

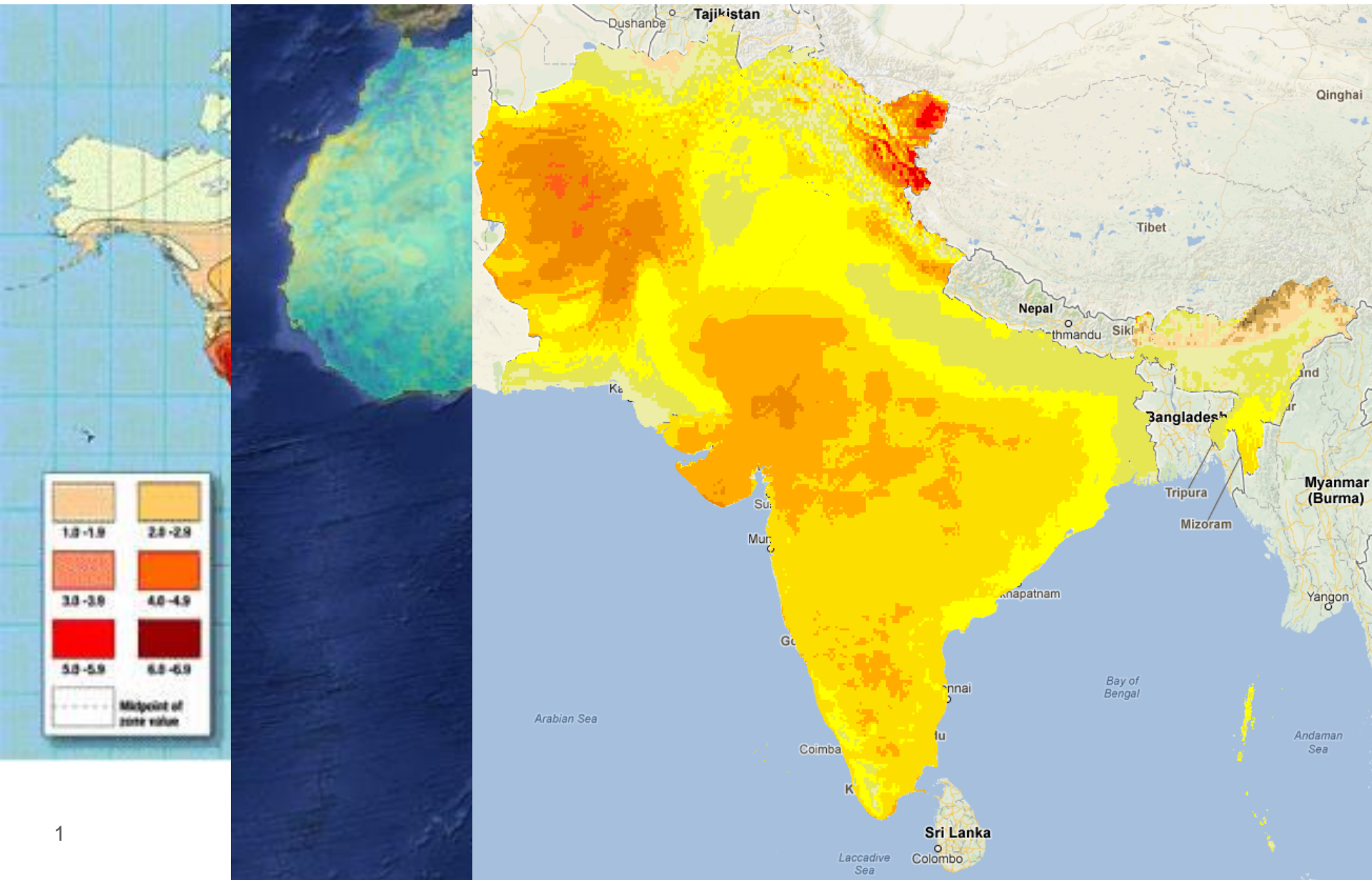
SOLAR RESOURCE ASSESSMENT TO PROJECT DEVELOPMENT: MAPS, MODELS AND MEASUREMENTS

Asia Clean Energy Forum
June 6, 2017

Oliver Knight
Senior Energy Specialist, ESMAP

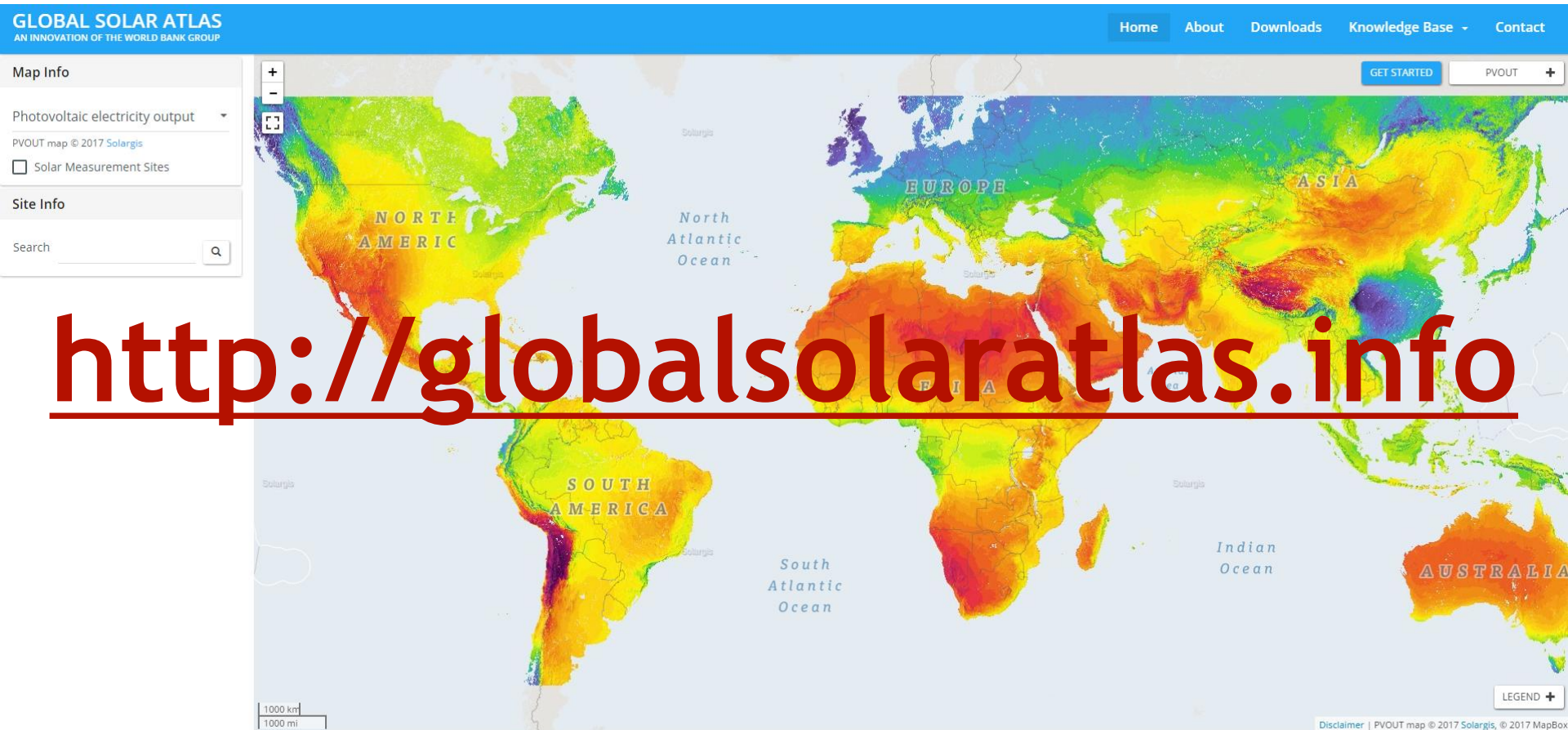


PROLIFERATION AND CONFUSION



GLOBAL SOLAR ATLAS

- Launched in January 2017
- Based on high quality modeled solar data from Solargis
- Around 50,000 visitors since launch
- Poster maps and GIS layers for all developing countries

