

The state of tracking financial flows under the Paris Agreement

A primer for policy makers in India



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Abstract: The 21st Conference of Parties to the UNFCCC in 2015 saw international consensus on climate action through the adoption of the Paris Agreement. Article 9 focuses on mobilization and disclosure of climate finance. Drafting the rules for climate finance reporting has remained a contentious issue that has created a divide between developed and developing countries. According to data compiled by UNFCCC, the face value of climate finance flows from developed to developing countries was at 75 billion USD in 2016. Developed and developing countries have, at times taken quite different views on definitions and best practices for categorizing and tracking climate finance. For example, a 2015 OECD and Climate Policy Initiative (CPI) report estimated climate finance from developed to developing countries at 62 billion USD in 2014. This estimate was strongly contested by an Indian report, which countered that new and additional finance was limited to 2.2 billion USD. This report argued that the methodologies used by OECD and CPI are inconsistent and lack transparency, with no independent verification or consultations with the developing country parties. This exchange sheds light on some of the key challenges faced by stakeholders hoping to track and report on climate finance. With this context, the report aims to draw out some of the major challenges faced in tracking climate finance flows and discuss the major arguments in favour and against different positions, put in an Indian context. The report tries to compile this overview with the hope that it serves as a useful reference for government, policy makers and climate finance experts on recent developments and barriers for tracking climate finance.

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Foreword

This report is part of a joint TERI and CICERO project on ‘Developing country participation in addressing climate change: Research on policy instruments for achievement of India’s NDCs’. We thank the Royal Norwegian Embassy, New Delhi, for funding this project. We thank our colleagues Christa Clapp (CICERO) and Neha Pahuja (TERI) for valuable guidance to the project and comments to this report.

1 A brief history of climate finance and negotiations

Clear definitions and guidance on tracking climate finance are important because they allow stakeholders to set targets, measure progress towards goals, compare climate finance flows across countries and involved institutions, and help governments and investors to allocate funds effectively. In recent years, the lack of clarity about what qualifies as climate finance and corresponding definitions, and thus can be counted towards the 100 billion per year commitment, has introduced disagreement on progress towards that goal. This issue has been at the centre of global discussions on climate policy for the last decade:

16th UN Conference of Parties (COP) in Cancun, Mexico in 2010: Developed countries committed to a goal of jointly mobilizing 100 billion USD annually from 2020 onwards to support climate-related investments in developing countries.

21st UN Conference of Parties in Paris, France in 2015: Article 9 of the Paris Agreement reaffirms international consensus that developed countries should continue to take the lead in mobilizing climate finance and shall provide resources to developing countries that are most vulnerable to the effects of climate change. It states that “Such mobilization of climate finance should represent a progression beyond previous efforts,” and that “Developed country parties shall provide transparent and consistent information on support for developing country Parties provided and mobilized through public interventions ...”. Article 13 underlines that enhanced transparency on actions and support by Parties is important, to provide clarity in the context of Article 9 (and other articles). Developed country Parties shall “... provide information on financial, technology transfer and capacity-building support provided to developing country Parties ...” and developing countries should “... provide information on financial, technology transfer and capacity-building support needed and received ...”.

24th UN Conference of Parties in Katowice, Poland in 2018: The assembled negotiators and experts proposed guidance on tracking international climate finance, intended to support the 100 billion USD commitment. The UNFCCC President proposed the Informal Compilation, which outlines underlying assumptions, definitions and methodologies related to climate finance information to be provided by Parties in accordance with Article 9 of the Paris Agreement (UNFCCC, 2018a). The Informal Compilation states that developed countries *shall* and developing countries *should* report on the financial support provided and needed, respectively. It makes the following recommendations:

Climate finance reporting by developed countries should include information on the status of finance, channels used, funding source, financial instrument, type of support, the sector, and whether capacity-building support is included (pages 83-87).

Developed countries must report the face value or grant equivalent value of financial instruments and highlight the status of delivery (disbursed or committed). Further, developed countries also have to define the source of financial support.

Developing countries, on the other hand, need to report on the financial support received with certain descriptors like the project/program, amount, recipient, status, sector, expected impact, etc. They are also encouraged to report on the financial support required for implementation of projects (pages 88-90).

