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Climate Finance and Investment

Global Climate Change Alliance + Training Course

Module 6

Climate change, climate finance and the UNFCCC

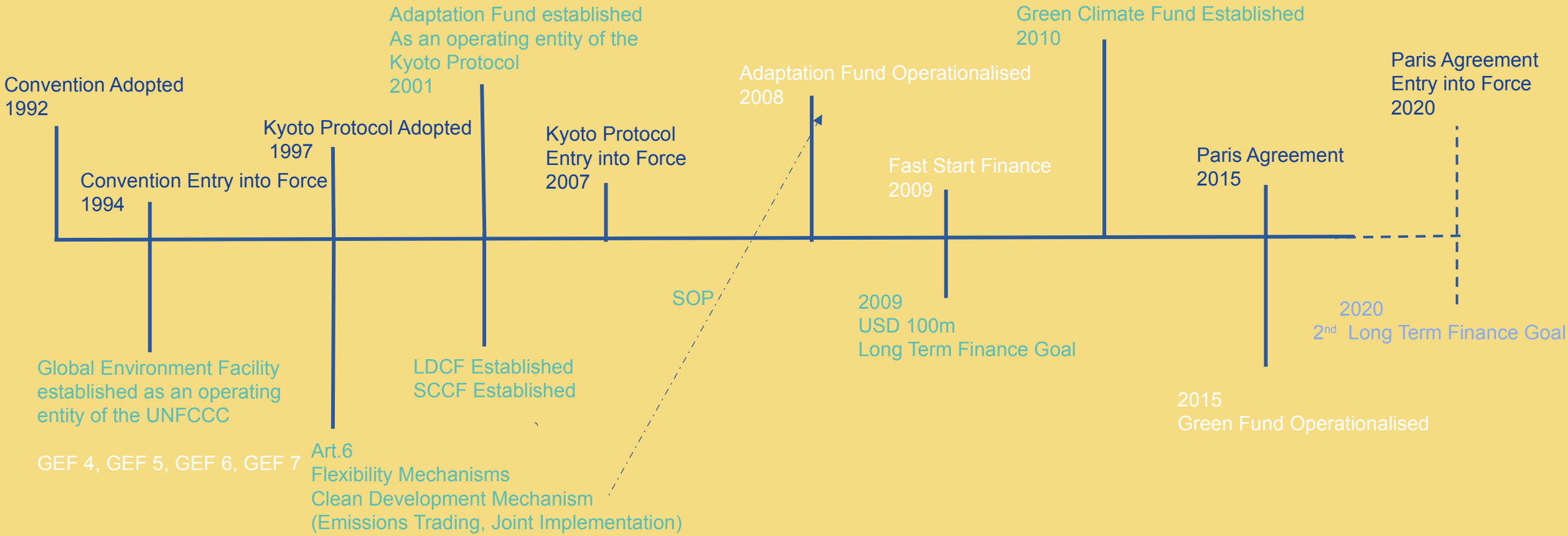
- The term ‘climate finance’ has developed to describe finance invested in actions to adapt to irreversible climate impacts, build resilience and reduce emissions.

- Art. 2(3) of the UNFCCC originally established financial obligations for ‘developed’ countries to provide resources including technology transfer, capacity building and ‘agreed costs’, to support ‘developing countries’’ climate actions
  - today there is still no universally agreed definition of climate finance sources,recipients and uses and methods to account for it are still being developed.

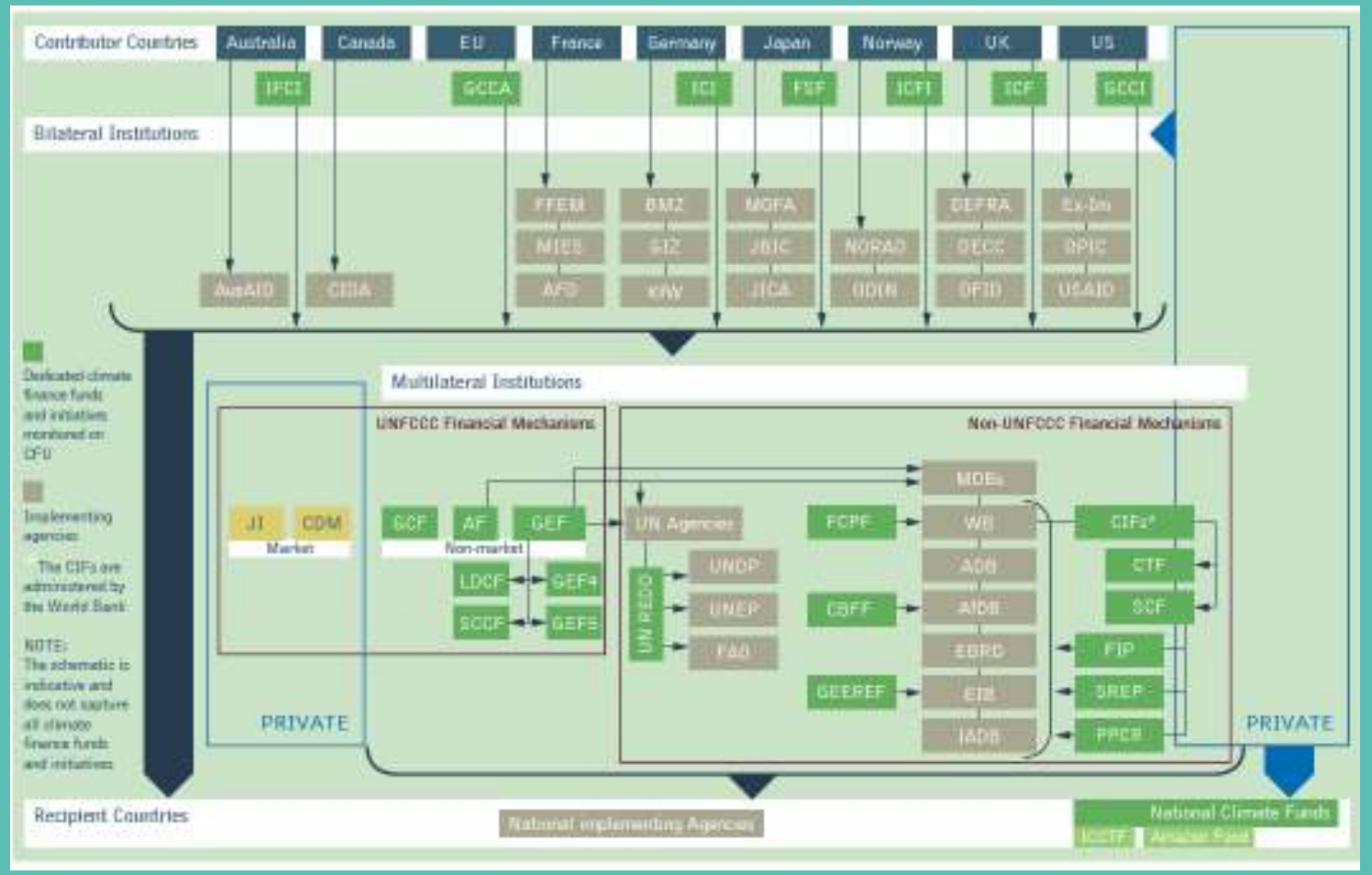
- Convergence is building around a definition that includes global ‘investments aimed at reducing emissions, and enhancing sinks of GHG and aims at reducing vulnerability, and maintaining and increasing the resilience of human and ecological systems to negative climate change impacts (BUR, 2014)
  - *NB: the Paris Agreement notes investments ‘consistent with’ rather than ‘aimed at’.*

- Even without an agreed definition Parties established a number of mechanisms, decisions and milestones under the Convention, its Protocol, and more recently the Paris Agreement (see next slide) that have grown into an international architecture.

