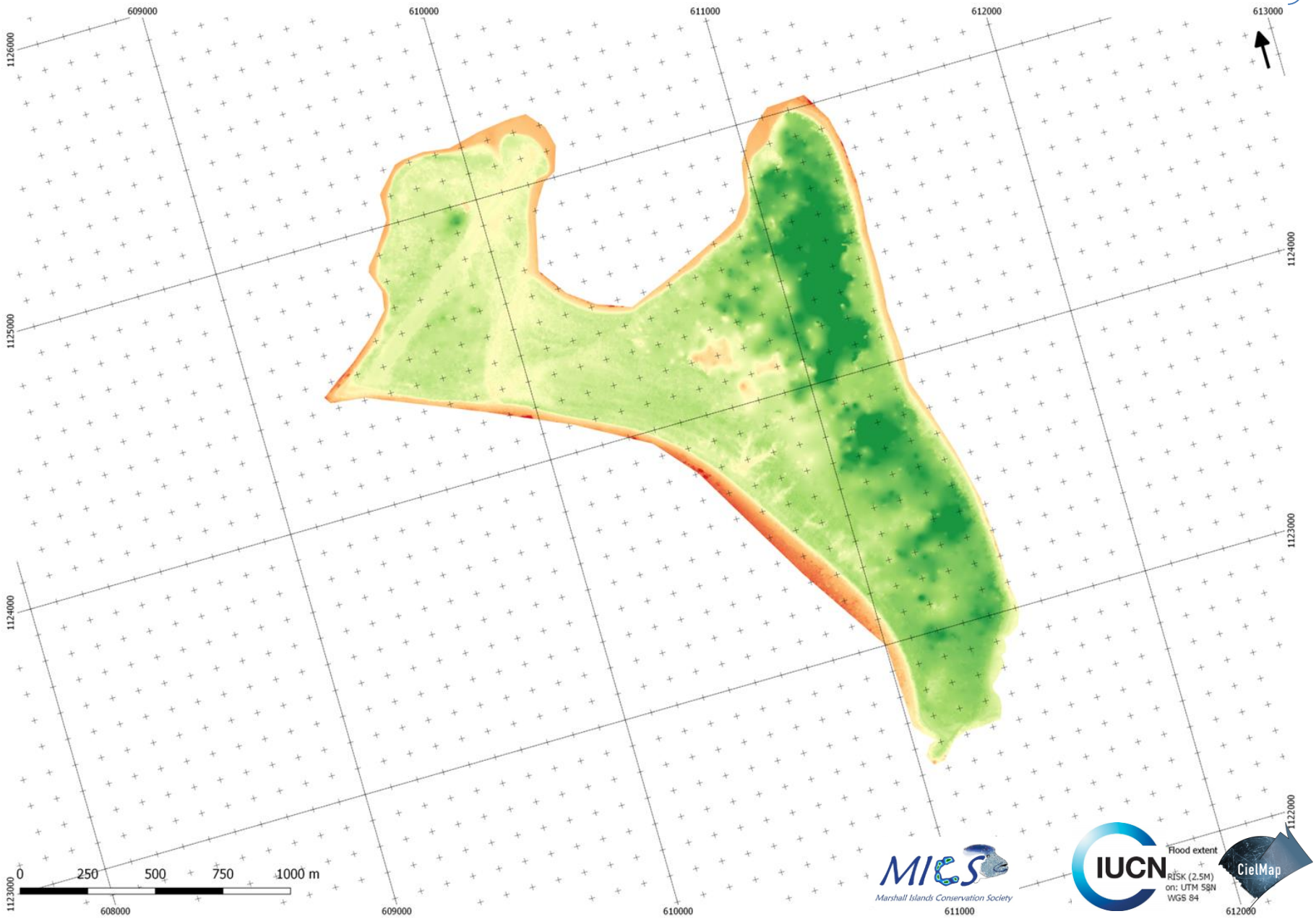
Island Height and Traditional Ecological Knowledge Mapping



