



WORLD BANK GROUP



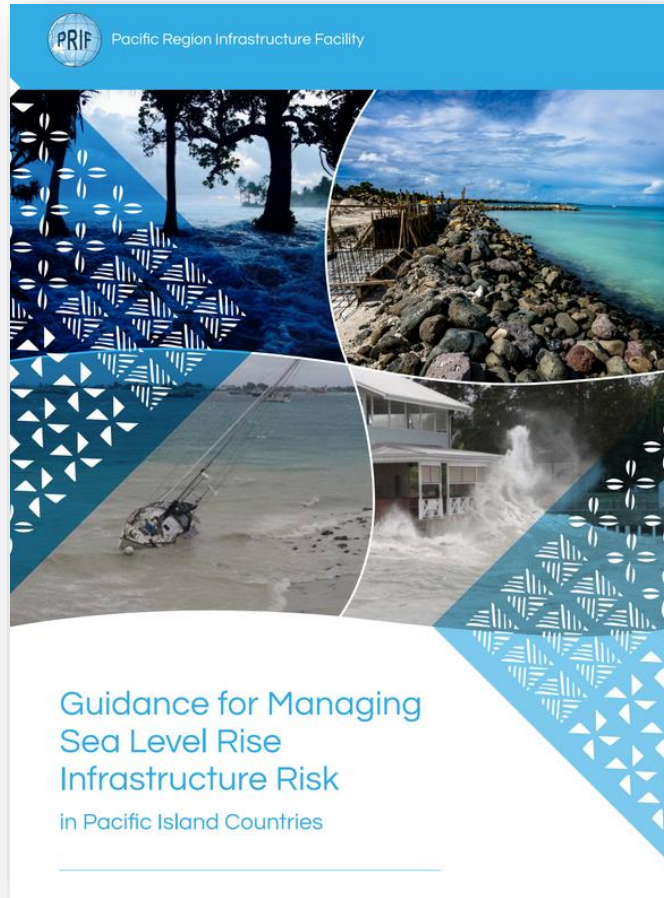
Pacific Region Infrastructure Facility

Presentation on new PRIF
publication 'Guidance for
Managing Sea Level Rise
Infrastructure Risk in Pacific
Island Countries.'

Presenter: Meapelo Maiai, PRIF
TA Officer (mmaiai@theprif.org)



Guidance to Managing Sea Level Rise Infrastructure Risk in Pacific Island Countries.



- ✓ PRIF helps meet Pacific Infrastructure challenges by improving the quality and coverage of infrastructure
 - ✓ **TA:**
 - ✓ National Infrastructure Investment Planning/Plan
 - ✓ Technical guidance for:
 - ✓ **Key infrastructure sectors:** energy, ICT, transport, urban development, water & sanitation.
 - ✓ **Thematic areas:** climate change and sea level rise, environment and social safeguards, disaster risk reduction, gender equality and social inclusion.

- ✓ **Linkages** of PRIF's mandate to climate finance are:
 - ✓ Common stakeholders – PICs/national Governments prioritizing actions to tackle climate change.
 - ✓ Climate resilient infrastructure – planning for sea level rise, building designs, and safe delivery of construction.
 - ✓ National Adaptation Planning/Plans
 - ✓ Vulnerability Assessments

[https://www.theprif.org/document/regional/climate-change/guidance-managing-sea-level-](https://www.theprif.org/document/regional/climate-change/guidance-managing-sea-level-rise-infrastructure-risk)



Key Chapters and Elements of the SLR guidance paper.

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Chapters and Key Elements of the SLR guidance paper.

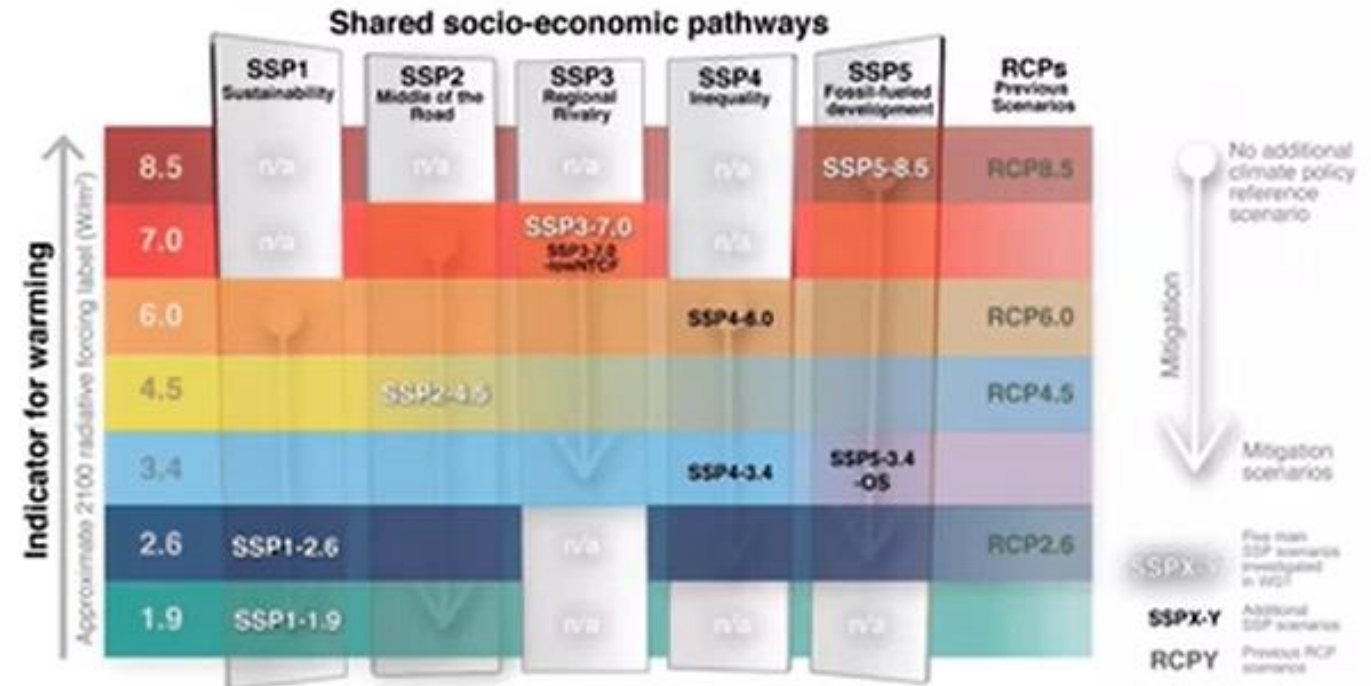
1) **Contextualize** Climate Change and Sea Level Rise using the IPCC AR6 findings for the Pacific.