Climate change, climate finance and the UNFCCC



Beyond the UNFCCC: global public climate finance architecture



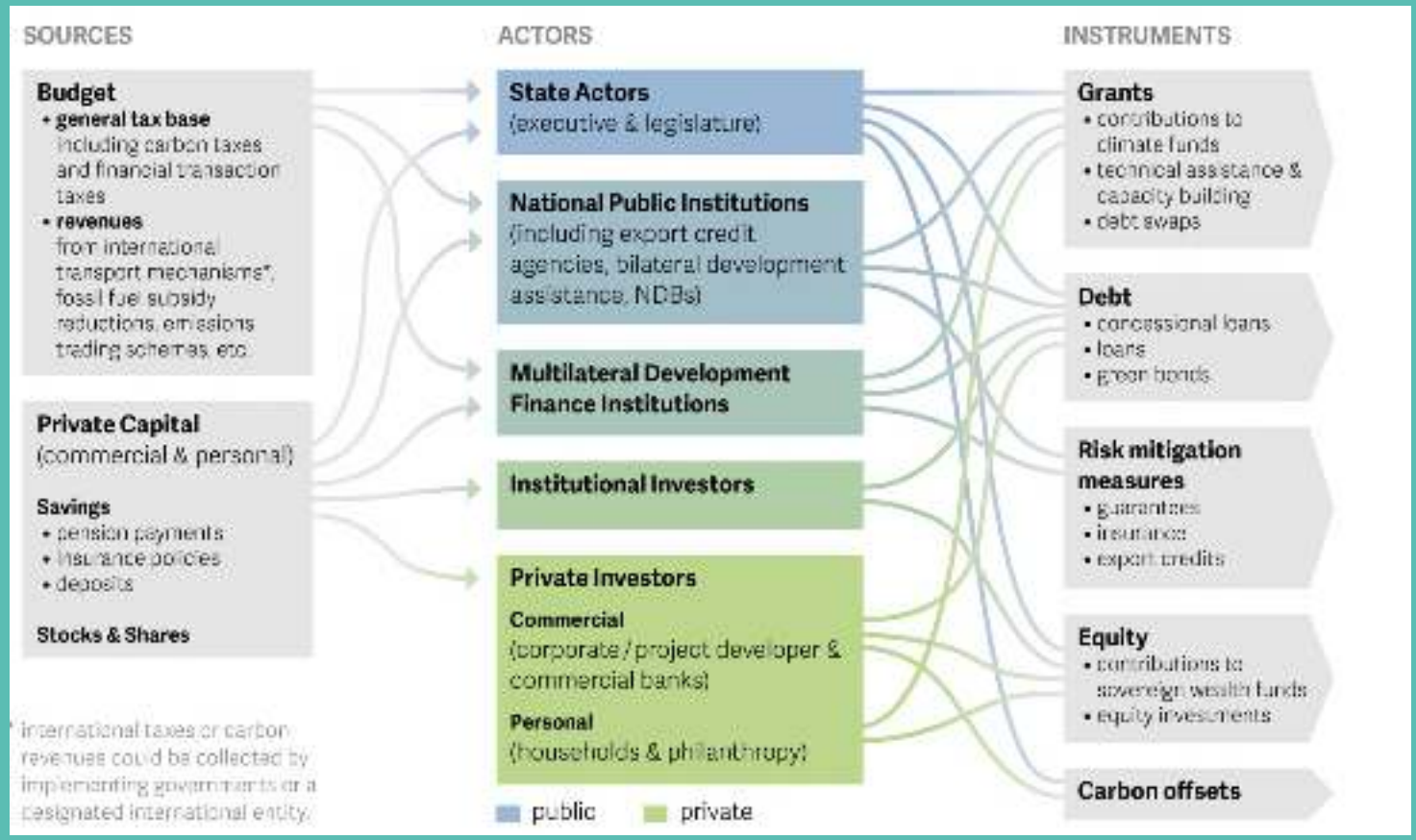
- Beyond UNFCCC mechanisms, countries deliver international climate finance through a large range of bilateral and multilateral intermediaries and programs.
- This figure illustrates the main developed country sources of climate finance and the most common intermediaries.
- It does not illustrate the growing importance of non OECD public sources of climate finance for developing countries.

Beyond the UNFCCC – Key Challenges

- Only a small proportion of international climate finance flows through the UNFCCC mechanisms.
- Effective climate action requires tens of trillions of dollars to be invested in coming decades to adapt to irreversible climate impacts, build resilience and reduce net emissions to zero by mid-century.
- In 2018 the IPCC estimated that USD 1.5 - 3.8 trillion (2010 values) need to be invested annually in the energy system alone, consistent with a 1.5 degree pathway
  - by comparison global climate finance flows in 2015/16 reached US463 billion on average (CPI, 2018)
  - only USD 22 billion was tracked to adaptation.
- Investments in high carbon systems still excede climate investments representing lost opportunities
  - in 2018 at least USD 750 billion was invested in global oil and gas supply and governments spent a further USD400 billion on fossil fuel subsides (IEA, 2018).
- Information gaps and institutional barriers continue to impede understanding and efforts to scale-up
  - beyond the energy sector, large gaps make it difficult to track and calculate investment flows
  - methodlogies to track and quantify finance from different sources are still being developed.

