Shelter/NFI Sector Meeting
Date: 25th July 2019
Venue: IOM Conference Room, ISCG, Cox’s Bazar Bangladesh
https://www.humanitarianresponse.info/en/operations/bangladesh/shelter
S/ NFI SECTOR COORDINATION TEAM

COORDINATOR
Tonja Klanšek
+880 185 941 6931
sheltercxb.coord@gmail.com

COORDINATOR
Ratan Kumar Podder
+880 173 031 8574
sheltercxb.coord1@gmail.com

CO-ORDINATOR
Vacant
sheltercxb.tech1@gmail.com

IM OFFICER
Vacant
sheltercxb.im@gmail.com

SECTOR ASSOCIATE
Bijoy Kumar Barua
+880 181 805 9253
sheltercxb.natassoc@gmail.com

TECHNICAL COORDINATOR
Vacant
sheltercxb.tech1@gmail.com

WEBSITE
https://www.humanitarianresponse.info/en/operations/bangladesh/shelter

LOCATION
Parjatan Luxury Cottage (1-3), 2nd cottage, ISCG, Motel Road, Cox’s Bazar, Bangladesh
Agenda

1. Natural hazard maps
2. PRAC - reporting tool (Logistics Sector)
3. Update on TWiGs
4. Update on incidents and response
5. Thermal comfort research
6. Distributions
7. AOB
Follow up on action points

• Logistic Sector to present PRAC in the next Shelter/NFI Sector meeting. → Will be presented today

• Shelter/NFI Sector to conduct workshop with partners for Mid-term review → Workshop conducted on 9 July. Based on the workshop mid-term review report was drafted and submitted to ISCG.

• Shelter/NFI Team to send e-mail to partners requesting to support with FGDs in host community. → Done

• The participants were requested to inform to the S/NFI Sector if any agency implement shelter project not following sector design/standard. → Ongoing
Natural hazard maps
PRAC – Physical Road Access Constraints
LOGISTICS SECTOR

PHYSICAL ROADS ACCESS CONSTRAINT (PRAC)

COX’S BAZAR, BANGLADESH
AGENDA

• Introduction to PRAC
• Reporting Tool
• Viewer Tool
The PRAC tool has been developed in cooperation with the Global Logistics Cluster Preparedness Project and includes features tailored to Bangladesh’s context to enhance the reporting and timely monitoring of physical road access constraints. It has been developed based on the needs and with inputs from the Logistics Sector partners. The tool combines imagery, mapping analytics and near real time reporting to improve decision making for preparedness and response.

- "Partner driven approach towards a humanitarian logistics gateway”.
- User driven – Responders from the field
- Up-to-date information – bridging the time gap
- Crucial during the cyclone and monsoon season.
- Agile and accurate road information.
- At a glance view of logistics infrastructure and availability.
• Physical Road Access Constraint (PRAC) Tool is now online.

• The PRAC tool has two main components: a reporter and a viewer.

• Users can report constraints (road accidents, floods, landslide, etc.) using the Reporting tool.

• The Logistics Sector IM team will verify, confirm and reflect the constraint on the Viewer map.

• Nudge stickers with QR codes to be shared with partners, to be affixed to car dashboards.
Physical Road Access Constraint (PRAC) Tool

Access Constraints Roads
- Not Passable
- Open
- Limited Capacity
Physical Road Access Constraint (PRAC) Tool

Drag the map to pin your location OR type the address
If you are at the location, the map shows the marker exactly
To select the Bangla option
PHYSICAL ROAD ACCESS CONSTRAINT (PRAC) TOOL

PRAC Viewer
Click on the constraint symbol to find out the type of constraint, along with comments.
PHYSICAL ROAD ACCESS CONSTRAINT (PRAC) TOOL

PRAC Viewer

- Use the Basemap Gallery option to change map views
- Suggested option: Open Streetmap view
PHYSICAL ROAD ACCESS CONSTRAINT (PRAC) TOOL

Print the latest updates

Link to the reporter tool

PRAC View
PHYSICAL ROAD ACCESS CONSTRAINT (PRAC) TOOL

• Link to the Reporter:
  https://logcluster.org/hlg/cxb-prac-reporter
• Open the Reporter tool either through the web browser.
• Use your phone camera or a QR code app reader to scan the QR codes.
• Link to the Viewer:
  https://logcluster.org/hlg/cxb-prac-viewer
• Check the roads situation in Cox’s Bazar with the Viewer map, which allows you to use different map layers and styles.
• Link to the Workshop details: https://logcluster.org/blog/coxs-bazar-new-technology-quicker-response
PHYSICAL ROAD ACCESS CONSTRAINT (PRAC) TOOL

