



República de Moçambique
Ministério da Agricultura
Instituto nacional de Meteorologia
Universidade Eduardo Mondlane

Drought Conditions and Management Strategies in Mozambique



Hiten Jantilal: (DCAP-MINAG); Susartino Palege (INIR-MINAG);
Berino Silinto: (DPAM-INAM); Inocência Pereira (Geography-UEM)

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Mozambique Background

Location: Southern Africa eastern coast ($10^{\circ} 27' e$ $26^{\circ} 52'$ south and $30^{\circ} 12' e$ $40^{\circ} 51'$ east), downstream major regional rivers (9 int. rivers).

Surface: 799,380 km² and 2.700 km of coast line.

Climate: Inter-tropical, Two Seasons (Rainy and hot / Winter and dry)

Proj. Population (2013): 23.049.621 million (47,7% Man and 52,3%^{b)} Woman);

68,5% of population is rural; 31,5% urbane;

Economy: 81% of population depends on subsidence rainfed agriculture.

34% is chronic food insecurity; 11.5 % HIV/AIDS prevalence; 45% have access to improved sanitation & 43% for potable water;

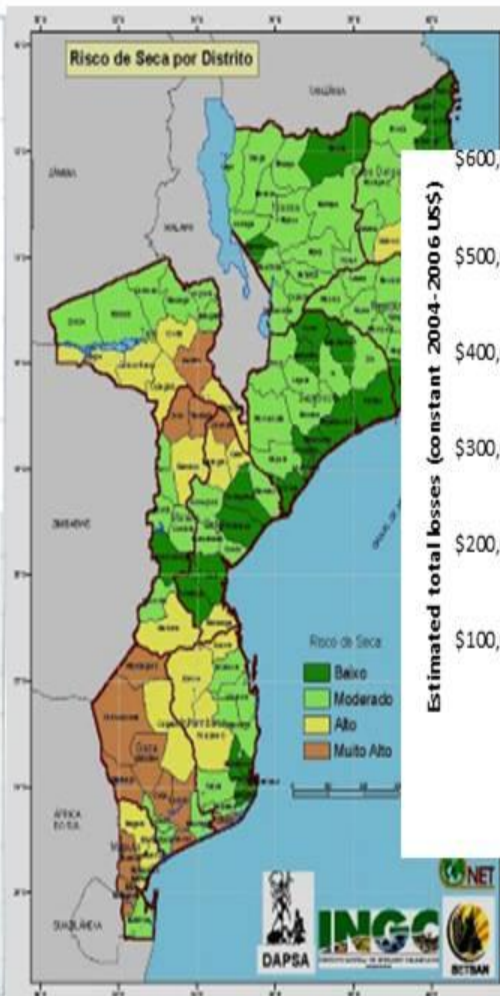
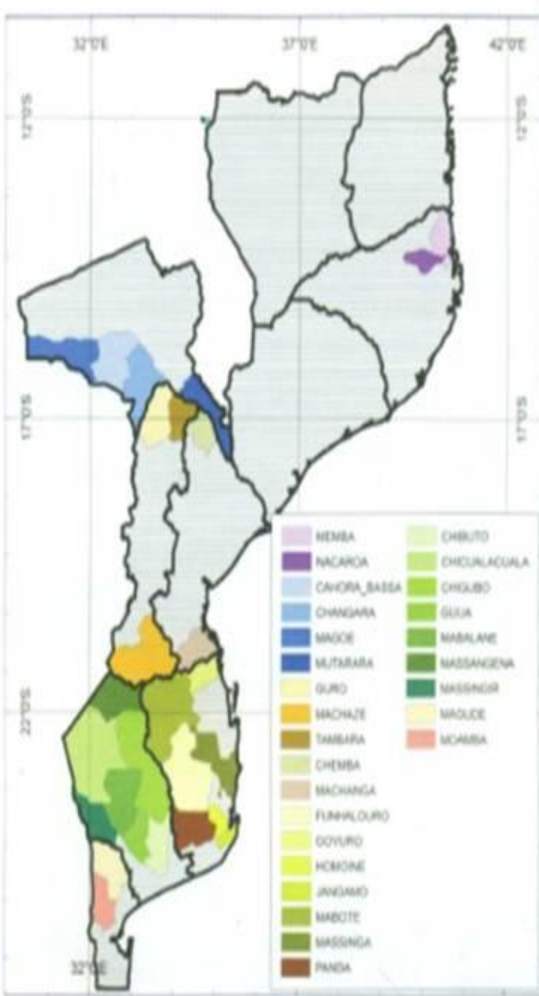
Prone to disasters: (Floods (every year); Tropical Cyclones (every 3 to 4 years); Drought (every 3 to 4 years); Tsunami waves (2004 event); Earthquake (2006); Epidemics; Windstorms; Sea level rise (2007).

