

SUMMARY ASSESSMENT OF DAMAGE AND NEEDS

A. The Disaster

1. Beginning August 2017, Bangladesh has received more than 700,000 displaced persons from Myanmar (displaced persons).¹ Arriving largely by crossing the nearby border on foot, these displaced persons joined about 400,000 other displaced persons who have arrived in waves from Rahkine earlier.² The majority of displaced persons who have arrived in Bangladesh are living in 32 camps in the Coxsbazar District, with over 600,000 living in the mega-camp at Kutupalong–Balukhali. The large influx of displaced persons has caused a huge strain on the local infrastructure and economy. The ratio of displaced persons to the local population is 2:1 and pose significant challenges to the supply of food, shelter, health, sanitation, water, and other essential services. United Nations (UN) agencies and other donors are providing humanitarian relief such as food, water, medical aid, and temporary shelter. However, the existing services are significantly stretched, and large gaps remain.

2. The southeastern part of Bangladesh faces high disaster risk³ because it is exposed to various types of natural hazards—with cyclone and monsoon seasons, which include flooding, landslides, wind storms, lightnings, fires, heat waves, and cold spells. Climate change is expected to aggravate the intensity, frequency, and unpredictability of extreme weather events. Much of the land used for the camps is steep or low-lying and is prone to flooding and landslides. This is further exacerbated by hill cutting and vegetation clearing on the mainly clay hills.⁴ The host population of the seven Upazilas (subdistricts) comprising Coxsbazar District is considered one of Bangladesh's most vulnerable due to a combination of food insecurity, poor health condition, and high poverty rates well above Bangladesh's national average (footnote 3). The congested living conditions and poor sanitation in the camps create additional health risk, including fires and vector and waterborne diseases. The women and children of the displaced persons in the Coxsbazar District are among the most vulnerable population groups in disaster events.⁵

B. Government Response

3. The Government of Bangladesh is successfully coping with cyclone disaster risk and has a track record of emergency preparedness and community-based disaster risk reduction. Emergency preparedness and community-based disaster risk management will build on past and ongoing efforts of the government and will complement the international humanitarian support.

¹ UN, Strategic Executive Group. 2018. *2018 JRP for Rohingya Humanitarian Crisis, March–December 2018*. Cox's Bazar. Various terminology is used in media, official and unofficial documents to describe the affected people. Terminology used herein is intended solely to identify such people for the purposes of this paper, and not to assert any view regarding the manner or circumstances of such persons' displacement. Such terminology may not reflect the terminology used or accepted by any government or any agency thereof. ADB expresses no view and takes no position herein regarding the legal rights or political assertions or the characterization of any such persons. The use of the term "displaced persons" in this paper is not intended to have the same meaning as the term "displaced persons" defined in ADB's Safeguard Policy Statement (2009).

² Under ADB's Disaster and Emergency Assistance policy, in addition to natural events, "disasters" may be caused by conflict, including regional conflicts. The policy further provides that an "emergency" occurs after a disaster when unforeseen circumstances require immediate action, and that emergencies may involve, among other things, displacement of people, disease, food insecurity, and reduced public safety and security. All these circumstances and factors are present in this case.

³ Disaster risk is a function of hazards, exposure, and vulnerability.

⁴ UN, Strategic Executive Group. 2018. *2018 JRP for Rohingya Humanitarian Crisis, March–December 2018*. Cox's Bazar.

⁵ UN, Inter Sector Coordination Group. Situation Report: *Rohingya Refugee Crisis—Cox's Bazar, 24 May 2018 (covering 8th May–21st May)*. Cox's Bazar.

Drawing on its own resources and with international support, the government has embarked on a comprehensive emergency response, including the registration of displaced persons, provision of 6,000 acres of land to establish temporary shelters, extension of health through mobile medical teams, water points and sanitation services, building of access roads, and disaster risk preparedness.