- Scan the QR code using your smartphone camera
- OR, use a QR code scanner app to access the reporter tool
- Download a QR code reader app from the App store or Google Play store
- https://tinyurl.com/yyz5agdq
Updates on TWiGs
NFI TWiG

- FGDs conducted and analysed
- Brief market assessment conducted (pricing of items identified during FGDs)
- Discussion on how to establish the value of voucher based on the number of HHs members and taking into account MSNA data – ongoing
- Identification of essential items and items that should not be available – ongoing
Host Community TWiG (shelter)

- Questionnaires prepared
- Approvals from Ukhia and Teknaf UNOs received
- Orientation for conducting FGDs and KII will take place on 29th July
Shelter TWiG

- Visit to UNHCR steel shelter and discussion on the design details
<table>
<thead>
<tr>
<th>Camp</th>
<th>Total HHs</th>
<th>Partial moderate</th>
<th>Partial Severe</th>
<th>Fully Damage</th>
<th>Complete Destruction</th>
<th>Total no of HHs damaged</th>
<th>% of HHs damaged</th>
<th>HHs provided with assistance</th>
<th>% of affected HHs provided with assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Camp 12</td>
<td>5278</td>
<td>615</td>
<td>170</td>
<td>86</td>
<td>2</td>
<td>873</td>
<td>17%</td>
<td>682</td>
<td>78%</td>
</tr>
<tr>
<td>Camp 20 Extens</td>
<td>1131</td>
<td>155</td>
<td>30</td>
<td>0</td>
<td>0</td>
<td>185</td>
<td>16%</td>
<td>185</td>
<td>100%</td>
</tr>
<tr>
<td>Camp 27</td>
<td>3150</td>
<td>285</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>285</td>
<td>9%</td>
<td>285</td>
<td>100%</td>
</tr>
<tr>
<td>Camp 14</td>
<td>7049</td>
<td>33</td>
<td>508</td>
<td>56</td>
<td>2</td>
<td>599</td>
<td>8%</td>
<td>725</td>
<td>100%</td>
</tr>
<tr>
<td>Camp 17</td>
<td>4149</td>
<td>15</td>
<td>65</td>
<td>186</td>
<td>11</td>
<td>277</td>
<td>7%</td>
<td>281</td>
<td>100%</td>
</tr>
<tr>
<td>Camp 7</td>
<td>9409</td>
<td>112</td>
<td>249</td>
<td>101</td>
<td>2</td>
<td>464</td>
<td>5%</td>
<td>464</td>
<td>100%</td>
</tr>
<tr>
<td>Camp 1W</td>
<td>9477</td>
<td>0</td>
<td>192</td>
<td>223</td>
<td>0</td>
<td>415</td>
<td>4%</td>
<td>415</td>
<td>100%</td>
</tr>
<tr>
<td>Camp 6</td>
<td>5804</td>
<td>12</td>
<td>164</td>
<td>40</td>
<td>1</td>
<td>217</td>
<td>4%</td>
<td>198</td>
<td>91% Landslide</td>
</tr>
<tr>
<td>Camp 8W</td>
<td>7465</td>
<td>129</td>
<td>121</td>
<td>25</td>
<td>0</td>
<td>275</td>
<td>4%</td>
<td>261</td>
<td>95% Landslide</td>
</tr>
<tr>
<td>Camp 11</td>
<td>7161</td>
<td>121</td>
<td>64</td>
<td>57</td>
<td>0</td>
<td>242</td>
<td>3%</td>
<td>240</td>
<td>99% Landslide</td>
</tr>
<tr>
<td>Camp 2W</td>
<td>5979</td>
<td>19</td>
<td>126</td>
<td>19</td>
<td>8</td>
<td>172</td>
<td>3%</td>
<td>172</td>
<td>100%</td>
</tr>
<tr>
<td>Camp 2E</td>
<td>7299</td>
<td>25</td>
<td>153</td>
<td>15</td>
<td>2</td>
<td>195</td>
