

Social Facets of Climate Risks

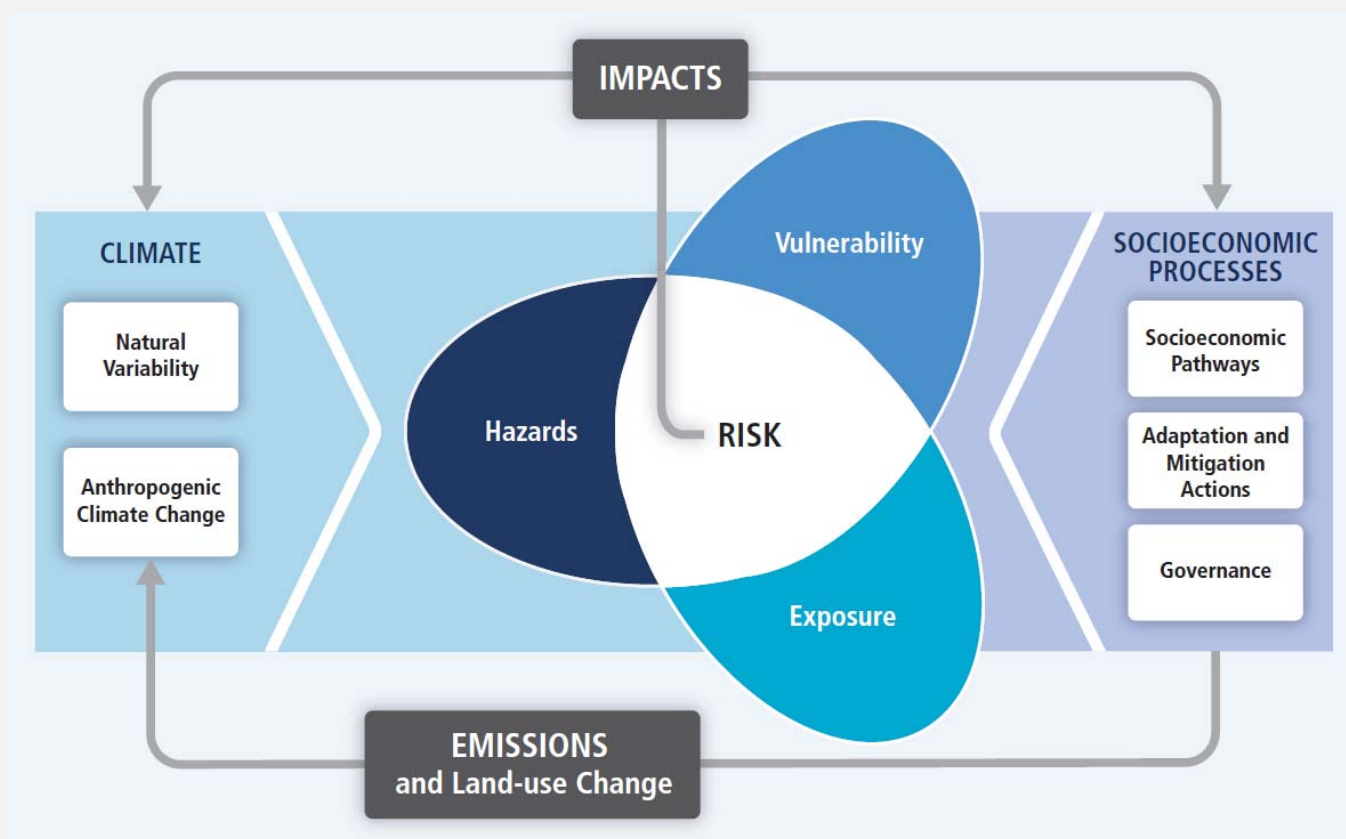
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The dimensions of climate risk



Risk of loss and damage to climate change usually only part of total climate risk



Types of climate hazards

Rapid onset hazards

- *Storms and related phenomena
(wind, rain and hail, storm surge, flash floods, etc.)*
- *Heatwaves*
- *GLOFS*
- *Avalanches and mudslides*
- *Fires*