These standards and definitions are intended to help address the challenges outlined below. A closer examination of the resulting rulebook reveals that, while it does provide recommendations on disclosure, it still does not contain clear definitions of what does and what doesn't qualify as climate finance and lacks proper guidance on climate finance accounting. UNFCCC (2018a) was not adopted by the conference. Instead a brief and general text on long-term climate finance was adopted, where COP24 “Urges developed country Parties to continue their efforts to channel a substantial share of public climate funds to adaptation activities and to strive to achieve a greater balance between finance for mitigation and for adaptation, recognizing the importance of adaptation finance and the need for public and grant-based resources for adaptation; ...”, and to organize workshops on long-term climate finance in 2019 and 2020 (UNFCCC, 2018b).

Negotiations under Article 9 have seen significant progress but as Parties move towards reporting climate finance flows in line with the proposed UNFCCC guidelines, flexible and dynamic handling will be crucial to further strengthen the tracking processes.

Transparent and consistent information on support requires effective tracking of climate finance flows. There have been some clear challenges with effective tracking of climate finance flows. These challenges stem from the lack of clear definition of climate finance, unavailability of quality data (especially private sector financial flows), and donor attribution. The guidelines negotiated during COP24 have tried to address many issues on climate finance reporting but there is still a lack of consensus.

The ambition of this paper is to present a brief review of the challenges to tracking climate-related financial flows (both by source - public or private; and by type - mitigation or adaptation) and to outline recommendations for doing so effectively. The paper starts out with a brief status of key issues and challenges related to climate finance tracking, followed by a discussion of developments in reporting, before ending up with recommendations on how tracking might be improved.

Box 1. Climate finance landscape in India.

As a part of India's commitment to global climate action, the country had submitted its NDC, which includes eight targets of which three are quantitative in nature, detailed as follows:

- To reduce the emissions intensity of its GDP by 33 to 35 percent by 2030 from 2005 level.
- To achieve about 40 percent cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030 with the help of transfer of technology and low-cost international finance including from the Green Climate Fund (GCF).
- To create an additional carbon sink of 2.5 to 3 billion tons of CO₂ equivalents through additional forest and tree cover by 2030.

The remaining targets focus on propagating sustainable lifestyles, mobilization of climate change investments through innovative financing, building technology transfer mechanisms, and building capacities to achieve national climate change targets.

Based on preliminary estimates, India's total financial requirement for achieving its Nationally Determined Contribution (NDC) is over 1 trillion USD and may rise to up to 2.5 trillion USD. Climate finance in India has mainly been channeled towards the implementation of the National Action Plan on Climate Change missions (Singh, 2017). The institutional structure of climate finance in the country is highly fragmented and decentralized, involving several actors, channels and institutions (ibid). To counter the complexities in the climate finance architecture, the Government of India in 2011 established the Climate Change Finance Unit (CCFU), under the Ministry of Finance. A key objective of CCFU has been to represent India's climate financial concerns in the international climate negotiations.

However, with CCFU's presence being largely limited to the international negotiations space and having limited powers as a domestic coordinating entity, it is challenging and pertinent to identify ways to track, collect and report on climate finance flows, from the various sources in India (Jha, 2014). In the lead up to COP24, India's CCFU released a report in which it has identified three essential needs for climate finance.

- **Scope:** The scope of climate finance should support both the adaptation and mitigation needs of countries. With the present financial allocation being biased towards mitigation actions, the report highlights the concerns of most developing countries regarding the relative neglect of adaptation activities. Also, to counter the inflation of climate finance figures reported, it suggests accounting only actual disbursements and not country pledges as climate finance for a period.
- **Scale:** The report highlights the massive scale and mounting requirements for climate finance globally. It has been estimated that a huge sum, at the scale of 4.4 trillion USD, will be required to meet all countries' NDC pledges. With the climate impacts on countries likely to worsen in the coming years, the report reiterates the need to mobilize new and additional climate finance.
- **Speed:** It is equally important to take stock of climate finance and enhance ambition over time. The report states that the status of delivery of climate finance has been overrepresented in international reporting, which has also been highlighted repeatedly by many developing country parties.

