Infrastructure Finance Needs of IsDB Member Countries to achieve SDGs and to Conform to Paris Agreement

BI-ADFIMI-KNKS Joint CEO Seminar on
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Presentation Plan

- SDGs, Climate Agreement & Infrastructure
- Financing Infrastructure
- Case Studies

SDGs: Ambitious Vision for Transformation

Pillars of SDGs: Economic, environmental and social sustainability

	MDGs (2000-2015)	SDGs (2016-2030)
Goals/ Targets/Indicators	8/21/60	17/169/232
Priority Areas	Human Development	Holistic: Economic, Social, Environmental
Scope	Developing Countries	Universal

Source: Moheildin (2019)

Paris Agreement 2015

- Central aim is to strengthen the global response to the threat of climate change
  - Keep global temperature rise this century well below 2^0C above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5^0C
- Strengthen the ability of countries to deal with the impacts of climate change
- Reaching these ambitious goals would require
  - Appropriate financial flows
  - A new technology framework
  - An enhanced capacity building framework
- 'Environmental Sustainability' component of SDGs overlaps with the goals of Paris Agreement—use 'green' alternatives to achieve the SDGs

Infrastructure and SDGs

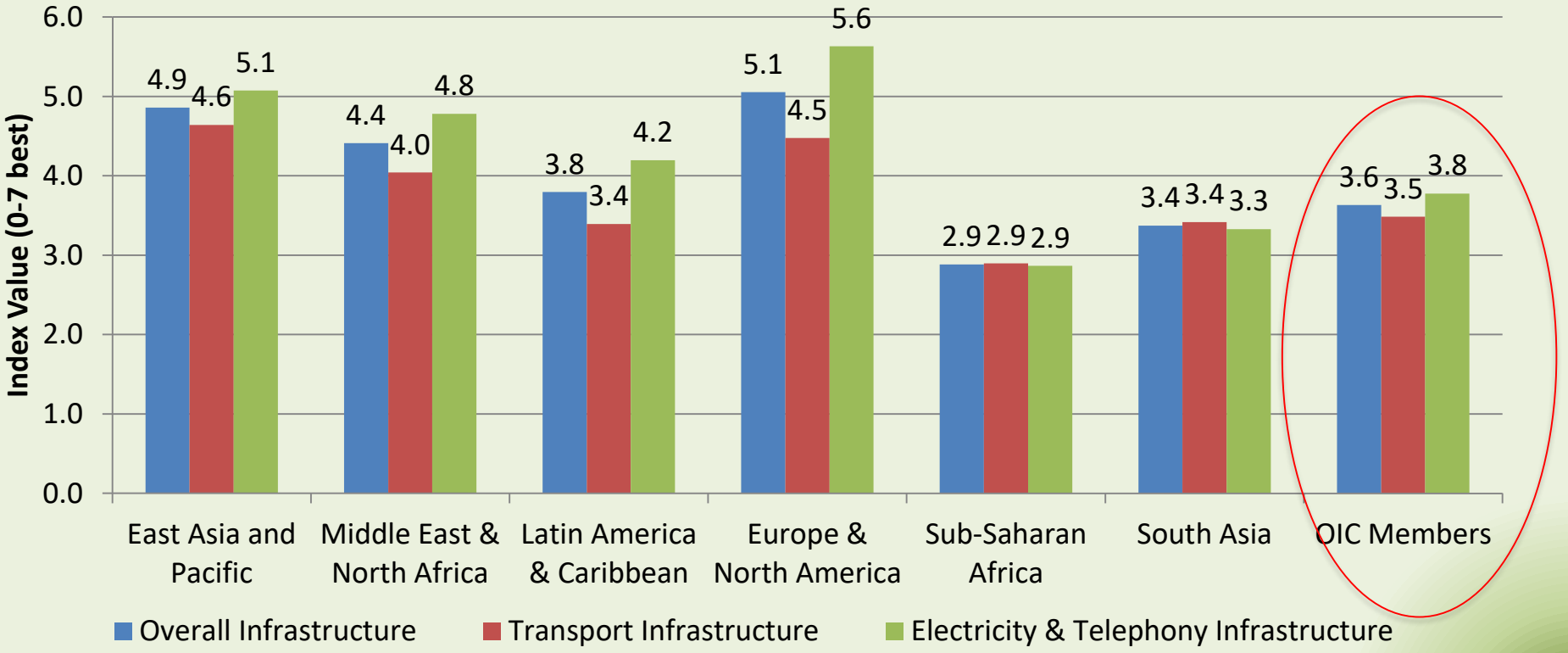
- **Infrastructure**: Social overhead capital producing public goods & services essential for functioning and growth of economies
  - provides **basic and essential services** to household sector (power, water, health, transportation, etc.)
  - is an **input in production**, lowers the cost and enhances productivity
- **Empirical studies**: Better infrastructure increases growth and reduces income inequality
- Achieving **SDGs** linked to infrastructure
  - Overall infrastructure: SDG 9
  - Economic infrastructure: SDG 6, SDG 7 & SDG 11
  - Social infrastructure: SDG 3, SDG 4

Infrastructure & Climate Change

- Estimated 60% of the world's greenhouse gases (GHG) emissions come from infrastructure
- SDGs and Paris Agreement requires using climate-smart and climate-resilient infrastructure
- Comprehensive definition of infrastructure
  - Traditional (grey) infrastructure
  - Natural infrastructure (forest landscapes, wetlands, watershed etc.)

Source: NCE (2016), Sustainable Infrastructure Imperative, p. 4.

