

How Finance can Help Achieve the Goals of the Paris agreement

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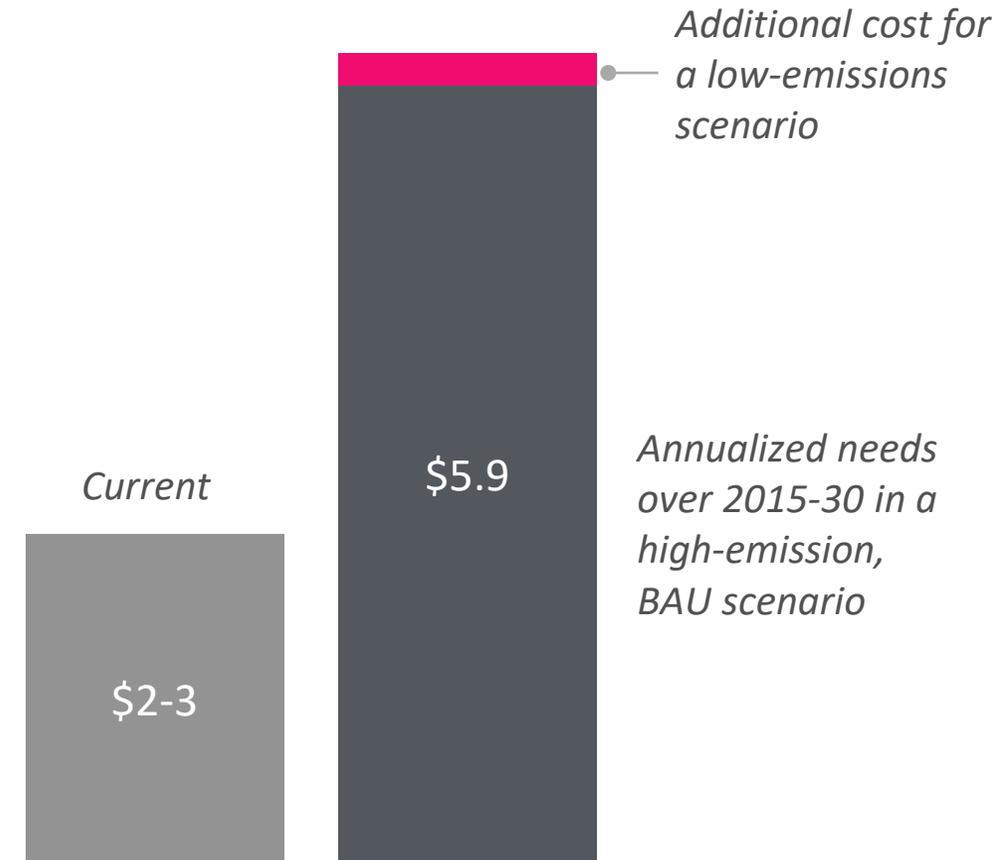
“Paris implementation” in context

➤ Finance “goal” of Paris: driving investment towards low-emissions, climate-resilient development:

- Current global infrastructure investment is around \$2-3 trillion per year.
- Global infrastructure demand over the next 15 years in a low-carbon scenario would amount to around \$93 trillion, or about \$6.2 trillion per year.
- High-carbon, business-as-usual (BAU) scenario, global infrastructure needs projected at around \$89 trillion over this period, or about \$5.9 trillion per year.

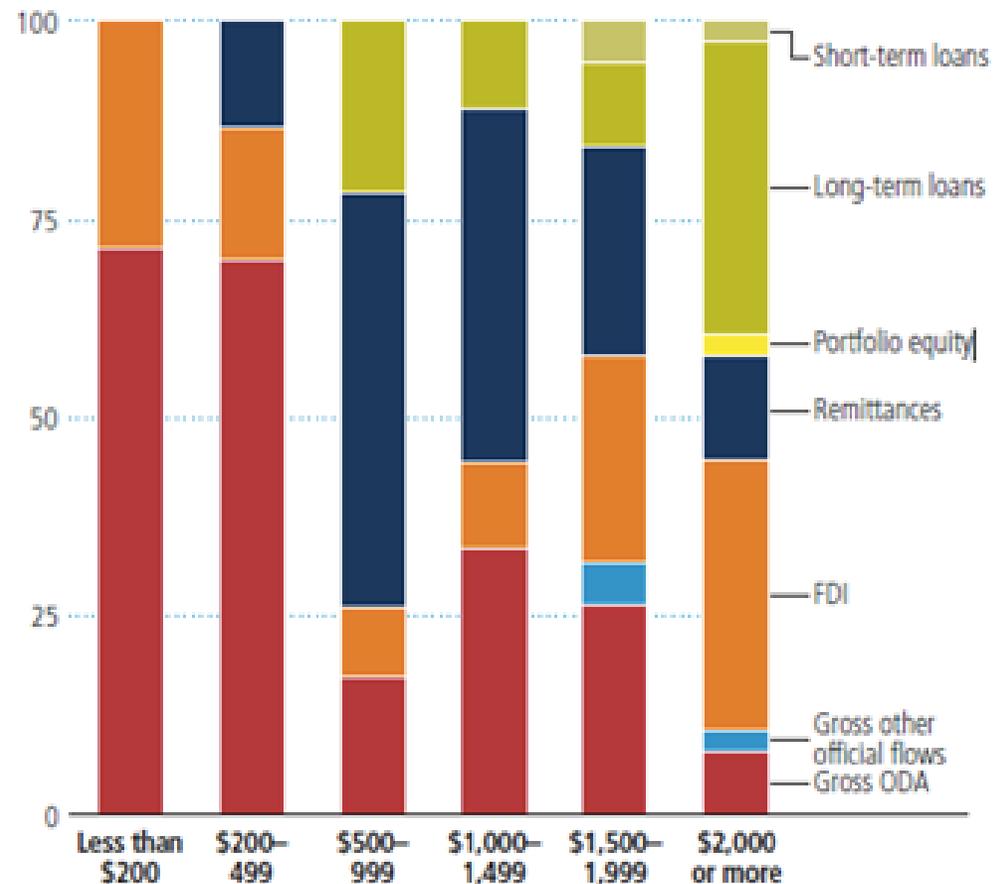
➤ The need to catalyze significant private investment in infrastructure exists with or without trying to address climate change.

