UNFCCC Expert Meeting to Consider Future Needs, including capacity needs with possible approaches to address Slow Onset Events (SOE)

Understanding Future Needs: Current Approaches to Addressing Different Types of SOE and their Impacts

Addressing Slow Onset Events at the National Level, Government of Fiji.

September 11th, 2013
Sheraton Fiji

Presentation Outline

- Slow Onset Events – Cancun Agreements

- Slow Onset Events and their Impacts
  - Increased Temperature
  - Sea Level Rise
  - Rainfall Changes
  - Extreme Events
- Addressing Slow Onset Events
- What Fiji is Doing?
- Early Warning
- Future Needs

Slow Onset Events

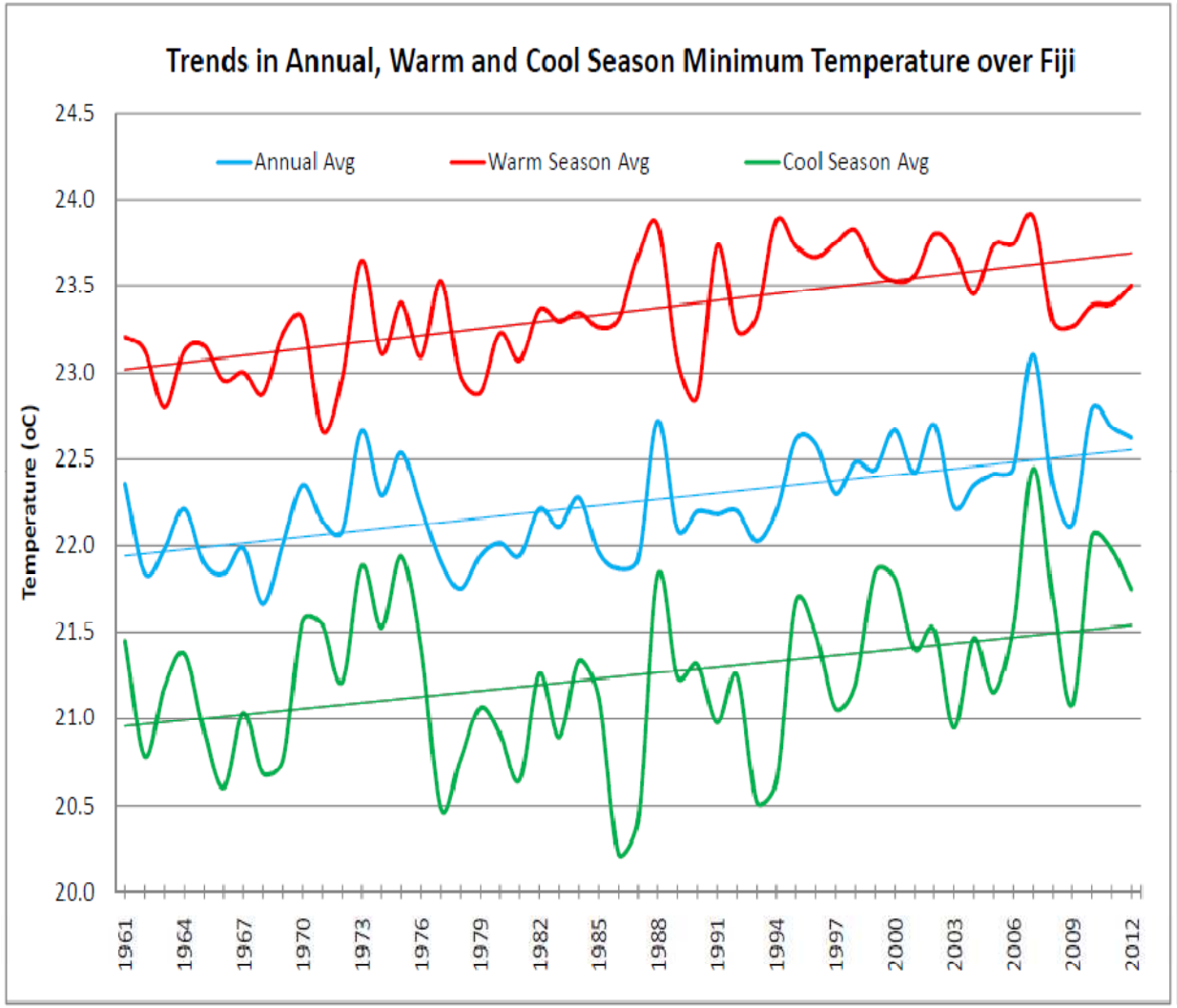
- According to the Cancun Agreements, the decision 1/CP.16 “recognizes the need to strengthen international cooperation and expertise in order to understand and reduce loss and damage associated with the adverse effects of climate change, including impacts related to extreme events and slow onset events.

