PRELIMINARY REPORT
DISPLACEMENT TRACKING MATRIX

CYCLONE KOMEN | RAKHINE
31 AUGUST 2015

Townships: Maungdaw, Buthidaung & Ann

The Displacement Tracking (DTM) is an integrated suite of information management tool used to gather baseline information and conditions of affected populations during times of conflict or natural disasters.

HIGHLIGHTS
- In Maungdaw and Buthidaung, various Government groups, UN agencies, International NGOs and private donors were found to have provided assistance within the first few weeks after the emergency.
- In Maungdaw and Buthidaung, 59% of the villages assessed received some form of early warning on the incoming storm and as a result 41% sought safer refuge.

BACKGROUND AND SUMMARY
Heavy seasonal rains caused flooding in Rakhine State and other parts of the country at the end of June. As of 24 August 15, the Ministry of Social Welfare, Relief and Resettlement in Nay Pyi Taw projected that over 1.6 million people had been affected by floods throughout the country, with 111,568 of those affected in Rakhine State. (MIMU, 16 August 2015)

Early on 30 July, a cyclonic storm named as Komen impacted much of Myanmar with torrential rains, causing widespread flooding. As the situation continued to evolve, on 31 July, the President of the Union of Myanmar issued a statement declaring natural disaster zones in Chin and Rakhine States and in the Sagaing and Magway Regions, stating “the following regions which are hugely affected by natural disasters and have challenges for rapid restoration to normality, are announced as natural disaster zones (1) Chin State, (2) Sagaing Region, (3) Magway Region and (4) Rakhine State.”

Statistical analysis in this preliminary report covers data from 43 villages in Maungdaw, Buthidaung and Ann. The assessment does not cover situation in existing IDP camps.

METHODOLOGY
This section presents the methodology designed and implemented by IOM for this DTM rapid assessment. It outlines the approach applied to select geographical locations and the data cleaning and analysis processes are also described as well as the limitations to the data collection methodology.

Data Collection
Data collection was conducted by seven teams made up of 15 DTM staff including 8 female enumerators. Tablets and electronic questionnaires were used for the data collection. As the data is first-hand information, the tools such as focal group discussion, direct observation, group meetings, key informants, etc. were used to acquire data through the participatory approach.

Random selection location groupings: the entire population of interest (Township Authority, General Administration Department data plus other data sources) was divided into small, distinct and coherent geographic areas (or groups), such as a group of townships, village tracts, villages, etc. In total, 43 villages were covered in the targeted areas of Maungdaw, Buthidaung and Ann. For geographical reasons Maungdaw and Buthidaung are grouped together in the analysis while Ann is presented on its own.

Breakdown of number of individuals part of consultations/assessments

<table>
<thead>
<tr>
<th>Township</th>
<th>Total number of community members present during DTM rollout interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ann</td>
<td>35</td>
</tr>
<tr>
<td>Buthidaung</td>
<td>189</td>
</tr>
<tr>
<td>Maungdaw</td>
<td>51</td>
</tr>
<tr>
<td>Grand Total</td>
<td>275*</td>
</tr>
</tbody>
</table>

*12% female respondents and 88% male respondents

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Additional informants

<table>
<thead>
<tr>
<th>Informants</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Village heads, Religious Leaders</td>
<td>45%</td>
</tr>
<tr>
<td>Local Authorities</td>
<td>52%</td>
</tr>
<tr>
<td>Other sources</td>
<td>2%</td>
</tr>
</tbody>
</table>

DISPLACEMENT AND EARLY WARNING (Maungdaw and Buthidaung)

The villages where the DTM was rolled out in Maungdaw and Buthidaung were found to have had their residents move away from their homes temporarily early on during the start of windstorm and when the waters began to rise. Only 64% of the villages assessed were located near waterways but most choose to relocate due to the wind effects of the cyclone more so than from the waters rising. Damage to structures were also observed by teams to be more wind related than water related. 59% of the villages assessed received some form of early warning of the incoming cyclone early enough and as a result 41% chose to seek refuge elsewhere (refer to chart Maungdaw & Buthidaung: Places villagers relocated to during the floods) and 16% were able to take precaution and protect their assets/livestock while 9% said the alert was received too late for them to take preparedness steps in anyway. The early warnings were received from various sources including radio broadcast and TV news. Despite the early warnings many were left unaware of the potential storm surge that would follow the cyclone. Some of the villages in Maungdaw and Buthidaung were said to have received a letter informing of the storm from the General Administration Department (GAD) or were provided with updates and/or letter from the Township Administration Officer.