Annual Infrastructure Investment (2010 \$ trillions)



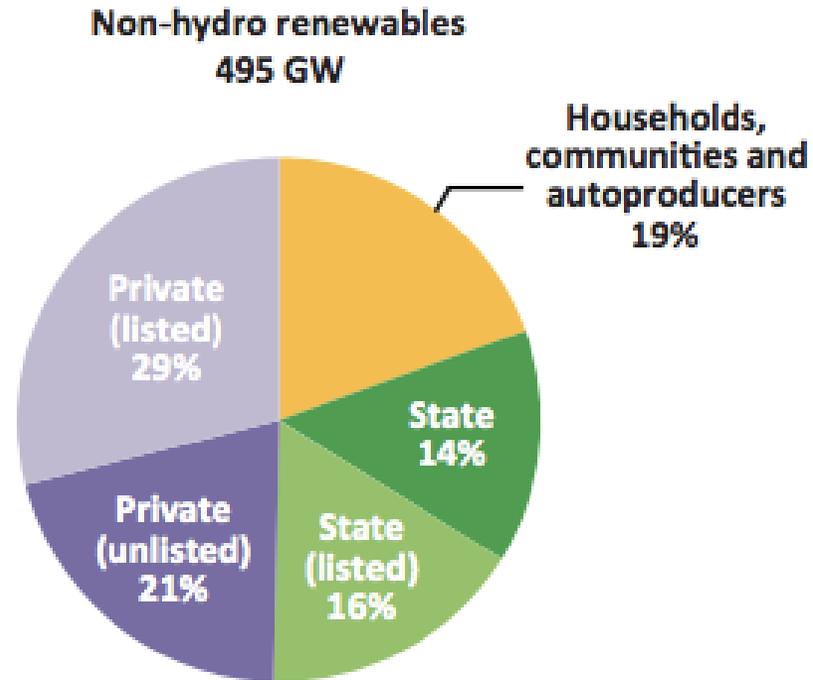
The vast majority of countries have access to diverse sources and instruments for financing development

% of countries for which each resource flow is the largest they received in 2011



Implementation will involve both public and private investment

Who owns renewable energy assets globally?



➤ Private sector owns more than half of RE assets globally.

Source: IEA, World Energy Investment Outlook, 2014.

What can governments do?

Paris Implementation will involve a continuum



Policy and regulatory analysis and development

- Inter- / intra- governmental coordination, stakeholder engagement
- Modeling/technical analysis
- Low emission development strategies/adaptation planning
- Inventories
- Domestic MRV systems
- Ongoing reviews

**Climate/
Investment Policies**
For: governments

- Climate-related:
 - Energy: carbon pricing, FiT, RPS, EE standards
 - Adaptation: water and agriculture management policies, zoning/building codes.
- Broader policy frameworks: tax and fiscal policies and de-risking instruments; trade and investment policies; legal and regulatory predictability.

**Developing a Pipeline
of Bankable Projects**
For: gov + private project developers

- Feasibility studies (e.g., wind speed mapping)
- Social and environmental impact studies
- Resilience/option assessments
- Engineering design support
- Costing
- Licensing and registration

**Navigating and
Securing Finance**
For: gov + private project developers

- Identifying potential financiers
- Business plan
- Deal structuring
- Fundraising strategy
- Application support
- Legal and financial advisory services needed to close deal

- Country Reporting
- Natcoms/biennial reporting

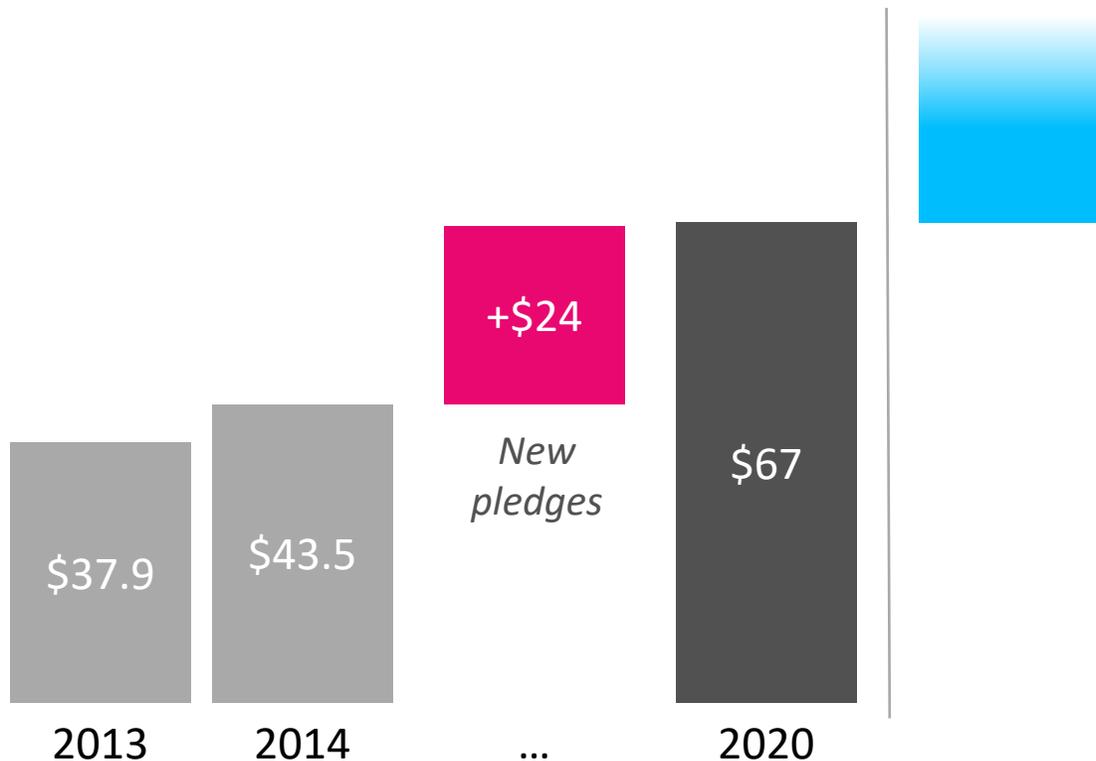
Finance, capacity building, access, technology