- Slow onset events include: the Sea Level Rise, increasing temperatures, ocean acidification, glacial retreat and associated impacts, salinization, land and forest degradation, loss/changes in biodiversity and desertification.

Slow Onset Events

- Slow Onset Events (SOEs) are not a future Event they are already happening and are having a significant and devastating impact on Economies and livelihoods in Fiji
- Impacting on multiple sectors
- Complex
- Exacerbate and intensify extreme events
- Undermining international development and increasing poverty
- Extremely costly and growing
- SOEs can sometimes seem 'silent' but they are deadly
- Key to this is "Urgency"

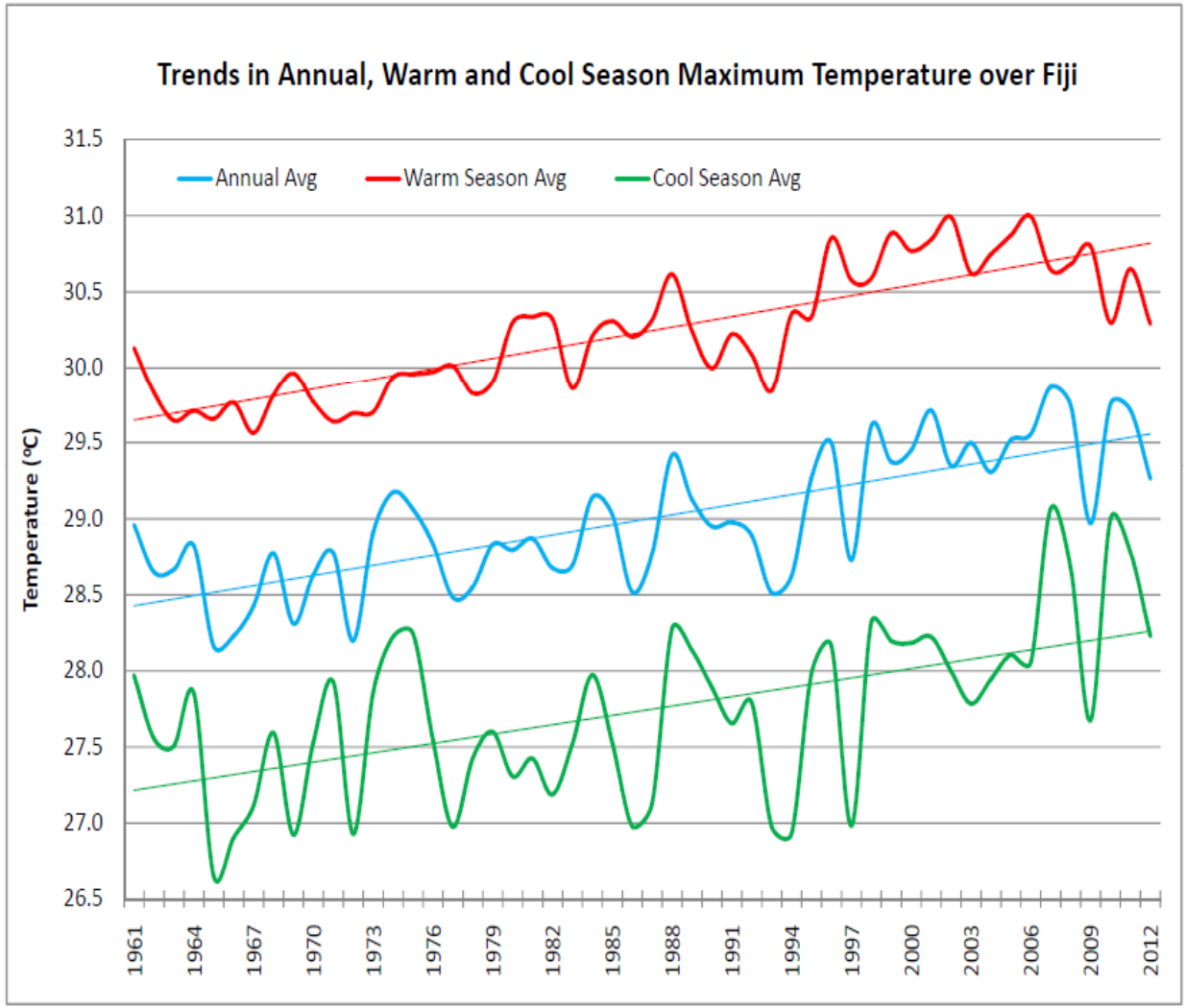
Increased Temperature



- Fijian temperature trends paralleled observed global warming over the past 50 years, and are projected to continue tracking global temperature over the 21st Century

- At the 2.0 C global warming threshold, average annual temperatures in Fiji would be roughly 0.5C warmer compared to the 1.5C threshold- perhaps more so at specific locations

Air Temperature Increases

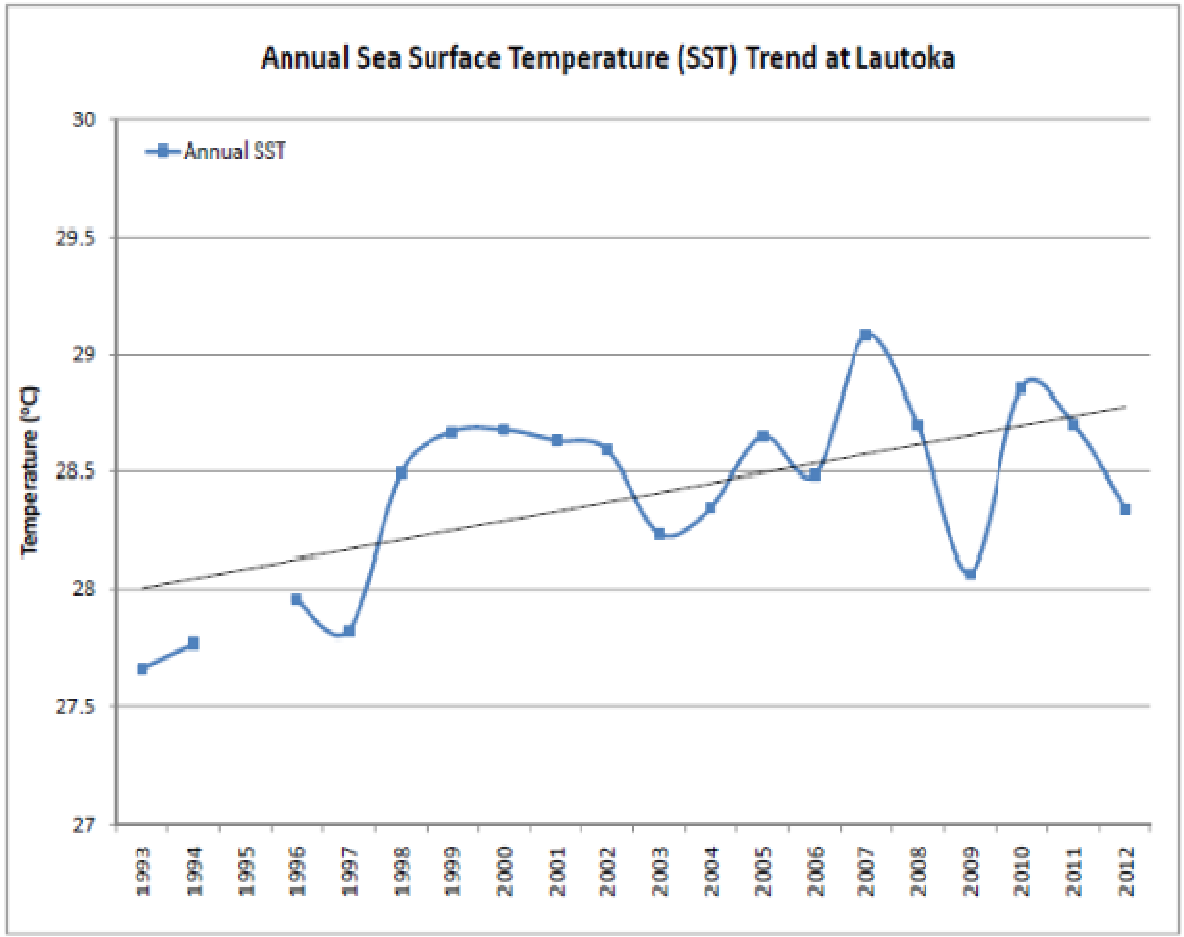


- Consistent with the global pattern of warming, the mean air temperature has warmed by 0.52°C (0.01°C/year or 0.1°C/decade) over the last half century.