Infrastructure Status of Regions & OIC Member Countries



Source: WEF (2018), The Global Competitive Index Historical Dataset

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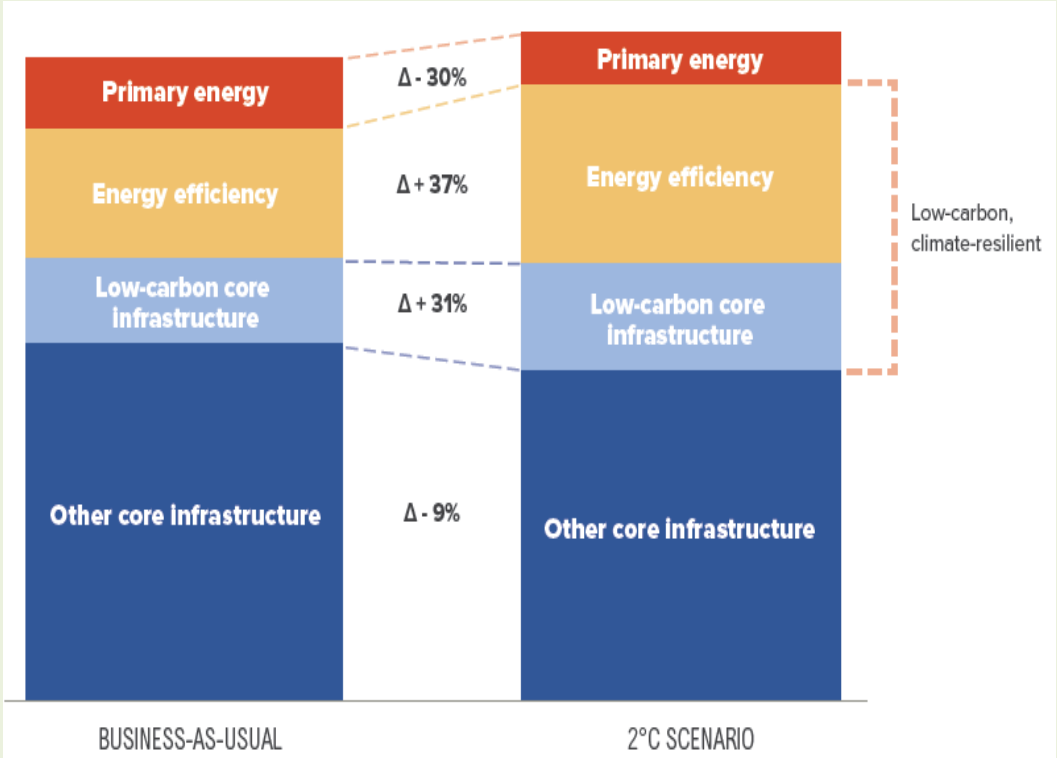
SDGs & Paris Agreement: Funding Needs & Gaps

- UNCTAD—achieving SDGs would require
  - US$ 5-7 trillion annual investment
  - Developing countries investment gap—US$ 2.5 trillion/per year
- Overall costs of implementing PA could cost 0.5 to 1% of GDP for 2°C target (1 to 1.3% for 1.5% target of 1.5°C)
  - Not doing anything will cost much more is terms of damage to humans, natural infrastructure & economies
  - Costs of health savings from reduced air pollution—1.4 to 2.5 times greater than costs of climate change mitigation

https://www.thejournal.ie/paris-climate-agreement-costs-health-benefits-3879180-Mar2018/

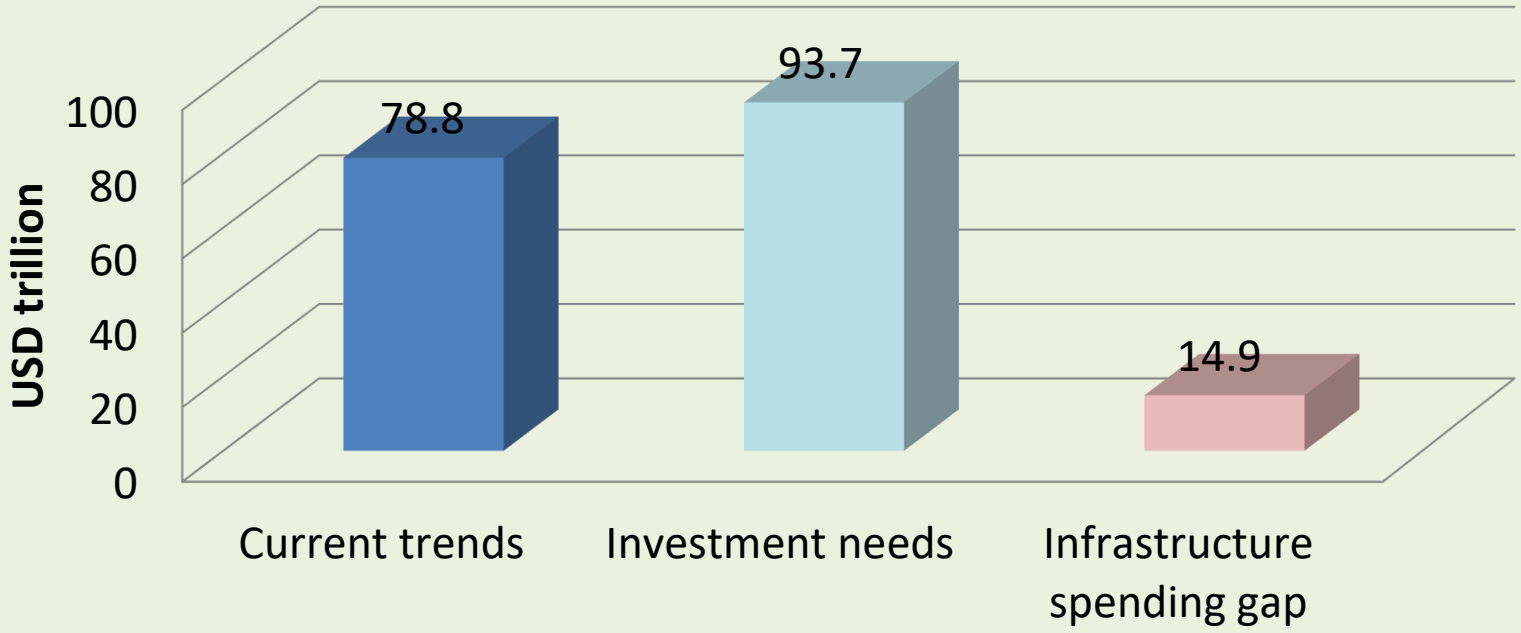
Change in Infrastructure Spending Required for a 2ºC Scenario (% change in exp. Over 2015-2030)



- Extraction of oil, gas and coal
- Buildings, energy and transportation
- Renewable energy, nuclear, CCS, low-carbon transport, climate-proofed water and sanitation, etc.
- Standard water/sanitation, high-carbon transport (e.g. roads), energy production, and telecommunications