1. Continue to prioritize support in the context of mobilization goals

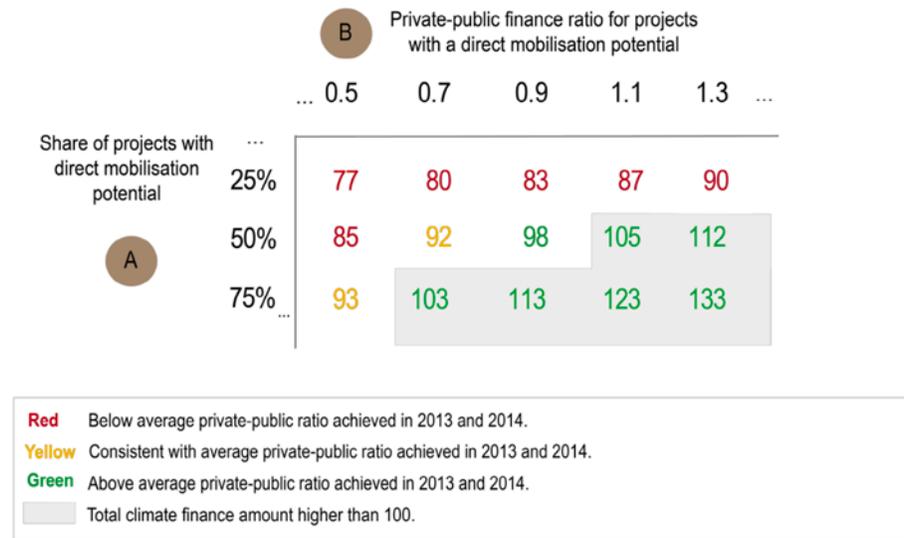
- Continue upward trajectory in public and mobilized finance toward the \$100b mobilization goal
- Align bilateral and multilateral assistance to support specific goals of Paris Agreement and decision
- Promote coordination among donors to mobilize finance, e.g., DFIs, Export Credit Agencies, aid agencies
- Promote innovative approaches and de-risking strategies to enhance private sector investment mobilization

Example: Maximizing the catalytic impact of the \$100 billion

Public Finance



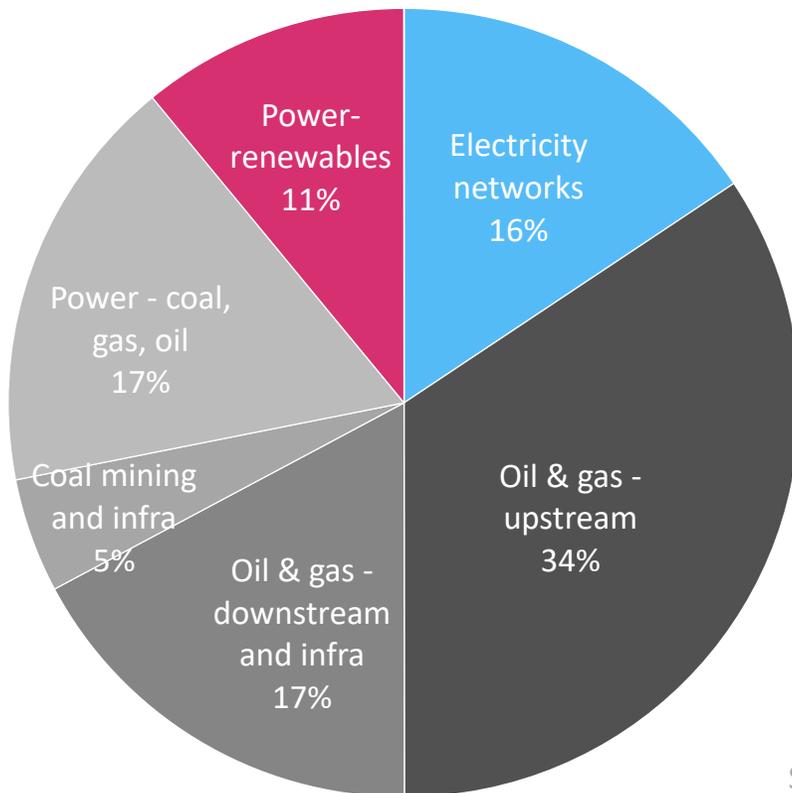
Private Finance Mobilization Opportunities



2. Promote policy and investment plans and environments that stimulate low emission, climate resilient development

- Promote a whole of government approach to shifting investment towards climate goals, continued high level engagement
- Promote policies that encourage and incentivize adaptation planning and climate resilient investments
- Understand and orient policy solutions to de-risk and incentivize climate-friendly investments
- Align public tools such as procurement policies with climate objectives

