# IDFC Green Finance Mapping Report 2018

December 2018

international development finance club

Supported By:

CLIMATE POLICY INITIATIVE

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# 1. INTRODUCTION

Accelerating implementation of the Paris Agreement and advancing the Sustainable Development Goals requires greater mobilization and shifting of investments, public and private, towards sustainable development. To this end, the role of development financial institutions – international, multilateral, national and regional – is crucial.

The International Development Finance Club (IDFC), created in 2011, brings together 24 leading international, national and sub regional development banks from Africa, Asia, Europe, and Central and South America. At the One Planet Summit in Paris in December 2017, the IDFC, joined by the multilateral development banks, issued a joint statement on aligning their financial flows with the Paris Agreement. They committed to mobilize finance for climate action by:

1. Further embedding climate change considerations within their strategies and activities inspired by the five voluntary Principles for Mainstreaming Climate Action within Financial Institutions. Specific attention will be devoted to managing climate risk and to the integration of climate resilience and adaptation.
2. Redirecting financial flows in support of transitions towards low-carbon and climate resilient sustainable development.
3. Catalyzing investments to climate change by mobilizing additional private capital and to blend their financing most effectively.
4. Supporting the development of enabling policy and regulatory environments, at both national and sub-national levels.

This report is part of the IDFC's commitments undertaken in its Joint Statement to improve the quality, robustness and consistency of climate finance tracking and reporting, and offers a transparent view of the activities of IDFC Members, with the aim of identifying and categorizing financial flows from IDFC Members to green finance projects. Such consistent and transparent monitoring, tracking and reporting of climate is critical for IDFC to ensure evidence-based decision making to effectively implement the Paris Agreement.

This report presents the applied finance tracking methodology and key outcomes for IDFC's green finance commitments in 2017. Comparative data for 2015 and 2016 have been shown where relevant. The structure of this year's green mapping report, prepared with the support of Climate Policy Initiative, is as follows:

- Section 2 provides an overview of the methodology used for the green finance mapping exercise.
- Section 3 discusses the climate finances flows by region of origin, instruments, region of recipient followed by breakdown by categories.
- Section 4 contains the conclusions and recommendations.

### IDFC Members and their recent achievements

IDFC is a platform for advocacy, mobilization and action for low-carbon, climate resilient sustainable development, connecting local and international, as well as public and private finance and stakeholders. IDFC members have a combined portfolio of US $4 trillion in assets, and with commitments above $850 billion per year. IDFC continue to expand its diverse membership base with addition of two new members in 2018, namely Italy's Cassa Depositi e Prestiti (CDP) and the International Investment Bank (IIB). Provided below is a selection of IDFC member institutions achievements since 2017.

- AFD's climate finance mobilized an additional 33% or €1.32 billion from private sources in 2017 compared to 2016. The share of private climate finance flowing to Africa also increased to 32%.
- BNDES issued a $1billion green bond in the international market. The funds raised were invested in wind and solar energy projects.
- CABEI dedicated 55% of financing to climate, an increase of 37% compared to the climate finance commitments in 2016.
- DBSA is currently working with the government of South Africa to develop policy and capacity incentives for mainstreaming biodiversity and ecosystems values into national, regional and local development policy and finance.
- JICA started the construction of a 'Pacific Climate Change Centre' in Samoa, which will be the Pacific regional center of excellence for climate change information, research and innovation.
- ICD supported Jordan's goal of 10% of electricity from renewables by 2020 by financing the Shobak Wind Project, a 45MW independent power project.
- KfW provided $1billion for adaptation and 55% of the total new commitments of KfW Development Bank are attributable to projects relating to climate and environmental protection.
- CAF has undertaken the development of climate change vulnerability indexes, with a particular focus on cities, such as Guayaquil (Ecuador), Arequipa (Peru), and Sao Paulo (Brazil).

**Figure 1** | IDFC Members and their location




# 2. METHODOLOGY

**The mapping exercise is a three-level process involving survey submissions by IDFC members, verifying the reliability and accuracy of the survey results and presenting the findings in an aggregate level representing the IDFC as a group and/or at the organization level. The IDFC survey aligns with the MDB – IDFC Common Principles for Climate Mitigation Finance Tracking and MDB-IDFC Common Principles for Climate Change Adaptation Finance Tracking, agreed in 2015. Please refer to Appendix B for further guidance on the applied methodology.**

This year's report aims to enhance the four vital components of defining, tracking and reporting climate finance:

1. **Transparency:** to adopt a standardized and publicly available financial reporting format with common definitions and methodologies to quantify climate finance. The MDBs-IDFC Common Principles methodology is publicly available.
2. **Comparability:** to encourage a universal methodology/approach that institutions can use to assess and compare mobilized climate finance.
3. **Consistency:** to promote a yearly accounting requirement for financial institutions on climate finance.
4. **Flexibility:** to allow for a practical, adaptable, and coordinated universal reporting system to track climate finance.

Please refer to Appendix B for further guidance on the applied methodology.

A desk-based data collection approach was carried out using a standardized template. Detailed guidelines were provided to IDFC members on the categorization of projects and use of this template. Additional data was also requested to further disaggregate mitigation measures and to capture a more detailed picture of mitigation, adaptation, and other environment finance by geography, instrument, and OECD membership. IDFC members were asked to use the definitions and eligibility criteria guidelines provided (defined in Appendices B and C), taking the MDBs IDFC Common Principles for Climate Mitigation Finance Tracking and MDB-IDFC Common Principles for Climate Change Adaptation Finance Tracking from 2015 into account.

For measuring private sector mobilization, all forms of mobilized finance, directly or indirectly, through private sector entities and/or for projects that are more than 50% owned by private sector were taken into account.

If there were any deviations from the guidelines, organizations were encouraged to note and report them. Institutions could use a "miscellaneous and other" category for projects not referenced in any of the four major categories. Finally, the numbers across figures in this report may be slightly different due to rounding errors and some small reporting errors, such as double counting, by a couple of IDFC institutions. The institutions provided their data in U.S. dollars. If required, they were asked to use the average exchange rates from local currencies to U.S. dollars from the World Bank. As stated in the Common Principles, any uncertainty is overcome by following the principle of conservativeness, where climate finance is preferred to be under-reported rather than-over reported.

Eighteen surveys were collected from IDFC members in 2017,[1] compared to twenty surveys collected in 2015 and 2016 . Differences in reporting institutions, as well as reporting coverage across all green finance activities, may vary from year to year.

**New elements introduced in the 2017 Green Finance Mapping Exercise**

**1. Organization-level reporting:** IDFC members have agreed to publish organization level data for the first time, rather than reporting on aggregate data for the group. These numbers have been reported in Section 3.

**2. Capturing more granular data:** An attempt has been made to gather more detailed data on investments in different renewable technologies. Respondents were asked to provide a breakdown of their renewable commitments by different technologies; onshore wind, offshore wind, solar PV power, large/small hydro, biomass, geothermal, ocean power, renewable energy plant retrofits and other technologies. All members reporting commitments to electricity generation provided the breakdown by technologies.

[1] In 2017, reporting members included AFD, Bancoldex, BCIE-CABEI, BE, BNDES, BSTDB, CAF, CDB, CDG, DBSA, HBOR, ICD, JICA, KDB, KfW, NAFIN, TSKB and VEB.

# 3. GREEN FINANCE MAPPING OUTCOMES

**In 2017, IDFC members committed $220 billion in green finance, $196 billion of which was climate finance. This represents a $46 billion increase in green finance over 2016. Within climate finance, green energy and mitigation of GHGs was the largest category, representing 84% of the total green finance commitments, or $184 billion, compared to $153 billion from 2016. Adaptation finance doubled in absolute terms from 2016 to $10 billion, while projects with both mitigation and adaptation remained at approximately $1.5 billion. Finance for other environmental objectives increased by $10 billion to reach $24 billion in 2017.**

## 3.1 GREEN FINANCE COMMITMENTS

IDFC members contributed $220 billion in green finance commitments in 2017 compared to $173 in 2016, an increase of 27%. Total climate finance commitments stood at $196 billion or 89% of the total green finance commitments in 2017. Within the climate finance category, the largest share went to projects focused on green energy and mitigation of GHGs with $184 billion commitments (or 84% of total green finance), particularly in renewables-based power generation, low-carbon urban transport and agriculture, and forestry and land use.

Financing commitments for adaptation to climate change doubled in 2017 to reach $ 10 billion. While these figures remain significantly low in comparison to mitigation and other environmental objective financing, they represent the adaptation-specific components of projects rather than the full value.

Finance for projects with elements of both mitigation and adaptation received about $2 billion in commitments, compared to $1 billion in 2016.

