

Techniques for assessing damage and loss: tools to support mainstreaming

**Information Communication Technology and Disaster Risk
Reduction Division
UNESCAP**

Assessing damage and loss

Three key questions

- How much is at risk?
- How much was lost?
- How much likely to be lost in the future?

PRE-DISASTER RISK ASSESSMENT:

Hazard, vulnerability,
Exposure
- *Geospatial approach*
- *Probabilistic Approach*

DISASTER LOSSES (PAST EVENTS)

Loss Accounting
- *Recording impacts*
(*damage and loss*)
- *Measuring Trends*

DISASTER LOSSES (FUTURE RISK)

- *Downscaling climate*
scenarios using
geospatial approaches
- *Probability of losses /*
Average Annual Loss

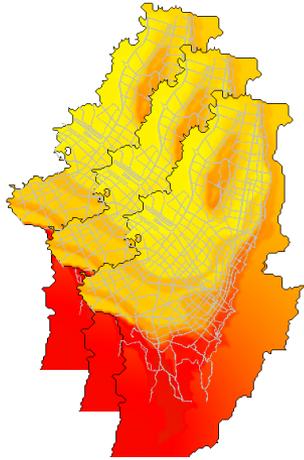
HOW MUCH IS AT RISK?

HOW MUCH WAS LOST?

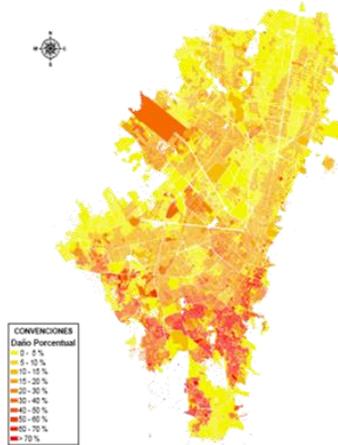
HOW MUCH IS LIKELY TO
BE LOST IN THE FUTURE?

Drivers of risk assessment

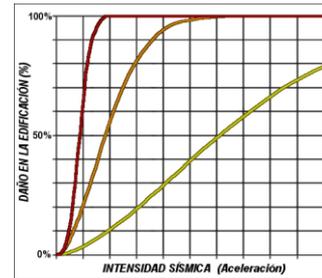
Hazard



Exposure



Vulnerability



Impact/Risk



Value at Risk

Statistical - census and survey data

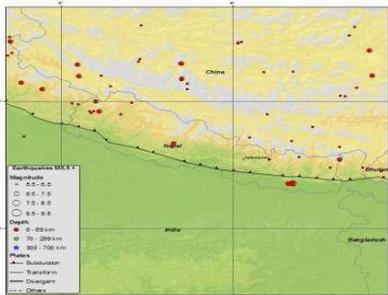
GIS/Geospatial– Infrastructure, settlements, land use..

**Cartographic, Geological, Hydro-meteorological ..
Geospatial Data – Vector and Raster**

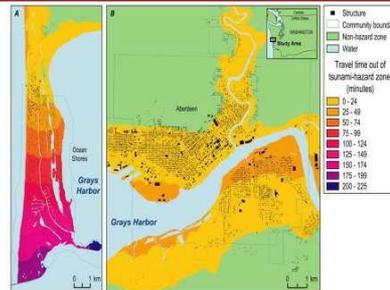
Ex-ante risk assessment

Average Annual Loss (AAL)

