IFRC Global Disaster Preparedness Center

EXECUTIVE SUMMARY

Developing Nature-Based Solution Pathways to New Layers of Complexities for Urban Communities Coping with Armed Conflict and Climate Change

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Background

Mitigating compounding effects of conflict and climate change is an urgent challenge. NbS could provide benefits for health, human wellbeing, and adaptation to climate change during and post-conflict. The war that broke out in 2020 in Tigray has resulted in degradation of the urban natural resources, especially the mountain green frames of cities. This combined with climate change led to a devastating flooding in cities, impacting human lives and health in the absence of stable government. During the Tigray conflict, the Ethiopian Red Cross Society (ERCS) Northwest zone of Tigray ERCS branch office has intervened in seedlings production project as a coping mechanism for the urban ecosystem restoration activities such as tree plantations to rehabilitate the degraded mountain green frame areas of shire-Indasilassie city and other towns from the zone including Selekleka and Sheraro. This study aimed to scientifically develop a NbS framework as a pathway to urban climate resilience by exploring pragmatic approaches in communities experiencing the compounding risks of armed conflict and climate change, taking the ERCS NbS project as a case study. The study was conducted in areas affected by frequent flood incidences such as Shire-Indasilassie, Sheraro and Selekleka cities in Tigray, Ethiopia.

Methodology

A semi-structured interview with key informants (comprised of professionals and practitioners at different levels and community representatives) and focus group discussions were conducted. In addition, a survey was conducted with 395 individuals using Kobo toolbox data collection tool. Descriptive statistics and econometric regression analysis were used for data analysis.

Results and findings

The ERCS's NbS intervention such as seedlings production and tree plantation activities resulted in a dual outcome. The nature-based activities encouraged the war traumatized volunteers in addition to the contribution of the project in making seedlings available for plantation in the mountain green frame areas of cities in the zone including the study cities. The seedlings production and tree plantation campaign the ERCS held in Shire-Indasilassie, and the other small cities provoked the war affected communities both host and IDPs to think that a better time is coming. Generally, it has been an inspiring intervention as its aim is to contribute its part in addressing critical issues within the humanitarian sector both in short-term and long-term. As the short-term activity, it mobilized traumatized volunteers (mostly the youth) to participate in such interventions and used it as a social healing activity. In the long run perspective, it is contributing to the ecosystem restoration via tree planting in the mountain green frame parts of cities with the aim to contribute to the climate resilience in urban areas which in turn is protecting consequences of floods while preparing for response to emergencies.

Understanding the context, identifying and prioritizing main challenges, mapping and mobilization of stakeholders with establishing strong coordination and collaboration mechanisms are the key approaches that would turn innovative ideas to a fruitful result by increasing complementarity and understanding among stakeholders. Many of the points discussed regarding the pilot experience of Northwestern Tigray ERCS branch office could be an important lesson/contribution to the

revitalization of the natural resources' rehabilitation programs in Tigray with many transferrable lessons to other local and international humanitarian organizations. Thus, the developed NbS framework can be useful in NbS programs and projects implementation during conflict and post-conflict, in recovery, reconstruction and of course during normal situations. The research provides a NbS framework as a pathway to new layers of complexities for urban communities coping with climate change and armed conflict (UNID PRIM COC framework) and recommendations for future actions in Tigray and beyond.

Implications and recommendations

Local communities believe that NbS such as tree planting with sustainable management can mitigate the perceived climate change impacts and are key in addressing to the compounding risks of armed conflict and climate change. Participation in NbS such as seedlings production and tree plantations and management can not only result to maintain flooding and improve microclimate of cities but can also result in crucial contribution to the wellbeing of community members through physical activity and mental health. Also, it can help traumatized people to get free from stress and enable to think about survival after armed conflict. Considering these results of the project, the following specific recommendations can be extracted from the study.

Humanitarian actors like the local ERCS branches with local level established structures would help mobilize more people and thus government and other stakeholders should support local ERCS branches to involve not only in delivering a temporary intervention as an emergency responder but also sustainable solutions to mitigate compounding impacts of conflict and climate change.

Involvement of traumatized youth in seedlings production and plantation activities is not only crucial for land rehabilitation but also for social healing. Thus, given much of the population in Tigray is youth, who are supposed to have scars of the 2-year armed conflict and its impact, NbS to climate change projects should continue in massive in Tigray's aftermath rehabilitation and recovery programs.

Understanding factors that trigger or limit humanitarian organizations' role in continuing implementation of NbS is crucial for emergency response to prevailing challenges of both conflict and climate change. For example, financing to the local Ethiopian Red Cross Society northwestern zone branch office could have resulted in halting the degradation of the mountain green frames in the study areas, through providing alternative energy resources to the communities using the resources that it would have got from possible financing institutions. Again, this would have paused the flooding in the areas and the lost lives by the flooding survived. Further, the urban ecosystems, especially the ecosystems of the mountain green frames should not have disturbed.

Considering the long-term impact of cutting trees from mountain green frames of cities that would result in continuous suffering of the population, local and international humanitarian organizations should take into consideration renewable energy solutions for IDPs and host communities to fully protect the on-going degradation of the mountain green frames.

The ERCS should also consider mobilizing local institutions to contribute their corporate responsibility in NbS projects.

Tigray is in a period of needing resources and approaches to revitalize from the scars of the 2-year active armed conflict and the no war no peace phase that has been ongoing since the Pretoria agreement signed in November 2022. Thus, the contribution of local and international humanitarian organizations is crucial in the post-war rehabilitation and recovery phases. Their support can consider the dual benefits of NbS, supporting programs and projects that can engage more people to benefit people and the environment.