Southeast Asia Energy Investment in 2015



Examples:

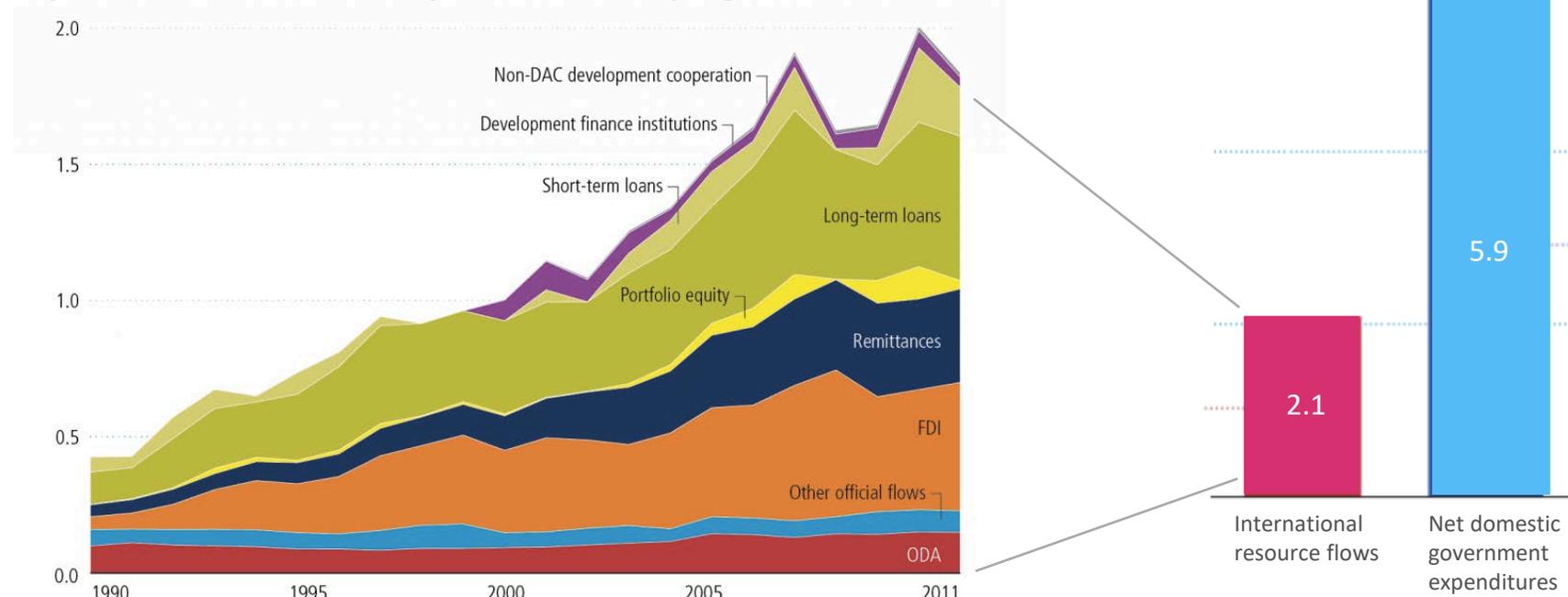
- Shifting energy investment patterns in Southeast Asia - with **73%** (\$47 out of \$64 billion) **of the in energy investment in Southeast Asia supporting fossil-fuel-based generation or infrastructure**, there remains significant room for shifting investment towards low-emission energy sources.
- Aligning public procurement policies with climate objectives -by encouraging the use of sustainability criteria in public procurement, including for energy infrastructure, it is estimated that governments could channel upwards of **\$120-195 billion** towards financing sustainable infrastructure globally (McKinsey & Co., 2015).

2. Promote policy and investment plans and environments that stimulate low emission, climate resilient development (continued)

- Understand the role of policies in attracting and mobilizing different sources and instruments.
- Ensure investment plans make optimal use of the full range of resources available

Example: Attracting, mobilizing, and combining finance from a wide variety of sources- while domestic government resources remain the dominant source of financing for development, the **scale** and **diversity** of international resource flows that developing countries have access to has grown dramatically, due in part to more attractive investment conditions.

Composition of international resource flows to developing countries (2011 \$ trillions)



3. Ensure optimal use of multilateral institutions

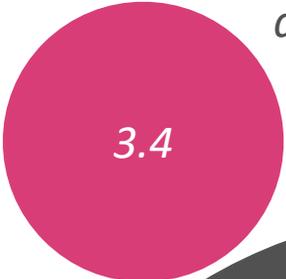
- Multilateral Development Banks (MDB)
- Green Climate Fund
 - Readiness fund
 - Designing Project Preparation Facility
- Climate Technology Center and Network – mitigation and adaptation technical assistance on request

Examples:

- Addressing the lack of bankable project pipelines - increased financing in project preparation and pipeline development could scale-up investment in sustainable infrastructure by **\$150-450 billion** (McKinsey & Co., 2015).
- Encouraging broader usage of guarantees - encouraging the broader usage of guarantees to de-risk capital markets could potentially generate **\$166-260 billion** (ibid).
- Optimizing balance sheets - in January 2017, the Asian Development Bank will combine the balance sheets of its concessional and non-concessional sub-funds, which is expected to boost its total annual lending and grant approvals to as much as **\$20 billion**. (New Climate Economy, 2016).
- Mobilizing institutional investors- MDBs, as well as multilateral funds like the GCF, could help to tap into the more than **\$100 trillion** in global assets managed by institutional investors globally by supporting the establishment of national “green investment banks” or the development of innovative vehicles and securitization models that can help to bridge the divide between investment preferences of institutional investors and the characteristics of sustainable infrastructure projects (e.g., more closely aligning tenor, risk, liquidity.)