Finance for projects with other environmental objectives was small with commitments of $24 billion. However, this represented an increase of 75% (or $10 billion) from 2016 commitments.

**Figure 2** | Breakdown of IDFC New Green Finance Commitments in 2015, 2016 and 2017

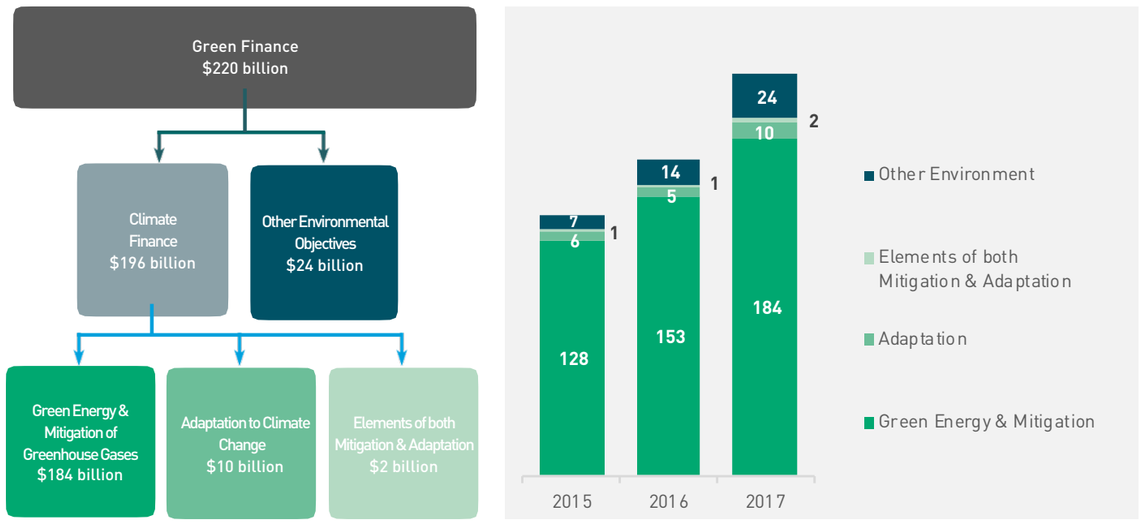





Table 1, for the first time in the Green Financing Mapping Report series, provides an institutional level breakdown of green finance. All the institutions reported commitments to mitigation projects and 10 institutions financed adaptation projects.

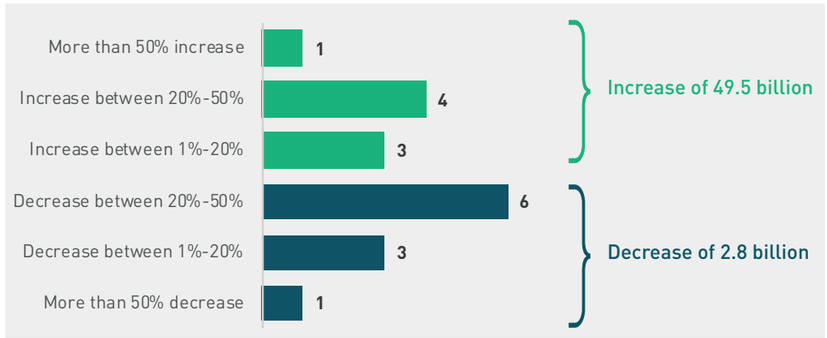
Only eight members, out of the 18 who reported in both 2016 and 2017, increased their green finance commitments, adding a combined $49.5 billion.
One member almost doubled its commitments in 2017, while four others reported an increase between 20-50% in their green finance commitments between 2016 and 2017 (Figure 3).

However, this increase in green commitments was offset by eight members that reported a total reduction in commitments of $2.8 billion.

**Table 1** | Total Green Finance Commitments in 2017 by IDFC Members ($, millions)

| LOCATION OF IDFC MEMBER | REPORTING MEMBER INSTITUTIONS | GREEN ENERGY AND MITIGATION OF GHGs | ADAPTATION | BOTH MITIGATION AND ADAPTATION | OTHER | TOTAL GREEN COMMITMENTS |
|---|---|---|---|---|---|---|
| **Europe** | KfW | 33,648 | 641 | 842 | 1,682 | 36,811 |
| | AFD | 3,159 | 847 | 596 | 993 | 5,595 |
| | VEB | 768 | | | | 768 |
| | TSKB | 544 | | | 60 | 604 |
| | HBOR | 68 | 4 | | 5 | 77 |
| | BSTDB | 30 | | | 11 | 41 |
| **Central & South America** | BNDES | 4,258 | 19 | 75 | 232 | 4,585 |
| | CAF | 1,787 | 1,647 | | 135 | 3,568 |
| | BCIE/CABEI | 546 | 170 | | 343 | 1,059 |
| | BE | 545 | | | | 545 |
| | NAFIN | 514 | | | | 514 |
| | Bancoldex S.A. | 14 | | | 4 | 18 |
| **Africa** | DBSA | 136 | 33 | | 14 | 183 |
| | CDG | 2 | 10 | | | 12 |
| **Asia & MENA** | CDB | 134,064 | 3,175 | | 18,076 | 155,315 |
| | JICA | 3,693 | 3,130 | 112 | 2,577 | 9,511 |
| | KDB | 421 | | | | 421 |
| | ICD | 104 | | | | 104 |
| **Total** | **18 reporting institutions** | **184,376** | **9,657** | **1,550** | **24,132** | **219,730** |

**Figure 3** | Changes in Green Commitments of IDFC Members between 2016 and 2017 (number of members)



## 3.2 GREEN FINANCE COMMITMENTS FROM INSTITUTIONS BASED IN OECD AND NON-OECD COUNTRIES

**The vast majority of green finance was committed to projects in the institution's home country, although this was more pronounced in non-OECD countries.**

In 2017, 18 IDFC members responded to surveys, out of which 10 were non-OECD based institutions and 8 were OECD institutions. Three-fourths of the total green finance, or $166 billion (Figure 4), was committed by institutions in non-OECD countries, a significant increase of 41% from 2016 flows of $118 billion. Out of these total flows by non-OECD member institutions, 96%, or $159 billion, were in the institution's home country (Figure 4).

Commitments from OECD-based institutions stood at $54 billion in 2017, similar to 2016 levels. Out of these, $32 billion, or 59%, were in projects in the home country of member institutions, and $20 billion, or 37%, to projects in non-OECD countries.

Projects in non-OECD countries received a total of $185 billion, or 85% of the total green finance, an increase of $49 billion from 2016.

The amounts of international financing to non-OECD countries has stayed at similar levels between 2015 and 2017. Non-OECD countries received an average of $27 billion in the same period wherein flows from OECD institutions and non-OECD institutions stood at $20 billion and $7 billion, respectively (Figure 5).

Figure 6 shows the domestic and international flows breakdown by green finance category. Mitigation accounted for 96% ($31 billion) of the domestic financing flows into OECD countries, same as in 2016 and