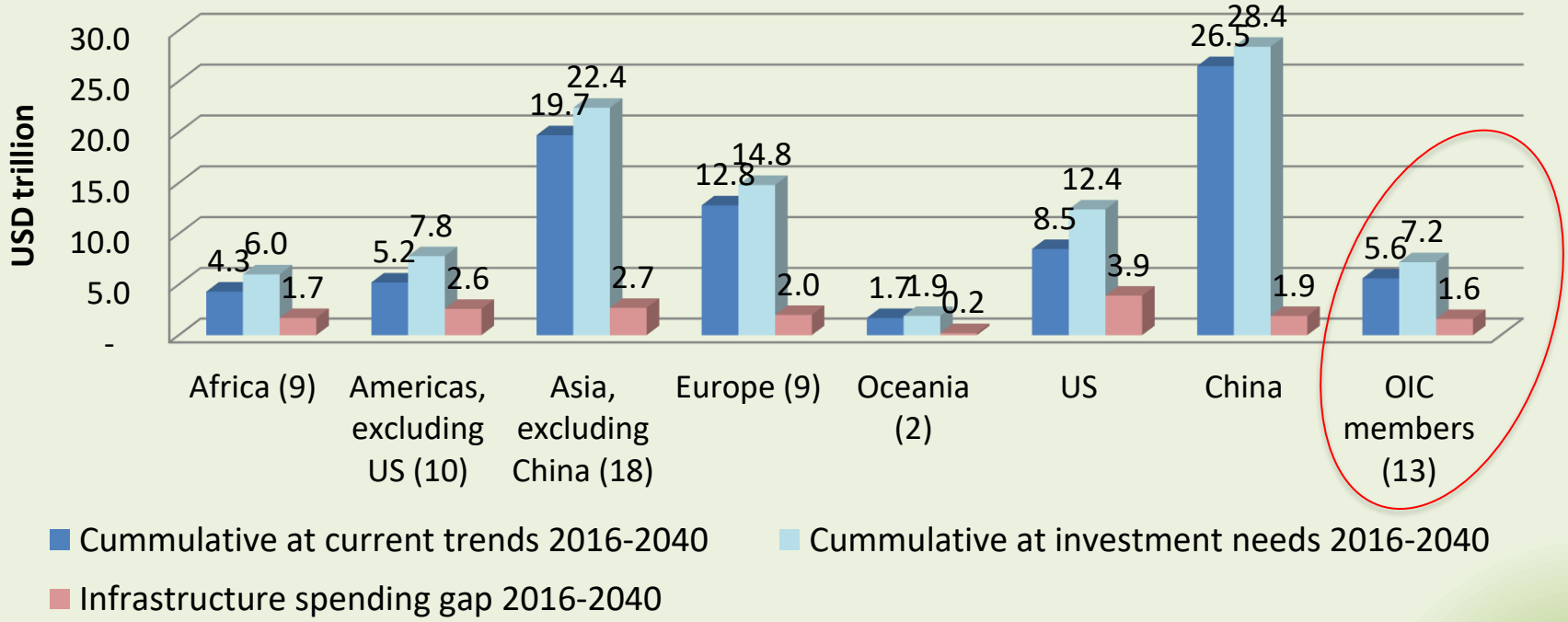
Source: NCE (2016), Sustainable Infrastructure Imperative

Global Cumulative Infrastructure Spending and Investment Needs 2016-2040



Source: GIH and Oxford Economics (2018)

Cumulative Regional Infrastructure Spending Requirements 2016-2040



Total Investment Needs per OIC MC per year USD 22.1 billion

Investment Gap per OIC MC per year USD 4.9 billion

Source: GIH and Oxford Economics (2018)

Sources of Infrastructure Financing

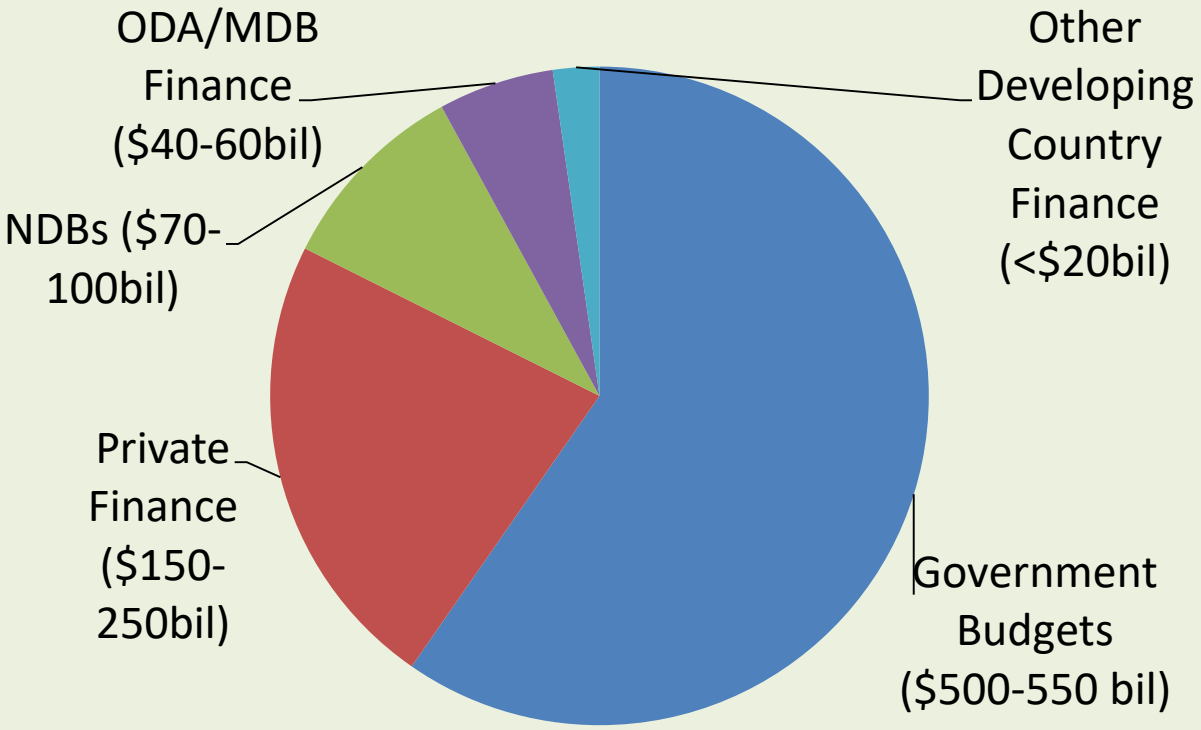
	Public	Private
Domestic	•Government Revenue (tax/duties) •Public borrowing •Natural resource concessions •User fees	•Domestic Private investments •Non-governmental organizations •Philanthropy/social responsibility
International	•Official development assistance (ODA) •Sovereign wealth funds •Multilateral development banks (MDBs) •Specialized funds	•International bank loans •Foreign direct investment (FDI) •Multilateral infrastructure funds •Foreign pension funds •Remittances