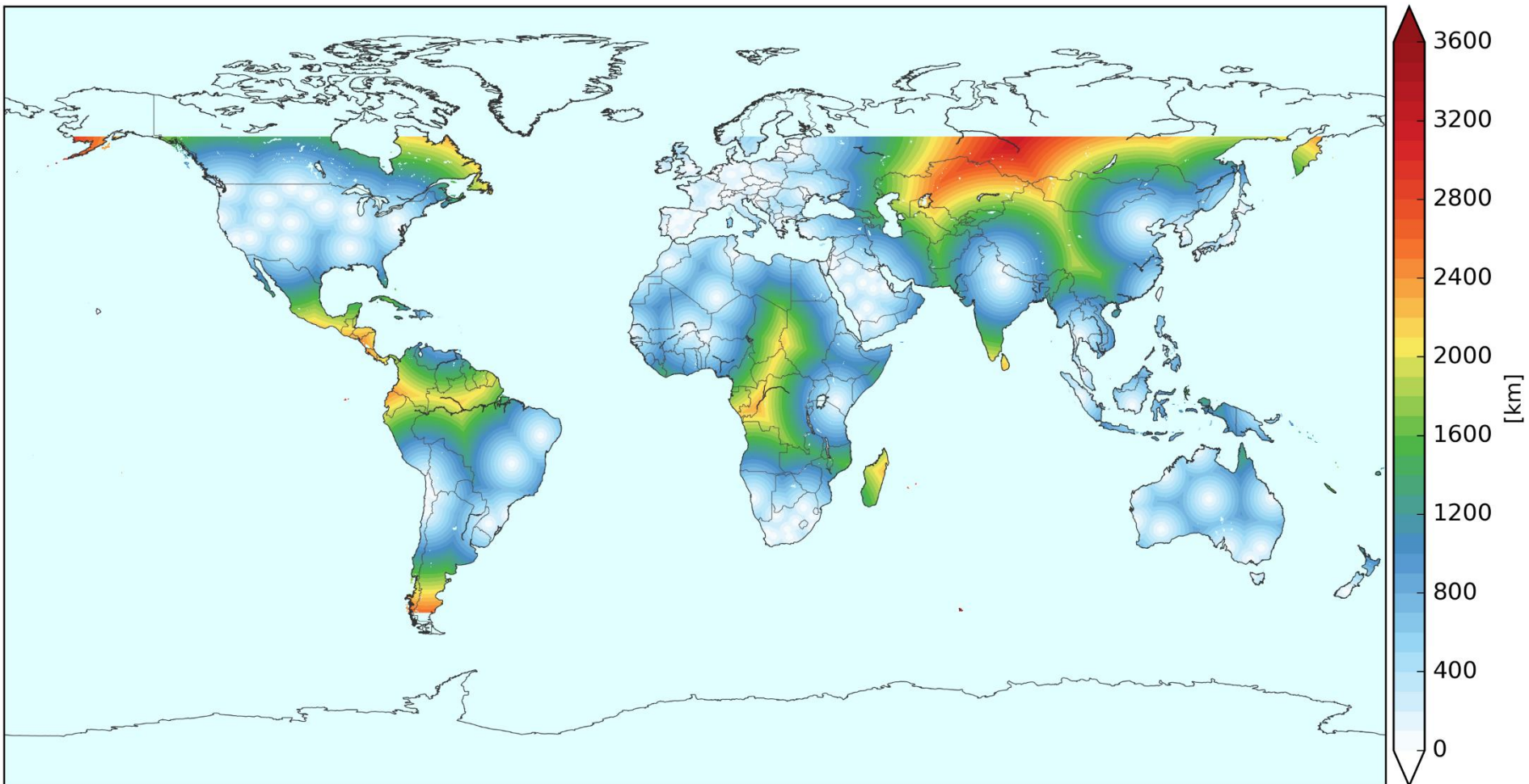


<http://globalsolaratlas.info>

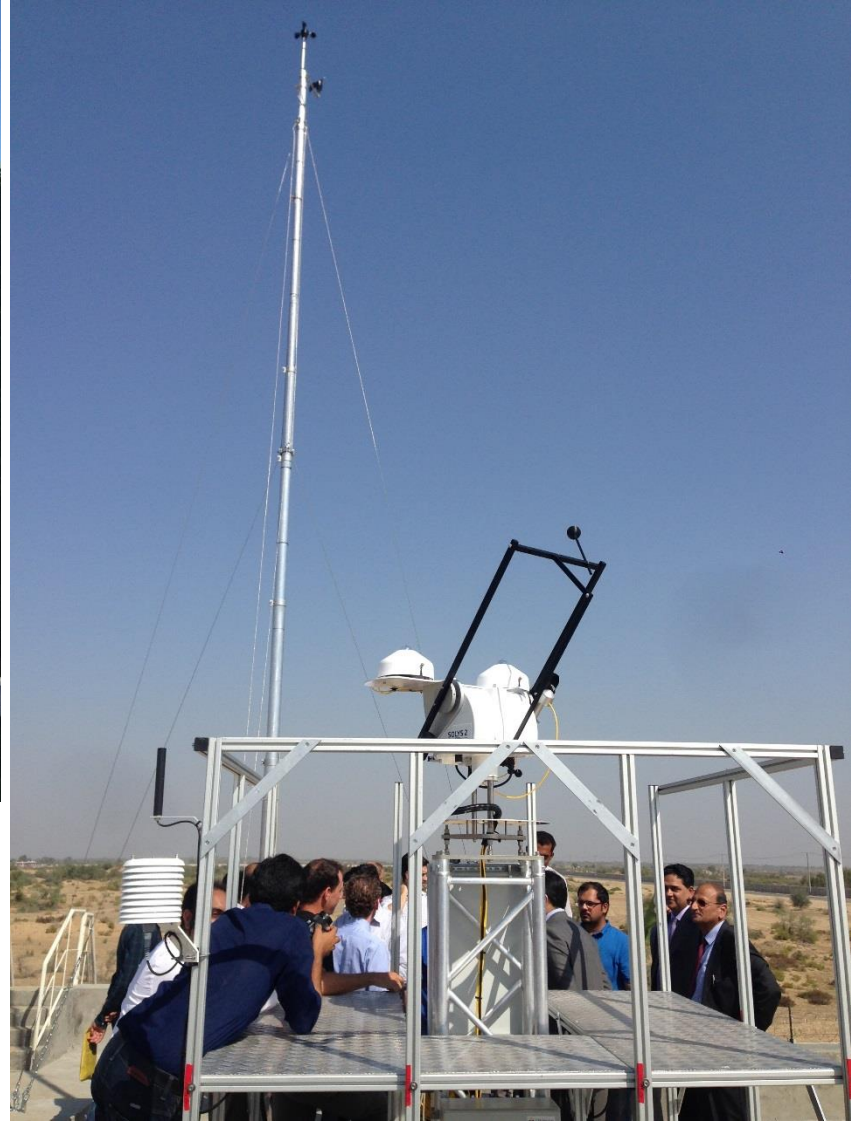
0 50 km

BUT UNCERTAINTIES REMAIN

Distance to validation sites



NEED TO INVEST IN HIGH QUALITY MEASUREMENT DATA



BUT PUBLISHING IT IS ESSENTIAL



Home / Datasets

Organizations

World Bank Group (10)

Lawrence Berkeley N... (6)

KTH Royal Institute... (3)

GIZ (1)

Groups

There are no Groups that match this search.