**Figure 5** | Green Finance Commitments from OECD and Non-OECD Countries in 2015, 2016 and 2017 ($ billion)

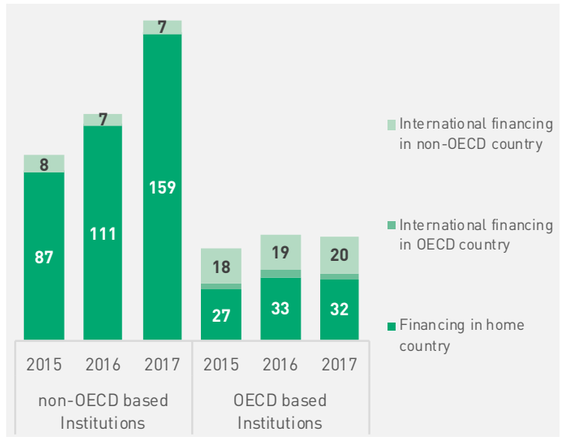



**Figure 4** | Green Finance Flows from OECD and Non-OECD IDFC Members by Category in 2017 ($ billion)

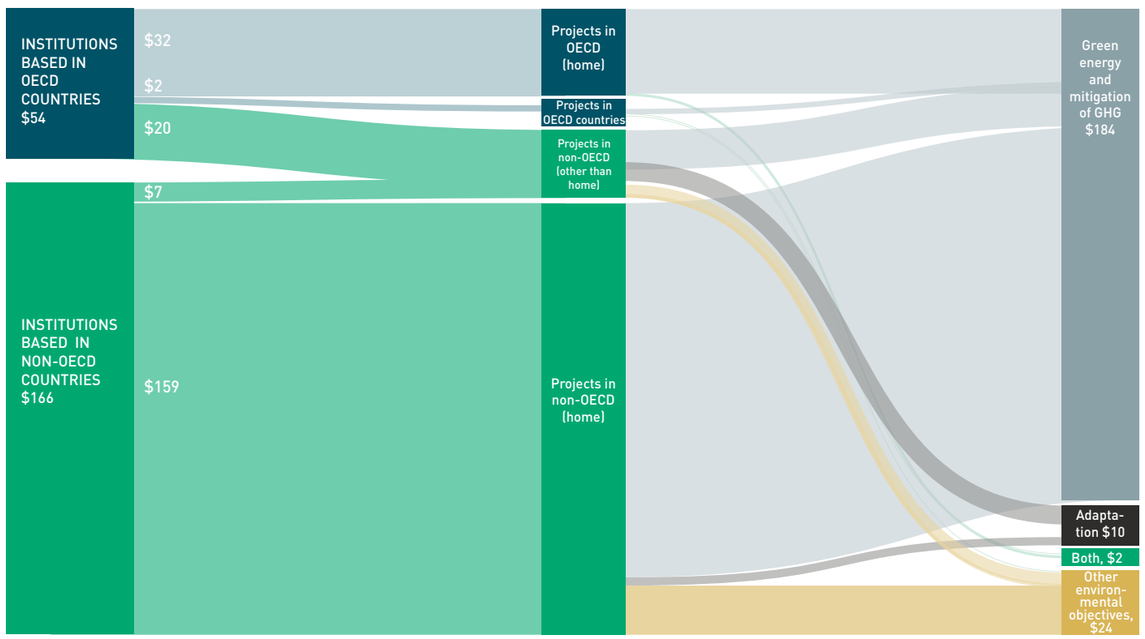
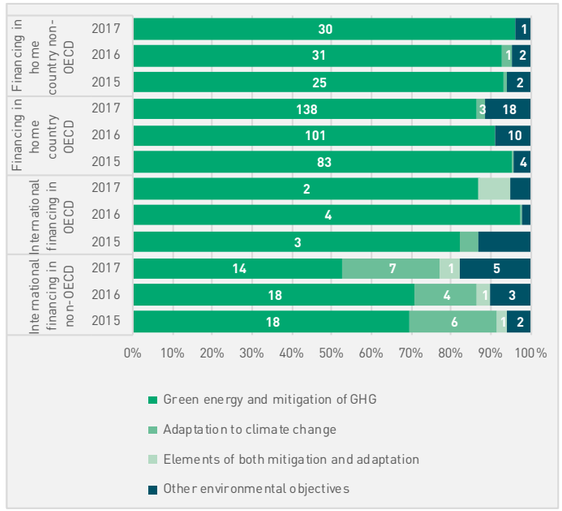





**Figure 6** | Proportion of Domestic and International Green Financing Commitments by Category in 2015, 2016 and 2017 **($ billion)**

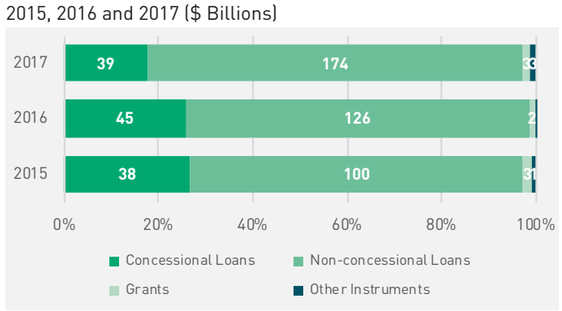



87% ($137 billion) of the domestic financing flows in non-OECD countries, up from $101 billion. 67% (or $7 billion) of adaptation flows in non-OECD were financed by international sources, while the remaining $3 billion were domestic flows.

## 3.3 GREEN FINANCE COMMITMENTS BY INSTRUMENT TYPE

In 2017, loans accounted for $213 billion, or 97% of green finance commitments (Figure 7), with concessional and non-concessional loans accounting for $39 billion and $174 billion, respectively. The amount of non-concessional loans increased by $48 billion, increasing its share from 73% to 79% in 2017. On the other hand, concessional loans declined by $6 billion, decreasing its share from 26% in 2016 to 18% in 2017.

**Figure 7** | Green Finance Commitments by Instrument Type in 2015, 2016 and 2017 ($ Billions)




The use of grants increased to $3 billion in 2017, meaning it has been able to maintain a 2% share of green finance flows in the period between 2015 and 2017. Other instruments, such as equity and guarantees, have accounted for less than 1% of green finance flows each year.

Figure 8 shows the distribution of green financing received by instrument type between 2015 and 2017.

Projects in the mitigation category saw a proportional increase in the use of non-concessional loans, accounting for 81% in 2017 from 73% in 2016. The share of grants and concessional loans received for adaptation sectors have come down by 5% in 2017 to 8% and 35%, respectively, although this is largely due to the increase in the total amounts of adaptation finance reported. 10% of the adaptation finance was financed by other instruments, like equity. Further, a majority of projects with elements of both mitigation and adaption remain financed by grants (27%) and non-concessional loans (47%) in 2017, compared to 7% and 85% in 2016, respectively. Financing for the other environment objectives projects remains similar to 2016, with 83% being financed by non-concessional loans.

## 3.4 GREEN FINANCE COMMITMENTS BY TARGET REGION

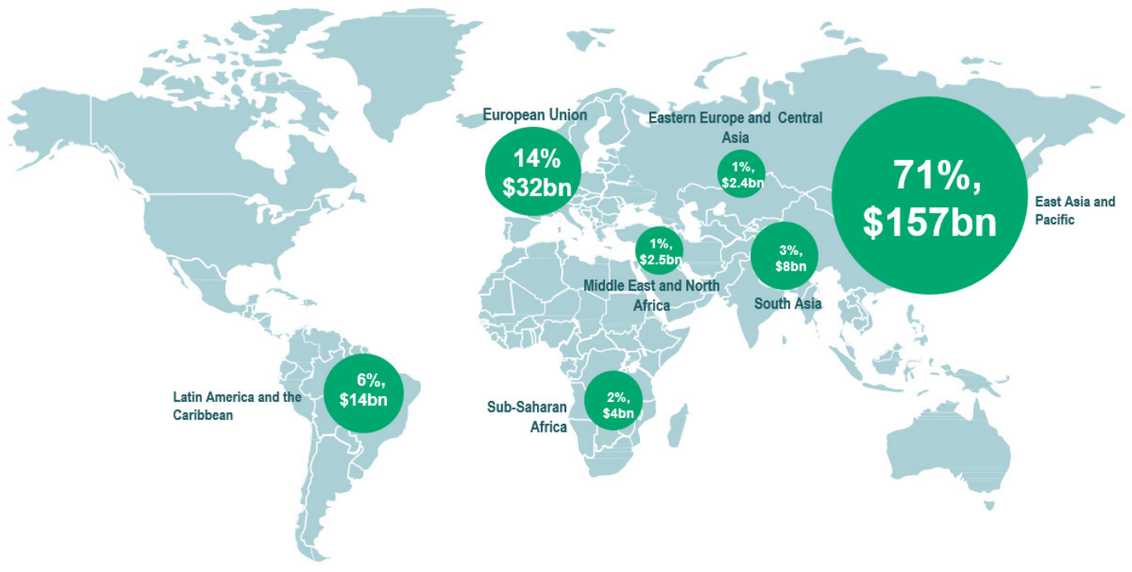
Figure 9 depicts the distribution of green finance by region. The largest share of finance went to the East Asia and Pacific region with 72% (or $157 billion), an increase from 65% ($112 billion) in 2016. The second most popular destination was the European Union, receiving 14% of the total green finance, a decline of 5% compared to 2016, but remains same in absolute terms at $32 billion. This was followed by Latin America and the Caribbean (6%) reporting a $3 billion increase compared to 2016. Flows to South Asia (3%) and Sub-Saharan Africa (2%), the other significant destinations of financing, remained consistent in 2016 and 2017.

Mitigation flows were mainly concentrated in the East Asia and Pacific region, receiving 73% of the total mitigation flows ($134 billion) in 2017, compared to 66% ($101 billion) in 2016. Unlike 2016, when the East Asia and Pacific region reported no adaption financing, it reported $5 billion in 2017. Adaptation flows in Latin

**Figure 8** | Green Finance Commitments by Instrument and Category for 2015, 2016 and 2017 (Percent)




**Figure 9** | Green Finance Commitments by Target Region in 2017 (Percent)






America and the Caribbean ($2 billion), and in South Asia and Sub-Saharan Africa ($1 billion each), were the same as in 2016. 78% of commitments to other environmental objectives were in the East Asia and Pacific region, an increase of 71% from 2016.

