BeyA Capital
Carbon Finance

Global Climate Finance

Landscape and Private Sector Needs

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Climate Finance Readiness
Workshop for the francophone countries in Africa
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4C MAROC

ORGANISATION INTERNATIONALE DE la francophonie
INSTITUT DE LA FRANCOPHONIE POUR LE DÉVELOPPEMENT DURABLE IFDD

وكالة التنمية الفلاحية
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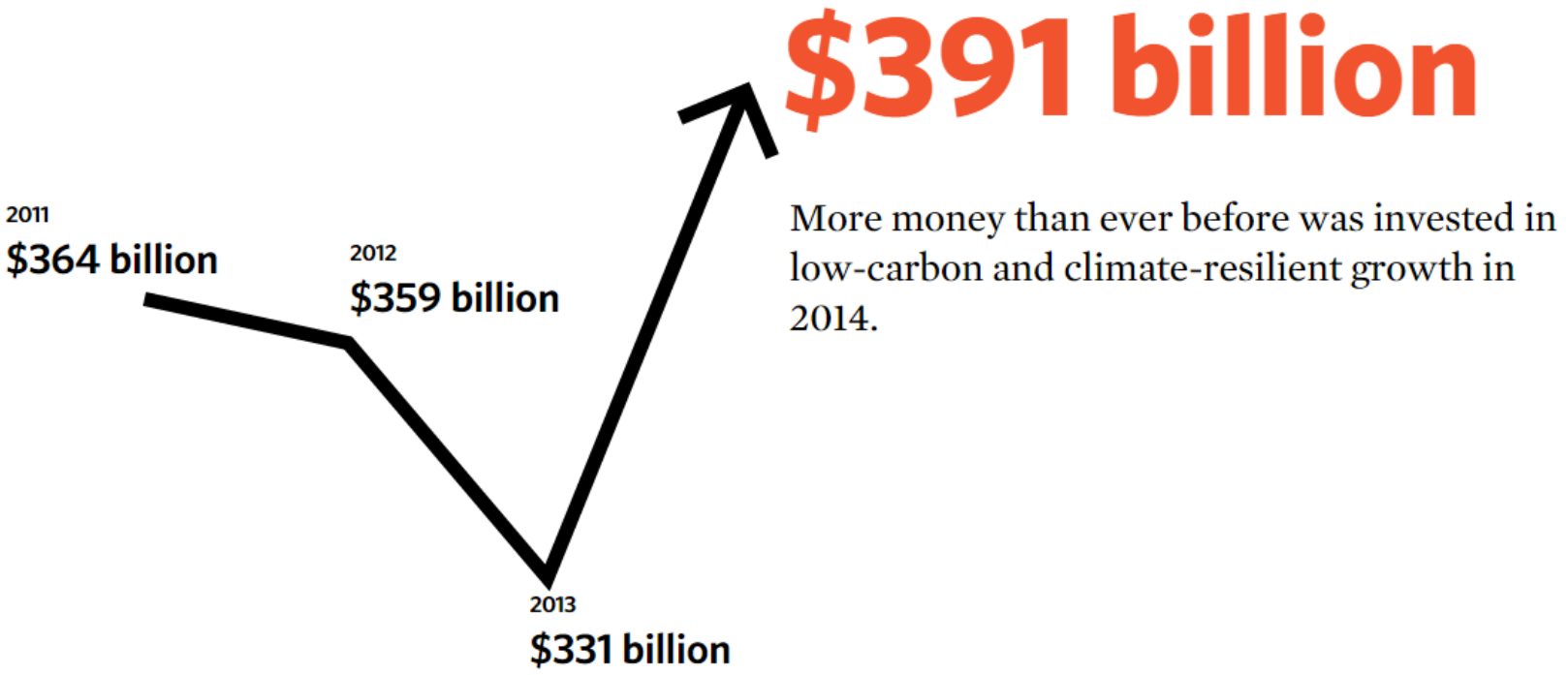
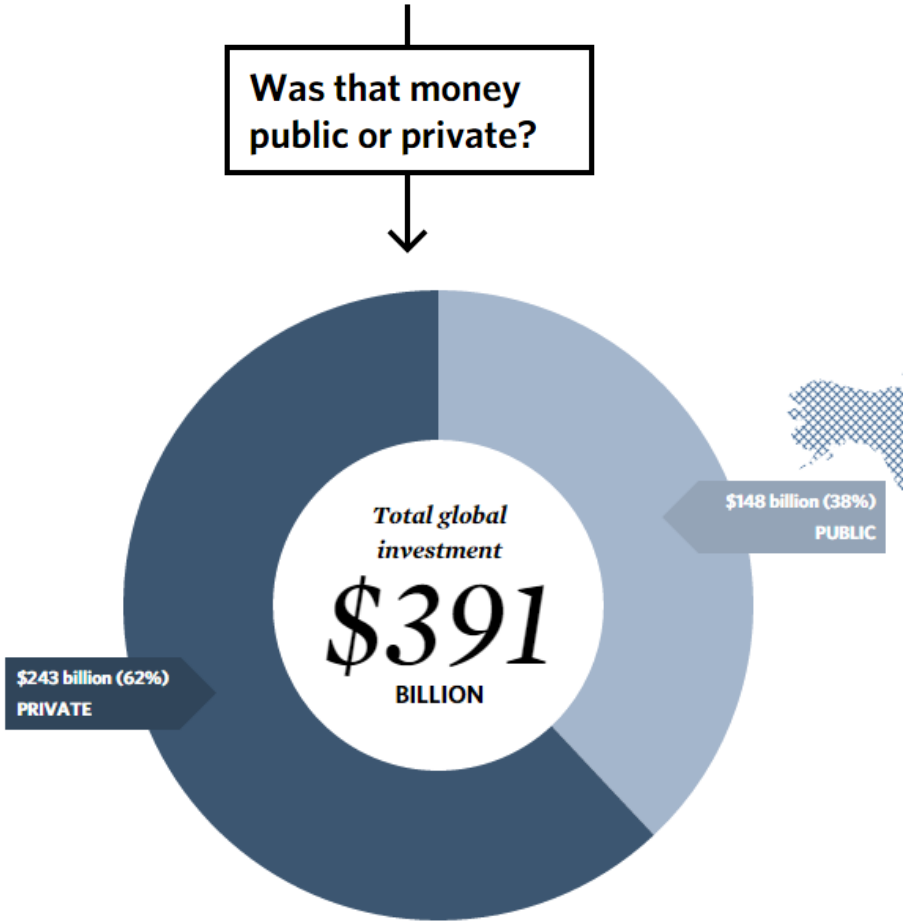
ADAPTATION FUND