Public-private partnership (PPP)

Blended Finance

Source: Adapted from Ahmed (2017)

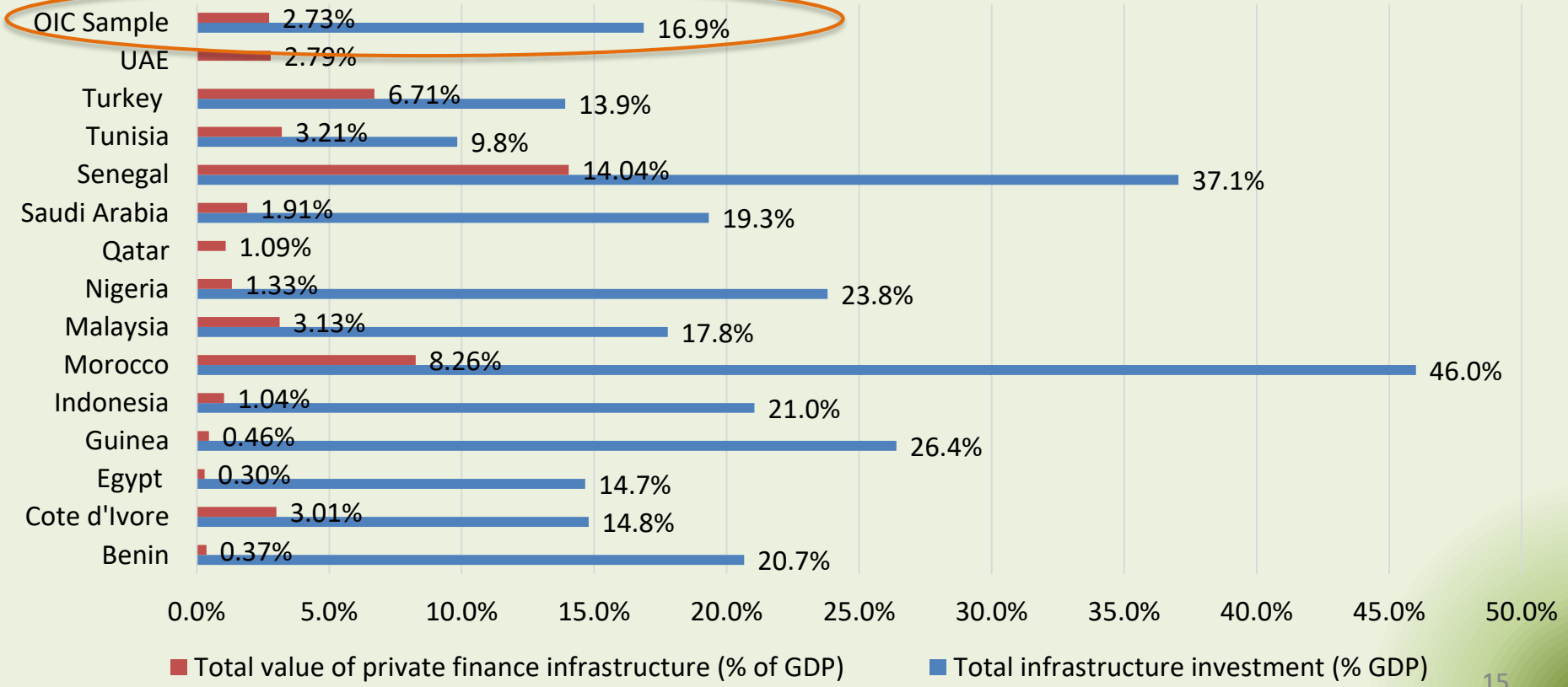
Sources of Infrastructure Financing Estimates in Emerging Economies & Developing Countries



- Bulk of financing (60%) provided by government
- Alternative sources to funds are sought due to
  - Increasing demands on public funds, budget deficits, and increasing public debt
  - Huge investments needs for infrastructure finance to meet the SDGs

Source: Bhattacharya A., Romani M. (2013)

Total Infrastructure Investments & Private Sector Contribution (2011-2015)