Global climate finance sources, actors, instruments

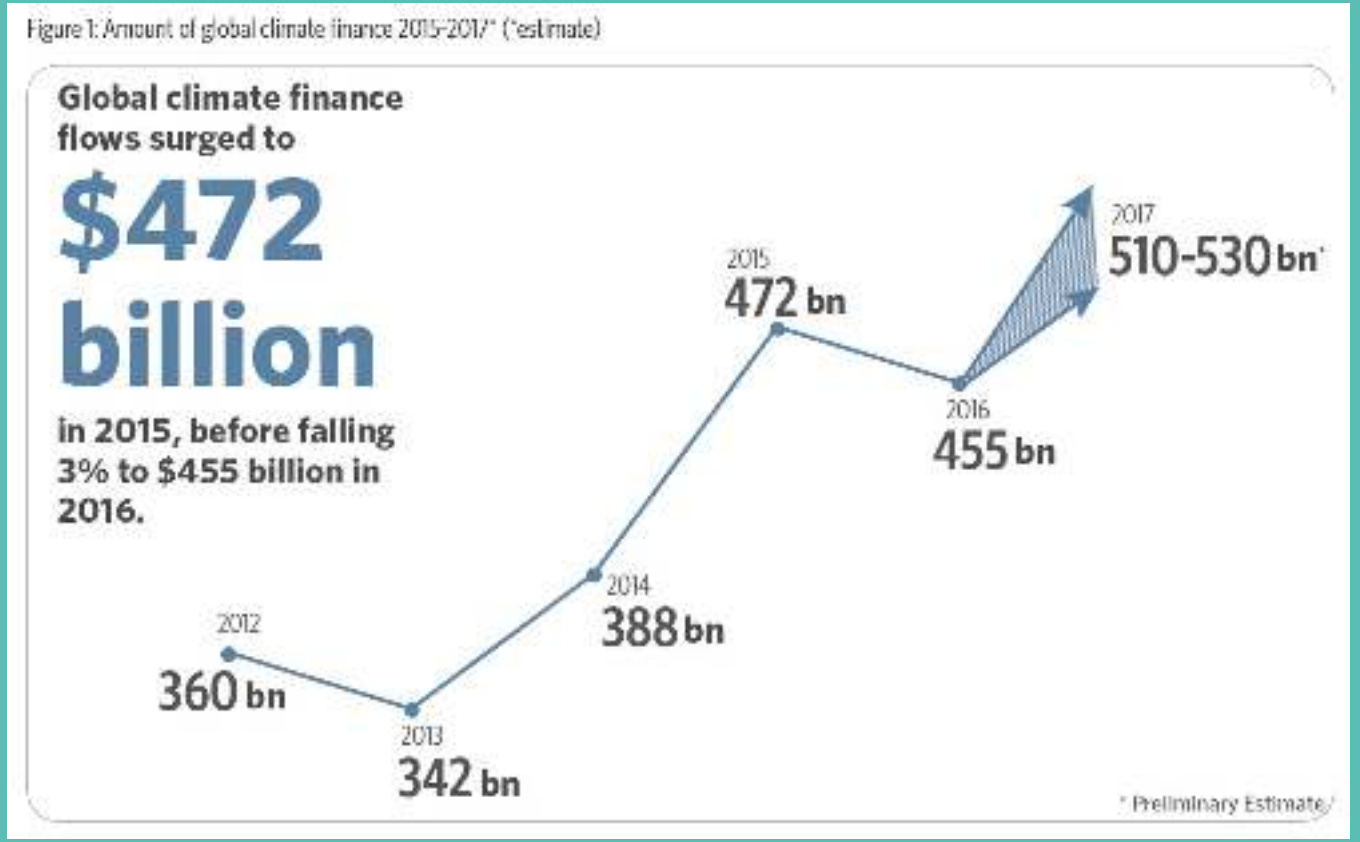
- There are two principal sources of climate finance: public budgets and private capital.
- The centre column identifies the actors whose decisions determine how public finance is delivered and how private capital is invested.
- The right column shows key instruments through which public actors channel finance to pay for public goods and services, close viability gaps, reduce costs and risks for private actors or into which public and private actors may invest.



Source: G7 Background Report on Long-term Climate Finance, 2015

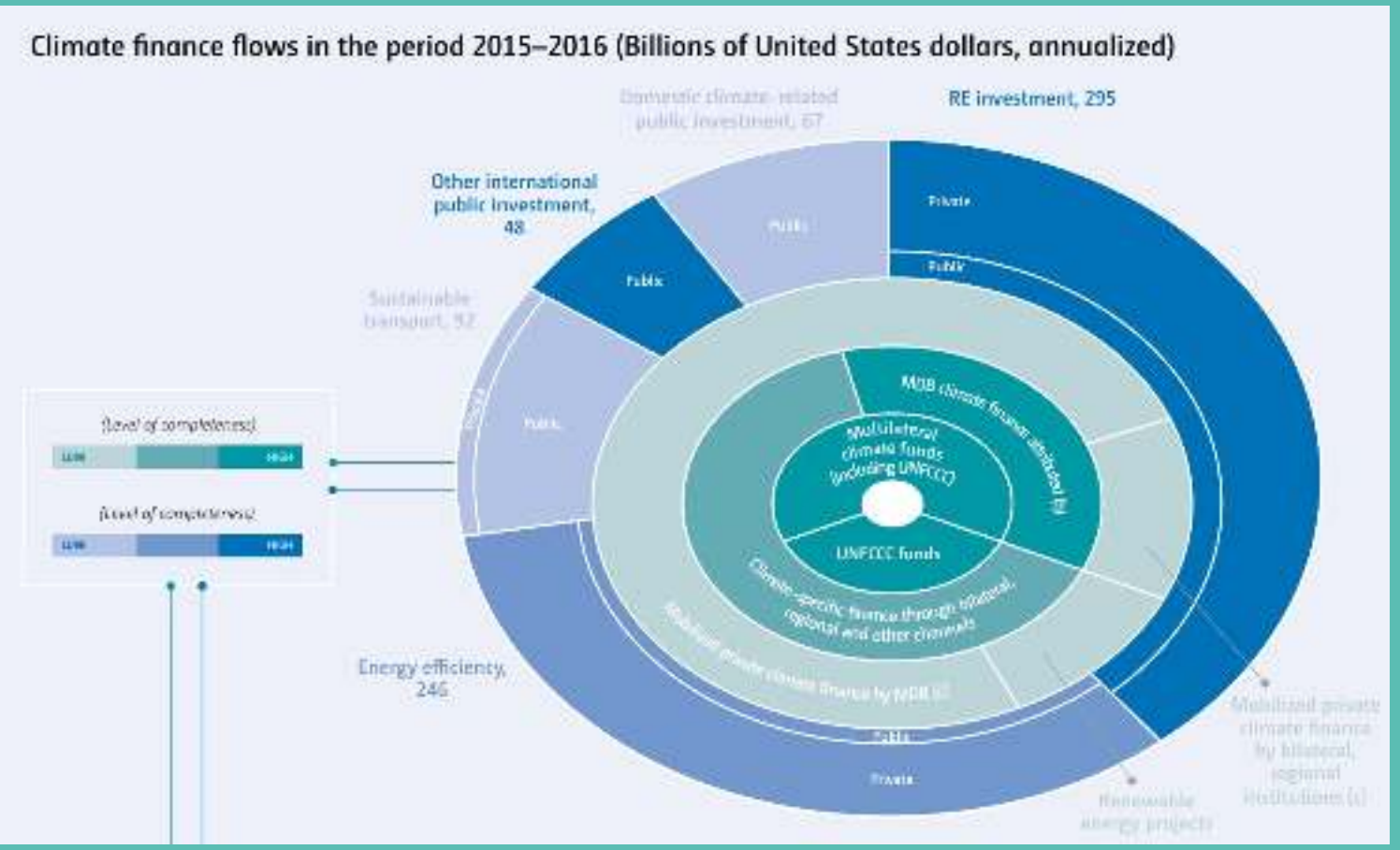
The Global State of Play

- Climate finance flows have increased steadily since they were first tracked in 2012.
- In 2015/16 private investment from private actors accounted for 54% of climate finance flows.
- Public finance plays a critical role addressing risks, cost and viability gaps faced by private actors including households.