Official language: *PORTUGUESE*

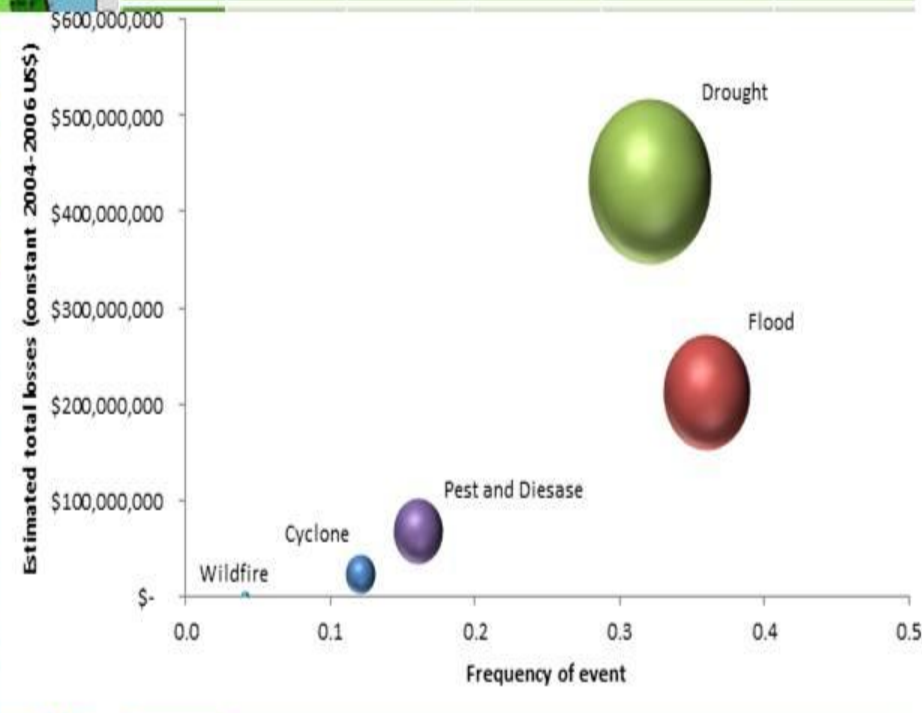




Mozambique Background (cont.)



Year	Deaths	Victims	Affected	Damages in crops (Ha.)	Lost Cattle
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2012	0	0	2,750	--	0
TOTAL	505	128,562	5,828,799	80,721	22,199

Distribution of arid and semi-arid regions and areas at risk of drought



Agriculture system

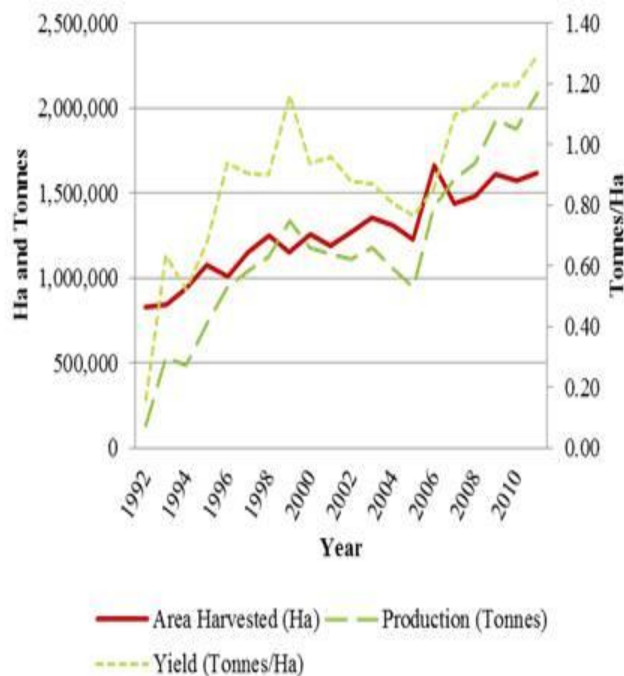
- The country economy is based on agriculture (23% and 22% of GDP in 2007 and 2008, respectively). At least 70% of the rural population are directly or indirectly linked to agricultural activity, especially women (about 60% of the workforce) and youth, being the most vulnerable sector.

