

Asia-Pacific Countries with Special Needs Development Report 2017

Investing in Infrastructure for an Inclusive and Sustainable Future



Manila, 30 August 2017

Countries with special needs

- Countries with special needs (CSN)
 - Least developed country (LDC)
 - Cambodia, Lao PDR, Myanmar
 - Landlocked developing country (LLDC)
 - Lao PDR
 - Small island developing State (SIDS)
- CSN face unique challenges
 - LDC: limited productive capacity, high poverty rate
 - LLDC: limited access to markets
 - SIDS: small market scale, natural disaster risks

CSN Development Report 2017

- “Investing in infrastructure for an inclusive and sustainable future”
- Report structure
 - Chapter 1: The current state of infrastructure
 - Chapter 2: Potential economic impact of infrastructure
 - Chapter 3: Possible financing sources
- Focusing on 4 types of “physical” infrastructure
 - Transport
 - Energy
 - ICT
 - Water supply and sanitation

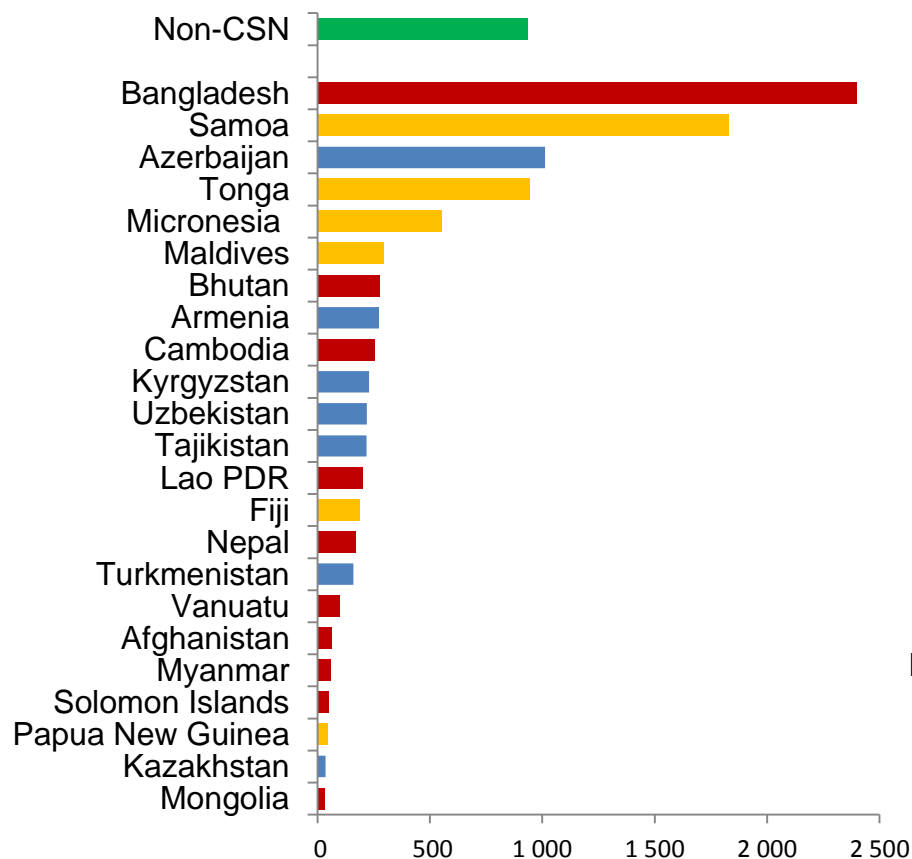
Chapter 1



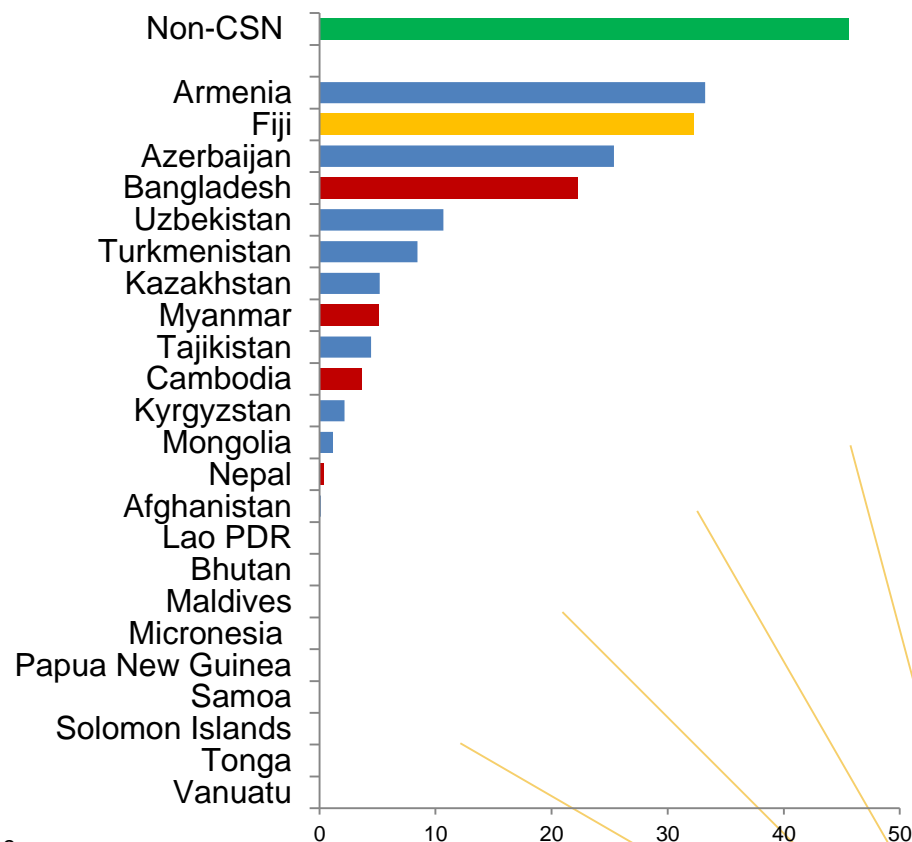
**Current state of
physical
infrastructure in
countries with
special needs**

