Climate Change Adaptation and Disaster Risk Reduction: The Case of Ghana

Presented by Ruby Sandhu-Rojon
UN Resident Coordinator and UNDP Resident Representative Ghana
May 11, 2011
Ghana’s climate is unpredictable

The country expects more intense weather events, such as torrential rains, excessive heat and severe dry winds.

Key economic assets affected by climate change include
- The coastal zone
- Agriculture
- Water resources

Social development in terms of poverty reduction, energy, health and women’s livelihoods.
High increase in north

Temperature Change $^\circ C$

- Less than 1.3
- 1.3 - 1.6
- 1.7 - 2.0
- 2.1 - 2.4

2020

2030

2040

2050
Climate change exacerbates challenges to the achievement of \textbf{MDGs} and to reverse the important gains achieved so far.

- Ghana is exposed to \textbf{floods and droughts}, especially in the Northern Savannah belt.

- The 2007 floods affected more than 300,000 people, resulting in loss of lives, infrastructure, livelihoods and food security.

- Severe floods have occurred every year, requesting a strong emergency response.
Climate Change Adaptation ↔ Disaster Risk Reduction

- The Government of Ghana is putting in place a national climate change adaptation framework, aimed at:
  - strengthening the national resilience to disasters
  - proactive and effective risk reduction measures.

- This notwithstanding, so far national efforts have mainly concentrated on disaster and emergency response.
Climate Change Adaptation ↔ Disaster Risk Reduction

- The UN System has coherently provided assistance under all the 5 Priorities of the Hyogo Framework of Action.

- Shifting focus on the link between climate change adaptation and disaster risk reduction.

- Particular attention to floods.
## Major achievements

<table>
<thead>
<tr>
<th>HFA PRIORITY 1</th>
<th>HFA PRIORITY 2</th>
<th>HFA PRIORITY 3</th>
<th>HFA PRIORITY 4</th>
<th>HFA PRIORITY 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Launch of National Platform and Regional Platforms to assist coordination of DRR at sector level</td>
<td>Country wide hazard mapping</td>
<td>Public awareness and advocacy campaigns</td>
<td>Development of tools and training for mainstreaming DRR into national and district development plans</td>
<td>Review of National Contingency Plan</td>
</tr>
<tr>
<td>Review of National Policy on DRR</td>
<td>Support to strengthen and develop early warning systems</td>
<td>Ongoing assessment of current knowledge of DRR into school curricula</td>
<td>Ongoing preparation of building guide for floods prone areas</td>
<td>National capacity to coordinate emergency response strengthened</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Development of District Disaster Management Plans</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Simulation exercise (floods in the North)</td>
</tr>
</tbody>
</table>
Climate Change Adaptation and DRR

- The Africa Adaptation Programme (AAP) in Ghana aims at:
  - improving institutional capacity and financing mechanisms for addressing climate risks
  - demonstrating positive impacts in linking disaster risk reduction and climate change through the development of early warning systems.

- The AAP focuses its support on a upstream level, but still considers downstream projects vital to inform policies and development planning.

- The AAP is thus supporting five pilot district initiatives in different climatic zones of the country, affected by peculiar climate and disaster risks.
West Mamprusi

The West Mamprusi District is located in Northern Ghana, along the White Volta River.

The tree vegetation in the district is fast dwindling with desertification staring the district in the face. Worst hit is the lands along the White Volta River where due to declining rainfall arising out of climate change farming is done intensively both the dry and rainy seasons. Recurrent floods periodically destroy infrastructure and crops.
To restore and improve tree vegetation (mango trees) along the White Volta River Basin in West Mamprusi.

3 main outcomes:
1) Afforestation along river banks will contain floods;
2) Income opportunities for farmers;
3) Decrease in desertification
Sissala East

Sissala East District is located in North-Eastern Ghana.

Communities face serious challenges in terms of food production, due to severe floods and increasing temperatures during the dry season.
To promote agro-forestry in deforested communities and provide alternative livelihoods to women groups through livestock revolving funds.

Two outcomes:
1) Improved land use systems with technologies that reduce land degradation;
2) Community women have access to alternative livelihood activities.
Fanteakwa

The Fanteakwa District is located in Eastern Ghana.

