

Policy Brief

Climate-Responsive TVET for Refugees and Displaced Youth: Building Green Skills for Inclusive and Sustainable Development

Prepared by: Aldouma Abaker

**Climate Change & TVET Specialist at the Refugee Education
Council (REC)**

July 15, 2026

Executive Summary

The world is experiencing an increasing convergence of forced displacement, climate change, and labour market transformation. More than 117 million people are currently forcibly displaced worldwide, while climate-related hazards, environmental degradation, and existing vulnerabilities—including conflict, poverty, and livelihood insecurity—are intensifying risks, disrupting livelihoods, and reshaping patterns of displacement and human mobility.

At the same time, the transition toward low-carbon and climate-resilient economies is transforming labour markets and changing the skills required across both emerging and existing occupations. The green economy is projected to create approximately 8.4 million jobs for young people by 2030, with opportunities in areas such as renewable energy, sustainable construction, climate-smart agriculture, circular economy systems, water management, ecosystem restoration, and environmental management. In displacement-affected contexts, opportunities may also emerge through strengthening the climate resilience of existing livelihoods, occupations, enterprises, and value chains, rather than exclusively through the creation of new jobs in sectors traditionally classified as "green."

However, refugees and displaced youth are not equally positioned to benefit from these emerging opportunities. Many continue to face significant barriers to accessing Technical and Vocational Education and Training (TVET), which serves as a critical pathway to green employment, entrepreneurship, and sustainable livelihoods. Even where access to TVET is available, programmes often remain focused on traditional trades and are insufficiently aligned with the green and digital skills demanded by evolving labour markets, thereby limiting pathways to sustainable employment and economic inclusion.

Compounding these challenges, climate-related shocks—including extreme heat, water scarcity, flooding, storms, damaged infrastructure, and displacement—continue to disrupt education and training pathways, reduce learning outcomes, increase protection risks, and contribute to persistent skills gaps. These challenges reflect not only deficits in education and skills development but also broader structural and policy barriers that constrain economic participation and undermine the inclusiveness of the global green transition. Without targeted policy interventions, these interconnected barriers risk reinforcing

unemployment, underemployment, and long-term economic marginalization among displaced populations.

Education disruption further exacerbates these challenges. The Education Cannot Wait (ECW) Global Estimates Update highlights the scale of the global education crisis, estimating that 258 million crisis-affected children and adolescents are living in crisis contexts worldwide, including 93 million who are out of school. Climate-related shocks, displacement, and damaged learning environments further interrupt education pathways, limiting access to vocational training, employment opportunities, and sustainable livelihoods while widening long-term skills gaps among crisis-affected young people.

Although transition strategies increasingly emphasize inclusive pathways toward a green economy, climate-displaced populations remain underrepresented in related policy discussions and implementation frameworks. Greater attention is needed to ensure that displaced youth have equitable access to skills development, economic inclusion opportunities, and sustainable livelihood pathways as an integral part of climate action and the broader green transition.

Climate-Responsive TVET provides a strategic policy approach that integrates climate resilience, education, skills development, labour market demand, and economic inclusion. It encompasses skills for employment in low-carbon and environmentally sustainable sectors; capacities that strengthen the resilience of existing livelihoods, occupations, enterprises, and value chains; and climate and disaster risk literacy that enables young people and communities to anticipate, prepare for, adapt to, and respond effectively to climate-related challenges.

By integrating green skills, digital competencies, sustainability principles, flexible learning pathways, and innovative climate financing mechanisms that strengthen climate-resilient education and TVET systems—including measures to address climate-related loss and damage affecting education infrastructure—Climate-Responsive TVET can enable refugees and displaced youth not only to adapt to climate and economic transformations but also to contribute as active participants, innovators, and leaders in sustainable development, resilient communities, and inclusive green economies.

The Climate–Displacement–Skills Nexus: A Structural Transformation

Climate change is reshaping labour markets and displacement patterns simultaneously, making skills development a central component of climate adaptation and economic resilience. As economies transition towards greener and more climate-resilient models, a growing mismatch is emerging between the skills demanded by the labour market and the opportunities available to displaced populations.