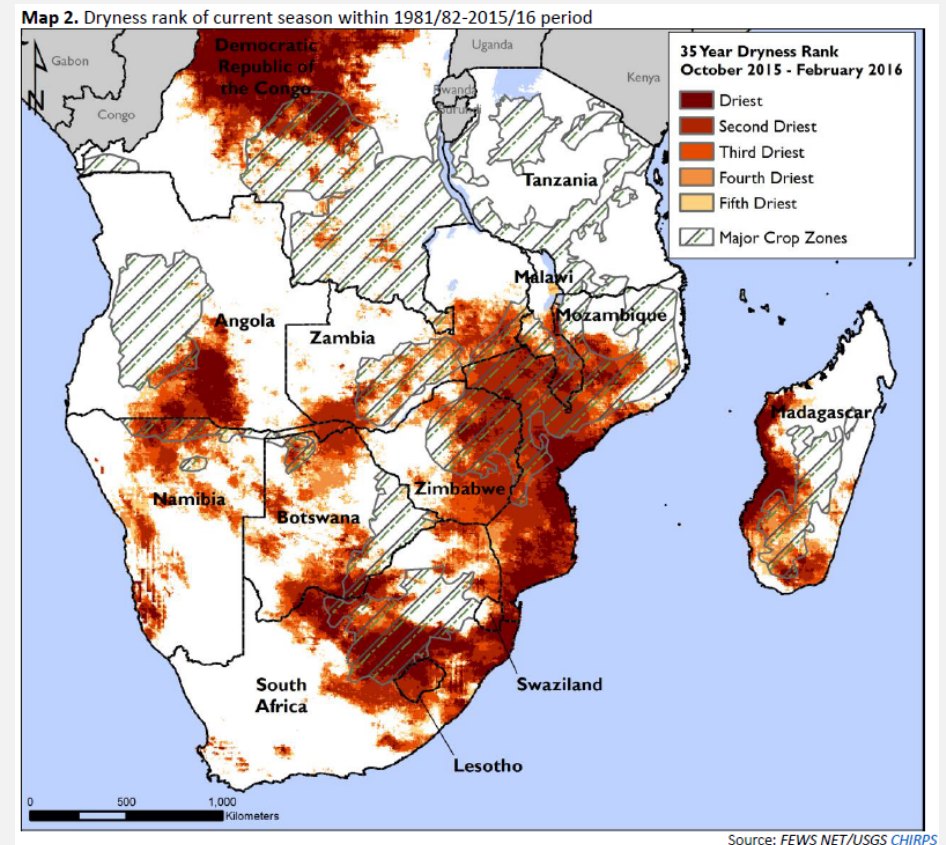
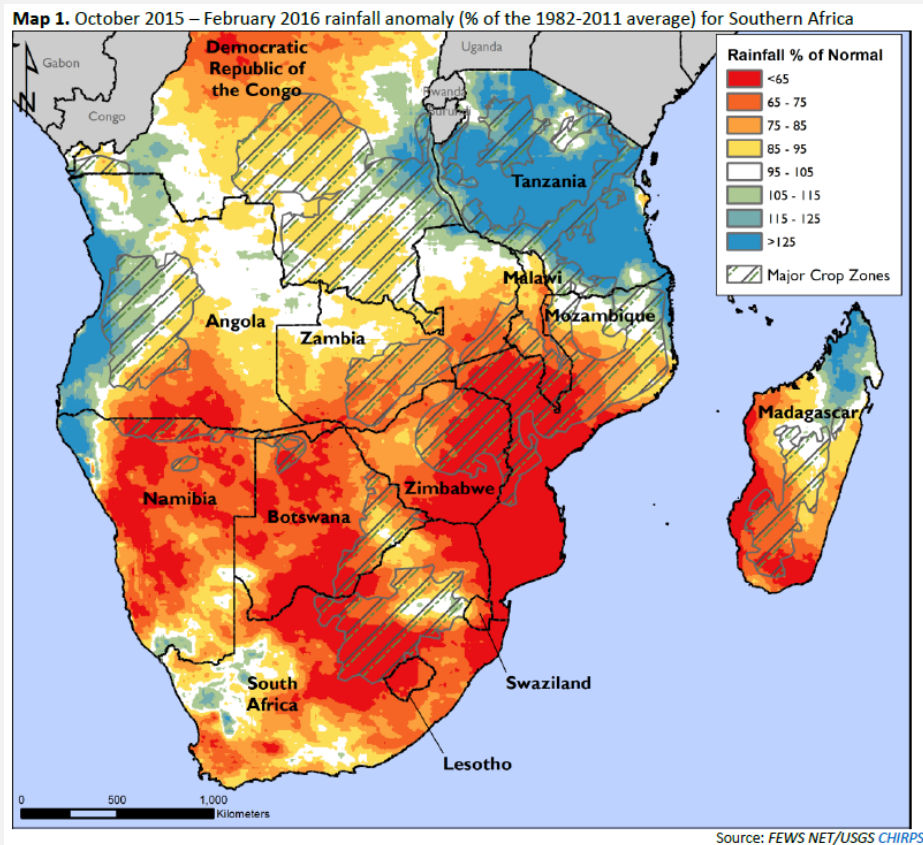
Slow onset hazards

