

Connecting Policy and Action: Research on Climate Change

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What we wish to achieve

- 1) Supports ODA policy/JICA strategy and operations
- 2) Innovative and interdisciplinary framework
- 3) Knowledge creation adding value to the discussions in the international aid community
- 4) Strongly relevant to policy makers/planners in our partner countries

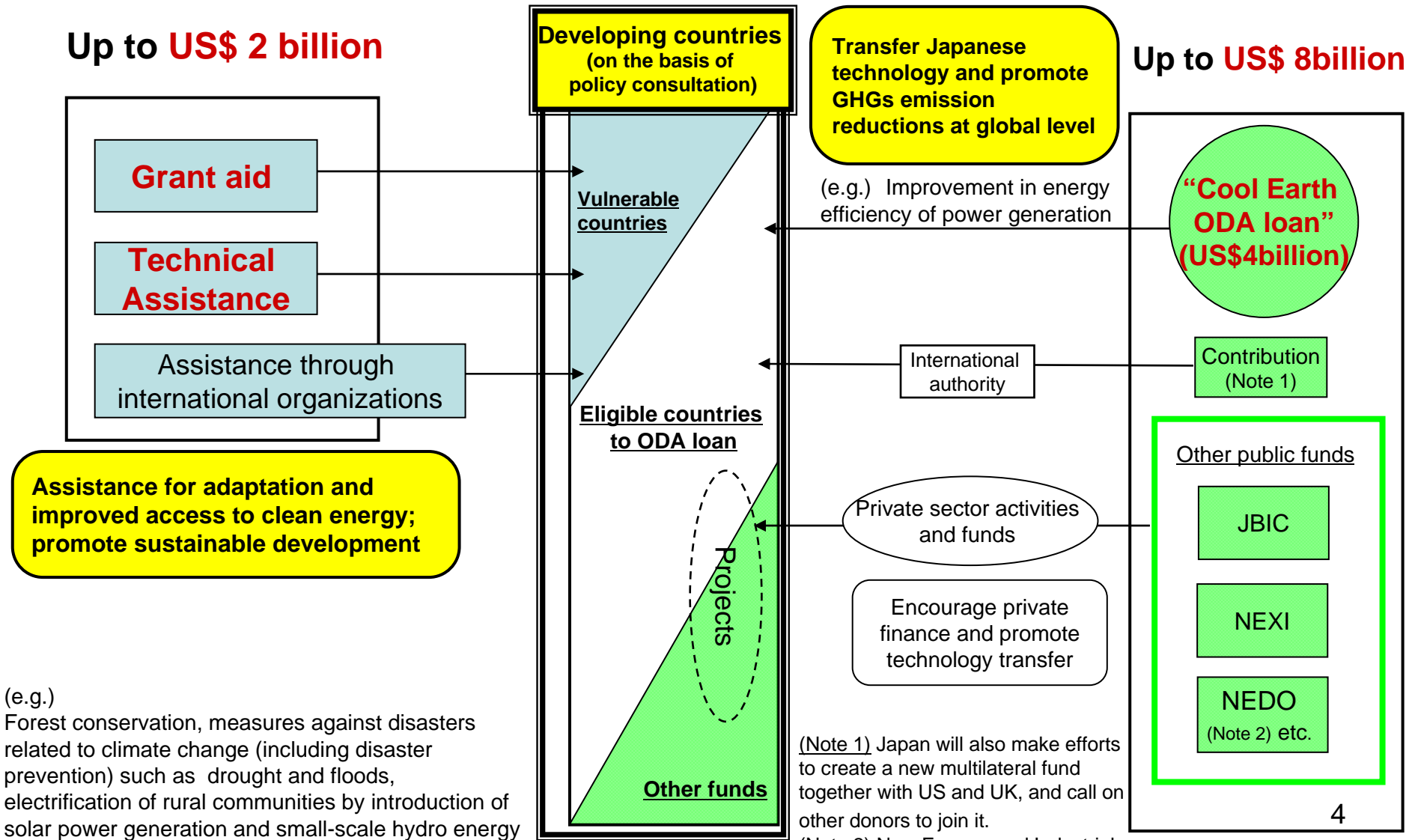
→ Thus connecting policy and action at the field

Our strengths

- ❑ Tangible/intangible knowledge accumulated across the three aid schemes (Technical Assistance, Loan, Grant)
- ❑ Knowledge alliance in Asia and Japan (e.g. cutting edge technology, climate modeling, hydrology/coastal engineering, low carbon scenario/adaptation analysis)
- ❑ Original data collected through field operations
- ❑ Endogenous driver for change: wider and challenging horizon of activities that demands in depth analysis

Financial Mechanism “Cool Earth Partnership” (Image)

From 2008, Japan will provide funds on the scale of **US\$10billion over the next five years.**
 →to assist developing countries making efforts to reduce GHGs emissions and achieve economic growth in a compatible way.