- New set of projections
- Global + Regional Sea Level Rise
- (PICs) country profiles of 5 possible SLR scenarios

2) **Application** of SLR rise projections for infrastructure planning in the Pacific.

- Adaptative Planning Framework
 - Dynamic adaptative pathway
 - SLR Risk Assessment (Initial Vulnerability Assessment)

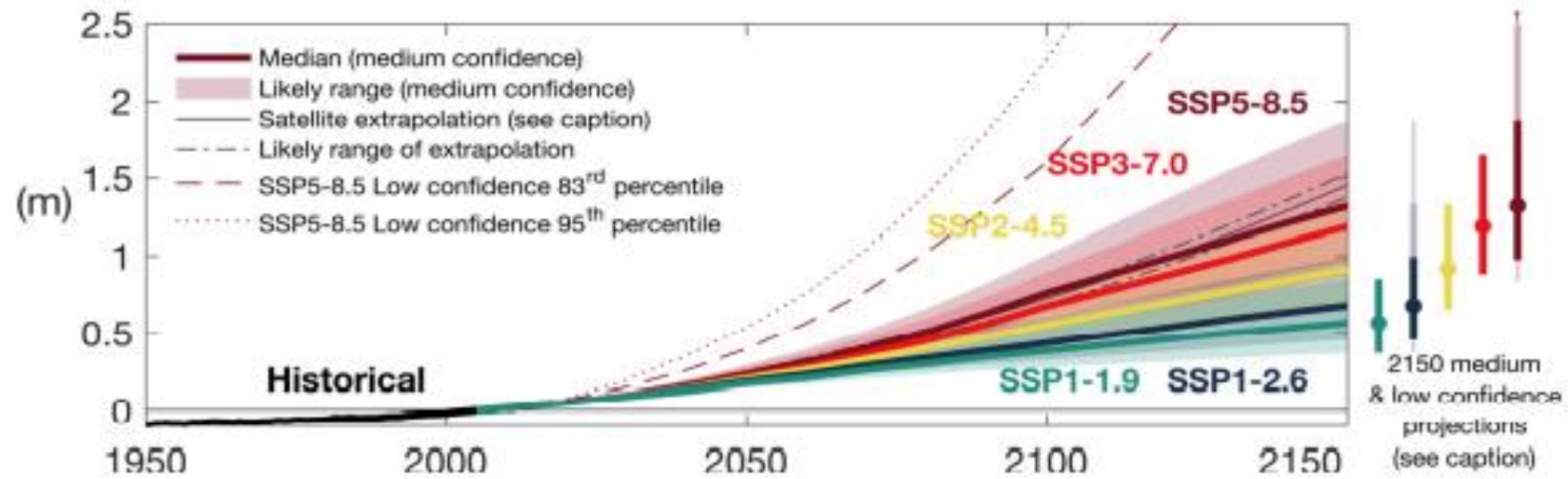
New set of Projections





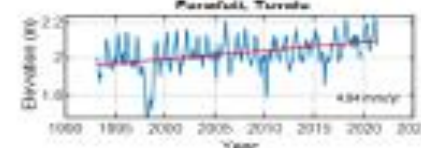
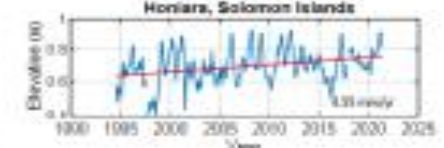
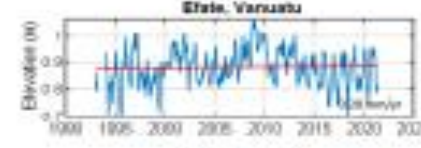
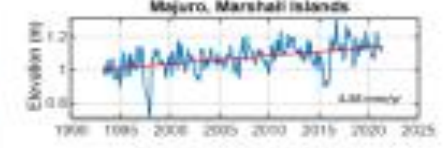
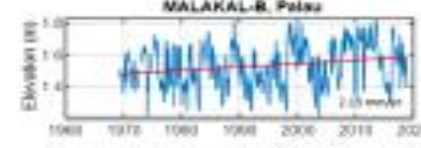
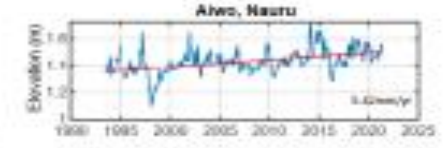
