

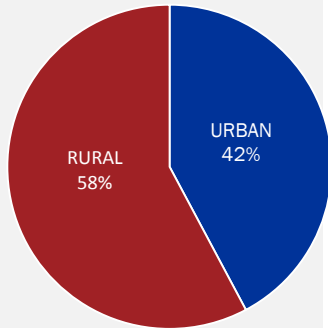
Private- Public Partnership in Sustainable Urban Infrastructure Investments



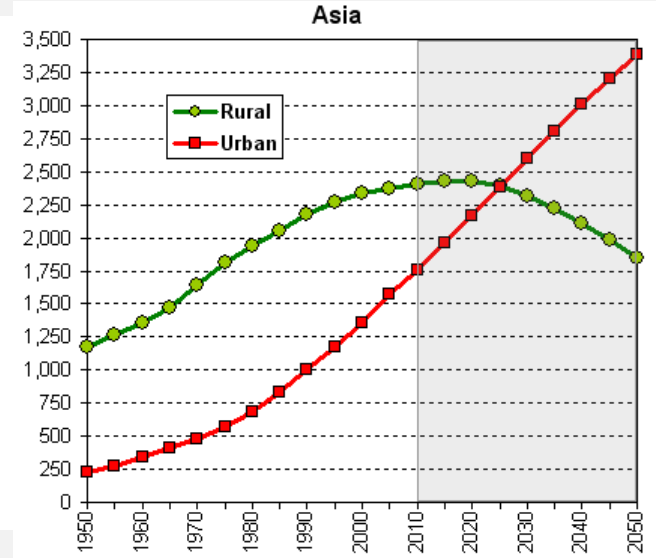
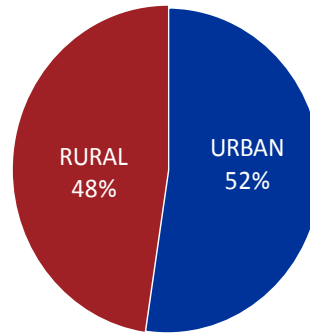
Adolfo Guerrero– Cities Development Initiative for Asia (CDIA)

