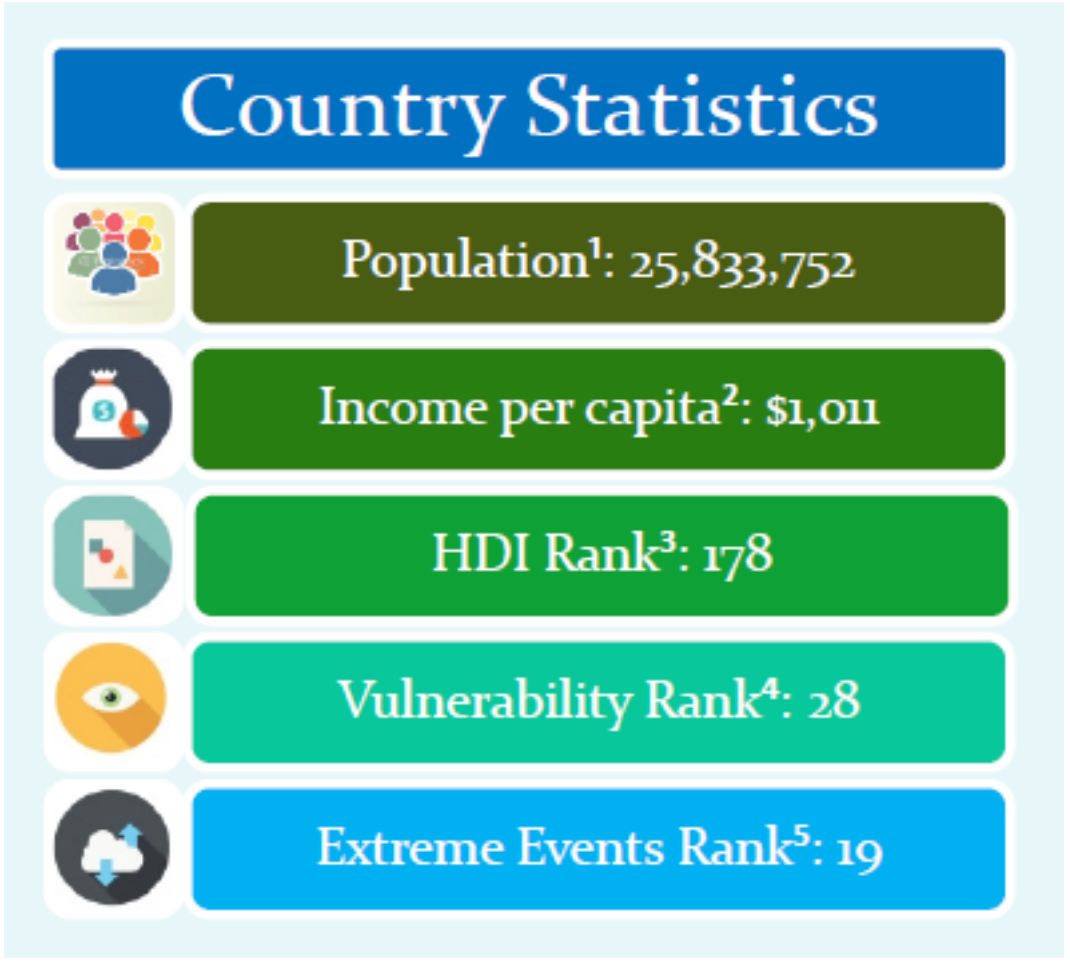
CLIMATE DATA FOR MOZAMBIQUE

Horti-Sempre CEDRIG Workshop

Pemba, 30 May 2016

Country Statistics



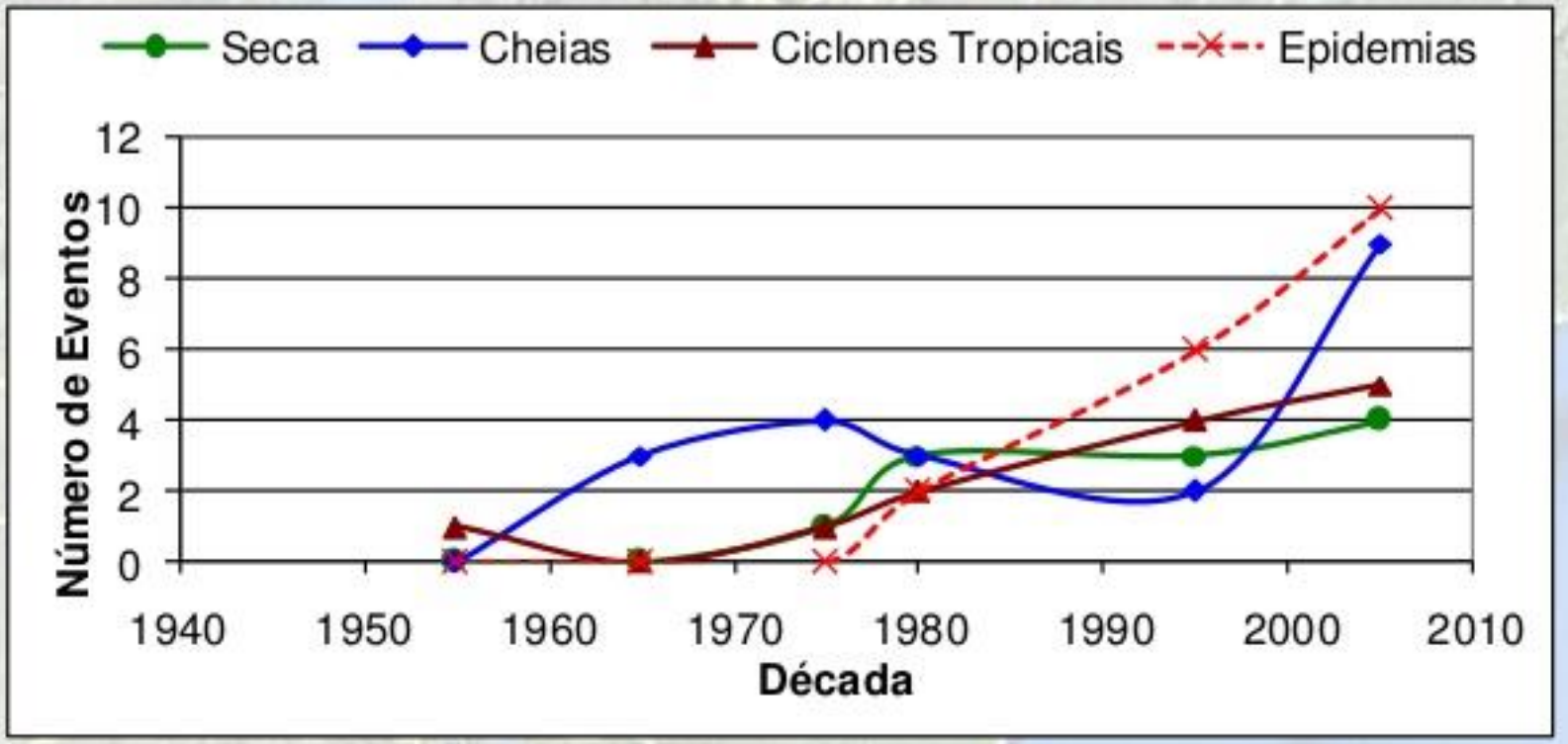
RECENT CLIMATE TRENDS

- Since the 1960s, mean rainfall decreased by an average of 2.5 millimeters per month (3.1%) per decade.
- Increased rainfall over the northern regions, highly variable conditions in the central regions, and persistent drought periods coupled with episodic floods in the south.
- The proportion of days with heavy rainfall events increased by 2.6% per decade or 25 days per year.
- Mean temperatures across the country rose by an average of 0.6°C (0.15-0.16°C per decade) in last 40 years, especially during the rainy season.
- The number of hot days (defined as the temperature exceeded on 10% of days or nights in the current climate of that region and season) increased by 25 in the last 40 years, and much of this has occurred during the southern hemisphere autumn.

  -> This corresponds to the first harvest cycle of many major grains across the country, with significant implications for agricultural pests and yields.