4. Mobilizing institutional investors: \$ trillions in Assets Under Management (AUM)

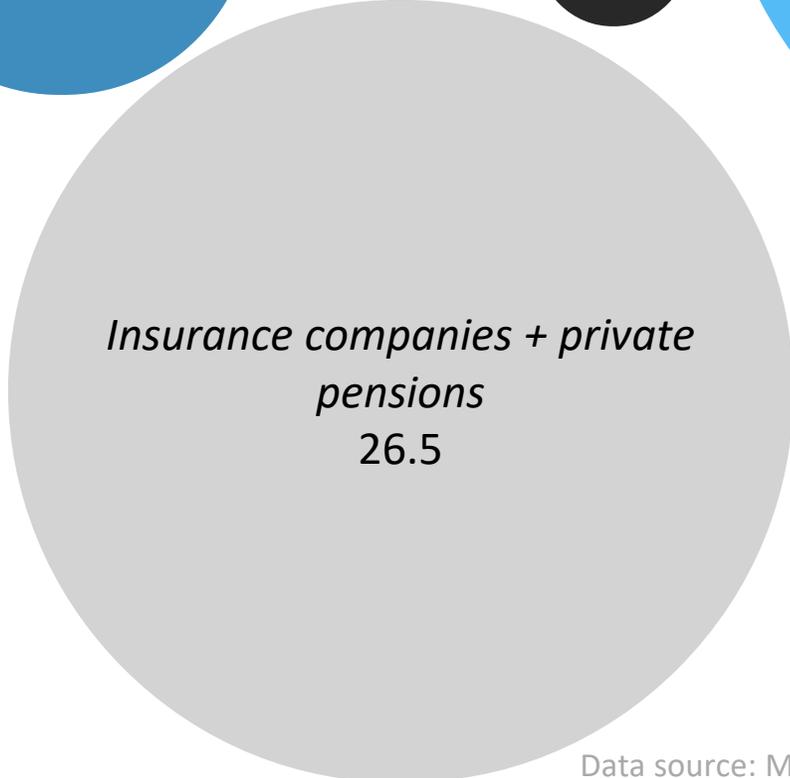
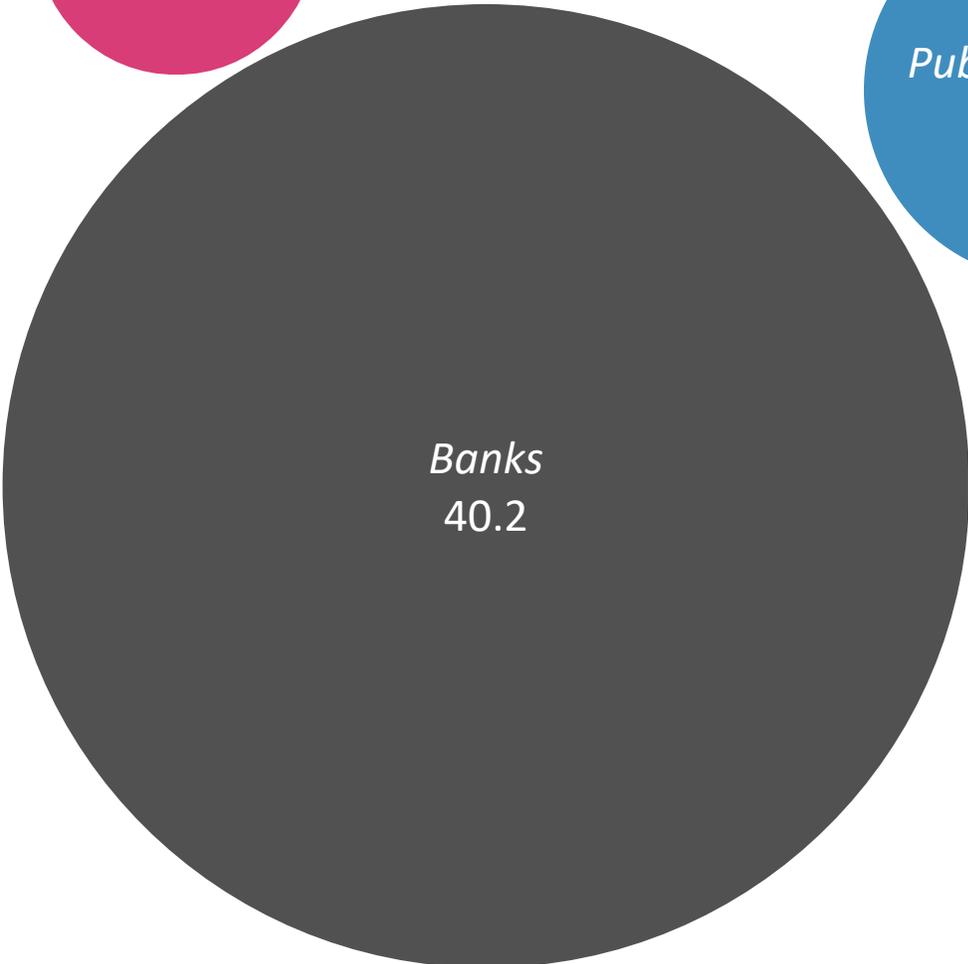
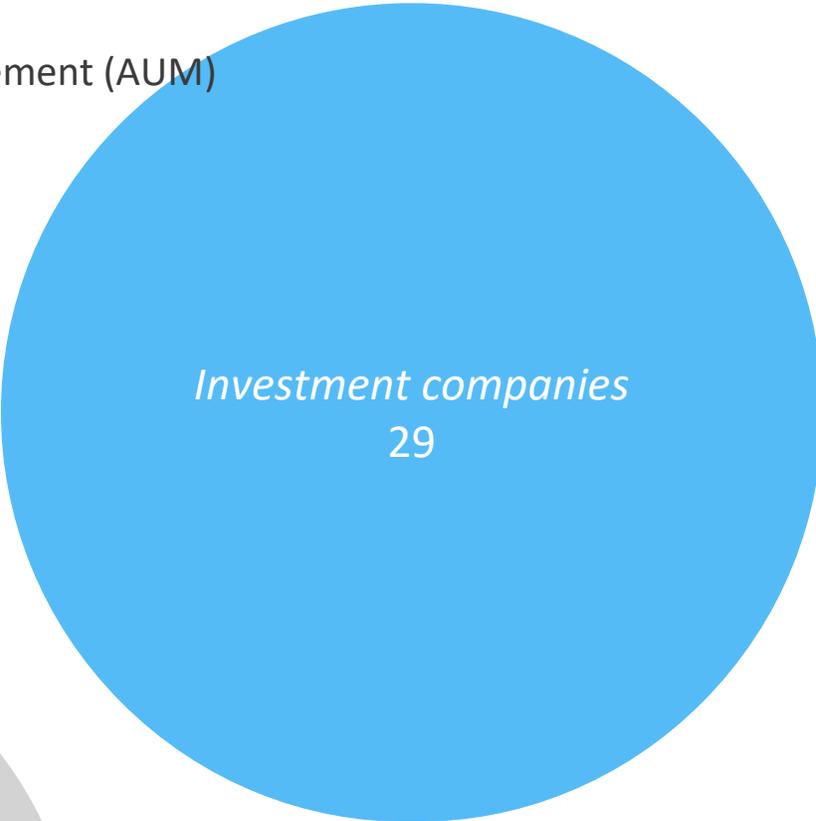
Infrastructure operators + developers



