

# Climate Change in the Pacific

## Challenges and opportunities for a low emissions climate resilient future

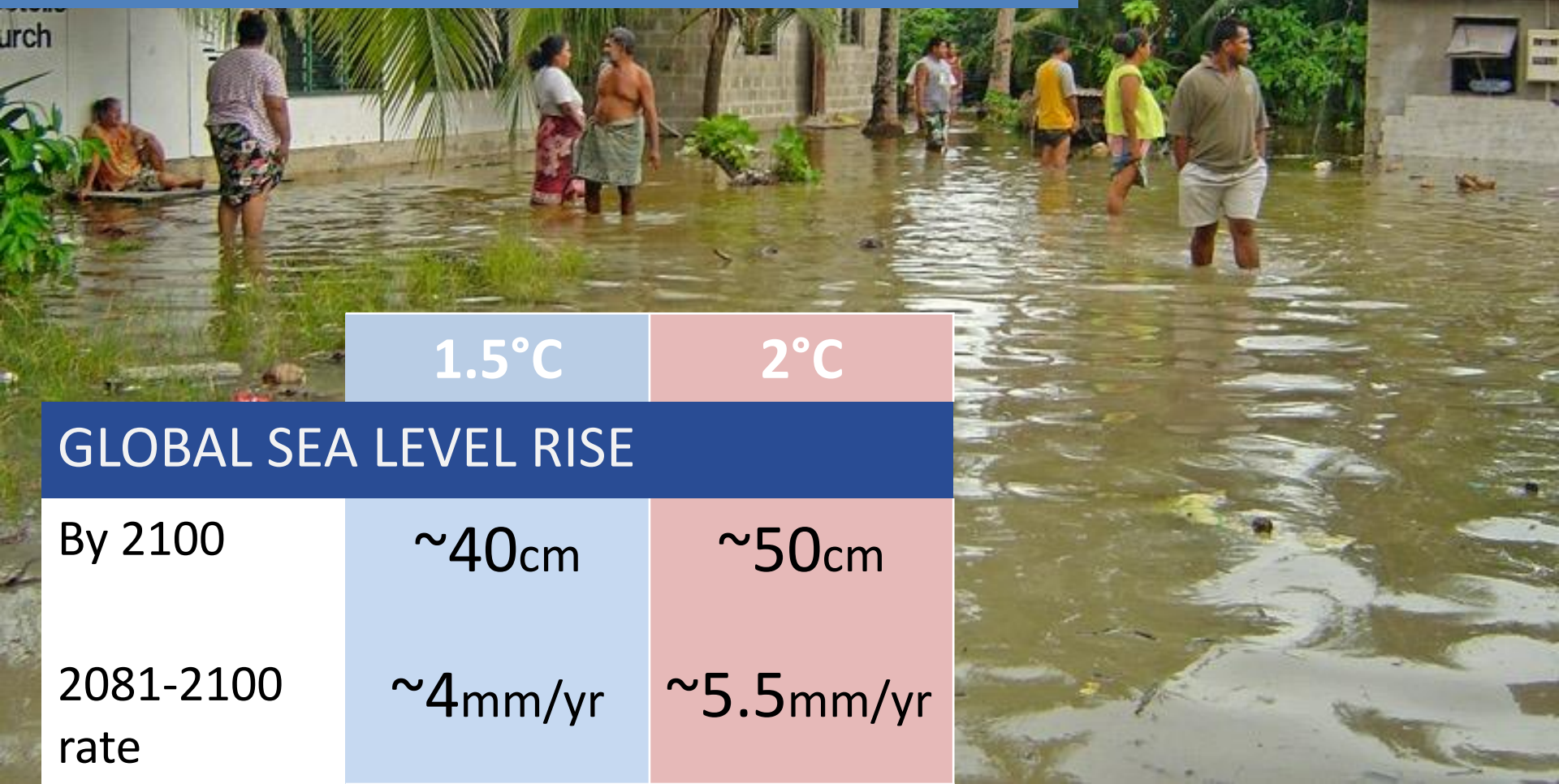
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- Limiting warming to 1.5°C would avoid the most drastic impacts of climate change but still entail large adaptation costs
- We are not on track to achieve 1.5°C
- Limiting warming to 1.5°C is feasible and comes with substantial benefits for sustainable development
- Strongly increased near-term ambition & action until 2030 is decisive to achieve 1.5°C

