CLIMATE POLICY INITIATIVE

Global Climate Finance: An Updated View 2018

November 2018

Climate finance continues to be the central issue in how the global community proposes to follow through with implementation of the Paris Agreement. This is appropriate in the context of the last IPCC report showing a USD 1.6-3.8 trillion energy system investment requirement to keep warming within a 1.5 degree Celsius scenario to avoid the most harmful effects of climate change (IPCC, 2018).

Since 2012, Climate Policy Initiative (CPI) has sought to comprehensively track domestic and international investment from both the public and private sectors in activities that address and respond to climate change, i.e. both mitigation and adaptation.

In November 2018, the United Nations Framework Convention on Climate Change (UNFCCC) published its third *Biennial Assessment and Overview of Climate Finance Flows*. To inform this exercise, we reviewed estimates on climate finance flows for the years 2015 and 2016, as previously reported in the *Global Landscape of Climate Finance 2017*, and incorporated new data released during the year.

Improved data capture in global climate finance estimates in 2015 and 2016

This report condenses a set of updated findings from our *Global Landscape of Climate Finance 2017* report based on newly published data for 2015 and 2016, to provide the latest and best information possible for policy makers and investment leaders working to scale up investment for climate change action.

Revisions to estimates are a result of newly published data after the publication of the 2017 report. In particular:

- In December 2017, the 23 national, regional, and bilateral development banks who comprise the International Development Finance Club reported an increase of year-on-year climate-related finance commitments of USD 51 billion in 2015 and USD 24 billion in 2016, respectively (IDFC 2017).

- In early 2018, the OECD Development Assistance Committee (DAC) reported a USD 3.3 billion increase in bilateral climate-related development finance in 2016 (OECD 2018).

- Over the course of 2018, CPI has supported the work of the International Energy Agency (IEA) in estimating retail sales of electric vehicles. These estimates were published in the IEA World Energy Investment Report in May 2018, and are estimated at USD 11 billion in 2015 and USD 18 billion in 2016 (See Section 2.1).

Further, in preparing this update, we were able to harmonize our databases and present more accurate figures as the data for 2015 and 2016 has been finalized and made fully available. Numbers for 2016 climate finance are now entirely based on 2016 data (calendar or fiscal year), and similar for 2015.

Key Findings

Revised estimates for global climate finance flows for 2015 amount to USD 472 billion and USD 455 billion for 2016. The annual average over the 2015-2016 period is USD 463 billion. We have identified an additional USD 53 billion in the annual average of global climate finance flows over 2015 and 2016, driven by new data on national development finance institutions and the integration of electric vehicle sales into the dataset. Annex A provides details on the updated 2015 and 2016 flows, with average values also visualized in Figure 5 (Sankey).

More money than ever is being invested in climate action. Global climate finance flows across 2015/2016 were USD 463 billion on average.

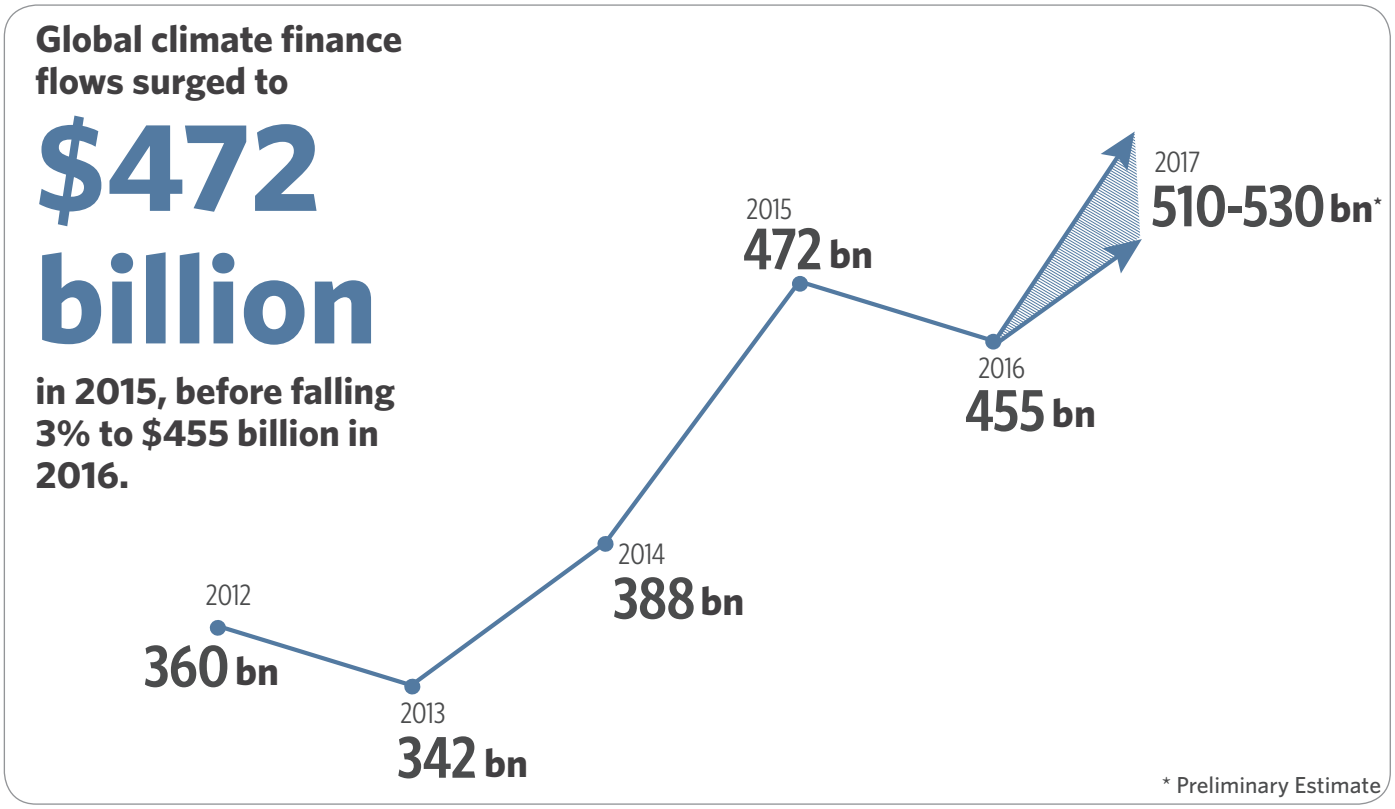
We find that climate finance has been steadily increasing, but more is needed. Climate finance flows reached a record high of USD 472 billion in 2015, driven primarily by rising private investment in renewables. This was followed by a drop in 2016 to USD 455 billion, caused by falling renewable energy technology costs and fewer renewable energy capacity additions in some countries. Taking into account annual fluctuations, the average flows across 2015/2016 were 27% higher than during 2013/2014, although this is partially due to the availability of new data.