Transport infrastructure

**Road density (km per 1,000 km² of land area),
2013-2015**



**Rail density (km per 1,000 km² of land area),
2013-2015**

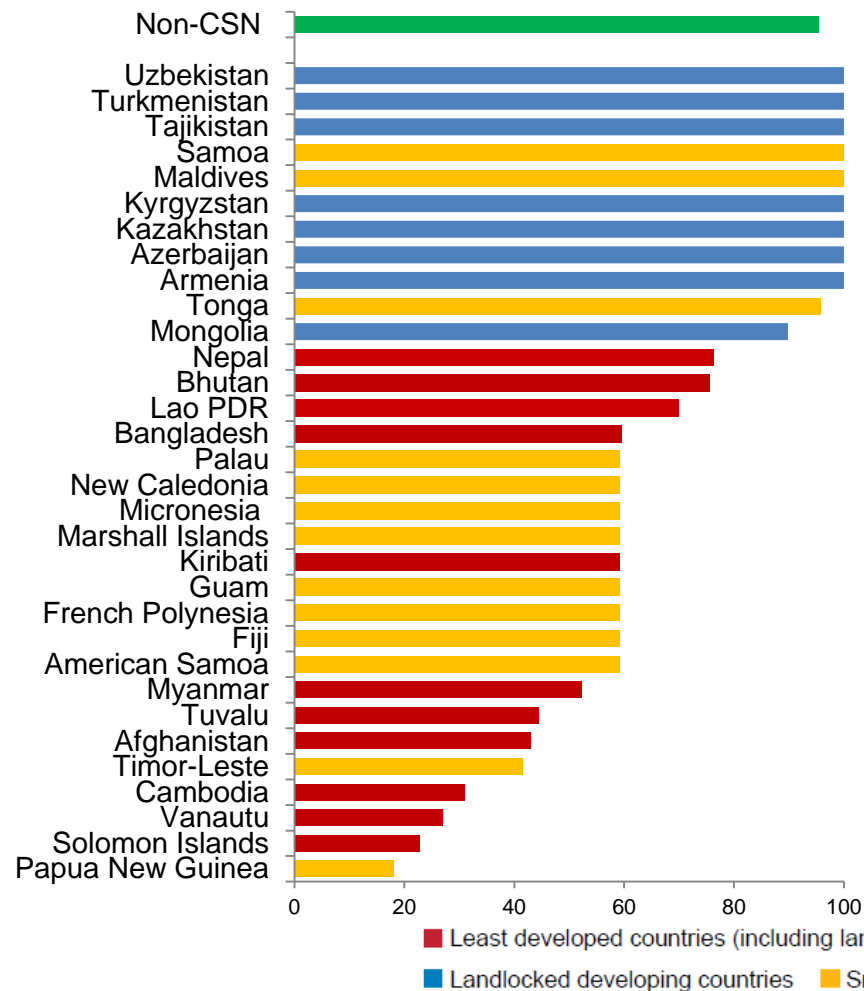


■ Least developed countries (including landlocked developing countries and small island developing States)

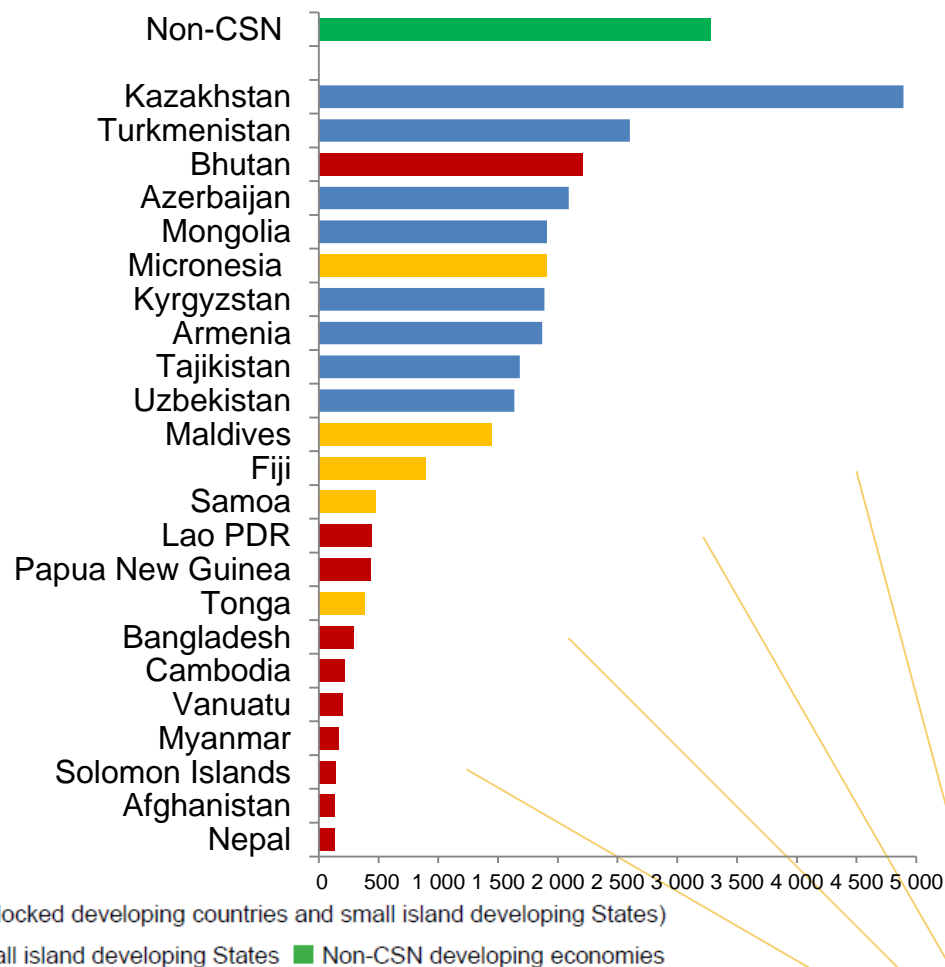
■ Landlocked developing countries ■ Small island developing States ■ Non-CSN developing economies

Energy infrastructure

Access to electricity (% of population, 2013-2015)

