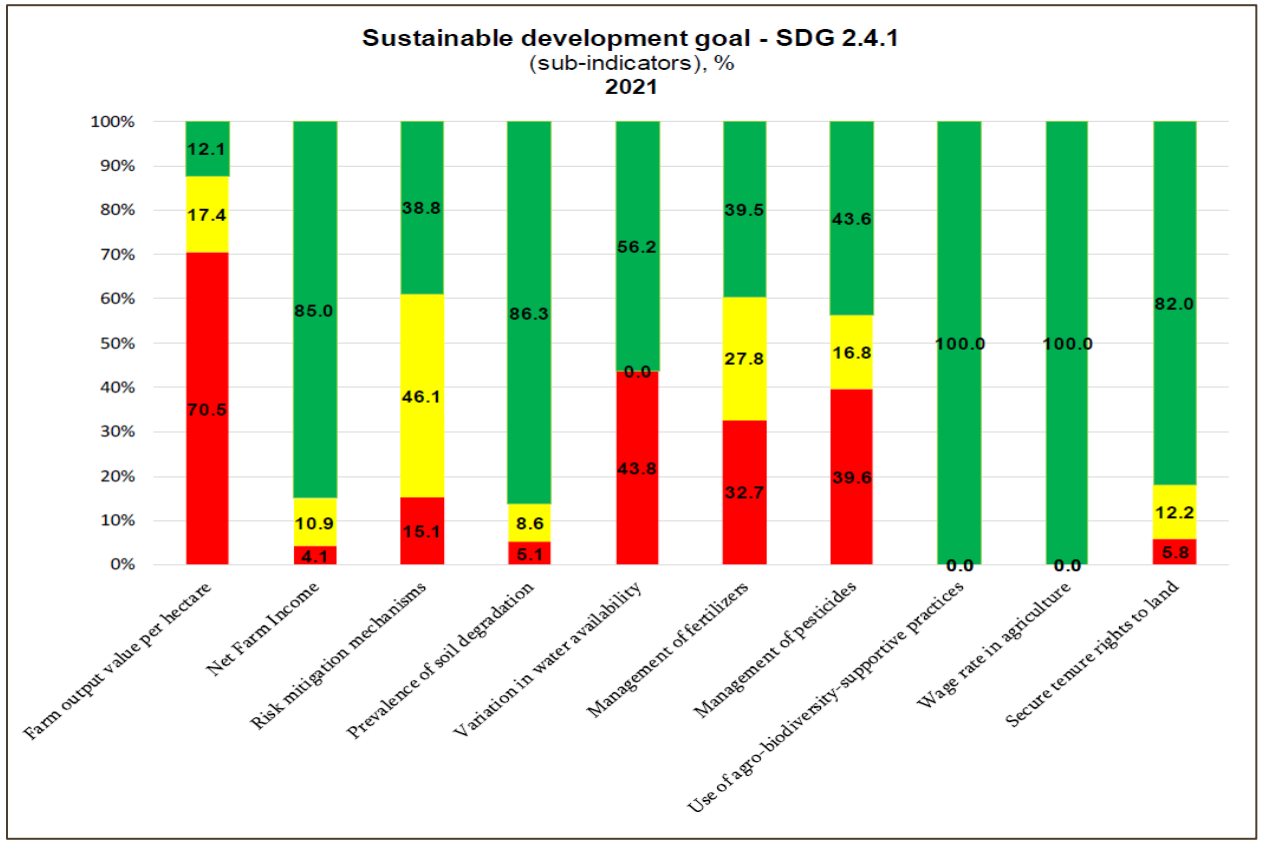
GREEN JOB MARKET IN GEORGIA

UNEMPLOYMENT
252,000 people (15.6%)