Source: https://infracompass.gihub.org/compare_countries

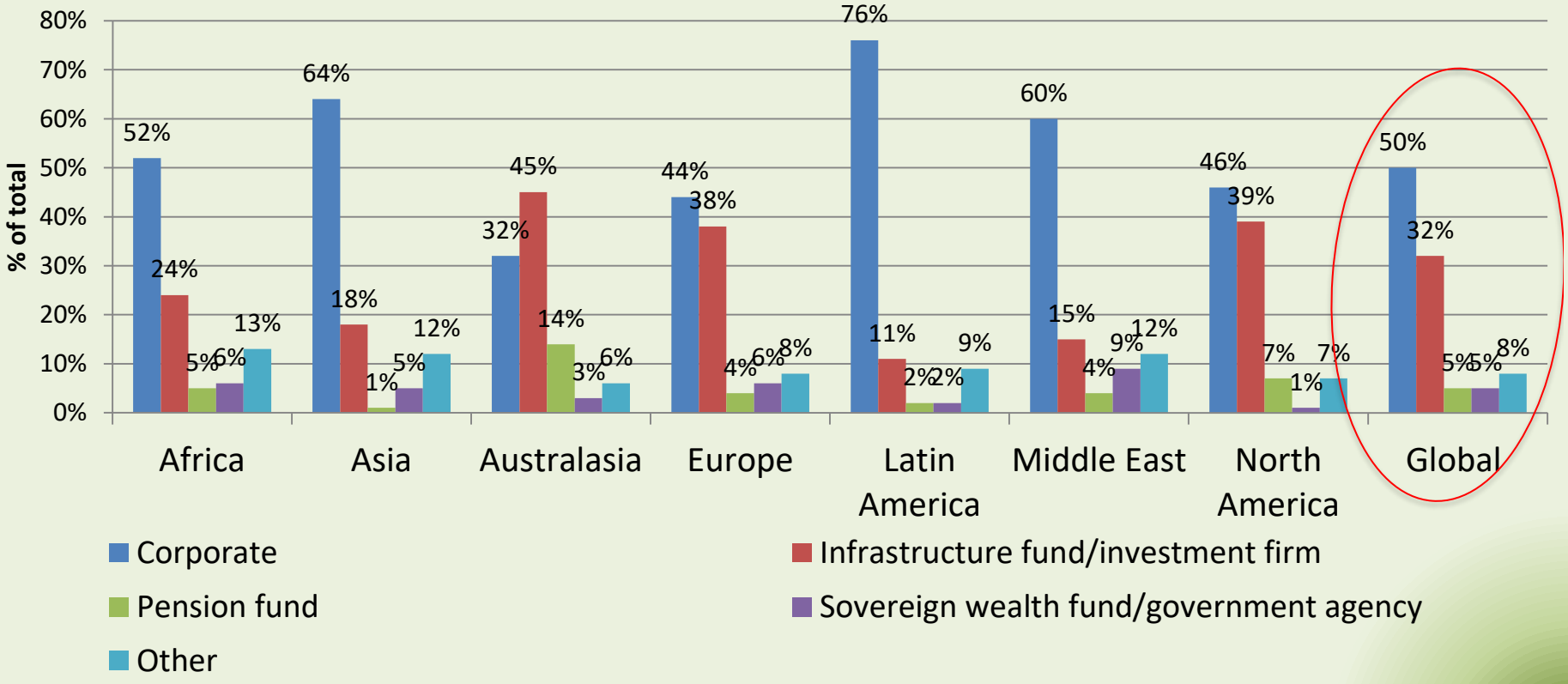
Investment Horizon & Risk Appetite of Different Financial Institutions

Institution	Investment Horizon	Risk Appetite
Commercial Banks	Short term	Low to medium
Nonlife insurance	Short term	Medium
Investment Company	Short to medium term	Depends on funds mandates
Life insurance and private pension	Long term	Medium
Public pension	Long term	Medium
Sovereign wealth funds	Long term	Medium to high
Endowments and foundations	Long term	High

Nonbank financial institutions are more suitable for investments in Infrastructure financing

Source: ADB (2018), African Economic Outlook 2018, African Development Bank, p. 109.

Global Infrastructure Investment Equity and PPP by Type of Owner



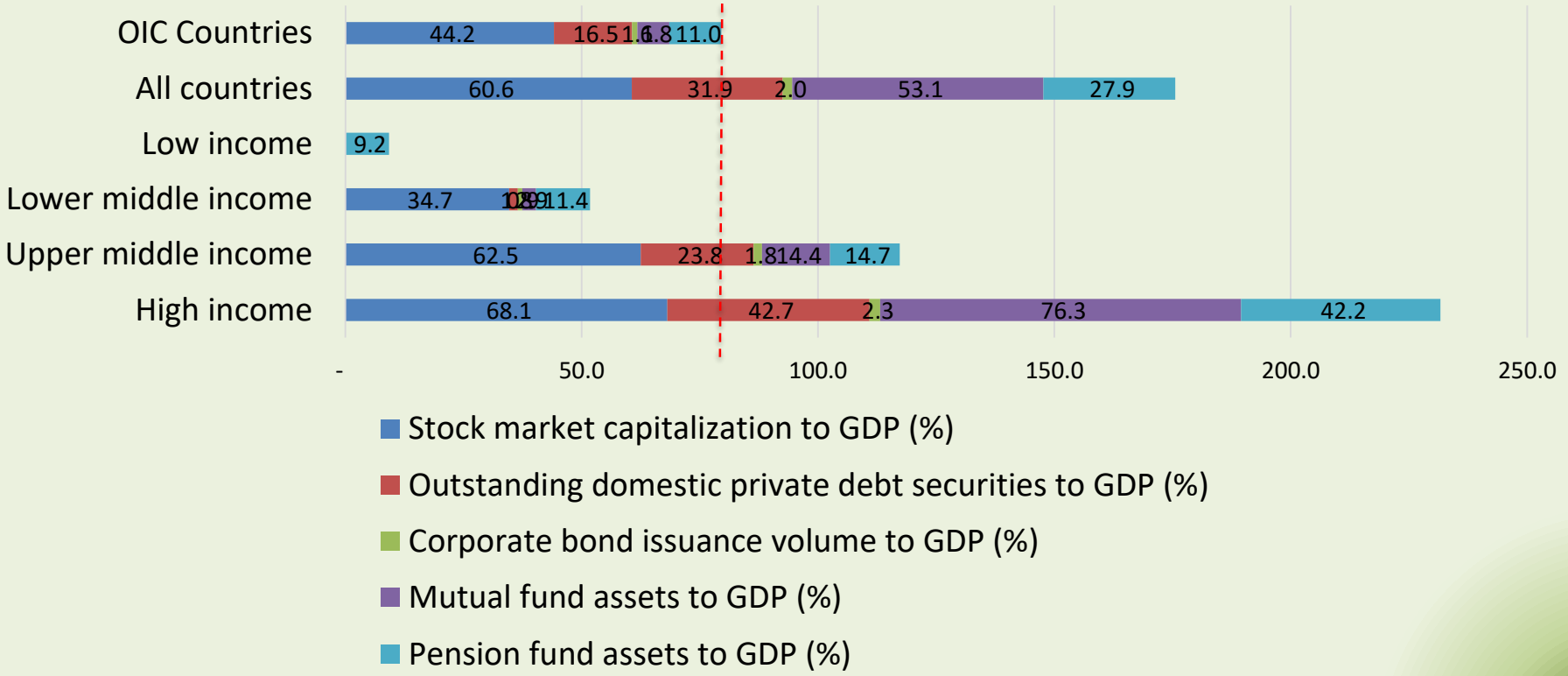
Source: PWC & GIIA (2017)