- minimum air temperature increased by 0.62°C

- maximum air temperature *has increased by* 1.15˚C

Sea Level Change



IPCC projections and forecast:

1.5-2m SLR by 2100

For the last 20 Years:

6mm/year

AR5???

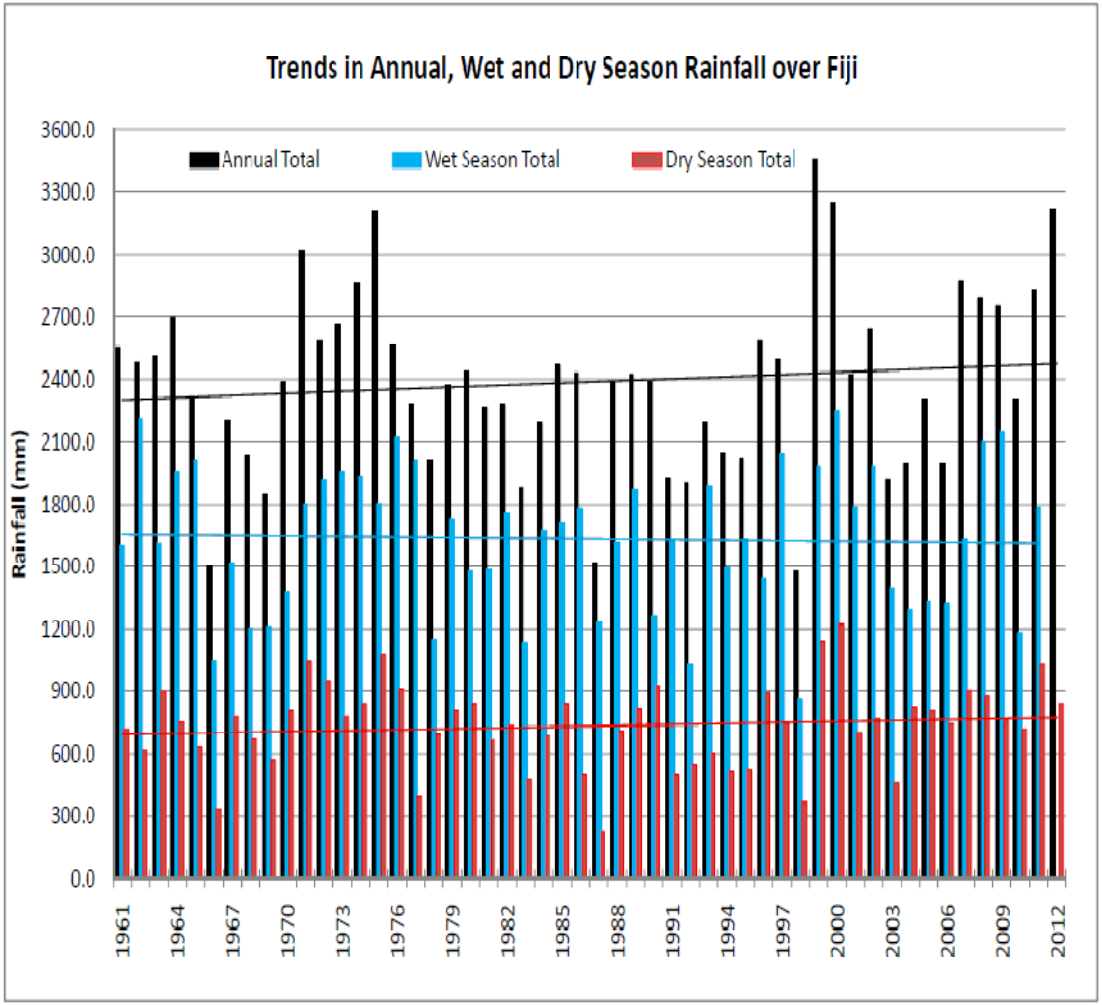
Sea Level Rise

- Impact of tropical storms, hurricanes/cyclones on coastlines, even at present levels, will be intensified as sea level rises;

