**Cyclone Mora | May 2017**

**Version 0**

Date released: 1 June 2017

Initial estimates based on secondary data. All information may change. Field conditions are currently being validated.

**Geographic impact**

Mora-17 is a category 1 tropical cyclone with wind speeds of up to 130 km/hr. It impacted the Chittagong Division of Bangladesh, including the Rohingya refugee camps near Cox’s Bazaar. TC Mora-17 made landfall on 30 May 2017.

**Priority 1** 270,000 poor

Households within this classification reside directly in the path of cyclone Mora where wind speed >120 km/hr was recorded.

Resilience levels are low: the majority of people live in houses unable to withstand cyclonic winds and household income is under the national poverty line. Among the 1.6 million people (300,000 households), 270,000 (54,000 households) were identified as poor.

Six Rohingya camps fall into this category with a total vulnerable population depending on humanitarian assistance of ~148,100 (~29,600 households)

**Priority 2** 275,000 poor

Households within this classification reside also within the most geographically impacted area. Identified Unions in this classification have comparatively better housing conditions and a lower poverty prevalence. Among the 2.8 million people (560,000 households), 275,000 (55,000 households) were identified as poor.

**Needs Assessment Working Group**

Technical support from WFP
OVERVIEW

Resilience profile

Resilience: According to the Population Census 2011, some 90 percent of households in the areas impacted by the cyclone live in low-quality housing made of bamboo, mud, plastic or tin sheet, materials which are easily destroyed or damaged in high winds. These types of houses can also quickly be rebuilt if material is available. Therefore shelter needs, including building materials, represent an immediate priority.

There is a risk of landslides in the Chittagong Hill Tracts. Resilience in the Rohingya refugee camps is extremely low and the population depends on humanitarian assistance.

Social protection: Categories of social safety net programmes in Bangladesh include: (i) employment generation programmes; (ii) programmes to cope with natural disasters and other shocks; (iii) incentives provided to parents for their children’s education; and (iv) incentives provided to families to improve their health status.

Following a disaster the GoB assists the vulnerable population through the Employment Generation Programme for the poorest (EGPP), Food for Works (FFW), Test Relief (TR), Gratuitous Relief (GR) and Vulnerable Group Feeding (VGF).

Livelihood profile

Livelihoods: The dominant livelihood activity in the affected rural area is subsistence farming, followed by remittances and casual labour. Seasonal migration, primarily to India, is an important livelihood strategy, especially in the Hill areas. In urban areas, livelihoods are more diversified, and include government, factory employment, tourism, as well as casual labor. It is expected that the daily wage labourer will be the most impacted. It is likely that remittances will increase.

Agriculture: Major crops include rice, corn, tobacco and vegetables. Rice is not grown in the Hill Tracts. The Boro rice had been mostly harvested and planting for Aman starts in June. Some Aus rice may be grown (growing season).

The cyclone is likely to have an adverse impact on income. Food and seed stocks may have been lost.

Fishing: Both inland & marine may have been severely disrupted due to severe winds. Damage is likely due to overflow and and saline water intrusion.

Constraints: This is currently the lean season. There is a fishing ban in place. Ramadan has just started.

Markets and Cash & Vouchers

Markets: Most of the markets are semi-functional as a direct impact of the cyclone. However, it is expected that normal market activities will have been restored within a few days.

Prices: Prices of food in Bangladesh increased 6.9 percent in March of 2017 over the same month in the previous year. Food inflation in Bangladesh averaged 6.6 percent from 2013 until 2017. Within just a week, prices of staples, including rice, sugar, onions, eggplant and other vegetables have increased by Tk. 5 to 15 per kg. For families with low and fixed incomes, this increase is hard-hitting, affecting their food basket and nutritional requirement. It is expected that prices of essential commodities will further increase because of rain, road blockage, and distance from wholesale markets to hard to reach areas.

Cash & Vouchers: Given the above, it is recommended to focus the immediate life-saving response on in-kind assistance. However, as market activity is expected to restore quickly a cash response is appropriate.