Commodity	Agricultural GDP Share (Percentage)	Category
Maize	21.23	Cereals (Food crop)
Cassava	18.34	Root crop (Food crop)
Vegetable	8.21	Horticulture
Poultry	4.70	Livestock
Rice	4.41	Cereals
Groundnuts	3.06	Pulses nuts and oilseeds
Cashew nuts	2.51	Export oriented crop
Cotton	0.75	Export oriented crop
Tobacco	1.17	Export oriented crop
Sugarcane	0.98	Export oriented crop
Sorghum	2.56	Cereal food crop
Total	67.92%	

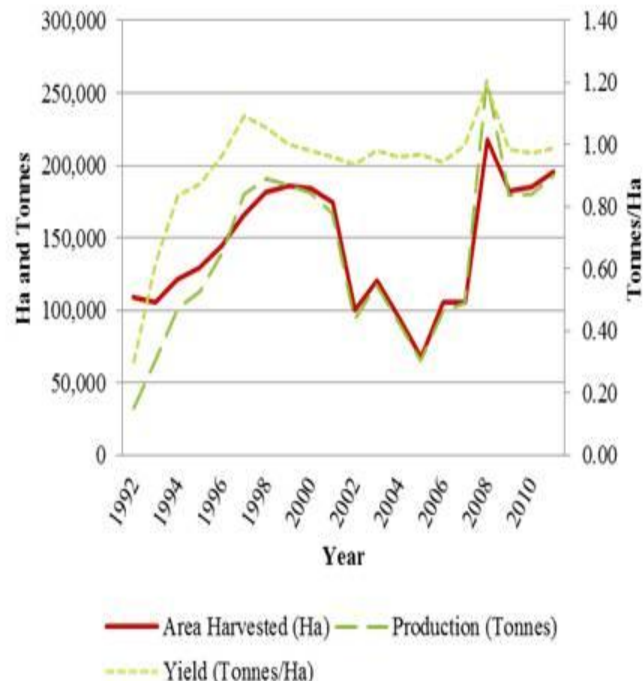


Agriculture system

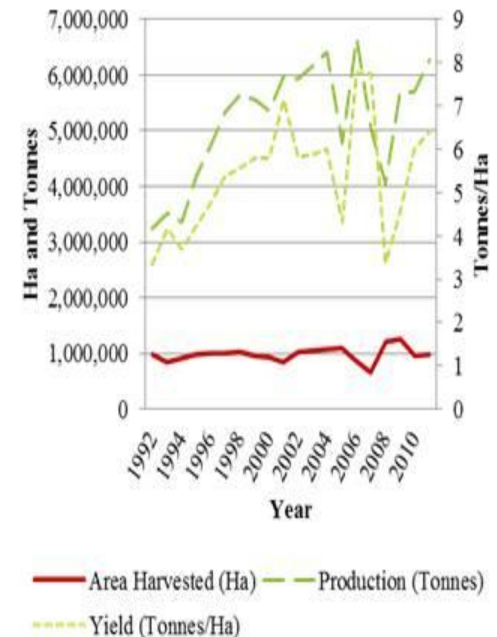
Maize Production



Rice Production



Cassava Production



The increase of production is due to expansion of cultivated and not increase of productivity.

Change cropping pattern: millet and sorghum (more drought tolerant) have replaced by maize (more sensitive crop), especially in low rainfall areas, resulting in increased risk exposure.



Drought monitoring and EWS in Mozambique

- Mozambique has several EWS namely: the Climate Seasonal Outlook (CSO) for rainfall, periodic evaluation of food security and nutrition, vulnerability analysis and monitoring of watersheds.
- Under the disaster management, the overall coordinating activities (natural disasters prevention and mitigation actions; development of arid and semi arid zones; emergency and post emergency actions reconstruction)) activities is done by the National Institute for Disaster Management (INGC).
- The monitoring activities is carried out by other institutions such as: National Institute of Meteorology (INAM); National Directorate of Water; National Directorate of Agrarian Services, Technical Secretariat for Food Security and Nutrition (SETSAN); SETSAN are who deal with the vulnerability surveys to assess community food insecurity and requirements for emergency relief are of their responsibilities.



