



Cities Development Initiative for Asia

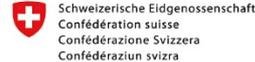
Investing in Asia's urban future

Smart Cities – Smart Infrastructure Provision

Innovative Strategies for Development Summit 2016

Alexandra Linden
Cluster Coordinator Capacity Development & Outreach

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FUNDED BY

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Mandate

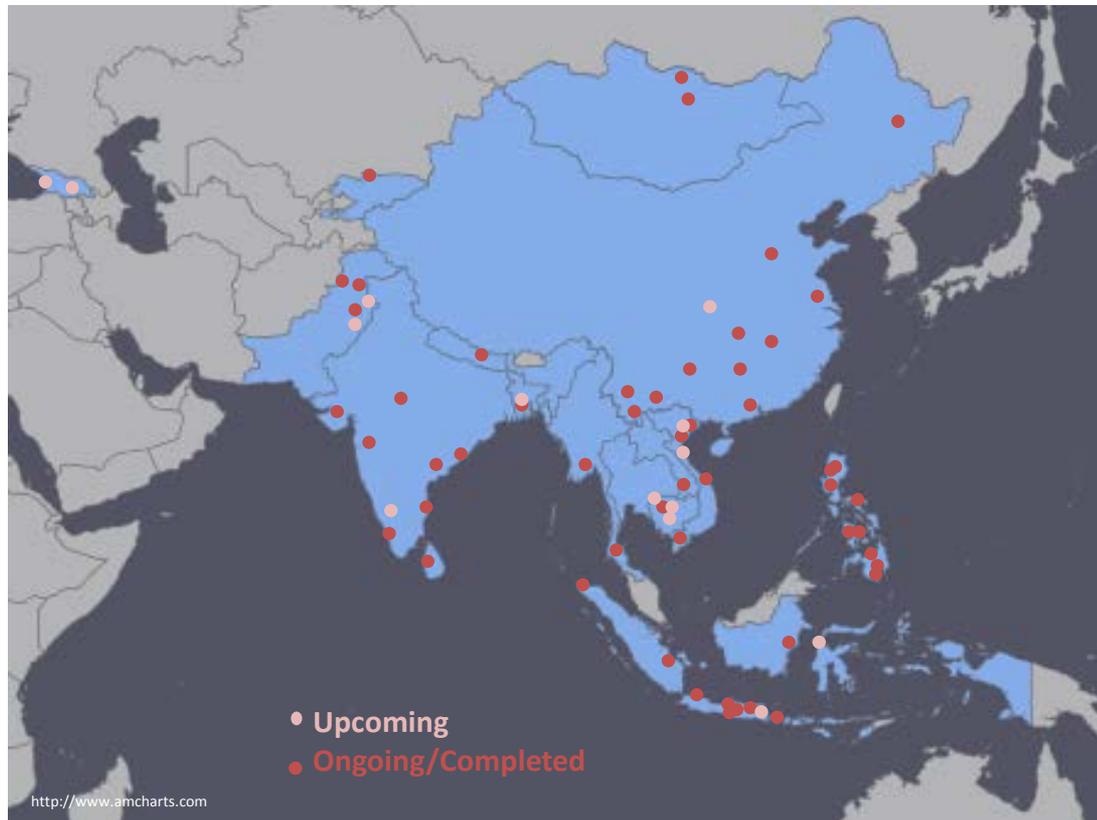
CDIA is an international partnership initiative established in 2007 by the Asian Development Bank (ADB) and the Government of Germany, with additional funding support from governments of Austria, Sweden, Switzerland, and the Shanghai Municipal Government.



CDIA provides assistance to medium-sized Asian cities to bridge the gap between their development plans and the implementation of their infrastructure investments.

CDIA supports the identification and development of urban investment projects and links them with potential financiers.