Nutrition

Nutrition: in the affected areas approximately 35 percent of children under 5 years are underweight, 43 percent are stunted and 12 percent are wasted -- all rates are considered serious according to WHO classification.

With the exception of Chittagong district, the underweight prevalence among the affected areas is higher than the national average. The stunting prevalence in the affected districts is higher than the national average.

Moreover, the high wasting rates in the affected districts suggest a baseline vulnerability that is likely to be aggravated by the destruction and displacement created by the cyclone. Among the risk factors include a) food insecurity, b) significant population displacement, c) possible disease outbreak (diarrhea, measles, acute respiratory infection) and d) high population density in affected areas.

Logistics and communications

Coordination: A UN-GoB-NGO Working Group of the UN's Humanitarian Coordination Team launched a 72-hour assessment reviewing conditions across all affected districts. Field validation is currently taking place.

Air transport: There are two airports in Chittagong division. They are both operational.

Land transport: Road access is generally good, except in the districts of the Chittagong Hill Tracts (Rangamati, Khagrachari and Bandarban). Uprooted trees are the main cause of disruption.

Electricity: Electricity has been cut off in Chittagong Hill Tracts, as well as in some other localities in the districts of Chittagong and Cox’s Bazaar. The power is expected to be resumed in a few days.

ICT: Phone communication has been back to normal since May 30th.

Food security

Food sources: In rural areas, about half of the food (in terms of caloric intake) comes from households’ own production. In urban areas, households buy almost all of their food in markets and retail shops. In both urban and rural areas, meat, sugar, potato and oil is mainly purchased.

The Rohingya communities in the registered camps are supported through a voucher programme which can be exchanged in retail shops within the camps. Rohingyas in makeshift camps do not get support. Food is purchased from local markets.
The MoDMR has allocated 1.5 crore BDT (USD 0.19 million) and 1,400 MT of rice to seven vulnerable districts including Chittagong, Cox's Bazar, Noakhali, Laxmipur, Feni, Bhola, and Patuakhali. Smaller amounts of rice and emergency funding have been provided to an additional five districts including Khulna, Bagerhat, Satkhira, Barisal, and Barguna.

BDRCS has allocated BDT 600,000 (USD 7,300) to six districts to procure dry food for displaced people. IFRC has mobilized USD $107,000 from its Disaster Relief Emergency Fund (DREF) to provide emergency food, drinking water, storage, and shelter materials. 2820 HH already received cash BDT 5000 in Noakhali by German Red Cross.

WFP has immediately made available 122 metric tons of fortified biscuits. Additional food support is forthcoming. Assistance will target the most vulnerable areas as identified and verified through the 72hours assessment approach.

The WHO, DGHS and other partners are closely monitoring the situation at the national and local levels. A total of 1,169 medical teams have been formed to manage the health situation as the cyclone passes. Emergency medical buffer supplies are already in place, and there are no shortages of emergency drugs in all affected areas for the moment.

IOM is distributing plastic sheets, rope and other items to people with severe shelter damage in Balukhali. UNHCR is distributing plastic sheeting and other items in camps housing refugees and other displaced persons.
ASSUMPTIONS

Geographic impact: Calculated using the GDACS wind speed buffers (>120km/hr, >90km/hr). This created thresholds for assumed geographic impact: severe, moderate and low.

Resilience: Based on poverty prevalence and percentage of poor quality housing on union level. It is assumed that households with a low income status and houses are the most vulnerable ones when cyclone hits. Likewise, a union which has a high poverty rate and a high share of poor quality residence houses is assumed of low resilience.

Priority areas: Determined by overlaying geographic impact with quality of housing on union level and poverty prevalence on union level. Within the severely affected areas, the areas with 20% or above poverty rate and at least 70% of poor quality housing distribution are identified as the first priority that targeted assistance is suggested to be delivered to; other areas with less poverty prevalence and/or more stronger housings along the direct cyclone path are identified as the secondary priority. This determined an initial planning number of population in immediate need of assistance.

Affected population (millions): Based on Population Census 2011 data projected to 2017. It includes the total population within most impacted geographical areas (wind speed buffers > 120km/hr), aggregated from the projected population at administrative level 4 (union). It is a combined number of population identified in both Priority 1 and Priority 2.