Source: CPI 2018

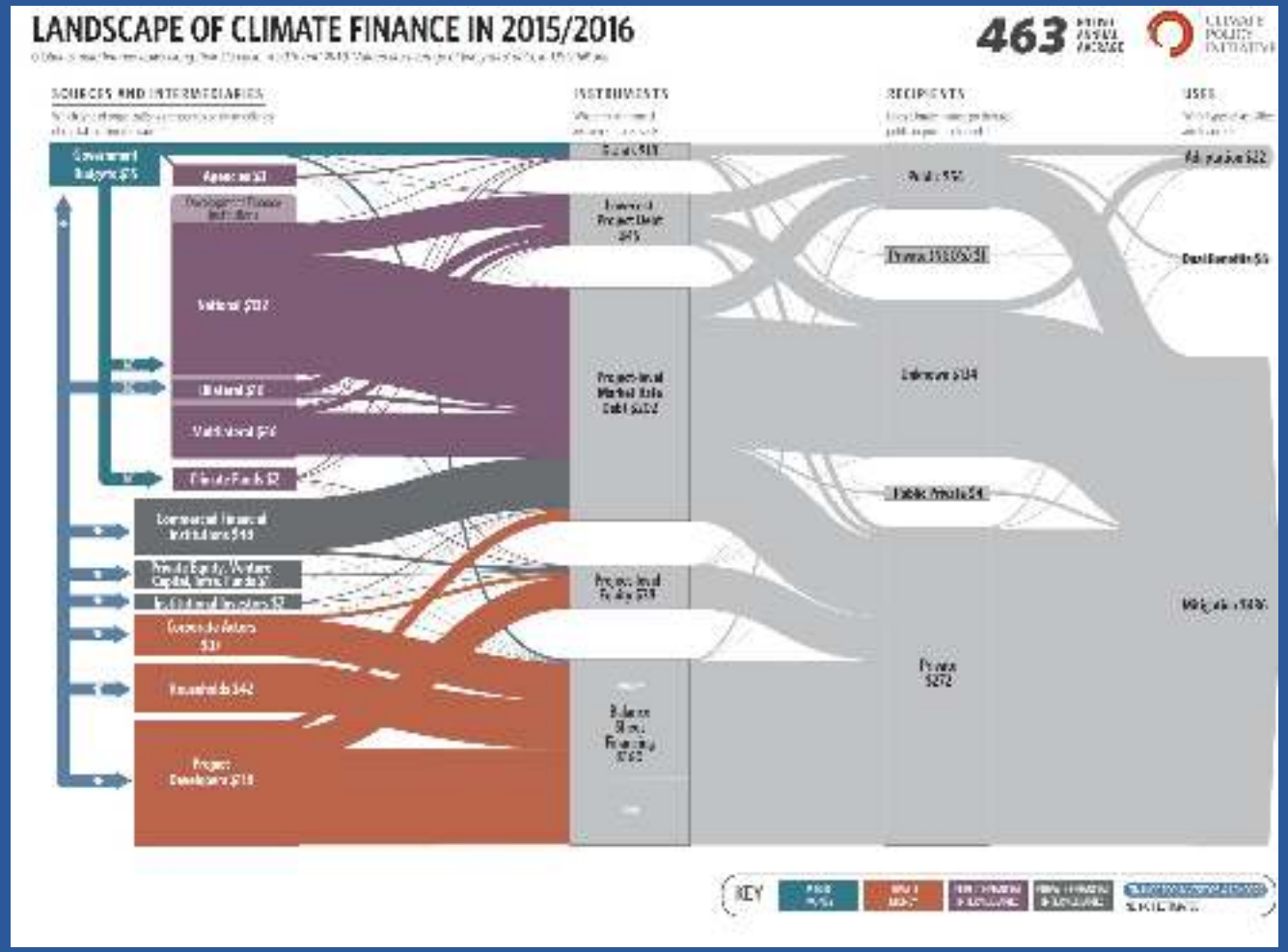
The Global State of Play
UNFCCC Biennial Assessment Report 2018



			2015 (USD billion face value)	2016 (USD billion face value)
Global total flows	Renewable energy investments		320.9	366.5
		Public investment	61.7	93.3
		Private investment	259.2	273.1
	Energy efficiency investments		233.9	257.8
		Public investment	25.7	32.9
		Private investment	208.2	224.9
	Sustainable transport		78.8	104.8
		Public investment	66.7	97.5
		Private investment	8.3	13.3
	Other sectors public investment		47.3	47.5
	Domestic climate-related public investment		67.8	66.8
Flows to non-Annex I Parties	UNFCCC funds		0.6	1.6
	Multilateral climate funds (including UNFCCC)		1.4	2.4
	Climate-specific finance through bilateral, regional and other channels		25.9	33.6
	MDB climate finance attributed [b]		37.6	39.7
	Renewable energy projects		2.6	1.5
	Mobilized private climate finance by MDB [c]		10.9	15.7
	Mobilized private climate finance by bilateral, regional institutions [c]		2.3	

Source: 2018 Biennial Assessment Report

Major Streams of Climate Finance



Source: CPI, 2018

- The landscape of of climate finance includes multiple sources of finance, actors and intermediaries, recipients and uses.
- The two principle streams, public and private, have distinct roles and uses.
- Understanding the relationships between public and private finance is the key to achieving scale-up.

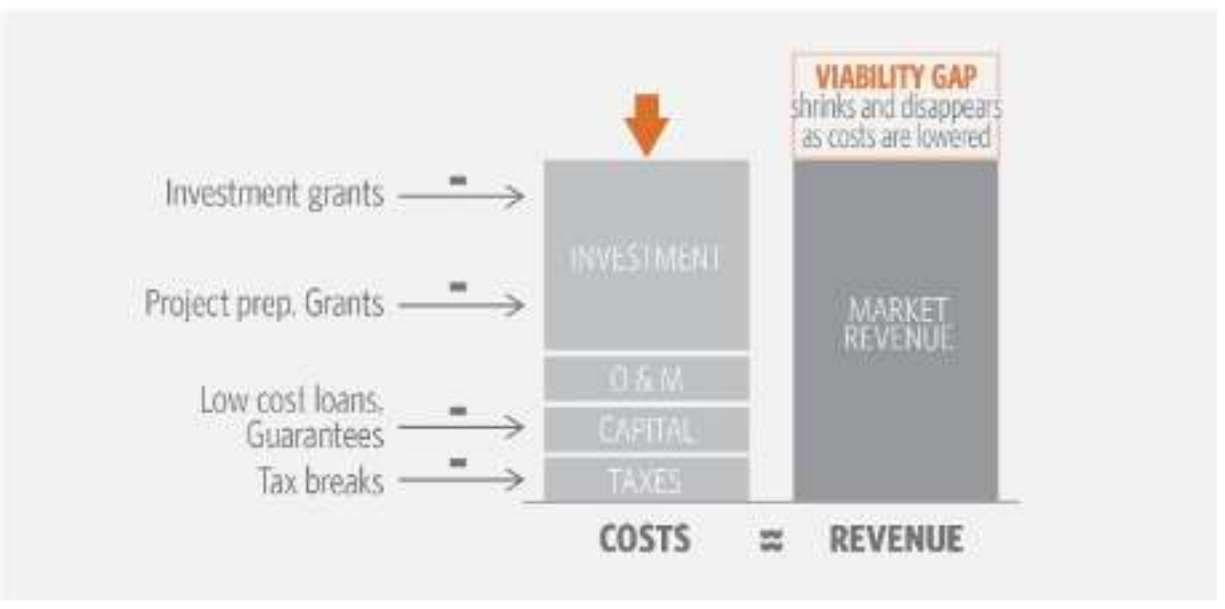
Public finance

- Governments collect revenues via various means, including general tax policies, environmental taxes, financial transaction taxes, other levies and charges.
- Governments allocate revenues through public budget processes which inevitably involve trade-off between national priorities and include international commitments.
- Development Finance Institutions (DFIs) including multilateral development and national development banks, channelled 91% of global public climate finance flows in 2015/16 (CPI, 2018)

As implied by this figure, data about domestic public spending is limited and *ad hoc*. Work to improve understanding about domestic budgets is an entry point for GCCA+ support activities.