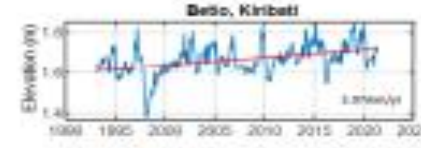
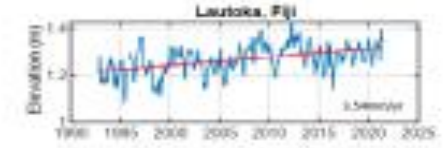
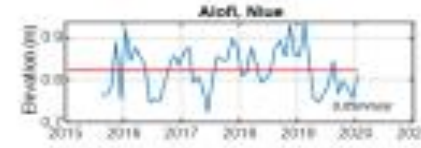
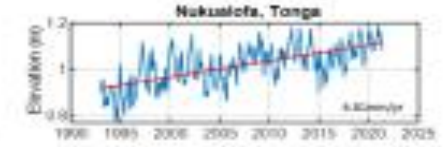
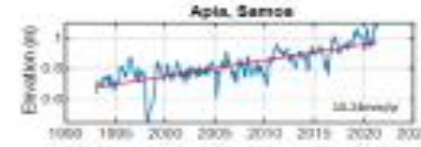
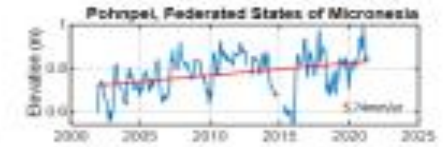
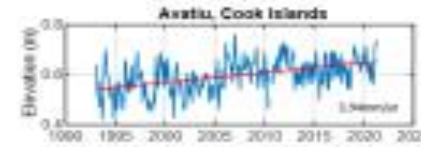
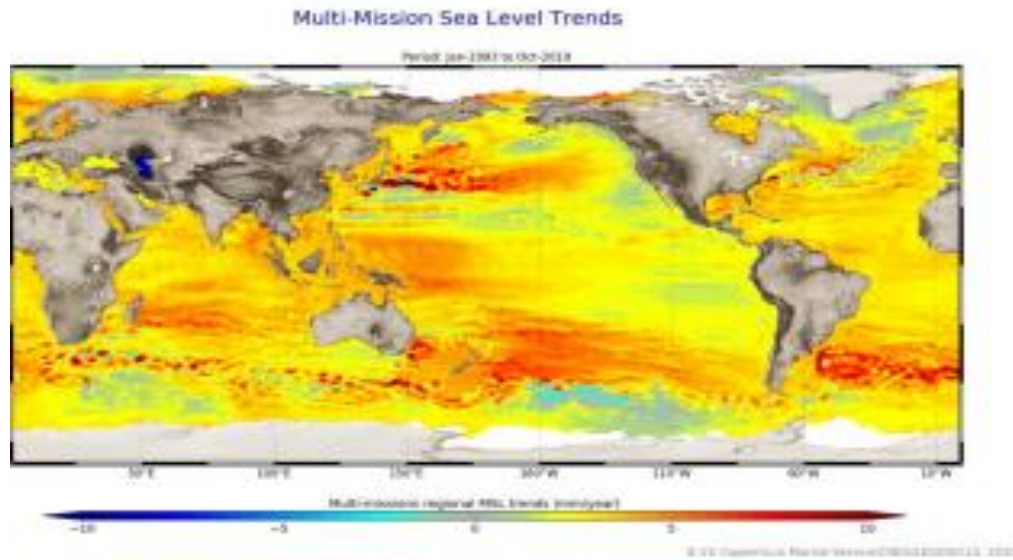
Global Sea Level Rise

Projected global mean sea level rise under different SSP scenarios





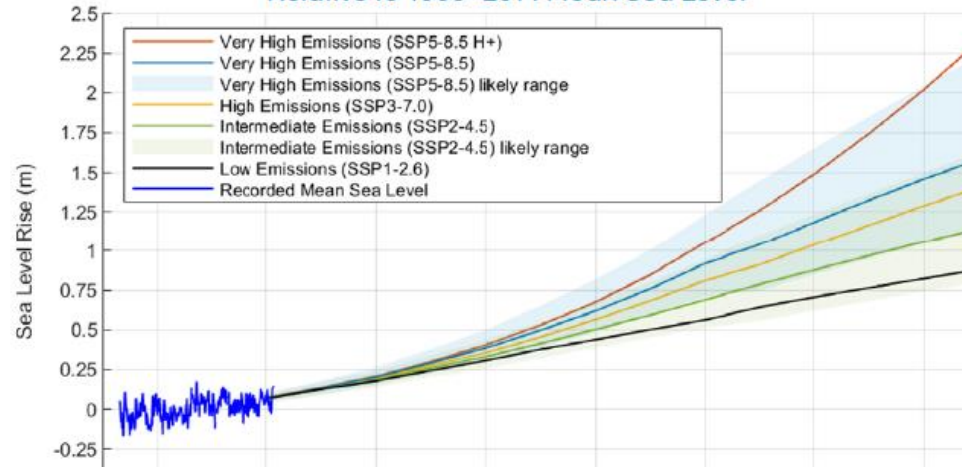
PIC Sea level rise trends



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Figure 3.4: Sea Level Rise Projections to 2150 for the Cook Islands
Relative to 1995–2014 Mean Sea Level