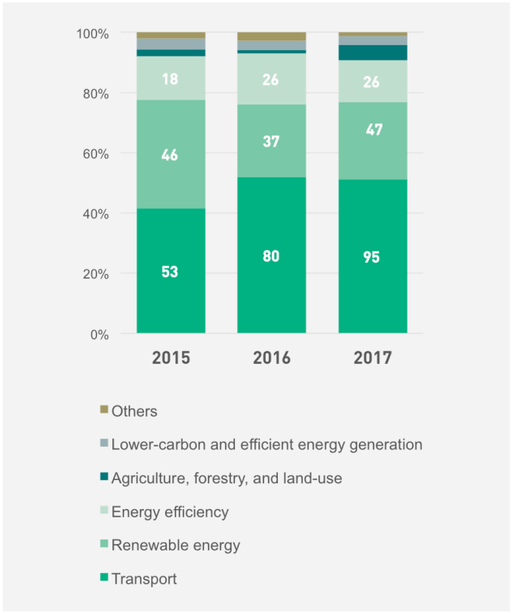
## 3.5 GREEN FINANCE COMMITMENTS TO GREEN ENERGY AND MITIGATION

Commitments to green energy and GHG mitigation in 2017 stood at $184 billion, an increase of $31 billion from 2016. Within mitigation, the share of transport remained the same as in 2016 at 51% of the total mitigation flows, or $95 billion (Figure 10). The other major subcategory was renewable energy (26%) which received an additional flow of $10 billion in 2017 to reach $47 billion. The next largest gain was in agriculture, forestry, and land use, which increased to $9 billion, compared to $2 billion in 2016. Flows to energy efficiency (14%) and low-carbon and efficient energy generation (3%) stood at $26 billion and $5 billion, respectively.

Figure 11 depicts the further segmentation of the top three mitigation sub-categories. In transportation, urban modal transportation accounted for 97% of the flows, or $91 billion, an increase of $15 billion from 2016.

Within the renewable energy category, electricity generation made up the largest portion with 90%, or $43 billion, an increase of 76% from 2016. Within energy efficiency, the flows to various categories have

**Figure 10 |** Share of Green Finance Commitments to Green Energy and Mitigation of GHG in 2015, 2016 and 2017 (Percent and $ billion)




remained similar to 2016 in absolute terms. New commercial, public and residential green buildings accounted for the largest share with 45% in 2016, followed by energy efficiency in existing facilities (29%), and then existing commercial, public, and residential buildings (19%).

This year IDFC members also reported the breakdown of renewable energy by different technologies. Large

**Figure 11 |** Disaggregation of the Most Significant Subcategories of Green Energy and Mitigation for 2015, 2016 and 2017 (Percent and $ billion)

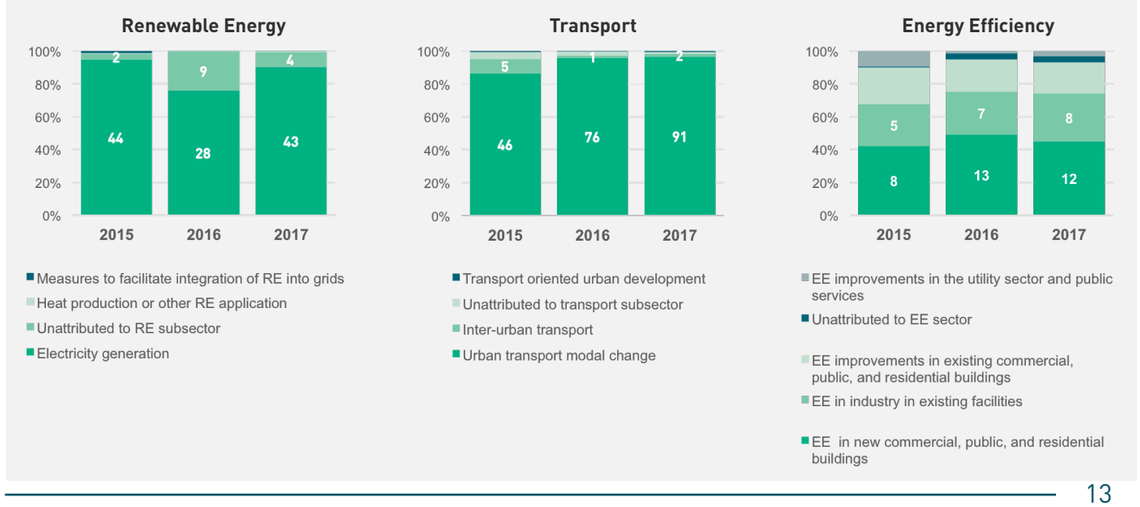
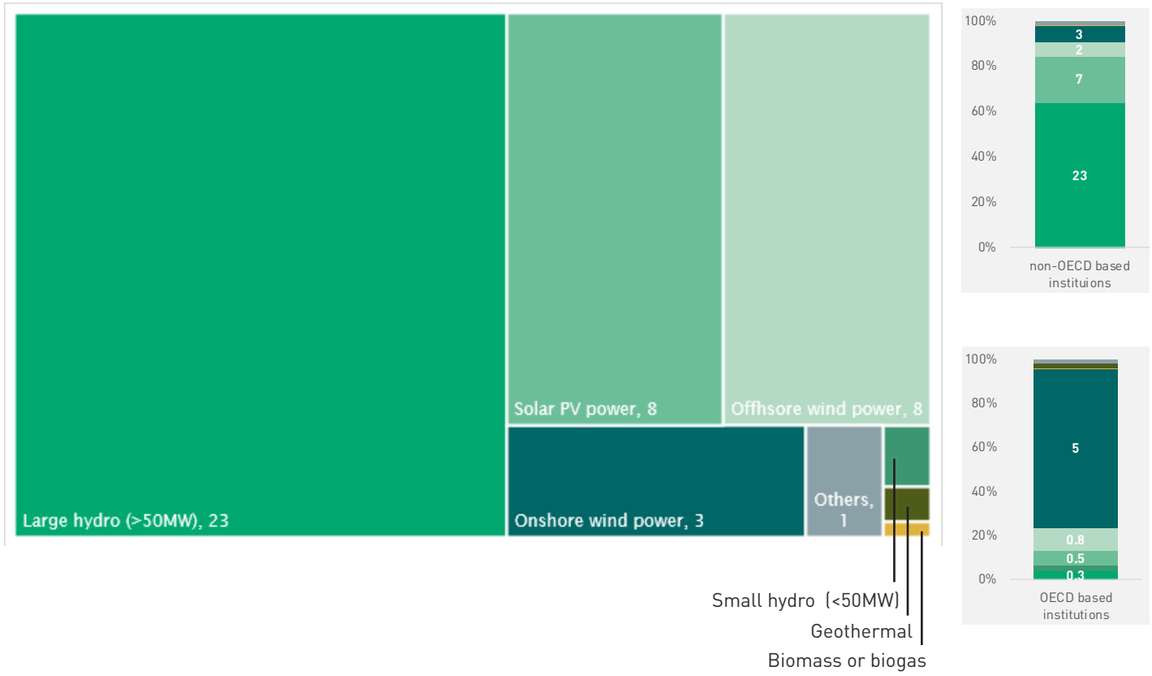


**Figure 12 |** Commitments to Renewable Energy Technologies by Technologies and OECD and non-OECD based Institutions for 2017 ($ billion)



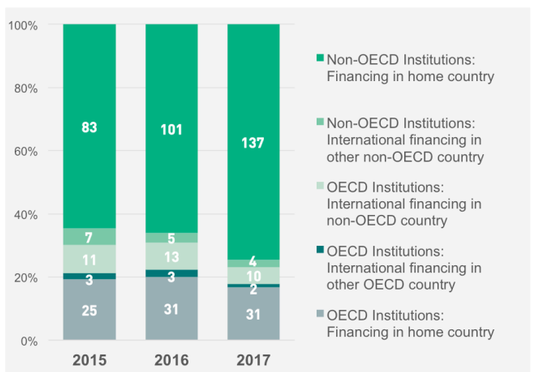

hydro was the largest category, accounting for 54% of total renewable energy generation financing. This was followed by off-shore wind power and solar PV, accounting for 18%, or $8 billion each (Figure 12).

Approximately 64% of the commitments to renewable energy generation, by the institutions based out of the non-OECD countries, were in large hydro projects (Figure 12). The second largest category for non-OECD institutions was in off-shore wind power, accounting for 20% of the commitments in renewable energy generation. This was in stark contrast with the OECD-based institutions, where 73% of the renewable energy generation commitments were in large-scale solar utility projects.