LACK OF STATISTICAL DATA ABOUT THE GREEN JOB MARKET

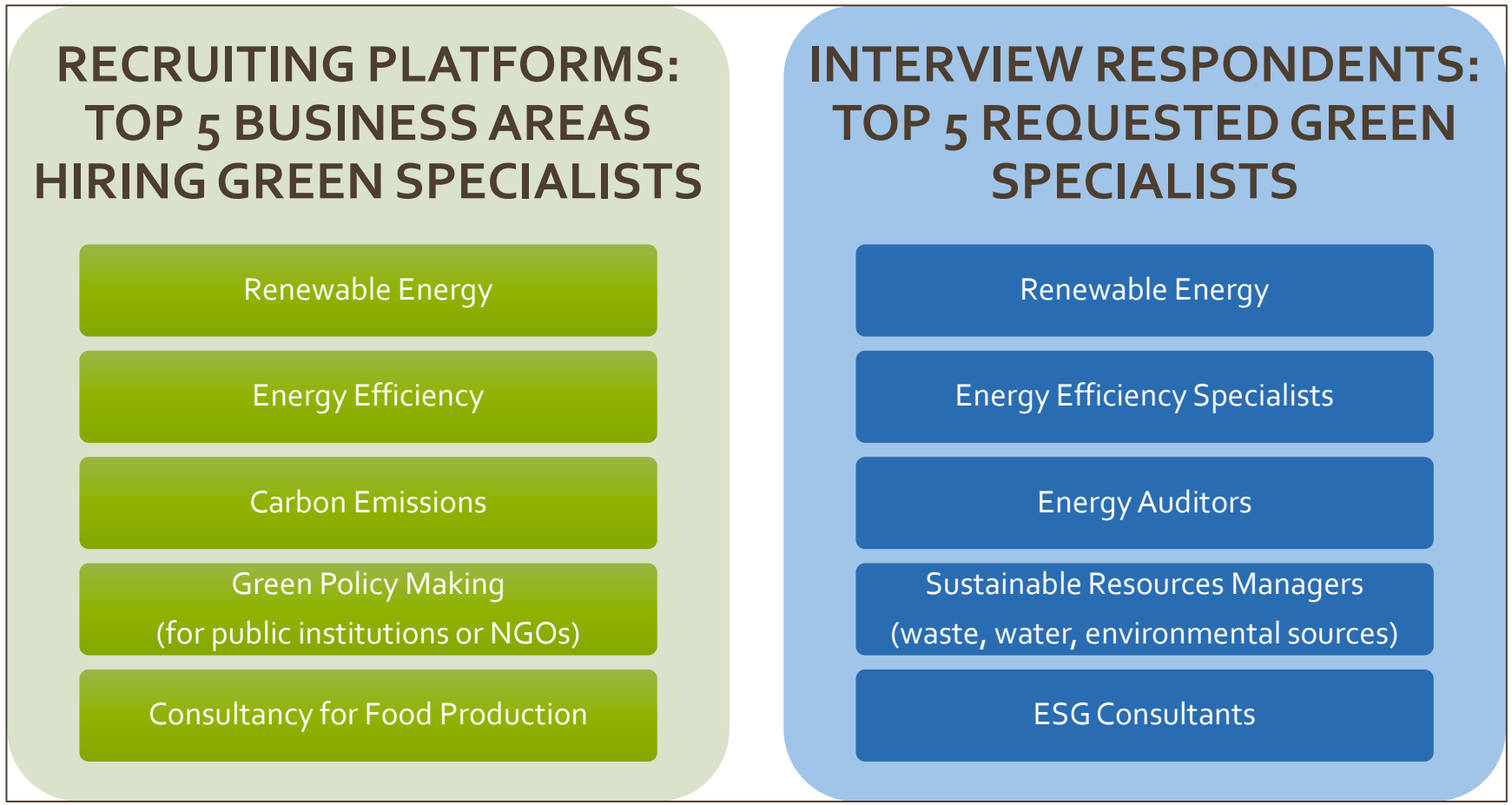
GREEN JOB MARKET IN GEORGIA





The territorial covering of protected areas in the country is significantly growing year by year.
In the agricultural sector, diverse unsustainable practices are still commonly used in the country.
The share of renewable energy in electricity production provided by hydropower and one wind farm was 81% in 2021.