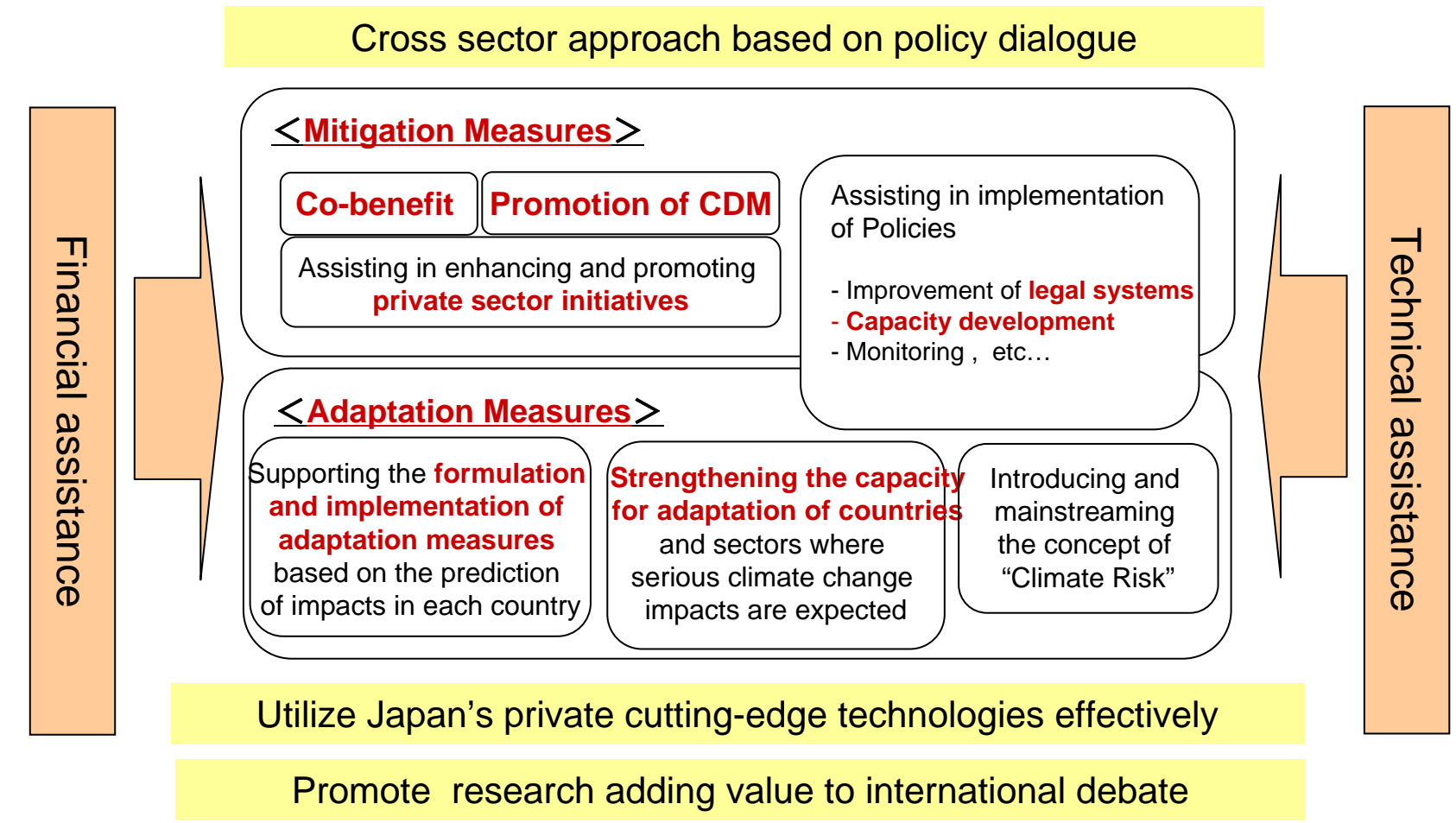


(e.g.)
 Forest conservation, measures against disasters related to climate change (including disaster prevention) such as drought and floods, electrification of rural communities by introduction of solar power generation and small-scale hydro energy

(Note 1) Japan will also make efforts to create a new multilateral fund together with US and UK, and call on other donors to join it.