<td>3%</td>
<td>195</td>
<td>100%</td>
</tr>
<tr>
<td>Camp 18</td>
<td>6540</td>
<td>17</td>
<td>116</td>
<td>26</td>
<td>0</td>
<td>159</td>
<td>2%</td>
<td>159</td>
<td>100%</td>
</tr>
<tr>
<td>Camp 19</td>
<td>4829</td>
<td>20</td>
<td>35</td>
<td>59</td>
<td>0</td>
<td>114</td>
<td>2%</td>
<td>114</td>
<td>100%</td>
</tr>
<tr>
<td>Camp 1E</td>
<td>9333</td>
<td>0</td>
<td>154</td>
<td>53</td>
<td>0</td>
<td>207</td>
<td>2%</td>
<td>234</td>
<td>100%</td>
</tr>
<tr>
<td>Camp 10</td>
<td>7651</td>
<td>52</td>
<td>74</td>
<td>29</td>
<td>0</td>
<td>155</td>
<td>2%</td>
<td>155</td>
<td>100%</td>
</tr>
<tr>
<td>Camp 13</td>
<td>9800</td>
<td>81</td>
<td>96</td>
<td>14</td>
<td>0</td>
<td>191</td>
<td>2%</td>
<td>190</td>
<td>99% Landslide</td>
</tr>
<tr>
<td>Camp 4</td>
<td>7943</td>
<td>70</td>
<td>64</td>
<td>5</td>
<td>0</td>
<td>139</td>
<td>2%</td>
<td>139</td>
<td>100%</td>
</tr>
<tr>
<td>Camp 3</td>
<td>9200</td>
<td>3</td>
<td>60</td>
<td>96</td>
<td>0</td>
<td>159</td>
<td>2%</td>
<td>138 Landslide</td>
<td>87% Landslide</td>
</tr>
<tr>
<td>Camp 16</td>
<td>4889</td>
<td>27</td>
<td>25</td>
<td>3</td>
<td>0</td>
<td>55</td>
<td>1%</td>
<td>55</td>
<td>100%</td>
</tr>
<tr>
<td>Camp 25</td>
<td>2143</td>
<td>18</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>19</td>
<td>1%</td>
<td>19</td>
<td>100%</td>
</tr>
<tr>
<td>Camp 9</td>
<td>8715</td>
<td>12</td>
<td>49</td>
<td>16</td>
<td>0</td>
<td>77</td>
<td>1%</td>
<td>77</td>
<td>100%</td>
</tr>
<tr>
<td>Camp 21</td>
<td>3243</td>
<td>20</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>20</td>
<td>1%</td>
<td>20</td>
<td>100%</td>
</tr>
<tr>
<td>Camp 8E</td>
<td>7208</td>
<td>6</td>
<td>22</td>
<td>10</td>
<td>0</td>
<td>38</td>
<td>1%</td>
<td>38</td>
<td>100%</td>
</tr>
<tr>
<td>Camp 5</td>
<td>6048</td>
<td>23</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>30</td>
<td>0%</td>
<td>30</td>
<td>100%</td>
</tr>
<tr>
<td>Camp 15</td>
<td>11175</td>
<td>28</td>
<td>6</td>
<td>1</td>
<td>0</td>
<td>35</td>
<td>0%</td>
<td>35</td>
<td>100%</td>
</tr>
<tr>
<td>Camp 24</td>
<td>7760</td>
<td>14</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>17</td>
<td>0%</td>
<td>17</td>
<td>100%</td>
</tr>
<tr>
<td>Camp 22</td>
<td>4587</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>0</td>
<td>10</td>
<td>0%</td>
<td>10</td>
<td>100%</td>
</tr>
<tr>
<td>Grand Total</td>
<td>184,415</td>
<td>1,913</td>
<td>2,558</td>
<td>1,125</td>
<td>28</td>
<td>5,624</td>
<td>3%</td>
<td>5,430</td>
<td>97% Landslide</td>
</tr>
</tbody>
</table>

Households affected between 1st and 18th July
Vision:

Transform the lives of displaced people encamped in extreme conditions through an engineered solution to housing that promotes a new science of shelter design

Healthy Housing for the Displaced (hhftd.net)
Zaatari: shelter adaptations
kitchen and bathroom extension.