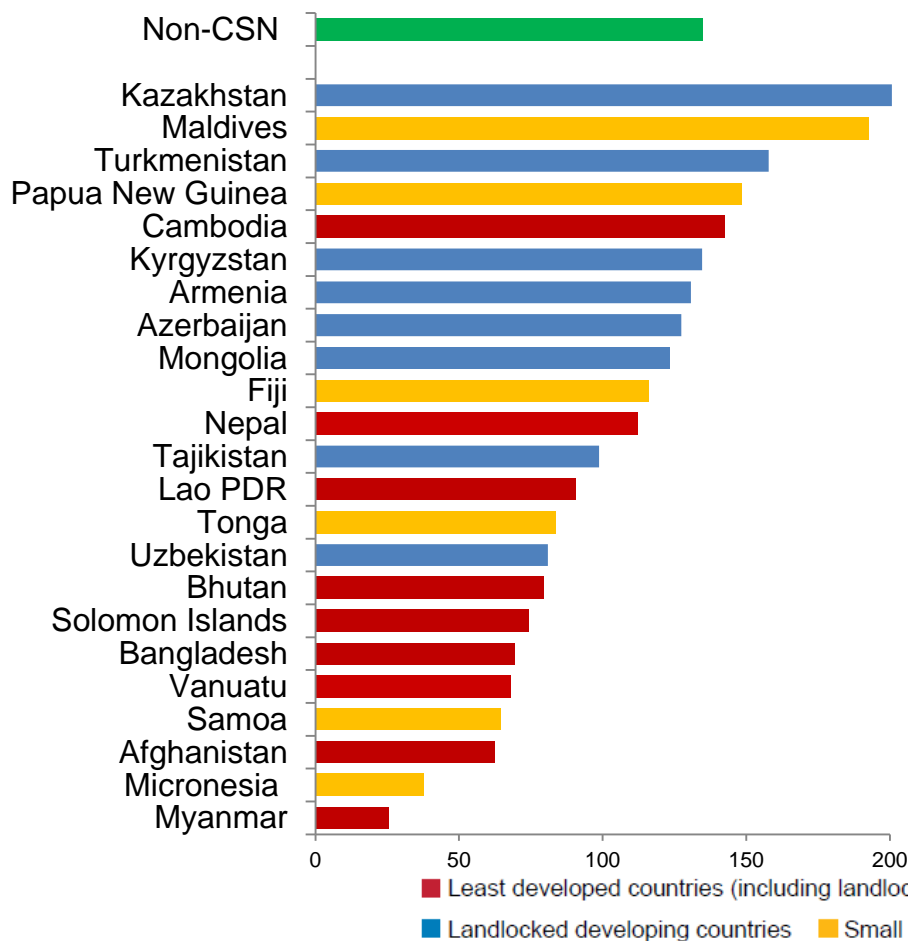


Electric power consumption (kWh per capita), 2012-2015

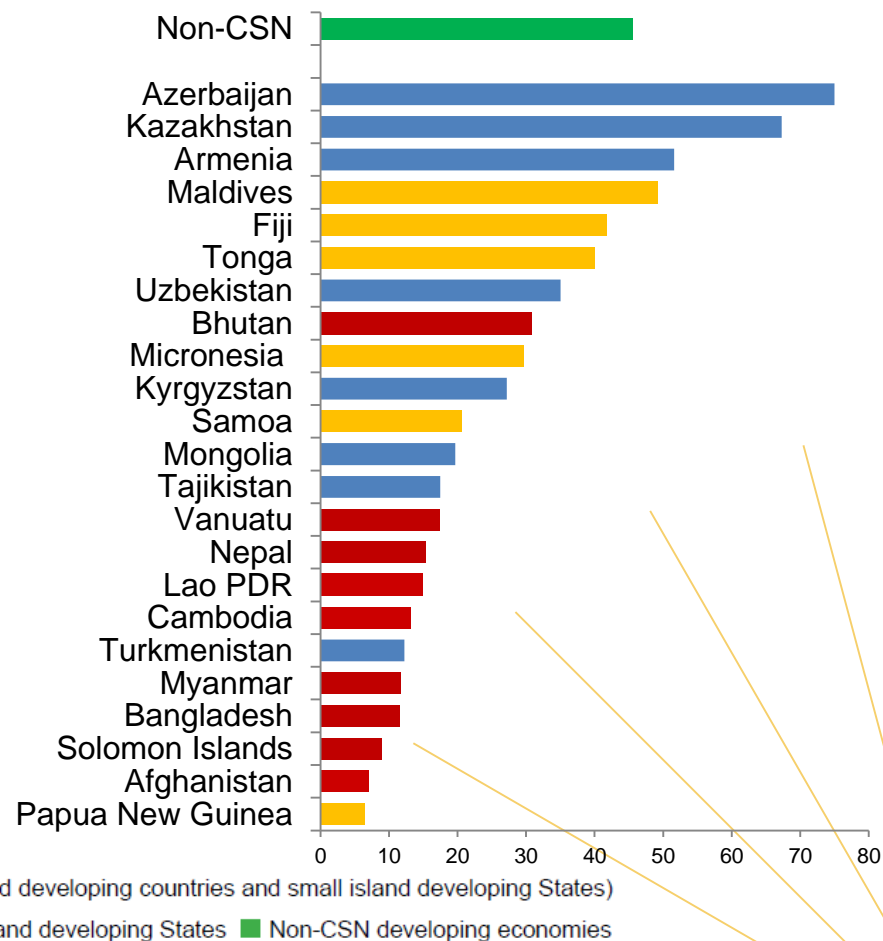


ICT infrastructure

Telephone communication subscriptions per 100 population, 2013-2015

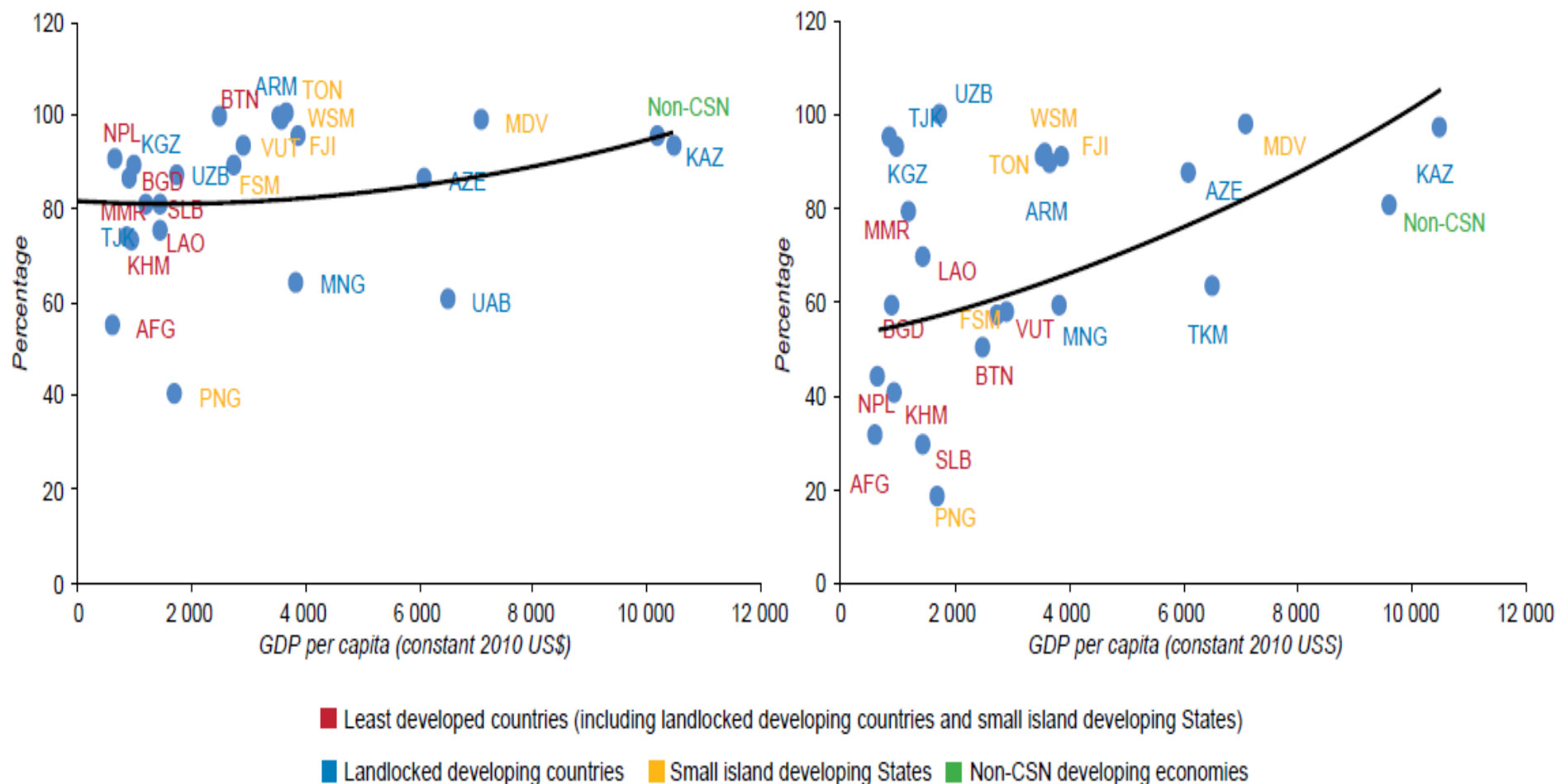


Internet users per 100 inhabitants, 2012-2015



Water supply and sanitation infrastructure

Access to improved water supply (left) and sanitation (right) and GDP per capita



Chapter 2



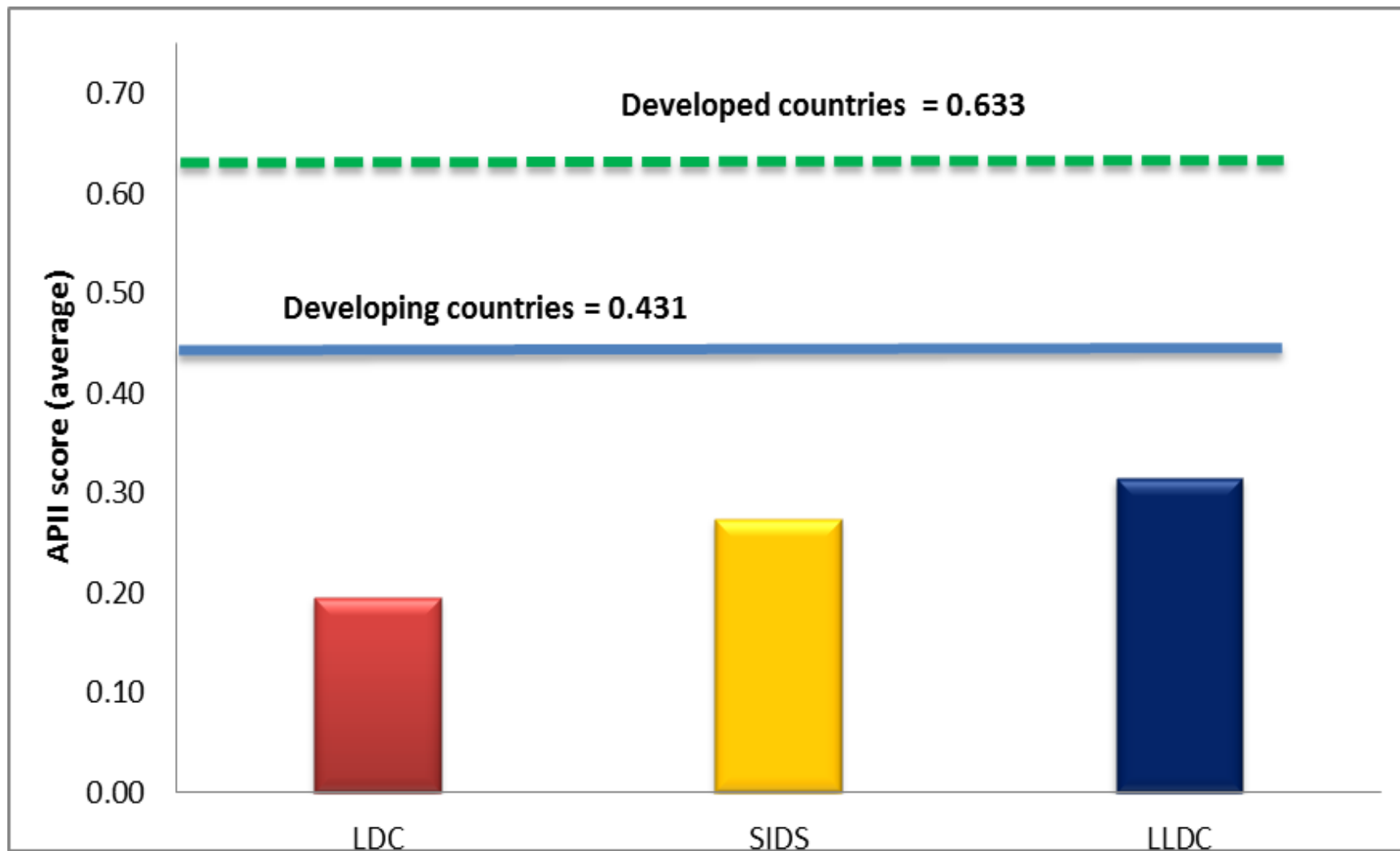
ESCAP Access to Physical Infrastructure Index

ESCAP Access to Physical Infrastructure Index (APII)



- APII indicators
 - 8 indicators in total
 - 2 indicators for each of the 4 dimensions of infrastructure: transport, energy, ICT, and water supply and sanitation
- Country coverage
 - 41 Asia-Pacific countries: 23 CSN, 15 developing countries, and 3 developed countries
- Methodology
 - Simple average of each of the four sectoral indices based on the standardized indicators
 - Data period: 2013-2015