Climate finance for developing countries needs $ 100 Bn which represents…only 0,15% of World GDP while global climate finance increased by 18% in 2014



Global climate finance reached $ 391 Bn in 2014 with 62% provided from private sector capital



Public finance continues to drive private investment and grew steadily. Most came from development finance institutions which provided 33% of total climate finance flows.

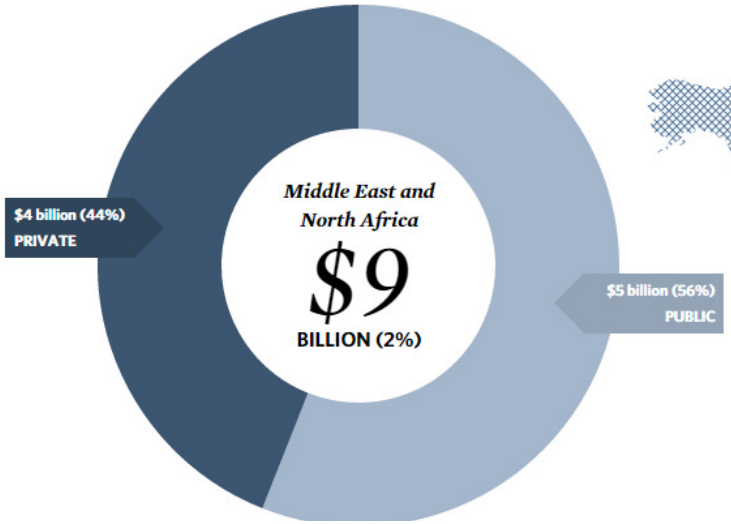
Private investment surged 26% and remained the largest source of global climate finance.

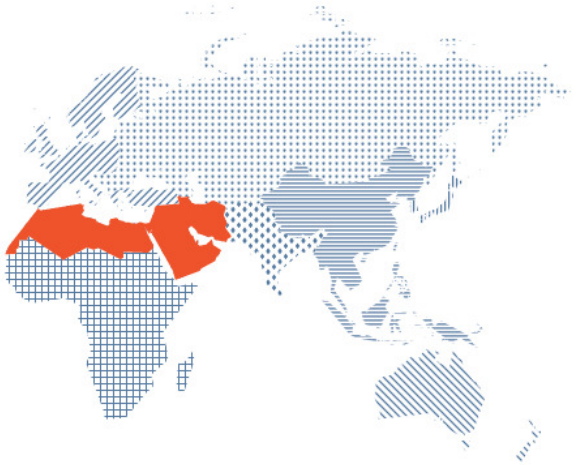
Public support is significant but totals less than a third of government subsidies for fossil fuel consumption which reached around $490 billion in 2014.[1]

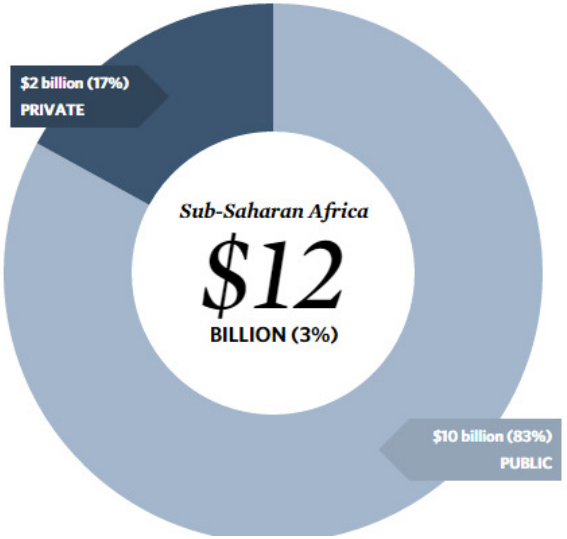
With a breakdown of the $243 from private sector:

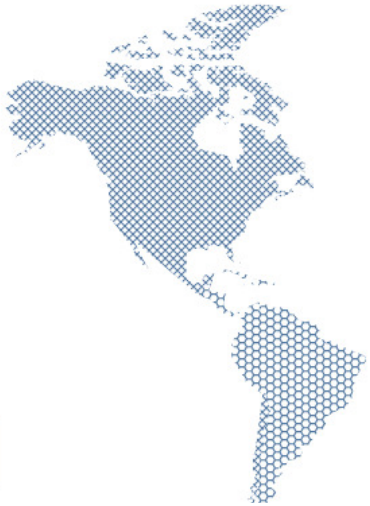
- $92 billion from **project developers** (**38%**)
- $58 billions from corporate actors (24%)
- $46 billion from **commercial financials** (**19%**)
- $43 billion from households (18%)

Climate finance low flows in AFRICA and MENA …the obvious need to find innovative mechanism to unlock private capital