Infrastructure and private-equity funds



Endowments + foundations



Data source: McKinsey, 2015; OECD, 2015

Case study: Power Africa

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POWER AFRICA TOOLBOX

Tools & Resources to Unlock the Power of Sub-Saharan Africa



The Power Africa Toolbox provides a quick yet comprehensive view of the tools & resources Power Africa uses to drive deals & facilitate investment. These tools fall into five major categories:



Transaction Assistance

- Early-stage support for innovative energy solutions, resource evaluations, feasibility and grid impact studies, social and environmental impact studies, project appraisal and costing, engineering designs, public private partnerships, and other project preparation activities
- Late-stage expert technical, regulatory, and financial assistance to host country governments to advance power transactions to financial close and beyond

Who is it for?

Project developers, investors, host-country governments, entrepreneurs, African-owned and operated enterprises



Finance

- Equity, mezzanine financing, senior and sub-senior loans, guarantees, export credits, grants, and insurance programs

Who is it for?

Project developers, financing institutions, entrepreneurs, host-country governments, U.S. lenders and exporters



Policy/Regulatory Design & Reform

- Technical assistance to improve the enabling environment for private sector investment in the power sector through policy, legal, regulatory and utility reforms, improved procurement practices and power sector planning, and the adoption of financial incentives and risk mitigation schemes

Who is it for?

Host-country governments, utilities, regulators, and other stakeholders



Capacity Building

- Technical assistance to support institutional strengthening, technical and regulatory skill development, and project development and management activities
- Trade missions to the U.S. and to sub-Saharan Africa

Who is it for?

Host country governments, utilities, energy regulators, public procurement agencies



Legal Assistance

- Legal assistance to strengthen host country government expertise and negotiating capacity in structuring, financing and closing power transactions

Who is it for?

Host-country governments and African utilities

www.usaid.gov/powerafrica/toolbox

TRANSACTION ASSISTANCE

Mechanism	Agency/ Org.	Tool Description	Who is it For?	Eligibility Requirements	Where Can the Project be Located?	BTG?
U.S.-Africa Clean Energy Finance (ACEF)	OPIC USAID DOS USTDA	Project preparation support for early-stage renewable energy projects	Project developers	Must qualify as a "Clean Energy Investment" and meet specific OPIC & USTDA criteria	Select SSA countries	<input checked="" type="checkbox"/>
Development Innovation Ventures (DIV)	USAID	Grant competition for innovative, transformative development solutions	Non-profit and private companies	Applicant solutions must show cost effectiveness, rigorous evidence of success, and proposed pathways to scale	USAID partner countries	<input checked="" type="checkbox"/>
Geothermal Risk Mitigation Facility	African Union Commission	Grant support for surface studies and drilling & testing reservoir confirmation wells	Project developers	Applicants must pass pre-qualification phase	Select SSA countries	<input checked="" type="checkbox"/>
MCC Grants	MCC	Grant funding for feasibility studies & engineering designs	Host-country governments	Partnership Requirement	MCC Partner Countries	<input checked="" type="checkbox"/>
Off-Grid Energy Challenge	USADF USAID	Grant funding for off-grid renewable energy solutions that power local economic activities	African-owned and operated enterprises, associations, or organizations	Applicants must provide off-grid solutions that deploy renewable resources and power local economic activities	Select SSA countries	<input checked="" type="checkbox"/>
Sustainable Energy Fund for Africa - Window I	AfDB USAID	Project preparation grants for small-to-medium scale renewable energy & energy efficiency projects	Project developers Investors	Project sponsor must be registered as a legal entity in a Regional Member Country by the time of grant approval	AfDB Regional Member Countries	<input checked="" type="checkbox"/>
Market Research & Intelligence	U.S. Department of Commerce	Country and Industry Reports Customized Market Research Background Reports	U.S. companies	Must be a U.S. company	Countries where U.S. Foreign Commercial Service or a Partner Post operates	
Single Company Promotion	U.S. Department of Commerce	Assistance in promoting a new technology or service in a new country	U.S. companies or their local subsidiaries	Must be a U.S. company or local subsidiary	Countries where U.S. Foreign Commercial Service or a Partner Post operates	
Advocacy Assistance	U.S. Department of Commerce	Assistance to exporters of U.S. goods and services as they compete against foreign firms for international public sector contracts/projects	Exporters of U.S. goods and services seeking to compete in foreign government procurements	Exporters of U.S. goods and services	Any SSA country	
Business Matchmaking	U.S. Department of Commerce	Identify potential local partners, determine the marketability of products or services; meet one-on-one with pre-screened local buyers, sales reps, and business partners	U.S. companies	Must be a U.S. company	Countries where U.S. Foreign Commercial Service or a Partner Post operates	
USTDA Grants	USTDA	Grant support for feasibility studies, pilot projects & other project planning activities	Project developers Host governments	Grant recipients are required to select U.S. firms to perform USTDA-funded activities	SSA countries	<input checked="" type="checkbox"/>