Source: Climate Change Finance Unit, Department of Economic Affairs, Ministry of Finance, Government of India (2018).

2 Issues and challenges in tracking climate finance

The OECD estimated climate finance from developed to developing countries at 62 billion USD in 2014 (OECD and CPI, 2015). This estimate was strongly contested by a report issued from the India's Ministry of Finance, which countered that the report was a "greenwashing of finance" and that the new and additional finance is only limited to 2.2 billion USD (Ministry of Finance, Government of India, 2015). The report argues that the methodologies used by OECD and CPI are inconsistent and lack transparency with no independent verification or consultations with the developing country parties. Based on reporting by Annex II Parties to the UNFCCC, climate finance from developed to developing countries amounted to 38 billion USD in 2016, of which multilateral development banks reported that private climate finance mobilization amounted to 15.7 billion USD, confer Annex 1 (UNFCCC, 2018c).

The contrasting perspectives evident between the 2015 OECD and CPI report and the Indian Ministry of Finance's response outline some of the key questions raised by the global community working to mobilize, disburse and report on climate finance, such as:

- What is the relationship between climate finance and Official Development Aid (ODA) – do they overlap or are they mutually exclusive?
- Do commercial transactions qualify as climate finance? Where does one stop and the other begin?

Answers to these questions can help benchmark and track climate finance flows more transparently and effectively as well as avoiding double counting. For the purpose of this overview, we raise and discuss three of the key challenges:

- Defining climate finance and reducing risk of double counting;
- Data availability and quality;
- Attribution, impact reporting and verification.

Box 2. Cost of India's NDC, and sources of finance.

India's NDC states that the implementation of climate actions till 2030 will require 834 billion USD for mitigation actions and 206 billion USD for adaptation actions.

In India, states have formulated State Action Plans on Climate Change (SAPCC) in order to prioritize and provide impetus to adaptation actions at sub-national level. However, the strategies highlighted in the SAPCC are mainly financed from respective departmental budget of the state. Since the departmental budgets are scarce, further apportioning a part of the budget specifically for adaptation needs seems very challenging for line departments (Dinshaw et al., 2018). India does have a dedicated National Adaptation Fund on Climate Change (NAFCC) in place to supplement the current adaptation financing requirements, but this is also constrained due to insufficiency of funds and lack of access and capacity.

India has successfully accessed climate finance from a range of international sources, including climate specific facilities like the Clean Technology Fund, the Global Environmental Facility, multilateral organizations like the World Bank and Asian Development Bank, bilateral donors like Germany and Japan, and the private sector through the Clean Development Mechanism (CDM). Since April 2017, three projects for India have been approved by the GCF, with 177.8 million USD as the total amount of GCF funding approved, both as loans and grants. However, to date only about 50 million USD has been disbursed as a loan (GCF, 2019).

2.1 Defining climate finance

There is no consensus on what climate finance should or should not include. Purists limit it to public grants earmarked for climate change adaptation or mitigation projects that serve the most vulnerable countries and were not previously available through Official Development Assistance (ODA). On the other end of the spectrum, some actors include all public and private financial flows – commercial or for the public interest - that are invested in any project categories related to climate change. Although there isn't one right answer, clearer definitions and greater transparency on definitions, methods, and assumptions will help avoid discussions and double counting (WRI, 2014).

Box 3. Loss and damage.

Since the climate policy negotiations started, leading up to the United Nation's Framework Convention on Climate Change (UNFCCC) in 1992, global fairness for handling climate change has been a principal issue, and a contentious issue between developing and developed countries. The main issues have been allocation of 'rights' to emit greenhouse gases, how much weight to put on the responsibility for past greenhouse gas emissions, and distribution of costs for reducing emissions and costs for adapting to climate change. The concept of 'loss and damage', referring to the harms caused by man-made climate change, has evolved during the UNFCCC process. At COP 19 in 2013, the Warsaw International Mechanism for Loss and Damage was adopted, which focuses on enhancement of knowledge and understanding, and on dialogue. Article 8, paragraph 3, of the Paris Agreement states that "Parties should enhance understanding, action and support, including through the Warsaw International Mechanism, as appropriate, on a cooperative and facilitative basis with respect to loss and damage associated with the adverse effects of climate change". The article also mentions i.a. "Emergency preparedness", "Comprehensive risk assessment and management" and "Risk insurance facilities, climate risk pooling and other insurance solutions". Developing countries have urged developed countries to report on indicative support on loss and damage, which is especially crucial for India in the light of increasing flood incidences in 2019.