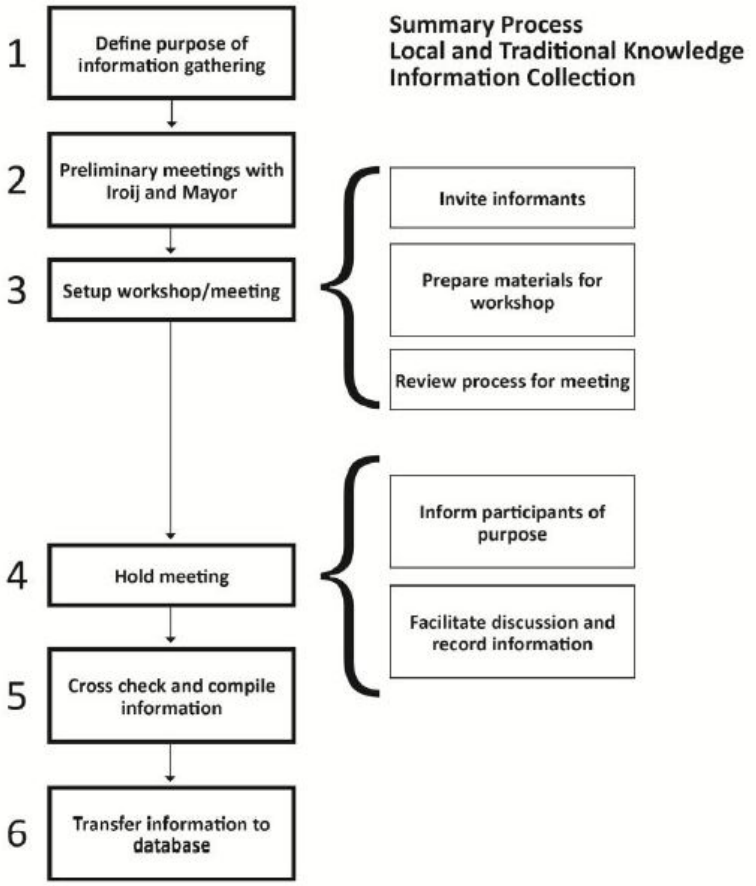
"Community mapping…Traditional Knowledge…"

4 Collecting and Managing Information

"Field survey to determine…height …flooding risk."

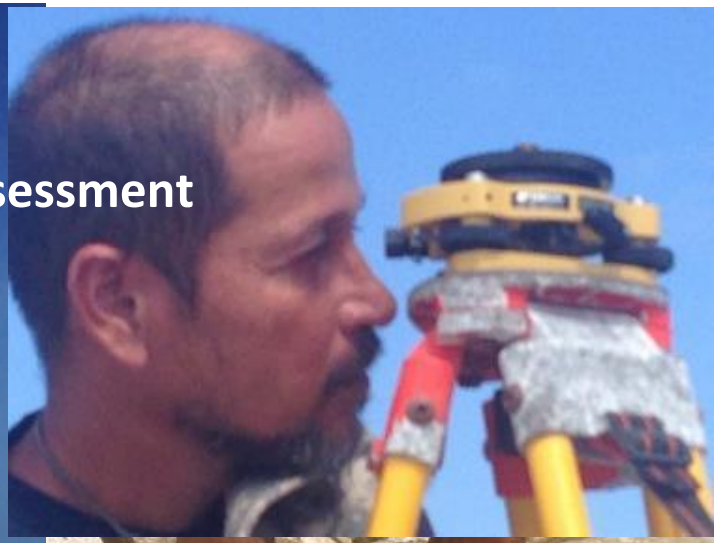
Activities	Suggested Tools/Resources
Initial assessment of climate impacts and discussion of indicators	Draft Outline of Climate Change Indicators to use in *Reimaanlok* Plans and priority baseline needs (Appendix 7)
Community mapping of resource and use	Guidelines for Collection of Local and Traditional Knowledge and *mo* in the Marshall Islands (Appendix 8) Assessing Non-climate Threats, Map the Community (Appendix 35 LEAP Step 3 -Worksheet #6)
Qualitative survey by members of National Project Team combined with local knowledge: quick survey of key locations with simple methods and low logistical complexity	Rapid Ecological Assessment, Participatory Aquatic Resource Transect (Appendix 9) Baseline Rapid Assessment of the Natural Resources Methodology (Appendix 10) and Woja Reserve Example (Appendix 11) *Socio-Economic Fisheries Surveys in Pacific Islands: A Manual for Collection of a Minimum Dataset* *Survey Methods* http://www.spc.int/DigitalLibrary/Doc/FAME/Manuals/Kronen_07_SocioFishSurveys.pdf
Quantitative survey by experts, volunteer scientists, and staff of National Project Team combined with local knowledge	Standardized international survey protocols for marine and terrestrial resource assessments Marine: Secretariat of the Pacific Community (SPC) protocols Marine protected areas effectiveness: Palau International Coral Reef Center and Micronesia Challenge Protocols
Develop Local Climate Story as it relates to resource management	Local Climate Story (Appendix 35 LEAP Worksheet #14) Historical Timeline (Appendix 35 LEAP Worksheet #10) Seasonal Calendar (Appendix 35 LEAP Worksheet #11) Community Walk (Appendix 35 LEAP Worksheet #12)
Socio-economic survey	Socio-Economic Baseline Assessment and Monitoring Plan Worksheet (Appendix 12, SEM-Pasifika, SPC, Coral Triangle Initiative)
Assemble maps and incorporate on to RMI Conservation GIS	RMI Conservation GIS, Government agencies (i.e., MIMRA, EPA), CMI, and internet sites such as Google Earth
Field survey to determine island height and determine flooding risks	Developing Benchmarks Relative to Sea Level (Appendix 13) Surveying Island Height Procedures (Appendix 14) Evaluating Flooding from Sea Level Rise – Case Study of Jabót (Appendix 15)