Enhancing Access: Power Africa Project Preparation Facilities

Project Preparation Facilities (PPFs) support governments, investors, and developers of power projects by helping to expedite the technical, financial, legal, and regulatory processes involved in energy deals. As a companion resource to the Power Africa Toolbox, this document contains information on early-stage PPFs that currently operate in sub-Saharan Africa's energy sector.

PPFs in Sub-Saharan Africa and their Project Development Stage Focus Areas	Enabling	Concept	Pre-feasibility	Feasibility	Development	Structuring	Financing	Construction
Electrification Finance Initiative (ElectriFI)		✓	✓	✓	✓	✓	✓	✓
Sustainable Use of Natural Resources and Energy Financing (RTAP-SUNREF)	✓	✓	✓	✓	✓	✓	✓	
Energy and Environment Partnership Program of Southern & East Africa (EEP S&EA)		✓	✓	✓	✓	✓	✓	✓
U.S. Trade and Development Agency (USTDA)	✓		✓	✓	✓	✓	✓	
U.S.-Africa Clean Energy Finance Initiative (ACEFI)		✓	✓	✓	✓	✓	✓	
Infrastructure Development Collaboration Partnership Fund (DevCo)	✓	✓	✓	✓	✓	✓		
Climate Investor One (CIO)			✓	✓	✓	✓	✓	✓
InfraCo Africa			✓	✓	✓	✓	✓	
Climate Technology Initiative Private Financing Advisory Network (CTI PFAN)			✓	✓	✓	✓	✓	

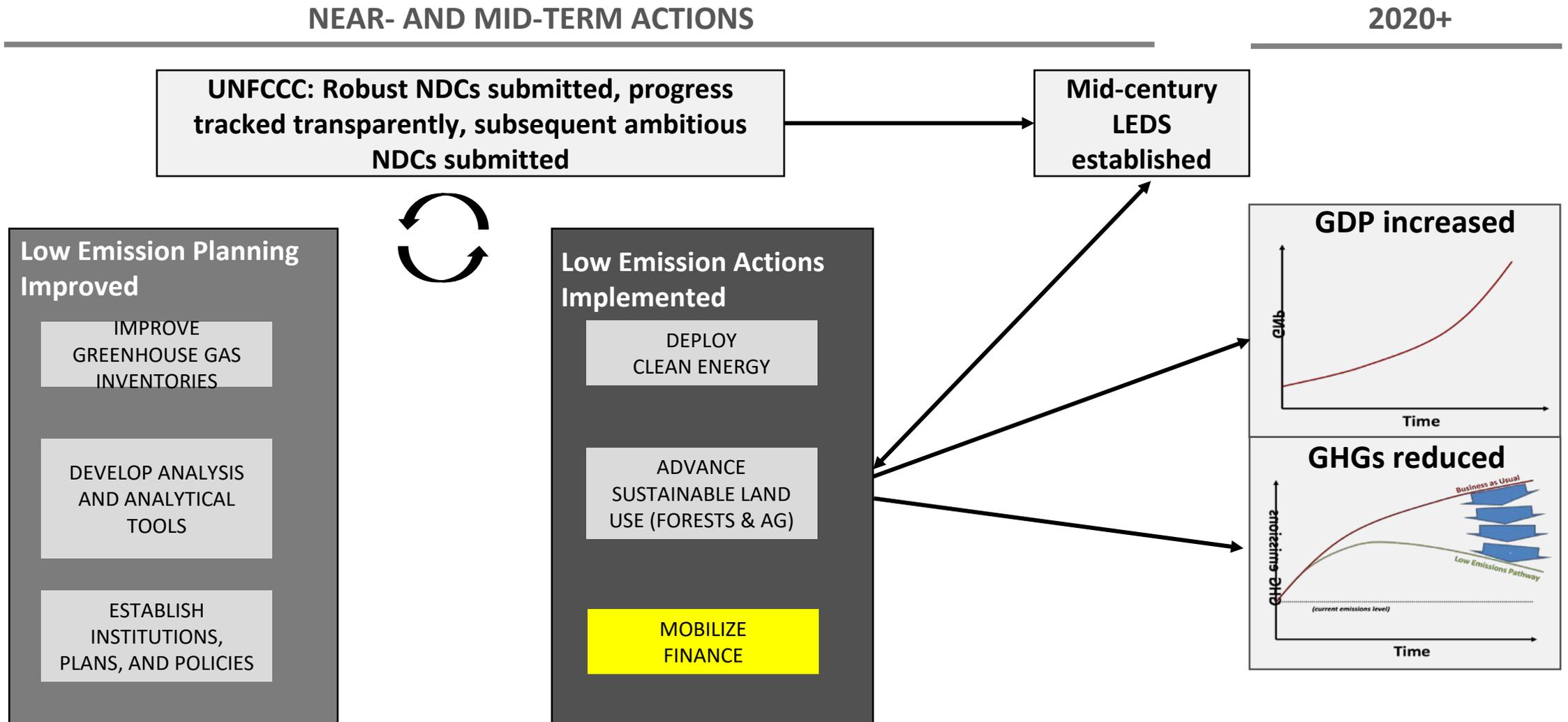
Case study: Low Emission Development

U.S. government supported Enhancing Capacity for LEADS program with 26 countries, including 8 in Asia.