Furthermore, there is evidence that this overall increase will continue. Our preliminary estimates for global climate finance flows in 2017 range from approximately USD 510 billion to USD 530 billion, based on early data showing steady renewable energy investment, rising electric vehicle investment, and rising investment from development banks.

This range represents a 12-16% increase from 2016. While these increases are undoubtedly good news, it is important to keep in mind that these figures represent a small share of the overall economic transition required to address climate change, especially given investments in fossil fuel projects that continue to surpass investments in low-emissions, climate resilient infrastructure.

Private investment continues to account for the major share of climate investments. At 54% annually for 2015/2016, private finance actors, such as project developers, corporations, and commercial banks account for most climate finance flows. Integration of EV invest-

Figure 1: Amount of global climate finance 2015-2017* (*estimate)



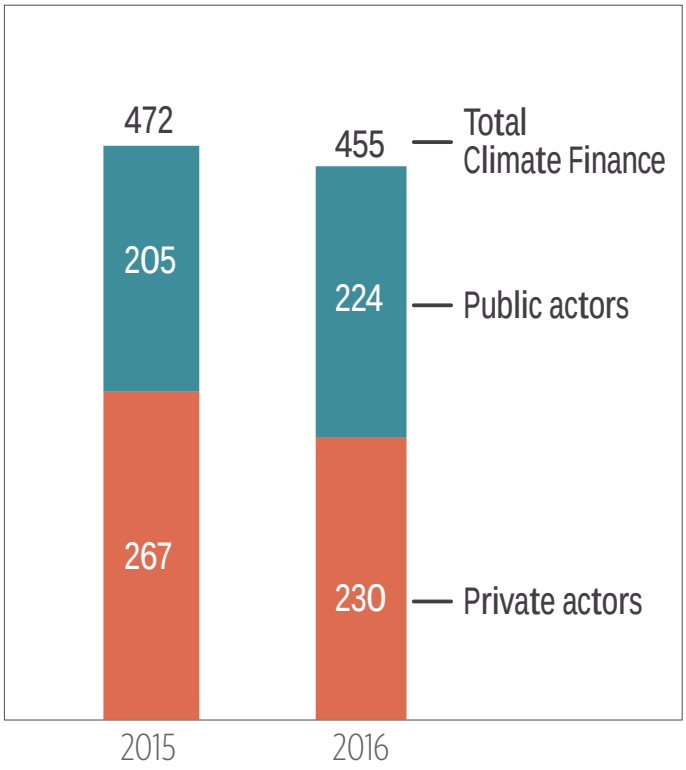
ment estimates result in an additional USD 11 billion sourced from the household sector in the form of retail purchases of battery-operated electric vehicles.

In terms of public sources of investment, however, National Development Finance Institutions (DFIs) reported almost double climate finance commitments in 2015/2016 over the 2013/2014 period, mostly spent domestically. An additional USD 4 billion was sourced from governments and their agencies in the form of direct grants and incentives for electric vehicle sales.

Renewable energy investment, traditionally the largest sector in the climate finance landscape, fell by 16% from 2015 to 2016. Falling renewable energy technology costs mean these investments continue to get more deployment for each dollar, but in 2016, the drop was equally due to fewer projects financed. Policy changes that came into effect at the end of 2015 in China, Germany, Japan, and the UK were a significant driver in few projects under development in 2016 (CPI-IRENA 2018).

Investment in sustainable transport, on the other hand, is growing. Sustainable transport now accounts for 20% of climate finance flows due to new data coverage. Investment in electric vehicles has been integrated into the dataset for the first time, and shows a year-on-year growth rate of 54% on a compound basis since 2012. In addition, the IDFC (2017) reported significantly more investment in urban transport in China.

Figure 2: Breakdown of global climate finance by public and private actors 2015-2016 ($bn)



Adaptation finance is estimated at just USD 22 billion per year, with significant challenges to comparability over the years due to variations in reporting. Further, data gaps make it difficult to know whether adaptation finance has increased or decreased from previous years. Better metrics and more harmonized understanding is needed across reporting institutions to enable more accuracy in tracking adaptation finance flows.

The vast majority of investment continues to be spent domestically. 81% of climate finance was spent domestically during 2015/2016. The private sector provided 63% of these flows, while the public sector provided 37%. Of the USD 87 billion in international flows, most was sourced from the OECD (USD 73 billion), but spent in non-OECD countries (USD 56 billion).

Flows from developed to developing countries increased by 9% from 2013/2014. We estimate that, excluding potential mobilized flows, USD 45 billion, on average, flowed annually from developed to developing countries, a USD 4 billion increase on the estimate for the 2013/2014 period. Similarly, south-south flows also increased 10% from USD 10 billion to USD 11 billion.[1]

Developing countries continue to be the dominant destination of climate investment. Taking both domestic and international sources of finance, 58% of total climate finance, or USD 270 billion, was invested in developing countries. In terms of regions, much of this was in the East Asia and Pacific region (non-OECD countries), which received 39% of flows over 2015/2016, followed by Western Europe at 23%, and the Americas (OECD countries only) at 12%.

