

El Nino Impacts in Southern Africa: highlights from the 2015/16 Season

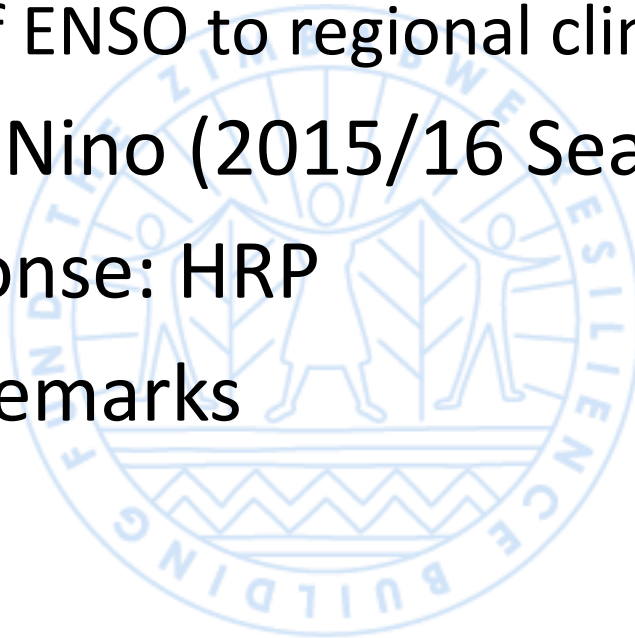
Presentation at the Southern Africa Regional Climate Services Workshop
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Vhusomuzi B. Sithole

Overview

- Introduction
 - Regional Geography
 - The effect of ENSO to regional climate
- Impacts of El Nino (2015/16 Season)
- El Nino Response: HRP
- Concluding Remarks



Introduction: Regional Geography

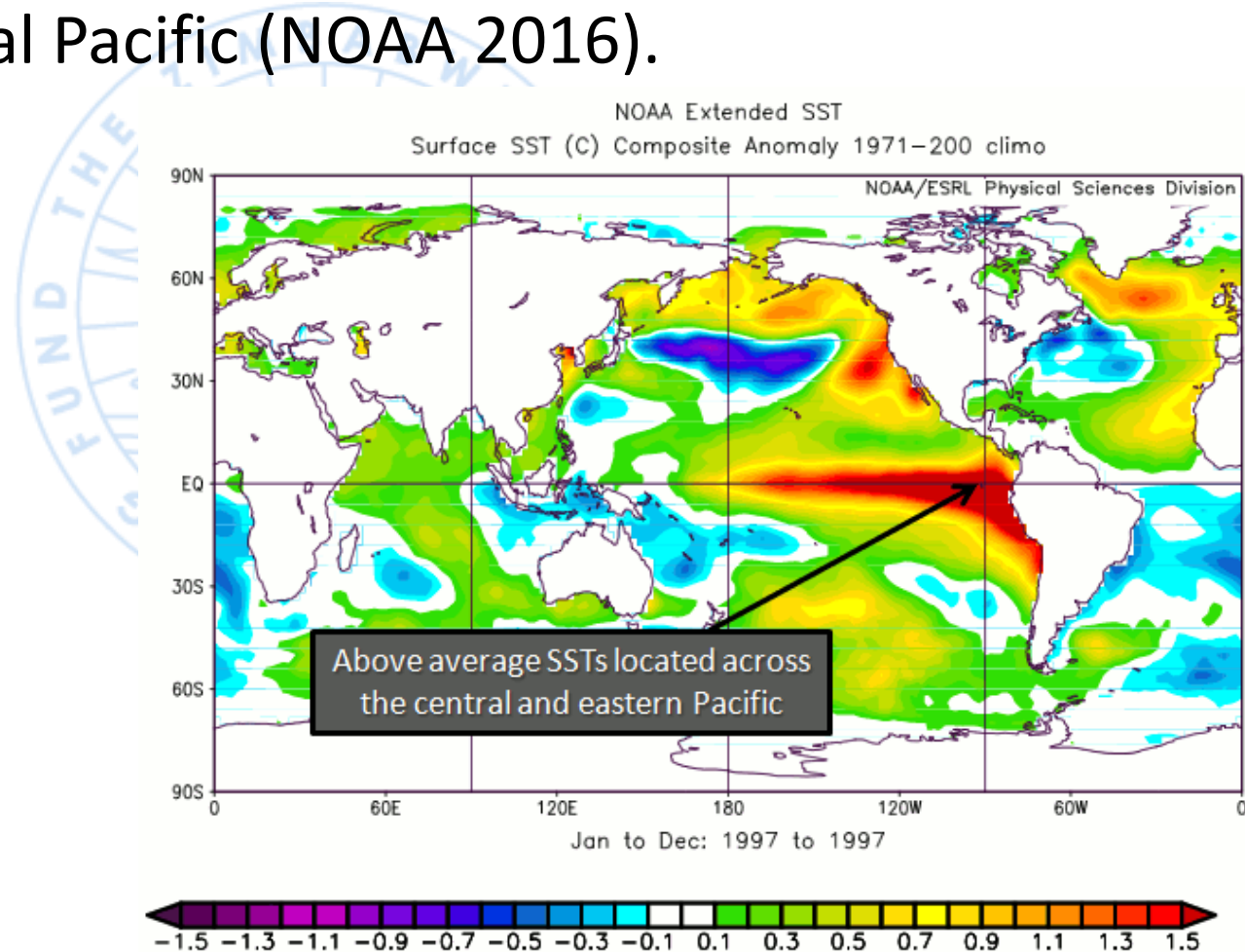
- Total population is 292 million people
 - 76% under 35 years
- Life expectancy – 52.8 years
- About 70% of the region's population depends on agriculture for food, income and employment.
- The agriculture sector contribute between 4% and 27% of GDP and approximately 13% of overall export earnings.
- Stunting rates range between 8-47% in the region

