

Data Needs and SOPAC RS Service for Pacific Island Countries

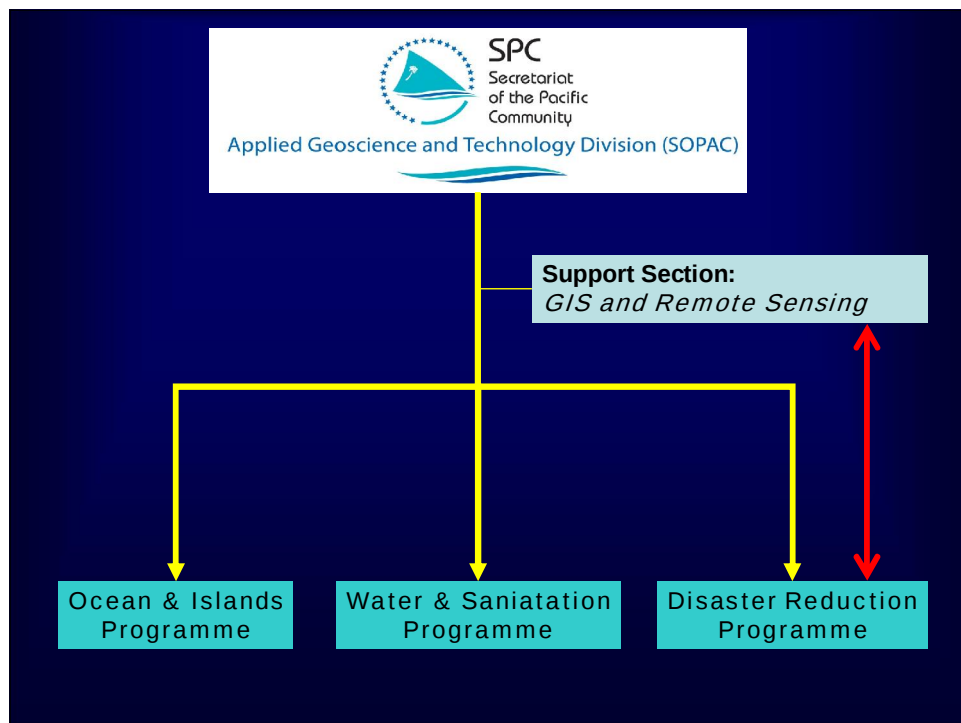
Wolf Forstreuter
SPC - SOPAC

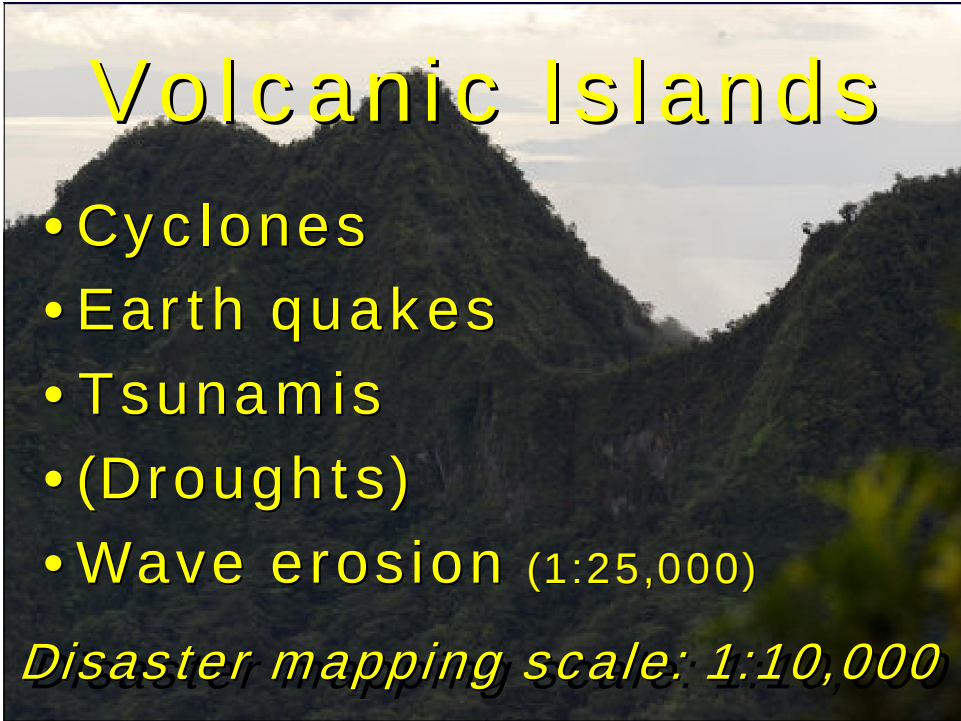


SPC
Secretariat
of the Pacific
Community

Applied Geoscience and Technology Division (SOPAC)



