

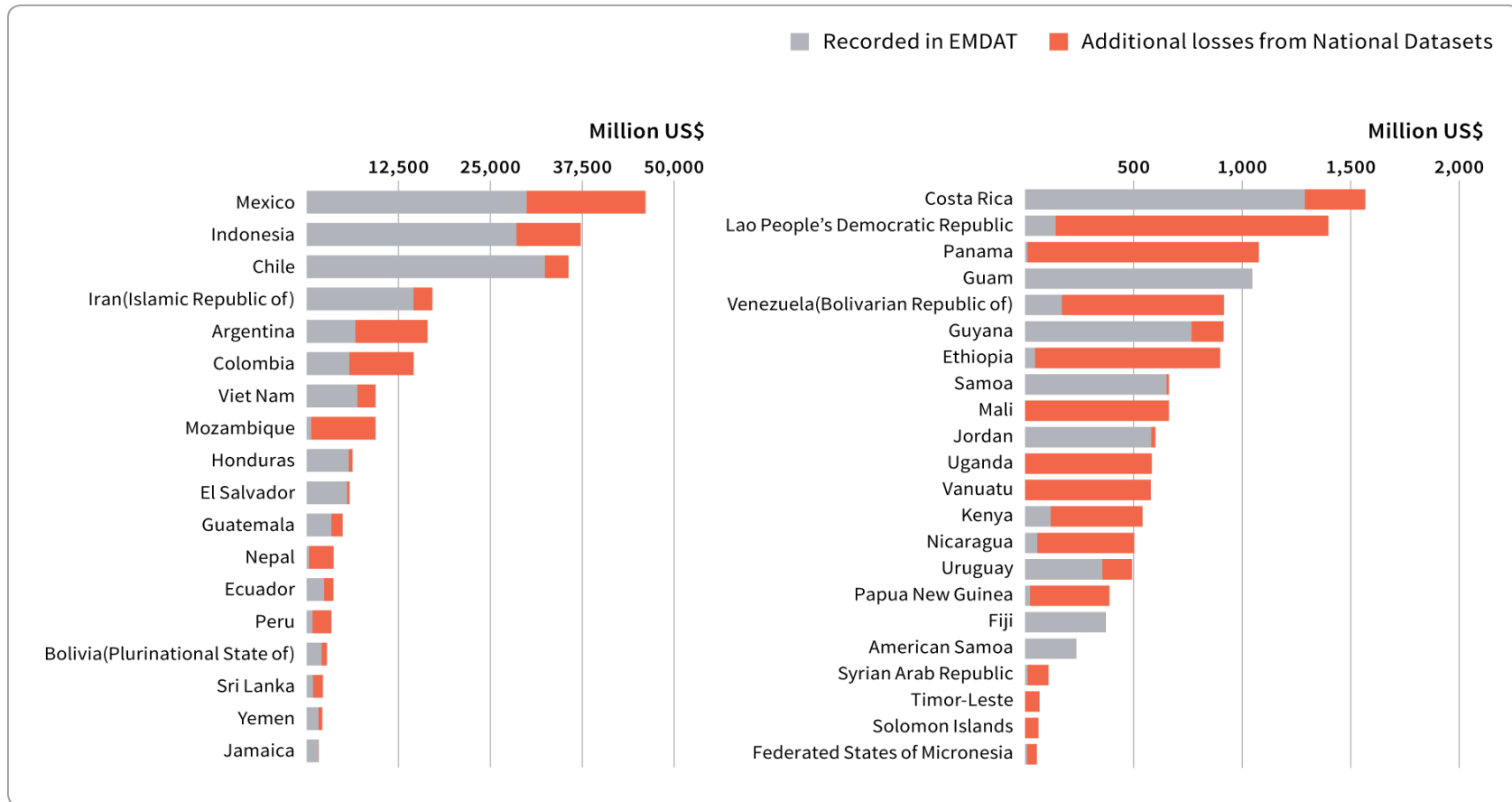


Quantifying Disaster **Risk:** *measuring progress in the path towards resilience*

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UNISDR -ROAP

Expert Group Meeting (EGM) on Improving Disaster Data to Build
Resilience in Asia and the Pacific, 30 September to 1 October 2013,
Sendai, Japan

Escalating losses



**Total economic losses (1981 – 2011) in million US\$
for selected countries**



Our collective aim...

“Substantial reduction of disaster losses, in lives and in the social, economic and environmental assets of communities and countries”

“Expected outcome” of the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters (Hyogo Framework)



The challenge of understanding 'Resilience'

A society resilient to natural hazards:

- *that can absorb hazardous events impact; [capacity]*
- *that can distribute the risk among the different stakeholders;*
- *that can adapt to the changes in frequency and severity of hazards, as well as the continuous increase of assets, and continue to prevent disaster to happen; [adaptive capacity]*
- *Resilience assumes effective risk management and risk management requires 'measurements' of hazard exposure and losses.*



Risk can not be ‘Managed’ or
‘Reduced’ if it can not be ‘Measured’

*One starting point of understanding
‘Disaster Risk **Reduction**’ and the path
towards ‘**Resilience**’ could be by :-*

Measuring ‘Losses’ over time



Country perspective: *Why governments need to understand/ measure risk and resilience?*

- *It can not be managed or reduced if it is not measured*
- *Optimizing ‘Investment’ in disaster risk reduction – no one has unlimited resources*

Country perspective: Investment decisions

STOCK OF
DISASTER
RISK:

Hazard,
Exposure,
Vulnerability

Disaster losses
(past)

Future Risk
(Probability of
losses or Annual
Average Loss)

OPTIMIZING INVESTMENT IN DRR

Can you avoid
the risk?

Yes

Prospective DRM
(Risk Avoidance)

No

Can you mitigate
the risk?

Yes

Prospective DRM
(Risk Mitigation)

Risk Reduction

No

Can you transfer
the risk?

Yes

Risk Transfer

No

Risk Retaining

Risk Finance

Cost and benefit



What is currently being done in 'Quantifying Risk'?

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_6636