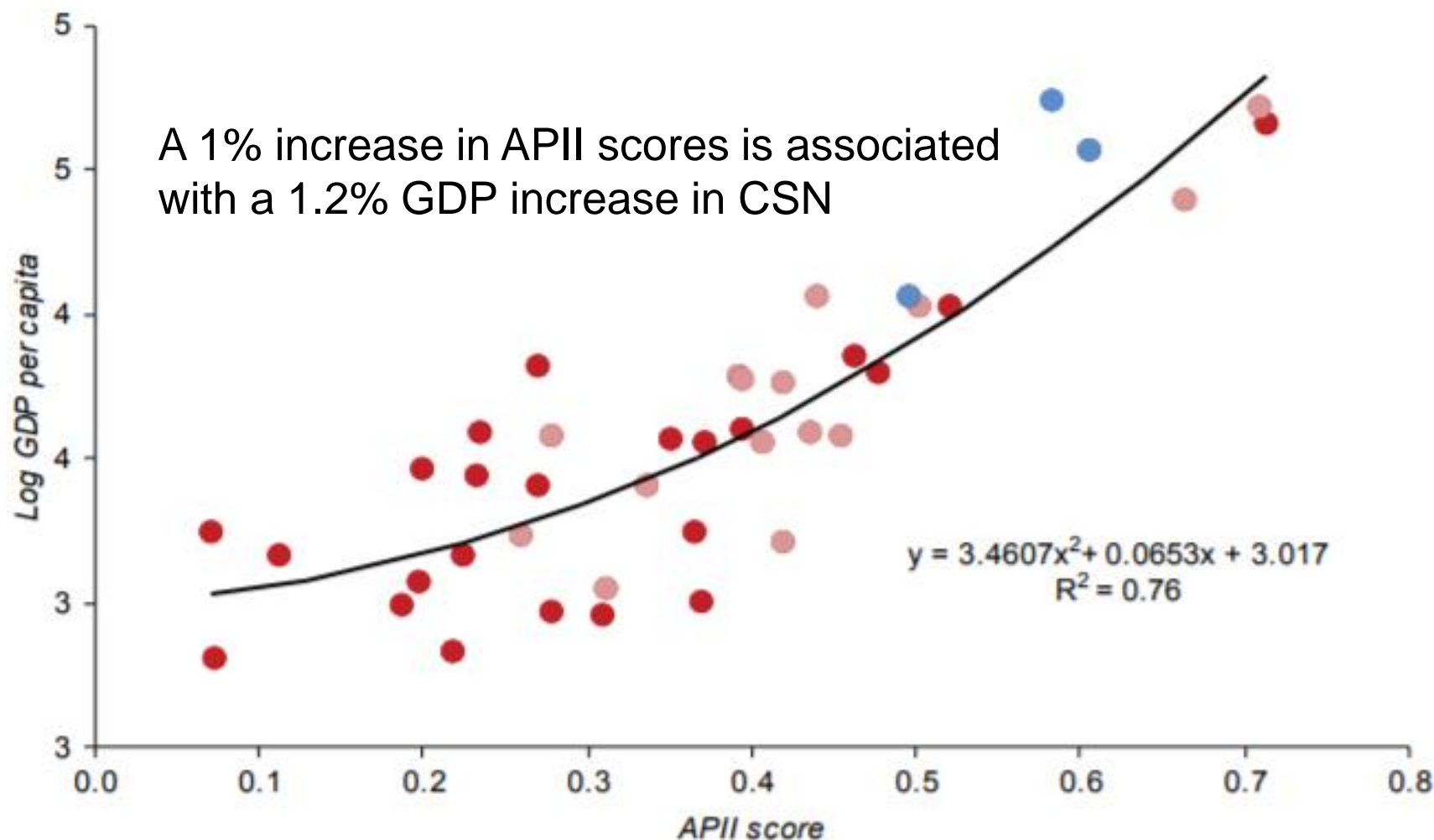
CSN infrastructure gaps remain wide



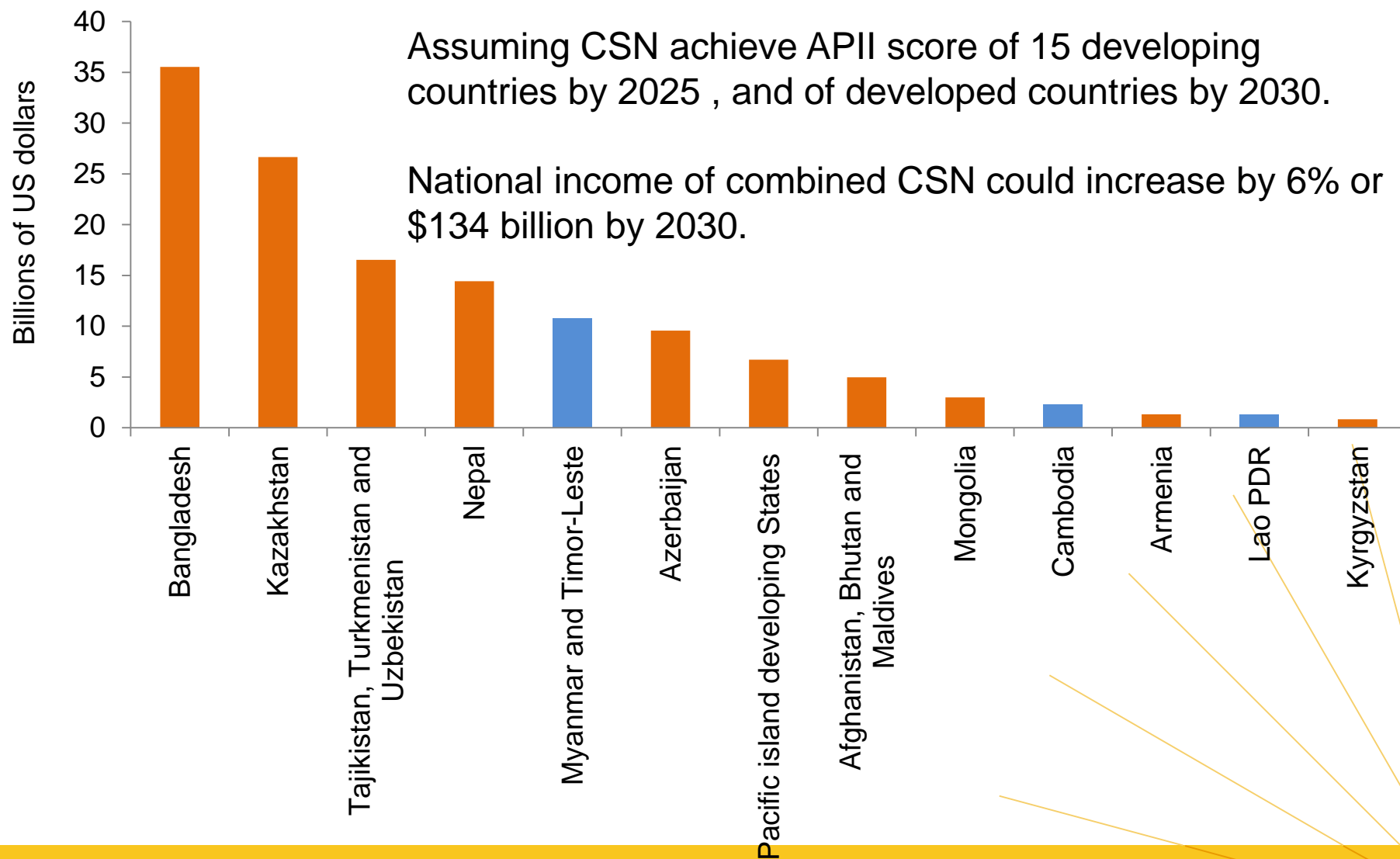
APII scores

| Country groupings | APII score | APII rank | Country groupings | APII score | APII rank |
|-------------------------------------|--------------|-----------|-----------------------------|--------------|-----------|
| Countries with special needs | 0.288 | | Developing countries | 0.431 | |
| Kazakhstan | 0.520 | 6 | Singapore | 0.708 | 2 |
| Azerbaijan | 0.476 | 9 | Korea, Republic of | 0.664 | 3 |
| Maldives | 0.463 | 10 | Malaysia | 0.502 | 7 |
| Armenia | 0.453 | 11 | Russian Federation | 0.495 | 8 |
| Fiji | 0.394 | 17 | Turkey | 0.440 | 12 |
| Tonga | 0.371 | 20 | Georgia | 0.436 | 13 |
| Kyrgyzstan | 0.370 | 21 | Viet Nam | 0.419 | 14 |
| Uzbekistan | 0.365 | 22 | Thailand | 0.418 | 15 |
| Samoa | 0.350 | 23 | Sri Lanka | 0.407 | 16 |
| Tajikistan | 0.309 | 26 | Islamic Republic of Iran | 0.394 | 17 |
| Bangladesh | 0.277 | 28 | China | 0.391 | 19 |
| Bhutan | 0.269 | 29 | Philippines | 0.336 | 24 |
| Turkmenistan | 0.269 | 29 | Pakistan | 0.311 | 25 |
| Mongolia | 0.235 | 32 | Indonesia | 0.278 | 27 |
| Micronesia | 0.232 | 33 | India | 0.260 | 31 |
| Lao PDR | 0.225 | 34 | | | |
| Nepal | 0.217 | 35 | | | |
| Vanuatu | 0.200 | 36 | Developed countries | 0.633 | |
| Myanmar | 0.198 | 37 | Japan | 0.712 | 1 |
| Cambodia | 0.186 | 38 | New Zealand | 0.605 | 4 |
| Solomon Islands | 0.113 | 39 | Australia | 0.582 | 5 |
| Afghanistan | 0.072 | 40 | | | |
| Papua New Guinea | 0.070 | 41 | | | |