This report provides an explanation of updates since our previous edition of the *Global Landscape of Climate Finance*, looking at the electric vehicles sector in Section 2 and important developments on tracking climate finance in Section 3.

1 Note that information gaps hinder a proper understanding of international private investments. For this and other reasons, as per previous Landscape reports, the figures identified in this update should not be confused with amounts that may count towards the $100 billion per year developed countries committed to mobilize to assist developing countries.

Figure 3: Average annual climate finance breakdown by region of destination 2015/2016

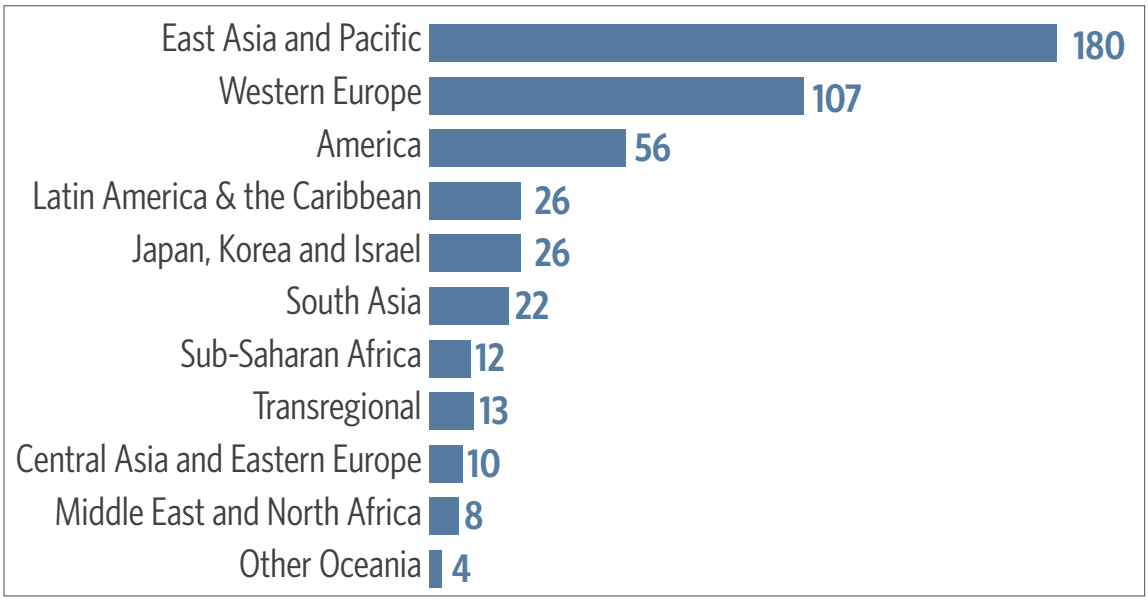


Figure 4: Origin and destination of climate finance in 2015 and 2016 (USD billion, average)