GREEN JOB MARKET IN GEORGIA: RECRUITING PLATFORMS AND SPECIALISTS



There is a clear correspondence between the green job areas identified in the assessment of the LinkedIn posts and the rising green jobs identified by the interviewed experts: energy specialists; green decision-makers; sustainability consultants and managers.

GREEN SKILLS IN GEORGIA: RECRUITING PLATFORMS AND SPECIALISTS

MOST COMMON GREEN SKILLS IN RECRUITING PLATFORMS

- CONSULTANCY
- SUSTAINABLE BUSINESS DEVELOPMENT
- CLIMATE FINANCE
- ICT
- SOCIAL INCLUSION
- ENERGY SAVING

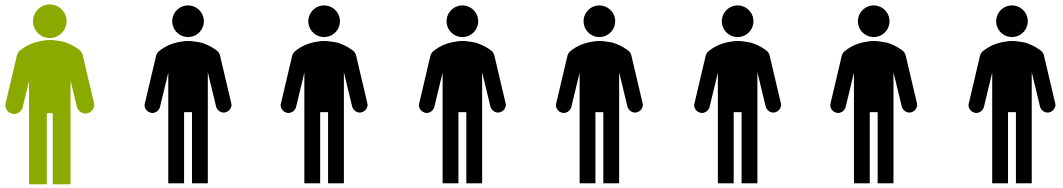
- RENEWABLE ENERGY

MOST COMMON GREEN SKILL CONSIDERING BOTH SOURCES

- GREEN POLICY DEVELOPMENT
- SUSTAINABILITY REPORTING
- GREEN TECH
- ANALYTICAL THINKING
- ENVIRONMENTAL AWARNESS
- SYSTEMIC THINKING

MOST COMMON GREEN SKILLS ACCORDING TO SPECIALISTS

THE RISK OF A GREEN SKILLS GAP IN THE WORLD



Only 1 in 8 workers has one or more green skills

From 2022 to 2023, the proportion of green talent in the workforce increased by a median of 12.3%

BUT

The proportion of job advertising that needed at least one green skill expanded twice as fast, with a median increase of 22.4%

The number of job postings mandating at least one green skill has increased by a median of 15.2%

Workers with at least one green talent have a median LinkedIn hiring rate that is 29% greater than the average hiring rate

THE RISK OF A GREEN SKILLS GAP IN THE WORLD

"While a shift towards renewables is underway, the lack of specialized skills among current oil and gas workers and the limited scale of renewable projects are holding back job growth… Upskilling programs focusing on solar, hydrogen, and other renewable technologies could equip the existing workforce for these upcoming opportunities."

Nadia Boumeziout
Head of Sustainability, Zurich Insurance

"The main obstacles for the employment growth in the renewable energy sector are the lack of technical skills and specialized training programs and the need for competitive remuneration. Raising awareness about the growing opportunities in renewables, along with offering attractive salaries can speed up the transition."

Ghiwa Nakat
Executive Director, Greenpeace

"Policies should promote educational reform to integrate sustainability and renewable energy into its curriculum, incentives for business investments in renewables, and workforce retraining. Moreover, endorsing partnerships between governments, educational institutions, and the private sector is essential to speed up employment growth in renewable energy."

Nahla Nabil
Sustainability Expert, Etihad Rail

THE RISK OF A GREEN SKILLS GAP IN GEORGIA

POTENTIAL LACK OF WORKFORCE FOR DEDICATED GREEN JOBS

Renewable energy engineers	Energy efficiency consultants	Green tech specialists	Sustainability advisors	ESG auditors