When is public finance necessary?

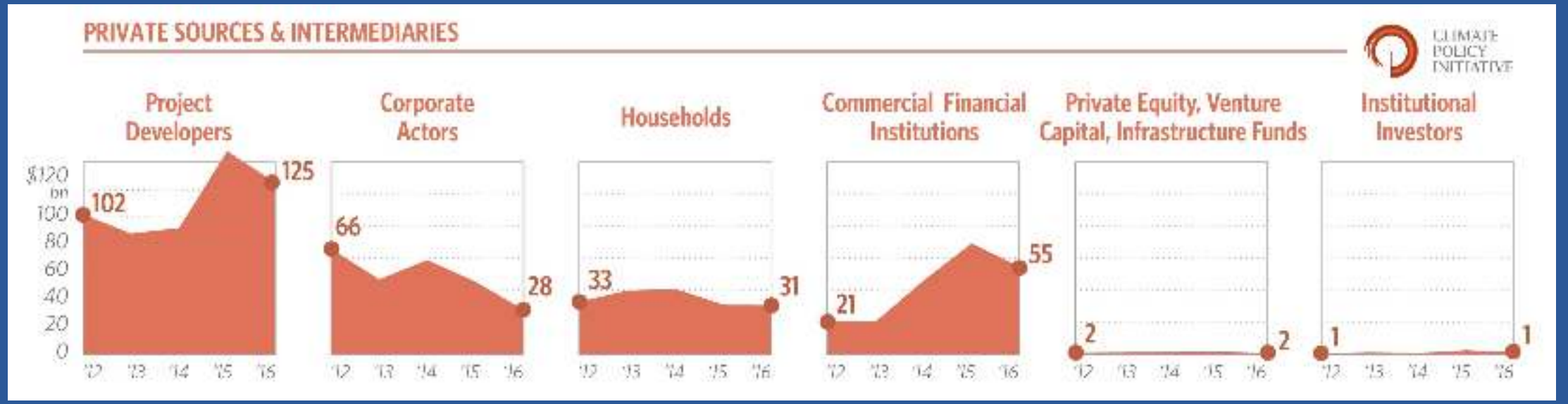
- The role of public money is to pay for public goods and services and to cover the increment that makes low-carbon investments unviable for private actors.
- Public finance is needed to help investors balance risks and costs – either by providing certainty around future revenue or by lowering costs.
- In addition to grants and loans (concessional and market), public actors can invest directly alongside private actors, decreasing perceived risks and increasing the prospects of financial closure.
- The GCCA+ can provide technical assistance designing targeted public instruments in partner countries.



Source: CPI, 2016

Private finance

- Private finance primary investment accounts for 54% of global finance flows in 2015/16 (CPI, 2018).
- Project developers, corporations, and commercial banks account for the bulk of flows.
- Private households are important end users of energy and energy efficient appliances, and are growing in importance as purchasers of electric vehicles.
- Although not captured in the data, households include small-holder farmers.



Public action to mobilize private investment

- Governments have opportunities around the world to improve enabling environments, enhancing investment viability for private actors.
- Consistent policies that simultaneously incentivise shifts away from continuing brown or maladaptive investments could encourage systemic economic transformations.
- GCCA+ support can encourage the development of, *inter-alia*,
  - Capacity building
  - Technical assistance to design policies and national instruments including feed in tariffs, carbon taxes, renewable energy targets, etc
  - Legal reforms such as financial disclosure requirements, compulsory ESG contributions
  - Research and development
  - Enforceable legal remedies
  - Spatial planning and natural capital valuations
  - Demonstration projects with public private partnerships

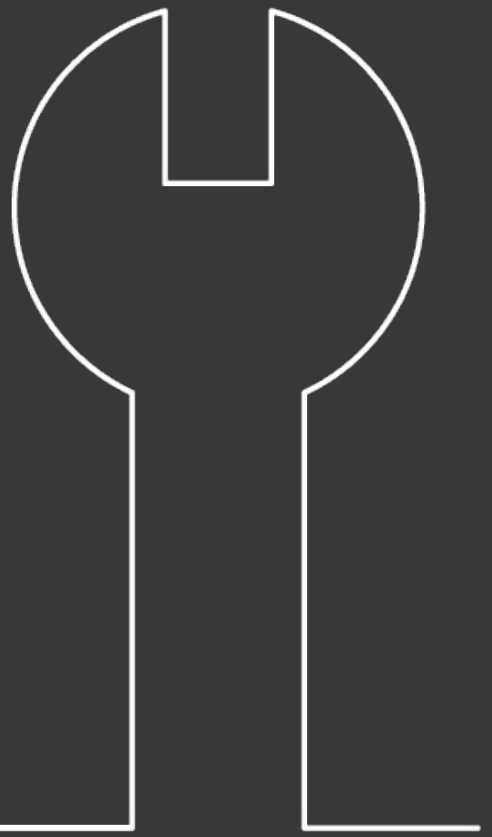
Opportunities to tackle barriers to scaling-up climate finance

- The role of public finance and policy is a ‘driver’ of climate action. It can reduce
  - risk which both real and perceived, is the key barrier to private investment and includes knowledge gaps, viability gaps, and cost gaps
- Where enabling environments addresses these gaps, private investment will flow.

- Two significant challenges make it difficult for governments and decision makers to fully assess and respond to the finance gap:
  - limited information about domestic public budgets and how it is spent
  - limited information about private investment in sectors beyond the renewable energy (SCF, 2018; CPI,2018)
  - reluctance to tailor financial structures in order to provide adequate risk/return coverage.

Potential GCCA+ technical support

- In line with the barriers identified, GCCA+ support has opportunities to tackle some of gaps, including capacity and knowledge gaps, that impede climate finance:
  - improve the management and use of public budgets
    - classification and planning, tracking and reporting,
  - support institutions to deliver a broad range of public finance instruments
    - national climate funds and or development banks
    - new public finance instruments
  - Support development of enabling environments and policies that offer business certainty and predictable regulatory and economic frameworks such as feed-in-tariff policies, fiscal policies, legal reforms etc



Opportunity 1: Improve national budget expenditure tracking

- Government budgets drive national economies and may allocate climate finance from national and international sources to domestic ministries and institutions to
  - implement public programs and deliver services
  - pay for policies and economic instruments that address specific investor needs
  - invest directly through equity holdings alongside private investors to address viability or cost gaps.