Introduction: Regional Geography

- Evidence show that Southern Africa's climate is influenced by:
 - Tropical cyclone activities in the Indian Ocean
 - El Nino-Southern Oscillation (ENSO)
 - prevalence of the south easterly winds
- The past seasons saw ENSO playing a major role in the regional climate.
- El Nino-Southern Oscillation (ENSO) is the changing of sea surface temperatures in the equatorial Pacific Ocean.

Introduction: Effect of ENSO to regional climate

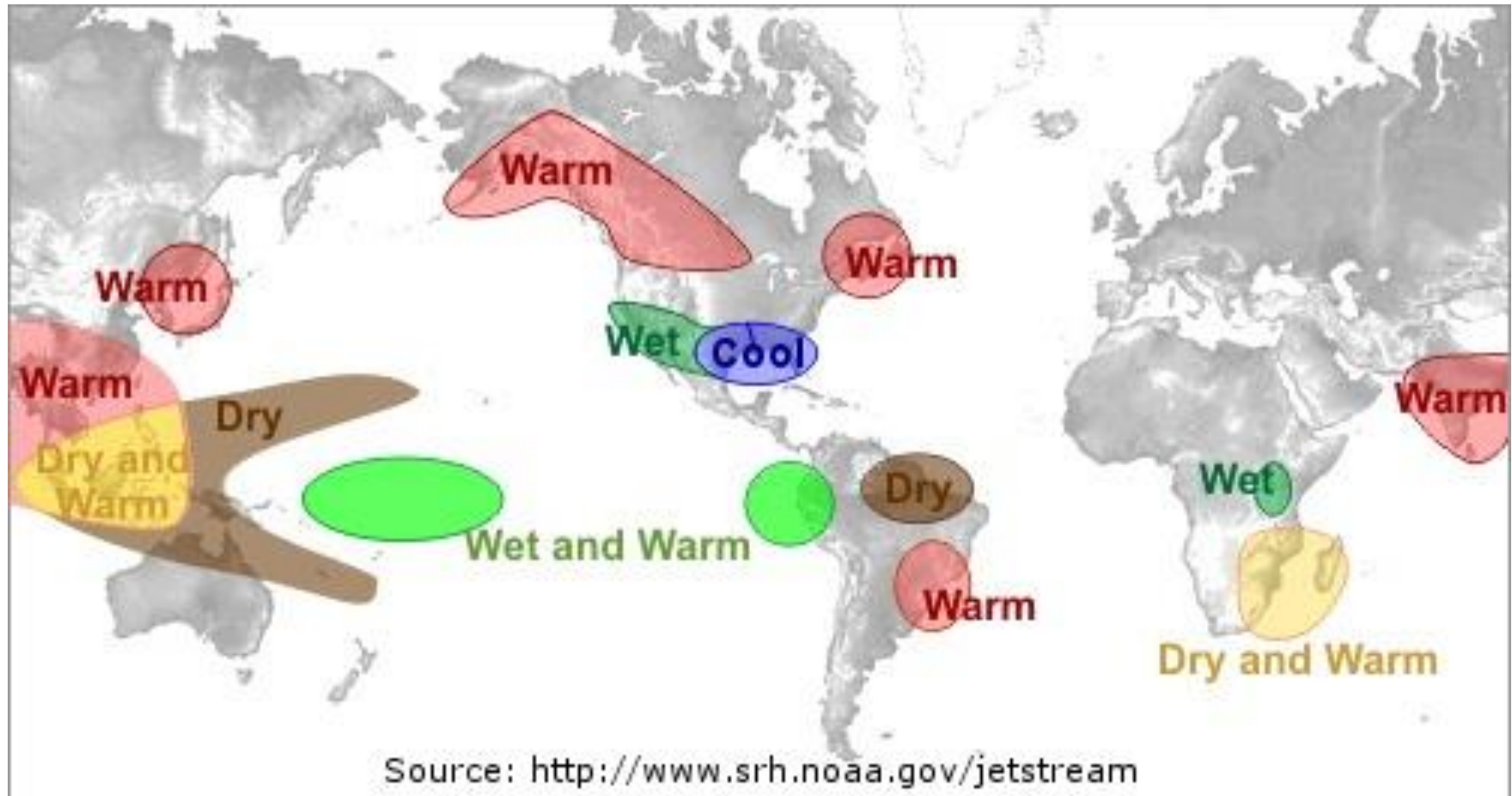
- The “*El Niño*” phenomenon refers to the large-scale ocean-atmosphere climate interaction due to warming of sea surface temperatures across the central and east-central Equatorial Pacific (NOAA 2016).



