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4-23-2021

How is the Climate Crisis Impacting Fiji?

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How is the Climate Crisis Impacting Fiji?

Abstract

This case study provides an overview of three key threats that Fiji is facing due to the impacts of climate change. The degradation of coral reefs, threats to food security, and the challenge of relocating communities as a result of sea-level rise are all addressed. Coastal developments and warming seas are threatening coral reefs, immediate and drastic measures will need to be taken to protect such at-risk zones. Strict restrictions on coastal developments and renewable energy sources must be enacted. Seafood is the main source of protein for South Pacific nations such as Fiji, urgent action is needed to protect and recover declining fish populations. Expansion of sustainable fisheries and enforcement of Marine Protected Areas can aid in the effort to secure a viable food source for generations to come. Relocation of several villages is predicted, in order for these to be successful it will require significant community engagement, light-handed external support, and access to customary lands at higher elevations. These threats are evolving and will demand ongoing and thoughtful consideration to secure a prosperous future.

This student presentation is available at ScholarWorks: https://scholarworks.boisestate.edu/under_showcase_2021/63

Overview

The climate crisis is having a disproportionate effect on Small Island Developing States (SIDS) like Fiji. Climate change is threatening Fiji in three key ways; degradation of coral reefs, declining fish stocks are threatening food security, and sea level rise demands relocation of at risk communities.

How is the Climate Crisis Impacting Fiji?

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ENVSTD 420 - Debates on Global Environmental Change: The Ocean
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Summary of Literature

- *"Chronic threats to coral reefs are man made, local, and continuous they include overfishing, coastal development, sedimentation, and nutrient enrichment"(Sykes and Morris, 2009).*
- *"Acute threats to coral reefs are global and more severe but may allow for recovery in-between events such as rising temperatures, cyclones, and predation"(Sykes and Morris 2009).*
- *"Climate change is expected to place substantial stress on the capture fisheries and aquaculture sector of Fiji and result in reduction of coastal subsistence fisheries under business-as usual scenarios"(Dey et al., 2016).*
- *"Senior government official Alipate Bolalevu, says more than 60 villages across Fiji have been identified as threatened by rising sea levels - more than 40 settlements are expected to be relocated within the next 10 years"(Piazza, 2015)*

Areas in red have been relocated due to rising sea levels.

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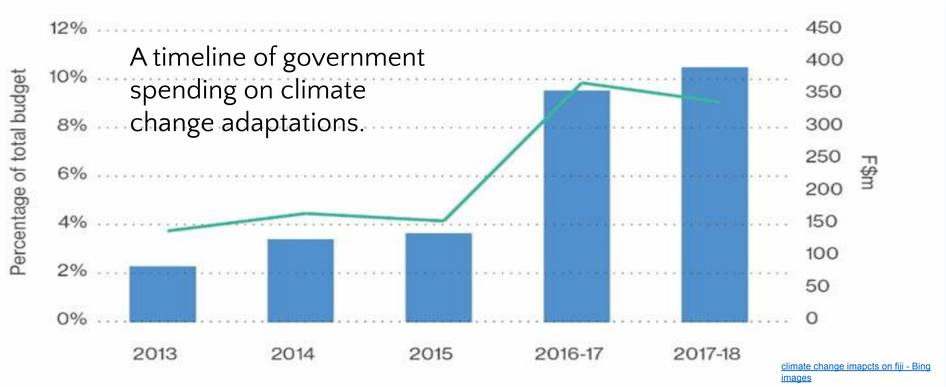
Findings/Discussion

The research indicates that despite the minimal contribution to greenhouse gas emissions emitted by Fiji (and other) small island nations, they are the most heavily impacted by climate change. Coral reefs are bleaching and being threatened by predators at an alarming rate. Food security is being threatened by rising temperatures, ocean pollution from coastal development and agriculture, as well as overfishing. Rising sea levels and increased frequency of storm surges are forcing communities to relocate. The Fijian Government is leading the way in climate action and adaptation for all Small Island Developing States.



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Conclusions/Solutions

Although the coral reefs have fallen victim to bleaching and disruptions from coastal developments sections of Fiji's reefs are showing resilience.

➔ *The key to slowing down coral reef loss is to tighten restrictions on coastal developments and reduce global greenhouse gas emissions by employing more solar and wind energy.*

Declining fish stocks are a local and global problem - sustainable fishing practices need to be enforced. Three potential adaptation strategies are predicted to stabilize both coastal and ocean populations:

1. *Expansion of aquaculture will bolster local food supplies.*
2. *Marine Protected Areas have proven to be ecologically effective, particularly in no catch zones.*
3. *Locally Managed Marine Areas allow habitat and resources to recover while strengthening local communities.*

A successful community relocation was carried out in 2017 after a seawall failed. Key attributes for relocation include:

1. *Strong role of the local community in relocation efforts.*
2. *External support from organizations to initiate new industries.*
3. *Ability to relocate to lands that are within their customary boundaries.*

Successful adaptations can be made when a balance is struck between community engagement and authentic leadership that is supported by sound and ongoing scientific research.

Why I chose this topic

I chose to focus on Fiji because of the unique vulnerability the nation exhibits to the effects of climate change as well as their leading role in climate action for other Small Island Developing Nations. The threats that Fiji is facing are significant. Food security, water access, receding lands, biodiversity and forest loss, and jobs and prosperity are all at risk. The adaptation models employed will shape the physical and political landscape for future generations.

Sources

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