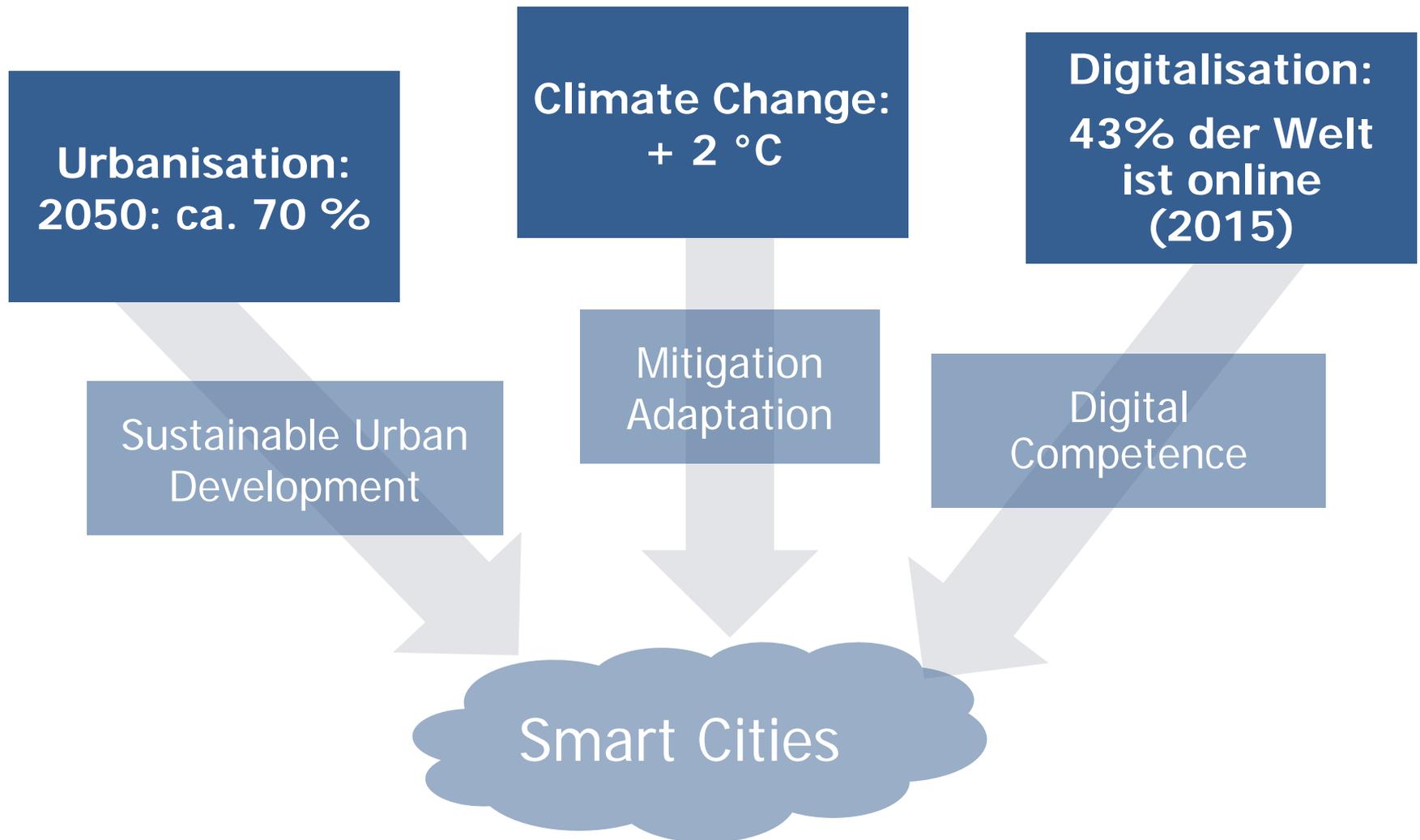
113 Cities supported in **17** Asian countries
49 Prioritization exercises &
PFS reports covering **98** projects completed
51 projects linked to finance
5.8 Billion US\$ expected infrastructure investment value