Asia's Urban Challenge

ASIA'S POPULATION (%)
2010

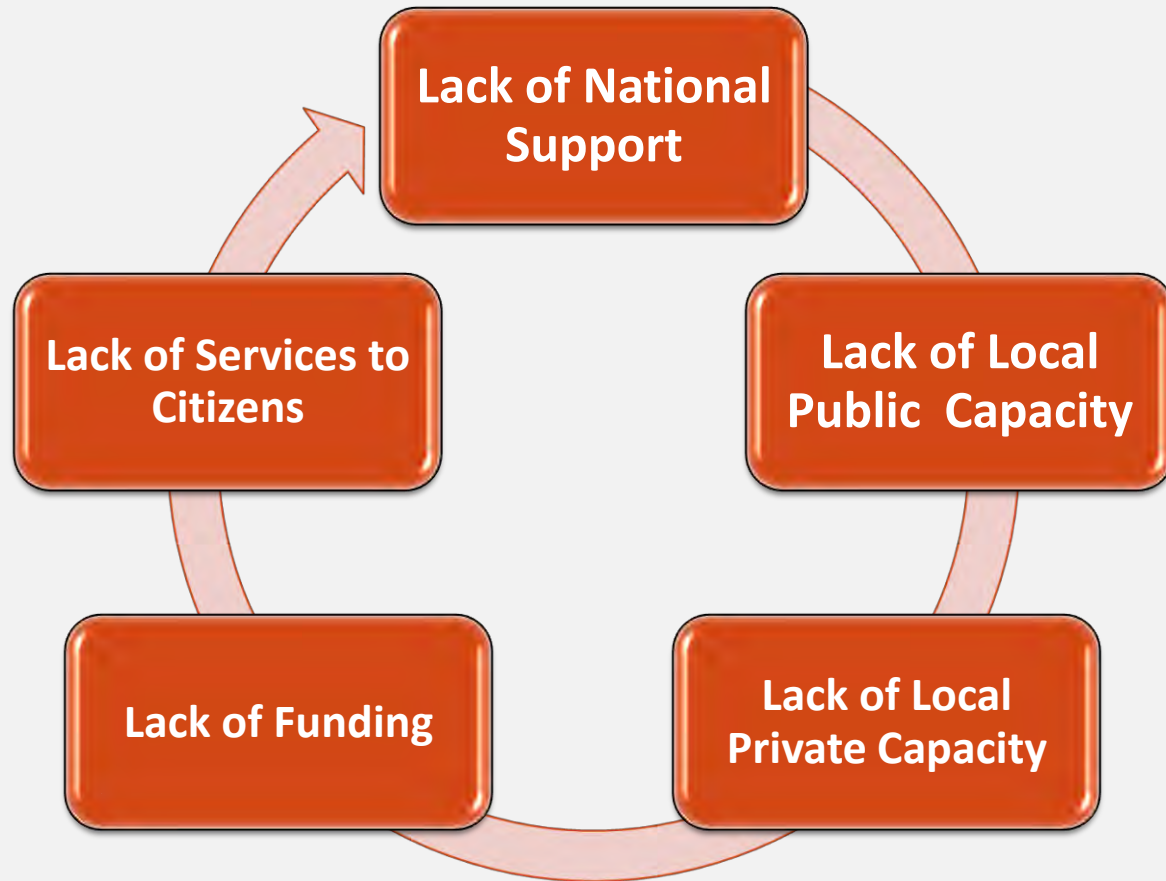


ASIA'S POPULATION (%)
2020



- Between 2010 and 2020, 411 million people will be added to Asian cities (60% of the growth in the world's urban population)
- By 2020, of the 4.2 billion urban population of the world, approximately 2.2 will be in Asia
- The estimated urban environmental infrastructure investment need in the Asia-Pacific region is about \$100 billion per year
- Current urban environmental infrastructure investment is about \$ 40 billion per year