There are several dividing lines in the current definition and categorization of climate finance.

Adaptation or mitigation. The first categorization challenge is whether the funding qualifies as adaptation or mitigation finance. Traditionally, these have been considered two mutually exclusive, siloed project categories, even though some activities may bring both climate resilience and emissions reduction benefits, such as land management and afforestation. This overlap makes it difficult to report to climate finance standards that often require funding to be categorized either as mitigation or adaptation. This also presents a challenge for allocation of funds. Often, national policy prioritizes adaptation interventions, but international climate finance funding is earmarked for mitigation. The Green Climate Fund (GCF) aims to strike a balance between the financing directed towards mitigation and adaptation, but the usual flow has been heavily skewed towards mitigation actions. The Asian region has witnessed a trend where 60% of the climate financing flows towards mitigation actions (Heinrich Böll Stiftung, 2019). The overlap and siloed tagging increase the risk of double counting and can result in over- or under-representation of climate funds.

Climate change or development. The second categorization challenge is distinguishing between climate finance and traditional development aid (ODA). The two overlap substantially, which raises the question of whether funds previously marked for environmental initiatives that are climate related should count towards climate finance goals. Essentially, it is a question of additionality: should climate finance only count newly allocated funds, or should it include all climate-related finance flows?

Box 4. India's position on climate finance and ODA.

An analysis by India's Ministry of Finance of the ODA and climate finance flows reported by OECD in 2015, suggests that the over-representation of climate finance has been due to diversion of existing ODA funds towards climate related objectives (Ministry of finance, Government of India, 2015). The Ministry contended that the funds should remain separate and only new climate finance commitments should count towards the 100 billion USD per year target, in opposition to the OECD's methodology. In line with these concerns, they also asserted that the "newness and additionality" must begin by establishing a baseline of climate finance flows. Further, assessment of the additionality of climate finance must be standardized globally and should not be left at the discretion of developed countries.

Public or private. The third categorization challenge stems from the source of the finance: public or private sector. Climate finance has traditionally been led by public institutions and multilateral development banks. As technologies and understanding of the financial materiality of climate risks have evolved, however, more private sector entities have started investing in low carbon and climate resilience initiatives. Capital markets are global with both private and public actors, for instance public pension fund investors and publicly owned banks. The accounting of private climate finance flows remains a huge challenge since investor data is neither tracked nor captured by countries, for one reason since such data is bound by non-disclosure policies (Clapp et al., 2012). Thus, it is challenging to credibly account for contributions by private investors.

In addition, when private investments are linked with climate related objectives, it isn't clear to what extent they qualify as climate finance.

Box 5. OECD's categorization of public interventions for mobilization of private climate finance.

Direct mobilization is public climate co-finance to individual projects through grants, loans, direct equity investments, and guarantees, where the purpose is to improve the risk-return profile of specific projects and contribute to convincing private financiers to invest.

Intermediated-direct mobilization refers to public climate finance channeled through upstream instruments such as credit lines and fund-level investments. The purpose is to increase upstream funding availability, contribute to climate finance and de-risk specific projects.

Financial incentivization refers to public financial support (financial incentive) as a result of climate policies or programs. Examples are subsidy schemes and tax breaks. The idea is to improve the risk-return profile of specific projects and contribute to convincing private financiers to invest.

Indirect mobilization is through capacity building for climate project demonstration or policy development. Examples are capacity building grants, loans and technical assistance. The aim is to improve the overall readiness of private financiers to invest in a climate-related sector or technology.

Source: OECD (2017).

Where do you draw the line between climate finance and private sector interests? For example, do profitable, large-scale solar farms in Brazil, Russia, India, China and South-Africa (BRICs) count? If a large agribusiness company invests in a drip irrigation system

for improved yield and climate resilience in water stressed regions, or if a factory located in a fossil-fueled power grid invests in energy efficiency to reduce operating costs but also reduce emissions, should that count as climate finance? Should purely commercial investments that have positive climate impacts count towards climate finance goals, or does the 100 billion USD have to consist of public sector funding from developed country governments to developing country counterparts?