Country Profile for 5 SLR Scenarios: Cook Islands

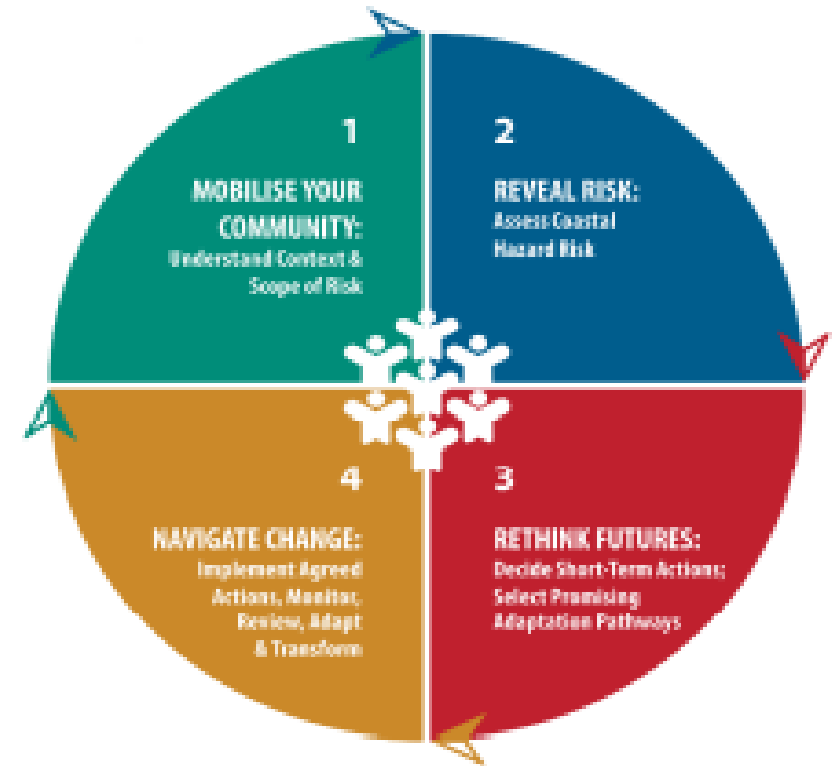
Table 3.2: Decadal Increments for Projections of Sea Level Rise in Meters for the Cook Islands
Relative to the 1995–2014 Mean Sea Level

Year	Low SSP1-2.6	Intermediate SSP2-4.5	High SSP3-7.0	Very High SSP5-8.5	Very High - Low SSP5-8.5 H+
1995–2014	0.00	0.00	0.00	0.00	0.00
2020	0.07 (0.04–0.09)	0.07 (0.04–0.10)	0.07 (0.04–0.10)	0.07 (0.05–0.10)	0.07 (0.05–0.11)
2030	0.13 (0.08–0.18)	0.13 (0.09–0.17)	0.12 (0.08–0.17)	0.13 (0.09–0.18)	0.14 (0.09–0.20)
2040	0.18 (0.12–0.24)	0.18 (0.14–0.24)	0.19 (0.14–0.25)	0.20 (0.15–0.27)	0.21 (0.15–0.33)
2050	0.24 (0.18–0.33)	0.26 (0.20–0.34)	0.28 (0.21–0.36)	0.29 (0.23–0.38)	0.30 (0.22–0.49)
2060	0.31 (0.23–0.41)	0.33 (0.26–0.44)	0.36 (0.27–0.47)	0.39 (0.31–0.50)	0.40 (0.30–0.69)
2070	0.38 (0.29–0.50)	0.41 (0.32–0.55)	0.45 (0.36–0.60)	0.50 (0.39–0.65)	0.53 (0.39–0.93)
2080	0.44 (0.33–0.59)	0.50 (0.39–0.67)	0.56 (0.44–0.74)	0.62 (0.48–0.82)	0.67 (0.48–1.21)
2090	0.50 (0.37–0.69)	0.59 (0.45–0.80)	0.68 (0.53–0.91)	0.76 (0.60–1.01)	0.85 (0.60–1.54)
2100	0.56 (0.40–0.78)	0.69 (0.51–0.95)	0.81 (0.62–1.09)	0.92 (0.71–1.23)	1.05 (0.71–1.89)
2110	0.64 (0.45–0.90)	0.79 (0.56–1.10)	0.91 (0.65–1.24)	1.04 (0.75–1.44)	1.26 (0.75–2.23)
2120	0.71 (0.49–1.00)	0.88 (0.62–1.23)	1.04 (0.75–1.42)	1.18 (0.85–1.65)	1.49 (0.85–2.55)
2130	0.76 (0.52–1.09)	0.97 (0.68–1.37)	1.16 (0.84–1.59)	1.32 (0.95–1.85)	1.74 (0.95–3.31)
2140	0.82 (0.56–1.18)	1.06 (0.74–1.50)	1.29 (0.92–1.77)	1.46 (1.04–2.04)	2.02 (1.04–4.38)
2150	0.88 (0.59–1.28)	1.14 (0.80–1.63)	1.41 (1.01–1.93)	1.58 (1.13–2.23)	2.32 (1.13–5.54)