- SLR will continue for centuries after 2100, even if global temperatures are stabilized at 1.5˚C or 2.0˚C;

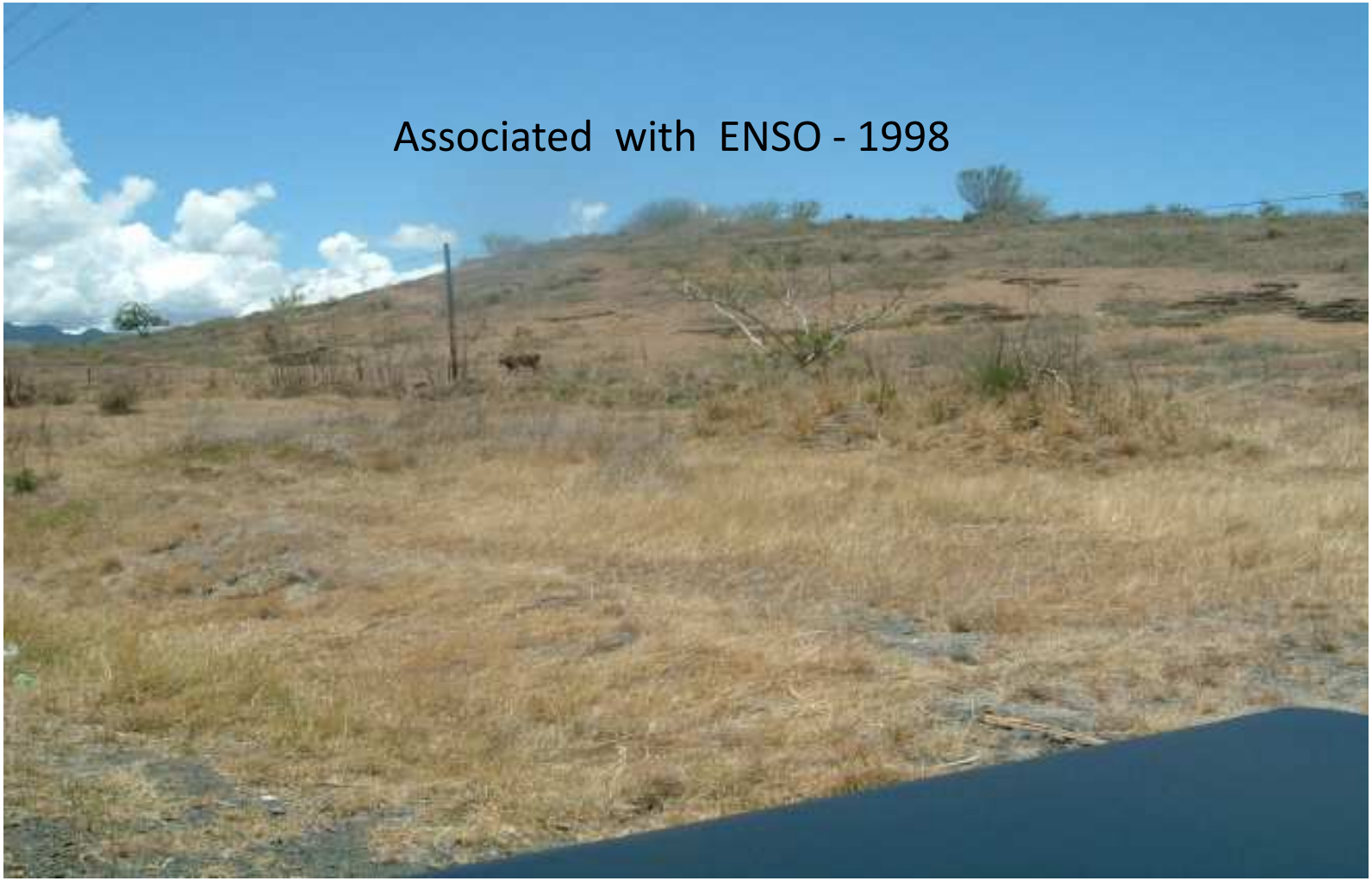
- Impacts of sea level rise in Fiji include loss of livelihoods, reduction in agricultural productivity, loss of traditional & customary land, coastal inundation & erosion and displacement and or migration;