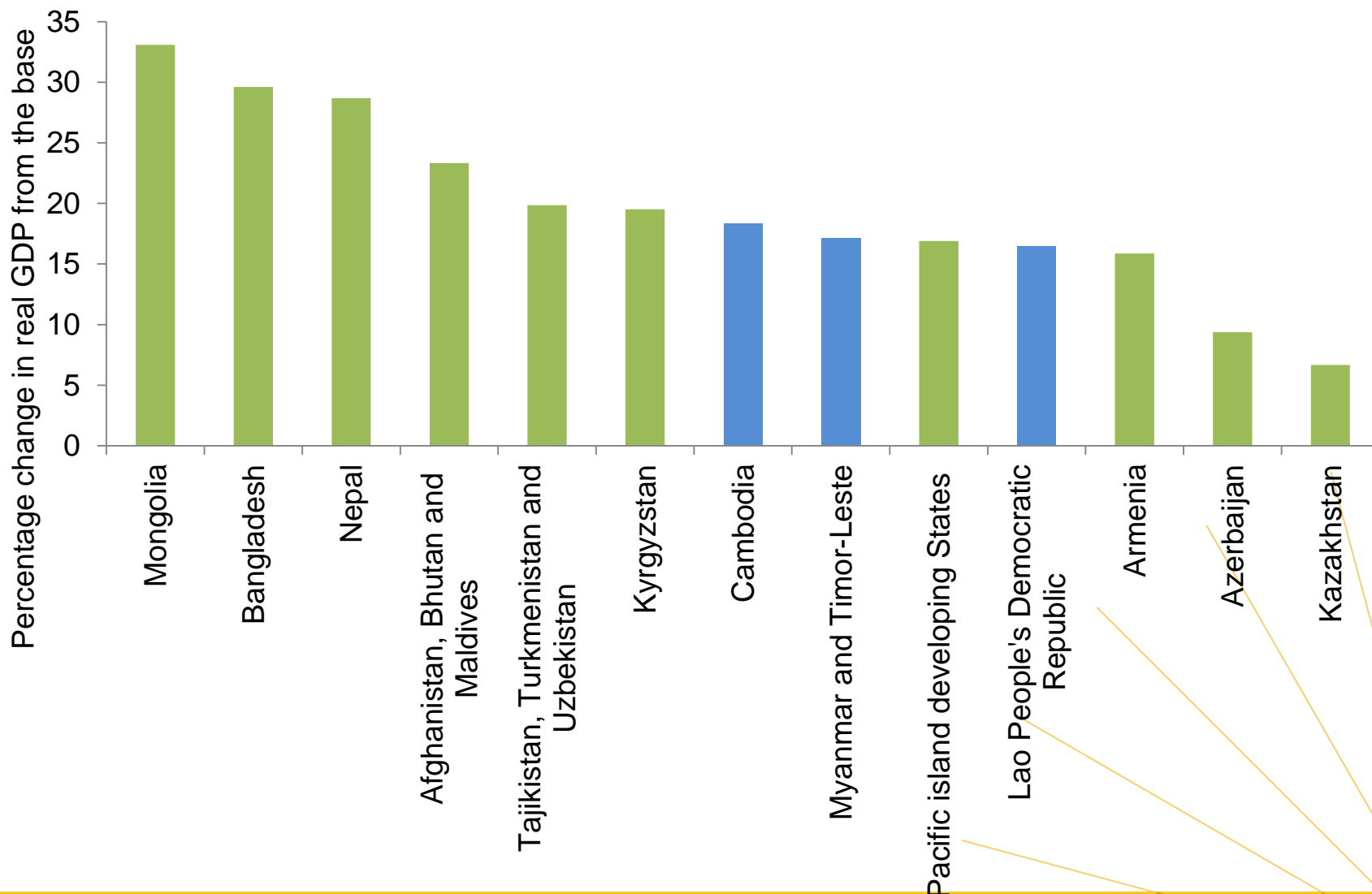
GDP impact of infrastructure (1): regression analysis