Mapping local knowledge - **key steps and guidelines**



Island Height Mapping and Flood Risk Assessment

WOTHO 2016



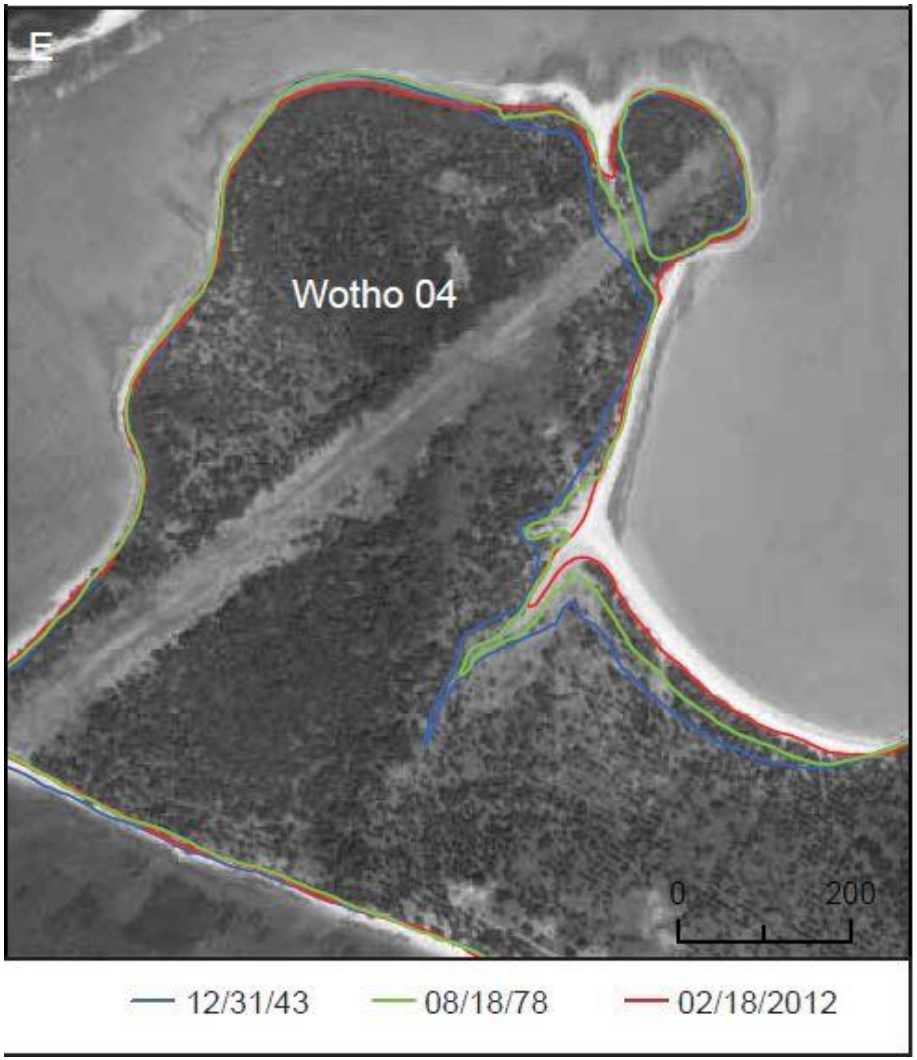
Ground Control Points by:
Ministry of Internal Affairs
Lands & Survey Division

Island Height Mapping and Flood Risk Assessment

WOTHO 1943 / 1978 / 2012

Wotto's shorelines have remained relatively stable along the westward facing coastline and even allowed for significant accretion on the eastward facing coastline where there is 1) an abundant supply of sediment is captured within the island's massive northeast intertidal basin and 2) historic dredging to infill the reef flat in between two islands as part of the airport construction.

Kench et al (2016)



Flood risk

Airstrip

Populated area

Marshall Islands Conservation Society

IUCN

CielMap

Traditional Knowledge (TK) Mapping

Sample

Traditional knowledge is able to validate the terrain elevation features that appear on the model, and by extension high flood risk areas. In this case, the legends of Likuripjen and Neen Annañ correspond to the flooded channel between the lagoon and the ocean running north-southwest and to the inland flooded area in the center of the island.

MICS Marshall Islands Conservation Society

IUCN

CielMap