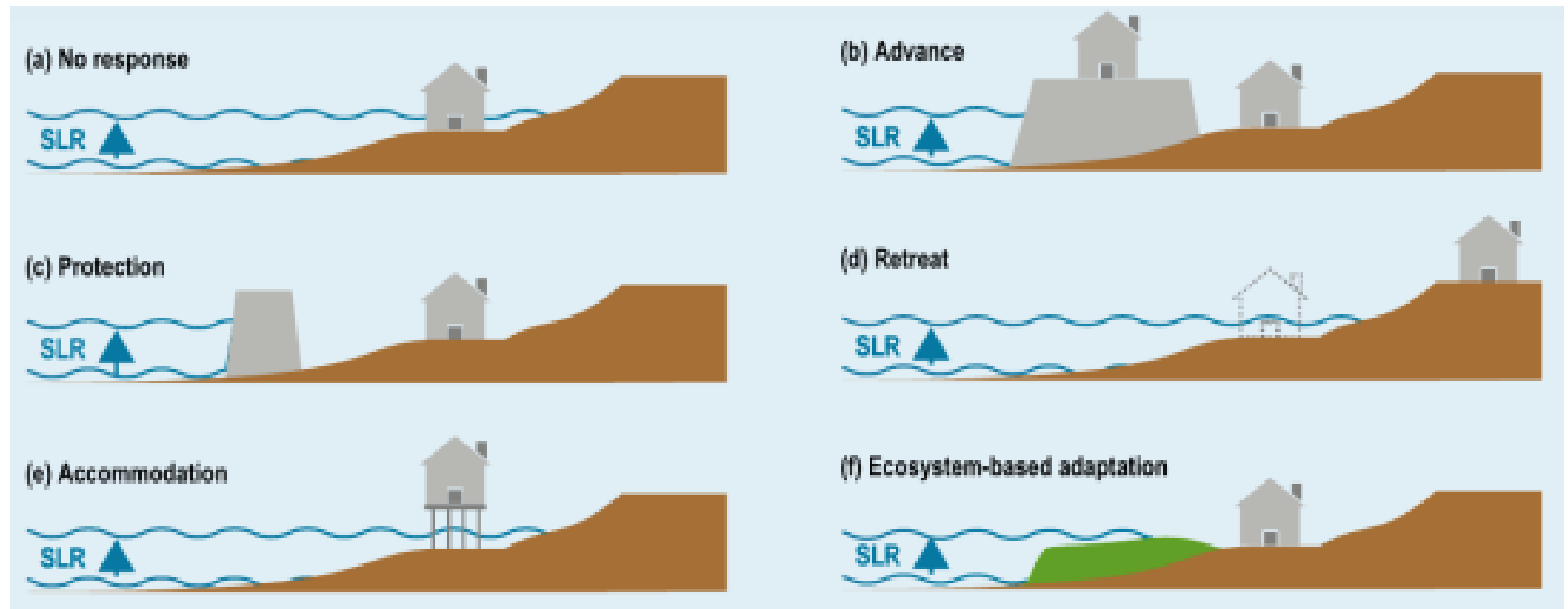
Adaptative Planning Framework

- Incorporates uncertainty and risk with the community at the centre of decision making
- Defines ways forward (pathways) despite uncertainty
- Remaining responsive to change (dynamic)