At the policy level, several international frameworks recognize the interconnected challenges of climate change, displacement, education, and employment. The Sustainable Development Goals (SDGs), particularly SDG 4 on quality education, SDG 8 on decent work and economic growth, and SDG 13 on climate action, provide a foundation for linking education, skills development, and sustainable development. The Global Compact on Refugees emphasizes refugee inclusion through access to education, livelihoods, and economic opportunities, while emerging green skills and just transition frameworks highlight

the importance of preparing workers for changing labour markets. However, these frameworks have yet to fully address how refugees and climate-displaced populations can access the skills development, training pathways, and livelihood opportunities required to participate in the green transition.

Despite growing recognition of the links between climate action, skills development, and economic transformation, policy approaches are often implemented separately. Climate policies frequently focus on adaptation and mitigation, refugee policies emphasize protection and inclusion, and skills policies primarily focus on labour market needs. Limited coordination between these areas creates barriers for refugees and displaced youth in accessing relevant training pathways, qualifications, and employment opportunities.

This creates a critical policy gap:

- Climate change is increasing displacement and vulnerability, particularly in fragile and climate-vulnerable contexts.
- The transition towards low-carbon and climate-resilient economies is generating new employment opportunities while driving increased demand for climate adaptation and resilience skills.
- Refugees and displaced youth continue to face significant barriers to accessing the education, training, and employment pathways needed to benefit from emerging green economy opportunities.
- Existing technical and vocational education and training (TVET) and workforce development systems often remain insufficiently aligned with climate priorities, evolving labour market demands, and the specific circumstances and needs of displaced populations.

The perspectives of refugee and displaced youth further demonstrate the urgency of addressing these challenges. Insights from the Refugee Education Council's 2025 global youth consultations, which gathered responses from more than 385 young people across over 55 countries, including 94% who identified as refugees and displaced youth, highlight persistent barriers related to interrupted education, limited access to skills development, financial constraints, and challenges transitioning into employment. Young people emphasized the importance of inclusive, flexible, and accessible learning pathways that recognize their experiences and support their aspirations for sustainable livelihoods.

Addressing these interconnected challenges requires a coordinated and context-specific approach that connects climate action, inclusive education, skills development, workforce planning, and livelihood resilience. Climate-Responsive TVET provides a strategic pathway to ensure that refugees and displaced youth are not left behind in the transition toward sustainable and climate-resilient economies, but are empowered to contribute to climate solutions, resilient communities, and inclusive economic development.

Key Barriers to Climate-Responsive TVET for Refugees and Displaced Youth

Despite the growing demand for green and digital skills, refugees and displaced youth continue to face interconnected barriers that limit their meaningful participation in

Climate-Responsive TVET systems. While these challenges are mutually reinforcing, several foundational barriers require priority attention, including limited access to green skills development, financial and accessibility constraints, and legal and policy barriers. Addressing these enabling conditions is essential to ensure that displaced youth can access, complete, and benefit from climate-responsive skills pathways.

The following barriers highlight the key structural, educational, economic, and institutional challenges that must be addressed to advance inclusive and climate-responsive TVET systems.

Limited Access to Green Skills Development

Many TVET systems have not yet fully adapted to the requirements of low-carbon and climate-resilient development. Training programmes often lack locally relevant climate literacy, green skills, and the technical competencies needed for emerging green sectors, as well as for adapting existing occupations and livelihoods to changing climate conditions.

Climate change is transforming skills requirements across multiple sectors, including agriculture and food systems, fisheries, tourism, construction, transport, water services, energy, ecosystem management, and informal enterprises. Without integrating climate resilience, sustainability principles, and green skills into vocational education and training, displaced youth risk remaining disconnected from future employment opportunities and may be less prepared to manage the climate risks affecting their existing livelihood pathways.

Financial Barriers and Limited Economic Transition Support

Access to training alone does not guarantee that refugees and displaced youth can successfully transition into employment or entrepreneurship. Many face financial barriers, including transportation costs, limited access to digital tools, learning materials, and the equipment required to apply newly acquired skills in green sectors.