- *Droughts*
- *Insect/Animal Plagues*
- *Sea level rise*
- *Salinization*
- *Permafrost melt*
- *Aridification*

Measuring & analysing hazard risk

- Observations – historical, near-real and real time
 - Meteorological, hydrological and oceanographic stations and gauges
 - Satellites
- Models - historical, near-term forecasts and longer term projections
 - Atmospheric, ocean, storm-surge, hydrological
- Types of analysis
 - Quantifying/estimating historic intensity, duration and frequency (IDF)
 - Determining trends and shifts in IDF, with or without attribution
 - Monitoring and forecasting for early warning
 - Scenarios for longer term trends and shifts

Example: Southern Africa 2015-2016



Measuring and analysing social impact

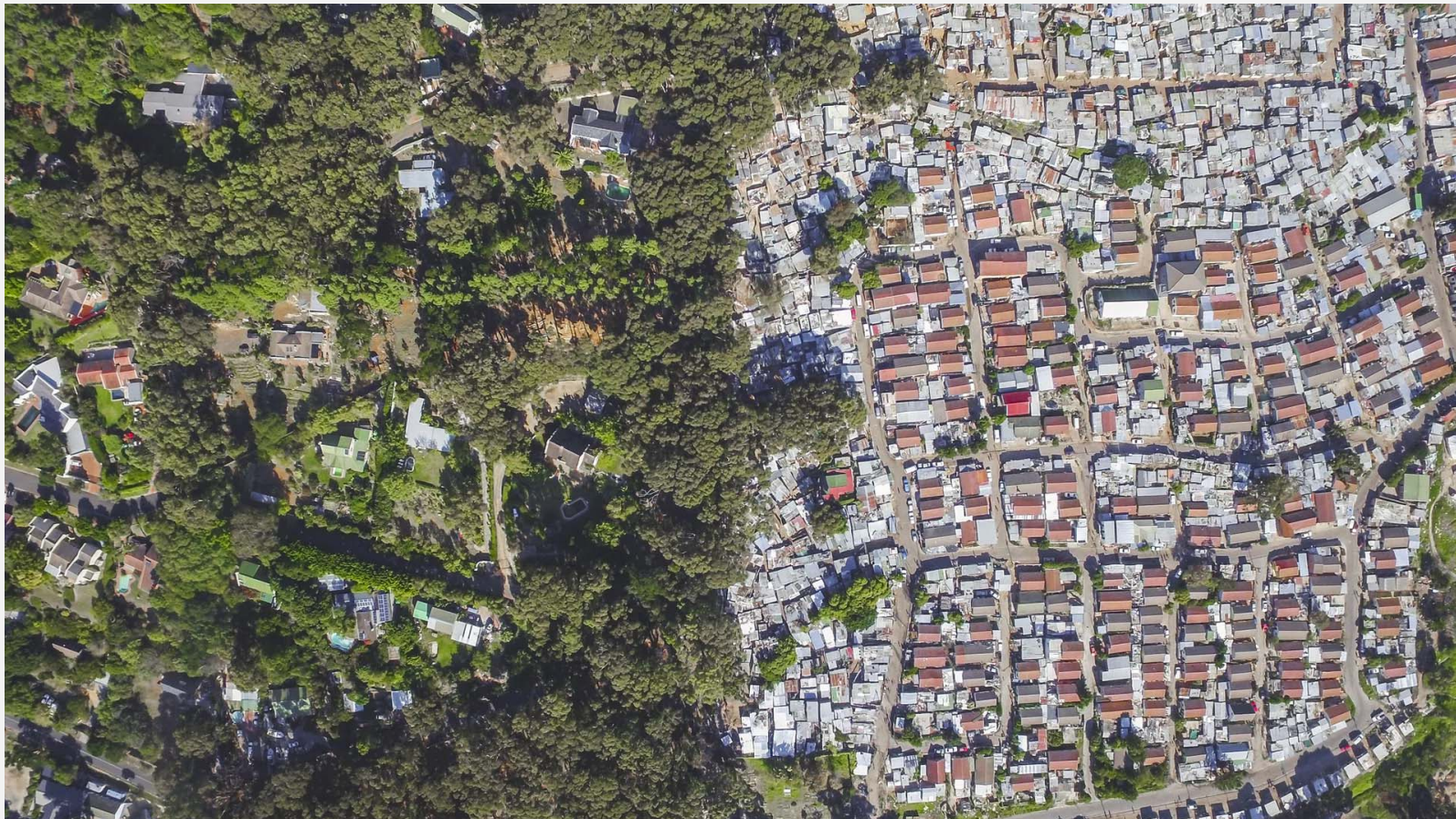
Exposure

- Who and/or what is at risk to the hazard?
- People, property, livelihoods and food, infrastructure, etc.

Vulnerability

- Sensitivity to exposure and hazard
- Many approaches – top down and bottom up
- Increasing recognition of need to look at underlying “structural” drivers

Same exposure, different vulnerability



Hout Bay/
Imizamo Yethu
Cape Town

Measuring and analysing social impact

Exposure

- Who and/or what is at risk to the hazard?
- People, property, livelihoods and food, infrastructure, etc.