Source: World Bank, 2011

Historical Trends of Natural Disasters in Mozambique (1956-2008)



Source: Instituto Nacional de Gestão de Calamides (INGC)

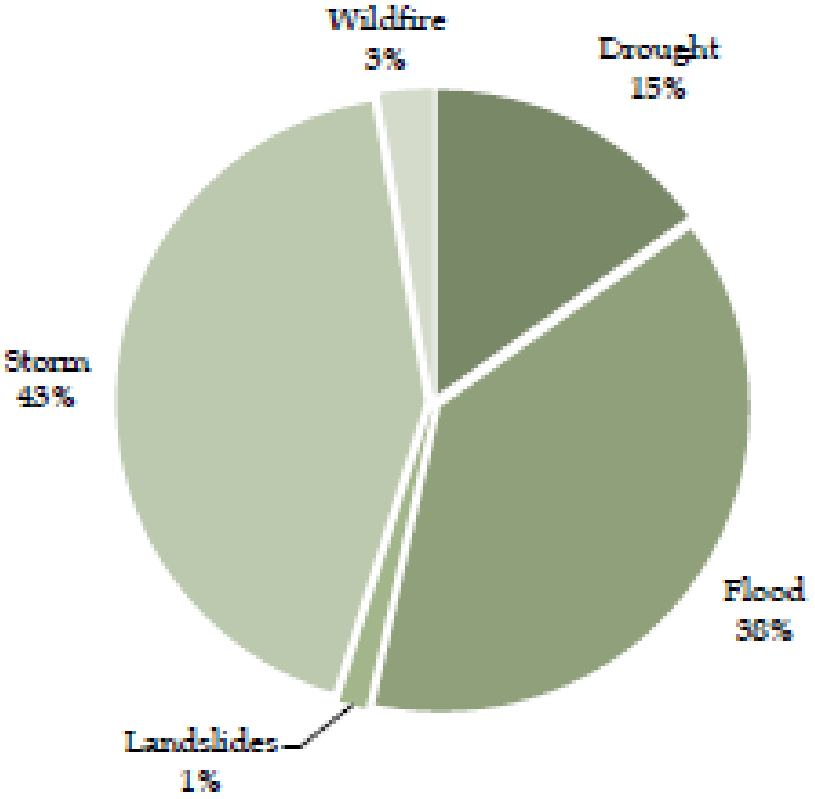


Figure 3: Natural Hazards by Type[18]

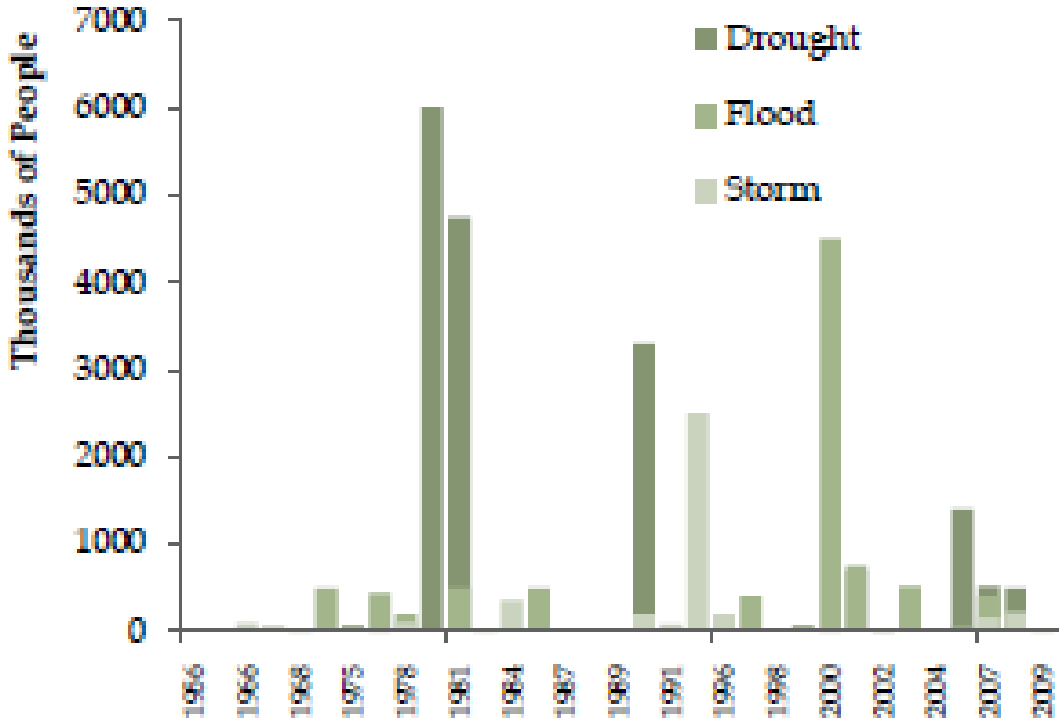


Figure 4: People Affected by the Top 3 Natural Hazards[17]