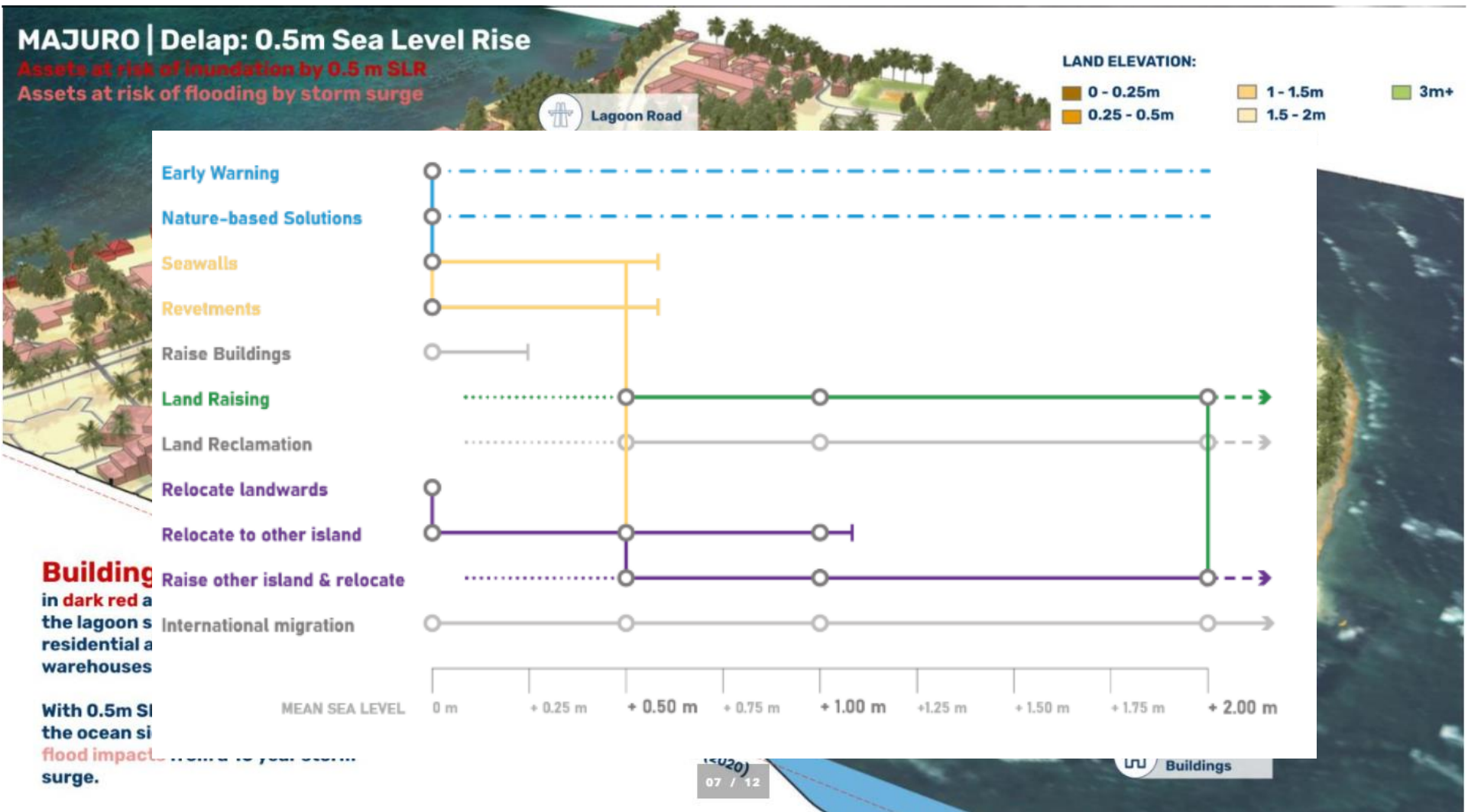




Responses to Sea Level Rise

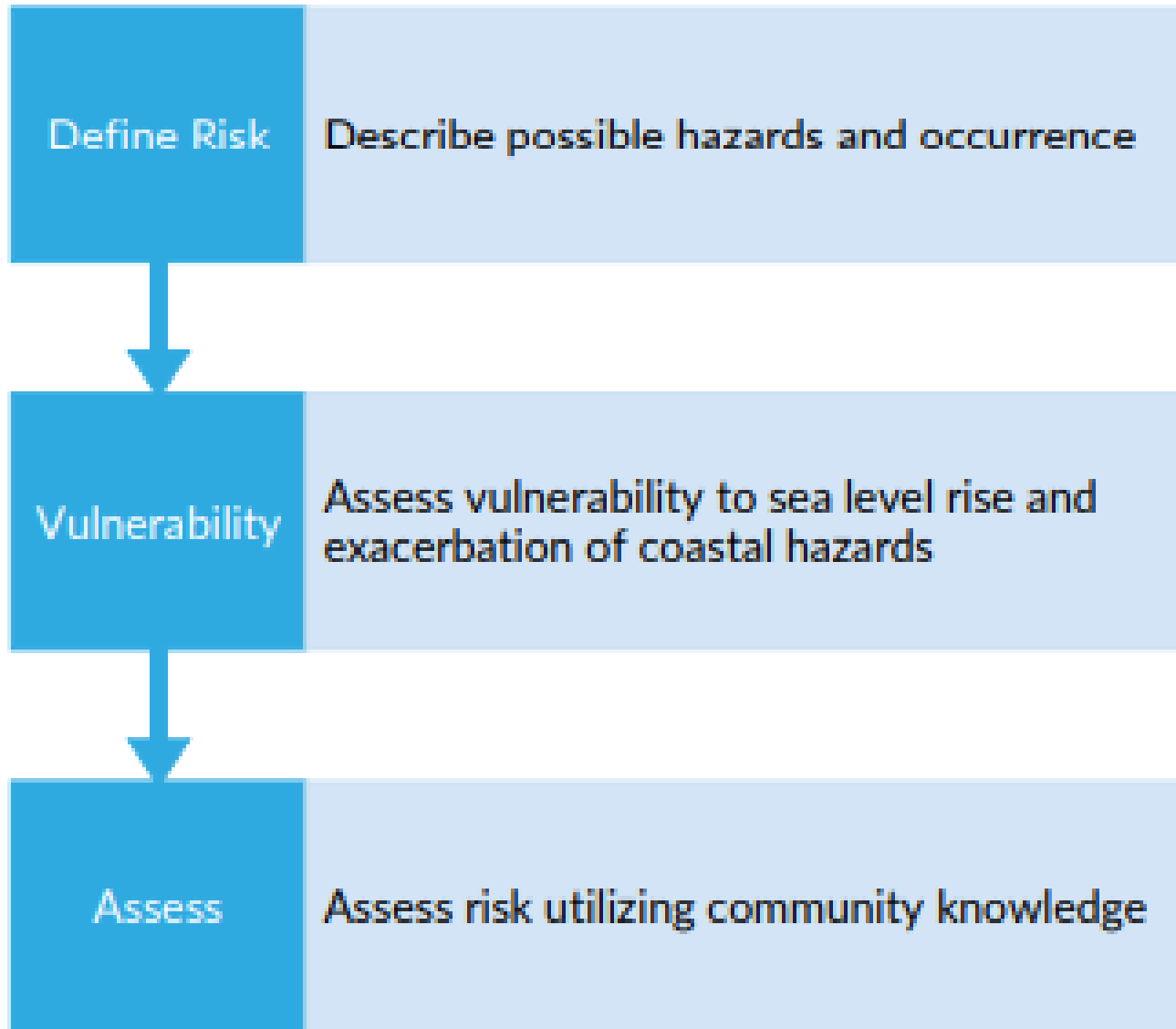


Majuro – RMI (Pacific Resilience Programme PREP II)