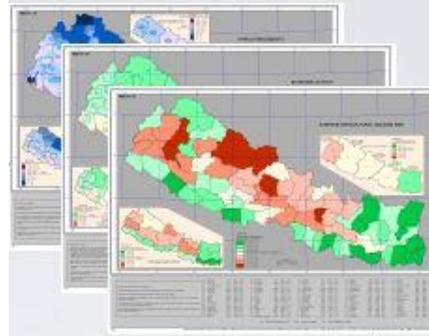
HAZARD



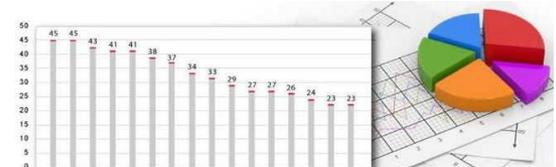
EXPOSURE



VULNERABILITY

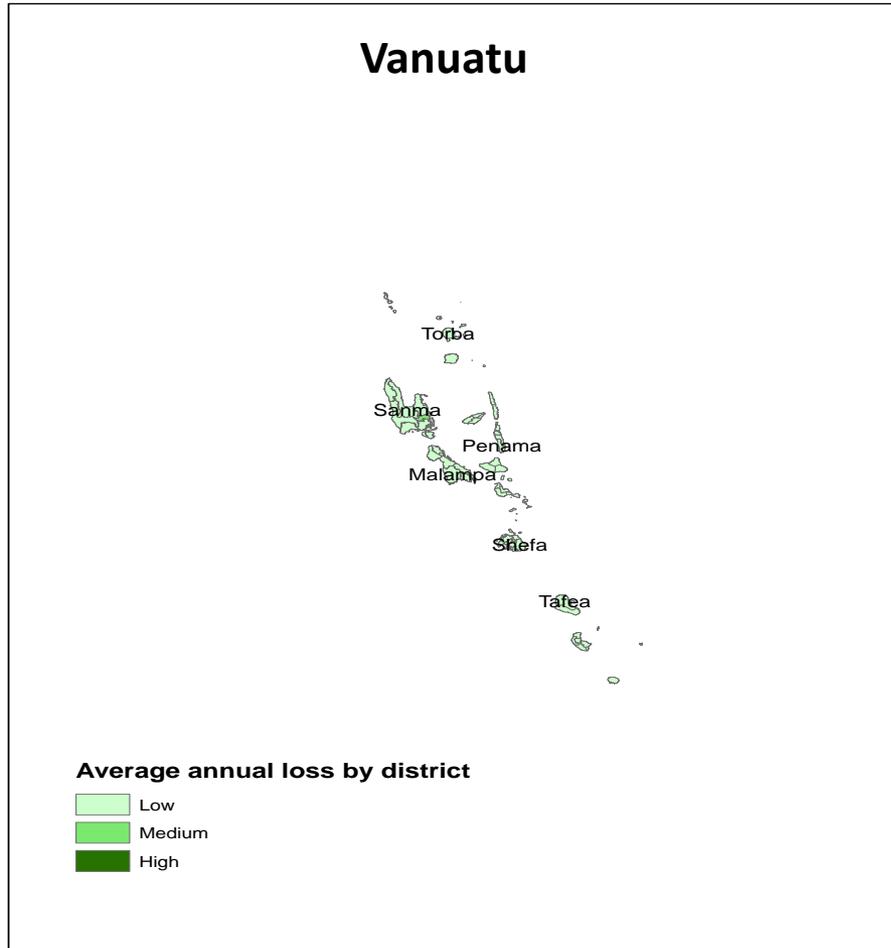


RISK