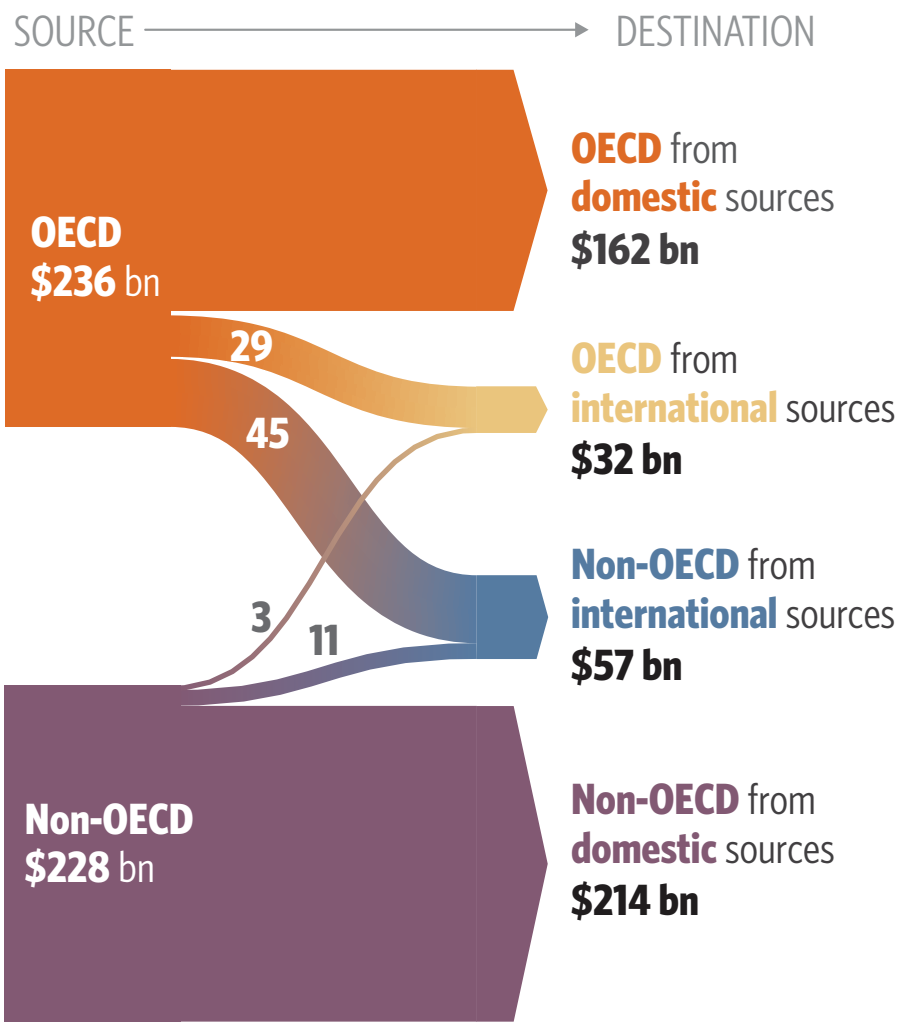
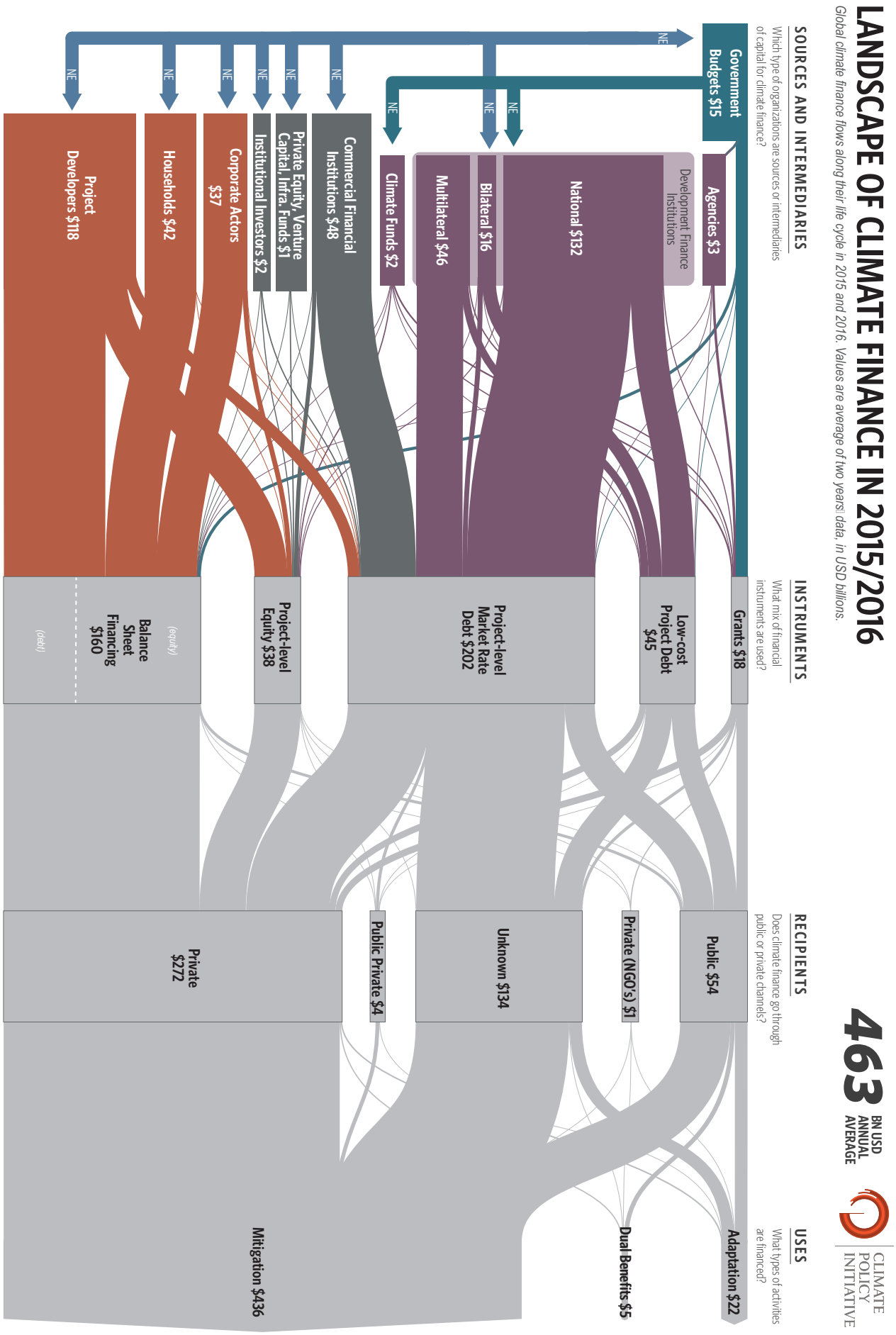


Figure 5: Global climate finance flows along their life cycle in 2015 and 2016. Values are average of two years' data, in USD billions



2. New data on investments in electric vehicles

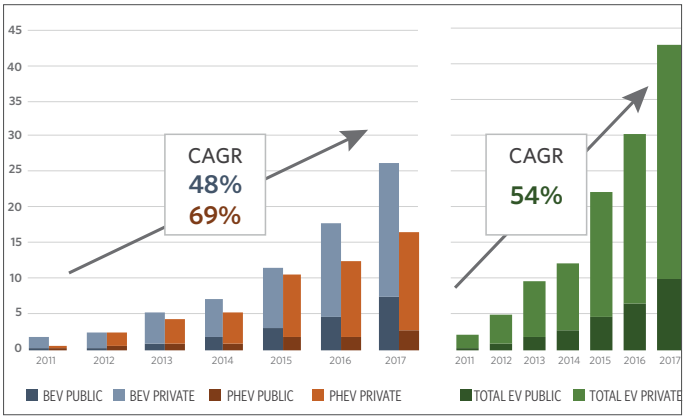
Over the course of 2018, CPI has supported the work of the IEA in estimating the retail sales of electric vehicles, one important component of private investment in sustainable transport. These estimates were published in the IEA's World Energy Investment Report in May 2018.

Sales of electric passenger vehicles exceeded 1 million for the first time in 2017, representing a total investment of USD 43 billion, making them an important investment component to track in the Landscape.

The deployment of electric vehicles is vital for efforts to decarbonize the transportation sector. The IEA's Sustainable Development Scenario estimates that electric vehicles need to represent 14% of the total vehicle stock in 2030 to remain on track to keep temperature increases below 2C (IEA 2018c). While tailpipe greenhouse gas (GHG) emissions are non-existent for battery-only electric vehicles (BEV) and significantly reduced for plug-in hybrid vehicles (PHEV), concerns are often raised regarding the implications of increased on-peak electricity demand on electricity grids from charging EV batteries, as well as the emissions associated with battery manufacturing. However, even in the context of carbon-intensive electricity grids providing power to the batteries in electric vehicles, ICCT (2018) estimate lifecycle GHG emissions from electric vehicles to be at least 28% lower than the average car. In countries with more low carbon electricity production, lifecycle GHG emissions stretch to 72% lower.