Figure 13 shows the international and domestic flows of commitments for green energy and mitigation of GHGs. IDFC members in OECD countries provided $43 billion, or 23% of total mitigation finance, as compared to $47 billion (31%) in 2016. Financing for mitigation from IDFC members based out of non-OECD countries stood at $142 billion, an increase of $36 billion compared to 2016.

OECD contributions to home countries were $31 billion, same as in 2016. While financing to home countries by non-OECD instituions increased from $101 billion in 2016 to $137 billion in 2017. Commitments from OECD-based institutions and non-OECD based instiituions to non-OECD countries declined by $3 billion and $1 billion, respectively.

**Figure 13 |** Commitments to Green Energy and Mitigation of GHGs from IDFC Members in 2016 ($ Billion)






## 3.6 GREEN FINANCE COMMITMENTS TO ADAPTATION TO CLIMATE CHANGE

Defining and identifying adaptation finance continues to pose challenges for multilateral development banks and IDFC member institutions, as it can vary by country and institution and often entails value judgement calls by those reporting. IDFC members have adopted the Common Principles for Adaptation Finance tracking defined in cooperation with MDBs, but there is still room for standardization and common understanding of adaptation-related terms and methodologies. In this context, 10 reporting banks have applied the principle of conservativeness, where climate finance is preferred to be under-reported rather than over-reported.

**Finance commitments for adaptation to climate change doubled in absolute terms from 2016 to $10 billion.** Water preservation accounted for the largest share at 58% (up from 35% in 2016), an increase of $4 billion compared to 2016 (Figure 14). This was followed by other disaster risk reduction activities, such as early-warning systems and disease monitoring, which doubled in 2017 to $2 billion. The flows to other categories has remained broadly the same in 2017, in absolute terms.

Figure 15 shows the international and domestic flows to adaptation. Financing from OECD-based institutions to adaptation commitments was $4.6 billion in 2017, compared to $3.7 billion in 2016, all of which was directed to non-OECD countries. The non-OECD based institutions reported a $4 billion increase in 2017 to reach $5.1 billion. Non-OECD institution investments in other non-OECD countries grew by $800 million to $1.9 billion. The variations in reported adaptation finance in the home countries of both OECD and non-OECD-based institutions over the years illustrates the challenge to develop more harmonized understanding on tracking methodologies.

**Figure 14 |** Share of Green Finance Commitments to Adaptation to Climate Change in 2016 (Percent and $ billions)

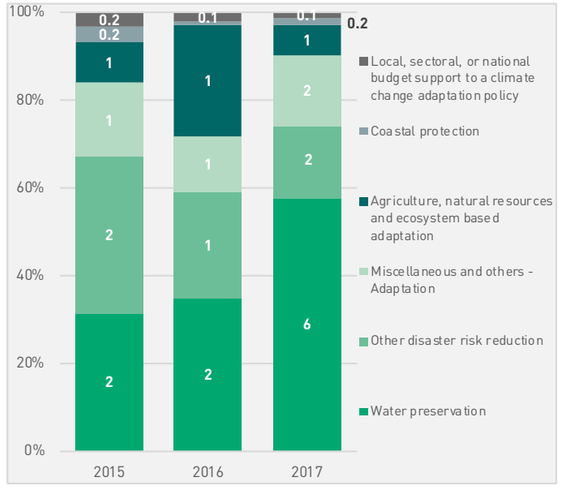



**Figure 15 |** Commitments to Adaptation to Climate Change from IDFC Members ($ billion)

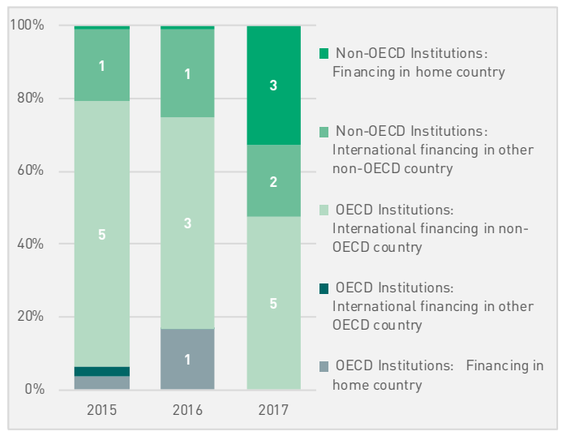
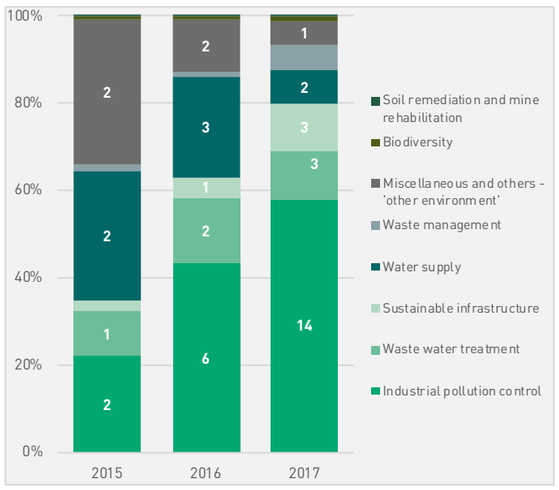



**Figure 16 |** Share of Green Finance Commitments to Other Environmental Objectives in 2015, 2016 and 2017 (Percent and $ billion)



## 3.7 GREEN FINANCE COMMITMENTS TO OTHER ENVIRONMENTAL OBJECTIVES

**Finance for other environmental objectives reached $24 billion in 2017, an increase of $10 billion from 2016.** The largest increase in financial flows, $8 billion, was in the industrial pollution control sub-category accounting for 58% of total (Figure 16). Waste water treatment and sustainable infrastructure stood at $3 billion each, reporting an increase of $1 billion and $2 billion, respectively. Water supply projects reported the biggest decline of 15%, or $ 1 billion. Waste management increased from less than $150 million to $1 billion in 2017. Biodiversity and soil remediation remain relatively small allocations of overall environmental flows.

Figure 17 shows the international and domestic flows that went to other environmental objectives. In total, $5.3 billion ($3.4 billion in 2016) was committed by OECD-based institutions with 75% of this directed to projects in non-OECD countries. These flows to projects in non-OECD countries represented more than double that in 2016.

Financing to other environmental objectives from non-OECD based institutions in their home country also doubled to $18 billion in 2017, while flows to other non-OECD countries remained at $700 million.

**Figure 17 |** International and Domestic Financing to Other Environmental Objective ($ billion)

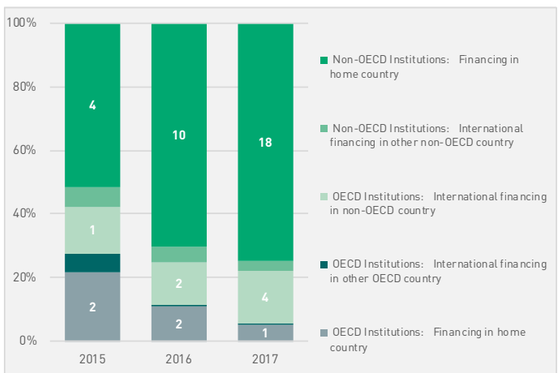
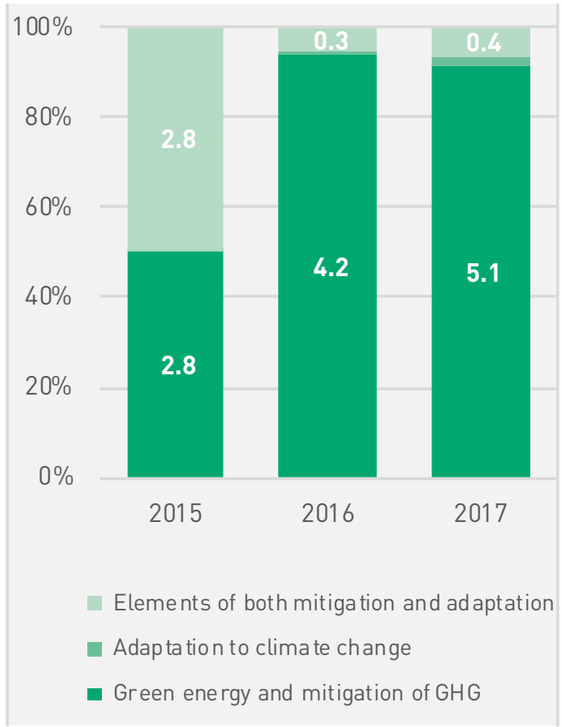



**Figure 18 |** Private sector financing in 2015, 2016 and 2017 by Category ($ Billion and Percent)




## 3.8 MOBILIZED PRIVATE FINANCE

IDFC members have been tracking mobilized private sector finance since 2014, however, reporting from member institutions remains limited. This is primarily due to a lack of common understanding on what constitutes mobilized private finance, including differences in attribution methodologies.