MOBILITY

The majority of the communities were found to have self-mobilised and moved to safer areas as soon as the wind speed increased and water started rising. The main mode of mobility away from the flooding was by boat (58%) while the rest sought safety on foot (40%), with only two villages of the assessed villages choosing not to move away.

Maungdaw & Buthidaung: Modes of mobility away from flooding

![Chart showing modes of mobility away from flooding]

40% of the villagers sought refuge with relatives or neighbors’ houses that were built on higher ground, sturdier houses or houses seen as being “solid” in the village. 27% sought refuge on higher grounds (Hills, Mountains) near their villages, 18% went to Muslim Religious structures (Madrasa), 12% sought shelter in school buildings. One village in Buthidaung (Village tract: Thin Ga Net, Village: Kone Taung) was assisted by the 552 Light Infantry Unit to move and were provided shelter at their military base. 3% also reported that they took shelter at Government Camp but further verification is required as the 552 Light Infantry Unit military base was the only one that could be identified in the area. The villagers sought refuge in Madrasa structures identified the space as a safe communal place in their villages. The Madrasa leaders were also held in high regard and seen as people who would not hesitate to support displaced families in need and the families also felt the more comfortable/safer since structurally the buildings are normally hall types with cement/concrete based with sturdy roofing and can accommodate large number of people. None of the villages were found to have known the location of or went to designated Evacuation Centres and many just went to what can be classified as traditional evacuation centres.
The villagers also tended to move to places where they have family ties or friends or to places which they think will be safer than their home communities. As the displacement lasted only a few weeks, the IDPs are able to cope using their existing resources or with the support of host family and friends until they could return home. Had this not been the case and had the displacement lasted longer than anticipated, it is likely that coping capacities would be very quickly exhausted with both the displaced and host communities left even more vulnerable. Although the displacement was relatively short, it did affect the livelihood of villagers whose sole source of income was from daily labour (see chart: Pre condition: Main Source of Income).

**AVERAGE LENGTH OF DISPLACEMENT**

The average displacement time in the areas assessed was less than 2 weeks (57%) with some displaced population staying a bit more than 3 weeks (43%). Many returned immediately as soon as the waters receded (91%) in their villages and (9%) went back periodically to cultivate their crops/fields. In one case the villagers were requested to return by the Madrasa as the waters had receded and since regular activities of the institution were to start again.
DISPLACEMENT AND EARLY WARNING (Ann)

Ann township was profiled as there was no other data/information available on the flood situation in the area at the time of the assessment. All of the villages that were reached were found to have had their residents move away from their homes temporarily as the waters started rising.

82% of the villages assessed received some form of early warning on the incoming storm but the majority did not respond to the early warning by moving away immediately as they felt either it was too late or felt that they were able to take precaution/prepare for the storm and stay. In the end the villagers finally moved when they felt the waters were rising too fast and the volume of the water started to double.

The early warnings were received from various media outlets sources including radio broadcasts and TV news. The villages also received early warning from the General Administration Department (GAD).

MOBILITY

When the communities did decide to move, they were able to self-mobilise and moved to safer areas. The main mode of population mobility away from the flooding was by boat (73%) or with assistance from other villages, while the rest sought safety on foot (27%), with four villages of the assessed villages not needing to move away at all.
PLACES OF RELOCATION

57% of the predominantly Rakhine villagers sought refuge in Monastery buildings to seek for assistance and reportedly at the same time receive comfort/psychosocial support through the preaching of the monks. The structures are normally multistory cement/concrete based structures with sturdy roofing and can accommodate large numbers of people. In addition Monasteries have large kitchens that can accommodate the cooking requirements for large numbers of people and the structures commonly have large hall areas. Other places where villagers sought refuge were: School structures (22%), higher ground (14%) and community meeting places (7%). Based on the data it can be identified that the displaced tend to seek refuge in pre-existing public buildings and village centres that are accepted as suitable for safe shelter. None of the villages were found to have known of or went to designated Evacuation centres.