IEA data on the amount of sales and retail prices for different EV models, coupled with data on public incentives supporting investment, have made it possible to estimate a global investment figure for the sector.[2] In 2017, total investment in electric vehicles was USD 43 billion with USD 26 billion spent on BEVs and USD 17 billion on PHEVs.

Figure 6: Annual investment in electric passenger vehicles by public and private sources, 2017 USD bn (IEA 2018a, CPI analysis) Note: CAGR= compound annual growth rate. BEV=battery electric vehicle. PHEV=plug-in hybrid electric vehicle



Estimates show that **between 2011 and 2017, investment in electric vehicles have grown 54% each year on a compound basis** (IEA 2018; CPI analysis). This is higher than the 40% average annual growth required until 2030 in the IEA Sustainable Development Scenario, however, such a high growth rate is likely to be difficult to sustain (IEA 2018c). While PHEV investment has grown the most over this period, at 69% on a compound basis, BEVs represent the largest market segment due to the significant role of the Chinese market.[3] Globally, the last two years have seen investment in BEVs grow much faster than PHEVs, as the technology in the market matures and costs are reduced. Private investment by consumers (households) represents, on average, 78% of total investment between 2015 and 2017.[4]

In line with the *Landscape* methodology on the exclusion of mitigation activities, such as fossil fuel-based lower-carbon and energy-efficient power generation, we have only included investment in BEVs in our estimates.

2 Public incentives come in the form of direct rebates for retailers, manufacturers and consumers, tax exemptions or differentiated taxes for electric vehicles compared with diesel and petrol vehicles

3 China represents 40% of the global EV fleet at the end of 2017 and over three-quarters of China's stock is populated by BEVs (IEA 2018b)

4 The BEV market segment receives, on balance, more public finance support leading to a consumer share of 73% over the same period compared to 85% for PHEVs. A major reason for this is the need to offset the costs of much larger battery packs in BEVs to improve their commercial attractiveness against conventional vehicles.

3. Climate finance tracking: open questions

In line with previous editions of the *Landscape,* we estimate primary investments into new productive assets at the project level to capture new money targeting climate-specific outcomes and seek to capture a non-double-counted estimate of financial flows. For this reason, finance provided through some financial instruments, such as guarantees or insurance, green bonds, government revenue support schemes, and fiscal incentives, or investments in manufacturing or equipment sales, are not counted due to the potential for double-counting against project investments costs. Later, we discuss ongoing efforts to fill gaps, as well as relevant upcoming trends related to climate finance tracking.

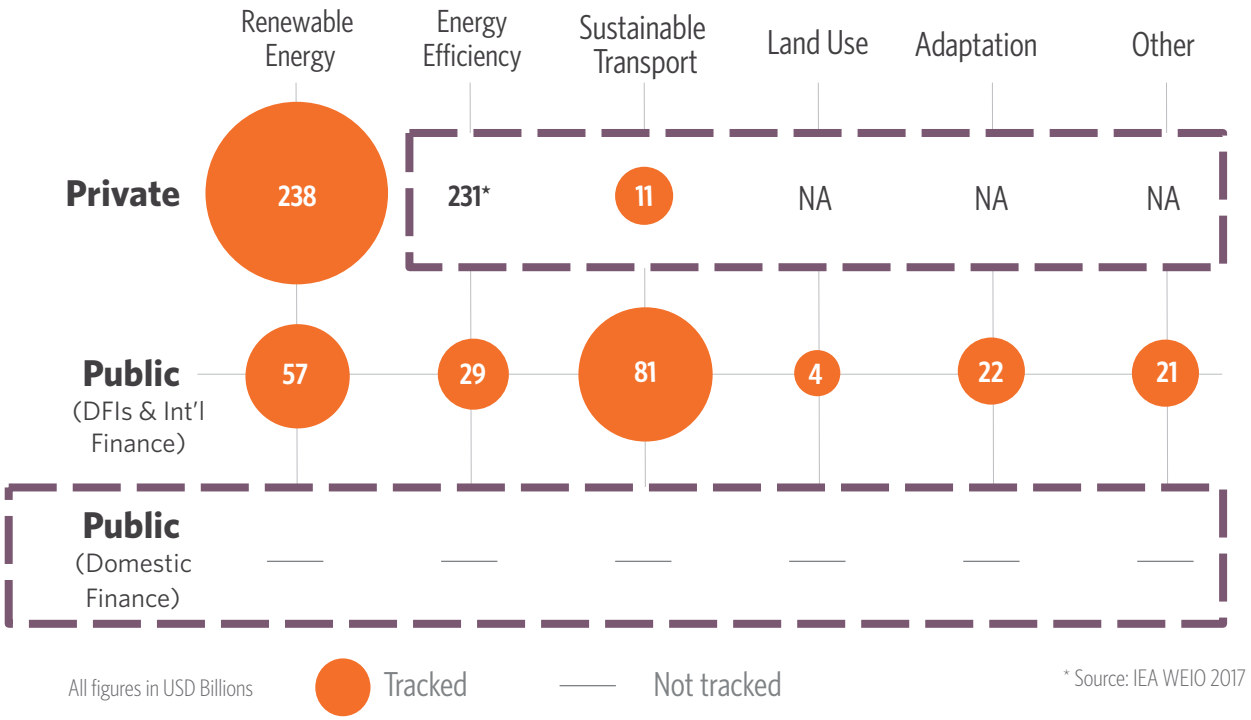
Capturing private investments in energy efficiency and adaptation

Data gaps on private investment in energy efficiency and adaptation are difficult to overcome for similar reasons. Both approaches aim to track financing directed towards specific activities or components within a project-level investment, such as the installation of more efficient lighting or heating systems in buildings, or measures taken to increase the resilience of bridges to heat extremes. In line with their mandates to support public goods, DFIs report on energy efficiency and ad-

Table 1: Climate Finance Tracking Gaps

	PRIVATE FINANCE	PUBLIC: DFI AND INTERNATIONAL FINANCE	PUBLIC: DOMESTIC GOVERNMENT BUDGETS	TOTAL CLIMATE FINANCE CAPTURED BY THIS REPORT	TOTAL POTENTIAL CLIMATE FINANCE
Totals	249	215	?	463	666
Renewable energy	238	57	?	?	?
Energy efficiency	? / 231	29	?	?	?
Sustainable Transport	11	81	?	?	?
Land Use	?	4	?	?	?
Adaptation	?	22	?	?	?
Other	?	21	?	?	?

