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Commission of Inquiry on Tigray Genocide

Executive Summary

Targeted Destruction: Damage and Loss Assessment on Tigray's Public Infrastructure Sector

Volume 1

November, 2025

Executive Summary

The two-year conflict, which began in November 2020, inflicted systematic and unprecedented destruction upon Tigray's essential infrastructure. This war reversed decades of significant developmental progress, including prior achievements of 58% regional water supply coverage and substantial road network expansion. This Damage and Loss Assessment (DaLA) was commissioned to rigorously quantify and document the war and siege-induced damages and economic losses sustained by critical infrastructure sectors, serving as foundational evidence for subsequent recovery, accountability, and justice efforts.

This assessment employed the internationally recognized Damage and Loss Assessment (DaLA) framework, developed by the World Bank and UN-ECLAC. The methodology utilized a comprehensive multi-method approach, combining structured surveys, detailed field inspections, key informant interviews, and reviews of available administrative records. Damages were valued using the prevailing price method, while losses were valued based on the projected value of disrupted services.

The data was collected from a range of regional and federal government offices as well as media outlets. Specifically, the assessment engaged 10 regional offices and enterprises, four federal offices, four media outlets (including both streaming and publishing platforms), 84 municipal offices, and 43 town water utilities.

The assessment was conducted under a full blockade, which imposed severe operational constraints. These included the destruction of official baseline records, security restrictions limiting field verification in several zones, and an inability to fully capture human and governance-related losses. Despite these challenges, the assessment provides a robust and representative overview of the devastating impact.

The total verified financial cost across the five assessed sectors indicated below, is quantified at a staggering **USD 5.00 billion** in damage and loss. This figure represents the calculated financial impact required for restoration and recovery:

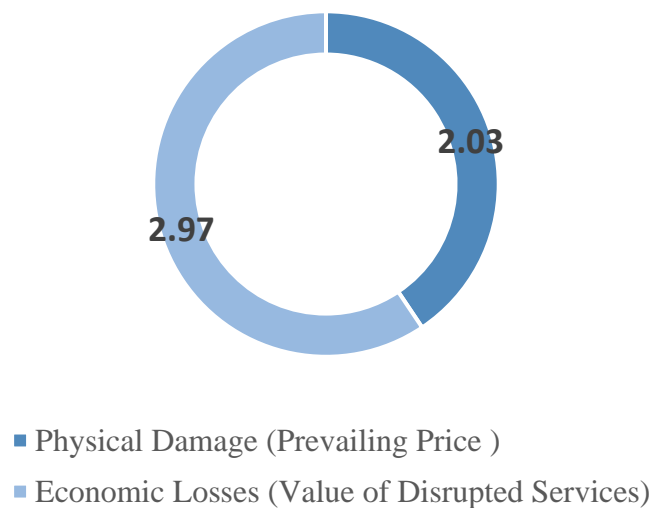


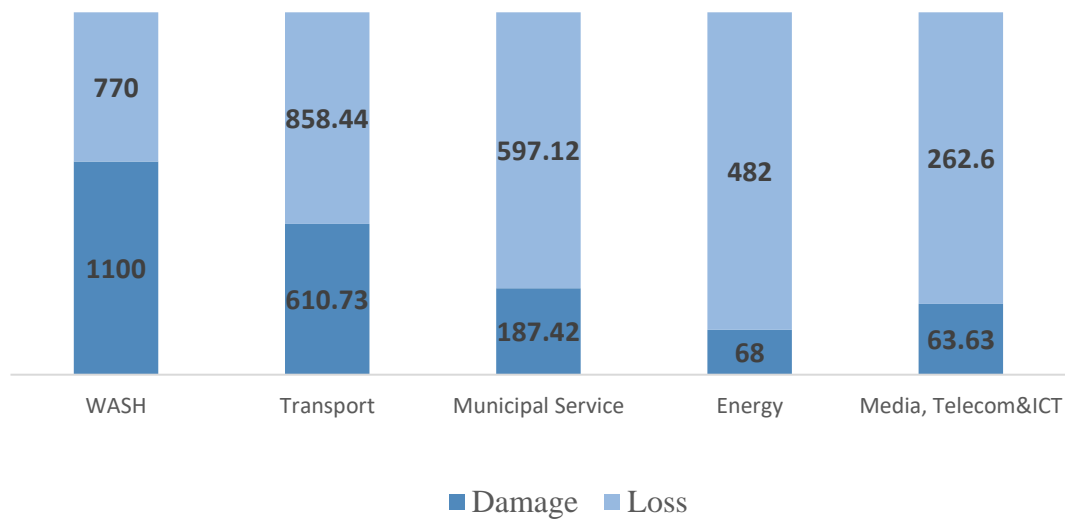
Figure: 1: Total Effect of the War in Billion USD

