Climate information and Disaster Risk Reduction

Youcef Ait Chellouche

ISDR AFRICA
Increase of reported natural disasters is weather related.
• Flood, Drought and Epidemics
• All climate related
• Climate change adding new challenges
• Urban disasters
• Political volatility
Understanding Hazards - Anticipating Changes and Disasters

• Question of time scales:
  – Climate variability and extremes: days, week, months....
  – Climate change: decades, century(ies)

• Understand better how and when climate hazards occurs will help to build new “knowledge based” DRR and preparedness programmes.

• Understanding climate changes will guide adaptation programmes.
Challenges for DRM

• Move from “restore situation before disaster” and tools designated for that purpose:
• Contingency planning should now integrate prevention and mitigation measure...not only prepare for response....as we know it will “likely” happen. Opportunity for risk approach.
• Most of the designated tools for Resource mobilisation starts in general by “when disaster happen” (Emergency/flash Appeals)
• EWS and probabilistic models, need new knowledge and methodologies...
Increase dialogue between Climate/Hydro and DRR in Africa

- ISDR and DRR are part of the COFs (PRESAO, PRESAC, SARCOF and GHACOF).
- End user (and not data oriented) collaboration
- Translating forecasts on possible actions for different sectors (DRR, Health, Agriculture, Dam managers (energy) and simulations (PRESAO with the WB)
- Connecting and engaging key stakeholder in the dialogue
- Insurance companies, universities, mayors joined some COFs....
Experience with ACMAD

• Dialogue, jargon, audience and trust
• Information for end users concept being operationalised.
• Regular contact for durability
• Leading regional dialogue but open to others (met UK, IRI, Meteo France, GFCS..)
Remarks: The Little dry season will gradually affect the coast of Guinea golf countries extending from Nigeria to Cote d’Ivoire, however moderate shower will be observed over the same region. Most of the Convective activities will be concentrated over Southern Sahel and Nord of Guinea Golf Countries. Heavy Rain are expected over Gambia, East/South Senegal, Guinea Conakry, South Chad in the next 7 days.
VALID TIME / DATE D'ÉCHEANCE: 19th February, 2011

- Sand or dust
  Visibility > 5 Km

- Temperature > 40°C

- Rainfall > 50mm/24h
  Confidence Low

- Rainfall > 50mm/24h
  Confidence Medium

- Wave >= 4

- Rainfall > 50mm/24h
  Confidence High

LEGEND

- Heavy Rainfall/
  Fortes Pluies > 50mm

- Strong wind/vent fort >20 kt

- Extreme Temperature

- Dust or Sand
  Poussière ou vent de sable
different time scale

– Key word: information for action

• Seasonal forecast: advocacy for preparedness, contingency plans, training according to prediction, historical data analysis (no regret approach)

• Month later Seasonal forecast (June): emergency appeals or other budget preparation.

• Short term: Early warning, team alerts, operational readiness...

• From potential disasters to...probable disasters
Consequences on communities

- Disruption of agriculture calendar – when to plant? when to harvest?
- More severity of disasters
- Flood (as drought) causes food insecurity
- Population movement: new migratory routes, prolonged stay, conflicts...migration and pressure on urbanisation
- Less knowledge and coping capacity to understand and to face new or unusual ways on how hazards impact community and-or their environment
Good lessons and areas to explore

• Late rain and cereal drying period
• Peak of the rainy season and malaria treatment (UNICEF-ACMAD)
• Beginning of rainy season and rain distribution inside the season (short cycle-long cycle seeds?)
• Issue of downscaling
“other” challenges

• Dissemination
• Communication

• Building trust takes time.....
Climate Information for DRR action

• Outside of the community of experts, many people cannot access the forecasts;
• Many people who access the forecasts can’t understand them;
• Many people who understand the forecasts do not trust them;
• Many people who understand and trust the forecast do not know what to do with it;
• Finally many who know what to do after receiving a forecast lack the resources to act
# Climate information for Disaster Risk action

<table>
<thead>
<tr>
<th>Climate Scientists</th>
<th>Disaster Managers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location</strong></td>
<td>Vulnerability</td>
</tr>
<tr>
<td><strong>Magnitude</strong></td>
<td>Expected Loss</td>
</tr>
<tr>
<td><strong>Lead Time</strong></td>
<td>Range of plausible actions</td>
</tr>
<tr>
<td><strong>Probability</strong></td>
<td>Subjective decision to act or not act</td>
</tr>
</tbody>
</table>
Conclusion:

• Opportunity to bring together developmental and humanitarian actors

• Adaptation for both climate change and variability is about reducing vulnerability and build resilience of community at risk

• Involve better environment, agriculture and water resource managers in DRR/CCA institutional framework
• ISDR will continue to build partnerships and space for dialogue for to address Climate risk as part of sustainable development. (avoid that Climate disaster wipe out years of “difficult” development progress)

• Advocate for “no regret investments” to build resilience and adapt to CC.

• Data base on disaster loss to contribute to “fact” on climate change impacts.
Thank you