In 2017, only 10 institutions reported mobilized finance, totaling $6.2 billion in 2017, compared to $4.5 billion in 2016, with nine-member institutions reporting. The corresponding figures for 2015 were $5.6 billion. 91% of mobilized private investments went to green energy and mitigation as compared to 94% in 2016. Private financing for projects with both mitigation and adaptation benefits remained at $400 million. Mobilized private finance in adaptation remains negligible at around 2% in 2017, indicating the need for greater targeting of private financing in adaptation.



# 4. CONCLUSIONS AND RECOMMENDATIONS

## 4.1 CONCLUSIONS

**IDFC members committed $220 billion in green finance, an increase of 27% of their total new commitments, on average, in 2017.** The corresponding figure for green financing in 2016 was $173 billion, an increase of $46 billion. The 2017 figures are based on 18 surveys from IDFC's 23 members. The 2015 and 2016 figures are based on 20 surveys, wherein the composition of the members is different, and the degree of sector coverage varies from institution to institution.

**Total climate finance commitments stood at $196 billion, or 89% of the total green finance commitments in 2017.** The largest share of climate finance was accounted by green energy and mitigation of GHGs which was $184 billion ($153 in 2016), advanced by domestic investments in renewables-based power generation, low-carbon urban transport and agriculture, and forestry and land use in China.

**Adaptation financing to climate change commitments doubled to reach $10 billion in 2017.** However, these figures remain significantly low in comparison to other categories partly due to the lack of harmonization and common understanding of climate adaptation-related attribution methodologies. Finance for projects with elements of both mitigation and adaptation received $2 billion in 2017. Finance for other environmental objectives was small, relative to climate finance, with commitments of only $24 billion, a $10 billion increase from 2016 figures.

**Institutions based in non-OECD countries contributed $166 billion, or 75% of the green finance commitments, an increase of $48 billion.** Commitments from OECD-based institutions were almost the same in 2017 as in 2016, at $ 54 billion. The majority of green finance from OECD ($32 billion) and non-OECD ($159 billion) based institutions went to financing projects in the institutions home country. Projects in non-OECD countries received $185 billion, or 85% of the total green finance commitments from all IDFC members, an increase of $49 billion. Magnitude and trends in international financing in non-OECD countries has stayed similar to 2018, averaging $27 billion, flowing mainly from OECD-based institutions ($20 billion).

**Loans continue to provide more than 97% of green finance commitments.** The share of concessional loans has declined from 26% in 2016 to 18% (or $39 billion) in 2017, while non-concessional loans increased from 73% to 79% ($174 billion). Grants averaged $3 billion, or 2% of the green finance flows, in 2016 and 2017, while other instruments such as equity and guarantees stood at under 1%.

**The largest share of finance went to the East Asia and Pacific region with 72%, or $157 billion** (65% in 2016), given two Asia-based institutions accounted for 67% of the total green commitments and 73% of the total financing directed at the institution's home country. Flows to the European Union (14%) remained the same in absolute terms, at $32 billion while Latin America and the Caribbean (6%) received $3 billion more in 2017. The share of South Asia (3%) and Sub-Saharan Africa (2%) remained same as in 2016.

**Within mitigation, transport (51%), renewable energy (26%), and agriculture, forestry and land use (5%) saw the largest increases,** receiving additional flows of $15 billion, $10 billion and, $7 billion in 2017, respectively. **Within adaptation, water preservation (58%) increased by $4 billion,** followed by a 1 billion increase in other disaster risk reduction projects (16%). **For other environmental financing, industrial pollution control (43%) witnessed a $8 billion increase in 2017.**

Only 10 institutions reported mobilized private-sector finance in 2017, totaling $6.2 billion, compared to 4.5 billion in 2016. 91%, or $5.1 billion, of these private investments were to green energy and mitigation.

## 4.2 RECOMMENDATIONS

**Gaps in existing reporting mechanisms should be identified to enhance transparency, consistency, and comparability of green finance commitments.** There is a need for improvements in data tracking by identifying gaps in mapping exercise across reporting members. In fact, for the first time in this report series, the commitments of individual members are disclosed. However, the number of institutions responding to the survey decreased from 20 to 18 in 2017, compared to

2015 and 2016. Issues some IDFC members encounter include a lack of resources dedicated to collecting data, inadequate reporting systems, lack of common knowledge, confidentiality issues, and non-availability of data. This lack of systematic data often creates issues for comparability and prevents meaningful year on year comparisons. Several actions could help IDFC in improving their green finance mapping exercise:

- Support to non-reporting members, including ad-hoc specific advice and guidance on green definitions and interpreting internal systems. This could be accomplished by conducting regular workshops or inter-regional forums with member institutions and updating them regarding the evolving definitions and methodologies in the green finance space.
- Improved coverage on adaptation finance and resilience, and more granular data on the type of technologies under renewable energy generation, energy efficiency, and agriculture.
- Conducting different kinds of cooperation amongst the IDFC members under the Cooperation for Development (CfD), including knowledge sharing sessions, capacity building activities, and adopting regional or national best practices to different countries witnessing similar issues.

**There is a need to better estimate, track, and report private finance efforts to catalyze private investments which are aligned with climate change objectives.** Estimating private finance mobilized is marred with definitional issues, including agreement on its definition, scope, and methodologies, including measuring the direct and indirect effect of these public interventions.  Lack of any harmonized methodology for estimation and systematic reporting has resulted in very limited information on the private finance mobilized by IDFC members.

The MDB Taskforce on Private Investment Mobilization for tracking the private share of climate co-finance has developed a methodology for estimating and tacking private finance mobilized by individual MDBs. This has been adopted by the MDBs, which have started reporting on climate co-financing flows since 2015. To ensure greater private investments in the climate-related investments, we recommend adapting the MDB's Private Investment Mobilization framework to improve tracking of private finance mobilization by IDFC members to better identify the volume and strategic direction of achieving scale.

This will further encourage IDFC members to diversify, innovate, and enhance their lending mechanisms to mobilize private capital for investment. For instance, assessing the role of successful green and social bonds issuances by IDFC members in supporting private finance scale-up into new green finance regions and sectors, as well as the activities supporting local commercial financing institutions in accessing the green bond market.

**There needs to be more capacity to adopt and refine methodologies for adaptation and resilience finance tracking.** Defining and identifying adaptation finance is particularly challenging as adaptation investment estimates often rely on expert judgement using criteria and guidelines adopted by each institution that reports on adaptation spending. Thus, there remains scope for standardization and development of common approaches, in particular in the area of adaptation and resilience. Also, capturing the mobilization of private investment in adaptation is a significant gap in understanding how such finance may be scaled up. A few proposed focus areas include:

- Pilot new methodological developments in adaption finance metrics to identify the best fit for the IDFC members. For instance, widening the scope of adaptation metrics to look at, not only inputs, but also outputs and outcomes.
- Continue to encourage and assist its members to adopt and report on the MDB-IDFC Common Principles for Climate Adaptation. This could include reporting on the total investment value of projects that have had adaptation components financed with them, to provide a perspective on financing toward climate-resilient projects. This would allow greater harmonization, comparability, transparency, and robustness of climate finance accounting and metrics across institutions.



**Improving knowledge-sharing, capacity building, and adoption of best practices amongst IDFC members.** As a group, IDFC offers a unique platform of varied bilateral agencies, national development banks, and regional development banks, which can be leveraged to scale-up absolute green finance commitments by all members. This provides an opportunity for these financial institutions to: learn from each other; ensure lessons-learned about good practice are disseminated; and support the development of new approaches. The existing IDFC Climate Finance Facility can be leveraged to better target the following areas:

- Mapping green finance reporting initiatives across IDFC members to better understand implementation challenges.
- Act as a platform for coordination and deliberation in seeking and assisting member institutions to adopt and integrate SDG frameworks and tracking mechanisms in their strategies, portfolios, and operating modalities.
- Strengthen knowledge sharing to identify local, national, and regional best practices for their replication in other countries.
- Facilitate access of IDFC members to international resources (GCF and others) to co-finance climate related operations. In fact, currently 10 IDFC members are accredited entities to the GCF.
- Facilitate identification, appraisal, piloting, and co-financing of innovative climate projects, models, or programs.

# 1. APPENDICES

## 1.1 APPENDIX A: LIST AND BRIEF DESCRIPTION OF IDFC MEMBER ORGANISATIONS

**EUROPE**

Agence Française de Développement (AFD), France*: A public institution and the central figure in France's development assistance system. AFD and its subsidiary PROPARCO are dedicated to private-sector finance projects and programs on five continents – with primacy given to Africa, and overseas France and 80 countries.

