



**Asia-Pacific
Economic Cooperation**

2018/SOM1/EPWG/015

Agenda Item: 11.5

Update on El-Nino in Papua New Guinea

Purpose: Information

Submitted by: Papua New Guinea



**13th Emergency Preparedness Working
Group Meeting
Port Moresby, Papua New Guinea
24-25 February 2018**



13th Emergency Preparedness Working

Group

El Niño in Papua New Guinea

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PNG National Weather Service

Scope

- 2015/2016 El Niño Impacts
- Early Warning of El Niño 2017
- Downscaled Country-level Risk Assessment
- El Niño Preparedness Planning
- Policy Implications



2015/2016 El Niño

- 2015/2016, Papua New Guinea experienced a severe El Niño event leading to drought and frost affecting **40% of the population**
- Severe food and water insecurity
- Response cost: at least **\$85 million**
- Economic impacts:
 - Suspension of **mining operations**
 - Destruction of **cash crops**
 - Depletion of **personal savings**

JIMMY MALADINA FREE AFTER 11 YEARS
JUDGE SUSPENDS SENTENCE > PAGE 3

PNG PLANE CRASH FIND SETS NEW PRACTICE
NEW SYSTEM FOR GLOBAL AVIATION > PAGE 7

NO WEEKEND COURIER
Due to circumstances beyond our control, your Weekend Courier was not published today. We apologise. WE WILL BE BACK NEXT FRIDAY.

El Niño strikes



The impact of El Niño has fully developed and it is now being felt in many parts of the country.

The PNG National Weather Service, in its Seasonal Climate Outlook for the months of August and September 2015 stated that the El Niño event will continue into 2016 and might surpass the 1997/98 El Niño event. The forecast stated that, in Chimbu Province, there was no rainfall recorded apart from a few isolated showers. Goroka, the Eastern Highlands Province, is also experiencing dry spells.

East New Britain Province is also showing concerns as it is slowly feeling the impact of this weather phenomenon. Oil palm mining in the Western Province has already wound down operations and won't be resumed until early 2016. In Port Moresby, the drought is also evident, with high temperatures during the day and cooler temperatures at night. The windy conditions and much cooler night time temperatures are indicative of an El Niño event.

In the Western Highlands Province, there has affected one of its rich agriculture districts, the Tufi area, is reported.

According to the Seasonal Climate Outlook forecast, all El Niño events are different and their strength does not necessarily predict the kind of impact it will have on the country.

"From past experience, we are aware that the 1997/98 El Niño event was the strongest to occur. However, this El Niño event is quite unique. The manner in which it is developing and strengthening has the potential of surpassing the 1997/98 El Niño event. If this is going to happen, then the worst case scenario is that the whole country will be drastically affected," it stated.

El Niño events, once developed, tend to take more than 10 months before it dissipates. It is therefore very crucial that we have awareness and preparation should event transpire by now so that we allow our resources from the hard-earned.

It is recommended that the crop losses and losses incurred from the 1997/98 El Niño event should be used as a guide to prepare ourselves for this natural climate variability.

SEE RELATED STORIES:
PAGE 4 - National Disaster Centre says no funds to help
PAGE 5 - Dry spell west in Morobe and Bougainville



Destroyed Food Gardens
Kandep, Enga Province
August 2015

OK Tedi Mining Ltd suspends operations

August 13, 2015, 12:58 am



OK Tedi Mining Ltd suspends operations

By JEFFREY ELAPA

THE Ok Tedi mine, the world's third largest copper and gold mine, has suspended all operations as of yesterday.

A statement from the mine said that all Ok Tedi Mining Limited employees were advised that effective August 12, the company will start an orderly suspension of all operations as a result of continuing dry weather.