(Note 2) New Energy and Industrial Technology Development Organization

“Direction of New JICA’s Operation Addressing Climate Change” (October 1, 2008) (Image)

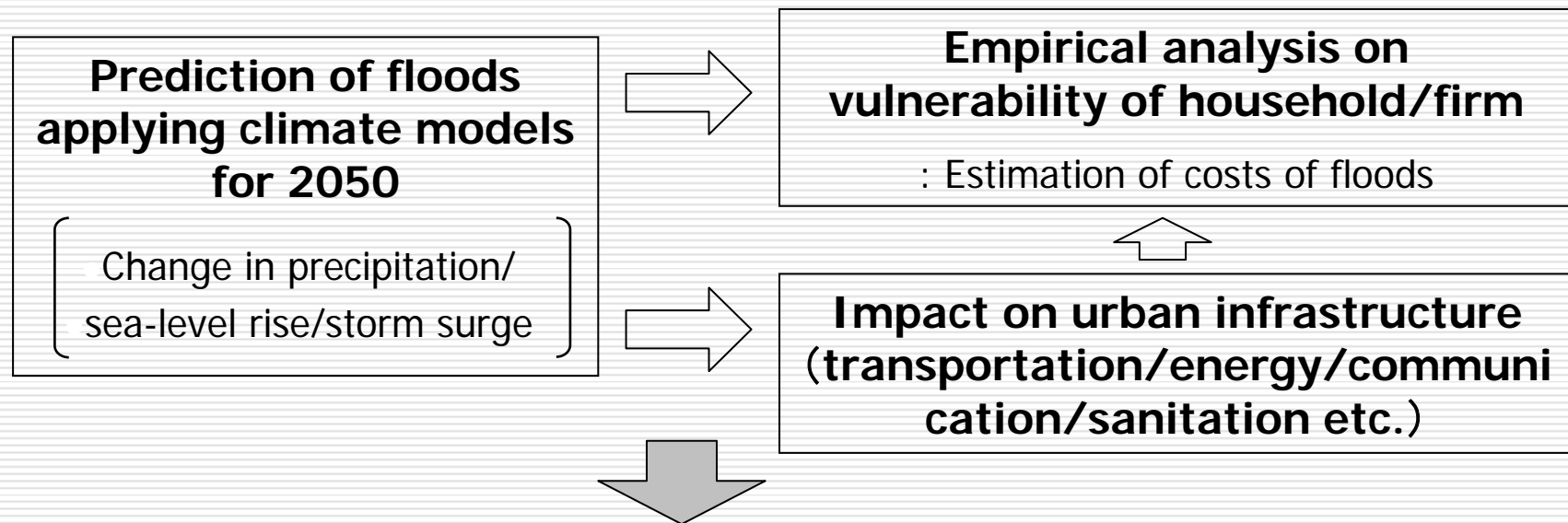


Currently, 30% of technical cooperation and 30% of yen loan projects are climate change related.

JICA-WB-ADB Joint Study: Climate Change Impact and Adaptation in Asian Coastal Cities