Source: NOAA 2016).

Introduction: Effect of ENSO to regional climate

- The “*El Niño*” phenomenon affect regions differently.



Typical El Niño Effects: December Through February (Source: NOAA, 2016).

El Nino Impacts (2015/16 Season)

- 2015/16 – classified as Very Strong El Nino
- 2014/15 was not a good season with a reduction in cereal production of 21% (33.81 million) compared to 2013/14.
- The region received below normal rainfall accompanied by high temperatures leading to:
 - Reduced crop yields
 - Cattle deaths
 - Low dam levels due to less inflows
 - Sectors affected include food security, livelihoods, agriculture, livestock, nutrition, health and water, sanitation and hygiene (WASH).

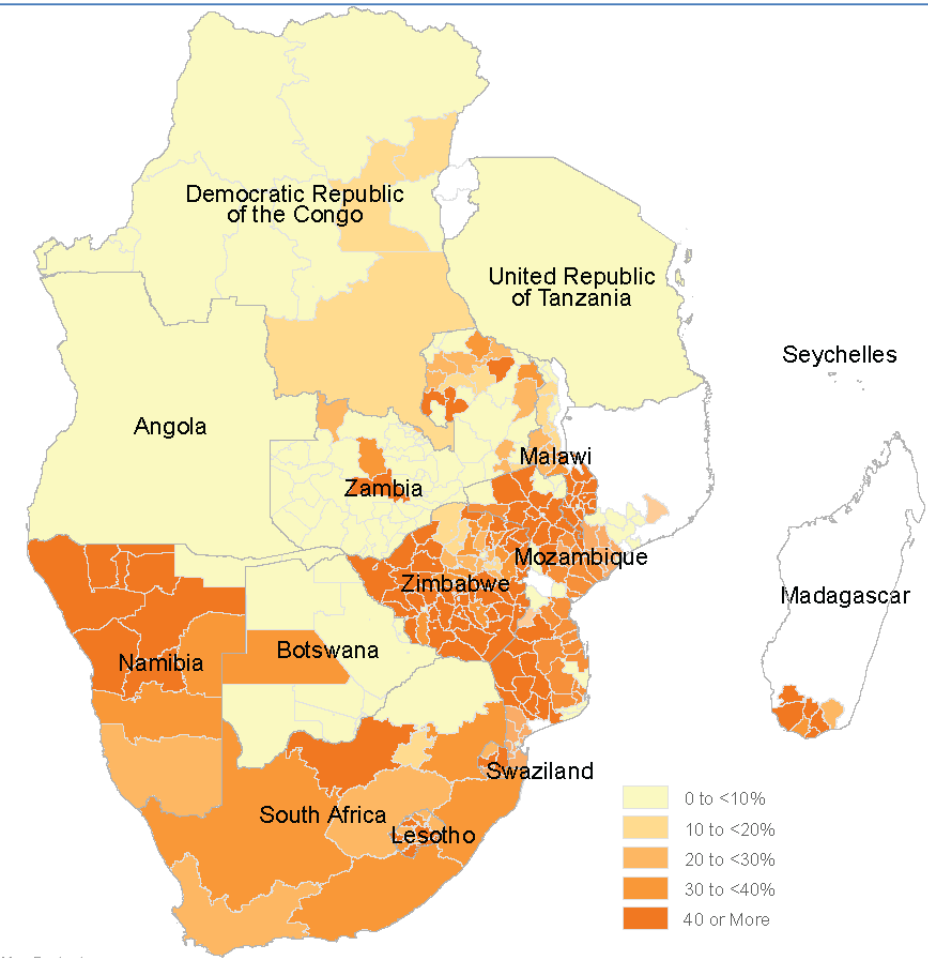
El Nino Impacts (2015/16 Season)