Another dimension to the third challenge is introduced when public and private sector interests interact. Many traditional approaches to climate finance involve public financial interventions that intend to encourage private sector investment, such as loan guarantees, climate insurance, and export credit schemes (Torvanger et al., 2016). These approaches give rise to a “leverage factor”, which is the relation between the private finance mobilized and the public intervention, measured in money terms. OECD’s Development Assistance Committee has examined mobilization of private finance in the context of official development finance interventions (OECD, 2018).

According to OECD (2017), public interventions that mobilize private finance for climate actions can be divided into direct mobilization, intermediated direct mobilization, financial incentivization, and indirect mobilization (Box 5). The main challenge comes from verifying that a private sector action is directly attributable to a public sector intervention.

Pledges or disbursements. Finally, timing and the point of measurement can dramatically affect reported numbers. A climate finance report is a snapshot in time and, depending on what is being reported, could over- or under-represent the flow of funding. Reporting pledged or committed funds will suggest a larger amount but doesn’t guarantee disbursement and cannot be linked to impact. Reporting disbursed funds presents a more accurate picture of funding flows.

2.2 Data availability and quality

Data availability and quality presents a formidable challenge to climate finance accounting.

Climate change is cross-sectoral and interdisciplinary by nature. It affects a broad array of sectors including transport, infrastructure, energy, agriculture, water management and the financial sector, often simultaneously. Adding to this complexity, climate finance funding comes from both bilateral and multilateral aid agencies, commercial investments, loans and private grants, as well as government funding. Because of multiple sources of funding across diverse sectors, securing a complete, up to date and accurate data set for climate finance is a challenge and requires participation from all the respective line ministries, local governments, and the private sector.

Box 6. Case study: India's Energy Efficiency Services Limited (EESL).

India's Ministry of Power initiated the UJALA (Unnat Jyoti by Affordable LEDs for All) program in 2014 to reduce national energy consumption by increasing the market penetration of energy-efficient LED bulbs. The program was supported by Energy Efficiency Services Limited (EESL), which is a government backed public energy service company. The company has rolled out several bulk procurement models for making energy efficient solutions more affordable, the flagship program being the successful deployment of nearly 360 million LED bulbs over the last five years. Some of the programs include innovative payment models such as 'on-bill financing', with EESL and the government bearing the risk of payment defaults. While the program is designed and supported by a government entity, which bears the initial investment costs, the ultimate investors in the products are the private consumers. Thus, in this case it is challenging and complex to make a clear distinction between the public and private sector contributions towards climate financing.

Source: TERI (2018).

The first challenge to accessing climate finance data is securing buy-in from most relevant people at actual institutions and ensuring the appropriate level of expertise necessary to identify and tag expenditures correctly (i.e. mitigation v. adaptation, private v. public, ODA versus climate finance, etc.). Inconsistent understanding of these categories can lead to chronic over- or under-representation of funds and make accounts difficult to reconcile. For example, creation of buffer zones on rivers that are exposed to frequent flooding or drip irrigation systems for crops in water stressed areas are traditionally seen as necessary infrastructure or agricultural investments, but they could also qualify as climate finance, depending on the source of funding and definitions. The German government's environmental ministry BMUB funded a GCF Readiness Programme, implemented by UNEP, UNDP and World Resources Institute, to build the capacities of nine developing countries to access GCF by shaping the processes, project proposals, tools and policies necessary for strategic climate interventions that combat climate change and build climate resilience (UNEP et al., 2018). The Green Climate Fund itself, as well as several other climate funds, have recognized this critical capacity gap and set up "readiness" funds to address them.

The second challenge is access to data. In the public sector, data is often siloed by ministry and there may not be a lot of opportunities for coordination or data exchange, making a cohesive climate finance report difficult. In the private sector, banks and companies are reluctant to disclose data between organizations if it is considered proprietary or part of an internal strategy.