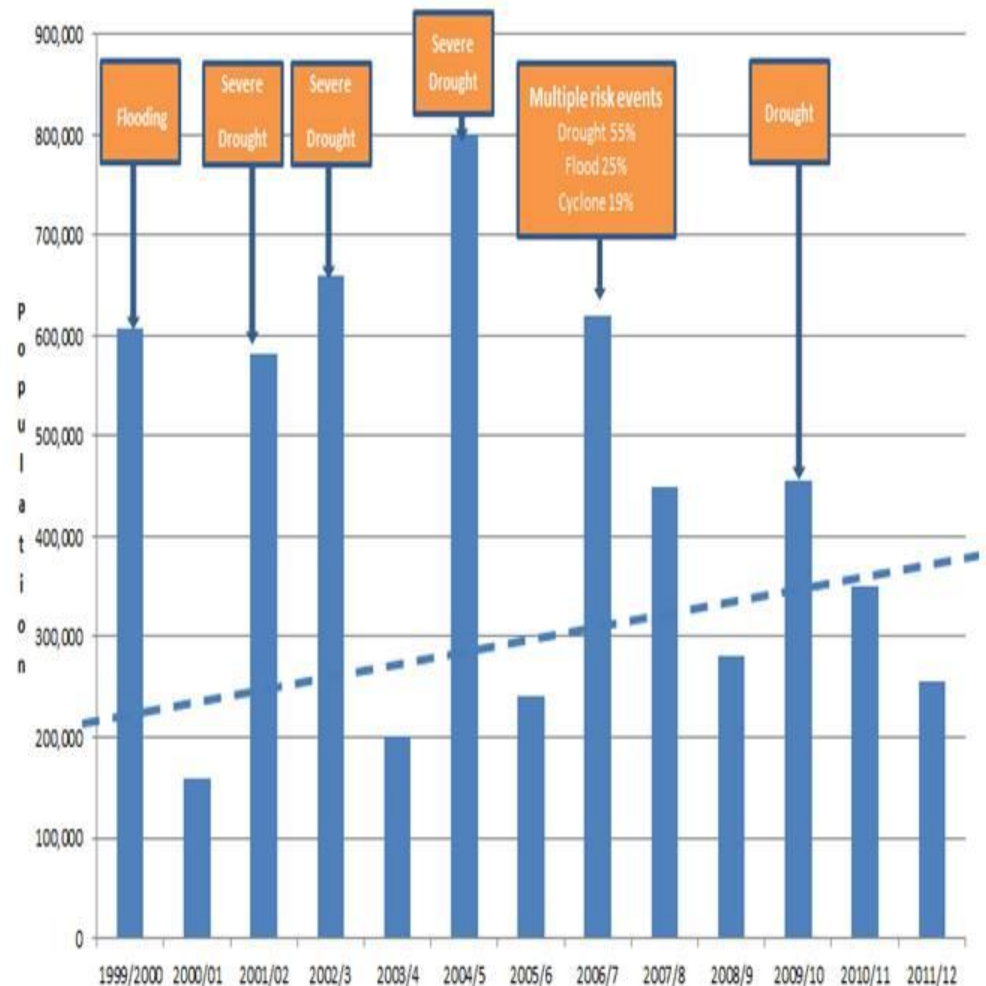
National Action Plan to Combat Drought and Desertification in Mozambique (PAN CSD)

- The main objectives of the plan is establishment of a series of actions, in close collaboration with local populations in arid, semi-arid and dry sub-humid zones, leading to mitigate the impacts of droughts.
- Actions: Awareness; training; information and control; improvement of the economic environment; Access of drinking water; rational land use; improvement of the utilization and management of surface water resources; sustainable management of forest resources; optimizing the energy resources; environmental education, nutrition, food safety and food lost.

Emergency relief and drought response

- **Provision and award of food Security (Agriculture, Livestock etc.):** this is related to provision of basic food such as maize, beans and vegetable oil in order to prevent the death of livestock, vaccination campaigns are also sometimes carried out.
- **Nutrition:** Feeding and Vitamin A to malnourished children, pregnant and lactating women and people affected by HIV/AIDS is undertaken, to prevent and respond to acute malnutrition supplementary. Information and awareness campaigns on healthy nutrition are also carried out.
- **Water Sanitation & Hygiene:** In severe cases, water trucking is carried out parallel to the rehabilitation of rural water supply points and construction of additional water points. Equipment to transport water is provided to families, such as jerry-cans and buckets. To ensure the water is clean, water treatment tablets or liquid is also distributed. Key messages on diarrhea and cholera prevention are disseminated

Acute food insecurity in Mozambique





Practices to alleviate drought impacts

- Use the guidelines for “Development the Arid and Semi-Arid Zones (the DARIDAS) by the partners serving as an orienting tool of approaches and interventions that could contribute to the well-being of the populations living in those areas (INGC, 2010).
- Sensitizing the populations about the eminence of drought occurrence indicating ways for minimizing its impacts, through radio messages;
- Sensitizing the population to use lowlands and adoption of drought tolerant varieties; acquisition and distribution of seeds drought tolerant and short cycle; promotion of small scale irrigation systems, water reservoirs, promotion of fruit resistant to drought to serve as diet; fostering the goats creation in areas at risk and ensure transfer of cattle at living risk in the affected regions to where are good conditions, etc.



The need for knowledge and skills on drought management

- The country lacks a system or network for drought monitoring and management;
- Improvement of weather information and early warning;
- The country needs systems or tools that help us to predict the drought situation, location, what extent and magnitude;
- How to promote differential and preferential policies to different agro ecologic zones;
- Capacity building and coordination at all levels (national public and private institutions);



Thank you
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Obrigado