Figure 7: Accounting gaps in tracking climate finance



aptation finance commitments. However, for the private sector, these approaches may represent a high burden for reporting on a voluntary basis, particularly when adaptation activities are financed similarly to other activities within an overall project.

Both energy efficiency and adaptation investments are traditionally defined as components of projects, which makes them onerous for private actors to report or track.

Another issue is understanding the extent to which the energy efficiency or adaptation actions are consistent with low carbon and climate resilient pathways. As buildings and industrial plants are long-term assets, energy efficiency improvements need to be far-reaching to avoid long-term lock-in of energy consumption, and associated emissions, that, while an improvement over business-as-usual, are not low enough. Similarly, adaptation activities need to ensure the financed assets are resilient enough in the extreme conditions predicted to result from climate change.

There are efforts to fill these data gaps. The IEA estimates investments in energy efficiency through identifying technologies that exceed minimum efficiency standards or market averages, and calculating the incremental costs of deploying these technologies over the market standard option. In 2016, USD 133 billion in incremental energy efficiency investment in buildings was identified out of a total investment of USD 406 billion in the associated building technologies (IEA 2017). Investments in near-zero energy buildings (NZEBs) in 2016 increased to between 8% and 25% of new-build construction projects in some European countries, because of new policy frameworks (GABC, 2017). Total investment in NZEBs in 2015 was estimated at USD 15 billion, although this is not a regularly reported investment estimate (IEA, 2016). Another USD 37 billion and USD 60 billion in incremental energy efficiency investments were identified in the industry and transport sectors. Transport sector estimates include incremental investments in more fuel-efficient vehicles and freight (including electric vehicles), overlapping with the EV estimates mentioned previously.

For adaptation finance, Georgeson et al (2016) estimate USD 343 billion in global expenditure on climate change adaptation and resilience across 10 sectors – agriculture and forestry, built environment, disaster preparedness, energy, health, information and communication technology, natural environment, professional services, transport infrastructure, and water – over 2014 and 2015. However, the report provides no breakdown of public and private expenditure or the type of activities financed.

Capturing private investments in both energy efficiency and adaptation may require re-evaluation of the type of assets and activities to be tracked than is currently employed by public finance actors. Data availability from private actors is likely to improve as more corporations adopt science-based targets and report on measures to achieve them; banks begin to tag green investments on their loan books, such as mortgages for energy efficient properties; and all actors being to report on measures taken to manage climate risk and opportunities through the recommendations of the Task Force on Climate-related Financial Risk and Disclosure (TCFD) (Sweatman & Robins, 2017).

Responding to measuring progress on Article 2.1c

In our *Landscape 2017* report, we pointed to the potential for Article 2.1(c) of the Paris Agreement to "make finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development" placing a long-term and systematic focus on discussions around climate finance through the UNFCCC. Since, a variety of proposed approaches to understanding, interpreting, and ultimately tracking progress against the achievement of the long-term goal have been put forward.

There are two key questions underpinning the consistency of financial flows with Article 2.1(c) that will require increased attention – what the finance is used for, and what types of flows to include?

What is finance used for?

Finance flows are used for a variety of purposes, from the development of new projects or activities, to the acquisition of existing assets, to raising cash and reserves. The practice of tracking climate-related finance flows since 2011 has focused on estimating investments that contribute to GHG emissions reductions and adaptation to the effects of climate change, with the purpose of identifying how to scale them up. Based on the view that the mention of 'consistency' in Article 2.1(c) should prompt the inclusion of reductions in brown flows over time in its assessment, recent studies have tracked the continued financing of fossil fuel assets and subsidies – or 'brown' finance – with a view to reducing them over time.[5] 'Net' calculations from green and brown finance flows estimates have also been proposed as a potential metric (Bodnar et al, 2017).

As approaches to making financial flows consistent with the Paris Agreement emerge, a number of issues are helpful in guiding the discussion:

- Simple 'consistency' of financial flows with the Paris Agreement goals can imply, not only a focus on measuring green or climate flows and fossil-related or brown flows, but also flows to assets and activities that neither contribute to GHG emission reductions nor increase them, that neither contribute to adaptation nor maladaptation.

- 'Consistency' could also imply a focus on what activities may be 'inconsistent,' regarding the remainder as consistent and drawing greater attention to 'inconsistent' assets and activities across the economy.

- In the energy sector, inherent weaknesses in using scenarios to guide definitions of 'inconsistent' and 'consistent' could lead to biases related to how much a pathway relies on fossil fuel infrastructure, energy efficiency and carbon capture and storage to reach stabilization goals. Weaknesses include a predisposition to incumbent systems over disruptive changes (e.g. in the degree to which centralized grid infrastructure caters for energy needs) and the use of outdated cost assumptions in cost-optimization models. A fresh look at determining how scenario analyses may be translated into definitions of what may be consistent with article 2.1(c) is needed.

5 See Kirsch et al 2018, Christianson et al 2017, Wright et al 2018, Whitley et al 2018

What types of finance flows to include?

Climate finance tracking activities to date have focused on measuring direct investment into new productive assets and activities related to direct emission reductions, to avoid double-counting of finance that indirectly results in emission reductions or adaptation[6].