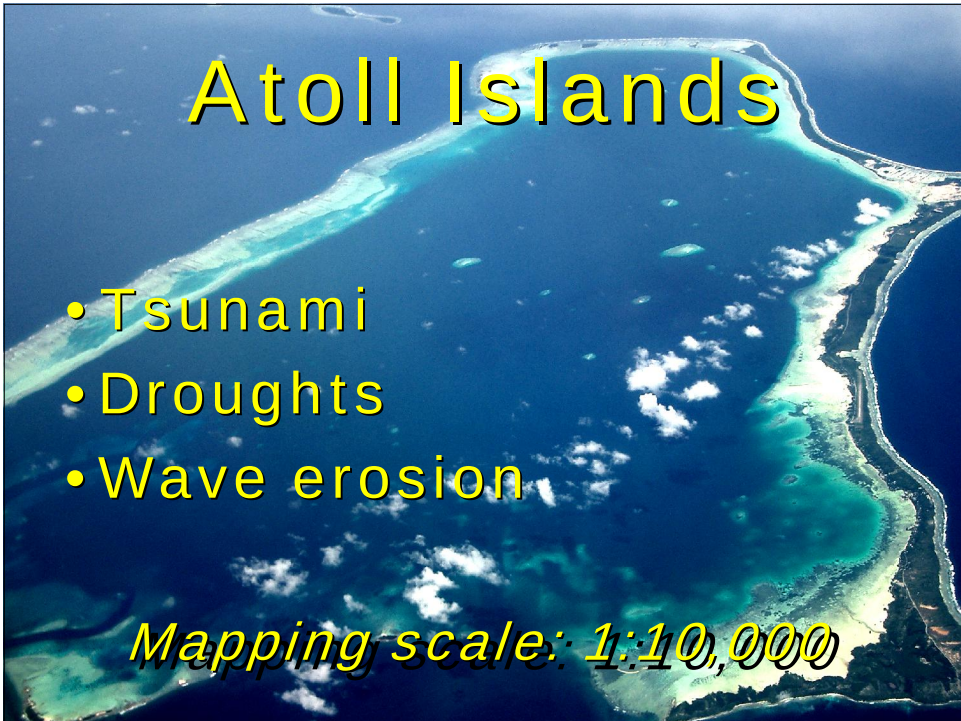




Volcanic Islands

- Cyclones
- Earth quakes
- Tsunamis
- (Droughts)
- Wave erosion (1:25,000)

Disaster mapping scale: 1:10,000



Atoll Islands

- Tsunami
- Droughts
- Wave erosion

Mapping scale: 1:10,000

Satellites for 1:10,000 Scale Mapping (MS)



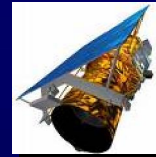
IKONOS
4m ms 1m p
\$US 15-20 / km²



QuickBird
2.4m ms 0.6m p
\$US 15-20 / km²



WorldView 2
1.8m ms 0.4m p
\$US 15-18 / km²



GeoEye
1.65m ms 0.4m p
\$US 11-22.5 / km²



KompSat 2
4m ms 1m p
\$US 7.5-15 / km²



Pleiades
2m ms 0.5m p
\$US ? / km²

Applicable
satellite images
cost \$!

“Georectified” IKONOS



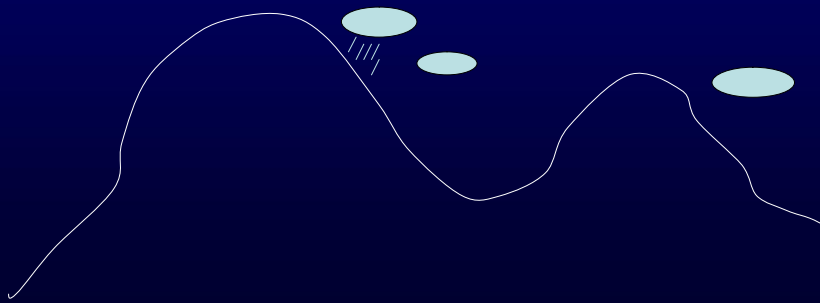
High location accuracy
essential for outer islands