REFERENCES & LINKS

- Housing and Population Census 2011, Bangladesh Bureau of Statistics
- Cyclone path data, Global Disaster Alert and Coordination System (GDACS)
- Poverty Estimate: The World Bank (WB) and Bangladesh Bureau of Statistics (BBS) in collaboration with World Food Programme (WFP) produced the poverty estimates.
- Undernutrition estimation; Bangladesh Bureau of Statistics (BBS) in collaboration with World Food Programme (WFP) & the International Fund for Agricultural Development (IFAD)
- FAO Bangladesh, Key characteristics of the affected 4 districts TC MORA

Impact of previous cyclones

TC – Roanu (May 2016): The geographic scope of the storm was greater than in previous years (Aila, Mahasen and Komen) with 15 Districts impacted. 1,297,010 people were affected.

TC Komen (July 2015): The low-lying areas of 15 coastal districts, and their offshore islands and chars were affected. Cox's Bazar, Chittagong and Noakhali districts were the three worst affected districts. 2.6 million people were affected.

The main needs were: emergency shelter, shelter repair, road reconstruction, emergency sanitation and food assistance.

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Amy Chong, GIS Officer, Regional Bureau for Asia

Aaron Wise, VAM Officer, Regional Bureau for Asia
# DISTRICT STATISTICAL PROFILE

<table>
<thead>
<tr>
<th>Key Indicators</th>
<th>CXB</th>
<th>Bandarban</th>
<th>Rangamati</th>
<th>Khagrachhari</th>
<th>National</th>
<th>Data Sources and Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population</td>
<td>2,269,990</td>
<td>388,335</td>
<td>595,979</td>
<td>613,917</td>
<td></td>
<td>(Population and Housing Census BBS, 2011)</td>
</tr>
<tr>
<td>Total population (Projected upto December 2016)</td>
<td>2,557,401</td>
<td>433,813</td>
<td>663,252</td>
<td>683,104</td>
<td>-</td>
<td>Calculated up to Dec 2016 by district growth rate.</td>
</tr>
<tr>
<td>Pop density/km²</td>
<td>919</td>
<td>87</td>
<td>97</td>
<td>223</td>
<td>1203/km²</td>
<td>(Population and Housing Census BBS, 2011)</td>
</tr>
<tr>
<td>Poor Dwelling (%)</td>
<td>92.22</td>
<td>91.04</td>
<td>86.96</td>
<td>90.77</td>
<td>67.3</td>
<td>(Population and Housing Census BBS)</td>
</tr>
<tr>
<td>Unskilled Day Labour (%)</td>
<td>23</td>
<td>18</td>
<td>22</td>
<td>21</td>
<td>-</td>
<td>FSNSP: 2014</td>
</tr>
<tr>
<td>Engaged in Farming (%)</td>
<td>25</td>
<td>41</td>
<td>37</td>
<td>16</td>
<td>-</td>
<td>FSNSP: 2014</td>
</tr>
<tr>
<td>Main Crops</td>
<td>Paddy, potato, betel leaf, vegetables.</td>
<td>Paddy, sesame, cotton, turmeric, ginger, vegetables</td>
<td>Paddy, sugarcane, maize, pulse, cotton, tobacco, potato</td>
<td>Paddy, corn, ginger, turmeric, pineapple</td>
<td>District Profile</td>
<td></td>
</tr>
<tr>
<td>% of population with electricity</td>
<td>32.1</td>
<td>28.2</td>
<td>41.8</td>
<td>32.7</td>
<td>59.6</td>
<td>(Population and Housing Census BBS, 2011)</td>