Cities with Country	Approved PFS Interventions	Ongoing PFS Interventions	Completed PFS Interventions	Project Component Financed	Amount linked in USD mio.
Bangladesh	2	-	1	1	31.3
Cambodia	-	4	1	1	14.0
China	-	2	11	5	3883.6
Fiji	-	-	1	1	15.0
Georgia	2	-	-	-	-
India	1	1	7	4	185.1
Indonesia	-	-	11	7	164.2
Kyrgyzstan	-	-	1	1	-
Lao PDR	-	-	1	1	34.2
Mongolia	1	-	2	1	98.5
Myanmar	-	-	1	-	-
Nepal	-	-	1	1	32.5
Pakistan	-	-	5	3	1,003.7
Philippines	1	-	9	5	190.7
Sri Lanka	-	-	1	1	128.0
Thailand	-	-	1	1	-
Vietnam	-	3	4	2	38.9
17	7	10	58	36	5,807.4

● Upcoming
● Ongoing/Completed

Global Trends



Smart Cities are those cities....

. ... that deliberately engage **in participatory learning and evidence-based** policy-making in order to improve their services and infrastructure and, in this process, make use of **advanced information and communication technologies**.

ICT are used to improve **connectivity**.

Given the right conditions, this improved connectivity contributes to resource efficiency, hence also to **environmental sustainability**, as well as to the betterment of **governmental services** - indirectly at the reduction of social inequalities and increased societal participation.

International Agenda Habitat III and Smart Cities

11.1:

Adequate, Safe and Affordable Housing, Basic Services and upgrade slums

- e-government: reduce administration costs, increase access and improve coordination
- smart water systems: capture and track maintenance requests and actions

11.5:

Reduce Deaths and the Number of People affected caused by Disasters

- ICT-enabled monitoring of infrastructure, early warning systems;
- ICT-based Adaptation on Climate Change in Cities

11.6:

Reduce Environmental Impact of Cities

- ICT-Solutions can reduce global CO2 emissions by 16% by 2020
- energy efficient buildings through smart metering and smart building control;