# 1) Limiting warming to 1.5°C avoids some of the most drastic impacts

## Extent and rate of sea-level rise



1.5°C

2°C

### GLOBAL SEA LEVEL RISE

By 2100

~40cm

~50cm

2081-2100  
rate

~4mm/yr

~5.5mm/yr



# Decreased survival of tropical coral reefs

## CORAL REEF DEGRADATION

1.5°C

2°C

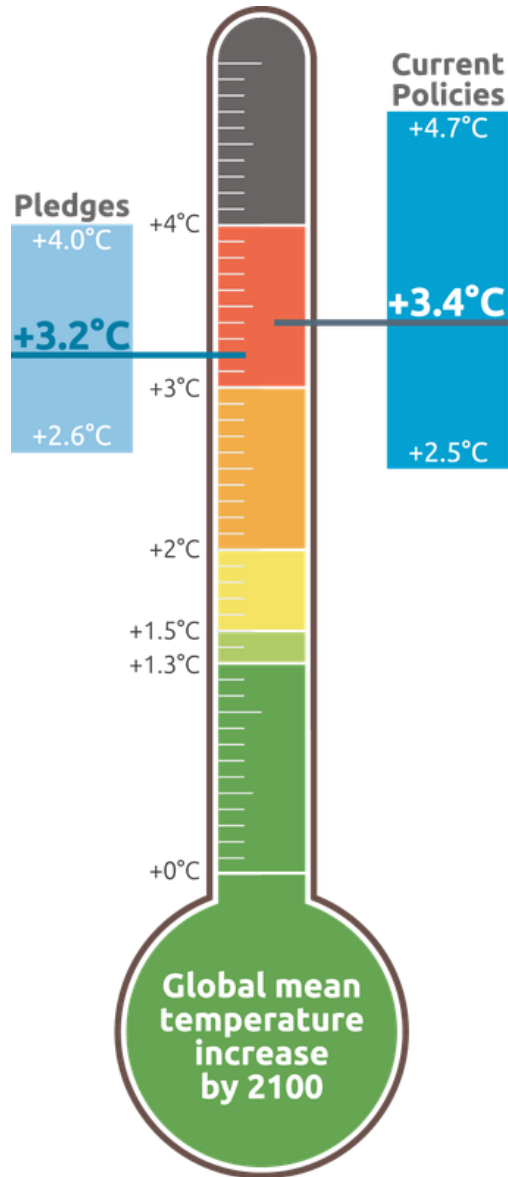
~70%

~99%

Virtually all coral reefs at risk of annual bleaching at 2°C of warming  
2016/17 extreme bleaching would not have happened without Climate Change

Large benefits to Pacific marine fisheries of meeting the 1.5°C limit

## 2) We are not on track to achieve 1.5°C



- But ...0.2°C improvement in climate action since 2016, reducing projected warming by 2100 to 3.4°C.
- Significant improvement on climate action globally, despite US rollbacks as India and China move ahead



CAT warming projections  
**Global temperature increase by 2100**

November 2017 Update

### 3) Limiting warming to 1.5°C is feasible

- New 1.5°C scenarios for IPCC 1.5C SR show warming can be limited to **well below 2°C and below 1.5°C**: peak warming
  - Confirms technological and economic feasibility
- Sustainability is essential enabling factor for 1.5°C