Ex-ante risk assessment

Average Annual Loss (AAL) – Vanuatu Case Study



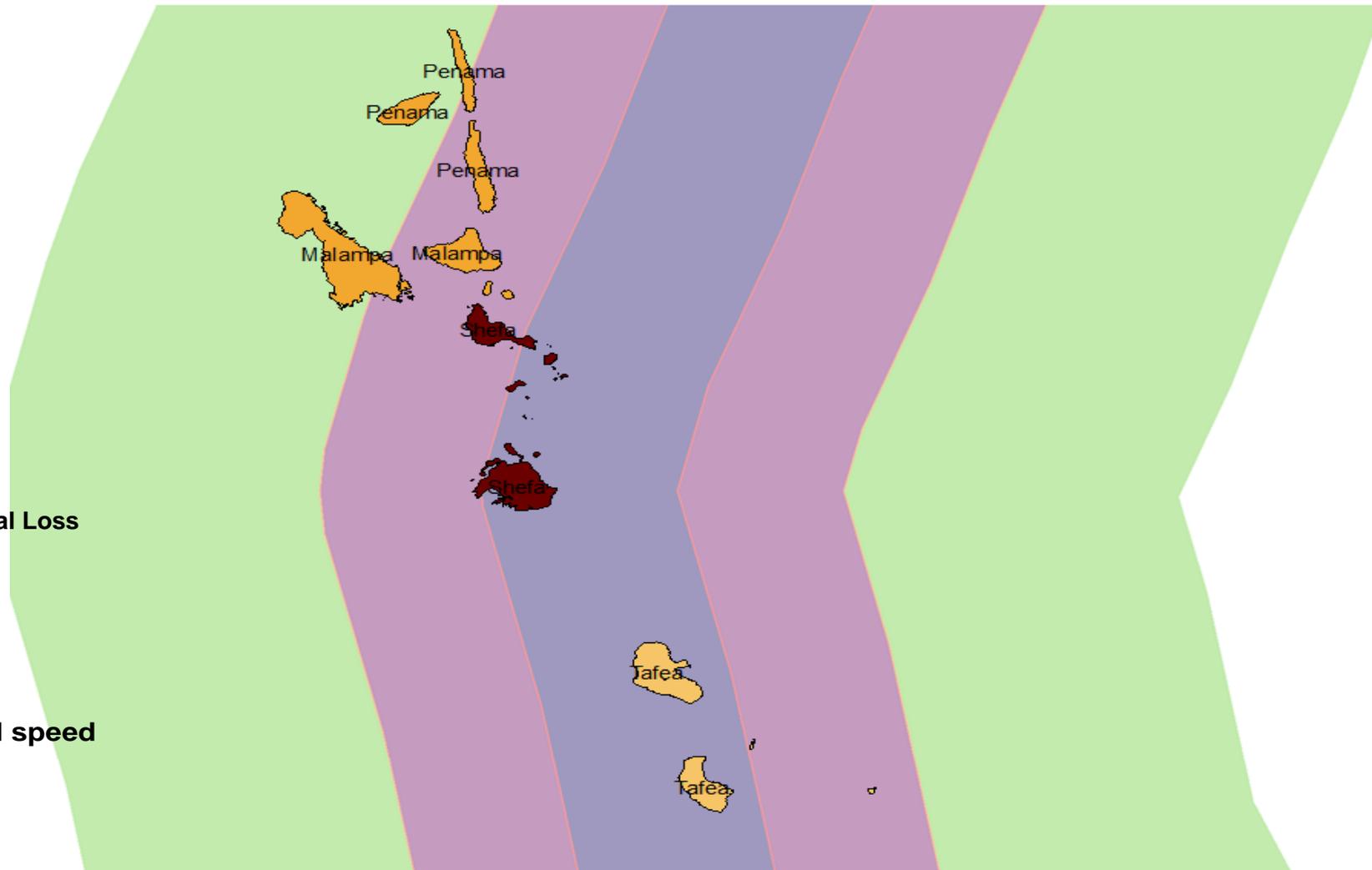
The Pacific Catastrophe Risk Assessment and Financing Initiative