Enclosure between two caravans

Outdoor shaded space
Azraq: shelter adaptations
added insulation

Garden enclosure

privacy shade

Ventilation pipes blocked
Window cut for summer ventilation
Thermal Conditions

- 48°C internal surface temperature (when $t_{\text{ext}} \sim 36{\degree}\text{C}$): this is above the contact pain threshold*.
- Dangerously high levels of carbon dioxide (2,700 ppm) in winter as ventilation was abandoned in the struggle to stay warm.
- Not just a problem of physics:
  Surveys highlighted the importance of private, semi-outdoor spaces. Grid-laid shelters led to families building their own extensions to stop passers-by looking in. These spaces create a desirable shaded and well-ventilated area in the summer and protection from winds in the winter.

* varies, but NASA suggests 45°C: https://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/20100020960.pdf
Survey of adaptation strategies

**Summer 2016**
- Adding floor insulation: 5% (Azraq)
- Filling or blocking gaps in structure: 43% (Azraq)
- Carpet using a gas heater: 66% (Azraq)
- Adding several layers of clothing: 84% (Azraq)
- Using wet towels or fabric/pouring water on oneself: 18% (Azraq)
- Moving between spaces: 13% (Azraq)
- Using a bathtub for children to sit in: 5% (Azraq)

**Winter 2017**
- Adding floor insulation: 22% (Azraq)
- Filling or blocking gaps in structure: 0% (Azraq)
- Carpet using a gas heater: 16% (Azraq)
- Adding several layers of clothing: 51% (Azraq)
- Using wet towels or fabric/pouring water on oneself: 92% (Azraq)
- Moving between spaces: 95% (Azraq)
- Using a bathtub for children to sit in: 0% (Azraq)

Note: Azraq sample size is not specified.
Survey of Design Preferences

Summer 2016

100%

% of respondents

Most important
Second
Third
Fourth
Least important

#1 Safety and Security

#2 Thermal Conditions

#3 Privacy

#4 Design Flexibility

#5 Looks

Appearance
Design Flexibility
Security /Safety
Solutions?

What is comfortable?

What can be constructed?
What is comfortable?

Thermally speaking, at this moment in time, are you feeling absolutely neutral or feeling a sensation of heat or coolth (no matter how little).

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>neutral</td>
<td>حيادي</td>
</tr>
<tr>
<td>b</td>
<td>a sensation of heat</td>
<td>شعور بالشوب</td>
</tr>
<tr>
<td>c</td>
<td>a sensation of coolth</td>
<td>شعور بالبروده</td>
</tr>
</tbody>
</table>

If b, from scale of 1 to 3 how hot are you feeling, with one being a little bit (شوي) and 3 (كثير) being a lot.

1 2 3

If c, from scale of 1 to 3 how cold are you feeling, with one being a little bit (شوي) and 3 (كثير) being a lot

1 2 3

What is comfortable?


<table>
<thead>
<tr>
<th>Season</th>
<th>Sample Size</th>
<th>Female %</th>
<th>Mean Age (± SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winter</td>
<td>172</td>
<td>58%</td>
<td>34.6 ± 14.11 y</td>
</tr>
<tr>
<td>Summer</td>
<td>160</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Winter and Summer neutral temperature and ranges compared to ASHRAE 55-2013.

Summer

clo_{female} \sim 2 \times clo_{male}

variability: clo_{female} < clo_{male}
What can be constructed?

- Cost: < $2,000.
- Speed: 120 per day.
- Use local (i.e. refugee labour)
  - Require minimal skills.
- Must not look permanent
  - Non-obvious use of thermal mass

Implies lightweight shelters

Influx of refugees

1. Build current best
2. Study current best
3. Use models to improve
4. Make new best

Cyclic Design
What can be constructed?

A new *process* of design is needed that acknowledges:

- **People**: gender, culture, psychology
- **Politics**: host, permanence, fairness
- **Physics**: weather, materials, ventilation

Answers are simple. Solutions are hard.
Good Distribution
Dear Shelter/NFI sector partners,

Shelter/NFI sector invites you to join a one-day workshop on Good Distribution on 5 August 2019. The purpose of the workshop is to build capacity and promote good distribution practices among partners through an interactive environment with discussions and sharing good practices.

**Date:** 5th August 2019- Monday  
**Time:** 8:45– 17:30  
**Venue:** TBC
AOB

• 4W - Next submission is on Thursday (1\textsuperscript{st} August 2019)
• Financial Tracking Matrix – Next submission Tuesday (30\textsuperscript{th} July 2019)
• Prepositioning Stockpile - Next submission Tuesday (30\textsuperscript{th} July 2019)
ধন্যবাদ
Thank You