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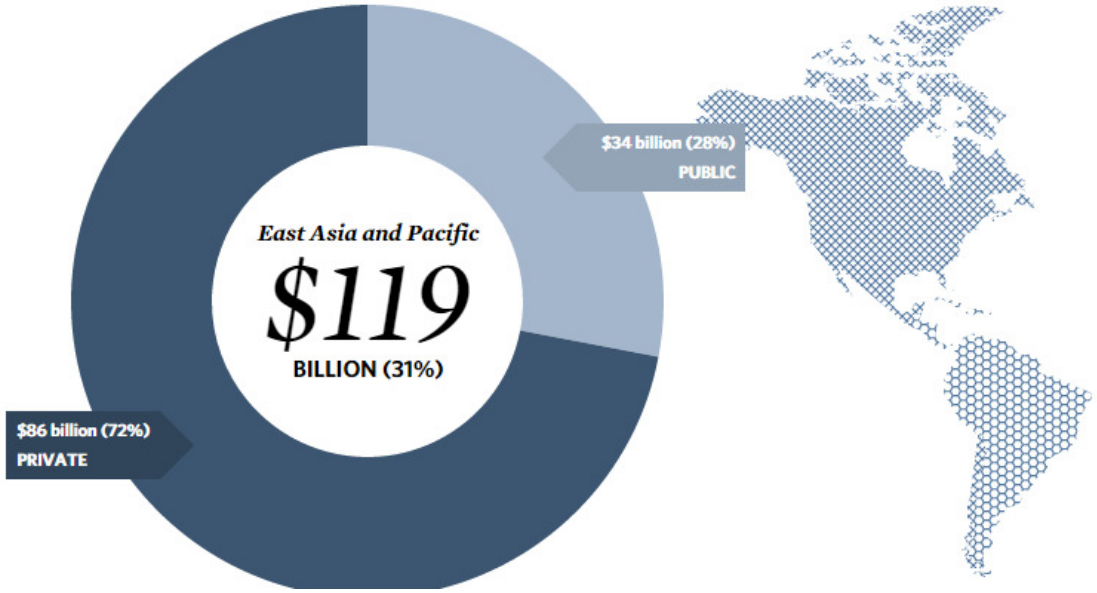
Comparing to AFRICA, ASIA is once again the main beneficiary of climate finance … as for CDM carbon market before 2012

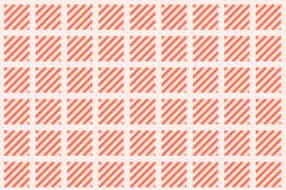


NDCs and Global Climate Finance

INVESTED, 2011-2014

$1.095 trillion

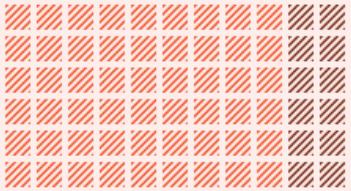
Renewable energy and energy efficiency investment captured in the global landscape reports over the last four years.



NEEDED TO SUPPORT NDC PLEDGES

$13.5 trillion[3]

Investment required over the next 15 years in energy efficiency and low-carbon technologies to implement the national climate pledges (so-called "Nationally Determined Contributions") countries made before international climate negotiations held in Paris in December 2015.



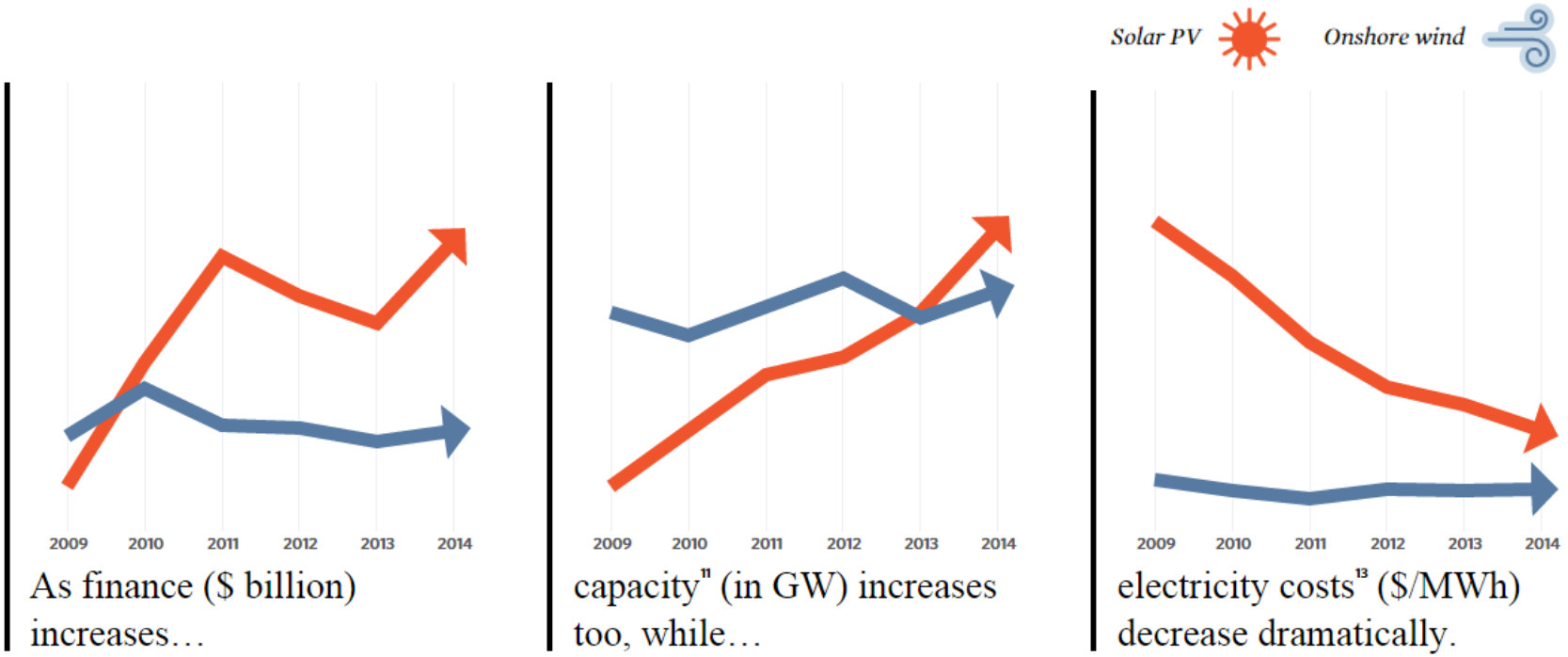
NEEDED TO LIMIT TO 2°C

$16.5 trillion[5]

Investment required over the next 15 years in energy efficiency and low-carbon technologies to meet the NDCs plus the additional investment required over the same time to limit global temperature increase to 2°C.