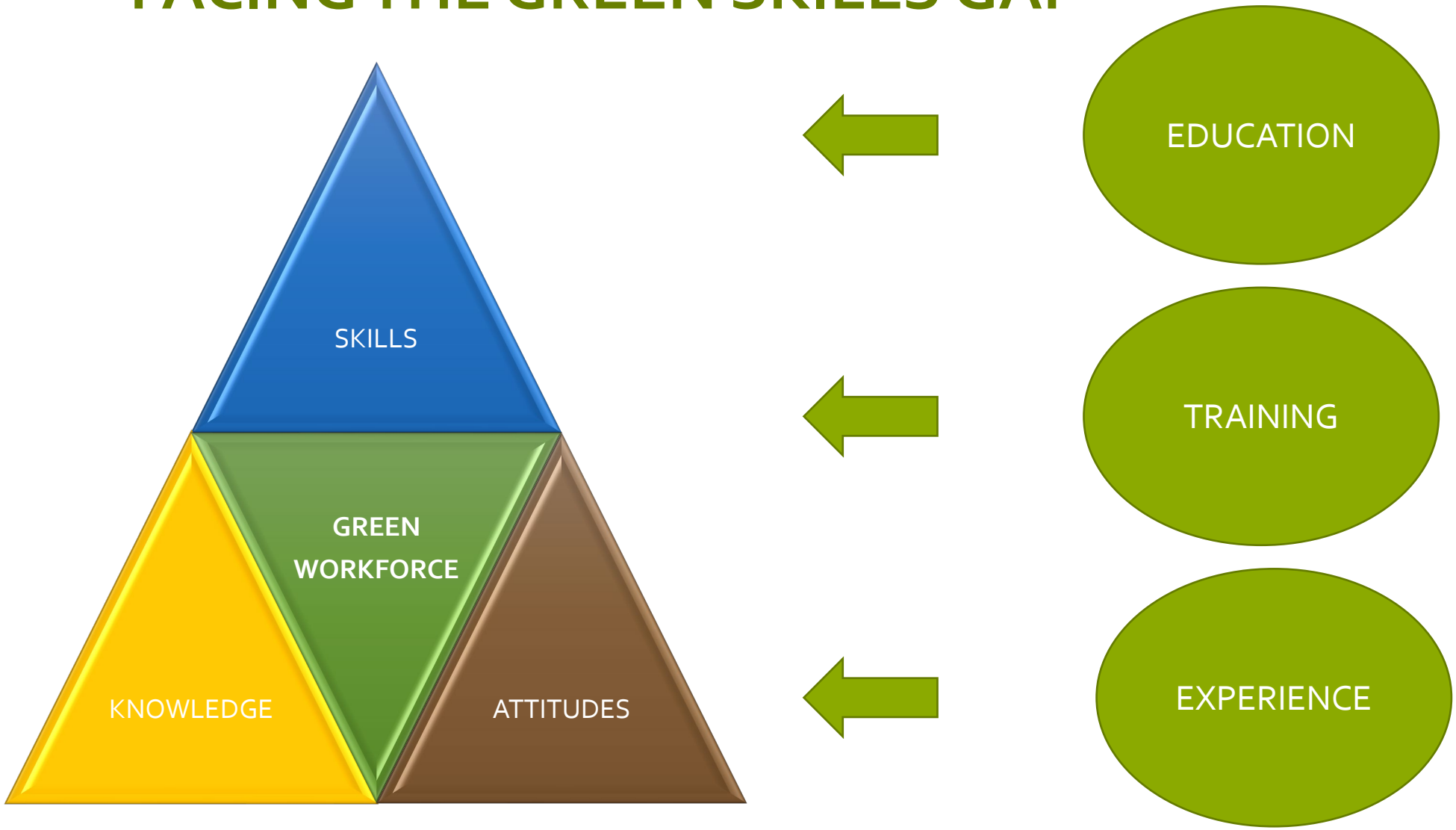
'Georgia has made significant progress in greening its economy, but this must become the country's top priority in order to achieve better results.' (Gamjashvili 2022)

'Georgia is behind in dealing with plans and policies to prepare the workforce for 'green jobs' and ensure skilled and qualified workers.' (DTDA 2022)