Total Islamic Finance Investments in Infrastructure Sector (2017-2018)

Sectors (2017-2018)	Total assets (USD billions)	Percentage going to Infrastructure	Infrastructure Investments by Islamic Finance (USD Billion)
Islamic Banking	1,598.9	**4.74%**	75.8
Takaful	42.5	**2.0%**	0.9
Sukuk	344.8	**11.57%**	39.9
IDB Project Financing			3.12
Total			**119.7**
	Average per member country		2.1

Source: COMCEC (2019)

Size of Capital Market Related Sectors



Source: World Bank Financial Development Database 2018

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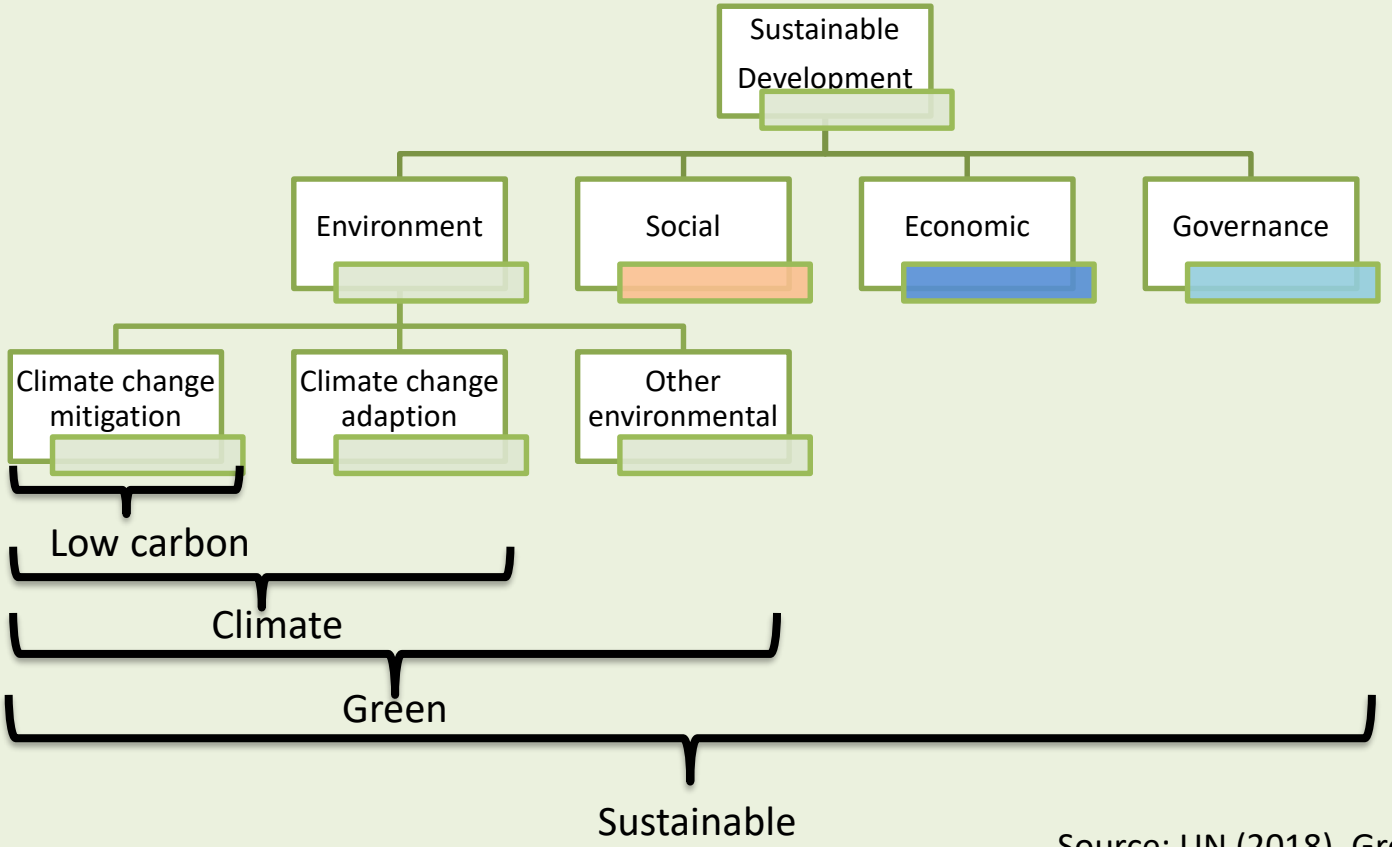
Green and Sustainable Finance

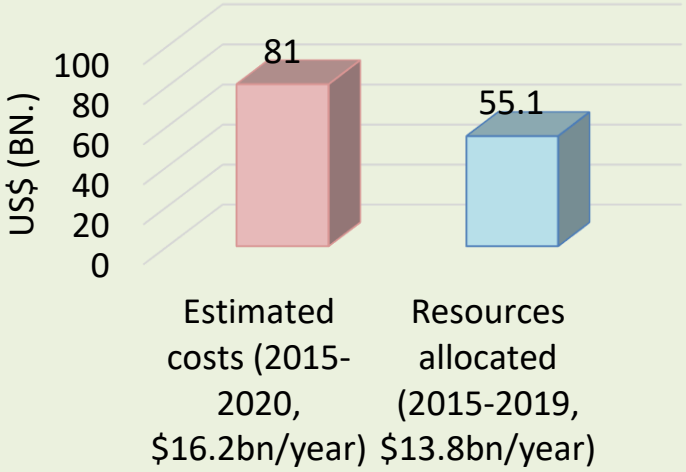


Stakeholders
Government
Fin. Institutions
Fin. Markets
Social Finance

Source: UN (2018), Greening the Rule of the Game

Governments:
Indonesia Global Green *Sukuk*

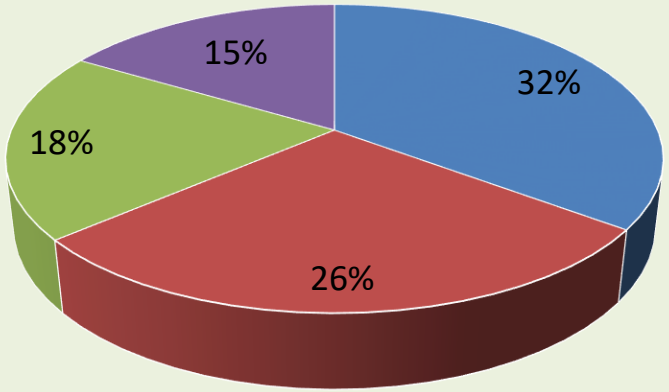
Financing requirements to deal with climate mitigation and adaption activities