To develop an improved dataset at international level, the UN, the World Bank, or OECD could be tasked to compile and analyze data from different sources on climate finance flows. One option is to establish a board with broad representation across countries to advise OECD, the UN or the World Bank to collect and analyze climate finance flow data from the various sources. Another possibility is for OECD to more systematically involve developing countries in its work on definitions and methods to track climate finance flows.

Box 7. Need for a uniform Monitoring, Reporting and Verification system (MRV).

India has reiterated the need to develop robust MRV at the level of UNFCCC in order to develop a common understanding of tracking climate finance flows and increase transparency. Little progress has taken place on the monitoring and reporting front through the recent UNFCCC guidelines, and the issues pertaining to verification of the reported data remain unaddressed. The key suggestions offered by India to the UNFCCC on the verification front include development of a verification format and creation of double entry book-keeping systems to overcome double counting (Ray, n.a.).

2.3 Attribution, impact reporting and verification

Climate finance is commonly reported by source (private donor, private investment, national level funding, municipal funding) or recipient. Attribution and reporting by donor can prove to be tricky when several nations are involved, such as in the case of multilateral climate funds and development banks. Additionally, funding can often pass through – and be combined with – many stakeholders, including national grants, private, foundations, banks and contractors. This only further obfuscates the financing trail. This issue highlights the need for one agency at the national level, focused on collecting and processing data on climate finance flows.

3 Developments in climate finance reporting

Regarding these methodological issues, some level of international standardization has evolved within the OECD and the UNDP. However, a lot of work remains to be done, not the least in terms of agreeing on a global framework and standardization of definition and metrics for tracking public and private climate finance. At COP24 in 2018 some progress was achieved, as indicated by the reporting format proposed by the President of COP24 (UNFCCC, 2018a), but in formal terms only a general decision on continuing the climate finance process was adopted (UNFCCC, 2018b).

3.1 Existing resources

Stakeholders like the Climate Policy Initiative, OECD and UNDP have conducted studies and developed tools that try to address these challenges.

Climate Policy Initiative (CPI). The Climate Policy Initiative has analyzed global climate finance data since 2010, confer Oliver et al. (2018). To estimate the annual financial flows directed towards climate change objectives, CPI had developed a comprehensive accounting methodology that establishes the definition of climate finance and a set scope of accounting (CPI, 2017). The scope of accounting defines the financial instruments taken into consideration for the review, check to avoid double counting and the information in available in databases like OECD-DAC (public finance) and BNEF (private finance). Limitations to availability and comparability of data reduce the usefulness of the stipulated climate finance flows.

OECD. Since 2013, the OECD has hosted a ‘Research Collaborative Tracking Private Climate Finance’, with the aim of improving and standardizing methods and efforts to estimate the effect of public interventions on private climate finance (OECD, 2017). This has been a useful process to share experiences across countries and explore how methods and data availability can be better coordinated and improved. So far, the process has produced an overarching framework, where key decision points for estimating publicly mobilized private finance are outlined, including a range of methodological options. For estimation of private finance mobilized from public interventions, various approaches have been taken. These include a cash-flow based approach (includes all public interventions that positively affect the cash flow of a project); a consultation based approach (based on the perception of individual respondents on the role of public interventions in catalyzing private finance); and an econometrics based approach (using mathematical and statistical techniques to estimate the relationship between public and private finance). Many issues remain, however, in part due to different situations and considerations of countries and public finance institutions. This OECD-led undertaking is funded by voluntary contributions from OECD members, and the interests of developing countries have not been directly represented.

The United Nations Development Program. The UNDP has developed three methodologies to identify past public and private climate finance flows and assess national climate finance needs: The Investment and Finance Flows (I&FF), the Climate-related Public Expenditure and Institutional Review (CPEIR), and the Private Climate Expenditure and Institutional Review (PCEIR).

As part of the I&FF methodology, countries assess expected costs for climate mitigation and adaptation measures against a baseline of current activities. This has helped them identify sector-specific investment requirements and create a financial needs roadmap.

The Climate-related Public Expenditure and Institutional Review (CPEIR) is a consultative process that reviews national climate change plans and policies and tags public expenditures across ministries to assess prior climate-related spending. The definition of climate change related expenditures is tailored for each country based on a consultative process that considers its national priorities. The tool is useful for national planning and budgeting, especially for identifying and tracking budget allocations that respond to climate change challenges. However, because the definition of climate finance is tailored to country needs, definitions and qualifying expenditures are not comparable between countries.