POTENTIAL LACK OF WORKFORCE FOR INTEGRATED GREEN JOBS

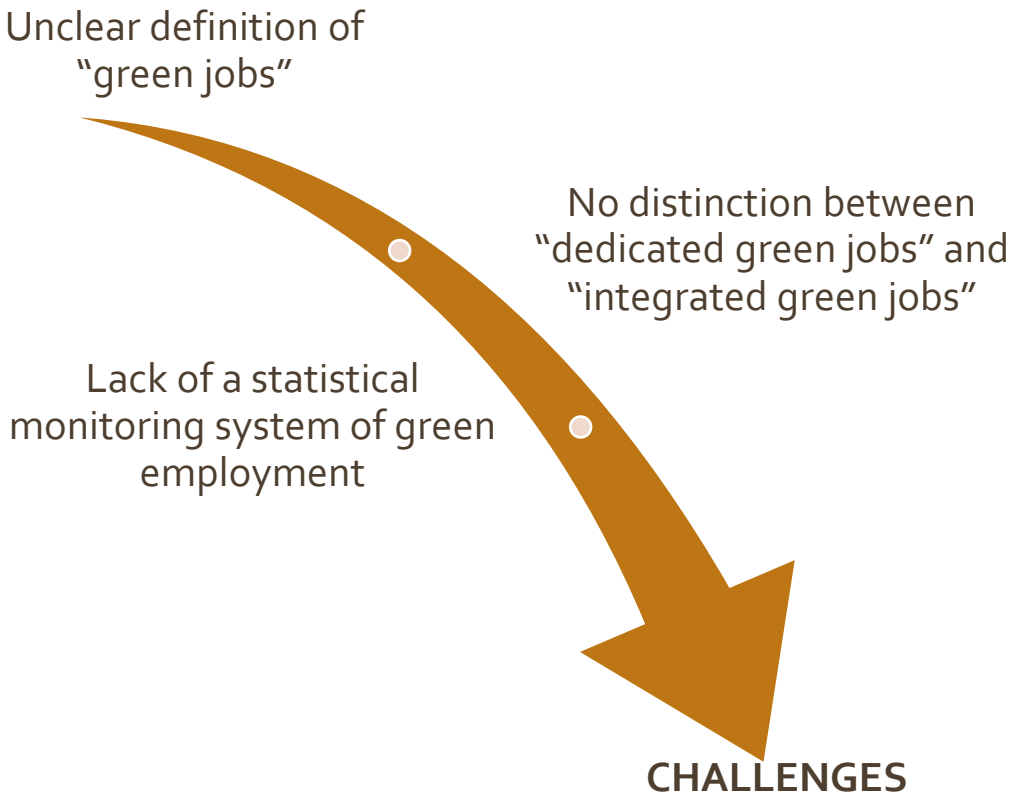
Attorneys specializing in environmental and energetic law	Financial professionals with a focus on green finance	Policymakers with a system thinking approach

FACING THE GREEN SKILLS GAP

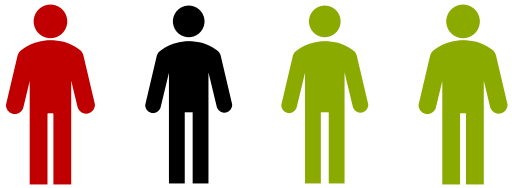


Consoli et al. (2015, p. 23), ‘green jobs are characterized by higher levels of nonroutine cognitive skills and higher dependence on formal education, work experience and on-the-job training.’

CHALLENGES AND RECOMMENDATIONS FOR THE GREEN JOB MARKET IN GEORGIA



EDUCATIONAL FRAMEWORK AND GREEN SKILLS IN GEORGIA: PRELIMINARY CONSIDERATIONS



1 person out of 4 never actively contributed to raising environmental awareness. An additional 40% reported doing so rarely.

Many respondents have not received formal or informal education on environmental issues.

32% of Georgian firms offered formal training in 2019.
"Skills Agency" was established in 2021 to facilitate the widespread of vocational programs and support innovative training.
The number of individuals enrolled in vocational education programs grew by 30% in 2022.
BUT
At present sustainability and green skills still tend to remain at the margins.