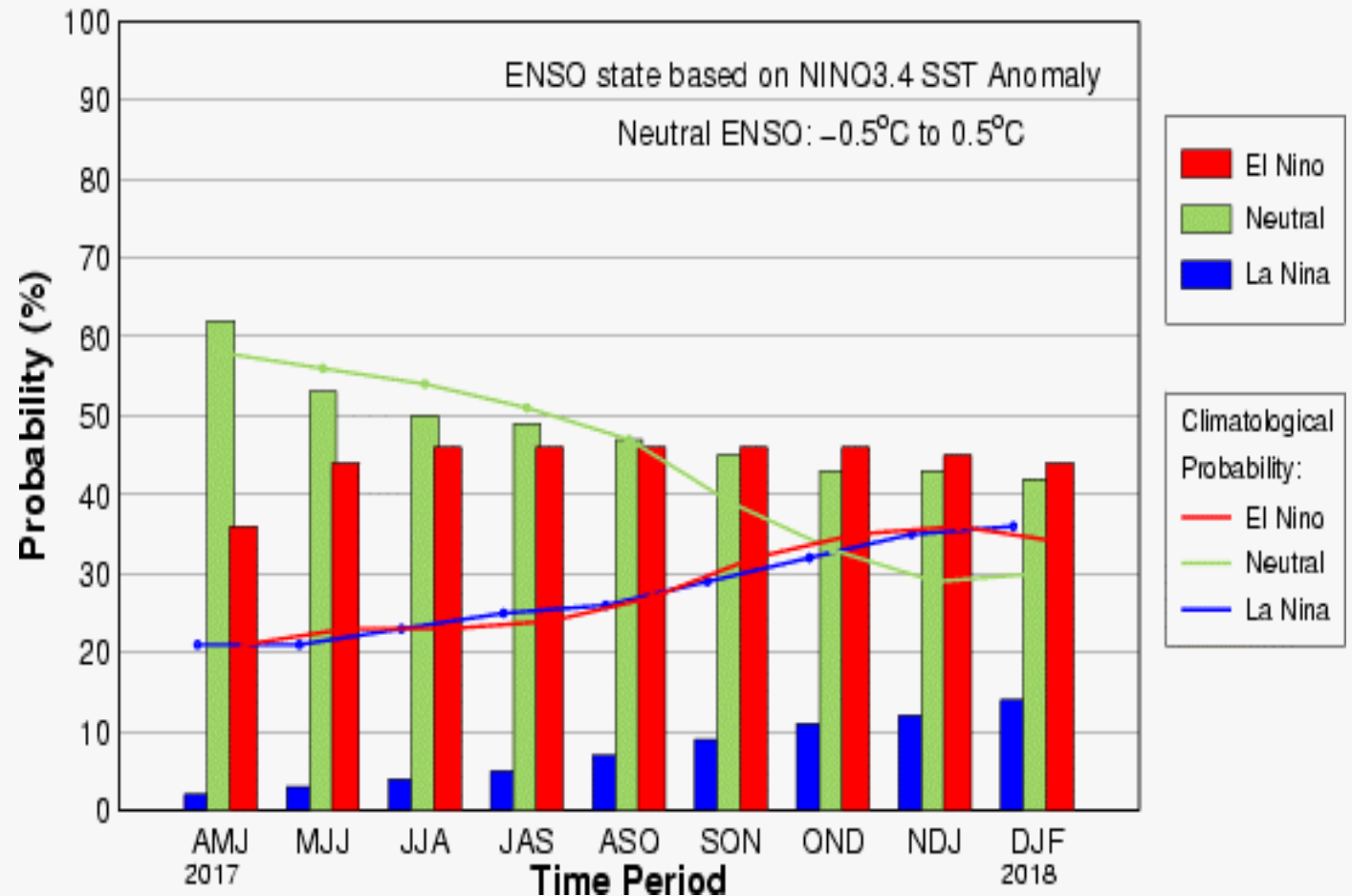
It stated that all employees, local businesses and contractors and the National and Provincial Governments and agencies

have also been advised of the likelihood of the decision during the past month.

The statement said almost all employees will be stood down and they will receive an allowance to help meet basic needs while employees who have been stood down will be repatriated to their homes as quickly as possible.