With $13.5 trillion pledged, we'll make significant progress, but we won't be able to limit the global temperature increase to 2°C.

The good news is that, in some areas, climate finance is achieving more than ever before



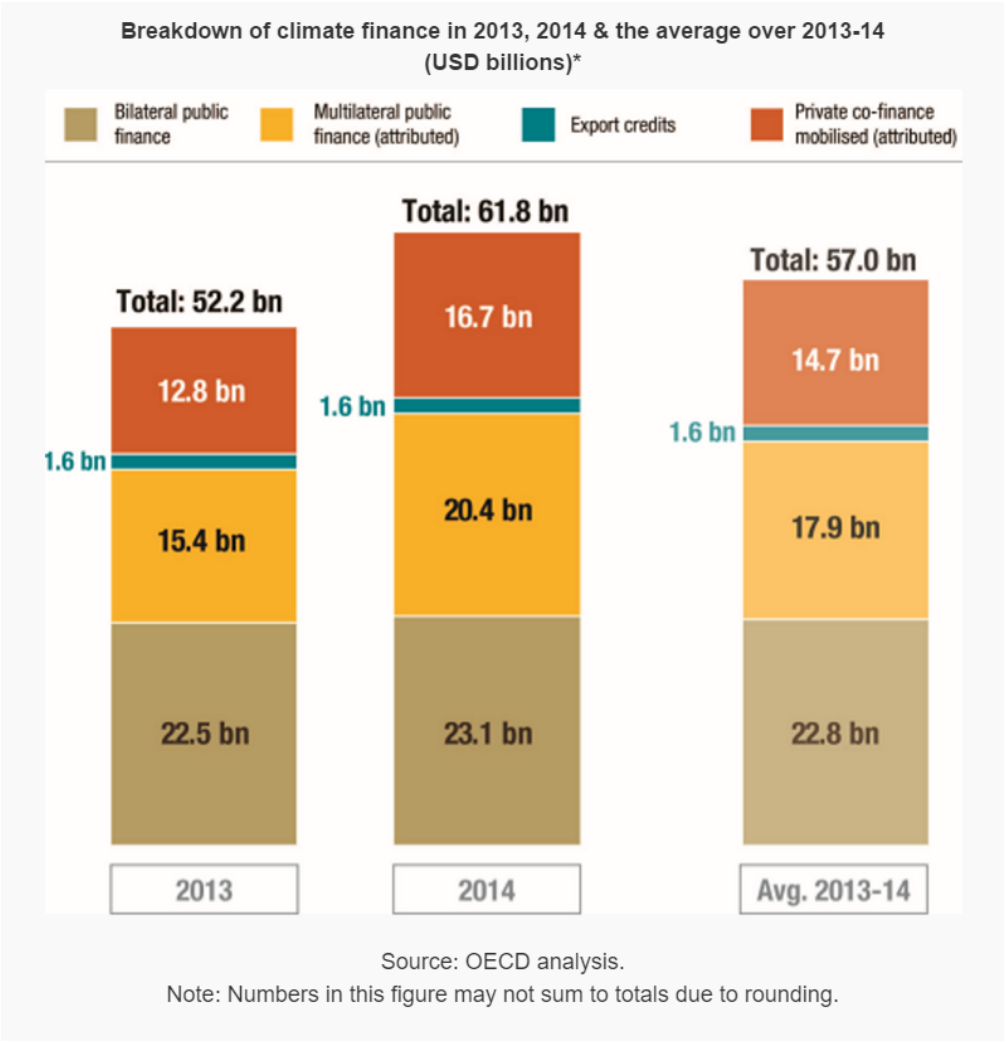
As finance ($ billion) increases…

capacity[11] (in GW) increases too, while…

electricity costs[13] ($/MWh) decrease dramatically.