4. National Task Force, with secretariat in the Ministry of Foreign Affairs involves 37 ministries and agencies, with the foreign secretary as chair who is responsible for the overall strategic and policy coordination. On the ground, the Ministry of Disaster Management and Relief plays an important coordination role in addition to managing the operational aspects of the government response, together with the Ministry of Home Affairs. At the field level in Coxsbazar, the mandate of the Refugee Relief and Repatriation Commissioner under the Ministry of Disaster Management and Relief is to coordinate overall operational response in close cooperation with the deputy commissioner. Hence, the government's response is well-coordinated. The government proposes to further engage with the international and development partners to help the displaced persons and the host communities by providing basic services. Accordingly, the Refugee Relief and Repatriation Commissioner⁶ identified the needs and plan of actions up to \$1.3 billion. These services include the following:

- (i) provision of basic health, nutrition, and population services;
- (ii) provision of water, sanitation, and hygiene;
- (iii) provision of social protection;
- (iv) strengthening of environment management, access roads, and disaster risk management; and
- (v) support for learning centers and life skills.

C. International and Development Partners' Response

5. Twelve UN agencies, some 127 international and national nongovernment agencies, several faith-based organizations and government agencies, and other donors provide support by offering humanitarian aid and relief.⁷ The following international and development partners assessed the impact of the damage and need for support.

6. The international community, led by the UN, has engaged in multisectoral needs assessments, consultations, and strategic planning that culminated in a joint humanitarian response plan and the Joint Response Plan (JRP).⁸ The JRP lays out a vision for a coordinated response to address the immediate needs of the displaced persons and mitigate the impacts on the communities.⁹ The cost to implement the JRP for March–December 2018 is about \$950 million, of which only 21% is funded. The JRP identifies key needs related to

- (i) decongestion and relocation to protect more than 200,000 displaced persons currently at high risk from floods and landslides in camp areas;

⁶ Refugee Relief and Rehabilitation Commissioner. 2018. *An Overview of Current Situation on Rohingya Crisis*. Cox's Bazar.

⁷ Emergency Assistance Coordination (accessible from the list of linked documents in Appendix 2 of the report and recommendation of the President).

⁸ United Nations, Strategic Executive Group. 2018. *2018 JRP for Rohingya Humanitarian Crisis, March–December 2018*. Dhaka.

⁹ The JRP targets 1.3 million people in total, including 336,000 host community members. The four strategic objectives of the JRP are as follows: (i) provide timely lifesaving assistance and protection, as well as improve the living conditions of people; (ii) ensure well-being and dignity of people; (iii) support environmentally sustainable solutions; and (iv) build confidence and resilience of people.

- (ii) the lack of sludge management facilities to process human waste generated per day in camps;
- (iii) the construction and maintenance of hand pumps and surface water treatment plants to provide 16 million liters of safe water; and
- (iv) food and cooking fuel; basic health care, obstetric and childcare, and disease prevention; education and skills; and ecosystem rehabilitation.

7. The World Bank's Rapid Impact, Vulnerability, and Needs Assessment¹⁰ identified needs over \$1.15 billion, including the following interventions: (i) a health, nutrition, and population service project, which would expand health service provision; (ii) an education and skills training project, which would target out-of-school children and expand basic numeracy and literacy programs and life skills training; and (iii) a multisectoral support project, which would combine intervention in disaster risk management, water and sanitation, environmental protection, social protection, and cohesion, including gender.

D. ADB Assessment

8. The Asian Development Bank (ADB) assessed the situation of basic infrastructure and services based on the latest information on the ground and by consulting the government officials, development partners, and stakeholders. The critical areas identified for improvements are the following:

9. **Poor water supply and sanitation.** The camps have limited water supply and sanitation facilities. Tube wells and hand pumps provide water, but about 21% of the 5,731 tube wells need immediate rehabilitation or replacement. About 16 million liters of safe water is needed per day. In Ukhia, ground water is available, but the larger district has a rocky bed and the aquifer level is receding. As pressure increases on the aquifers in Ukhia, safe surface water supply solution is urgently required to sustain populations. Water crisis is more acute in Teknaf, as the ground water is inaccessible due to hard rocky layer and most of the surface water sources are saline.