EDUCATIONAL FRAMEWORK AND GREEN SKILLS IN GEORGIA: GREEN APPROACHES AT SCHOOL LEVEL

Keep Georgia Tidy (KGT)

- Eco-school program (more than 300 schools are involved in the program)
- GAIA 20:30 (professional development training for school teachers)

Caucasus Environmental NGO Network (CENN)

- Educational system development (e.g. materials, methodologies, curricula, etc.)
- Green camps (6 green camps for 150 participants in 2022)

Environmental Information and Education Centre (EIEC)

- Material and training for teachers of both kindergartens and early school grades
- Green award competition
- Special programs for school students (e.g. "School of Eco-leaders"; "Forestry school"; and "Green Camp – Climate Ambassadors")

EDUCATIONAL FRAMEWORK AND GREEN SKILLS IN GEORGIA: GREEN APPROACHES IN HIGHER EDUCATION

Green energy, circular economy, and sustainability-related courses integrated in traditional educational programs

- Grigol Robakidze University (GRUNI)
- Business and Technology University (BTU)
- Caucasus University (CU)

Launched a specialized "Center for Sustainability"

- Grigol Robakidze University (GRUNI) in cooperation with "Libra Alliance"

Opened new educational programs related to environmental management and sustainable development

- Master in Water Supply, Water Discharge and Rational Use and Protection of Water Resources - Georgian Technical University (GTU)
- Master of Constructive (applied) Geography and Protection of the Environment - Sokhumi State University (SOU)
- Master's program in Environmental Management and Policy - Georgian Institute of Public Affairs (GIPA)

Launched a "Green Scholarship program" to increase the number of students enrolled in environmental study programs

- In 2022, 8 universities participated in the program for a total of 32 scholarships
- In 2023, 9 universities and 12 vocational colleges participated in the project

EDUCATIONAL FRAMEWORK AND GREEN SKILLS IN KAZAKHSTAN: GREEN APPROACHES IN HIGHER EDUCATION

Almaty Management University (AlmaU)	Kazakh-German University (DKU)	Kazakh National Agrarian Research University (KazNARU)	Nazarbayev University (NU)
Green skills in traditional education and applied students' projects	**Innovative green programs, specialized training, and field trips**	**Spreading a green thinking approach through a green campus**	**A mix of teaching, projects, and green campus to foster a systemic approach**
Advocacy for sustainability	Cutting-edge education	Sustainable mindset	Integrated approach
Community engagement	Experiential learning	Community building	Student engagement
Fostering innovation	Industry relevance	Hands-on learning	Extensive partnerships
Holistic education	Networking opportunities	Lead by example	Role modeling

Even though it is still in its infancy, there is a growing "green trend" among several Kazakhstani universities to support the development of innovative activities aimed at fostering green skills in their institutions and progressively enhancing their educational programs.

EDUCATIONAL FRAMEWORK AND GREEN SKILLS IN GEORGIA: GREEN APPROACHES AT VOCATIONAL LEVEL

Caucasus Environmental NGO Network (CENN)
- Grant competition for innovative ideas for climate change mitigation and adaptation
- Specialized training in circular economy
- A study tour to the European Environmental Bureau in Brussels (Belgium) for fourteen representatives of civil society organizations

Ecovision
- Certified training in areas like climate change, energy efficiency, biodiversity conservation, waste management, and water management

Westminster Foundation for Democracy in Georgia
- Professional development training on climate and environmental challenges for journalists, civil society organizations, and others

Bazaleti Green Architecture and Engineering Technologies Training Center
- Visitors can get acquainted with the latest green approaches, solutions, and technologies in the field of architecture and engineering

Georgia Institute of Public Affairs (GIPA)
- Vocational program in "Occupational Health and Environmental Technologies"

Georgian Technical University (GTU)
- Four vocational-technical programs related to renewable energy

