

Crisis Assessment Series

YEMEN



Context

Yemen is the lowest-income country in the MENA region. In June 2014, armed conflict between the government and militias started to spread across much of Yemen and escalated in March 2015. It has caused major loss of life, internal displacement, and the destruction of infrastructure and service delivery across main sectors, further exacerbating a pre-existing humanitarian crisis. The Yemen Damage and Needs Assessment (DNA) was conducted in partnership with the United Nations, the European Union, and the Islamic Development Bank (IsDB), and the strong support from the Ministry of Planning and International Cooperation as the government of Yemen (GoY) focal point.

Work for the first phase began in July 2015. The key objective of the first phase was to inform the Government of Yemen, the World Bank Group (WBG), and its partners on the impacts of the ongoing conflict in Yemen on critical infrastructure, physical assets, and service delivery. The first phase of the Yemen DNA focused on four cities: Sana'a, Aden, Taiz, and Zinjibar. For the four cities, the GoY identified six priority sectors: Education, energy, health, housing, transport, and water & sanitation.

GFDRR's role

GFDRR was requested to support the Social, Urban, Rural and Resilience Global Practice (GSURR) in conducting the Yemen DNA.

Due to the ongoing conflict, the assessment was primarily remote-based, using an innovative mixture of satellite imagery and social media analytics, supplemented by field reports and local government data whenever possible. Market expertise was solicited to utilize remote assessment techniques to perform the analysis under the guidance of GFDRR and the World Bank sector teams. Damage information provided by partners, government ministries (e.g. Ministry of Education) and local agencies (e.g. the water local corporations and the Road Maintenance Fund) was also collected to triangulate the findings of the market vendor.

GFDRR supported the sector specialists from the six priority sectors with data analysis that helped them to quantify damages, analyze impact on service delivery, and provide sector recommendations.

Damage costs are estimated
to range between
US\$4-5
billion



Key Results

- 1 A preliminary report that identifies:
(1) quantitative estimates of the physical damages to key public and private assets in the selected sectors including: health, education, energy, WASH, transport, and housing in the cities of: Sana'a, Aden, Taiz, and Zinjibar; (2) the impact of the crisis on associated service delivery; and (3) a preliminary analysis of stabilization interventions and their respective sequencing.
- 2 The work conducted in the Yemen DNA activity provided an internal watching brief for the GoY, UN, EU, IsDB, and the WBG leadership giving them a better understanding of the ongoing conflict.
- 3 The work helped to forge partnership among WBG, UN, EU and IsDB that would prove useful in supporting Yemen in post crisis recovery.
- 4 A GIS based data visualization and sharing platform was created to facilitate the sharing of information. The platform allowed the team to convert the large sector data sets into easily understandable visuals over the base map of each city. The platform also allows the progressive update of the damage information that will be effective in providing a time lapse understanding of the situation.
- 5 The continued improvement and formalization of the remote assessment methodology developed by GFDRR resulted in GSURR taking the lead in the assessment, with technical support provided by GFDRR.



Photo credit: Dana Smillie/World Bank

Approximately 88% of the damage in the transport sector is due to damage done to the port in Aden and the airports in Aden and Sana'a.

TOTAL VALUE OF DAMAGES BY SECTOR FOR FOUR CITIES (US\$ M as of March 2015)*

Sector	LOW ESTIMATE	HIGH ESTIMATE
Education	86	105
Energy	125	153
Health	435	532
Housing	3,245	3,966
Transport	88	108
Water, sanitation and hygiene	79	97
Total	\$4,058	\$4,961

* These are damage estimates of physical infrastructure using historical unit cost. Reconstruction needs would be higher due to inflation, security premium, scarcity of material/labor, etc.

Housing is the most affected sector with total damages of US\$3-4 billion.

The energy sector in both Sana'a and Taiz has suffered over 60% damage to their assets.