Proposed approaches for measuring progress related to 2.1(c) range from maintaining this narrow approach to broadening the scope to include secondary market transactions – investment in listed equities, bonds, insurance – that support such investments (Robins 2018, Whitley et al 2018). While data on new investment at a granular level is not currently readily available, actors in financial markets, through encouragement as well as regulatory actions by policymakers and industry initiatives, are joining forces to increase data availability. Improved reporting practices on green bond investments, TCFD disclosures, reporting through the Principles for Responsible Investment (PRI) and CDP, and regulatory oversight from financial regulators, such as the Bank of England and Dutch Central Bank, are important first steps, albeit standardization of reporting is limited. In light of the data limitations, the broader approach places a greater emphasis on actors in financial markets (such as institutional investors and asset managers), as opposed to the project developers, corporations, and commercial banks that would dominate the narrow approach.

While double counting is difficult to avoid with a broader scope, the 2018 UNFCCC Biennial Assessment provides an overview of available datasets across banking, insurance, and investment decision-making that may be relevant to better capture the financial markets and track consistency with article 2.1(c). It provides a framework for highlighting data across financial markets and actors, both in terms of quantitative 'flow' data on new financial flows and the stocks they accumulate, with qualitative 'process' data on integration of climate considerations into investment decision-making. This latter point broadens the scope of article 2.1(c)from a narrow view of flows to also capture how governance, strategy and risk management processes within investors, corporations and exchanges align with the Paris

6 For example, the investment related to the deployment of a wind farm is counted, but not the finance related to researching and developing the technology, the manufacturing of the wind farm equipment or the revenue support provided to the wind farm owners. After the project is constructed, finance related to securing better financing terms (re-financing) or the acquisition of the asset by new owners is similarly not counted.

Agreement (see Figure 8). For it to be useful in measuring 'consistency,' benchmarks will need to be developed for the scale of required capital shifts and integration of climate risk in business models across market actors and sectors.

Furthering efforts on tracking domestic climate finance

Tracking domestic climate finance flows remains limited, but offers an opportunity for governments to know whether climate policies are having the desired effect in mobilizing investments, as well as where existing finance flows may be better directed to climate goals.

Regular and consistent tracking offers important inputs to global efforts to understand if investments are meeting the financial requirements of low carbon and climate resilient pathways. Table 2 outlines some of the initiatives under way in countries with the support of governmental partners and advisors, including CPI and other organizations.

Figure 8: Framework mapping available datasets as it relates to article 2.1(c)(UNFCCC 2018, authors analysis)

Broader interpretation to include investment decision-making

Flows only perspective to article 2.1c

	FINANCIAL FLOWS	INTEGRATION OF CLIMATE CHANGE INTO DECISION-MAKING
BANK LENDING	LOANS	LOAN APPROVALS; GOVERNANCE, STRATEGY AND RISK MANAGEMENT PROCESSES
BOND MARKETS	BOND ISSUANCE	BOND DISCLOSURE AND LISTINGS RULES
LISTED EQUITY	EQUITY ISSUANCE, IPOS, RETAINED EARNINGS	CORPORATE DISCLOSURE AND LISTINGS RULES; GOVERNANCE, STRATEGY AND RISK MANAGEMENT PROCESSES
PRIVATE EQUITY	VENTURE CAPITAL, PRIVATE EQUITY FUNDS	MEMORANDUMS AND RISK MANAGEMENT PROCESSES
INSURANCE AND REINSURANCE	UNDERWRITING POLICIES AND PREMIUMS	GOVERNANCE, STRATEGY AND RISK MANAGEMENT PROCESSES
ASSETS UNDER MANAGEMENT	ASSET ALLOCATION AND DIVESTMENT POLICIES/MANDATES	ASSET ALLOCATION AND DIVESTMENT POLICIES/MANDATES
FINANCIAL SERVICES	TBC	CREDIT RATING DECISIONS; INVESTMENT CONSULTANT ADVICE

Table 2: Upcoming Analysis On Domestic Climate Finance Tracking

COUNTRY	YEARS OF ANALYSIS	IMPLEMENTING ORGANIZATIONS	EXPECTED PUBLICATION DATE	FOCUS
FRANCE	2017	I4CE, ADEME, FRENCH MINISTRY OF ENVIRONMENT	NOVEMBER 2018	GREEN FINANCE FLOWS; BROWN FINANCE ESTIMATES, FORWARD-LOOKING INVESTMENT NEEDS
SUBNATIONAL CITIES & REGIONS	2000-2016	OECD, UN ENVIRONMENT, WORLD BANK	NOVEMBER 2018	GREEN FINANCE FLOWS, FORWARD-LOOKING INVESTMENT NEEDS SPECIFIC TO CITIES AND REGIONS
GERMANY	2016	INSTITUTE FOR CLIMATE PROTECTION, ENERGY AND MOBILITY (IKEM)	Q4 2018	BUILDING SECTOR
MOROCCO	TBC	I4CE, GOVERNMENT AND LOCAL FINANCIAL INSTITUTIONS	Q1 2019	TBC
GERMANY	2016	IKEM	Q1 2019	ENERGY, TRANSPORT, BUILDINGS, INDUSTRY, AGRICULTURE SECTORS
FRANCE	2018	I4CE, ADEME, FRENCH MINISTRY OF ENVIRONMENT, TRESOR	Q3 2019	GREEN FINANCE FLOWS; BROWN FINANCE ESTIMATES, FORWARD-LOOKING INVESTMENT NEEDS, FINANCE SCENARIOS
POLAND	TBC	I4CE, WISE EUROPA, NEW CLIMATE INSTITUTE	Q3 2019	TBC
LATVIA	2016 (TBC)	CZECH TECHNICAL UNIVERSITY IN PRAGUE (CVUT), IKEM	Q4 2019	TBC
CZECH REPUBLIC	2016 (TBC)	RIGA TECHNICAL UNIVERSITY (RTU), IKEM	Q4 2019	TBC
INDONESIA	TBC	CPI, INDONESIA MINISTRY OF FINANCE	Q4 2019	TBC
KENYA	TBC	CPI, AECOM, BAKER MCKENZIE	Q1 2020	TBC

4. Looking forward

More money than ever is being invested in climate action - global climate finance flows across 2015/2016 were USD 463 billion, on average, and are expected to continue to rise. While these increases are undoubtedly good news, we are still falling far short of what is needed to transition the overall economy to a low carbon, climate resilient future. In fact, as indicated by the last IPCC report, a USD 1.6-3.8 trillion energy system investment is required to keep warming within a 1.5-degree Celsius scenario to avoid the most harmful effects of climate change (IPCC, 2018).