Early Warning of El Niño 2017

- In Apr/May 2017, projections of 60/70% probability of a El Niño in 2017



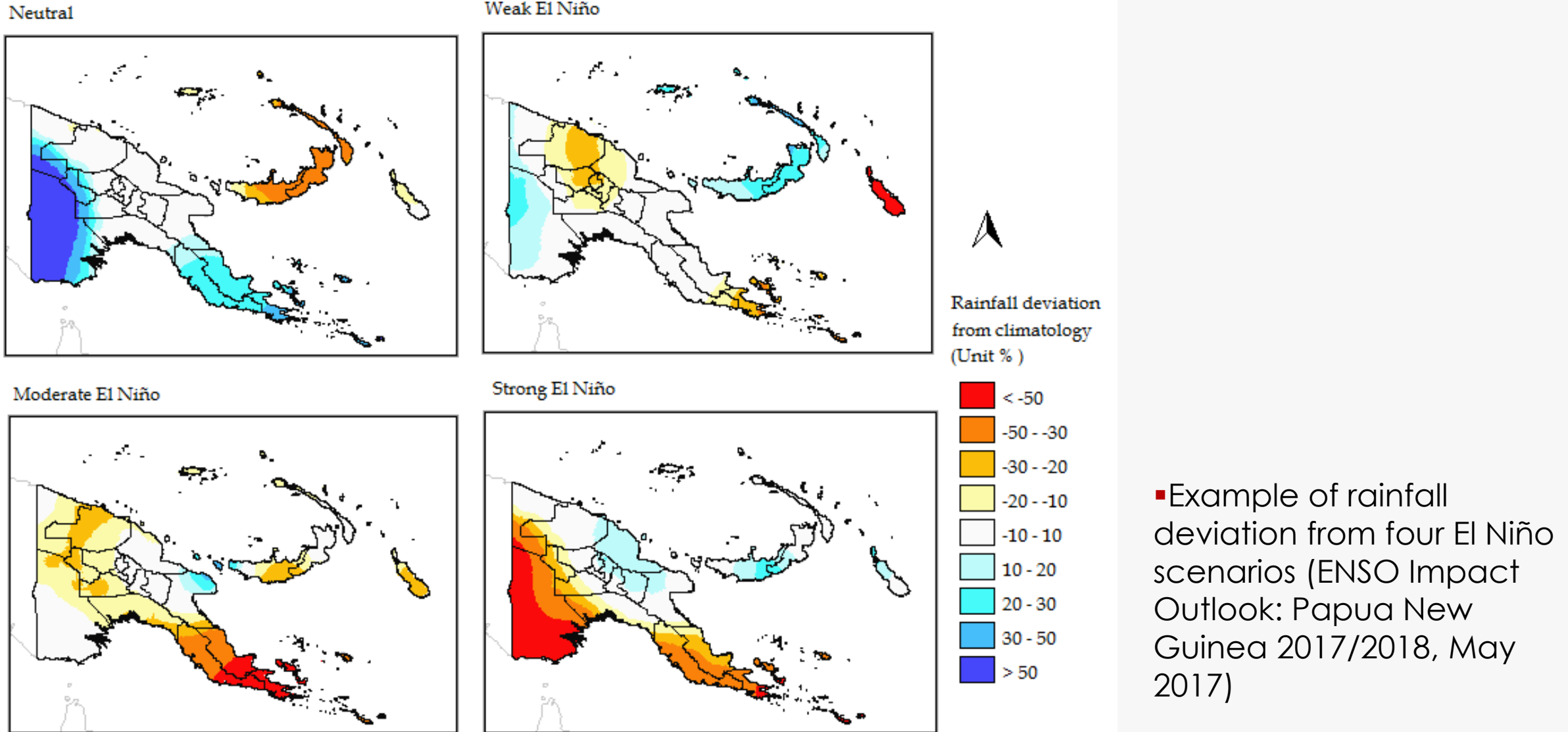
Downscaled Country-level Risk Assessment



- Adaptation of El Niño Risk Assessment methodology
 - ① Review of existing El Niño forecasts
 - ② El Niño Characterization
 - ③ Assessment of Changes in probability of extremes in Asia-Pacific region
 - ④ Assessment of Likelihood of Extreme Events within the Country
 - ⑤ Assessment of Bio-Physical Impacts
 - ⑥ Assessment of Socio-Economic Impacts
 - ⑦ Assessment of Likelihood of Extended Impacts vis-à-vis livelihood recovery
 - ⑧ Communicating Risks