Black Sea Trade and Development Bank (BSTDB), Greece*: BSTDB is a financial institution established by Albania, Armenia, Azerbaijan, Bulgaria, Georgia, Greece, Moldova, Romania, Russia, Turkey, and Ukraine, to support economic development and regional cooperation.

Croatian Bank for Reconstruction and Development (HBOR), Croatia: HBOR is the development and export bank of the Republic of Croatia with the main task of promoting the development of the Croatian economy. HBOR builds bridges between entrepreneurial ideas and their accomplishment.

Industrial Development Bank of Turkey (TSKB), Turkey*: TSKB is Turkey's first privately-owned development and investment bank that supports Turkey's sustainable growth with its broad array of corporate banking, investment banking, and consultancy services.

KfW Bankengruppe, Germany*: KfW is a German government-owned development bank with KfW IPEX Bank GmbH, KfW DEG and KfW Development Bank predominantly active in the international arena.

Vnesheconombank (VEB), Russia: VEB is commonly called the Russian Development Bank. It acts on behalf of the national government to support and develop the Russian economy, as well as to manage state debts and pension funds.

Cassa depositi e prestiti (CDP), Italy: CDP a prominent Italian investment bank founded in 1850, with majority shareholding by the Italian Ministry of Economy an Finance

**CENTRAL AND SOUTH AMERICA**

Bancoldex S.A., Colombia: Bancóldex is associated with Colombia's Ministry of Commerce, Industry, and Tourism, and offers products and services that address market gaps as well as the financial and nonfinancial needs of Colombian companies and citizens.

Banco Estado (BE) Chile*: State-owned BE provides wholesale and retail banking services to large and medium-sized companies and government entities, as well as individuals, small businesses, and micro-enterprises, primarily in Chile.

Banco Nacional de Desenvolvimento Econômico e Social (BNDES), Brazil: BNDES is a federal public company associated with Brazil's Ministry of Development, Industry and Foreign Trade – and one of the largest development banks in the world.

Central American Bank for Economic Integration (BCIE/CABEI), Honduras: CABEI is the largest financial institution in Central America. Founded in 1960 by Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua, its members now also include Argentina, Colombia, the Dominican Republic, Mexico, Panama, Spain and Taiwan.

Development Bank of Latin America (CAF), Venezuela: With 18 member countries from Latin America, the Caribbean, and Europe, CAF is one of the region's main sources of multilateral financing, with the mission of stimulating sustainable development and regional integration.

Nacional Financiera (NAFIN), Mexico*: NAFIN provides access to affordable financing to micro, small and medium-sized enterprises ("MSMEs") operating throughout Mexico. It is also key to promoting the Mexican government's policies for expanding economic and social development in the country with the primary objective of generating jobs and regional growth by strengthening and modernizing MSMEs, and



Corporación Financiera de Desarrollo S.A. (COFIDE), Peru: As a development bank, COFIDE participates in the sustainable and inclusive development of the country by providing financing for investments and the financial system, as well as support for entrepreneurial ventures, with creative products and services, while being socially responsible.

**AFRICA**

Banque Ouest Africaine de Développement (BOAD), Togo: The West African Development Bank (BOAD) is the common development finance institution of the member states of the West African Monetary Union (WAMU). It was established by an Agreement signed on 14 November 1973, and became operational in 1976. Member States include: Benin, Burkina, Côte d'Ivoire, Guinea Bissau, Mali, Niger, Senegal and Togo.

Caisse de Dépôt et de Gestion (CDG), Morocco: CDG is active in virtually all areas of Morocco's national economy and is the country's largest institutional investor in infrastructure and government treasury securities.

Development Bank of Southern Africa (DBSA), South Africa: DBSA is a development finance institution dedicated to promoting economic growth, human resource development, institutional capacity building, and development projects throughout the region of Southern Africa.

The Trade and Development Bank (TDB), Brundi: TDB is a African regional development financial institution established in 1985 whose mandate is to finance and foster trade, socioeconomic development, and regional economic integration across its member states.

**ASIA AND MENA**

China Development Bank (CDB), China: CDB is a financial institution in the People's Republic of China (PRC) under the direct jurisdiction of the State Council. The bank is the second largest bond issuer in China, as well as the country's largest foreign currency lender.

Japan International Cooperation Agency (JICA), Japan*: JICA is an independent agency that coordinates development assistance for the government of Japan, with a role in providing technical cooperation, capital grants and yen loans.

Small Industries Development Bank of India (SIDBI), India: Small Industries Development Bank of India (SIDBI), set up on April 2, 1990 under an Act of Indian Parliament, is the Principal Financial Institution for the Promotion, Financing and Development of the Micro, Small and Medium Enterprise (MSME) sector and for Co-ordination of the functions of the institutions engaged in similar activities in India.

The Korea Development Bank (KDB), South Korea*: As government-owned bank and policy financial institution of Korea, KDB has important roles in supplying and managing major industrial capital to help develop the national economy.

**INTER-REGIONAL INSTITUTIONS**

International Investment Bank (IIB), Russia: IIB is a multilateral institution for development that promotes social and economic development, prosperity, and economic cooperation between its member states. Main directions for its activities are the support of the small and medium-sized businesses and participation in financing socially significant infrastructure projects.

Islamic Corporation for the Development of the Private Sector (ICD), Saudi Arabia: ICD is the private sector arm of the Islamic Development Bank with the mandate to support the development of the private sector in its member countries which are located in East Asia, Central Asia, Eastern Europe, Middle East, North Africa, Sub-Saharan Africa and South America.

Note: * The institutions marked * are based in OECD countries.

## 1.1 APPENDIX B: METHODOLOGY GUIDANCE

### DEFINITIONS AND TERMINOLOGY

With no standardized and internationally agreed definitions for green and climate finance, this methodology provides working definitions for both the terminologies. Green finance is a broad term that can refer to financial investments flowing into sustainable development projects and initiatives, environmental products, and policies that encourage the development of a more sustainable economy. Green finance includes climate finance, but is not limited to it. It also refers to a wider range of other environmental objectives; for example, industrial pollution control, water sanitation, and biodiversity protection. Mitigation and adaptation finance is specifically related to climate change related activities. Mitigation financial flows refer to investments in projects and programs that contribute to reducing or avoiding GHG emissions, whereas adaptation financial flows refer to investments that contribute to reducing the vulnerability of goods and persons to the effects of climate change. Thus, for the purposes of the mapping exercise, green finance is split into three separate categories/ themes:

- Green energy and mitigation of GHG
- Adaptation to climate change impacts
- Other environmental objectives

To provide accurate and comparable data for this mapping exercise, a consistent categorization of mitigation and adaptation activities was agreed to by IDFC members, taking into consideration the outcomes of the MDBs-IDFC Common Principles for Climate Finance Tracking. The mapping exercise adopted a two-step approach based on

- A global definition of mitigation, adaptation and other environment projects. A list of definitions is provided in Table B2.
- A core list of project categories that were consensually accepted by all IDFC members as projects that typically con- tribute to tackling climate change. A list of project categories is provided in Appendix C.

The categories were adopted from the 2011 IDFC Green Finance Mapping methodology and updated according to the MDBs-IDFC Common Principles for Climate Finance Tracking. As there are significant challenges to unambiguously attributing specific investments to only one of the three themes, it was decided to split each theme into separate subcategories with clear project activity examples. The category on green energy and mitigation was also disaggregated further into sub-subcategories, based on the developed MDBs-IDFC Common Principles for Climate Mitigation Finance Tracking. This approach also helps to avoid double-counting of projects. Additional details on the themes, subcategories, and sub-subcategories are provided in Appendix C. In those cases where IDFC members did not have, or refrained from providing, subcategory information, non-attributed data were provided.

In this study, given data are for financial flows committed in the year 2016 in the form of inter alia loans (concessional and non-concessional), grants, guarantees, equity, and mezzanine finance used by financial institutions to finance investments. New commitments refer to financial commitments signed or approved by the board of the reporting institution during 2015. Cross financial flows between IDFC banks are minimal in the climate financing area and hence are not accounted for in the assessment.