**Influencing
quality and
prioritization of
services and
infrastructure**

**Cost-efficient
management and
integration of
innovative
solutions**

**Transformation
of user behavior
and related
demand**

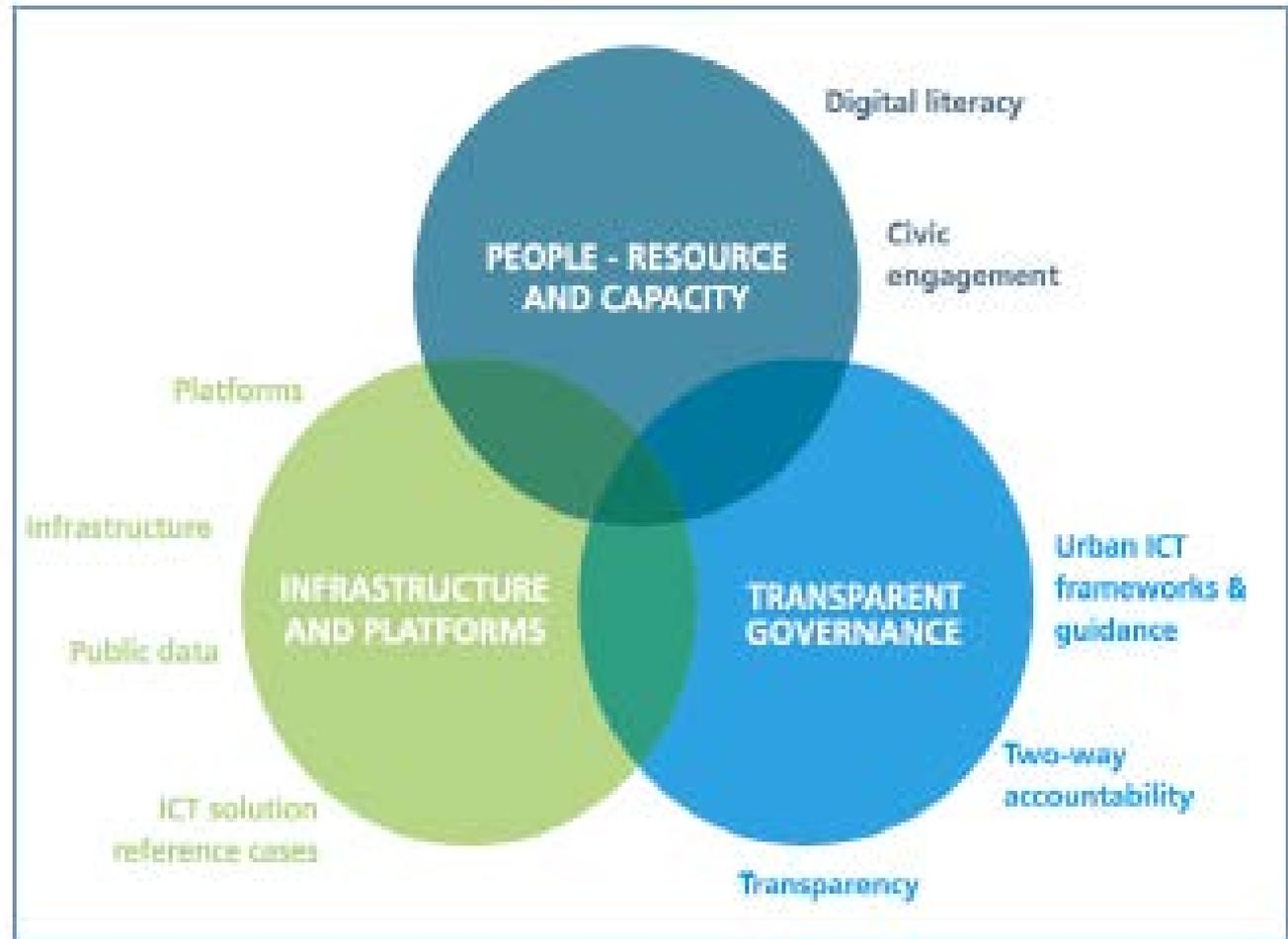


Figure 1: An ICT Enabling Environment for Cities

Entry Points for Development Cooperation

- **By Sector**

Transport, Energy, Infrastructure, Environment, Disaster Risk Reduction, efficient and transparent urban governance in planning, budgeting, implementing, and stakeholder participation

- **Strong Emerging Economies: Regulation** of sectoral Investment projects (e.g. Smart Grid, Cloud Computing) and integrated urban management systems.
- **Cities of medium development and income level: technical Know-How Transfer**, expanding competencies of administrations, environment-friendly construction, resource and waste management, transport- and logistic solutions, smart metering.
- **Cities with low development and income level: e-Governance**, fostering education and health through mobile network technologies, financing of pilot projects.

Yogyakarta, Indonesia

PFS in Urban Transport, July 2011

Challenges

- “Gap” in the strategy development-strategy delivery process led to failure to realize essential elements of the Spatial Plan (BAPPENDA) by respective LGUs
- **City gov. facing large challenges to effectively manage & control** neither the urban sprawl nor the increase in private traffic on its increasingly congested road network
- **Shift away from public transport and into private vehicles;** declining role of urban transport over the past half-decade, coupled with rapid increase in private ownership rates
- Perception of local community remains that using public transportation is more expensive than having private vehicles



Recommended Short-Term Investment on ICT-based Infrastructures

Intelligent Transport System (ITS) as an integral part of the upgrading and modernization of the transport sector's management system:

- **Automated Traffic Control System (ATCS)** comprising a number of intersection signals with capacity for real-time monitoring and flexible cycle times
- **Central Control Room (CCR)** assisting in monitoring and manage the operations of bus fleets and of traffic
- **GPS-Based Fleet** enables effective tracking for both management planning purpose and provide passenger with RTPI
- **Real-Time Passenger Information System (RTPI)** providing passenger with up-to-date of estimated time arrival of bus fleets
- **On-Board Ticketing** to replace shelter-based ticketing system



Currently in operation to monitor traffic in Yogyakarta

Implemented in pilot project area (only) at Magelang Street

Not implemented due to **high investment cost+ O&M**; City prioritizing on improving quality of services + increase in no. of ridership per day

System developed; However passenger still pays ticket at bus stop/halt



“Our struggle for global sustainability
will be won or lost in cities.”

- Ban Ki Moon, UN Secretary General



SHANGHAI MUNICIPAL
GOVERNMENT
上海市人民政府



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