Climate change and human activities have gradually changed the perennial nature of rivers to seasonal rivers, leading to a loss of biodiversity and livelihoods, as well as to the risk of extinction for these rivers.
To restore degraded vegetation along the banks of Akrum and Osubin rivers and provide alternative livelihoods to local farmers.

Expected outcomes:
1) Restoration of biodiversity along river banks
2) Protection of river banks and conservation of water resources
3) Income opportunities for local farmers
Keta

Keta is located on a narrow coastal strip between the Atlantic Ocean and a lagoon.

The low-lying nature of the area has exposed the coastal strip to intense sea erosion and occasional flooding especially in the lagoon basin. These problems are further exacerbated by climate change.
To improve accessibility to flood impacted communities through construction of foot bridges.

Expected outcomes:
1) Improved capacity to quickly reach flood impacted communities;
2) Reduction of loss of lives by drowning
Aowin-Suaman

The Aowin-Suaman District is located in a forest zone in Western Ghana.

The district has experienced regular flood disasters with severe consequence on the residents, livelihoods and social-economic assets.
Resettlement of the market and other economic activities to non-flood prone areas.

Expected outcome:
• Improved physical environment for non-farm economic activities will lead to sustained business activity and an increase in incomes of beneficiaries
A Simulation Exercise organized by IASC was conducted in Ghana to:

- Test the efficacy of the preparedness measures of the various participating government and humanitarian agencies

- Reinforce partnership among government and humanitarian agencies and strengthen their capacity to respond to emergencies.
Disaster Preparedness

• Nationally led exercise.

• About 40 institutions (public, private, international, NGOs, donors) participated in the exercise. From the UN: UN/RC, UNDP, UNICEF, WFP, UNHCR, FAO, UNFPA, OCHA, UNAIDS, WHO.

• Scenario: floods in the North.
The Recovery Programme aims at:

• restoring livelihoods of victims of disasters (such as floods and drought) in Northern Ghana

• strengthening capacity to effectively plan and respond to the perennial disasters

• Supporting the roll-out of the Savannah Accelerated Development Authority (SADA), to ensure the promotion of sustainable livelihood and to advocate disasters issues.
Key achievements:

• Improvement of food security and income activities of communities affected by floods.

• UNDP in collaboration with UNHABITAT and “Housing the Masses” (NGO), have developed a model for Sustainable Low-Income Housing for Water and Fire Related Disaster Prone Areas.
As part of DaO, FAO, UNDP and WFP working in synergy on the area of climate change in Northern Ghana.

The joint initiative aims at:
- building the capacity of national and local institutions
- strengthening the resilience of poor, vulnerable communities in the three Northern Regions to respond to the impact of climate change.
Joint Programme Cont’d

• Upstream level:
  - facilitate institutional coordination and structured information flows related to climate change.

• Downstream level:
  - community-based adaptation initiatives
  - provision of alternative livelihoods and improved technologies for agriculture
  - food security and sustainable use of natural resources
  - support community-based organizations and vulnerable groups (e.g. women) to address climate related risks
• Focusing on emergency response to natural disasters is not a sufficient answer to current and future climate risks and disastrous events.

• THERE IS THE NEED TO SHIFT THE NATIONAL AGENDA FROM A DISASTER RESPONSE APPROACH TO A DISASTER PREPAREDNESS AND RISK REDUCTION APPROACH
This would require:
• Policy change;
• Advocacy and awareness creation;
• Substantive investments in infrastructure, e.g.:
  - Construction of channels and dams to contain floods and store water for the dry season;
  - Construction of proper drainage systems, in particular in urban contexts.
• Develop and implement strategies to change systems and make people adapted to climate change, e.g.:
  - Relocation of settlements and economic activities to non-flood-prone areas;
  - Afforestation along river banks to reduce impact of floods;
  - Vulnerability reduction with diversified income options
Way forward cont’d

• The UN System plays a critical role in providing advice for policy change and supporting national and local institutions to create the institutional framework and catalyze the investments necessary for making the country and its communities sustainable and resilient to climate change and natural disasters.
Thank you!