Limited access to financial services further constrains economic participation, as many displaced youth lack collateral, formal credit histories, or stable income records required by traditional financial institutions. Climate-Responsive TVET initiatives should therefore be connected with livelihood support mechanisms, including entrepreneurship support, toolkits, mentorship, and youth-friendly financing models to facilitate the transition from training to sustainable livelihoods.

Legal and Policy Barriers

Limited policy coherence between national TVET and skills strategies and relevant climate and development frameworks can create barriers to inclusive Climate-Responsive TVET. Stronger alignment is needed with frameworks such as

National Adaptation Plans, Nationally Determined Contribution implementation priorities, disaster risk reduction strategies, youth employment policies, and refugee inclusion frameworks, as applicable to national contexts.

Skills Recognition

Recognition mechanisms should consider competencies acquired through informal work and practical activities, including climate adaptation, disaster preparedness, agriculture, water management, repair, recycling, and other community-based experiences that may not be captured through formal training systems. The absence of effective recognition of prior learning and portable certification mechanisms limits mobility, reduces employment opportunities, and prevents displaced youth from demonstrating their capabilities.

Education Disruption and Learning Gaps

Climate change and displacement increasingly disrupt education pathways for refugees and displaced youth. Climate-related hazards can affect learning environments, damage education infrastructure, and limit access to continuous education and training opportunities, particularly in fragile and climate-vulnerable contexts.

Disrupted education pathways can leave displaced youth without the foundational knowledge, qualifications, and learning support required to access and complete TVET programmes. Flexible and inclusive education pathways, including bridging and accelerated learning opportunities, are needed to support their transition.

Digital Exclusion and Technology Gaps

Digital transformation is reshaping education and employment, including climate-related sectors. However, many displaced youth face barriers related to connectivity, access to devices, digital platforms, and digital literacy. Bridging the digital divide is essential to ensure equal participation in modern green economies.

Social, Gender, and Accessibility Barriers

Displaced youth are not a homogeneous group, and barriers to Climate-Responsive TVET vary depending on factors such as gender, age, disability, legal status, location, language, and socioeconomic conditions. Many face challenges including limited access to information and career guidance, language barriers, and difficulties navigating education and employment pathways. Women and girls may experience additional barriers related to social norms, safety, and unequal access to training and employment opportunities. Inclusive and gender-responsive TVET approaches are essential to ensure equitable participation.

Weak Industry Engagement and Institutional Capacity

Many TVET systems have limited connections with employers, private sector actors, and emerging green industries. Weak partnerships reduce opportunities for apprenticeships, workplace learning, practical experience, and employment transitions.

Strengthening collaboration among TVET institutions, governments, private sector actors, humanitarian organizations, and local stakeholders is essential for sustainable skills development. Inclusive partnerships can create pathways to decent work while supporting social cohesion and shared economic opportunities for displaced populations and host communities.

Evidence-Based Practices and Emerging Lessons

Experiences from different regions demonstrate that Climate-Responsive TVET can connect climate action, skills development, and inclusive economic opportunities. Existing initiatives show that effective approaches combine green skills training with labour market linkages, partnerships with relevant stakeholders, and support mechanisms that enable vulnerable groups, including refugees and displaced youth, to participate in emerging green economies.

Rwanda – Renewable Energy for Refugees (RE4R)

The Renewable Energy for Refugees (RE4R) initiative in Rwanda provides an example of linking renewable energy solutions with refugee inclusion and livelihood opportunities. Implemented by Practical Action in partnership with UNHCR and supported by the IKEA Foundation, the initiative focuses on expanding access to renewable energy while strengthening local capacity among refugees and host communities.

The initiative demonstrates how green skills development, access to appropriate technologies, and collaboration among stakeholders can support climate resilience and economic inclusion in displacement contexts.

Key lesson: Climate-responsive TVET approaches are strengthened when technical training is connected to livelihood opportunities, market access, and partnerships that support both refugees and host communities.