Source: CITG Survey, 2022 and 2023

Evidence overwhelmingly indicates that the destruction was systematic and intentional, with the Ethiopian National Defense Forces (ENDF), Eritrean Defense Forces (EDF), and Amhara regional forces identified as the principal perpetrators of this widespread devastation. The systematic destruction across these five interdependent sectors effectively collapsed the foundational pillars of modern life in Tigray:

A. Water, Sanitation & Hygiene (WASH): Endured the highest physical damage at USD 1.1 billion, with losses of USD 770 million. The targeting of over 70% of water supply systems denied 3.6 million people access to clean water. The assessment indicates that the majority of the damage, valued at approximately USD 420 million (38%), falls within the medium range, signifying that most systems will require extensive repair or partial replacement to restore full functionality. In contrast, assets identified under the high and very high damage categories collectively account for an estimated USD 297 million (27%), reflecting severe destruction that will demand major reconstruction or total replacement. As a result, the non-operational rate of the water supply schemes has increased from 7% to 71%. In addition, more than 3 million people are out of clean water.

- **Transport:** Suffered the second-most severe physical damage at USD 610.73 million, coupled with massive economic losses of USD 858.44 million. The near-total destruction of road networks crippled mobility, accessibility, and commerce. The assessment shows that most of the affected items fall under the high damage category, with an estimated value of USD 484.22 million, accounting for 79 % of the total damage. This is followed by the very high damage category, valued at approximately USD 111.21 million, representing 18 % of the overall losses.
- **Municipal Services:** Assessed damages of USD 187.42 million and substantial economic losses of USD 597.12 million, primarily stemming from the halting of essential urban services and lost municipal revenues. In this sector, the assessment reveals extensive damage, with damage valued at approximately USD 112 million (59.8%) categorized as high level of damage and an additional USD 48 million (25.6%) classified as very high damage. These figures underscore the severe impact on essential urban infrastructure and the substantial resources required for restoration and recovery.
- **Energy:** Documented USD 68 million in direct damage but massive economic losses of USD 482 million, as the destruction of the energy grid halted all electricity-dependent activities. In the Energy sector, the assessment indicates severe destruction, with damages estimated at approximately USD 58 million categorized as very high (85.3%), and an additional USD 8 million (11.8%) classified as high damage. Together, these figures represent the vast majority of the sector's reported total damage, highlighting the extensive impact on power generation, transmission, and distribution infrastructure.
- **Media, Telecom, and ICT:** This sector sustained a total of USD 63.63 million damage and financial loss of USD 262.60 million, reflecting the systematic dismantling of all communication lifelines. Similarly, the assessment reveals that damages valued at USD 58 million fall under the very high damage category, accounting for about 91% of the total damage recorded in this subsector. This overwhelming share signifies the extensive destruction of critical communication infrastructure, severely disrupting information flow, connectivity, and service delivery across the region.



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Figure: 2 Sector-Based Summary of Damage and Loss in Million USD

The combined and systematic destruction of these interconnected sectors extends far beyond the financial metrics. It has resulted in a profound human toll, exacerbating famine, denying essential medical care, causing loss of life, and stripping millions of their basic rights and dignity.

Based on the verified findings, this assessment recommends a unified, immediate, and comprehensive response centered on a three-fold imperative:

1. **Recovery:** Design a targeted and effective Relief, Rehabilitation, and Reconstruction (RRR) plan.
2. **Accountability:** Provide the evidentiary basis for reparations claims and legal proceedings.
3. **Justice:** Ensure that the perpetrators of this widespread and systematic devastation are held accountable for their actions.

This DaLA is thus more than a financial record; it serves as the definitive evidentiary basis documenting the systematic de-development of the region.

Note to the Reader

This document constitutes **Volume I of the Infrastructure Sector War Damage and Loss Assessment Report**. It presents verified, self-reported data from public WASH, Transport, Municipal services, Energy, and Media and Telecom across the Tigray region. Due to constraints in temporal and geographic coverage, subsequent volumes will follow to incorporate additional findings.

Key considerations for interpreting this volume:

- The monetary values reported represent **intergenerational assets and accumulated wealth**, not annual budgets or gross domestic product figures. They should not be compared with fiscal or economic aggregates.
- The report covers **regional and federal institutions residing within the scope of the assessment in Tigray**, capturing the breadth of war-related effects across infrastructure sectors.
- **Losses far exceed visible damage**. The prolonged siege and blockade lasting more than two years led to widespread service disruptions and lasting setbacks in WASH, Transport, Municipal Services, Energy, and Media and Telecom, which persisted long after the damage occurred.
- These cumulative losses, though harder to quantify, are **central to understanding the full impact** of the crisis and must inform any recovery or justice framework.

Readers are encouraged to approach this volume as a foundational reference, recognizing both its rigor and its limitations. The data herein reflects lived realities and institutional memory, and its interpretation demands sensitivity to context, scale, and the enduring consequences of the war.

For the details you can read the whole Report Document at: <https://citghub.org/targeted-destruction-damage-and-loss-assessment-on-tigrays-public-infrastructure-sector/>