Extracted from Assessment of El Niño Associated Risks – The Step Wise Process (jointly developed by RIMES, UN ESCAP and UNDP)

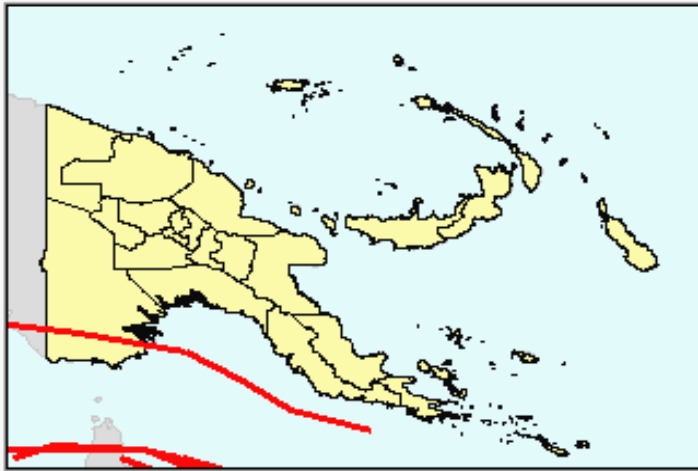
Downscaled Country-level Risk Assessment



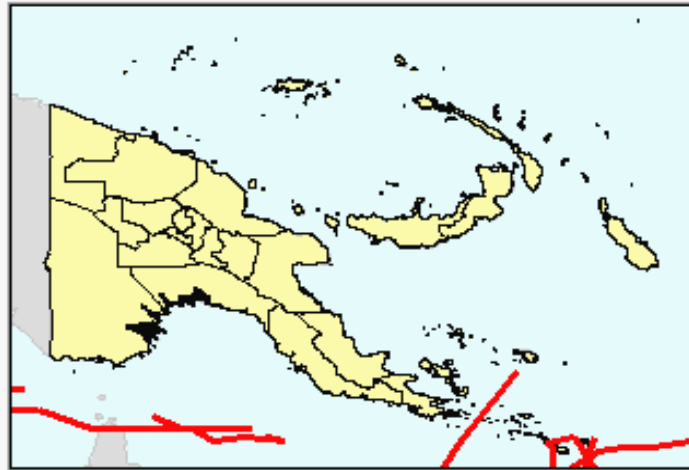
Downscaled Country-level Risk Assessment