Source: World Bank, 2011

Climate impact to Human

- Migration
- Cities
- Conflicts
- Energy

Environment

- Land / Soil
- Air (Gas)
- Water (Sea, Lakes, River, Groundwater)
- Biodiversity (Animal)
- Ecosystem (Forest)

INTENDED NATIONALLY DETERMINED CONTRIBUTION (INDC)

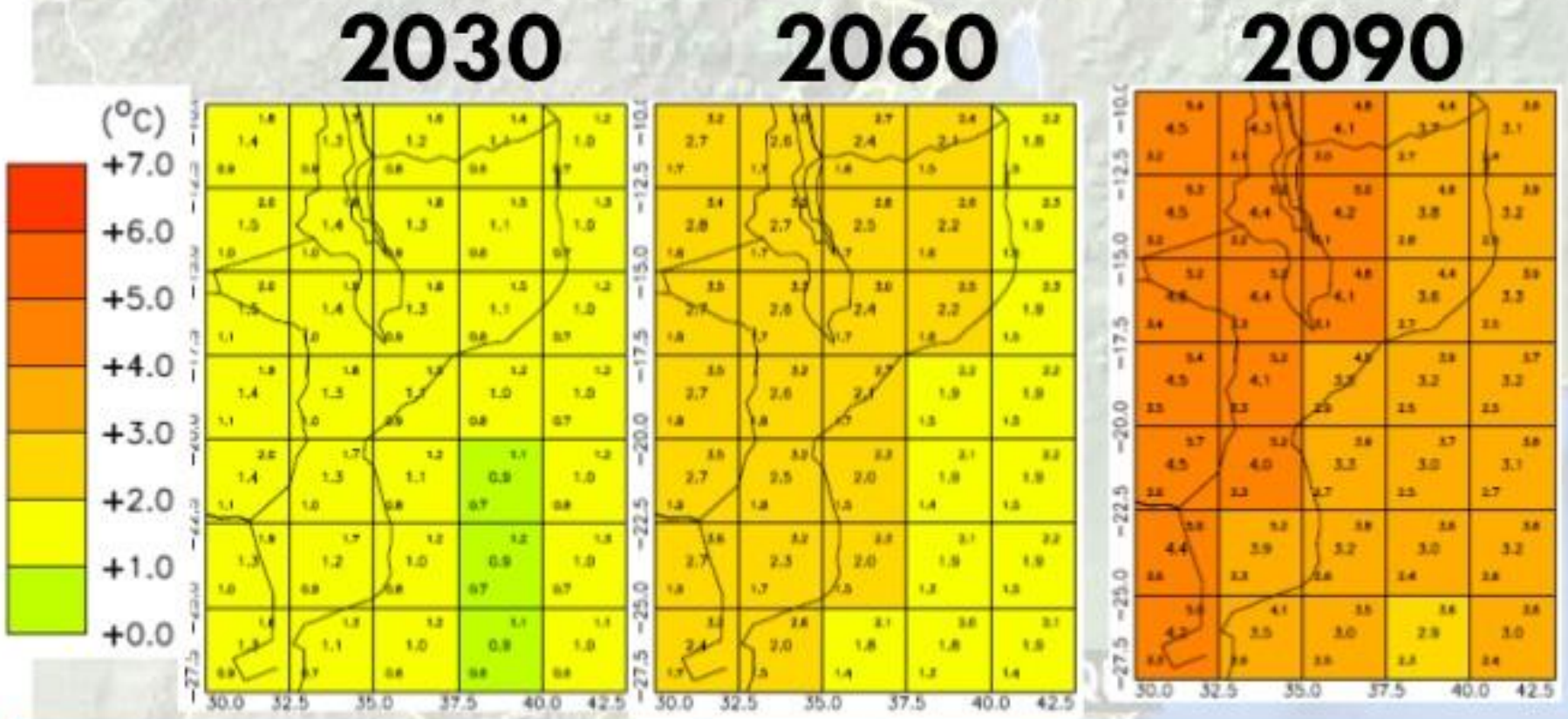
- **Adaptation:** The National Climate Change Adaptation and Mitigation Strategy (NCCAMS) identifies adaptation and the reduction of the climate risk as a national priority and presents eight strategic actions aimed at creating **resilience and reducing** the climate risk in the communities, ecosystems and national economy.
- The eight strategic actions are aimed at; reducing climate risk, water resources, agriculture, fisheries and food security and nutrition (SAN), social protection, health, biodiversity, forests and infrastructure.

