



Flooding due to heavy rainfall in Vanuatu

CURRENT FORECAST: VANUATU AND A CHANGING CLIMATE

From rising temperatures to rising sea levels and resulting storm surges, Vanuatu faces the effects of a radically shifting climate, like its neighbours in the Pacific region. Vanuatu has worked in partnership with the international agencies to bring innovation to scale, blending technology and education to prepare and safeguard the country from the impacts of climate change now and in the coming years.

Home to some 260,000 residents, the remote archipelago nation constitutes 82 volcanic islands, many of which sit just 0.9 meters (3 feet) above sea level. Spread across more than 1,280 kilometers (800 miles) of sea, the country's isolation makes communication a challenge when confronted with devastating weather events resulting in tropical cyclones seen in recent years.

Table 1:

Projected annual average air temperatures changes for Vanuatu for three emissions scenarios and three time periods. Values represent 90% of the range of the models and changes are relative to the average of the period 1980-1999.

	2030 (°C)	2055 (°C)	2090 (°C)
Low emissions scenario	0.2 – 1.0	0.5 – 1.5	0.7 – 2.1
Medium emissions scenario	0.3 – 1.1	0.8 – 2.0	1.3 – 3.1
High emissions scenario	0.4 – 1.0	1.1 – 1.7	2.0 – 3.2

(Extracted from Pacific Climate Change Science Program, 2011)

DEPARTMENT OF CLIMATE CHANGE GOVERNMENT OF VANUATU

THE IMPACTS OF CLIMATE CHANGE IN VANUATU



Planting of vetiva grass and pandanus leaf to reduce impact of beach erosion in Sola, Vanualava Island (Photo: TVET)

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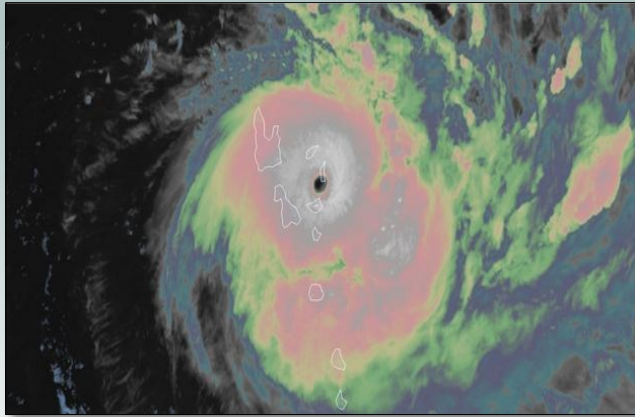
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“Working Together for a Resilient Vanuatu”



Tropical Cyclone Harold path through Vanuatu

THE IMPACTS OF CLIMATE CHANGE

1. THE CHANGING CLIMATE IN VANUATU:

For Vanuatu, the impact of climate change comes in many forms. By 2030, temperatures will increase in Vanuatu by up to 1° Celsius (33.8° Fahrenheit) per year.

The sea level has risen by 6 millimeters (0.2 inches) per year since 1993, and will continue to rise to reach up to 18 centimeters (7 inches). At the same time, extreme rainfall events will grow in frequency and intensity, increasing the resulting damages spurred by cyclones, storm surges, landslides, flooding and droughts.

Cyclones will be less frequent, but more severe, endangering the country's economy and the population's livelihood. Root crops, such as sweet potatoes and plantains, provide food and income for more than 70 percent of Vanuatu's majority-rural population. But changing rainfall patterns cause damage to seedlings and soil and cause contamination of the environment in which crops grow.

2. THE FUTURE CLIMATE PROJECTIONS FOR VANUATU:

- El Niño and La Niña events will continue to occur in the future, but there is little consensus on whether these events will change in intensity or frequency.
- Annual mean temperatures and extremely high daily temperatures will continue to rise in the coming years.
- Mean annual rainfall could increase or decrease with the model average indicating little change, with more extreme rain events is projected.
- Incidence of drought is projected to decrease slightly under the high emission scenario and stay approximately the same under the other emissions scenarios.
- Sea level will continue to rise and will affect many of our low lying islands in future.
- Ocean acidification will continue, threatening the health of islands' reef ecosystems.
- The risk of coral bleaching is expected to increase in the coming years and will likely to destroy our coral reefs.
- More extreme rainfall will be experienced in the wet seasons and less rainfall in the dry seasons.
- Tropical cyclones are projected to be less frequent but will be more intense in future.

(Current & Future Climate of Vanuatu, Pacific Climate Change Science, 2016)

HOW THE GOVERNMENT IS ADDRESSING THE IMPACTS OF CLIMATE CHANGE

The national government is working across government agencies and in partnership with international organisations as Vanuatu has adopted a broad range of in-country measures to protect the country's future.

The Vanuatu Climate Change and Disaster Risk Reduction Policy 2016—2030 convenes partners across the government, private sector, civil society and international agencies to direct the country's climate-change and risk-reduction efforts. In partnership with programs such as the Coping with Climate Change in the Pacific Island Region, Vanuatu has activated sustainable practices to meet food production needs, all while encouraging efficient energy use to protect the country's land and marine environments.

Vanuatu is one of 43 nations on the Climate Vulnerable Forum and has been a vocal proponent in limiting temperature rise from global warming to 1.5° Celsius. The Paris Agreement on Climate Change seeks to limit temperature rise to 2° Celsius. Vanuatu ratified the Paris Agreement in April 2016.



Increased Coastal Erosion due to Tropical Cyclone