- Specific LEADS projects mobilized **\$2.7 billion** for LEADS implementation (2010-2015)
 - For example, the USAID-supported **Private Finance Advisory Network for Asia** mobilized over **\$150 million in 2015** for clean energy in the region by connecting clean energy businesses and projects with private sector financing to close deals



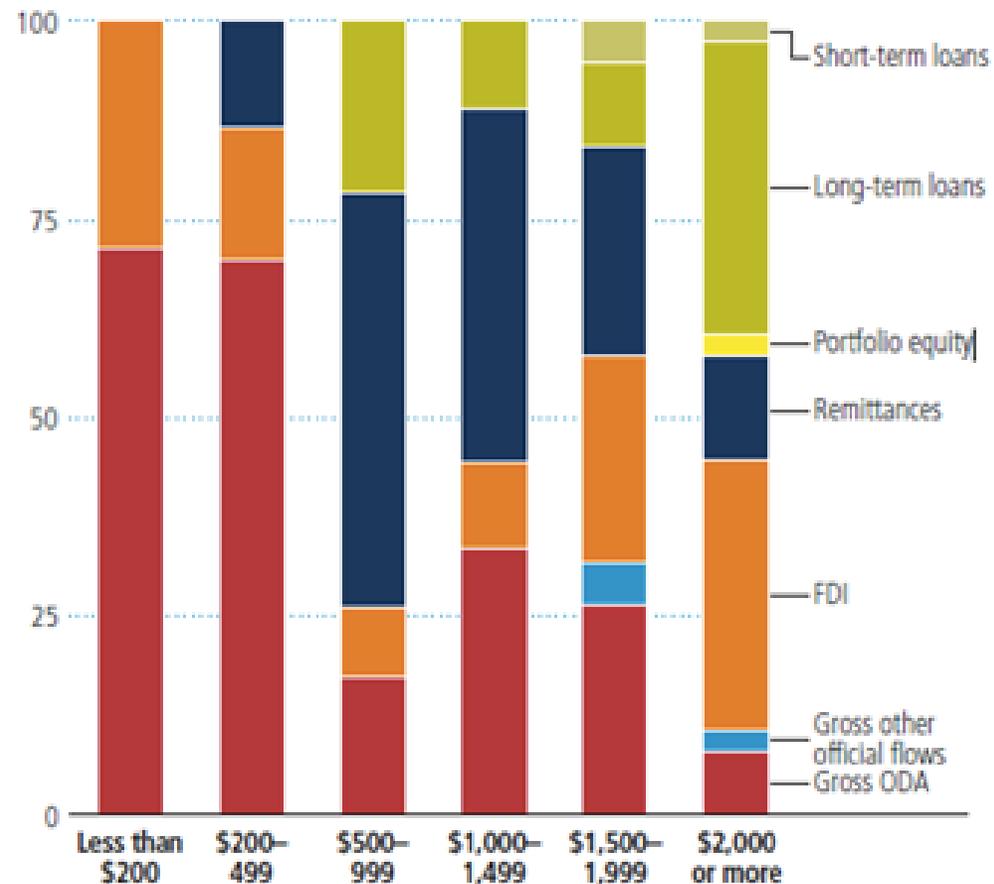
How EC LEDS provides support across the continuum



Thank you!

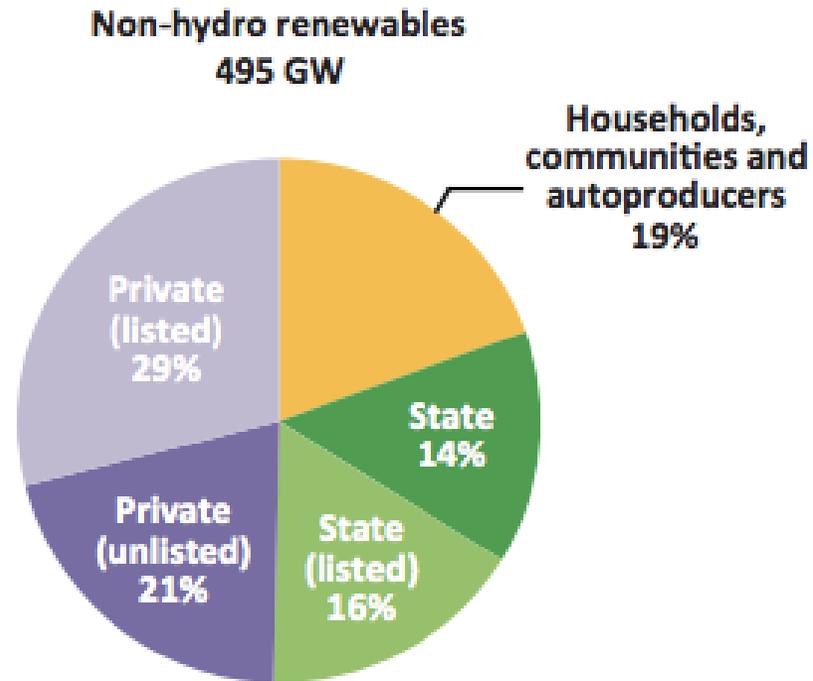
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Asia-Pacific Region Leads in Assets Under Management