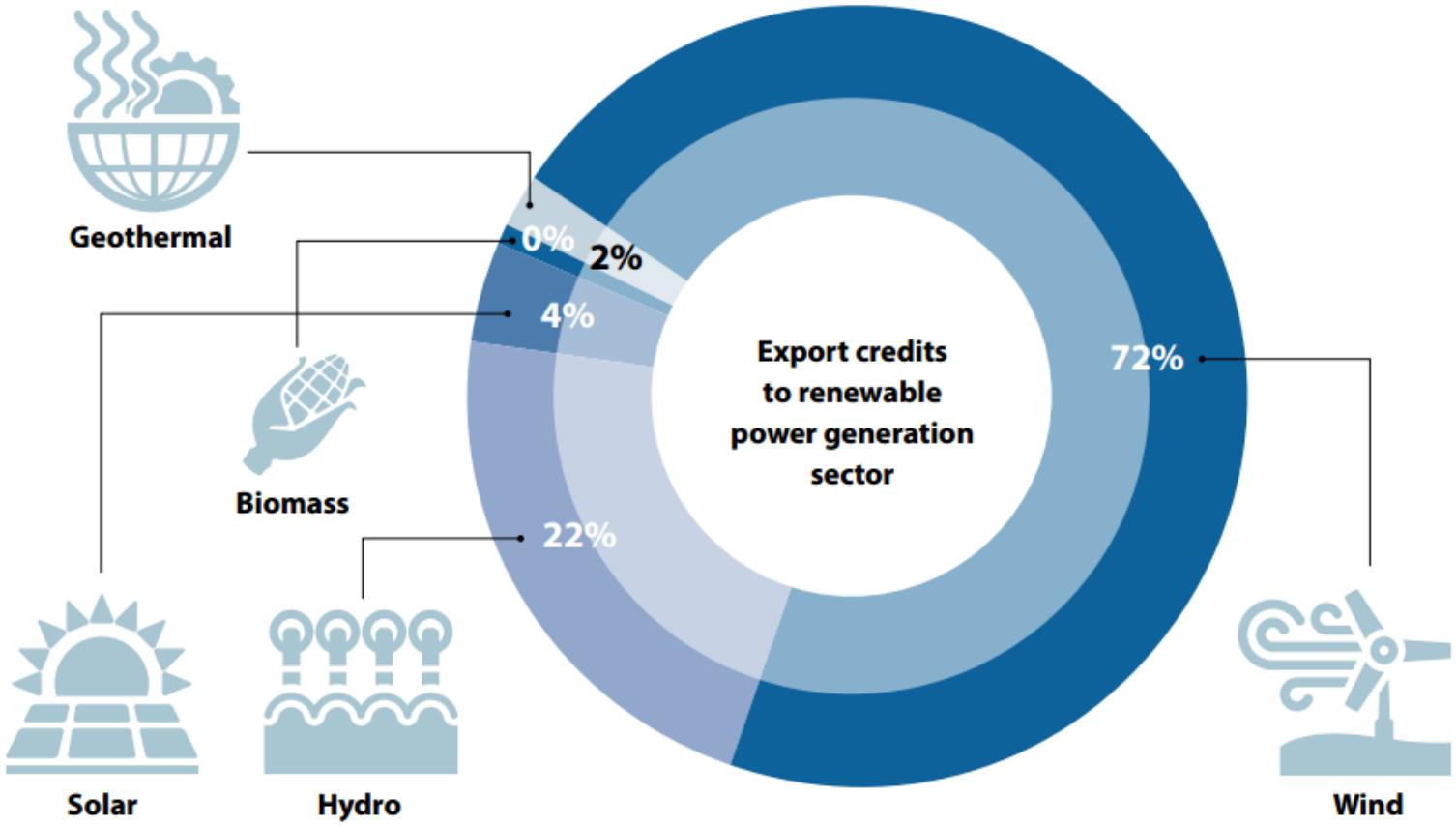
Public support has been key to driving down the cost of wind and solar power to the point where they are competitive with, and even cheaper than, fossil fuels in more and more markets.

Controversial climate finance flows



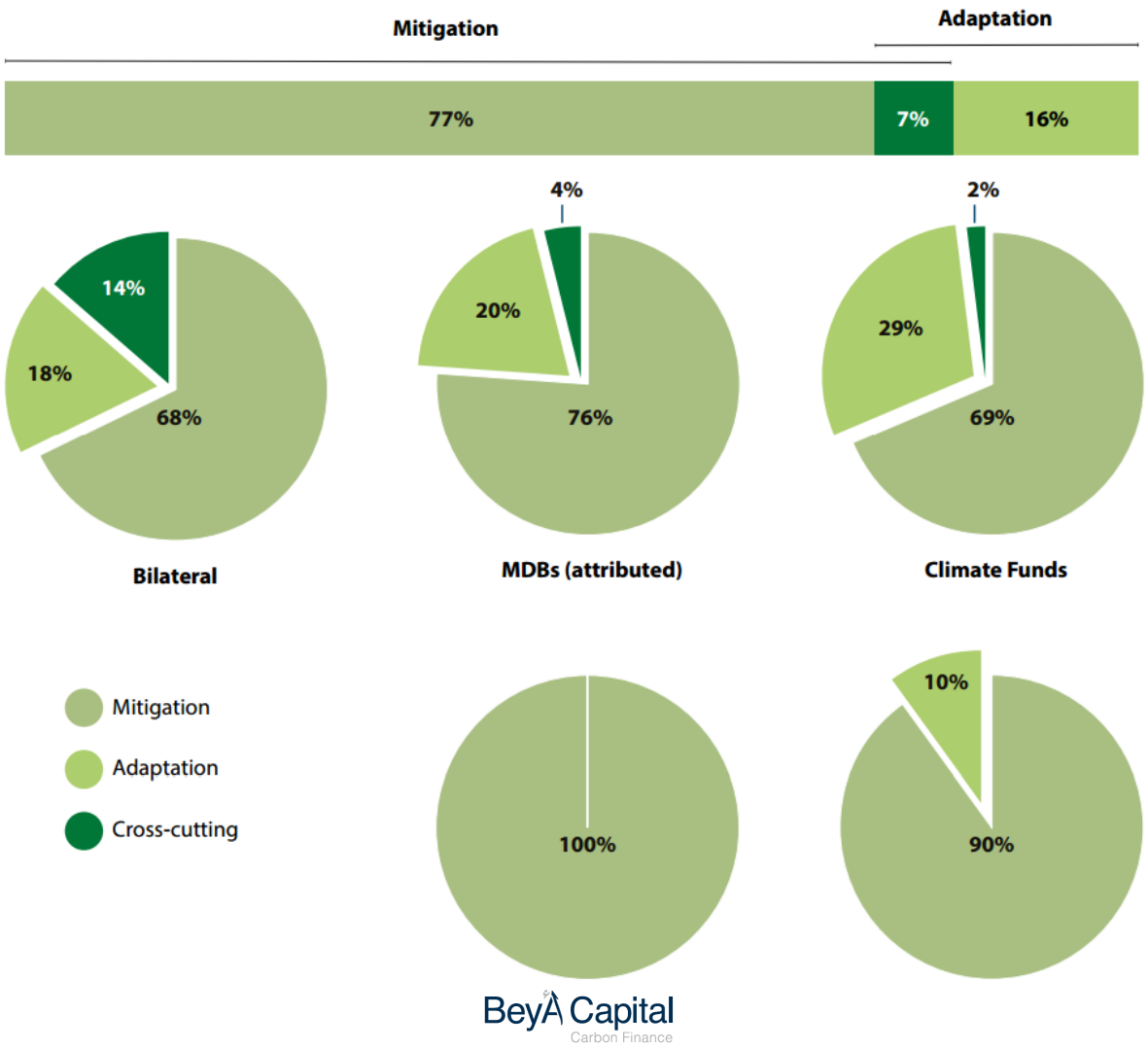
Source: OECD analysis.
Note: Numbers in this figure may not sum to totals due to rounding.