Clear information about climate finance flows at the global and national levels is critical to maintaining the momentum of the Paris Agreement. Without such data, it is difficult to identify gaps, measure progress, and optimize the deployment of public resources in a way that can effectively and efficiently unlock private investment at the transformational scales needed.

In addition to being a central reference for the UNFCCC BA 2018, this update highlights some critical issues facing efforts to track climate finance, including improving data on private investments in energy efficiency and adaptation and on domestic climate finance flows and operationalizing Article 2.1(c) of the Paris Agreement to enable a long-term and systemic view around how all finance flows could become consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.

Resolving such tracking issues can achieve two goals. First, it would allow governments and business to better track progress against investment needs and more broadly the long-term goals of the Paris Agreement. Second, it would improve understanding of whether policies are having the desired effect in mobilizing investments as well as where existing finance flows may be better directed to climate goals.

Annex

Table A.1 – Breakdown of global climate finance by public and private actors (USD billion)

ACTORS	2015	2016	2015-2016 AVERAGES
PRIVATE	267	230	249
COMMERCIAL FI	54	42	48
CORPORATE ACTORS	46	28	37
HOUSEHOLDS	39	44	42
INSTITUTIONAL INVESTORS	3	2	2
PRIVATE EQUITY, VENTURE CAPITAL, INFRASTRUCTURE FUNDS	2	1	1
PROJECT DEVELOPERS	124	113	118
PUBLIC	205	224	215
GOVERNMENTS AND THEIR AGENCIES	17	19	18
CLIMATE FUNDS	2	3	2
PUBLIC FI - BILATERAL	17	14	16
PUBLIC FI - MULTILATERAL	44	48	46
PUBLIC FI - NATIONAL	124	140	132
TOTAL	472	455	463

Table A.2 – Breakdown of global climate finance by sectors (USD billion)

SECTORS	2015	2016	2015-2016 AVERAGES
ADAPTATION	22	22	22
(OTHER) DISASTER RISK MANAGEMENT	3	3	3
AGRICULTURE, FORESTRY, LAND-USE, AND NATURAL RESOURCE MANAGEMENT	4	5	5
COASTAL PROTECTION	0.2	0.1	0.2
INDUSTRY, EXTRACTIVE INDUSTRIES, MANUFACTURING & TRADE	0.1	0.1	0.1
INFRASTRUCTURE, ENERGY AND OTHER BUILT ENVIRONMENT	1	1	1
OTHERS / CROSS-SECTORAL	2	3	2
POLICY AND NATIONAL BUDGET SUPPORT & CAPACITY BUILDING	0.2	0.4	0.3
WATER AND WASTEWATER MANAGEMENT	11	11	11
MITIGATION	445	427	436
AGRICULTURE, FORESTRY, LAND-USE, AND NATURAL RESOURCE MANAGEMENT	5	4	4
ENERGY EFFICIENCY	26	33	29
LOW-CARBON TECHNOLOGIES	2	2	2
NON-ENERGY GHG REDUCTIONS	0.1	0.1	0.1
OTHERS / CROSS-SECTORAL	6	10	8
POLICY AND NATIONAL BUDGET SUPPORT & CAPACITY BUILDING	0.2	0.3	0.2
RENEWABLE ENERGY GENERATION	321	269	295
SUSTAINABLE TRANSPORT	78	106	92
TRANSMISSION & DISTRIBUTION SYSTEMS	6	3	5
WASTE AND WASTEWATER	1	0.7	0.8
DUAL BENEFITS	5	6	5
TOTAL	472	455	463

Table A.3 – Breakdown of global climate finance by instruments (USD billion)

INSTRUMENTS	2015	2016	2015-2016 AVERAGES
BALANCE SHEET FINANCING (DEBT PORTION)	66	52	59
BALANCE SHEET FINANCING (EQUITY PORTION)	113	90	101
GRANT	18	18	18
LOW-COST PROJECT DEBT	45	45	45
PROJECT-LEVEL EQUITY	40	36	38
PROJECT-LEVEL MARKET RATE DEBT	190	215	202
TOTAL	472	455	463

Table A.4 – Breakdown of public climate finance by recipients (USD billion)

RECIPIENTS	2015	2016	2015-2016 AVERAGES
PRIVATE	21	23	22
PUBLIC	55	0.1	28
PUBLIC-PRIVATE	2	53	28
UNKNOWN	124	5	65
PRIVATE NGOS	2	143	72
TOTAL	205	224	215

Table A.5 – Breakdown of global climate finance by region of destination (USD billion)

REGION	2015	2016	2015-2016 AVERAGES
NON-OECD	270	269	270
CENTRAL ASIA AND EASTERN EUROPE	11	8	10
EAST ASIA AND PACIFIC	175	184	180
LATIN AMERICA AND THE CARIBBEAN	32	20	26
MIDDLE EAST AND NORTH AFRICA	8	7	8
SOUTH ASIA	20	24	22
SUB-SAHARAN AFRICA	13	12	12
TRANSREGIONAL	12	13	13
OECD	202	186	194
AMERICA	54	59	56
JAPAN, KOREA AND ISRAEL	36	17	26
OTHER OCEANIA	3	5	4
WESTERN EUROPE	109	105	107
TOTAL	472	455	463

Table A.6 – International and domestic climate finance flows (USD billion)

ORIGIN	2015	2016	2015-2016 AVERAGES
DOMESTIC	382	370	376
NON-OECD	214	214	214
OECD	168	156	162
INTERNATIONAL	90	85	87
FROM NON-OECD TO OTHER NON-OECD	12	10	11
FROM NON-OECD TO OECD	3	3	3
FROM OECD TO OTHER OECD	31	27	29
FROM OECD TO NON-OECD	44	45	45
TOTAL	472	455	463

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