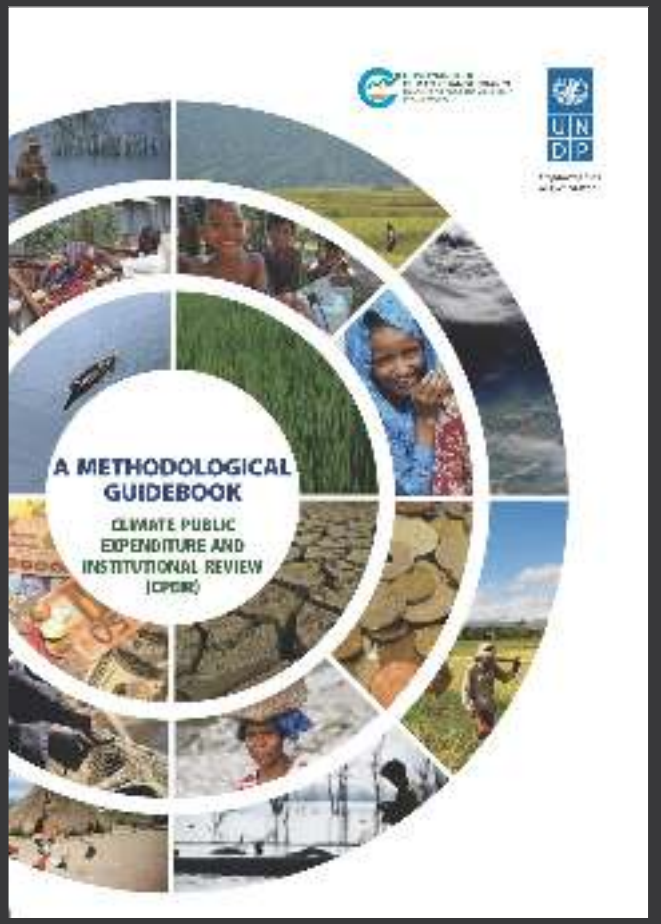
- Transparent information about countries' domestic budgets is not harmonized and has been difficult to verify in both developed and developing countries.

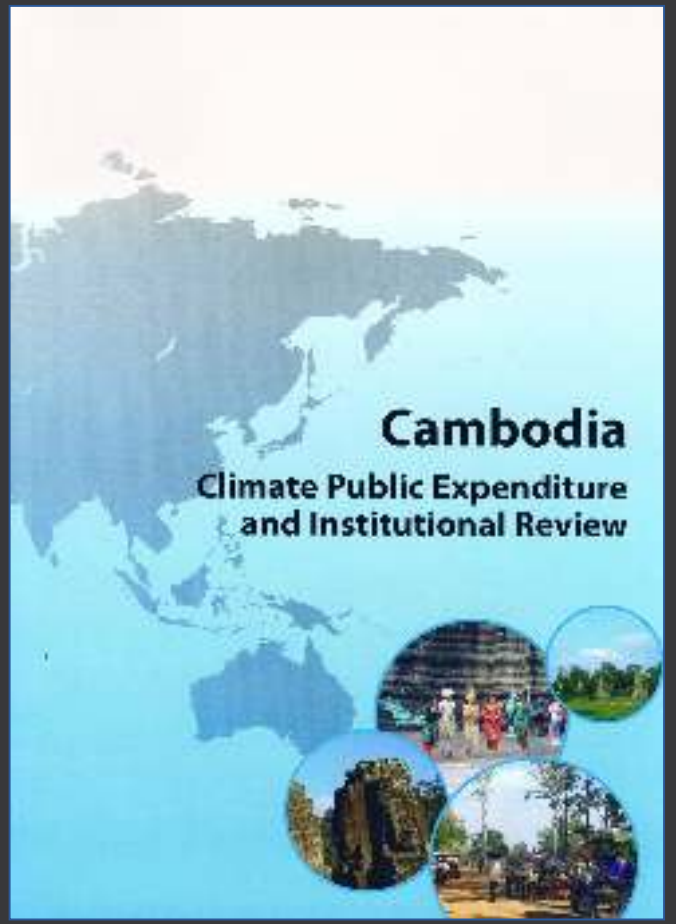
- Two key tools have emerged to help classify and track domestic climate budgets
  - Climate Public Expenditure and Institutional Reviews (CPEIRs)
  - Landscape studies conducted by various institutions (CPI, I4CE)

The CPEIR approach to budget coding

- Code individual budgets lines across government portfolios to identify where finance is being spent on climate action

- Enables an assessment of the alignment between government expenditure and national policies





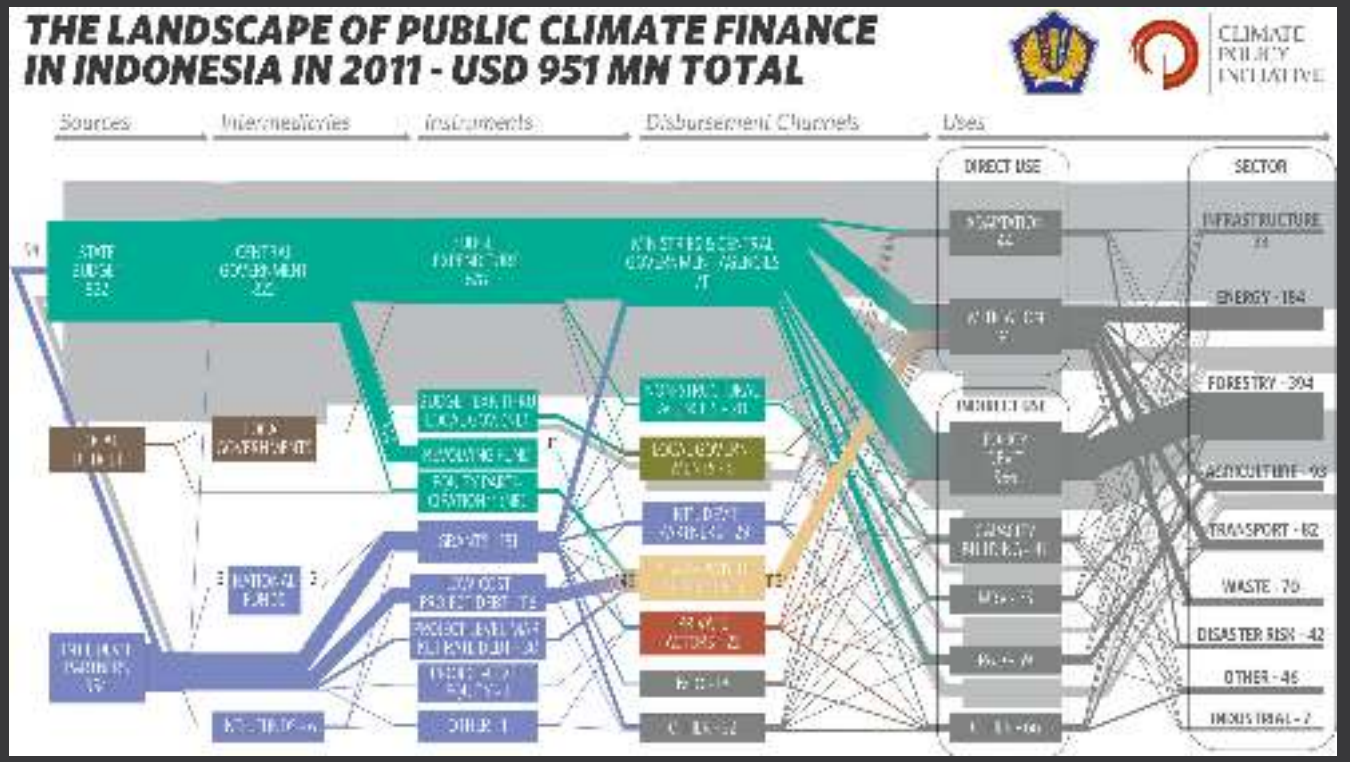
CPEIR climate change relevance index

- The relevance index is applied to identified budget lines, to approximate the value of climate finance allocated across government expenditures
- Extensive examples illustrating the weightings are available for practitioners to apply.