- Cereal deficit of 7.9 million at the end of 2015/16 cropping season.
- Over 500 000 children suffering from severe acute malnutrition.
- About 3.2 million children have reduced access to safe drinking water.
- Education - children leave school or lose out due to illness.
 - 137,000 children affected in Malawi

El Nino Impacts (2015/16 Season)

- Increased the vulnerability of women and girls due to:
 - gender-based violence, transactional sex, loss of livelihoods, school drop-out, malnutrition, and inadequate water and sanitation.
- The income sources of many households have diminished due to loss of income from crops, livestock, labour, trading and self-employment activities.
- 643 000 livestock deaths recorded in 5 countries

El Nino Impacts (2015/16 Season)



- 28.5 million people affected as of June 2016.
- Only three countries (SA, Tanzania and Zambia) had maize surplus.
- Number of food insecure predicted to increase during the lean season (October 2016 to March 2017)

% population in need of emergency assistance

Source: OCHA

El Nino Impacts (2015/16 Season)

- Worst affected countries: Angola, Botswana, Lesotho, Madagascar, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe.



Situation in Chiredzi, Zimbabwe (UNDP, 2016)

El Nino Response: HRP

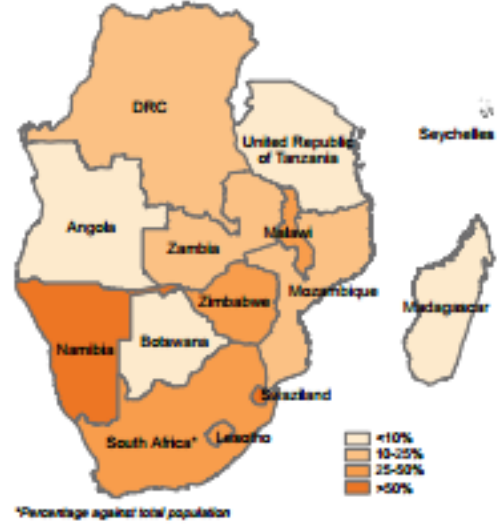
- Lesotho, Malawi, Swaziland, and Zimbabwe declared national drought emergencies, and Mozambique and Madagascar declared a red alert; all,
- 10 out of 15 countries appealed for international assistance.







El Nino Response: HRP

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|---|---|---|
| FUNDING REQUIREMENTS (US\$)  2.7B | PEOPLE IN NEED  40M | SADC RURAL POPULATION  181M |
|---|---|---|

PERCENTAGE OF AFFECTED RURAL POPULATION



| | | |
|---------------------------------|--|---|
| 2.4B FUNDING GAP US\$ | EMERGENCY ASSISTANCE 23M People in Need of emergency assistance. | 10 out of 15 countries requesting humanitarian assistance. |
| | CEREAL TONNAGE 1.7MT Tonnes of maize required for 23M in emergency conditions. | ACCESS TO DRINKING WATER 71% Population with access to safe drinking water. |

| | | | |
|---|--|--|--|
| POPULATION AFFECTED  | CEREAL PRODUCTION (MT)  | LIVESTOCK DEATHS 643k  Livestock lost in 5 countries | STUNTING RATES IN SADC 8 - 47%  |
|---|--|--|--|

Source: SADC, 2016)

Concluding Remarks

- Emergency response is costly
- Increasing frequency of weather-related extreme events in the region demand **contingency plans** every year.
- Timely dissemination of climate information is critical for contingency planning.
 - El Nino and rainfall predictions for the 2015/16 season came on time but the did not lead to preparedness.
- Early Warning and Early Action are key.

Concluding Remarks

- Droughts erode developmental gains, putting great strain on the fiscus of most governments.
- Resilience efforts need strengthening including:
 - expanding social safety nets,
 - Improving disaster risk reduction activities
 - protecting and diversifying livelihoods, and
 - increasing access to flexible and able basic social services.