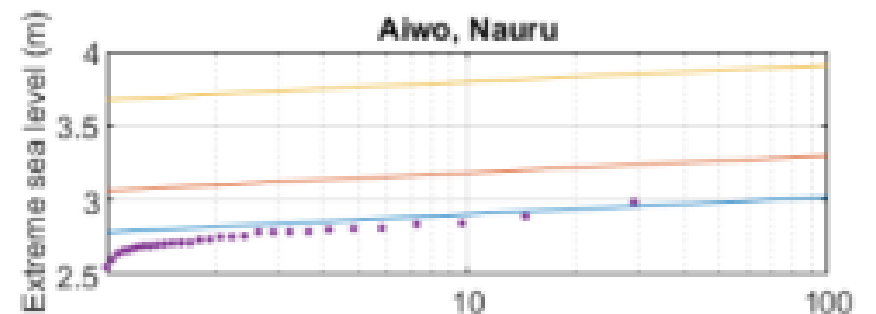
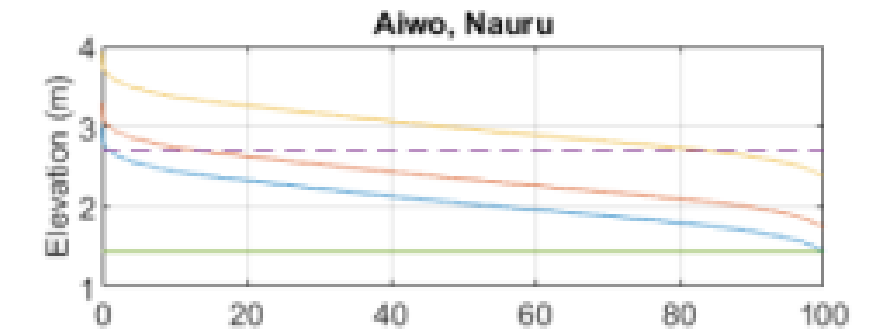
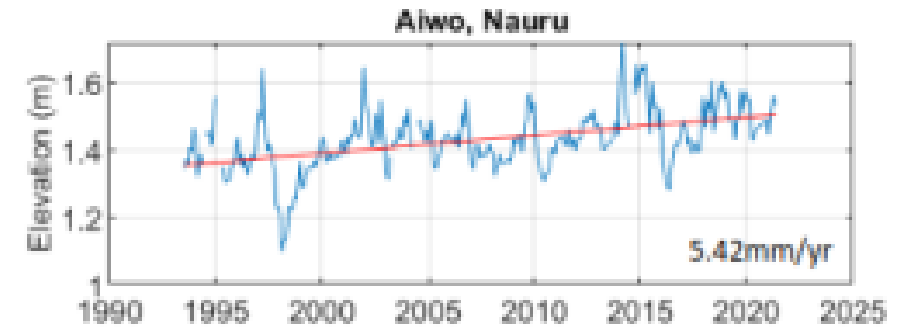
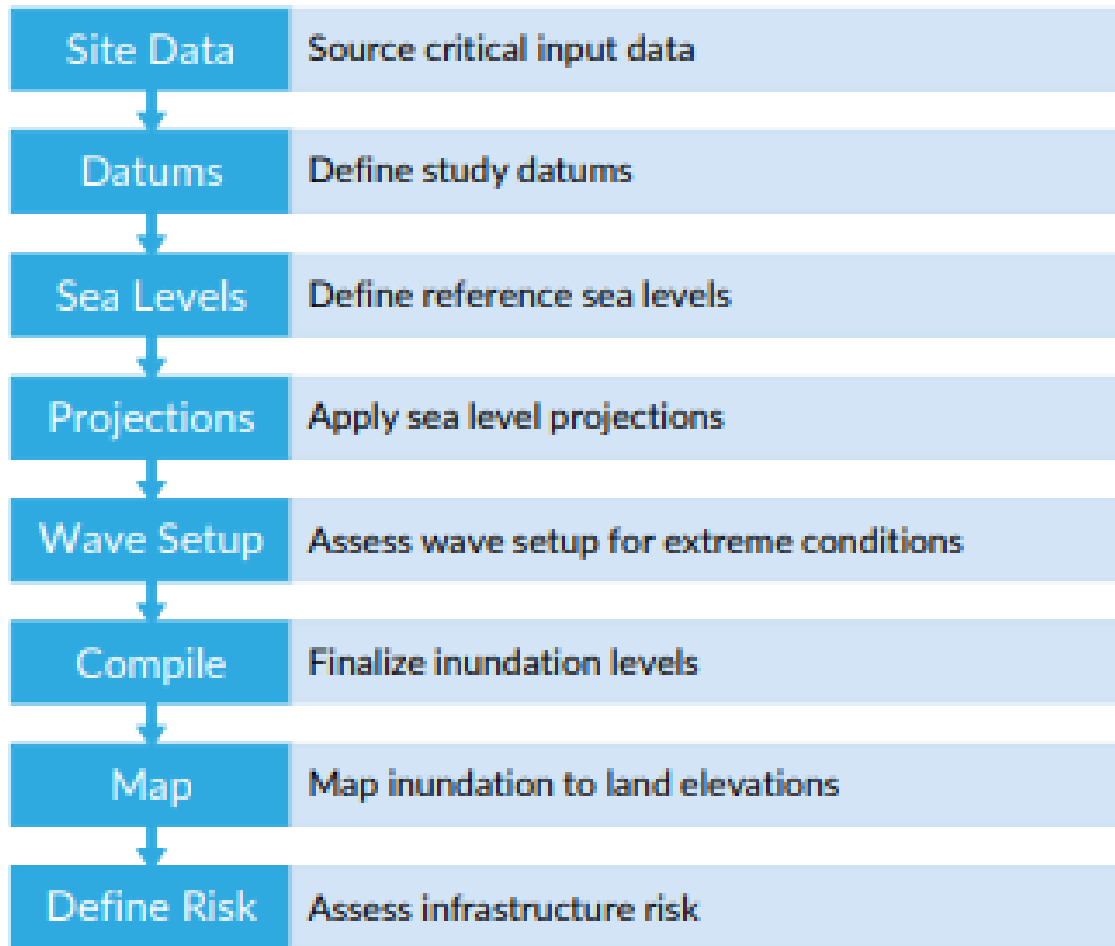