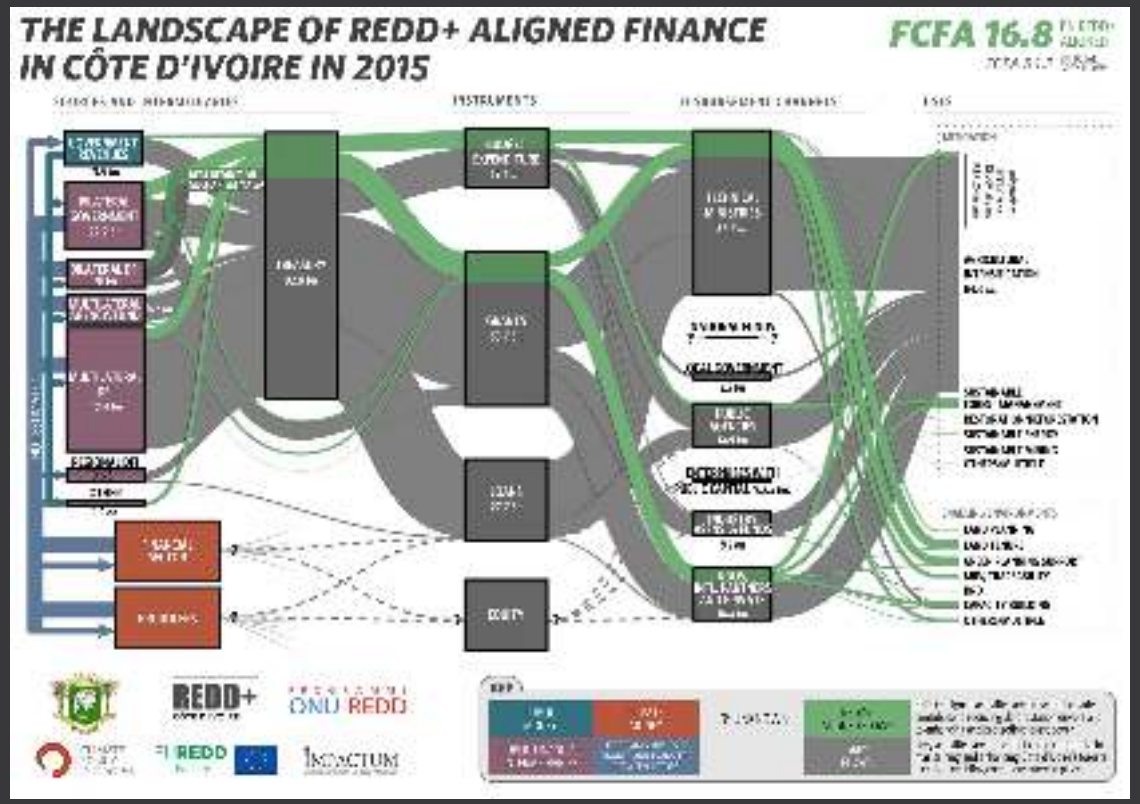
High	>75%	CC is the explicit primary objective
Mid	50%-74%	Include a mix of activities, only some of which are CC relevant
Low	25% - 49%	CC is a secondary objective, or with only one CC activity amongst several
Marginal	<25%	CC is a very minor objective, often only implicit
No	0%	Unaffected by CC

Landscape approaches to track finance flows

- Tracking the lifecycle national budgets can produce key insights.
- In Indonesia's case
  - 66% of finance flowed from national sources
  - the Forest Revolving Fund was barely functioning
  - national mandates did not translate to local action.



Landscape approaches to track finance flows



- Building on CPEIR budget coding approaches, landscape approaches can also be target to specific sectors, to answer specific questions.

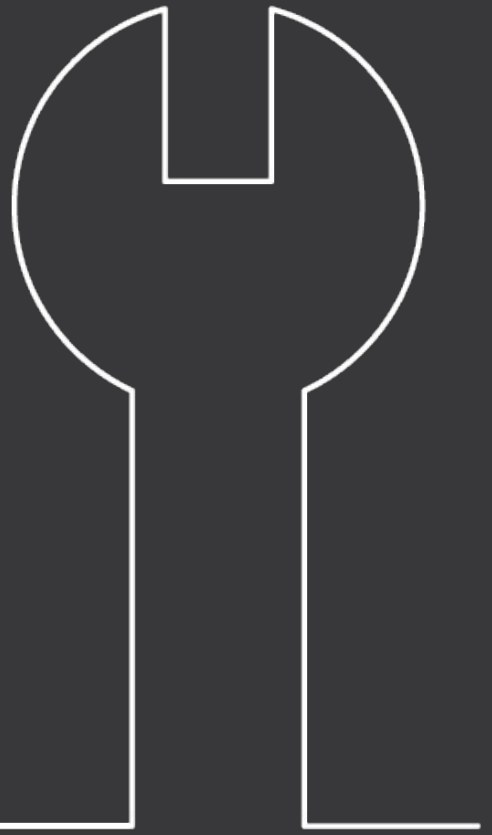
- In this example, opportunities were identified to 'green' nearly 85% of budgets flowing toward REDD+ relevant activities.

Opportunity 2: Support Development of National Climate Funds

- Like national development banks, national climate funds have the advantage of being able to execute national mandates systematically and directly. They can:
  - aggregate the collection, blending, investment, coordination and reporting of climate finance from international public and philanthropic sources, minimising transaction costs
  - raise capital through national revenue systems
  - deliver targeted financial products driving systemic shift across sectors and economies.
- Examples include
  - Bangladesh Climate Change Resilience Fund – a multi-donor trust fund with the World Bank as a trustee, focused on adaptation
  - Fornewa – Rwanda Environment and Climate Change Fund to collect and disburse international climate finance. Currently undergoing review.
  - Namibia Environmental Investment Fund – disburses wholesale and retail finance instruments with international backing, and is partially financed through a national levy on petroleum products.

Opportunity 3: Support Improved Enabling Environments

- ‘Enabling environments’ can describe a broad range of economic, institutional, political and cultural contexts that impact private investors:
- Examples include
  - unclear and unstable public policies, retrospective policy changes
  - regulatory barriers
  - poor infrastructure
  - ineffective and expensive public services
  - corrupt practices
  - low workforce and institutional capacity
  - political instability
  - economic risks including currency fluctuations, price shocks etc.



Examples of GCCA+ efforts to improve enabling environments

- GCCA+ has provided support to countries to help develop clear national climate-related policies, strategies, legal and regulatory frameworks. Examples include:
  - Mauritius: support drafting a legal framework to govern private investment in energy efficiency measures
  - Rwanda: a land title registration system providing secure property rights and incentives for landholders to manage their land sustainably
  - Seychelles: enabling national participation in the CDM

Case Study 1: How effective land registration systems can support climate action and access to climate finance - Rwanda

- **Problem:** Rwanda, is the most densely populated country in Africa, has limited natural resources and more than 80% of the population is engaged in subsistence agriculture. Economic development relies on increasing the productivity of natural resources i.e. water, rural and urban land, minerals, forests and biodiversity, much of which was already degraded.

- **Policy Context:** In March 2009, a strategic plan set a pathway to sustainable management of the environment and natural resources sector for the period 2009 – 2013 . The first step was the development of a 2008 a *Strategic Road Map for Land Tenure Reform* outlining a clear goal to create a national system and programme for regularizing land tenure to support poverty reduction, optimized land planning and development, and environmental protections.