GDP impact of infrastructure (2): Computable general equilibrium analysis



GDP impact of infrastructure (2): Computable general equilibrium analysis



Chapter 3

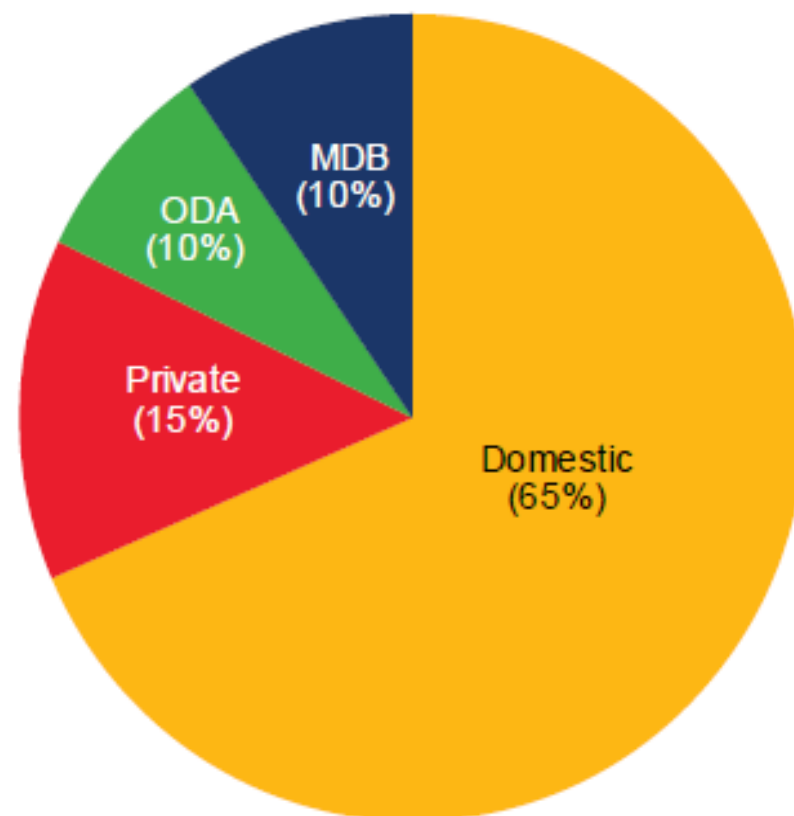


Financing strategies for overcoming infrastructure gaps

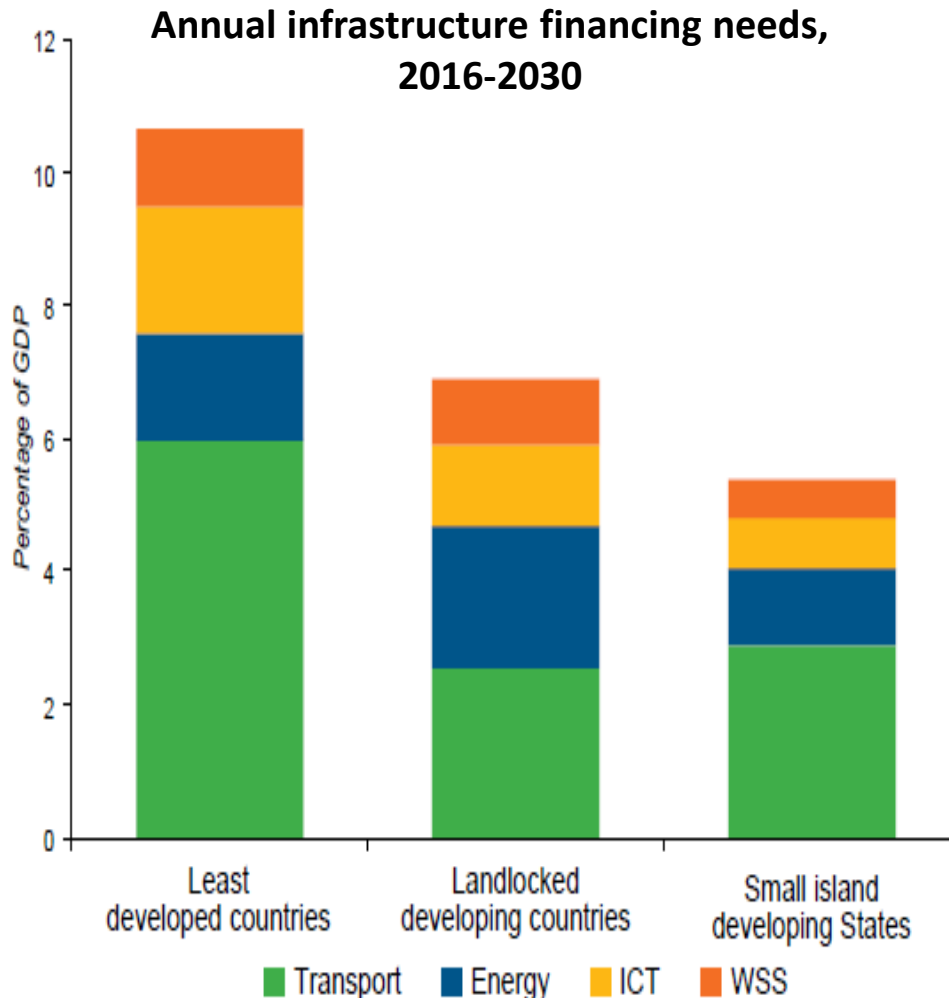
Current infrastructure financing

- Sources of finance:
 - Public sector (3-5% of GDP)
 - Private sector (1% of GDP)
 - ODA (0.7% of GDP)
 - MDB (0.7% of GDP)
- Concessional financing and bank loans dominate
- Other financing instruments (bond and equity) are limited

Composition of infrastructure financing sources in CSN



Infrastructure financing needs



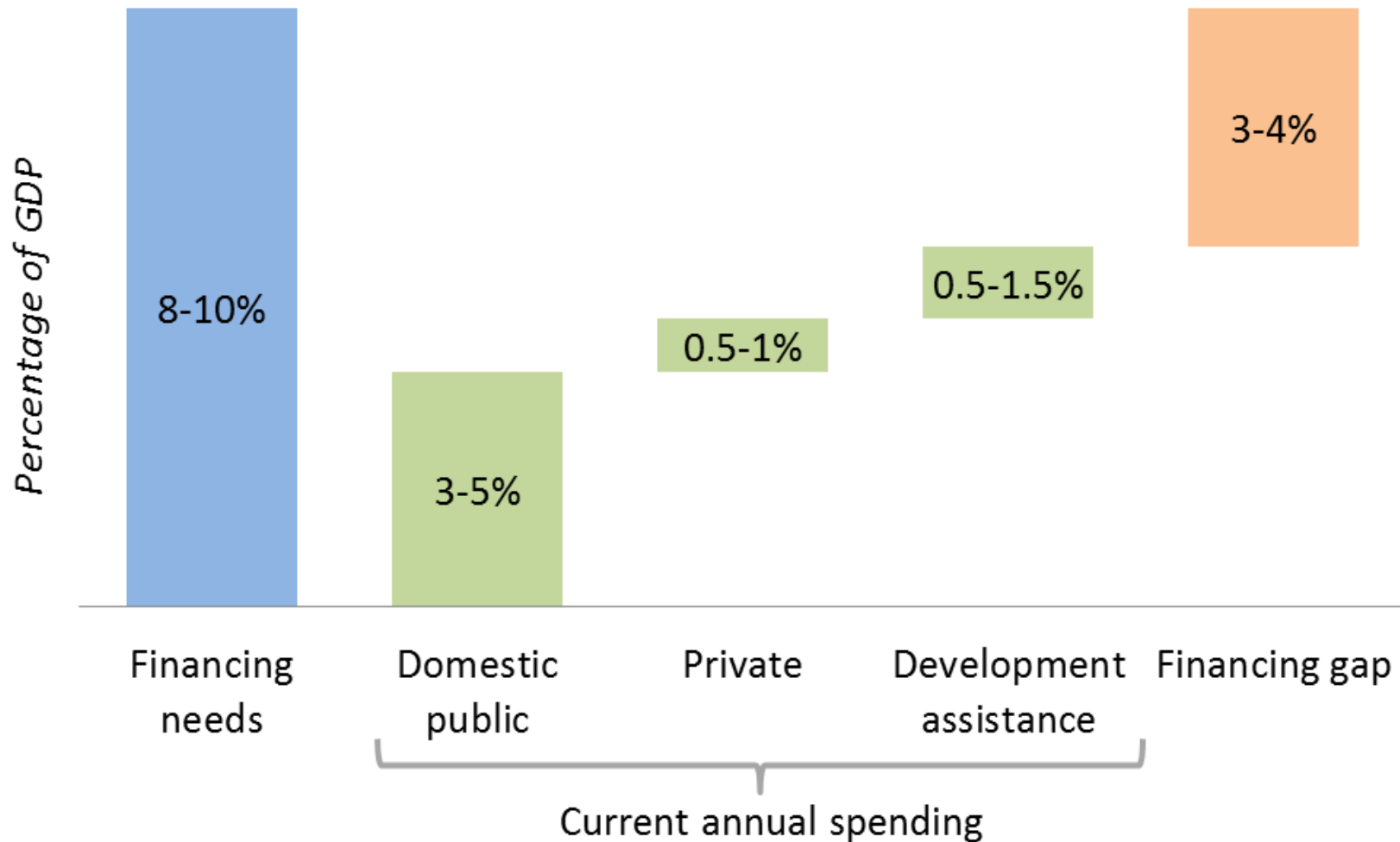
Infrastructure financing needs = **10.5% of GDP annually**

8.3% of GDP will be required to

- fill the current infrastructure gap
- Meet the future demand
- Cover the cost of maintenance