OECD official export credits to renewable energy (13-14)



Source: OECD Export Credits Individual Transactions Database, as of September 2015.

Climate finance – Adaptation vs. Mitigation (13-14)



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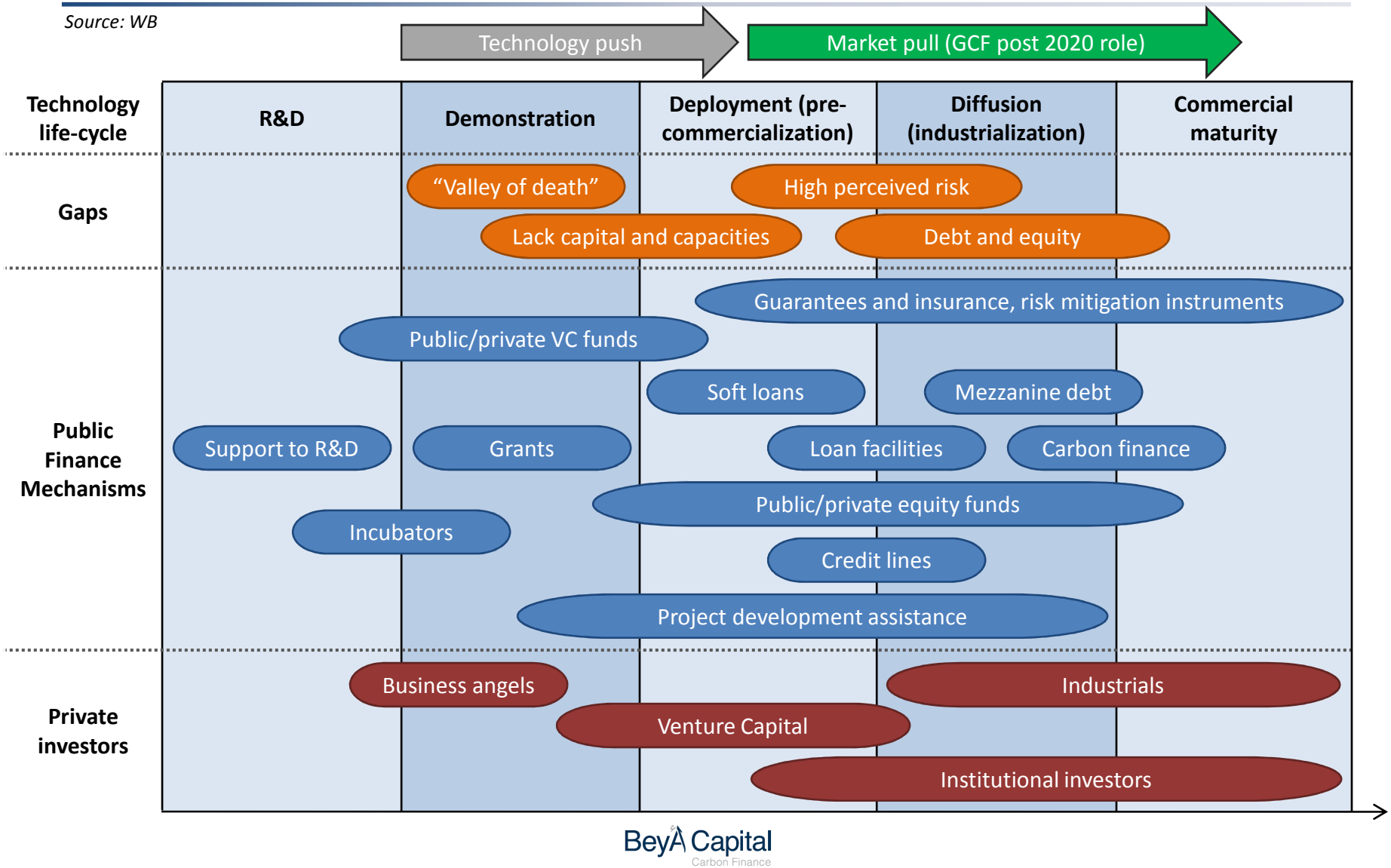
A large range of Public Finance Mechanisms

Depending on technology maturity & scale of invest.



A large range of Public Finance Mechanisms available

Several types of intervention for the market pull

Constraints to private sector engagement	Operational PFM proposals
Country risk Institutional investors committing capital to funds do not know whether projects will be exposed to country risk	**Make country risk guarantees more explicit to institutional investors** Allow funds to secure 'in principle' country risk cover before raising capital from institutional investors Potentially migrate to a model where the whole fund has country risk cover Build on experience from MIGA
Investment policy risk Possibility that policies underpinning investments in cleaner technology investment will be reversed	**Offer policy risk cover** Potentially linked to NAMA process and/or grandfathering conditions Alternatively make financial instruments to cover these risks available
Currency risk Exchange rate fluctuations make returns volatile Potentially to undermine profitability of an Investment	**Establish currency funds offering foreign exchange hedging products** Use public money to establish funds that offer investors hedges for less well traded currencies Build on existing experience from TCX
Deal flow problems Insufficient number of commercially attractive, easily executable deals	**Create project development companies** Create (part) publicly funded, privately run bodies responsible for early stage cleaner technology project development Supplement with technical assistance grants
Difficulty evaluating multiple, overlapping risks With limited time and numerous alternatives, private sector finds it difficult to fully evaluate risks of low carbon investments	**Public sector takes 'first-loss' equity position in funds** Public sector takes equity stakes in funds in such a way that increases the number of projects within a fund that can fail before the private sector investors lose money