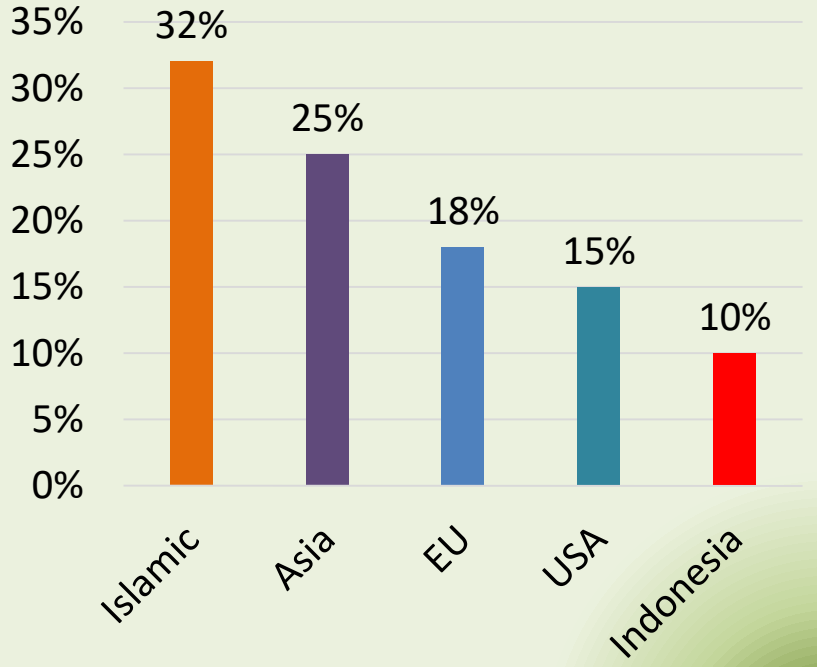
- Governed by Green Sukuk/Bond Framework (CICERO reviewed)—identifies sectors/projects where funds can be invested
  - Dark Green: Renewable energy, resilience to climate change
  - Medium Green: Sustainable transport, waste to energy & waste management, sustainable agriculture
- March 2018—World's first Global Green Sukuk issued
  - Value: US$ 1.25bn
  - Tenor: 5 years
  - Financing mode: *Wakala*
  - Profit rate: 3.75%