AAL in the Pacific countries for earthquakes and cyclones

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Ex-ante risk assessment

Average Annual Loss (AAL) – Vanuatu Case Study

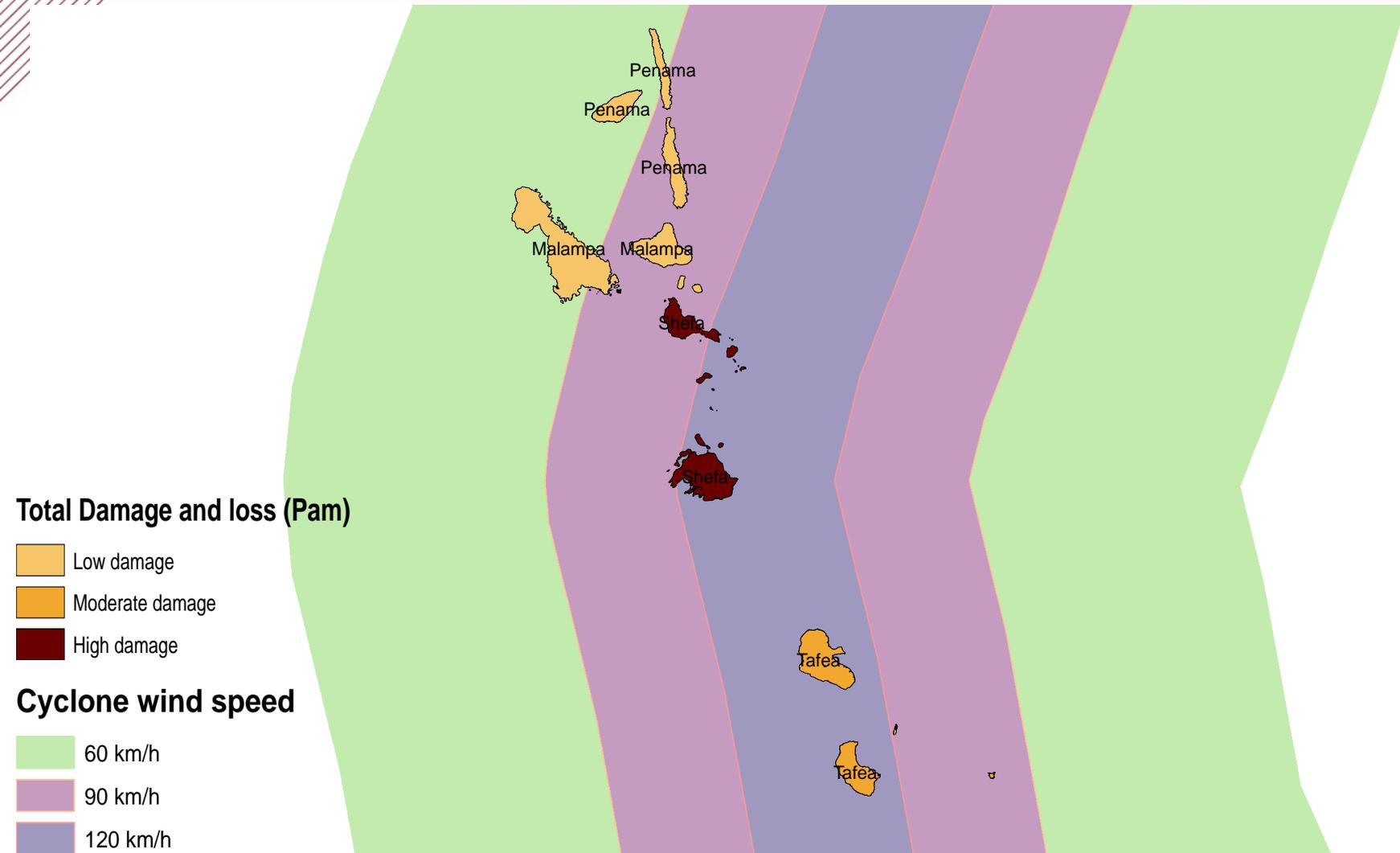


Source: GDACS data, 2015, <http://www.gdacs.org/resources.aspx>

AAL data downloaded from the Pacific Catastrophe Risk Assessment and Financing Initiative (<http://pcrafi.sopac.org/layers/>), 2013