</tr>
<tr>
<td>% HH using solid fuel for cooking</td>
<td>94.1</td>
<td>97.1</td>
<td>95.4</td>
<td>98.1</td>
<td>83.5</td>
<td>(Population and Housing Census BBS, 2011)</td>
</tr>
<tr>
<td>% HH Use Improved drinking water sources</td>
<td>98</td>
<td>56</td>
<td>63</td>
<td>60</td>
<td>87</td>
<td>FSNSP: 2014</td>
</tr>
<tr>
<td>% without access to improved sanitation</td>
<td>84</td>
<td>69</td>
<td>51</td>
<td>68</td>
<td>61</td>
<td>FSNSP: 2014</td>
</tr>
<tr>
<td>Under 5 mortality/1000</td>
<td>37.6</td>
<td>114</td>
<td>60.7</td>
<td>143</td>
<td>41.1</td>
<td>(SVRS, BBS, 2013)</td>
</tr>
<tr>
<td>% Stunted children under 5 years</td>
<td>49.5</td>
<td>40.6</td>
<td>51.4</td>
<td>52.9</td>
<td>41.20%</td>
<td>(BBS, WFP 2012)</td>
</tr>
<tr>
<td>Growth centre (Number)</td>
<td>74</td>
<td>8</td>
<td>38</td>
<td>15</td>
<td>-</td>
<td>Population and Housing Census BBS, 2011</td>
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<tr>
<td>IPC Food security Classification</td>
<td>Moderate CFI</td>
<td>Severe CFI</td>
<td>Moderate CFI</td>
<td>Moderate CFI</td>
<td>-</td>
<td>IPC 2nd Round Chronic Analysis, 2015, Bangladesh</td>
</tr>
<tr>
<td>% Below the upper poverty line</td>
<td>32.7</td>
<td>40.1</td>
<td>20.3</td>
<td>25.5</td>
<td>32.30%</td>
<td>(WB, WFP, BBS: 2010)</td>
</tr>
<tr>
<td>% Below the lower poverty line</td>
<td>16.2</td>
<td>21.6</td>
<td>8.8</td>
<td>10.1</td>
<td>18.40%</td>
<td>(WB, WFP, BBS: 2010)</td>
</tr>
<tr>
<td>% Underweight children under 5 years</td>
<td>40.5</td>
<td>33.9</td>
<td>47.4</td>
<td>35</td>
<td>8.12%</td>
<td>(BBS, WFP: 2010)</td>
</tr>
<tr>
<td>Literacy rates (%)</td>
<td>39.3</td>
<td>31.7</td>
<td>49.7</td>
<td>46.1</td>
<td>53.34%</td>
<td>(Population and Housing Census BBS, 2011)</td>
</tr>
<tr>
<td>HH Head Completed Primary School CPS (%)</td>
<td>19.3</td>
<td>16.7</td>
<td>25.5</td>
<td>23.9</td>
<td>-</td>
<td>(Population and Housing Census BBS)</td>
</tr>
<tr>
<td>18+ Female adult CPS(%)</td>
<td>19.4</td>
<td>15.1</td>
<td>18.6</td>
<td>19</td>
<td>-</td>
<td>(Population and Housing Census BBS)</td>
</tr>
<tr>
<td>Disability (%)</td>
<td>5.68</td>
<td>12.59</td>
<td>12.71</td>
<td>15.08</td>
<td>9.07</td>
<td>SVRS, 2013</td>
</tr>
<tr>
<td>Food Consumption Score (FSC): Poor and Boderline (%)</td>
<td>17</td>
<td>39</td>
<td>16</td>
<td>27</td>
<td>-</td>
<td>FSNSP, 2014</td>
</tr>
<tr>
<td>HH receive Remittance(%)</td>
<td>11</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>12</td>
<td>FSNSP, 2014</td>
</tr>
<tr>
<td>Iodized salt Consumption(%)</td>
<td>15.18</td>
<td>75.5</td>
<td>74.1</td>
<td>74.7</td>
<td>56</td>
<td>MICS, 2013</td>
</tr>
<tr>
<td>Dependency (%)</td>
<td>85.37</td>
<td>78.4</td>
<td>65.67</td>
<td>73.74</td>
<td>-</td>
<td>BBS, 2012</td>
</tr>
<tr>
<td>Child not eating MDD(%)</td>
<td>72</td>
<td>71</td>
<td>66</td>
<td>81</td>
<td>-</td>
<td>FSNSP, 2014</td>
</tr>
</tbody>
</table>