- **GCCA+ Support:** The GCCA+ provided EUR4.55 million budget support from 2010-2012, along with IFDA, SIDA and the main donor DFID, to fund a program that aimed to register 7.9 million land packages, many for the first time.

- **Outcome:** Rwanda's land reforms are a gold standard example of how enabling environments can transform an economy. Among these, small holder farmers are now able to securitise small loans they could not previously access, to access better seeds and technologies to improve their own productivity.

- **Potential future interventions for climate finance:** opportunities exist to make commercial finance available to small holder farmers, supported by technical providers and backed by a government 'guarantor' such as Fornewa. Banks too, have much to gain by making their lending portfolio's climate resilient.

Case Study 2:Targeting support to unlock new technologies - PROSOL, Tunisia.

- **Problem:** In 2008, Tunisian petroleum-related subsidies were valued at around 1% of gross domestic product. Programme Solaire (Prosol) aimed to build consumer demand for solar water heaters by levelling the playing field and shift demand away from fossil fuel-powered water heaters, by offsetting the subsidy advantage of market-leading liquefied petroleum gas-fired (LPG) systems

- **Policy Context:** Long term policies dating back almost 30 years aimed at shifting energy supply away from imported sources and exploiting Tunisia's renewable energy potential framed planning for the initiative.

- **Multi-stakeholder climate finance and technical support tackled barriers at four separate points of the supply chain:** The Tunisian Government passed a legislation to regulate a clean energy subsidy – providing USD 21.8 million to fund 20% of the up-front consumer costs; • USD 1 million climate finance from Italy funded temporary interest rate subsidy to lower the cost of credit, making loans more affordable; • Using the state utility to guarantee any loan defaults eliminated banks' credit risk, encouraged softened credit terms and made credit more affordable for consumers, but no less profitable for banks; • Less than USD 200,000 was spent to pay for 'accompanying measures' such as 'quality standards' and training suppliers to install and properly maintain SWHs, reducing failure rates.

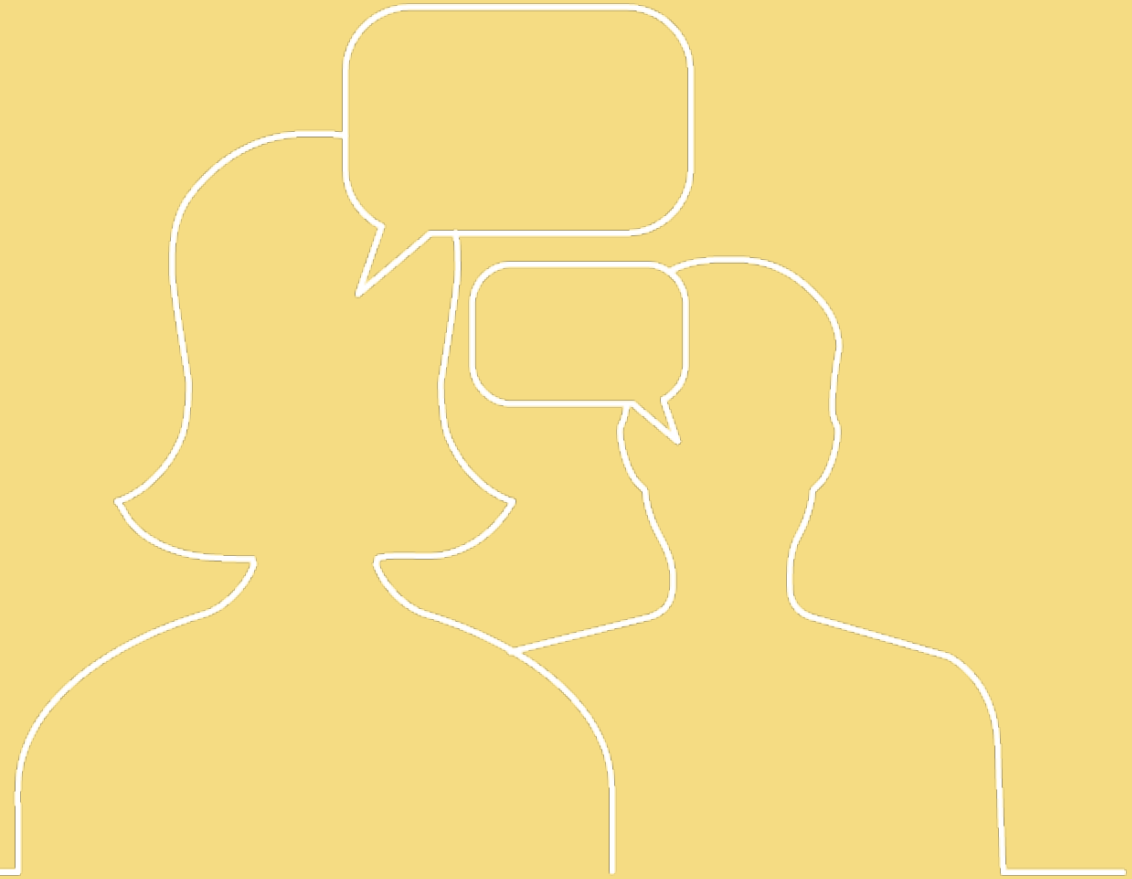
- **Outcome:** Annual deployment rose five-fold compared with previous initiatives. In return for its USD 21.8 million investment, the shift in demand away from LPG systems saved the Tunisian government USD 15.2 million between 2005 and 2010. Over the life of the SWHs, savings from avoided LPG subsidies were projected to reach USD 49 million and the SWH subsidy ended meaning the government achieve full pay back within 7 years, saved emissions, and supported a local supply chain.

Case Study 3- Opportunities to support climate finance labs

- New models have emerged to source, develop and kickstart new mitigation and adaptation business models in developing countries. There is potential for the GCCA+ to support the design of interventions and provide seed funding for pilots.
- The most successful 'Lab' model to date is The Global Innovation Lab which crowd sources ideas from around the globe. Together with a team of analysts, experts, and institutional members, The Lab identifies, develops, and launches innovative finance instruments and works to identify sources of finance to reduce risks and costs:
  - to date it has pooled the resources of 60+ public and private institutional members and 300+ international experts and analysts
  - to launch 35 financial instruments ideas drawn from hundreds of crowd-sourced ideas
  - mobilizing USD 1.9 billion to date.
- Lab instruments have focused across the spectrum of climate change challenges, from energy efficiency and renewables, to climate resilience and water supply, tackling barriers such as currency exchange, poor data, exploration risk, refinancing risk and others.

Questions to initiate discussions

- Does the government have an agreed approach to climate finance?
- What have been identified as the key barriers to collecting and disbursing climate finance in your country/municipality?
- Who is the private sector in your country/municipality? What is their contribution to mitigation or adaptation? What risks and costs do they face?
- What measures have been taken to improve enabling environments?
- What systems are in place to assess the delivery and use of international climate finance?
- What national institutions and policies have been developed specifically to unlock increased domestic climate finance flows?
- Is the private sector targeted by national policies? Is so, why and how? If not, could this be a focus of future effort? Are investors able to balance costs and returns by accessing public finance or policy assistance?
- Is the population aware of opportunities for sustainability?

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