Jordan – Green Skills Training for Refugees and Host Communities

Jordan provides a relevant example from the Middle East and North Africa (MENA) region of aligning green skills development with refugee inclusion and labour market opportunities. Through initiatives supporting sustainable green jobs for refugees and host communities, training opportunities have focused on areas such as solar photovoltaic installation and maintenance, energy efficiency, climate-smart agriculture, and environmental solutions.

This experience highlights the importance of adapting green skills pathways to regional climate challenges and economic opportunities, including renewable energy transitions and sustainable resource management.

Key lesson: Climate-responsive TVET should reflect local and regional contexts by connecting training pathways with climate priorities, labour market demand, and inclusive employment opportunities for vulnerable groups.

India – Green Skill for Waste to Wealth Initiative

The “Green Skill for Waste to Wealth” initiative in India, recognized as a promising practice by UNESCO-UNEVOC, demonstrates how TVET systems can integrate sustainability competencies with technical and entrepreneurial skills. Implemented through the Government Industrial Training Institute (ITI) Berhampur, the initiative equips learners with practical skills in waste management and upcycling by transforming discarded materials into valuable products.

Through skills assessments, tailored training modules, practical learning opportunities, and access to tools and workspaces, the initiative strengthens learners’ capacities while promoting circular economy approaches.

Key lesson: Integrating green competencies and circular economy principles into TVET can support sustainable livelihoods, entrepreneurship opportunities, and the development of market-relevant skills.

From Vulnerability to Climate Leadership

Refugees and displaced youth should not be viewed only through a humanitarian lens. With access to appropriate skills and opportunities, they can become important contributors to climate resilience and sustainable development.

Climate-responsive TVET can enable displaced youth to:

- Support resilient communities
- Develop sustainable livelihoods
- Participate in green innovation
- Contribute to environmental solutions

This represents a shift from short-term assistance toward long-term empowerment, resilience, and inclusion.

Recommendations

Advancing Climate-Responsive TVET requires coordinated action among governments, TVET institutions, private sector actors, humanitarian and development partners, and communities. Clear roles and responsibilities are essential to ensure accountability and effective implementation.

Governments and TVET Authorities: Establish Enabling Policy and Institutional Frameworks

Governments and TVET authorities should integrate Climate-Responsive TVET into national education, skills development, climate adaptation, employment, migration, and refugee inclusion frameworks. They should establish enabling policies that connect skills development with climate priorities, labour market demand, and pathways for economic inclusion.

Key actions:

- Integrate Climate-Responsive TVET into national education, skills development, climate adaptation, migration, and refugee inclusion strategies, ensuring alignment with National Adaptation Plans (NAPs), Nationally Determined Contributions (NDCs), disaster risk reduction strategies, youth employment policies, and other relevant national development frameworks.
- Align TVET systems with climate risks, labour market needs, and emerging green economy opportunities through context-specific climate risk assessments, labour market analysis, and livelihood and value chain assessments.
- Embed climate literacy, sustainability competencies, disaster risk awareness, adaptation and resilience skills, and relevant digital competencies within national TVET frameworks.
- Develop policies that support recognition of prior learning, informal skills, portable certification, and skills mobility for displaced populations.
- Establish evidence and data systems to identify climate-related skills gaps, employment pathways, livelihood opportunities, and barriers to participation among refugees and displaced youth.
- Promote inclusive approaches that also support vulnerable youth in host communities to strengthen social cohesion and equitable access to opportunities.
- Invest in institutional capacity to strengthen climate-responsive curricula, digital learning systems, climate-resilient TVET infrastructure, and inclusive service delivery.

TVET Institutions and Training Providers: Deliver Inclusive and Future-Oriented Skills Development

TVET institutions should adapt curricula, teaching methods, and learning models to prepare refugees and displaced youth for changing labour markets, climate impacts, and the transition to climate-resilient and low-carbon economies

Key actions:

- Integrate climate literacy, environmental sustainability, disaster risk awareness, adaptation and resilience competencies, occupational safety and health, green skills, and digital competencies across vocational programmes.
- Develop training pathways based on local climate risks, labour market demand, and livelihood opportunities, including renewable energy, climate-smart agriculture,

sustainable construction, water management, circular economy systems, and environmental services.