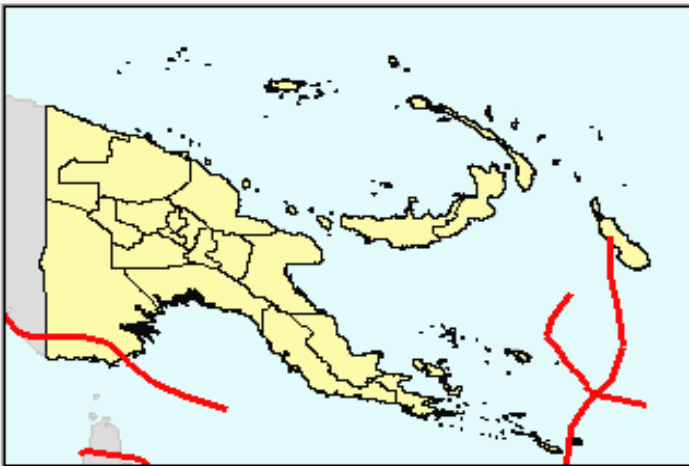
Neutral



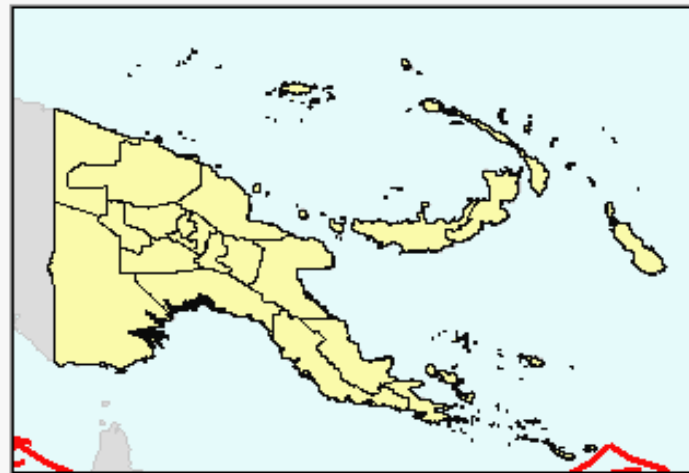
Weak El Niño



Moderate El Niño



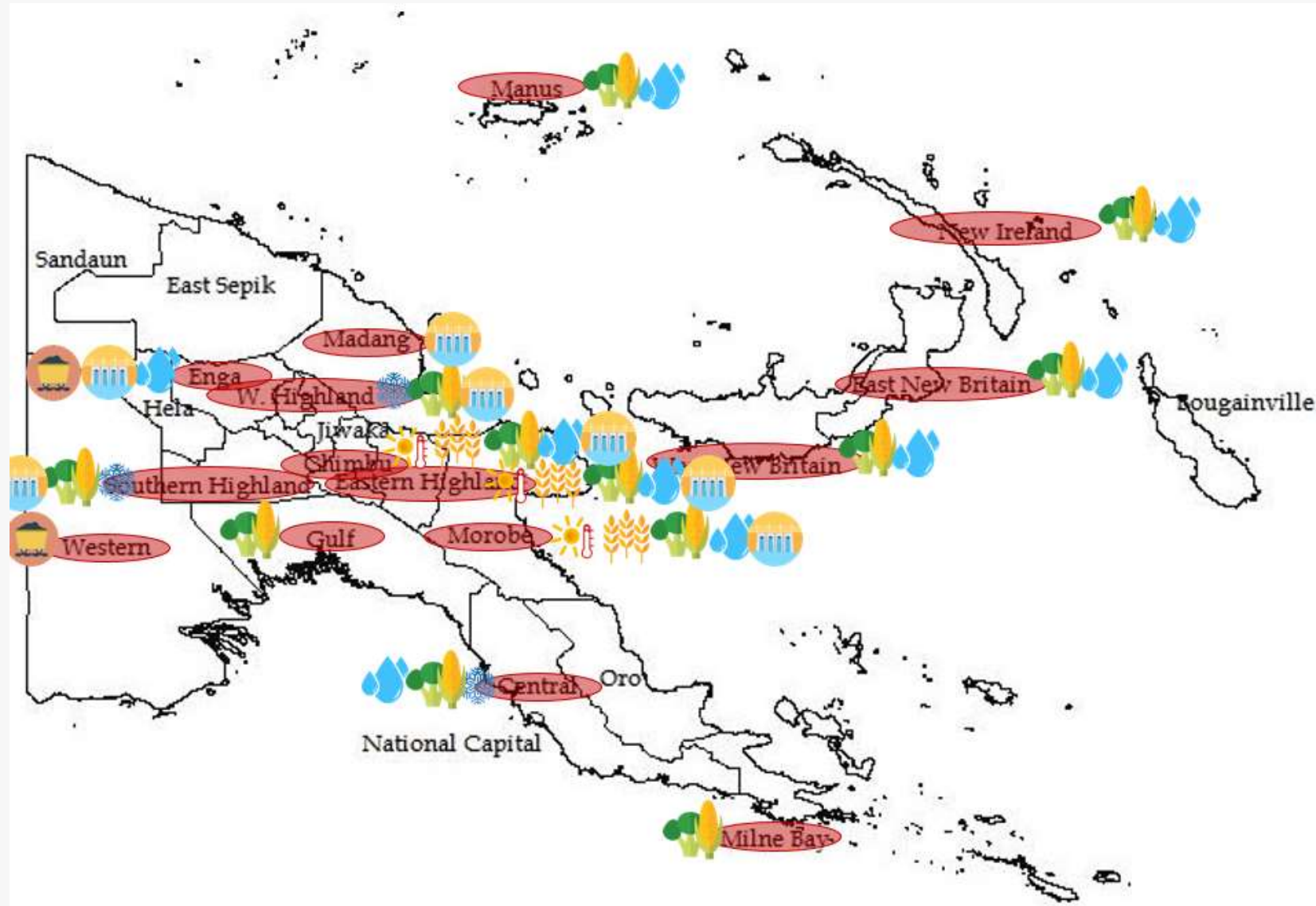
Strong El Niño



— Cyclones crossing during analogue years

- Example of cyclone crossing from four El Niño scenarios (ENSO Impact Outlook: Papua New Guinea 2017/2018, May 2017)

Downscaled Country-level Risk Assessment



- Example of biophysical impacts during strong El Niño (1997-98; 2015-2016) (ENSO Impact Outlook: Papua New Guinea 2017/2018, May 2017)

El Niño Preparedness Planning

- Focused on identifying **food and water security risks** in high-risk locations
- **Whole-of-country approach** including government & development/humanitarian partners
- Informed by **global/regional early warning systems** as well as **down-scaled country-level risk assessments**
- **Preparedness Action Plan** included key priority actions focused on addressing food and water security risks coupled with a strong emphasis on communication and information awareness.

El Niño Preparedness Planning

SECTORAL ACTIVITIES

FOOD AND NUTRITION SECURITY

The main risk management priority is to ensure that existing household-level food production and storage capacity is reinforced and strengthened with appropriate agricultural and food preservation interventions.

Early Action

- Support expanded access to extension services, including:
 - Adaptive farming practices.
 - Irrigation.
 - Promotion of cash and alternative food crops.
- Strengthen seed multiplication and breeding stock (livestock/aquaculture/fisheries) multiplication capacity of national agricultural resource centres.
- Distribute drought tolerant crops and support seed multiplication and distribution.
- Promote techniques for processing and preservation of food crops.
- Increased access to markets, and support food exchange and barter systems between areas – e.g. islands and mainland.
- Improved access to cash through diversified livelihood.
- Develop other response mechanisms including provision of credit, grants (cash or in-kind) through labour-based public works.
- Use community structures for promotion of appropriate infant and young child feeding, including the protection of breastfeeding.
