Drought management and mitigation in Eastern Africa: the case of the 2015-2016 El Nino phenomenon

Presented by

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Introduction

- The Eastern Africa sub-region for FAO includes Burundi, Djibouti, Ethiopia, Kenya, Rwanda, Somalia, South Sudan and Uganda
- The sub-region is prone to recurrent adverse climatic events
- Droughts have been the most daunting events, increasing in frequency and livelihoods impact since more than four decades
- Since 1971, droughts have affected over 157 million people in the sub-region; more than 91 million people (58%) of these affected from 2000 to 2015 only.

Introduction

- Drought impacts are mostly felt in the agriculture and food security sector
- In the Horn of Africa: USD 4.9 billion in crop and livestock production losses due to droughts between 2003 and 2013;
- Eastern Africa has since late 2015 been experiencing one of the strongest El Niño events on record
- While the El Niño itself has passed its peak and is now declining, its impact is still evident (funding gap of USD 2.4 billion in overall humanitarian sector)

The 2015-2016 El Nino phenomenon in Eastern Africa

- Under the influence of El Niño, severe drought conditions emerged in 2015 and 2016:

* **In Ethiopia,** combination of failed spring rains and erratic and delayed summer rains
  - Farmers and herders experienced severe levels of crop loss and livestock mortality and morbidity
  - 10.2 million people requiring humanitarian food and non-food assistance throughout 2016

* **In Djibouti**, number of pastoralists displaced by a chronic drought is continuing to rise by up to 11 500 in the three Regions of Ali-Sabieh, Dikhil and Djibouty-City
  - Inadequate pasture availability due to consecutive unfavorable rainy seasons
  - about 230 000 people severely food insecure, mainly in pastoral southeastern areas and in the Obock Region

The 2015-2016 El Nino phenomenon in Eastern Africa

* **In Kenya**, about 640 000 people are severely food insecure, mainly located in pastoral areas where households are recovering from previous unfavorable dry weather conditions. Herd size sensibly reduced.

* **In Uganda**, about 393 000 people in Karamoja region are estimated to be severely food insecure following consecutive unfavorable rainy seasons that resulted in below-average crop production

Drought Mitigation and El Nino response actions in Eastern Africa

- The 2015/16 El Nino was proved to be one of the most severe since 1950 and reached the range of the 1997–1998 El Nino event.

- Governments, FAO and the international community took prompt action:
  - A multi-departmental El Niño Task Force was established in September 2015.
  - The Task Force holds monthly meetings and liaises directly with countries to develop the best early action and response plans;
  - A special Early Warning – Early Action report was created to provide a global analysis of current and anticipated El Niño related impacts. It brings together early warning information with the actions being taken by FAO and national authorities.
  - FAO and other UN staff undertook missions to high-priority countries to support the drafting of El Niño early action and response plans.

Drought Mitigation and El Nino response actions in Eastern Africa

- **FAO and partners responses:** helping governments and working with partners to conduct seasonal assessments, issue early warning and develop preparedness and response plans as well as guidelines for emergency agriculture support focusing on seed and livestock.
  - Establishing and strengthening early warning systems, including community-based early warning systems with support of radio broadcasts, leaflets, brochures and SMS alerts;
  - Providing households with crop seed, fertilizers and tools to the most nutritionally vulnerable
  - Distributing survival and supplementary livestock feed
  - Supporting fodder production with forage seed
  - Improving access to water for livestock through rehabilitation of water points, benefiting hundreds of thousands of livestock animals
  - Increasing water harvesting capacity and helping to control soil erosion
  - Destocking animals and enhancing the income of livestock sellers
  - Vaccinating several millions of animals
  - Providing tractor hours in order to facilitate farmland preparation in the 2016 cropping season
  - Resource mobilization to support the implementation of response plans

Drought Mitigation and El Nino response actions in Eastern Africa

- **Government and other partners:**
  - Mobilizing considerable budget for emergency seed support for the planting season
  - Committed several USD million to livestock interventions.
  - Various meetings on the response to the situation took place between concerned government agencies and development partners such as UN agencies and international NGOs.

Early action to anticipate the potential La Nina in the sub region

- A La Niña phenomenon generally affects the same regions that are impacted by El Niño
  - with opposite climatic consequences.
  - Areas which experienced dry conditions during El Niño, for instance, tend to receive above-average rainfall and in some cases cooler temperatures.
- Current forecasts indicate that there is a 55-70 percent chance of a La Niña episode
  - Likely to develop towards the end of 2016
  - with a slightly lower chance that the onset may occur as early as July, in which case it could affect the growing seasons and harvests in some parts of the world from September 2016
- Consequences of La Niña on agriculture and food security can be both positive and negative
  - above-average rainfall may still be negative consequences due to an increased incidence of seeds being washed away, landslides, crops destroyed and livestock morbidity and mortality.
  - As La Niña would most likely impact regions that have already been affected by El Niño, the food security situation could further deteriorate and protract into 2018.
  - the actual positive full effect of above average rainfall will not be felt until the next harvest — i.e. the end of 2016 (if La Niña comes early) or by mid-2017 (if La Niña occurs later).

Early action to anticipate the potential La Nina in the sub region

- Early actions relevant for above-average rainfall conditions include:
  - map out areas vulnerable to flooding and communicate land use risks;
  - advise pastoralist herders about the risk of flooding in migratory routes (Pastoralist Knowledge Hub could be used);
  - check dam construction and other flood mitigation measures;
  - repair/support riverbanks; and
  - support construction of community seed stores; and
  - planting early maturing crop varieties which can be planted immediately after flooding and produce food in a short period of time.

Early action to anticipate the potential La Nina in the sub region

- Early actions relevant for drier-than-average conditions include:

  - regular vaccination programs conducted before November/December, to prevent negative impacts (vaccinating drought-weakened animals);
  - supplementary feeding for livestock to preserve livelihoods of highly vulnerable pastoralists;
  - tracking and follow-up of situation of migratory routes and advice to pastoralists;
  - support water supply for livestock and crops through rehabilitating or establishing new/temporary water points; and
  - commercial destocking.

Conclusion

- Lessons from the response to the 2015/2016 El Nino in Eastern Africa:
  - it is possible to reduce the likelihood of occurrence of large scale humanitarian crises in the region and indeed any other part of the world
  - preparedness, monitoring, early action and response are key to success
  - countries need to be continually supported to anticipate, prepare for and respond to such crisis in an efficient and coordinated manner
- Food and agriculture were the most affected sectors. Of the total humanitarian demands of El Niño affected countries, almost 80% was for food security and agriculture.
- Without joint action, the economic and social gains made by the affected countries will be diminished and progress against the Sustainable Development Goals will falter.
- Monitoring and early warning should continue
- The importance of early action in the face of threats such as El Nino cannot be underestimated.
- With the likely onset of La Niña, we must act immediately, so that we can reduce negative impacts on communities already affected by El Niño while capitalizing on potential positive effects.

Thank You!