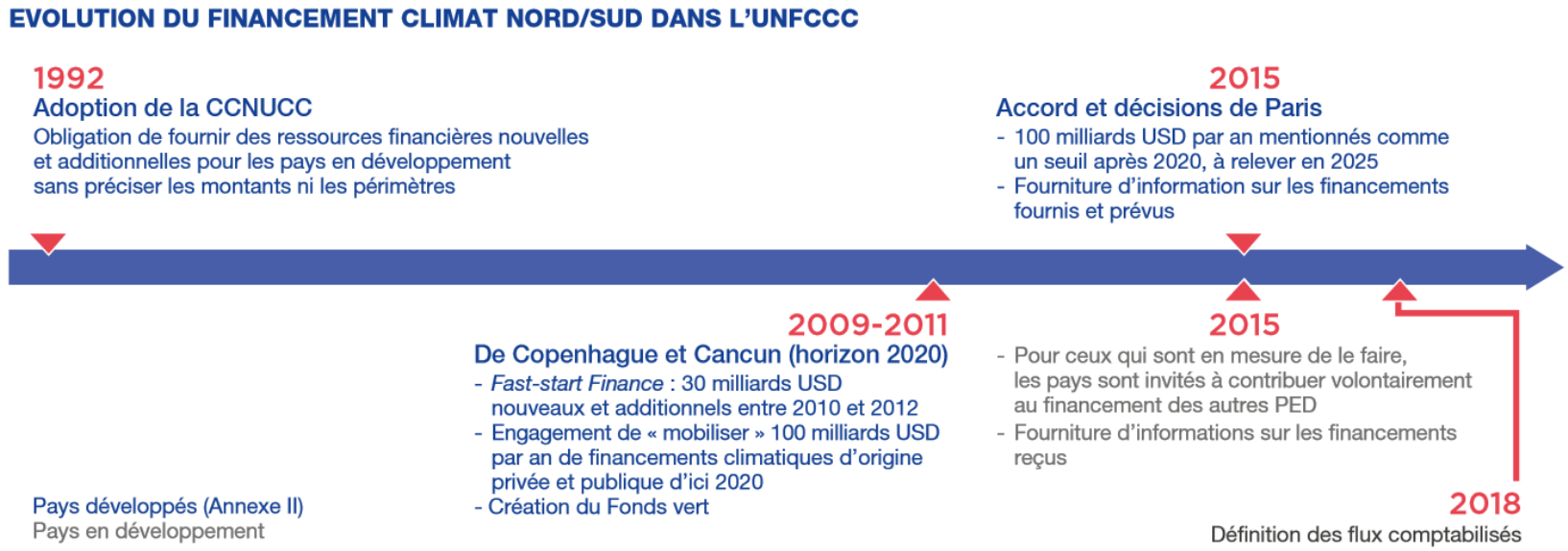
Example for PPP Mechanism

Source: UNEP, IFC / Vivid Economics

Climate finance proactive way forward…thinking perspective 2020 and beyond

- Building proactive ambitious country wide programmatic projects portfolio (especially on adaptation – duplicate successful models to scale);
- Promote innovative adaptation social business models to promote voluntary contribution for adaptation finance;
- Building a portfolio of south-south African large-scale projects on RE (scalable business models);
- Building bridges between existing climate finance channels and get your national agencies accredited under Adaptation Fund and Green Climate Fund;
- Engage consultation with private sector and co-donors during early stage of project design to ensure consistency of project finance structure ;
- Inefficiency of climate finance without skills capacity transfer (in climate project finance and climate ESS policy design);
- Capacity building for local banks in Africa is an urgent need.

Paris Climate Agreement – Pré-2020 & Financement



A large range of Public Finance Mechanisms

Specific barriers to private climate finance according to project type

Source: WB

	Key Issues			
Project type & financial profile	**Financial**	**Policy**	**Institutional**	**Other Issues**
Large-scale renewable energy infrastructure projects *These are generally financed through SPVs to attract large-scale project finance through project loans, private equity and, increasingly, project bonds.*	• Electricity generation from renewable sources is often not cost-competitive with conventional, fossil-fuel power plants. Often this is a result of the higher capital-intensity of the former relative to the latter • Transaction costs can be significant. The best locations for renewable energy projects (e.g. where there is sufficient wind or solar intensity) are often located at a major distance from the centres of demand (urban areas). As a result, RE projects often require significant investment in transmission and distribution infrastructure. Also, developing RE projects requires extensive data (e.g. historic weather-related data covering wind, sun radiation and precipitation). These data are often difficult to obtain in developing countries. • Project returns often depend on subsidies or other forms of policy support. • In many countries, the incentives provided are often not sufficient to compensate for the risks that financiers face. • Elevated off-take risks as a result of the purchaser of the electricity having a poor credit rating.	• Even where RE policies do exist, they are often seen as lacking dependability and longevity, both in developed as well as in developing countries. • Weaknesses in overarching policy and macroeconomic frameworks - in particular country, political, and currency risks - can limit the effectiveness of RE related policies.	• Financial markets in many developing countries lack the maturity and depth needed to provide project finance at the required scale and tenor. • Local financial institutions may not have a substantial enough balance sheet or access to channels needed to provide the large debt volumes typically required for these types of projects. • There may be a lack of refinancing vehicles, making it difficult for project developers to exit their investment. This is particularly important in the case of large renewable energy projects which operate for 20 years or more.	• The absence of an extensive track record of development of large-scale RE projects or uncertainty over their performance (particularly in developing countries) translates into higher upfront costs and higher perceived levels of risk. These can only be addressed through the relatively wide deployment of the technology.
EE improvements in corporate operations and production processes. *These can be financed directly by the project sponsor possibly using bank lending or through some form of SPV involving an energy service company and/or a third party finance provider.* *ESCOs can sit between financiers and the energy end-users. They can invest in EE projects on behalf of these end-users, and take a share of the value of the resulting energy savings.*	• Companies tend to favour projects that lead to business expansion and increased revenues rather than investments that primarily deliver cost-savings (e.g. energy efficiency improvements). • The actual savings that are achieved are often less than those predicted when account is taken of management time, disruptions to production, staff training and information gathering and analysis. • Companies are often reluctant to directly finance energy efficiency improvements through their balance sheets. However, EE equipment tends to have a low collateral asset value and is often difficult or uneconomic to remove and use elsewhere.	• The case for investing in EE is dependent on managements' views on short- and long-term energy prices (which includes the effect of carbon taxes or other climate change-related policy measures). Low energy prices reduce the incentive to invest in EE.	• The novelty and particularities of discrete EE related interventions mean that third party financiers tend to look for other collateral. • It is difficult for ESCOs to obtain third party financing from banks and other lenders. There are various reasons: the ESCOs are exposed to the end-user credit risk, revenue-sharing arrangements between ESCOs and host companies are often difficult to monitor which creates uncertainty that bank loans will be repaid, and the novelty of the ESCO model means that local banks often have limited understanding of the business model upon which ESCOs operate.	• It is often difficult to calculate energy savings and to attribute these savings to a specific intervention. • There can be significant upfront transaction costs associated with researching and analysing energy efficiency opportunities. • ESCOs often lack full control over equipment operation and, therefore, expected cash flows. Energy savings, and consequently the revenue for the ESCO, depend on the host company correctly operating the equipment.