- Capacity building of FSC partners in information management training supported by regional Pacific Food Security Cluster.
- Strengthen national agricultural resource centres' capacity to provide DRM/DRR trainings to provincial/district officers and model farmers.
- Training of Provincial Agriculture Advisors and District Rural Development Officers in Emergency and Disaster Risk Management/ Risk Reduction assessment tools.
- Promote 'nutrition-sensitive agriculture through advocacy/awareness of food crops with nutritive value that can be substituted for protein/ vitamins.

Preparedness

- Standardisation of food baskets (food types, food specifications).
- Coordinate with other sectors/clusters to include micronutrient powders (MNPs) and water purification tablets in food basket.
- Agreement on approach to targeting, with a focus on improving nutritional situation of children and vulnerable groups.
- Establishing agreements with rice and tinned fish producers on preferential terms for procurement of relief items.
- Mapping of potential suppliers in provinces with robust supply chain for food basket items, with a focus on locally grown suppliers.
- Establishing logistics coordination with private sector to support with delivery of relief items.
- Coordinate with other sectors/clusters to co-utilise relief distribution system, particularly WASH and Nutrition.

Response Action

- Distribution of expanded food basket with, minimally, fortified rice, oil and tinned fish or other protein sources.
- Distribution of micronutrient powder and ready-to-use therapeutic foods to children and those vulnerable to malnutrition.

- Complemented by **El Niño Early Action Plan** by humanitarian partners to support government priorities.
- El Niño Early Action Plan integrated both **disaster risk management** and **emergency response preparedness** actions under a broad Early Action approach.

Policy Implications

- El Niño Preparedness and Early Action plans converted to **contingency plans**.
- Planning exercise contributed to overall **improved preparedness** especially at the sub-national level
- Demonstration of “**no regrets**” **approach** to Early Action for disasters
- Reinforced imperative of **country-specific multi-hazard early warning system** to support risk-informed decision making