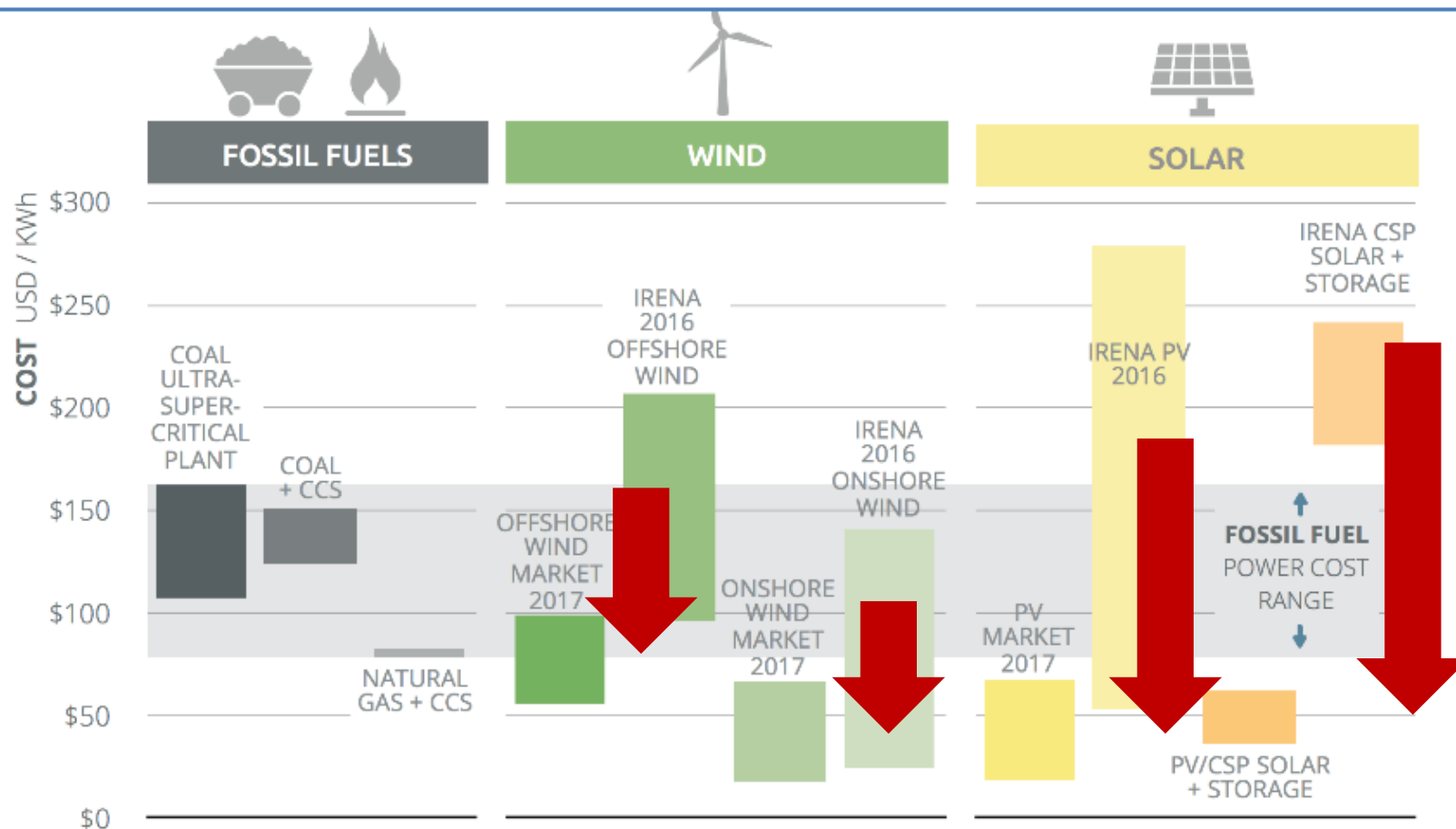
## 4) Strong near term ambition is vital to 1.5°C

- Roadmap to achieve a 1.5°C limit in 2100:
  - global CO<sub>2</sub> emissions peak no later than 2020
  - halving anthropogenic CO<sub>2</sub> emissions every decade
  - net- zero emissions around mid-century
- Coal phase out by 2050
  - By 2030 OECD; 2040 China; and by 2050 for the Rest of World
  - Requires early retirement of power plants, no new capacity.



# Renewables costs are declining

Mitigation targets in nationally determined contributions (NDCs) under the Paris Agreement are based on pre-2014 information that can be regarded as outdated today



**2017 Market Prices lower by 50% and more than IRENA 2016 estimates**



# Progress on adaptation and mitigation

- Adaptation happening in an increasing number of sectors
  - Success in accessing climate finance
  - In context of strengthening regional and national frameworks and institutions
- High ambition - national roadmaps and/or in NDCs
  - e.g. Cook Islands 100% renewable electricity by 2020; Samoa 100% renewable electricity by 2025
- Regional mitigation initiatives e.g.
  - Pacific Centre of Excellence for Renewable Energy and Energy Efficiency in Tonga
  - Pacific NDC Hub



# Reflections and questions for this week

- Increasing evidence of the importance of 1.5°C for adaptation
  - Mitigation as an adaptation enabler
- Incremental adjustments may not be sufficient in many places
  - What could transformational change look like in the Pacific?
  - How can Governments use GCF (and other climate finance) to make this happen?



# Reflections and questions for this week

- Close connection between people, oceans and islands is vital asset
  - How do we ensure a country-driven approach?
  - Can we make better use of science and traditional knowledge?
  - How do we address both climate and non-climate drivers?
- Learning what works, in which contexts, for whom and why is vital
  - Are learning effectively and acting on what we know?
  - Are we using M&E for learning as well as accountability?



**There are reasons to be hopeful – but we must act now!**

# Thank you!

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<http://climateanalytics.org/projects/impact-climate-action.html>



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