The Private Climate Expenditure and Institutional Review (PCEIR) is a third stream of work being carried out by UNDP to assist companies in tracking private climate expenditure. Several countries like Vietnam and Thailand have conducted the review and dealt with issues in their processes of accounting, the central issues being the difficulty in climate tagging of finance and collection of non-disclosure bound private investment data.

Box 8. Tagging climate change expenditure.

Countries are developing their own systems for tagging expenditures that are relevant to climate change, using methodologies developed by Multilateral Development Banks (MDB) and development organizations. For instance, in Nepal, programs or projects in which more than 50% of the budget is allocated for climate change-related activities are categorized as “highly relevant,” those with 20-50% are “relevant” to climate change, and those below 20% are considered “neutral”. In the Philippines, if a program is considered wholly climate change relevant, 100% of its budget is tagged as climate finance. If only a component of a program is climate change relevant, then only that portion is tagged as climate finance.

OECD has established a marker system for tagging ODA activities and have carried out some case studies on matching donor and recipient tagging systems (OECD, 2019a; OECD, 2019b).

Source: UNDP and IBP (2018).

4 Recommendations for improved tracking of climate finance

Based on our discussion of financial flows tracking under the Paris Agreement, we forward the following recommendations for improved tracking at national and international levels:

1. **More disclosure and standardization are needed (sections 1 and 2.1).**
More disclosure and standardization of climate finance flows data are beneficial, regarding domestic and foreign, public and private, bilateral and multilateral, and flows aimed at mitigation or adaptation. The requirements under Articles 9 and 13 of the Paris Agreement will facilitate this.
2. **More and better data (section 2.2).**
Parties could further substantiate their mandatory reporting with additional information. National governments should facilitate reporting by banks and investment companies on climate related investments.

India should explore and develop common processes for its domestic tracking of climate finance flows and establish an institution to coordinate national and sub-national actors, in order to efficiently and robustly report on climate finance flows mobilized and channeled in India.

3. **Impacts of climate finance flows (section 2.3).**
Assessing the efficiency and impacts of climate finance flows in terms of reduced greenhouse gas emissions and efficient adaptation to climate change impacts will become more important for investors and governments. Therefore, governments and organizations should work towards improved methods and procedures for measurement and disclosure of climate finance impacts.
4. **Improved international tracking of finance flows (section 3).**
International concordance on an international framework and standards for defining and accounting climate finance would be very helpful for further collaboration on climate finance between developed and developing countries. The negotiations of the rulebook for Articles 9 and 13 under the Paris Agreement will facilitate this process.