The villages assessed in Ann township were found to have spent at most only three days (80%) away from their homes. The majority returned as soon as the waters receded (91%) in their villages and (9%) went back to periodically cultivate their crops/fields while in the displacement setting.
IMMEDIATE NEEDS
Maungdaw and Buthidaung villages
Immediate needs as identified by the villages assessed were ranked as follows: TOP (Being less of an immediate priority) to BOTTOM (Being most needed)

Livelihood and Seeds for cultivation
Cleaning of stagnant water ponds
Drinking Water
FOOD and Tools/Materials to repair houses

Ann villages
Immediate needs as identified by the villages assessed were ranked as follows: TOP (Being less of an immediate priority) to BOTTOM (Being most needed)

Tools/Material to repair houses
Drinking water
Seeds for cultivation
FOOD
LIVELIHOOD AND INCOME GENERATION

Maungdaw and Buthidaung

The cyclone impact to livelihood activities and income generation reported by the communities across the villages assessed in Maungdaw and Buthidaung are as follows: fields/paddies are severely impacted by mud intrusion (46%), loss of livestock (18%), loss of crops/vegetables - but the field itself was not too heavily impacted - (18%) and other (18%) accounted for loss of tools/equipment's used for their livelihoods, some loss of goods for trade.

The loss of crops and intrusion of mud in fields/paddies will potentially have a major effect on the income of the villagers as the major source of income was from agriculture. 66% of the income for most villages came from paddy farming. The other group of villagers working as daily workers/labourers (25%) would also be hugely impacted as they lose income for the days they were unable to work.
Ann

The number one impact reported by the communities across the villages assessed in Ann was attributed to the loss of crops/vegetables (43%), fields/paddies affected by mud intrusion (18%), loss of livestock (15%), and other (15%) related to losing some non-agriculture related stocks which were stored for sale, with 9% reported intrusion of salt water in their fields. The main source of income for most was from non-agriculture business income (55%) with the remaining income coming from agriculture related activities.

![Ann: Impacted livelihoods](image)

SHELTER

The data collected informs that 75% of the houses damaged in Maungdaw and Buthidaung were immediately rebuilt by affected families using salvaged materials and existing local materials available without external assistance as soon as the waters receded and people were able to return. It is important to note that across the villages assessed, different types of materials were salvaged, however the quality of the salvaged materials might not be in the best of condition or of quality as significant water damage was present and the quantity that was salvageable might have been limited for the amount required for the rebuilding process. The assumption is that people chose to build quickly to ensure some type of shelter.
In Ann all of the assessed villages prefer to rebuild with labour and purchased materials instead of salvaging materials where resources were available. The damages in Maungdaw and Buthidaung were observed to be mostly from wind damage whereas the damage from Ann township was mostly water related.

<table>
<thead>
<tr>
<th>Township</th>
<th>Total number of households (HH) in the community**</th>
<th>Total number of houses (structures)**</th>
<th>Number houses fully destroyed*</th>
<th>Number houses partially destroyed*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ann</td>
<td>1,796</td>
<td>1,606</td>
<td>114</td>
<td>182</td>
</tr>
<tr>
<td>Buthidaung</td>
<td>5,266</td>
<td>5,821</td>
<td>378</td>
<td>1,192</td>
</tr>
<tr>
<td>Maungdaw</td>
<td>2,395</td>
<td>2,885</td>
<td>85</td>
<td>442</td>
</tr>
<tr>
<td>Grand Total</td>
<td>9,457</td>
<td>10,312</td>
<td>577</td>
<td>1,816</td>
</tr>
</tbody>
</table>

*Most accurate reliable data available at time of assessment used.

**The discrepancies seen in the number of HH vs # of houses in Maungdaw & Buthidaung may be due to communities fully disclosing their HH numbers

**Other findings**

In Maungdaw and Buthidaung, various Government groups, UN agencies, International NGOs and private donors were found to have provided assistance within the first few weeks after the emergency. During assessments it was identified that some villages received bags of rice from the Arakan National Party. WFP was also mentioned as assisting affected villages with rice.