

Unlocking Youth Potential: Economic Empowerment in Tigray's Mountain Lands in Ethiopia

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1. INTRODUCTION

Ethiopia, Africa's second most populous country, includes the Tigray region, home to about 5.9 million people, of whom 66.9% live in rural areas (ESS, 2024). Notably, 37.5% of Tigray's population is aged 15-35, representing a significant yet underutilized youth demographic with the potential to drive innovation and regional transformation (ESS, 2024).

The Tigray war, which erupted in November 2020, however, has gravely undermined this potential. The war has devastated economic activities and infrastructure, causing massive job losses, income decline, and asset destruction, which pushed youth unemployment to an alarming 81% (Tigray Youth Association, 2024). Young people once active in agriculture, trade, mining, and services have lost their livelihoods due to insecurity, displacement, and infrastructure collapse, leaving them without viable opportunities. As a result, many are migrating in search of better prospects, while others resort to harmful behaviors, further deepening social instability (IOM, 2024).

It is vital to explore strategies centered on sustainable land management to unlock the potential of Tigray's youth. Tigray's landscape is predominantly mountainous, with 85% of its landmass falling under this category and housing about 80% of the population (Kapos et al., 2000). These areas are severely degraded and underutilized, yet hold immense potential for economic transformation. Restoring degraded lands can create youth employment through agriculture, apiculture, and aquaculture. Additionally, developing tourism and mining in these regions can generate income and business opportunities, leveraging Tigray's unique landscapes, biodiversity, and cultural heritage. Proper utilization of these mountainous lands can help address youth unemployment and turn them into hubs of innovation and sustainable livelihoods.

Thus, the main objective of this policy brief is to provide practical, evidence-based recommendations to address the severe challenges faced by vulnerable youth and disadvantaged communities in the region. It seeks to identify and respond to existing gaps and problems in the utilization of mountainous lands, offering actionable



policy insights to the government and implementing agencies.

2. RESEARCH METHODS

This policy brief is based on a research study titled "Assessing Opportunities and Challenges for Youth Economic Empowerment in Tigray's Mountain Lands."

The study employed a mixed-methods approach, integrating both qualitative and quantitative research techniques to ensure a comprehensive exploration of both opportunities and challenges facing youth economic empowerment in Tigray. For the study, we surveyed a representative sample of 1,829 rural youth that was drawn from six zones of Tigray—Mekelle Special Zone, Central, East, North West, South, and South East. We excluded Western Tigray due to security concerns. Additionally, we conducted both five key informant interviews (KIIs) in each zone, totaling 30 KIIs, and two focus group discussions (FGDs) per zone (one with six men and another with six women), amounting to 12 FGDs participants across various mountainous classifications.

In addition to this primary research, consultations were held with relevant experts and officials to identify practical obstacles and gaps in existing proclamations, regulations, and directives that could hinder the implementation of the study's recommendations.

3. KEY INSIGHTS

Tigray's mountainous landscape provides numerous socio-economic and environmental benefits

Eighty-five percent of Tigray's landscape is classified as mountainous. It is characterized by rugged terrain, steep slopes, and high altitudes. These mountains play a crucial role in shaping livelihoods, resource use, and development challenges. While the terrain restricts arable land and complicates infrastructure development, it also provides essential natural resources that drive socio-economic growth.

Mountain ecosystems in Tigray deliver vital environmental services, acting as key watersheds that supply water for agriculture, industry, and urban areas. They also sustain forests, grasslands, and agricultural systems that underpin food security and rural livelihoods. Beyond the ecological benefits, mountain development strengthens social well-being. Studies have linked access to forest resources to improved health and education outcomes. Additionally, mountain communities exhibit greater social cohesion and resilience, as highlighted by the UNDP (2019) and the Ethiopian Ministry of Education (2018).

However, poor management of these ecosystems remains a critical challenge, with 57.8% of survey respondents reporting ineffective governance. Weak oversight has exacerbated environmental degradation, including soil erosion, deforestation, and



biodiversity loss—threats that are particularly severe in fragile mountainous regions. Without stronger governance and sustainable practices, the long-term survival of these ecosystems and the communities that depend on them remains at risk. Addressing these challenges is essential to ensuring environmental stability and socioeconomic resilience in Tigray.

Community-based forest and watershed management initiatives have positively transformed Tigray's mountain landscapes

Tigray has achieved significant progress in combating land degradation through sustainable land management approaches. Large-scale terracing and agroforestry systems have effectively reduced soil erosion while improving soil fertility and water retention (Zerga et al., 2019). These interventions, combined with communityled reforestation efforts, have contributed to landscape restoration and biodiversity recovery. The region's success stems largely from its participatory approach, where community-based forest and watershed management initiatives have empowered local stakeholders in sustainable resource governance (Zerga et al., 2019).

A particularly innovative intervention has been the hillside distribution policy, originally started in 1999 (Berhe and Hoag, 2014). This program allocates degraded hillsides to landless households, with a special focus on youth engagement. By channeling underutilized land and surplus labor into productive forestry and

agroforestry systems, the policy has helped mitigate the income-environment trade-off while creating diversified livelihood opportunities (Berhe et al., 2017; Oniki et al., 2020; Tesfaye et al., 2023; Fekadu et al., 2023).