Challenges for Urban PPPs

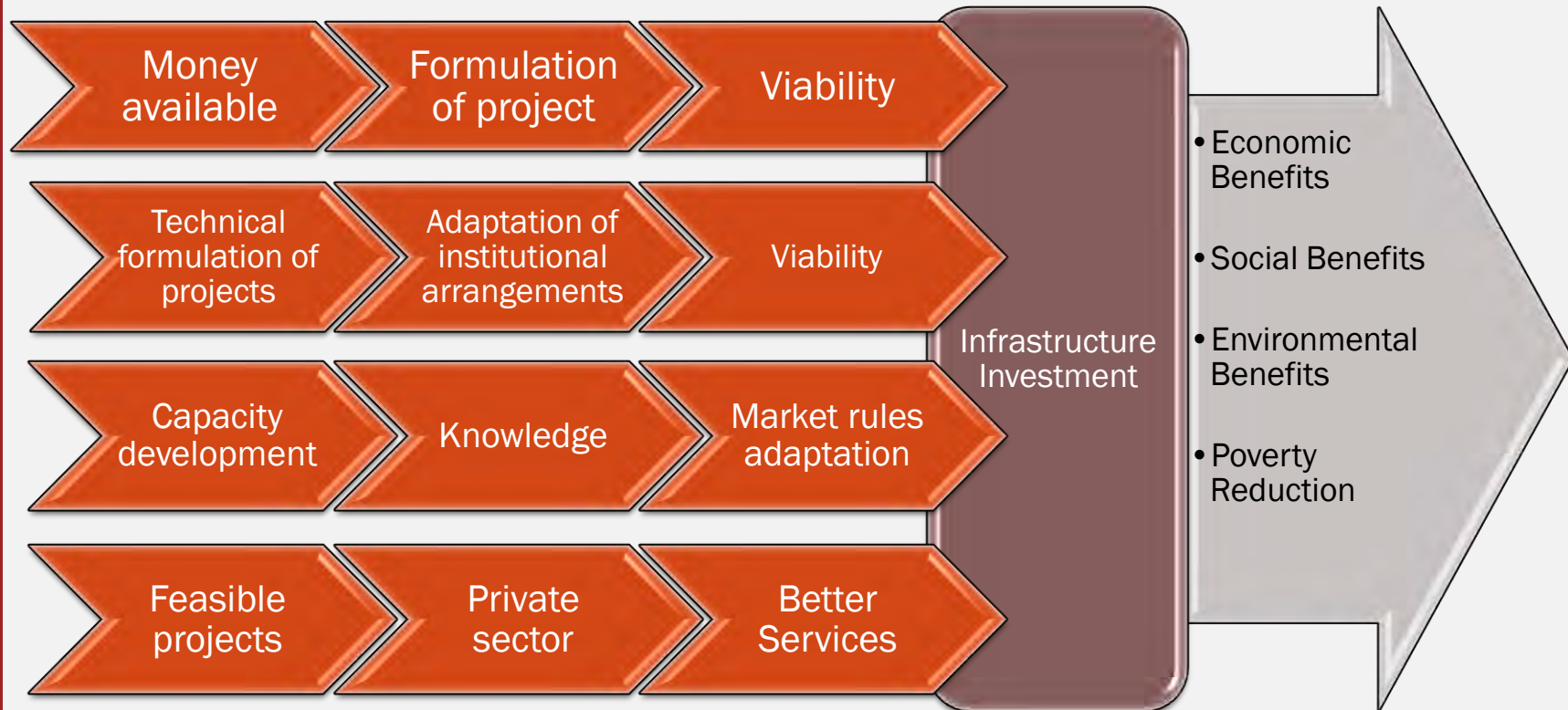


Attractiveness



Linking Cities to Finance Conference

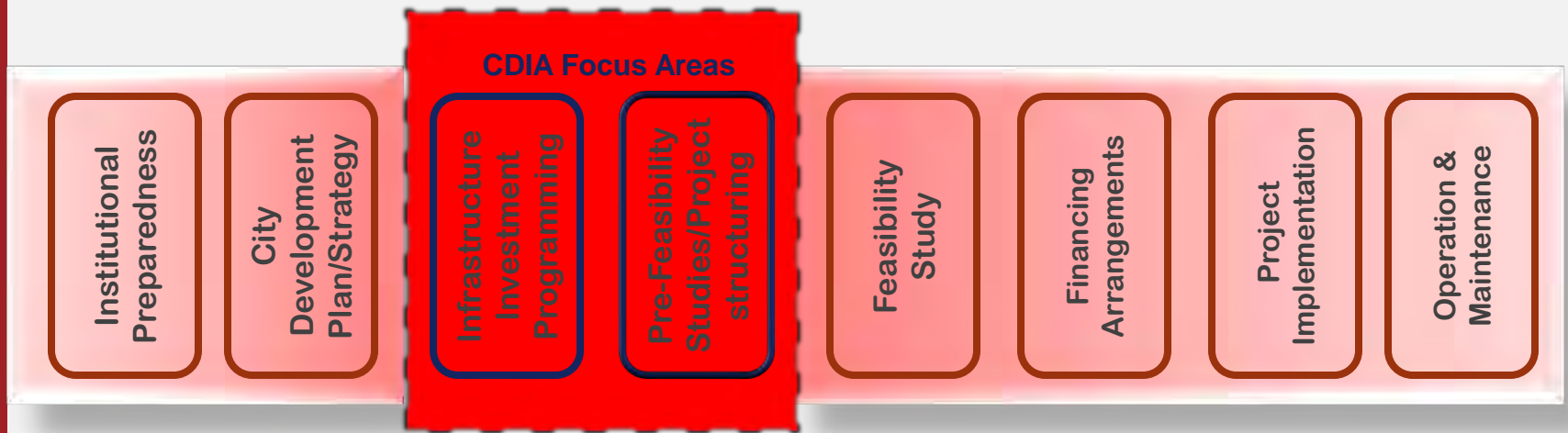
Message to cities



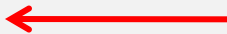
Solutions

- **Flexibility in looking at projects**
- **Innovative approach**
- **Thinking out of the box**
- **Capacity for private sector as well as for public sector**