A large range of Public Finance Mechanisms

Potential public interventions to mobilize private climate finance according to project type

Source: WB

1. Large-scale grid-based RE		
Cost, specifically the uneven playing field between RE and conventional options, and the lack of adequate and reliable policy support	Revenue support that ensures economic viability. Examples include feed-in or auctioning tariffs for RE generation, and RE quotas. Cost sharing in project development phases. Examples include exploration support facilities, seed finance, etc.	In India, South Africa and Brazil auction tariff systems have proven effective at attracting renewable energy developers with very low price bids. For example, the December 2013 reverse auction in Brazil selected 97 wind projects totalling 2.3GW of capacity and other renewable energy projects totalling 1.2GW with winning wind bids averaging $51.50 per MWh. To address the high transaction costs of geothermal development the Government of Indonesia has developed a $145 million geothermal fund from the national budget to undertake exploration before tendering geothermal working areas. The Seed Capital Assistance Facility (SCAF) managed by UNEP with the Asian Development Bank and the African Development Bank works with commercial private equity funds to seed-finance renewable energy project developments in Africa and Asia.
Elevated off-take risks	Partial risk guarantees and off-take risk insurance to backstop power purchase agreements.	World Bank Partial Risk Guarantees cover off-taker risks and have a strong leverage to avoid default due to an indemnity agreement that must be provided by the host government. They usually come in the form of either 6-12 month late payment guarantees or termination payment guarantees that backstop utility power purchase agreements with lenders.
Lack of local currency financing	Facilitate the engagement of local as well as foreign financiers through, for example, the provision of currency hedging instruments and mobilising institutional investment (e.g. through issuing and placing project bonds).	The European Investment Bank's project bond credit enhancement (PBCE) instrument aims to enhance the creditworthiness of European infrastructure projects by issuing project bonds to institutional and other investors. Credit enhancement takes place in the form of a subordinated debt instrument to support the senior debt issued by the project company. To cover the long-term currency exchange risks that companies and financiers face in developing countries the Dutch Ministry for Development Cooperation supported with public finance the development of the Currency Exchange Fund (TCX). The currency fund offers cost-effective hedges for local currencies, which would otherwise not be available in the commercial foreign exchange markets.
Investment environment risks: the issue of broader political and policy risk	Address the risk of general unfavourable conditions such as political instability, the risk of war and civil unrest.	The Multilateral Investment Guarantee Agency (MIGA) of the World Bank offers political risk insurance guarantees that help investors protect foreign direct investments against political and non-commercial risks in developing countries. The U.S. Overseas Private Investment Corporation (OPIC) has recently piloted a policy risk insurance product for U.S. developers focusing on clean energy projects in developing countries. Insurance can help provide comfort to investors about policy risks, particularly retroactive changes, and guarantee that the project will receive support as agreed.
2. EE in operation and production processes		
The lack of familiarity of third-party financiers with EE and with ESCOs.	Instruments that enhance the attractiveness of EE projects to third-party financiers. Examples include subsidised public loans to commercial banks for on-lending to energy efficiency activities, and risk sharing mechanisms focused on energy efficiency (including partial credit and partial risk guarantees).	Thailand's Energy Efficiency Revolving Fund was established in 2003 to leverage private finance for energy efficiency projects. The fund provides interest-free loans to local banks, which then provide low-interest loans for energy efficiency projects. The duration of the loan is 7 years and the interest rate is capped at a maximum of 4% (negotiable). Eligible borrowers include industrial and commercial facility owners, ESCOs, and project developers. The Bulgarian Energy Efficiency Fund (BEEF) offers partial credit guarantees (80% on a parri passu basis and 50% on a first loss basis), as well as portfolio guarantees for ESCOs and for the residential sector. The ESCO portfolio guarantee covers up to 5% of defaults of the delayed payments of an ESCO portfolio. With this guarantee an ESCO can get better interest rates on its debt with commercial banks.
EE interventions compete with revenue-generating activities for scarce capital, and there are hidden costs	Measures that increase the profitability of EE improvements. Examples include fiscal incentives, the reduction of energy-related subsidies that keep energy prices artificially low, and utility-mediated payment schemes for energy savings, also known as payments for 'negawatts'	Bankable power purchase agreements (PPAs) for energy efficiency: where utilities agree to purchase the project's energy savings ('negawatts') at a pre-agreed rate. By contracting with a utility to purchase the saved energy, the energy efficiency implementing entity has a bankable and credible contract to get internal management buy-in and to help raise finance from commercial banks. This means that such schemes can significantly increase the profitability of energy efficiency improvements by adding a 'revenue component' to the original 'cost-reduction' component. Furthermore, the presence of a purchase agreement will increase the willingness of third-party financiers such as commercial banks to provide the required financing.