Vulnerability Assessments

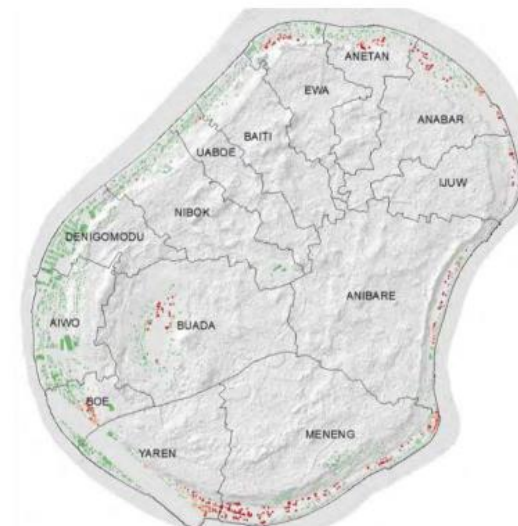
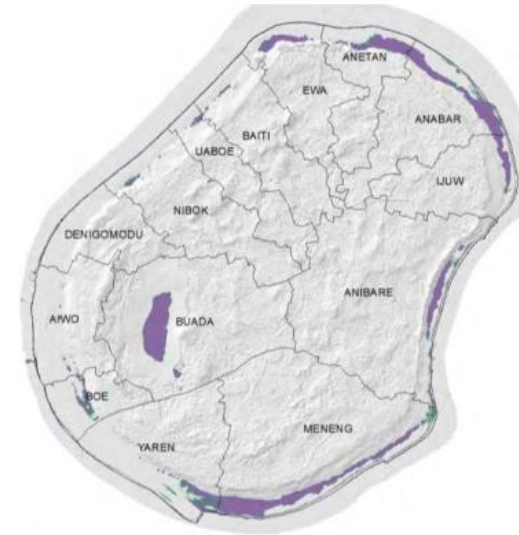
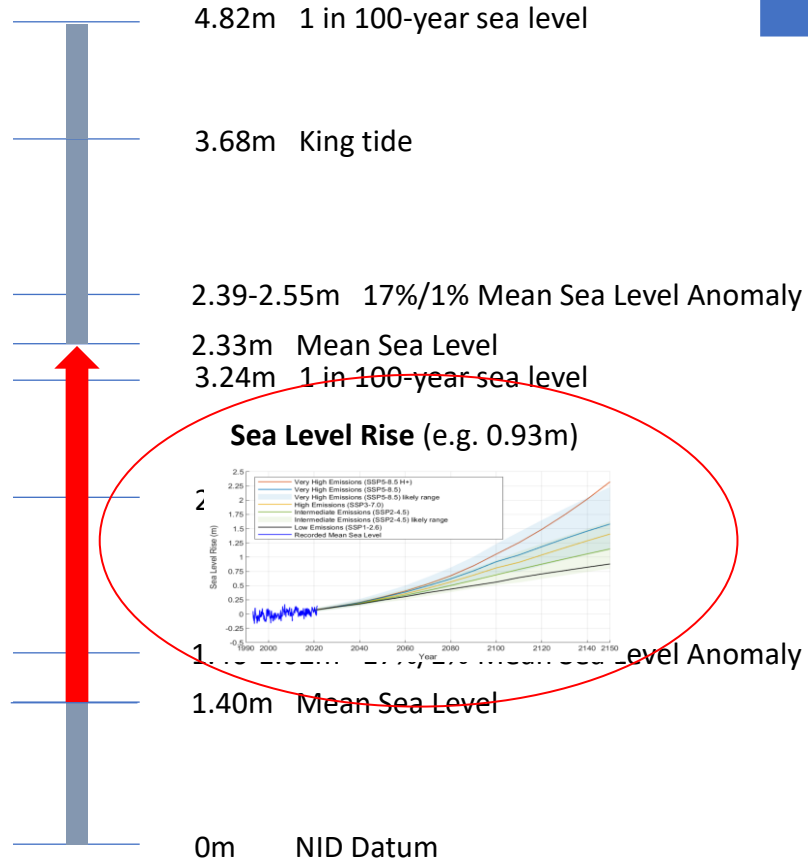




Initial Vulnerability Assessment



Initial Sea Level Rise Risk Assessment- Nauru





Conclusion

The Guidance Report provides for the following:

1. Updated sea level guidance based on AR6
2. Provides an approach to start the adaptative management process to manage risk for infrastructure
3. Provides baseline data to inform hazard delineation.



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Thank you!