10. Makeshift common latrines in the camps release about 420 tons of fecal sludge per day within the 6,000 acres of undeveloped land, which could result in groundwater and soil contamination. More than 48,000 emergency pit latrines have been built, but 17% are full of sludge or not functioning. There are also fears of contamination because more than 30% of the latrines are located less than 10 meters from a water source. The thousands of poorly positioned and low-quality water installations (shallow tube wells) pose a major health risk. These unhygienic conditions have already led to a diphtheria outbreak in early 2018, and the risk of an outbreak of cholera and other communicable and waterborne diseases is high. Preventable disease outbreaks will worsen without immediate improvements in water, sanitation, and hygiene conditions.

11. **Disaster risks.** Until mid-2017, land use in Balukhali Union in Ukhia was about 75% forest area, 20% agriculture, and 5% habitation; as of mid-2018, 90% of the land is used for habitation. Imminent monsoon rains, lightning, and cyclones pose immediate risks to the congested camps. The camps have poor embankment walls and are at severe risk of flooding and landslides. At

¹⁰ World Bank. 2018. Rohingya Crisis 2017–2018 Draft Rapid Impact, Vulnerability and Needs Assessment, prepared by the Global Facility for Disaster Reduction and Recovery.

least 200,000 people in the camps are estimated to be at risk because of their location and the poor quality of shelters, which are made of bamboo and tarpaulin sheets.

12. **Poor energy supply.** Because the camps are poorly lit, there are access and security issues especially for women and children. For instance, women and girls hesitate to use toilet facilities, which are located outside their shelters, when it is dark. As a result, women are not drinking water after noon to avoid going out to ease. Given that toilet areas are dark, some incident of sexual violence have been reported. Solar powered lights are distributed for homes to households, but much more is required. Firewood is the main source of cooking fuel, which is stripping forests in the region. Though some liquefied petroleum gas cylinders are now privately available, these may turn out to be a fire hazard in the present unsafe conditions.

13. **Overburdened and deteriorating roads.** Access roads leading to the camps are narrow, congested, and heavily overburdened by the increase in traffic to provide support and relief materials. For example, the average daily traffic in the main arterial road from Coxsbazar to Teknaf has increased from 3,000 to 7,000 vehicles since August 2017 because of the intensified movement of relief supplies and personnel. Traffic jams lasting several hours are regular. Within the camps, the mud roads have sprung up, which are very narrow and get washed away with heavy rains. It is difficult to provide supply and emergency services to the people living in the camps. These roads need widening and brick lining. Drains are nonexistent, some which are available are clogged with garbage and filth, and there is waterlogging near water sources, all potential sources of disease.

14. In coordination with the government and development partners, ADB identified the following as high-priority areas:

- (i) **Access to water supply and sanitation.** Areas of identified need are (a) supply of mobile water carrier for distribution of potable water to the camps; (b) construction of community bathing facility for females; (c) construction of mini piped-water supply system with production tube well, distribution pipe network, and stand pipe water distribution points; (d) construction of integrated waste management facility with collection system to treat waste; (e) installation of emergency tarpaulin latrines; and (f) construction of two water treatment plants.
- (ii) **Disaster risk management.** Areas of identified need are (a) construction of multipurpose cyclone shelters with emergency access roads; (b) construction of food distribution centers; (c) construction of hill slope protection and toe walls to resist landslides; (d) construction of storm water drainage network; (f) installation of lightning arresters in access roads; and (g) preparation of disaster risk management plan.
- (iii) **Sustainable energy supply.** Areas identified to improve safety, security, and wellbeing are (a) distribution of retained heat cookers, (b) installation of solar-powered street lights and grid-connected street lights, (c) solar photovoltaic microgrid systems for electricity supply within camps, and (d) access to electricity through augmentation of substations and distribution lines with transformers.
- (iv) **Access to and within camps.** Areas of identified need are (a) reconstruction and rehabilitation of rural roads to connect food storage centers, food distribution centers, field hospitals, primary health care centers, and primary education centers; (b) reconstruction of emergency access roads to the camp area; (c)

rehabilitation of existing access roads and drainage system; and (d) resurfacing the road from Coxsbazar to Teknaf including improvement of critical sections.

15. The Project team identified some indicative packages of subprojects representing these areas of improvements for ADB assistance and included them in the project administration manual.