Atmospheric Conditions

Small Islands Large Ocean

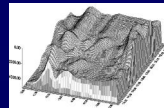
Relief, Moisture, Reflectance

West ← East



Pre-Processing Bundle

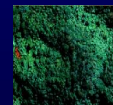
1. Ortho-Correction



2. Atmospheric Correction



3. Pan-Sharpen "normal" colour



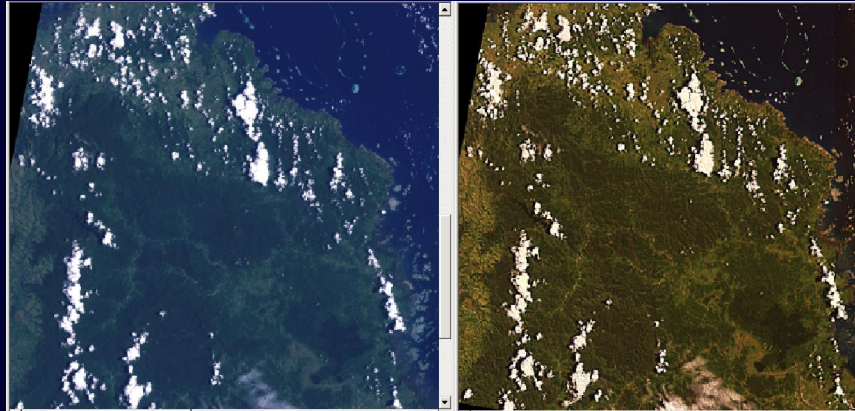
4. Pan-Sharpen false colour IR



5. Vegetation index

$$NDVI = \frac{NIR - RED}{NIR + RED}$$

Applying Atmospheric Correction Software



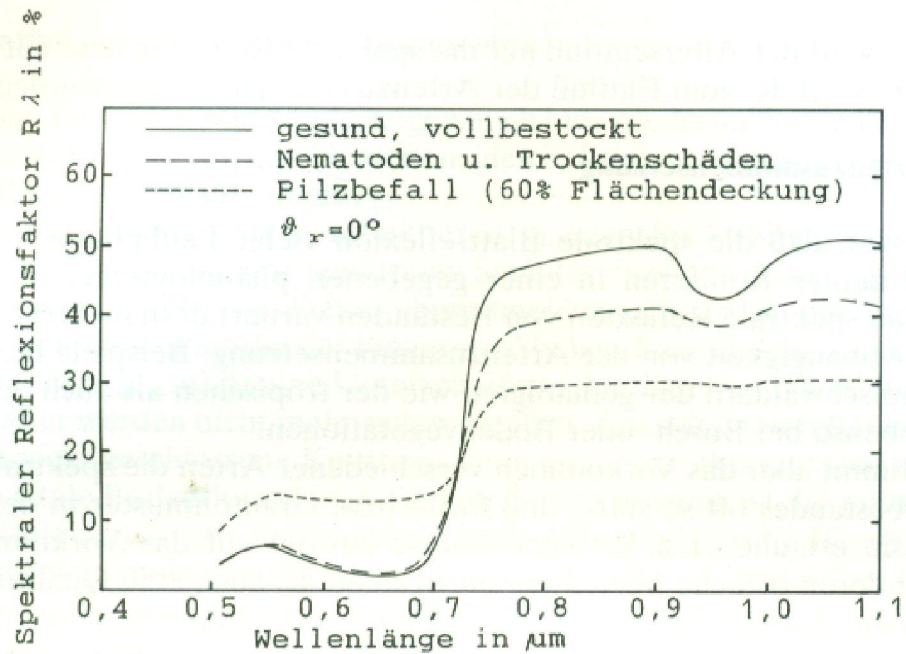
Before

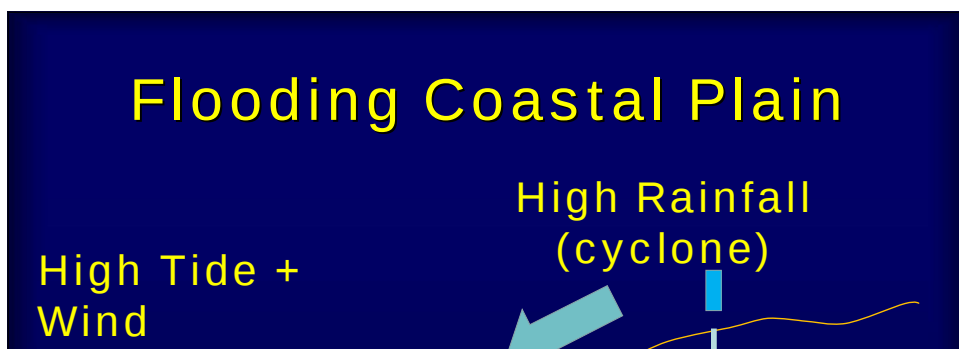
After

Products



Water in Low Lying Islands





预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_7762