Change in Rainfall



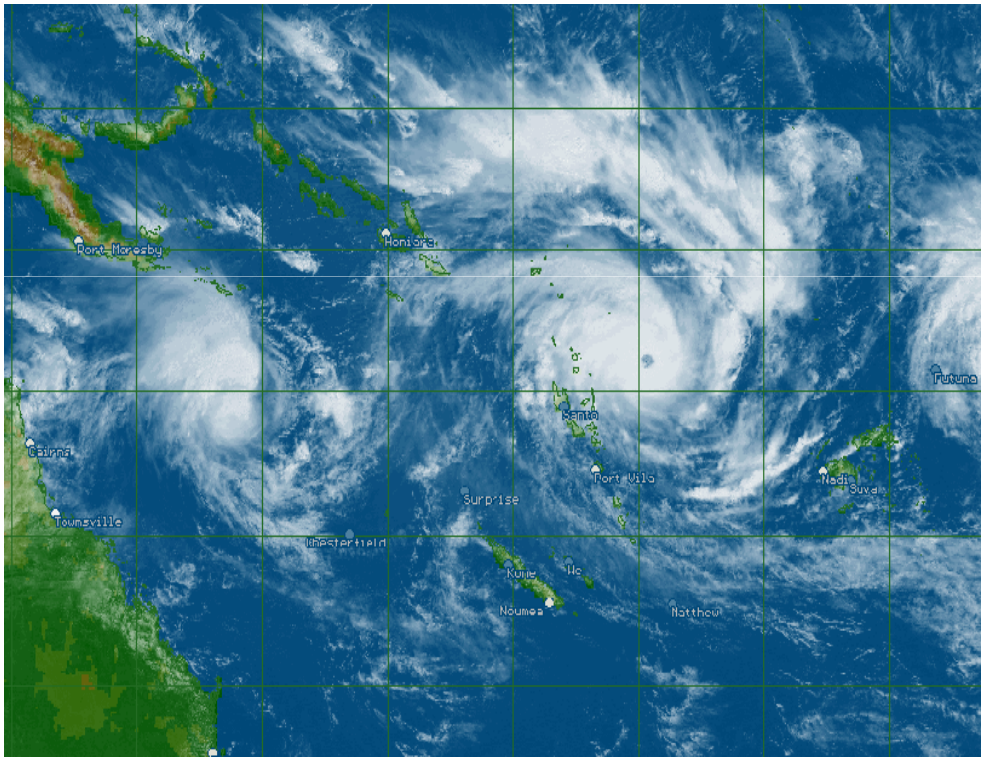
- An annual increase of about 3.39mm/year (approximately 0.14%/year) is observed from 1961 to 2012 period;
- There is a weak decreasing linear trend in the wet season rainfall with a seasonal decrease of 0.87mm/season (approximately 0.05%/season);
- There is a weak increasing linear trend in dry season rainfall with a seasonal increase of about 1.57mm/season (approximately 0.21%/season).