Construct2
- Program in "Occupational Safety and Environmental Protection Technologies"

Public institutions (e.g. EIEC; MoESD)
- Offers/supports diverse green professional training/retraining programs

International organizations (UNEP and UNITAR)
- Free-of-charge e-learning course "Introduction to the Green Economy"

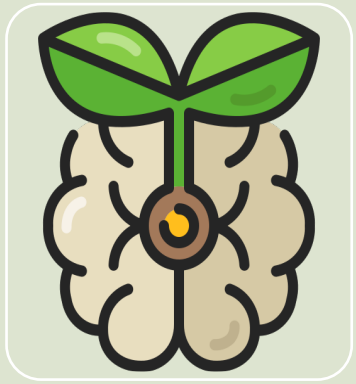
EDUCATIONAL FRAMEWORK AND GREEN SKILLS IN GEORGIA: CHALLENGES & RECOMMENDATIONS

WILLINGNESS TO LEARN	• A limited awareness of green issues • Resistance to change • A lack of fundamental knowledge	• Launch public awareness campaigns • Include environmental education programs in schools' curricula • Showcase successful case studies on green practices • Increasing access and awareness to green career planning consultations • Offer workshops and seminars for the general public • Encourage participation in online courses
ACCESSIBILITY TO LEARNING	• A limited number of educational programs • A limited number of green experts • Lack of incentives to promote vocational education	• Extend the range of educational programs focused on green skills • Integrate green principles in traditional higher education courses • Support the completion of internationally recognized certificates • Exchange of best practices with international partners • Incentives for businesses and individuals who invest in green training • Invest in infrastructure for vocational education
QUALITY OF THE AVAILABLE LEARNING OPPORTUNITIES	• A necessity to update academic curricula and professional training • A limited role played by universities in driving the green transition process • Need to better coordinate diverse stakeholders	• Regularly update academic curricula • Partnerships with industry experts and practitioners • Offer grants and financial incentives for "green campuses" • Establish a consortium among universities and research centers • Establish a multi-stakeholder platform for green skills development • Develop a comprehensive strategy and/or action plan

CONCLUSION - GREEN JOBS AND SKILLS IN KAZAKHSTAN: TOP SIX PRIORITIES

STATISTICAL DEFINITION AND MEASUREMENT OF GREEN JOBS AT THE NATIONAL LEVEL

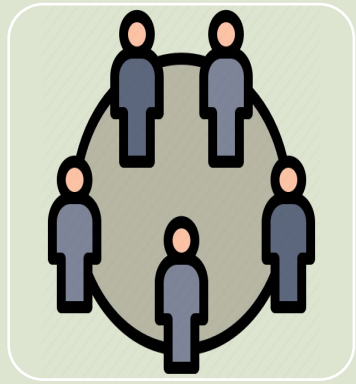
INCREASING ACCESS AND AWARENESS TO CAREER PLANNING CONSULTATIONS FOR REPRESENTATIVES OF GREEN PROFESSIONS



INTEGRATING SUSTAINABILITY PRINCIPLES, ENVIRONMENTAL EDUCATION, AND GREEN SKILLS IN SCHOOLS AND HIGHER EDUCATIONAL PROGRAMS

OFFER GRANTS AND OTHER FINANCIAL INCENTIVES TO ENCOURAGE THE DEVELOPMENT OF A "GREEN CAMPUS"

ENDORSE ALTERNATIVE ENTRY AND RE-ENTRY PATHWAYS TO MAKING GREEN SKILLS TRAINING ACCESSIBLE TO A DIVERSE RANGE OF INDIVIDUALS



ESTABLISH A MULTI-STAKEHOLDER PLATFORM COMPRISING GOVERNMENT AGENCIES, EDUCATIONAL INSTITUTIONS, BUSINESSES, NGOS, AND COMMUNITY REPRESENTATIVES TO COORDINATE EFFORTS AND INITIATIVES RELATED TO GREEN SKILLS DEVELOPMENT

THANK YOU FOR THE ATTENTION

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