Formats

GeoJSON (10)

ZIP (9)

CSV (9)

shapefiles (6)

XLSX (2)

TIFF (1)

+ Add Dataset

Search datasets...



21 datasets found

Order by: Relevance

Topic: Resource assessments ✕

<https://energydata.info>

Zambia - Wind Measurement Data (2016-2017)

Data repository for measurements from 8 wind masts in Zambia. Data will be uploaded in batches, on a monthly basis, and will transmit daily reports for wind speed, wind...

CSV XLSX ZIP

Madagascar - Small Hydro GIS Atlas (2017)

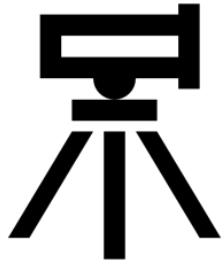
The GIS HydroAtlas of Madagascar is the final output from the small hydro resource mapping component of the activity "Renewable Energy Resource Mapping and Geospatial Planning...

ZIP GeoJSON

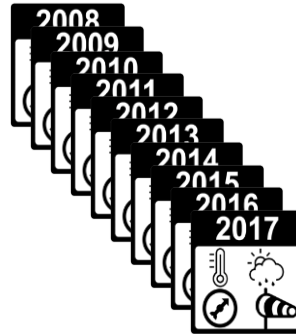
Pakistan - Wind Measurement Data (2016-2018)

Data repository for measurements from 12 wind masts in Pakistan. Data will be uploaded in batches, on a

LOWER UNCERTAINTIES LEAD TO LOWER COSTS



$\times 10 = \text{USD } \1m



$\times 1\text{GW} = \text{USD } \71m
potential economic benefit

CONSOLIDATION IS NOW NEEDED

- ✓ Use, disseminate and improve the Global Solar Atlas
- ✓ Invest in public measurement campaigns
- ✓ Publish data to help improve the models
- × No need to carry out solar mapping
- × Stop using old resource data and maps
- × Don't cut corners when investing in measurements

FUTURE PLANS

- **Enhancements of the Global Solar Atlas**
- **Relaunch improved Global Wind Atlas by end of 2017**
- **Publish guidance on measurement campaigns**

Contact Details

ESMAP website: www.esmap.org/re_mapping
Oliver Knight: oknight@worldbank.org

COUNTRY PROJECT PIPELINE

Country	Funding	Source	Biomass	Small Hydro	Solar	Wind
Bangladesh	\$500,000	ESMAP / ASTAE			✓	✓
Burundi*	-	ESMAP			✓	
Ethiopia*	\$1,600,000	ESMAP			✓	✓
Indonesia	\$750,000	ESMAP		✓		
Kenya*	-	ESMAP			✓	
Madagascar	\$1,350,000	ESMAP		✓		
Malawi	\$710,000	ESMAP			✓	
Maldives	\$2,415,000	ESMAP / ASTAE			✓	✓
Nepal	\$1,800,000	ESMAP			✓	✓
Pacific Islands (10 countries)	\$2,200,000	SIDS-DOCK			✓	✓
Pakistan	\$4,350,000	ESMAP / ASTAE	✓		✓	✓
Papua New Guinea	\$1,900,000	ESMAP / ASTAE			✓	✓
Rwanda*	-	ESMAP			✓	
Somalia	\$1,000,000	In-country trust fund			✓	✓
Sudan*	-	ESMAP			✓	
Tanzania*	\$2,350,000	ESMAP		✓	✓	✗
Uganda*	-	ESMAP			✓	
Vietnam	\$1,765,000	ESMAP	✓	✓	✓	✓
Zambia	\$3,600,000	ESMAP			✓	✓