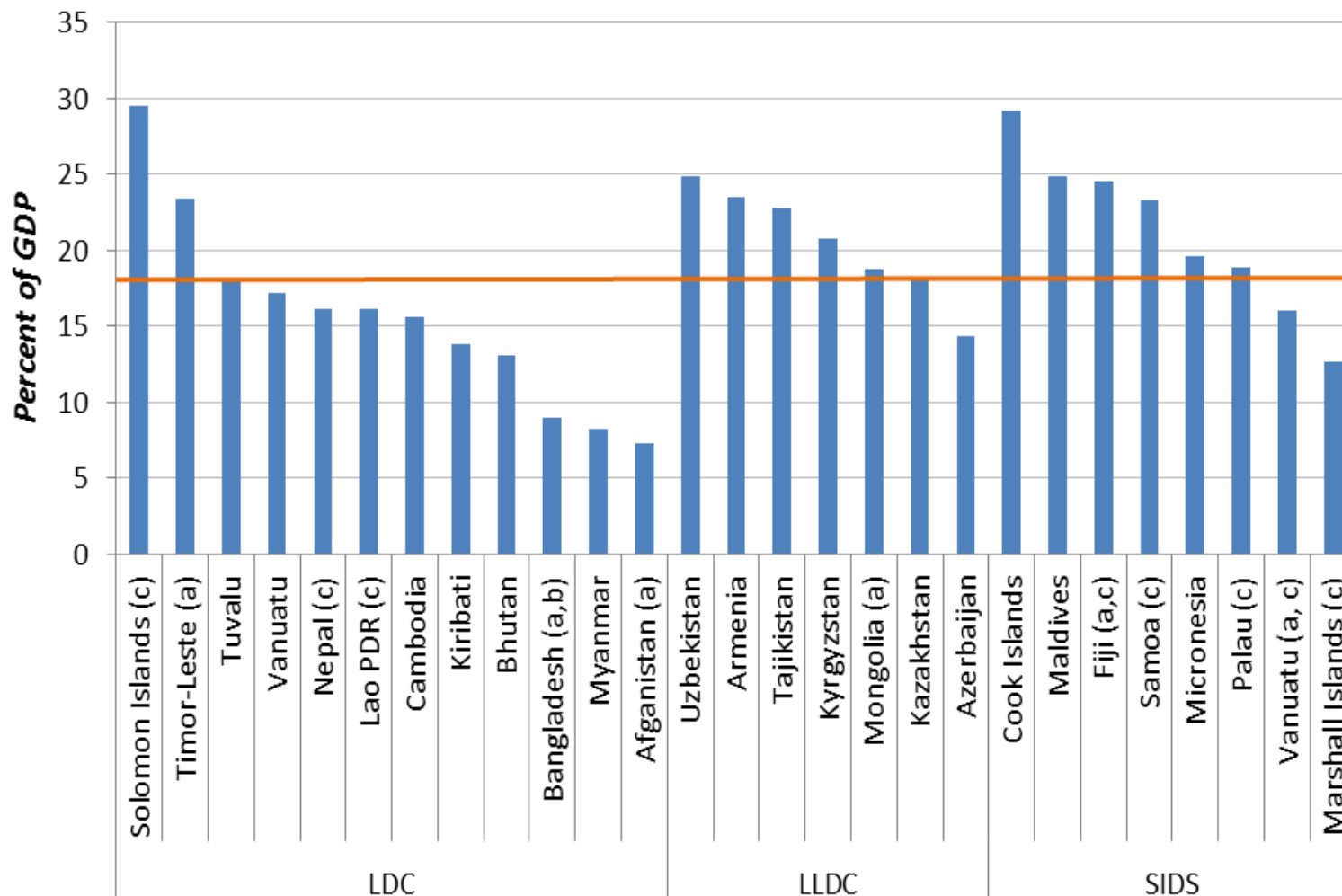
2.2% of GDP will be required for climate change mitigation

Infrastructure financing gaps



Filling the funding gap (1): tax collection

Tax-to-GDP ratios in selected Asia-Pacific countries, 2014



Filling the funding gap (2): private sector engagement

- Private sector engagement has been limited
 - Political, currency and macroeconomic risks
 - Underdeveloped domestic markets
 - Small scale: market and population size
- Governments can also
 - Partner with multilateral development banks to increase financial viability
 - Enhance coordination across Government agencies to establish a infrastructure project pipeline
 - Facilitate innovate PPP

The way forward



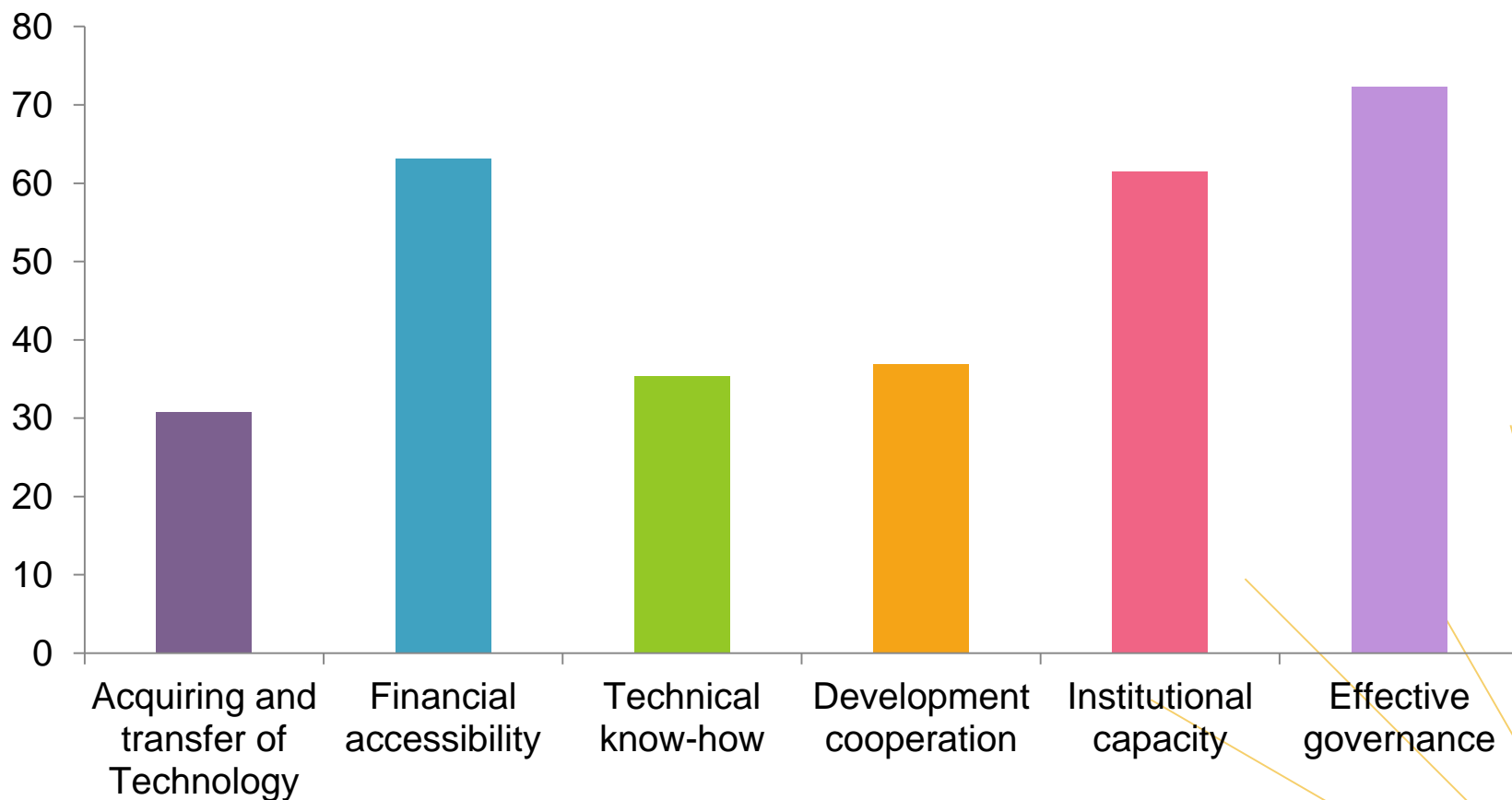
Policy messages

The way forward

- Short-term policies
 - Prioritize which sectors are to be developed
 - Identify priorities, partners, instruments and support measures, e.g. detailed budget provision
- Medium-term policies:
 - Mobilize domestic public finance
 - Develop capital markets
 - Enhance institutional and technical capacity for planning, maintaining and managing infrastructure

A holistic policy effort is needed for infrastructure development

Most binding challenges for infrastructure development and maintenance



Thank you

www.unescap.org/publications/asia-pacific-countries-special-needs-2017