Ex-ante risk assessment

Average Annual Loss (AAL) – Vanuatu Case Study

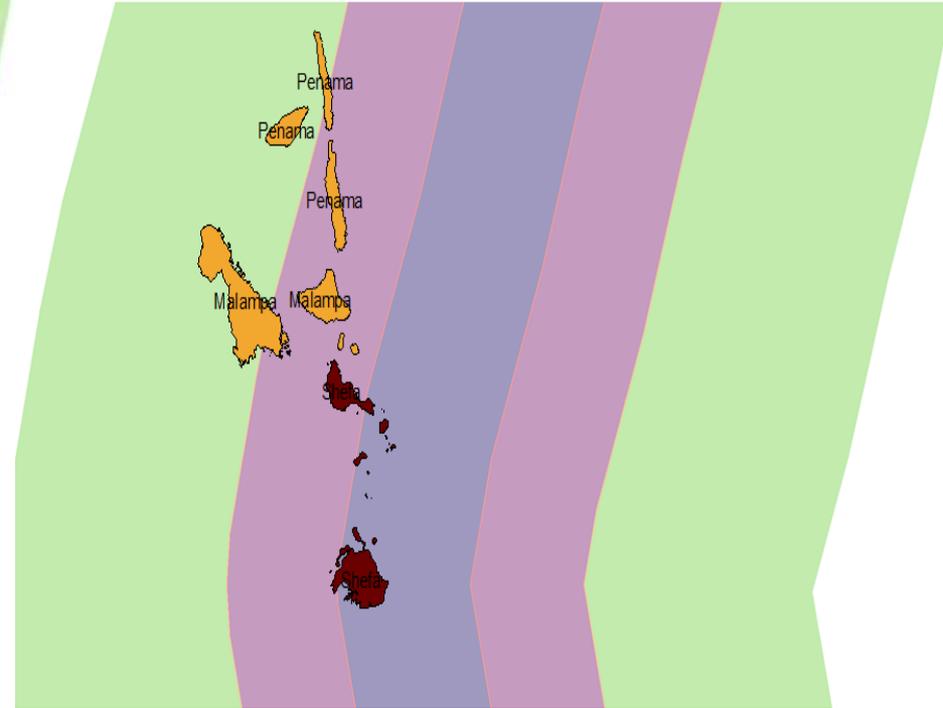
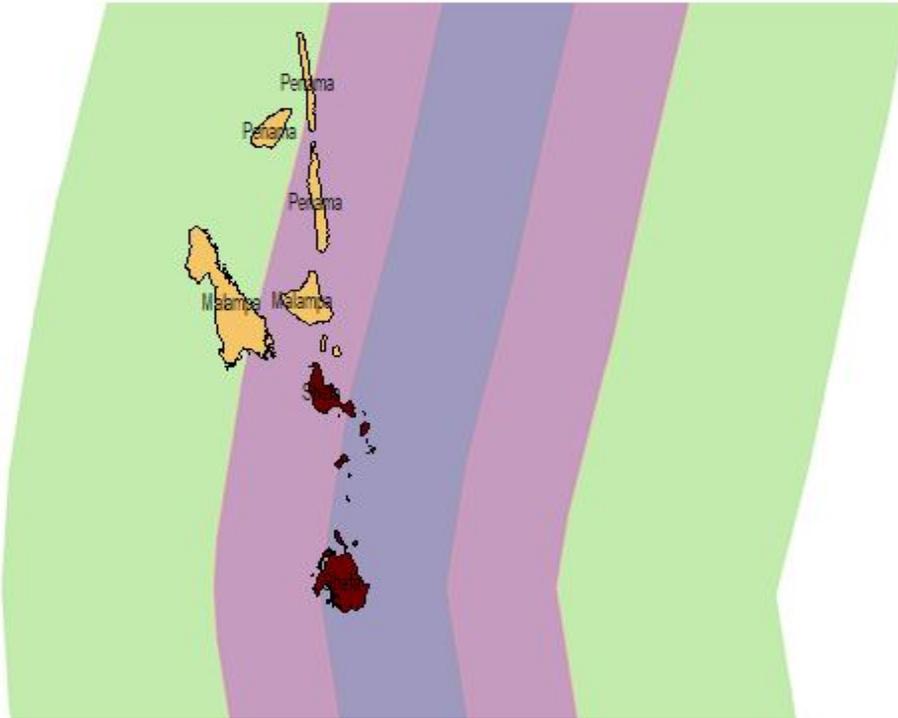


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Ex-ante risk assessment

Average Annual Loss (AAL) – Vanuatu Case Study



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_2410