CDIA Intervention Area



Up-stream

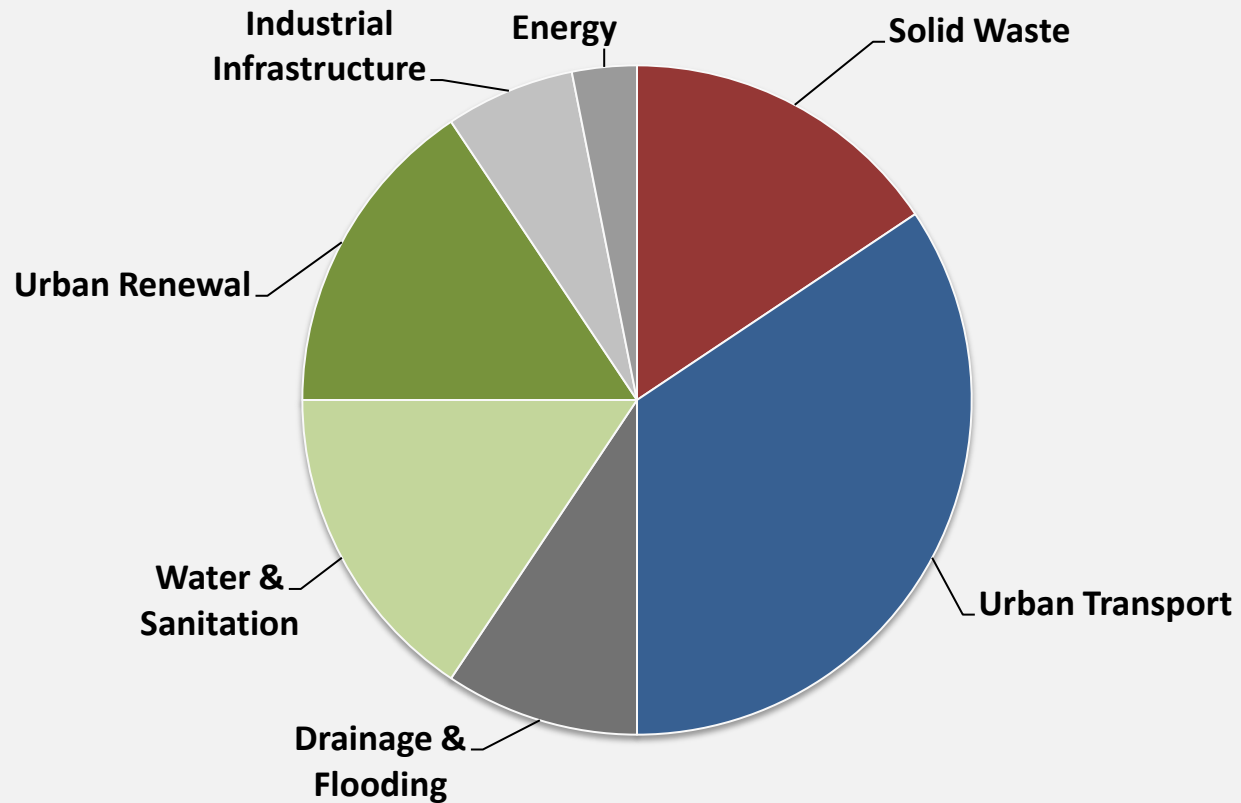


Down-stream



CDIA Engagement by Sector

CDIA is a demand driven facility supporting medium-sized Asian cities in multiple sector urban infrastructure development



Sustainable Infrastructures in PPP

Cochin (India) - Inclusive Urban Transport

- Poor mobility for low-income groups on the urban fringe, challenges include accessibility, flexibility and affordability.
- CDIA Pre-Feasibility Study: “A Clean Affordable Fast Efficient (CAFE) Urban Transport Investment Program” - Investments in Water Transport, Priority Bus Lanes and Pedestrian Precincts



Sustainable Infrastructures in PPP

Cochin (India) urban ferry transport project



- Shift from slow and congested land based transport to fast and economical water transport
- Ferry and terminal upgrades for five of Cochin Island's ferry routes.
- Target daily capacity 100,000 passengers.
- Five route upgrades include a total of 15 new or improved ferry terminal facilities
- Twelve purpose-built, low wash type catamaran passenger vessels

Sustainable Infrastructures in PPP

CDIA activities for the Cochin urban ferry project



- Strategic review of Cochin's transport sector at the request of the Cochin Corporation;
- Pre Feasibility Study, in accordance with the National Urban Transport Policy;
- Climate change analysis;
- Investment proposal institutional arrangements; and
- Preliminary CDM baseline evaluation and documentation (ongoing with the Climate Market Initiative of the ADB).

Sustainable Infrastructures in PPP

Cochin: potential carbon finance impact

Emissions and carbon financing

	Annual CERS	Overall CERS 2013-2022
Emissions reduction (tCO₂e)	20,000	200,000
Potential revenue		
\$5/ton	\$100,000	\$1,000,000
\$10/ton	\$200,000	\$2,000,000
\$15/ton	\$300,000	\$3,000,000
\$20/ton	\$400,000	\$4,000,000

Indicative project financing plan (with pricing examples at \$5/ton & \$20/ton)

Total Investment Cost	\$49,500,000	\$49,500,000
Financing Sources		
JUNNRM subsidy (50%)	\$24,750,000	\$24,750,000
State of Kerala loan (30%)	\$14,850,000	\$14,850,000
Equity and/or additional loan	\$9,760,000	\$7,100,000
FCF (e.g. 70% of CERS)	\$140,000	\$2,800,000
Percent (FCF/Total)	0.28%	5.66%
Percent (FCF/City Equity)	1.43%	39.44%

Sustainable Infrastructures in PPP

Cochin urban ferry project: next steps



- Detailed project design and other CDM documents required for Designated National Authority approval
- Preparation of Term Sheets for CER sales
- Identification of carbon buyers and technology providers

Sustainable Infrastructures in PPP

Potential CDM projects in the Urban Transport

- **Vehicle technology improvement** (4 stroke engine)
- **Lowering carbon intensity of fuels** (CNG)
- **Reduce transport activity** (road tolls)
- **Switch mode of transport** (road to sea/train freight)
- **Public mass transport** (BRTS/Metro)
- **Energy efficiency** (regenerative brake systems)
- **Fuel switch** (petrol to biodiesel)

THANK YOU!