Some challenges, however, do persist with the implementation of the hillside distribution policy. Historical patterns of resource extraction from degraded slopes have complicated conservation efforts in some areas (Berhe et al., 2017). Furthermore, insecure land-use rights have weakened incentives for long-term restoration investments, while gaps in training and extension services have limited the economic viability of hillside enterprises (Berhe et al., 2017; Oniki et al., 2020). These constraints highlight the need for strengthened institutional support systems.

Structural and conflict-related constraints prevent youth participation in mountain-based economic activities in Tigray

The survey findings reveal limited youth participation in mountain-based economic activities, with engagement concentrated in a few traditional sectors. Only 23% of surveyed youth reported involvement in income-generating activities in mountainous areas. The majority (77%) were not engaged in mountain land development. Among those surveyed who participated in mountain-based economic activity, forestry was the leading activity (48%), followed by agriculture (41%), mining (7%), and then tourism (4%).



Among the youth surveyed who did not participate in mountain-based economic activity, many reported that their efforts were unsuccessful due to structural and conflict-related constraints. The leading reasons cited were inadequate land access, insufficient technical assistance, limited financial capacity, and war and instability. These findings align with Negash et al. (2023), who similarly identified shortages of land, weak infrastructure, poor land administration, and limited financial capital as major impediments. The findings from the FGDs and KIIs also revealed that many of the youth development efforts were unsuccessful due to several factors, including the lack of a site suitability assessment, insecure land tenure systems, inadequate planning, insufficient consideration of youth capabilities, limited financial capability, a lack of continuous support, and poor governance.

Land-related barriers emerged as especially complex. Respondents pointed to weak mountain-land administration (36.5%) and the absence of supportive land policies and regulations (27%) as primary drivers of limited access. Additional constraints included low land productivity (12.7%), and land held by older farmers or investors (7.9% each).

High youth interest in mountain-based economic activities offers untapped potential for development

A significant majority of survey respondents expressed a strong interest in participating

in mountain-based economic activities, with 87.3% indicating their willingness to engage. Experts highlighted that youth engagement in mountain activities is crucial for driving economic growth, fostering environmental stewardship, and strengthening social cohesion. They stressed the importance of adopting improved land management practices and providing greater governmental support to unlock this immense potential and ensure sustainable development.

4. POLICY RECOMMENDATIONS

Implement evidence-based land allocation policies with tenure security

To address land scarcity and underutilization in Tigray's mountainous regions, policymakers must conduct comprehensive land suitability assessments before allocating land to youth. These assessments should include scientific evaluations of soil quality, topography, and economic feasibility to ensure productive and sustainable use of the region's predominantly mountainous landscape. Beyond land access, empowering youth requires affordable housing solutions and the provision of land ownership certificates. Secure land rights not only promote stability and independence for young families but also foster a sense of belonging and long-term commitment to their communities, ultimately driving sustainable mountain development. Providing secure tenure is critical to encourage long-term investments in agriculture, forestry, and



other mountain-based economic activities, while addressing concerns about temporary or uncertain allocations.

Revitalizing skills-based training centers to tackle youth unemployment in Tigray's mountainous regions

Addressing the high youth unemployment rate in Tigray's mountainous regions requires revitalizing and expanding skills-based training centers modeled on successful initiatives such as "Agbe," a renowned place in the region that effectively equipped youth with practical and marketable skills. Emphasis should be placed on quality instruction, continuous skills upgrading, and clear pathways to employment or entrepreneurship, ensuring that rural youth acquire the competencies needed for self-reliance and sustainable livelihoods.

Collaboration between governmental and non-governmental institutions is essential to revise and modernize training curricula, incorporating outcome-oriented, practical modules that reflect current economic realities. Such efforts will empower Tigray's sizable youth demographic to actively participate in sustainable mountain development and long-term economic transformation (Woldearegay et al., 2024).

Enhance infrastructure and financial support for youth-led mountain development

To unlock the productive potential of Tigray's mountainous areas, significant investments in infrastructure—such as water supply, roads, and sustainable energy solutions like solar power—are essential to support youth-led activities. The lack of such infrastructure currently limits the 23% of youth engaged in mountain-based economic activities, particularly in remote areas. Additionally, targeted financial support through startup capital, revolving funds, and low-interest microfinance programs should be prioritized to address the financial constraints faced by youth, exacerbated by the region's post-conflict economic challenges. Policies enabling youth to use allocated land as collateral for credit will enhance access to financing. Establishing specialized microfinance institutions and strengthening rural-urban linkages to improve market access will further empower youth, ensuring sustainable income generation and regional development.

Promote inclusive youth participation and community engagement

To transform the perception of youth as passive observers into active agents of change, Tigray's development initiatives must prioritize inclusive, youth-centered programs that encourage participation in socio-economic and decision-making processes. Eighty-seven-point-three percent of youth are willing to engage in mountain-based activities, yet their involvement remains low due to exclusionary practices.



Special attention should be given to waraffected youth, including those with
physical or psychological trauma, by
integrating them into collective, inclusive
community work structures. These
initiatives should be supported by
transparent governance and youth-focused
media campaigns to amplify their voices
and foster a sense of ownership in
sustainable mountain development.

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6. ACKNOWLEDGEMENTS

We express our sincere gratitude to the Tigray Youth Affairs Bureau for generously funding of the study, and to the Tigray Institute of Policy Studies (TIPS) for their exceptional coordination and technical leadership. We are also indebted to woreda administration leaders for their coordination during data collection, as well as the data collectors and youth respondents, whose openness and engagement grounded our findings in real-life experiences.

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