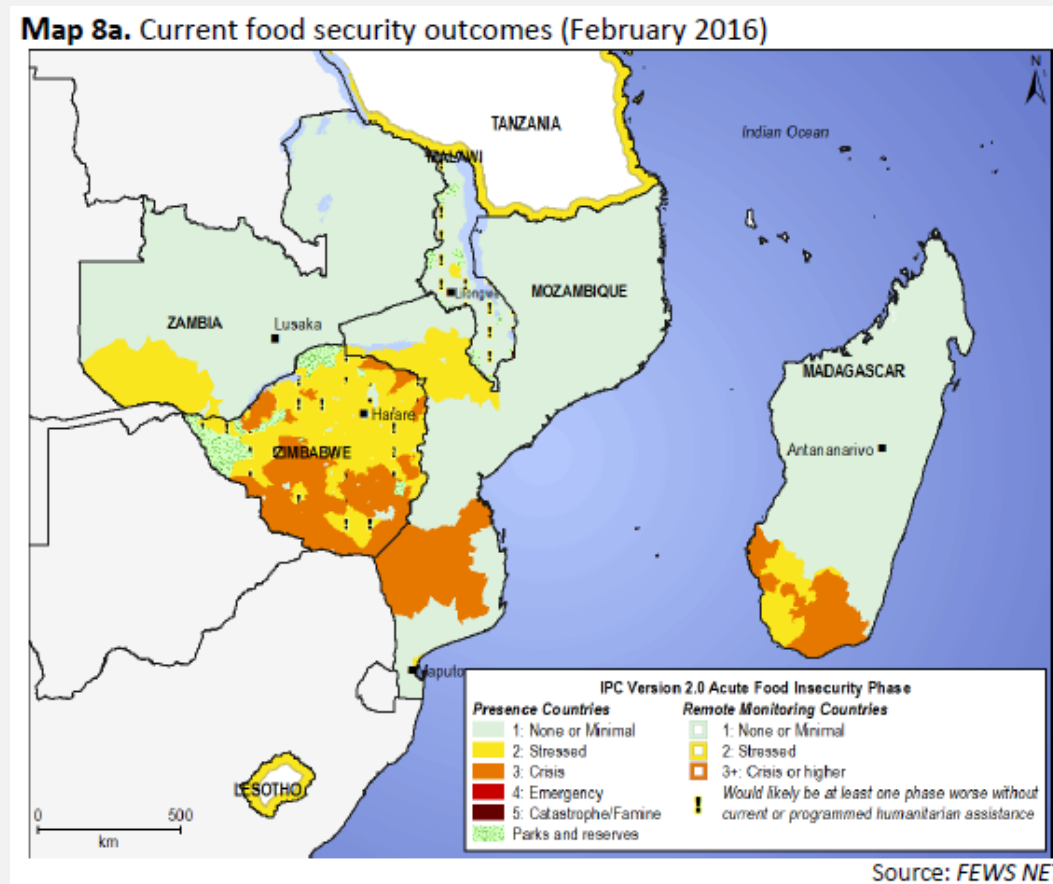
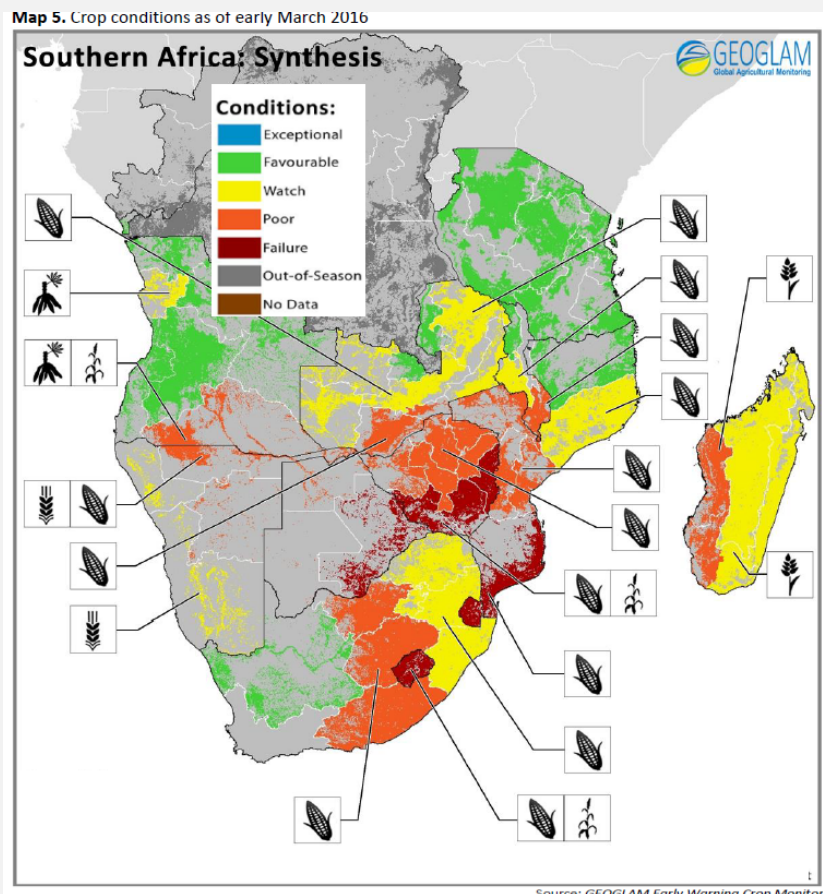
Vulnerability

- Sensitivity to exposure and hazard
- Many approaches to assessing – top down and bottom up
- Increasing recognition of need to look at underlying “structural” drivers

Social Impact

- For a given hazard, varies by exposure and vulnerability

Example: Southern Africa 2015-2016





Thank You

Drone footage provided by Appeaning Addo & Sam Codjoe, University of Ghana