Extreme Events - Droughts



Extreme Events - Floods

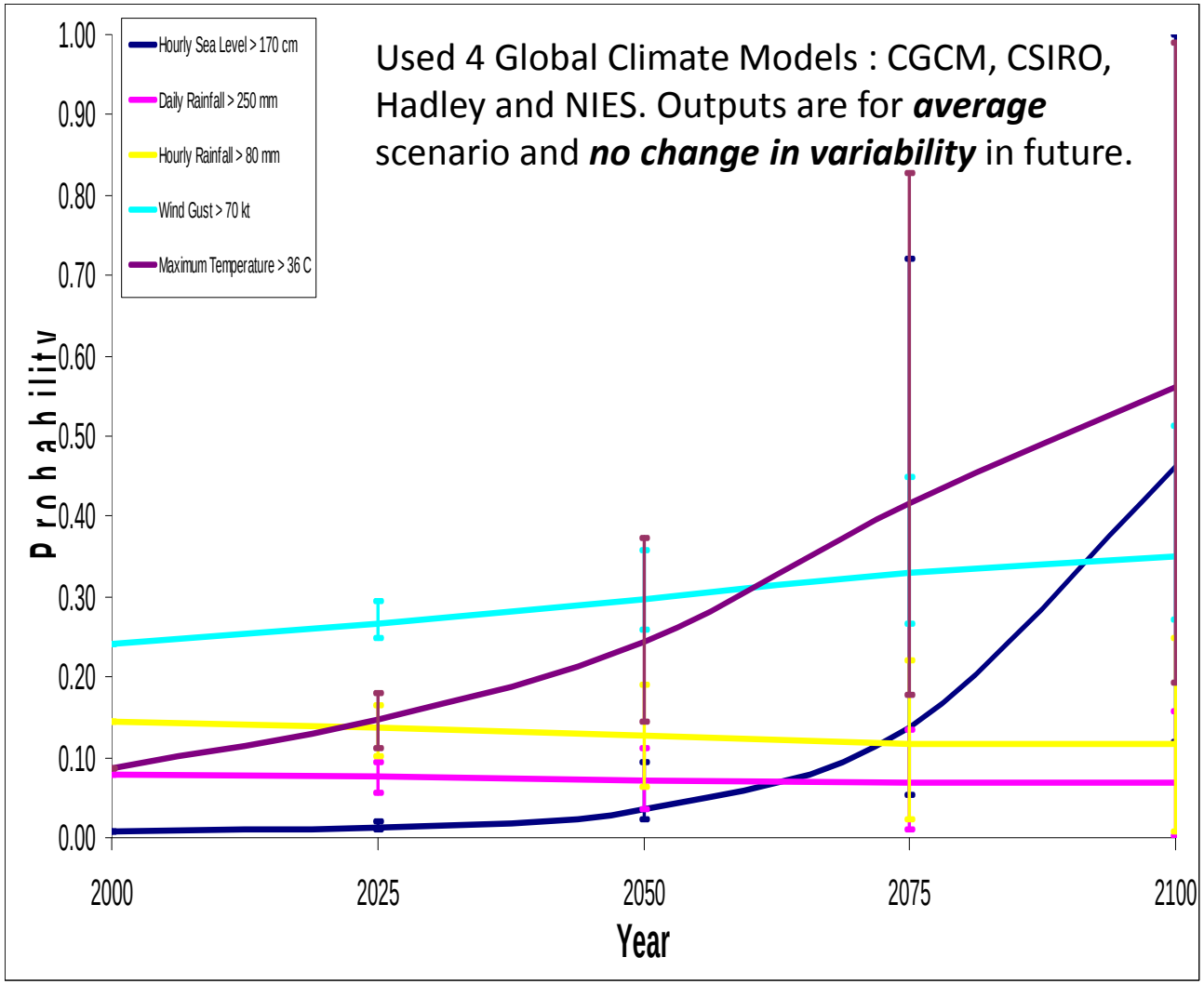
Extreme Events – Tropical Cyclones



Extreme Events
Tropical Cyclones & Storm Surges

Addressing Slow Onset Events

- Prepare effectively
- Increase Capacity
- Transfer and Share Risk



Addressing Slow Onset Events

Prepare Effectively such as:

- Understanding, Awareness and Communication
- Long Term Planning
- Monitoring and Forecasting
- Data Collection, Collation and Sharing
- Integrated learning (community, private and public)
- Land use zoning, setbacks and restoration
- Land suitability and adaptive agriculture
- Evacuation and resettlement plans
- Land reclamation and land elevation raising
- Integrated management of land and water

Addressing Slow Onset Events

Increase capacity

- Improved knowledge and skills
- Institutional
- Human
- Technical
- Financial
- Cross-ministerial, inter-sectoral, multi-disciplinary
- Flexibility in decision making
- Adaptive learning and Adaptive management
- Systems transformation over time
- Resilience

Addressing Slow Onset Events

Transfer and Share Risk

- Investigate financial and index-based approaches
- Insurance (micro, macro and regional) ?
- Sustainable finance mechanisms across sectors
- Regional Centres of Excellence
- Adaptive governance mechanisms
- Hybrid approaches (reduction, retention, sharing and transfer)

What Fiji is Doing?

- Strengthening disaster risk reduction capabilities
- Institutional strengthening (FMS, NDMO & other key agencies)
- Integration of DRR and CC
- National Climate Change Policy
- Relocation Policy (addendum)
- Post disaster recovery through damage and loss assessment (economic & non economic)

Early Warning Systems

- Tropical Cyclone Alerts and Warning
- Flood Warning
- Meteorological & Hydrological Droughts
- Heavy Precipitation Warning

Future Needs

- Need to establish scientific basis for loss and damage in terms of climate change induced impacts;
- Case studies and trial applications of tools and methods;
- Tangible and non-tangible valuation of loss and damage, using multi disciplinary approaches;
- Enabling financing mechanisms to address loss and damage;

Vinaka.