- Ensure training supports both emerging green employment opportunities and the adaptation of existing occupations, livelihoods, and value chains affected by climate change.
- Strengthen instructor capacity on climate-responsive teaching approaches, digital learning, inclusive education, and green technologies.
- Expand flexible learning models, including mobile, community-based, blended, modular, and stackable training approaches suitable for displacement contexts.
- Ensure safe, accessible, gender-responsive, and climate-resilient learning environments for displaced youth and learners with disabilities.
- Ensure inclusive and accessible learning by providing learner support services within TVET programmes, including academic and career guidance, flexible scheduling, accessible learning environments, and referral mechanisms for psychosocial, disability, and protection support.
- Conduct periodic curriculum reviews informed by private sector and employer feedback to ensure training remains responsive to evolving skills needs and emerging green economy opportunities.

Private Sector and Employers: Strengthen Pathways to Employment and Entrepreneurship

Private sector actors should play an active role in ensuring that Climate-Responsive TVET reflects current and future labour market needs and creates pathways to decent work, entrepreneurship, and sustainable livelihoods for refugees and displaced youth.

Key actions:

- Participate in curriculum design, skills forecasting, and labour market assessments to ensure training responds to employer needs.
- Provide labour market information to guide green skills priorities and emerging employment opportunities.
- Create opportunities for displaced youth in green sectors and climate-resilient occupations.
- Support entrepreneurship, local green enterprises, and self-employment through mentorship, market linkages, and business networks.
- Promote decent work opportunities by considering employment requirements, occupational safety, legal work access, and barriers faced by displaced populations.

Humanitarian and Development Partners: Support Inclusive Access and Long-Term Resilience

Humanitarian and development partners should integrate Climate-Responsive TVET into displacement responses, resilience programming, and long-term development strategies while strengthening national TVET systems.

Key actions:

- Integrate climate-responsive skills development into education, livelihoods, climate adaptation, disaster risk reduction, protection, and resilience programmes.
- Support climate and disaster risk assessments, labour market analysis, and livelihood and value chain assessments to guide investments in skills development.
- Provide financial and social support that enables participation in TVET, including transportation assistance, learning materials, training tools, childcare and care-related support where appropriate, cash or scholarship assistance, and other measures that address financial, social, gender-related, disability-related, and protection barriers.
- Expand climate-resilient and accessible digital infrastructure, including low-bandwidth, offline, mobile-compatible, and blended learning solutions suitable for displacement-affected and climate-vulnerable contexts.
- Mobilize innovative climate finance and development financing to strengthen climate-resilient TVET systems, address climate-related loss and damage to education and training infrastructure, and expand access to climate-responsive skills development.
- Facilitate partnerships between governments, TVET institutions, employers, climate and disaster risk management institutions, refugee-led organizations, youth organizations, and local communities.
- Strengthen monitoring and evaluation systems that measure outcomes beyond enrolment and completion, including employment and self-employment transitions, livelihood viability, resilience to climate-related shocks, income and job quality where feasible, and equitable participation across different groups.

Host Communities, Refugee-Led Organizations, and Youth Organizations: Promote Inclusion, Participation, and Climate Leadership

Host communities, refugee-led organizations, and youth organizations should be recognized as active partners in building inclusive, locally relevant, and climate-responsive TVET systems.

Key actions:

- Promote joint training opportunities that strengthen social cohesion between displaced youth and host communities.
- Ensure meaningful participation of refugees and displaced youth in the design, implementation, governance, and monitoring of skills, climate, employment, and migration initiatives.
- Support community-based networks and local solutions that expand access to skills development opportunities.
- Recognize refugees and displaced youth as contributors to climate resilience, innovation, and sustainable development.
- Support youth-led initiatives related to climate adaptation, environmental solutions, disaster risk reduction, and sustainable livelihoods.

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