Indonesia Global Green Sukuk: Demand/Allocation

Allocation based on type of investors



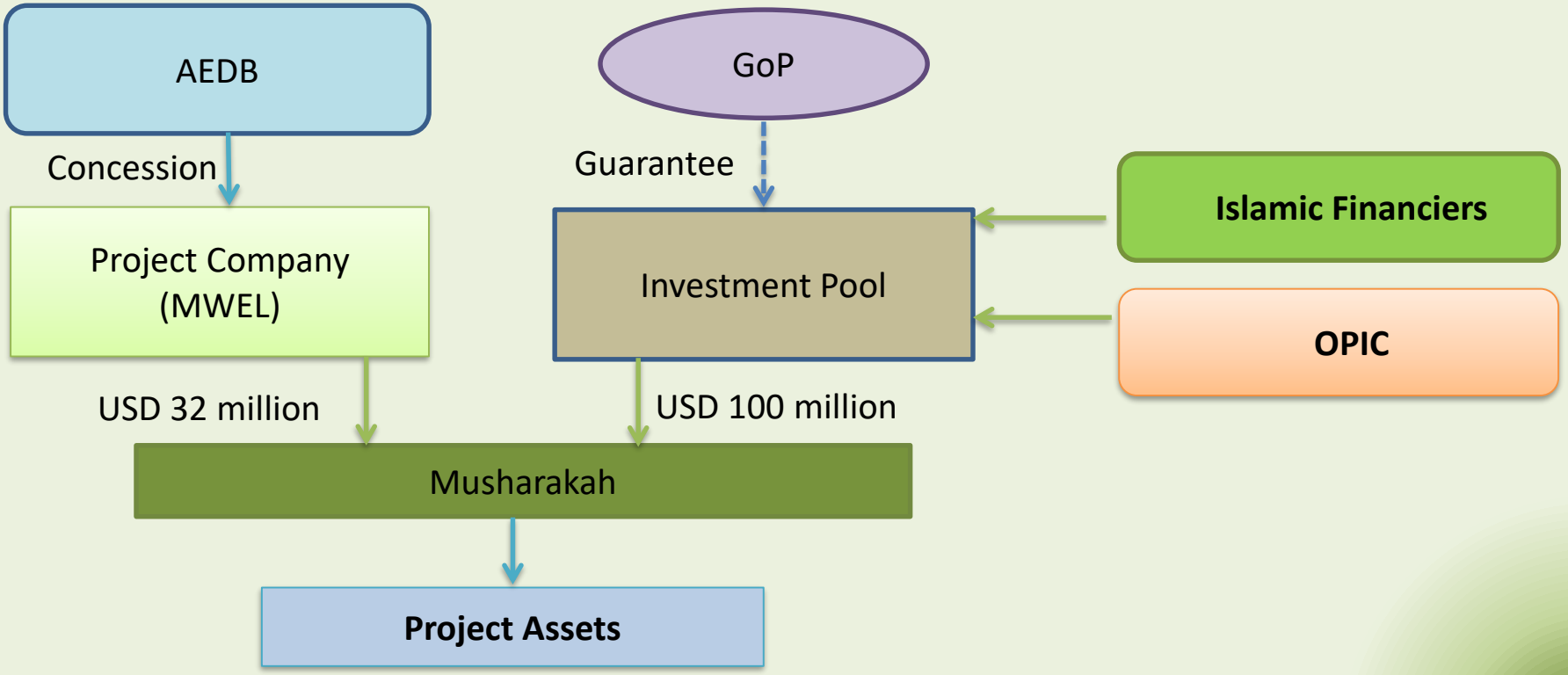
Allocation based on geography



Islamic Financial Institution: Green Infrastructure Finance

- Alternative Energy Development Board (AEDB) provided 1,408 acres land in Sindh to MWEL on a 20 year concession period to establish a wind farm
  - Project consisted of 33 wind turbines to generate 50 MW of electricity
- Total cost of USD 132 million
  - USD 32 million was sourced internally
  - USD 100 raised from external sources: Split between the US-based Overseas Private Investment Corporation (OPIC) and a syndicate of Islamic banks (Meezan Bank Limited, Habib Metropolitan Bank Ltd. and Bank of Punjab)
- Islamic financiers and MWEL entered into a *musharakah* partnership
- After completion of the project, MWEL leased the assets of financiers under an *ijarah* contract and paid rentals on a quarterly basis

Master Wind Energy Limited Financing Structure

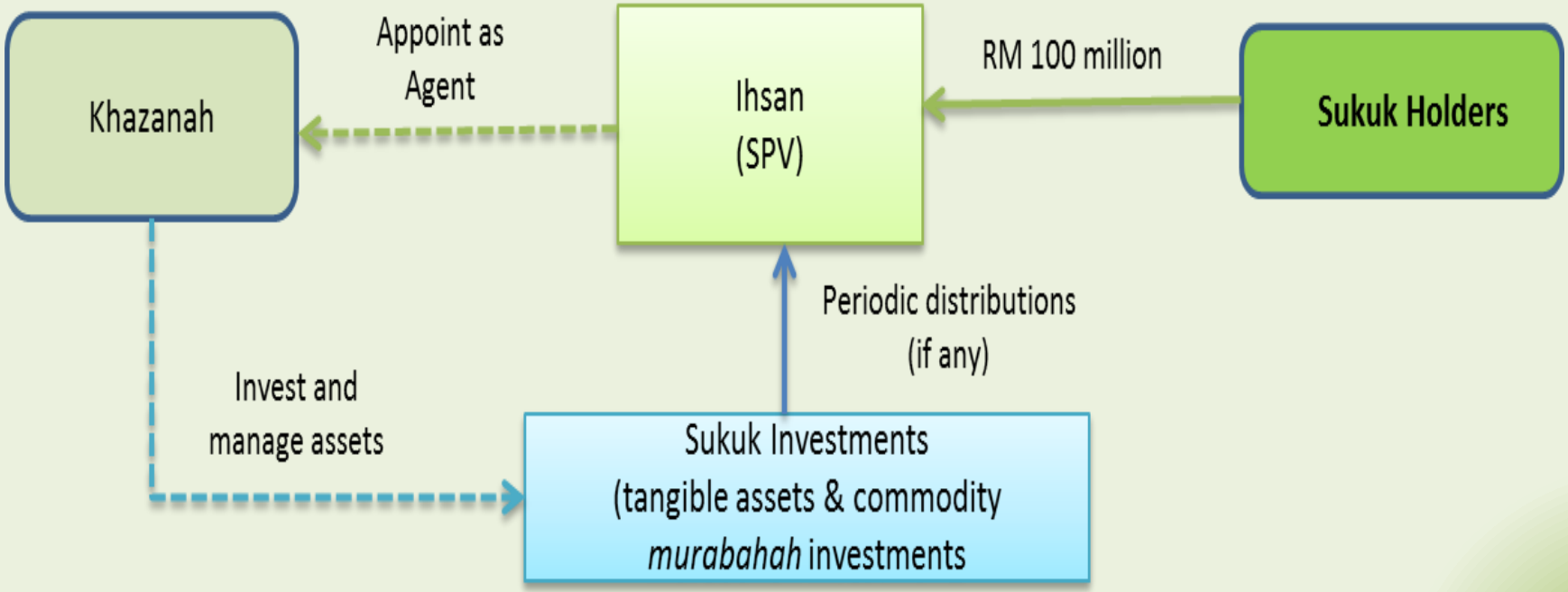


[Chart 3.11] *Source: Adapted from Ahmed (2017)*

Islamic Capital Markets:
Khazanah Sustainable and Responsible Investment *Sukuk*

- Khazanah Nasional Berhad (Khazanah) issued RM100 ml SRI Sukuk in 2015 to fund schools under non-profit foundation Yayasan AMIR (YA) Trust Schools Programme
- Goal—improve accessibility of quality education in Malaysian government schools under PPP arrangement with the Ministry of Education
- The SRI sukuk was fully subscribed
- Sukuk Features
  - SPV: Ihsan Sukuk Berhad (Ihsan) (plans to raise a total of RM1 billion through sukuk programme)
  - Lead Manager: CIMB Investment Bank Berhad (CIMB)
  - Structure: Wakalah bil Istithmar
  - Tenor: 7 years
  - Sukuk was priced with an expected return 4.30% p.a.
  - Key Performance Indicators (KPIs) to assess social impact assessed over a five-year timeframe
  - If KPIs fully met at maturity, effective yield reduced to 3.5% (as 'Pay-for-Success' for social impact)
  - Sukuk also had option of converting the investment into a donation
- By the end of 2016, the Trust Schools Programme implemented at 83 schools in 10 states providing services to over 65,000 Malaysians students.

Khazanah SRI *Sukuk* Structure



Islamic Social Finance: BAZNAS and UNDP Initiative

- BAZNAS (National Zakat Collection Agency) and UNDP initiated cost-sharing partnership with UNDP-Global Environment Facility
- BAZNAS channeled USD 350,000 zakat funds for providing power to people living in remote rural villages in Jambi, Sumatra
- Four micro-hydro power plants produce a total of 180kw of electricity
  - Provides power to 803 households, 7 schools, 4 mosques, 19 mushala (prayer rooms), one Islamic boarding school and other village infrastructure

Questions??

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