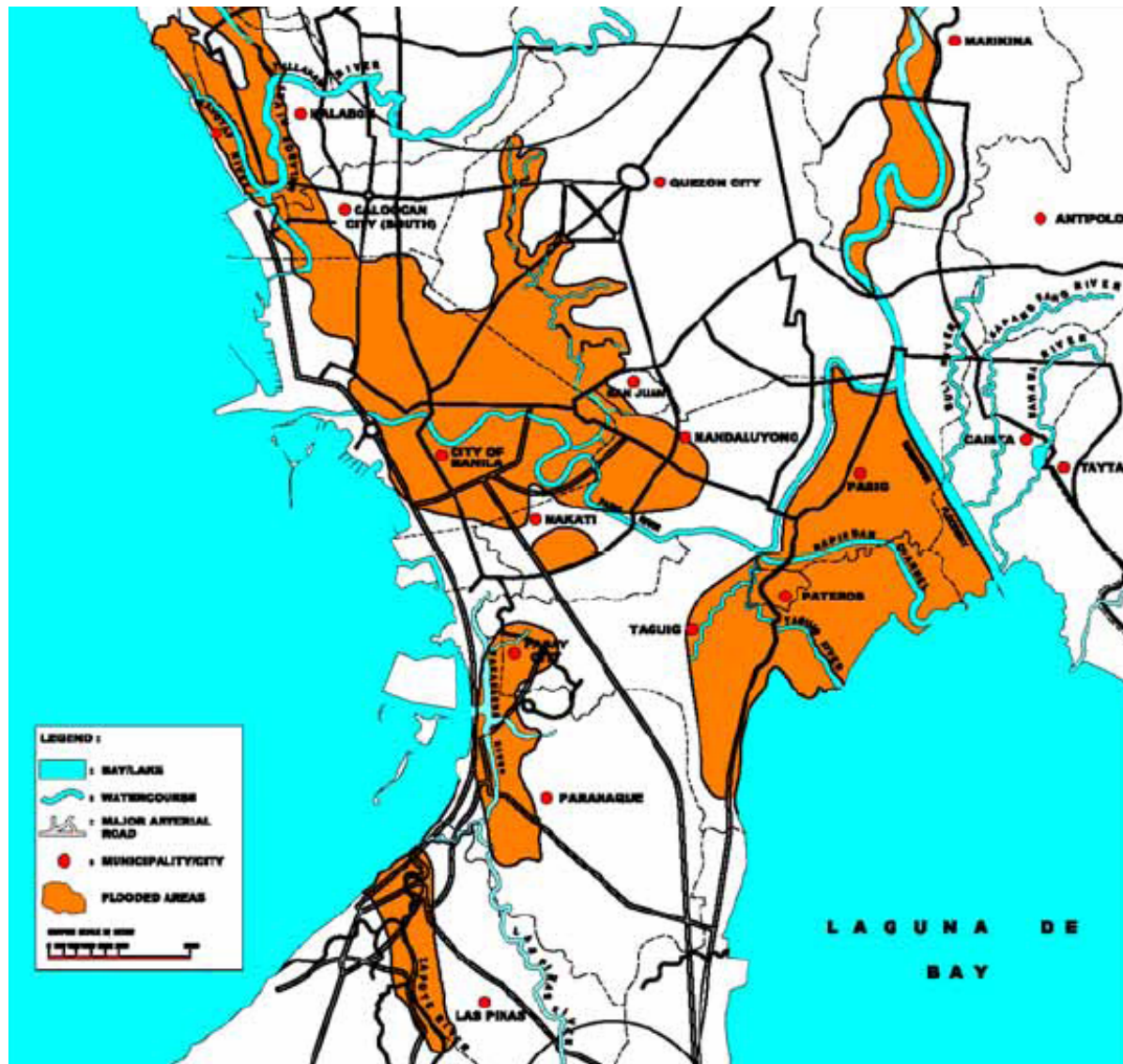
Assessment on vulnerability to floods caused by climate change

Cities JICA : Manila
World Bank : Bangkok and Kolkata
ADB : Ho Chi Minh City
and others



Adaptation and mitigation policies to climate change

Flood Prone Areas in Metro-Manila (Image only)



Flood-prone areas in Manila



Direct Impacts (tentative)

- Affected Roads -

Flood Scenario (Existing Infra)	Road Length by Inundation Depth (kms)						
	8-20 cm		21-50 cm		Above 50 cm		Total
	Major	Minor	Major	Minor	Major	Minor	
Status Quo	4.5	3.9	22.1	23.8	31.9	39.8	125.9
B1	5.4	9.7	13.6	15.1	47.9	55.6	147.3
A1FI	5.3	6.9	14.6	18.2	53.6	60.3	158.9

Flood Scenario (Business-as-Usual)	Road Length by Inundation Depth (kms)						
	8-20 cm		21-50 cm		Above 50 cm		Total
	Major	Minor	Major	Minor	Major	Minor	
Status Quo	3.78	4.33	6.40	10.45	7.45	13.42	45.82
B1	7.24	8.15	9.54	15.73	12.07	20.82	73.55
A1FI	9.45	9.05	12.62	16.28	14.97	25.63	87.99

Secondary Impacts (tentative)

- Other Trips -

LGU	Flood-affected Generated/Attracted Trips by Purpose			
	School	Recreation	Medical	Religious
City of Manila	2,002,254	41,034	164,033	135,976
Kalookan City	92,195	284	3,339	5,507
Makati City	169,085	2,464	5,445	18,075
Malabon City	197,922	1,538	2,764	11,520
Mandaluyong City	143,333	1,275	4,052	6,639
Marikina City	173,042	2,820	4,878	16,313
Navotas	115,391	1,943	1,758	6,840
Pasay City	30,505	662	2,199	1,158
Pasig City	280,050	4,897	13,777	22,249
Quezon City	460,404	4,080	47,833	33,372
San Juan City	58,564	499	2,725	3,408
Taguig City	96,033	4,665	2,415	5,971
Pateros	52,406	600	522	3929
Total MM	3,871,184	66,161	255,218	267,028

Source: JICA-MMUTIS



With a trip rate of 2.2, approximately **1.8 M** students affected

The way forward

- Analyses towards Low Carbon Society in Asia
- Adaptation analyses in the rural context, combining climate modeling, hydrology, and agriculture (e.g. new stress resistant varieties in Africa)
- Institutional analyses in formulating mitigation/adaptation policy framework (horizontal coordination, vertical coordination)