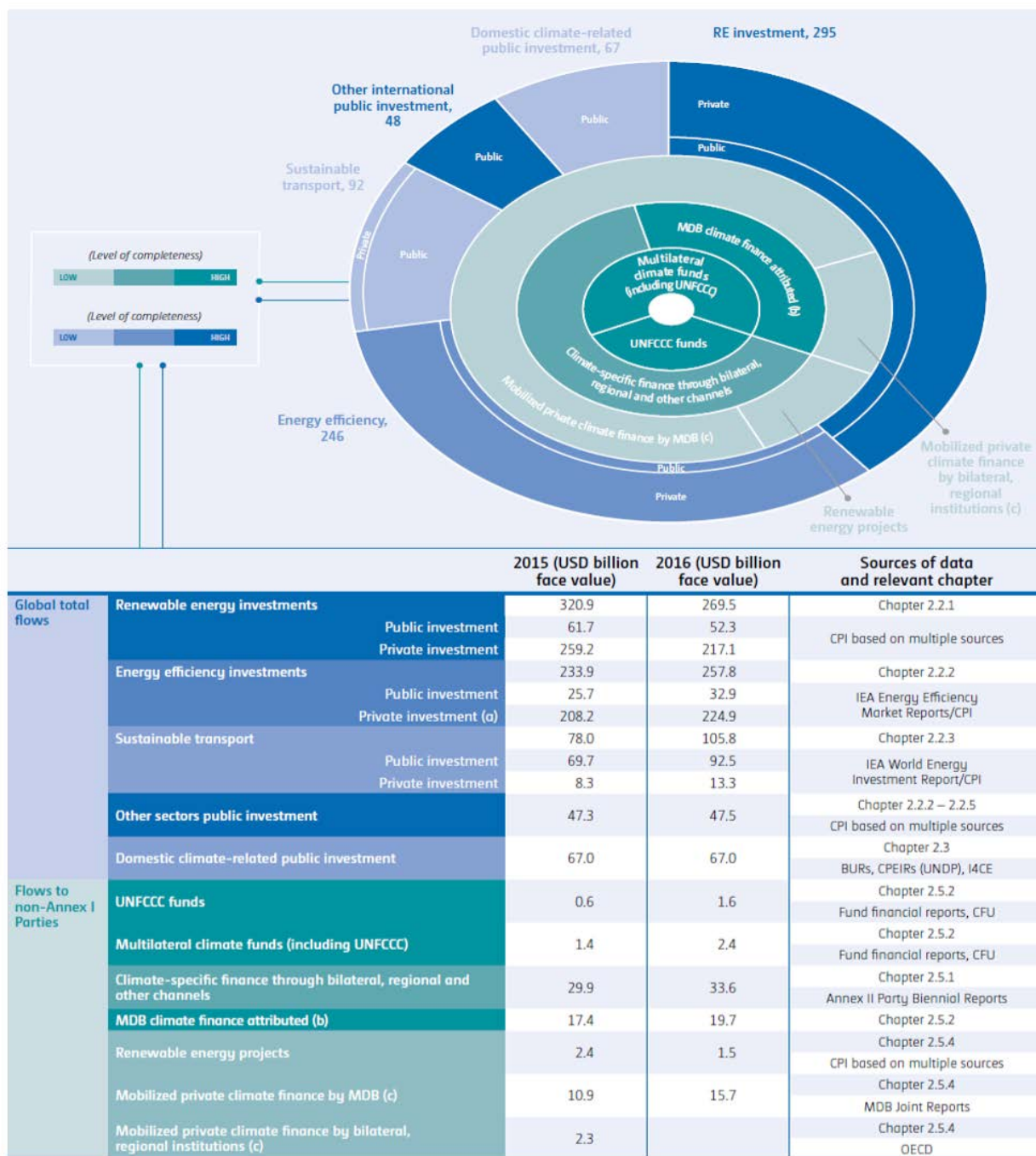
The UN, the World Bank, or OECD could be tasked to compile and analyze data from different sources on climate finance flows in order to develop an improved dataset. One option is to establish a board with broad representation across countries to advise OECD, the UN or the World Bank to collect and analyze

climate finance flow data from the various sources. Another possibility is for OECD to more systematically involve developing countries in its work on definitions and methods tracking climate finance flows.

ANNEX 1. Global climate finance flows 2015 and 2016.

Figure A1 shows the global picture of climate finance flows in 2015 and 2016, as compiled by UNFCCC. Total global flows are dominated by renewable energy, energy efficiency, and sustainable transport investments. Flows to developing countries are dominated by bilateral and regional channels, and Multilateral Development Banks (MDB), at a face value of 75 billion USD in 2016. The MDB flows are either direct finance or mobilized private finance.

Figure A1 Climate finance flows in the period 2015–2016 (Billions of United States dollars, annualized).



Abbreviations:

BEV = battery electric vehicle, BUR = biennial update report, CPEIR = climate public expenditure and institutional reviews, CPI = Climate Policy Initiative, IEA = International Energy Agency, I4CE = Institute for Climate Economics, MDB = Multilateral Development Bank, OECD = Organisation for Economic Co-operation and Development, UNDP = United Nations Development Programme.

(a) Value discounts transport energy efficiency estimates by 8.5% to account for overlap with electric vehicle estimates.

(b) From members of the OECD Development Assistance Committee (DAC), minus the Republic of Korea, to OECD-DAC recipients eligible for official development assistance. Refer to chapter 2.5.2 of the 2018 Biennial Assessment and Overview of Climate Finance Flows technical report for further explanation.

(c) Estimates include private co-financing with MDB finance.

Source: UNFCCC (2018c).

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