CLIMATE FUTURE

- Temperatures are expected to increase by 1.4-3.7 °C by 2060, with warming more rapid in southern and coastal areas.
- Rainfall projections are less certain, but indicate decreased dry season rainfall and increased wet season rainfall
- The number of heavy rainfall events is projected to increase by 2060
- The number of hot days and nights are projected to increase throughout the country, hot days by 17-35% in 2060 and hot nights by 25-45% in 2060.
- Frequency of events such as floods, droughts and storms likely to increase
- See level raise: 13-56 cm (2100)

Source: World Bank, 2011

Changes in the Temperature in Mozambique



The high temperatures will take place in the interior of southern part of the country and Zambeze Vale region.
The impacts on agriculture, health and water availability will be huge.

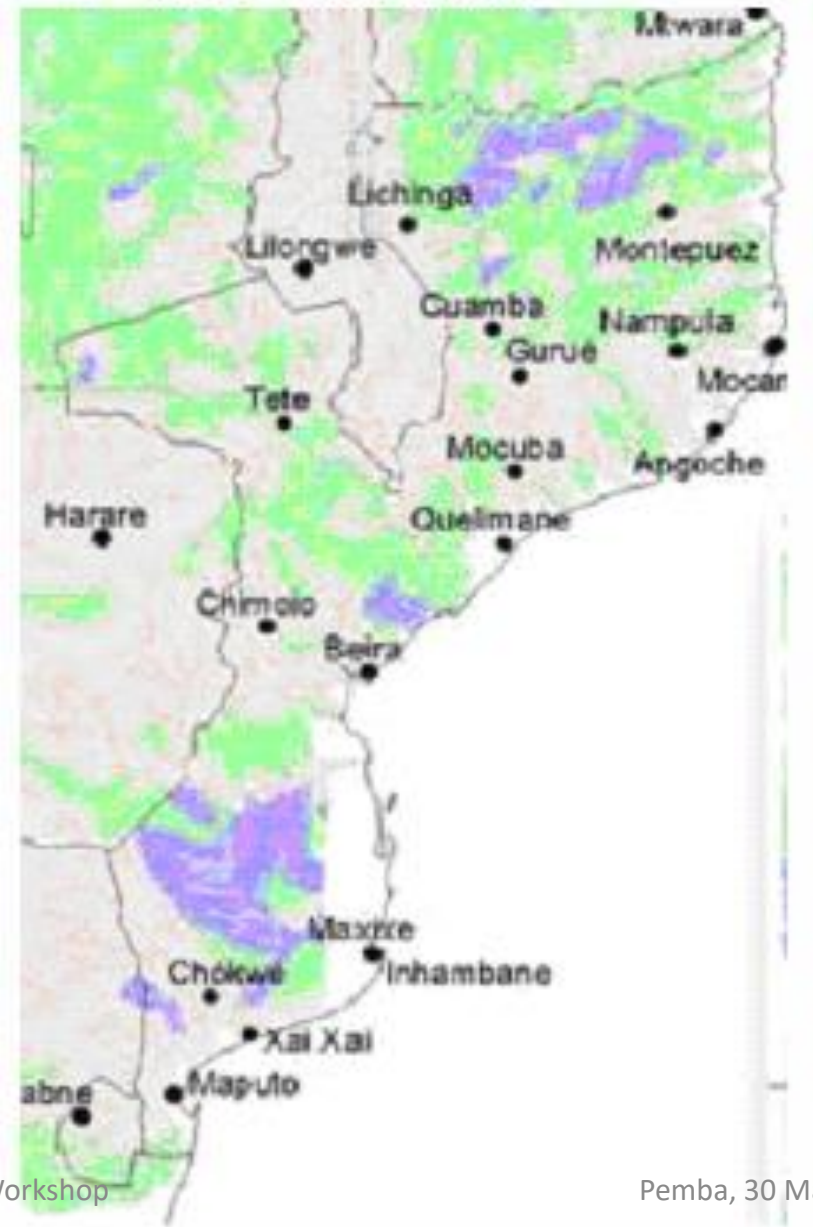
Gross Water Availability per Capita

< 1000 m3/capita/year

1000 - 10000 m3/capita/year

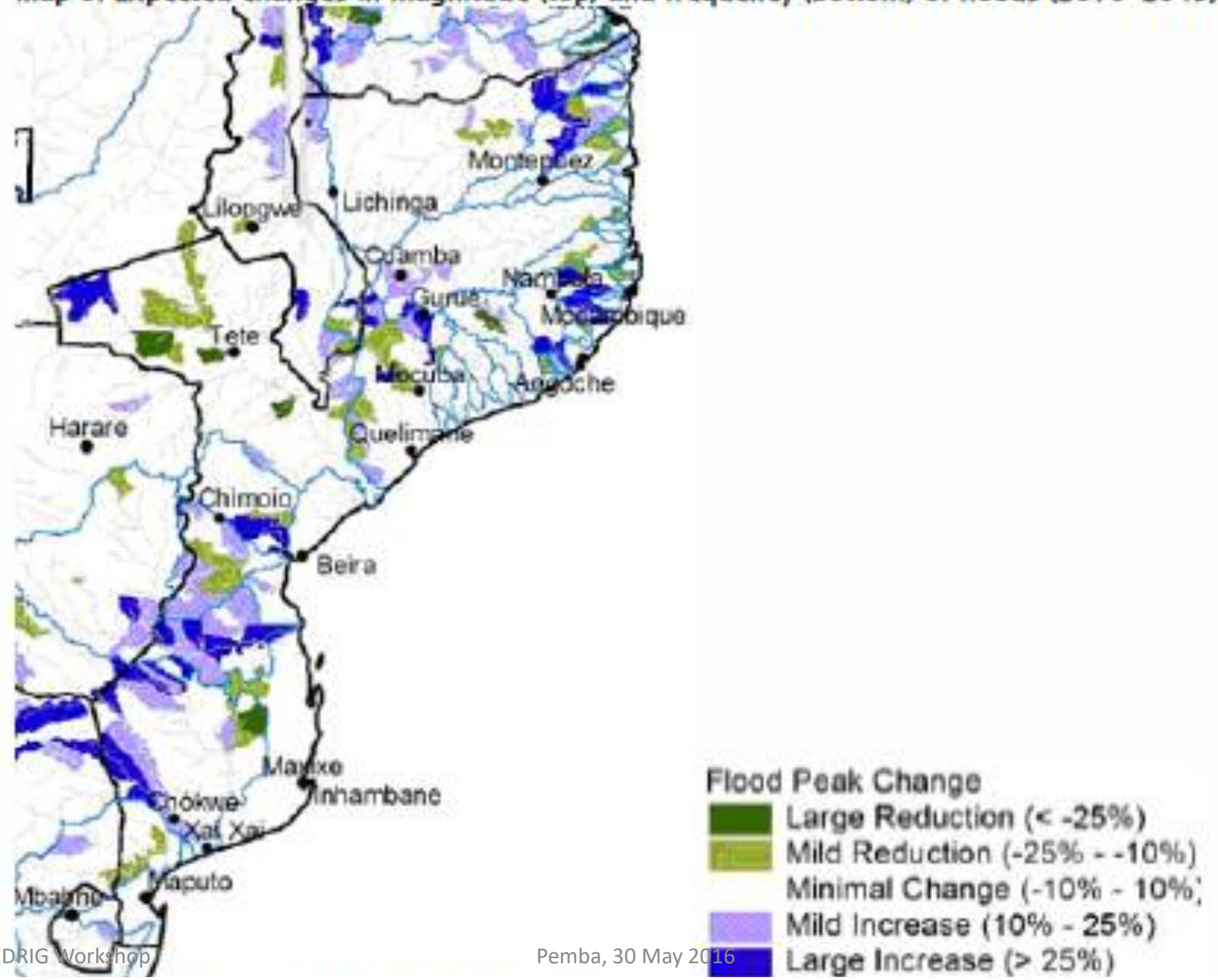
> 10000 m3/capita/year

2010



2045

Map 3: Expected changes in magnitude (top) and frequency (bottom) of floods (2010–2045)



OBRIGADO!