**Table B1 |** Definition of Instruments

| INSTRUMENT | DEFINITION |
|---|---|
| Loans | A loan is a debt evidenced by a note that specifies, among other things, the principal amount, interest rate, and date of repayment. |
| ...of which concessional loans | Loans which are extended on terms substantially more generous than market loans. The concessionality is achieved either through interest rates below those available on the market or by longer pay back periods or a combination of these. |
| ...of which non-concessional loans | Loans with regular market conditions |
| Grants | Grants are transfers made in cash, goods, or services for which no repayment is required. |
| Other Instruments includes | |
| Guarantee | Formal assurance that liabilities of a debtor will be met if the debtor fails to settle the debt. |
| Equity | A stock or any other security representing an ownership interest. |

**Table B2 |** Definition of Categories/Themes

| OTHER ENVIRONMENTAL OBJECTIVE | | SOURCE |
|---|---|---|
| Definition | An activity will be classified as other environmental objective if it does not directly target climate-change mitigation or ad aptation, yet is, however, related to sustainable development with a positive impact on the environment. | IDFC Green Finance Mapping |
| **CLIMATE-CHANGE MITIGATION** | | **SOURCE** |
| Definition | An activity will be classified as related to climate change mitigation if it promotes "efforts to reduce or limit greenhouse gas (GHG) emissions or enhance GHG sequestration". Reporting according to the Principles does not imply evidence of climate change impacts and any inclusion of climate change impacts is not a substitute for project-specific theoretical and/or quantitative evidence of GHG emission mitigation; projects seeking to demonstrate climate change impacts should do so through project-specific data | MDBs-IDFC Common Principles for Climate Mitigation Finance Tracking V2 |
| Criteria for Eligibility | Where data is unavailable, any uncertainty is to be overcome following the principle of conservativeness where climate finance is preferred to be under-reported rather than over-reported<br>The Principles are activity-based as they focus on the type of activity to be executed, and not on its purpose, the origin of the financial resources, or its actual results. The list of activities eligible under these principles are illustrated in Table 1<br>Project reporting is ex-ante project implementation at board approval or financial commitment<br>Climate finance tracking is independent of GHG accounting reporting in the absence of a joint GHG methodology.<br>The Principles require mitigation activities to be disaggregated from non-mitigation activities as far as reasonably possible. If such disaggregation is needed and not possible using project specific data, a more qualitative/experience based assessment can be used to identify the proportion of the project that covers climate mitigation activities, consistent with the conservativeness principle. This is applicable to all categories, but of particular significance for energy efficiency projects.<br>Mitigation activities or projects can consist of a stand-alone project, multiple stand-alone projects under a larger program, a component of a stand-alone project, or a program financed through a financial intermediary.<br>In fossil fuel combustion sectors (transport, and energy production and use), the methodology recognizes the importance of long-term structural changes, such as the energy production shift to renewable energy technologies, and the modal shift to low-carbon modes of transport. Consequently, for renewable energy and transport projects ensuring modal shift, both new and retrofit projects are included. In energy efficiency, however, the methodology acknowledges that drawing the boundary between increasing production and reducing emissions per unit of output is difficult. Consequently, greenfield energy efficiency investments are included only in few cases when they enable preventing a long-term lock-in in high carbon infrastructure, and, for the case of energy efficiency investments in existing facilities, it is required that old technologies are replaced well before the end of their lifetime, and new technologies are substantially more efficient than the replaced technologies. Alternatively, it is required that new technologies or processes are substantially more efficient than those normally used in greenfield projects.<br>The methodology assumes that care will be taken to identify cases when projects do not mitigate emissions due to their specific circumstances. | MDBs-IDFC Common Principles for Climate Mitigation Finance Tracking V2 |

| CLIMATE-CHANGE ADAPTATION | | SOURCE |
|---|---|---|
| Definition | Adaptation finance tracking relates to tracking the finance for activities that address current and expected effects of climate change, where such effects are material for the context of those activities.<br>Adaptation finance tracking may relate to activities consisting of stand-alone projects, multiple projects under larger programs, or project components, sub-components or elements, including those financed through financial intermediaries. | IDFC-MDBs Common principles for climate change adaptation |
| Criteria for Eligibility | Adaptation finance tracking process consists of the following key steps:<br>Setting out the context of risks, vulnerabilities and impacts related to climate variability and climate change;<br>Stating the intent to address the identified risks, vulnerabilities and impacts in project documentation;<br>Demonstrating a direct link between the identified risks, vulnerabilities and impacts, and the financed activities.<br>Adaptation finance tracking requires adaptation activities to be disaggregated from non-adaptation activities as far as reasonably possible. If disaggregation is not possible using project specific data, a more qualitative or experience-based assessment can be used to identify the proportion of the project that covers climate change adaptation activities. In consistence with the principle of conservativeness, climate finance is underreported rather than over-reported in this case. | IDFC-MDBs Common principles for climate change adaptation |

**Table B3 |** Definition of Regions (Adapted from the World Bank)

| EAST ASIA AND THE PACIFIC | EASTERN EUROPE AND CENTRAL ASIA | LATIN AMERICA AND THE CARIBBEAN | MIDDLE EAST AND NORTH AFRICA | SOUTH ASIA |
|---|---|---|---|---|
| American Samoa | Albania | Antigua and Barbuda | Algeria | Afghanistan |
| Cambodia | Armenia | Argentina | Djibouti | Bangladesh |
| China | Azerbaijan | Belize | Egypt, Arab Rep. | Bhutan |
| Fiji | Belarus | Bolivia | Iran, Islamic Rep. | India |
| Indonesia | Bosnia and Herzegovina | Brazil | Iraq | Maldives |
| Kiribati | Georgia | Chile | Jordan | Nepal |
| Korea, Dem. Rep. | Kazakhstan | Colombia | Lebanon | Pakistan |
| Lao PDR | Kosovo | Costa Rica | Libya | Sri Lanka |
| Malaysia | Kyrgyz Republic | Cuba | Morocco | |
| Marshall Islands | Macedonia, FYR | Dominica | Syrian Arab Republic | |
| Micronesia, Fed. Sts | Moldova | Dominican Republic | Tunisia | |
| Mongolia | Montenegro | Ecuador | West Bank and Gaza | |
| Myanmar | Russian Federation | El Salvador | Yemen, Rep. | |
| Palau | Serbia | Grenada | | |
| Papua New Guinea | Tajikistan | Guatemala | | |
| Philippines | Turkey | Guyana | | |
| Samoa | Turkmenistan | Haiti | | |
| Solomon Islands | Ukraine | Honduras | | |
| Thailand | Uzbekistan | Jamaica | | |
| Timor-Leste | | Mexico | | |
| Tuvalu | | Nicaragua | | |
| Tonga | | Panama | | |
| Vanuatu | | Paraguay | | |
| Vietnam | | Peru | | |
| | | St. Lucia | | |
| | | St. Vincent and the Grenadines | | |
| | | Suriname | | |
| | | Uruguay | | |
| | | Venezuela, RB | | |

| SUB-SAHARAN AFRICA | | EU | Others |
|---|---|---|---|
| Angola | Mauritania | Austria | Trans-regional |
| Benin | Mauritius | Belgium | Include funds that are channelled to more than one region and/or that are channelled through multilateral climate funds. |
| Botswana | Mozambique | Bulgaria | |
| Burkina Faso | Namibia | Cyprus | |
| Burundi | Niger | Czech Republic | Australia |
| Cameroon | Nigeria | Denmark | Canada |
| Cape Verde | Rwanda | Estonia | Japan |
| Central African Republic | São Tomé and Principe | Finland | United States |
| Chad | Senegal | France | |
| Comoros | Seychelles | Germany | |
| Congo, Dem. Rep. | Sierra Leone | Greece | |
| Congo, Rep | Somalia | Hungary | |
| Côte d'Ivoire | South Africa | Ireland | |
| Eritrea | South Sudan | Italy | |
| Ethiopia | Sudan | Latvia | |
| Gabon | Swaziland | Lithuania | |
| Gambia, The | Tanzania | Luxembourg | |
| Ghana | Togo | Malta | |
| Guinea | Uganda | Netherlands | |
| Guinea-Bissau | Zambia | Poland | |
| Kenya | Zimbabwe | Portugal | |
| Lesotho | | Romania | |
| Liberia | | Slovakia | |
| Madagascar | | Slovenia | |
| Malawi | | Spain | |
| Mali | | Sweden | |
| | | United Kingdom | |

**Table B4 |** Definition of private sector co-financing

| Definition | The asset financed is in private ownership (>= 50%) ("private investment") AND/OR the financial contribution comes from a private sector actor ("private capital") | DFI climate finance questionnaire |
|---|---|---|
| Criteria for Eligibility | Loans by private sector actors mobilised by IDFC member loans | |
| | Loans by private sector actors mobilised by IDFC member equity positions | |
| | Loans by private sector actor mobilised by IDFC member guarantees | |
| | Equity from private sector mobilised by IDFC member loans | |
| | Equity from the private sector actor mobilised by IDFC member equity positions | |
| | Loans by private sector actor mobilised by IDFC member grants (e.g. to cover costs of a renewable energy feed-in law or premium or CO2-certificates in the CDM) | |
| | Equity from private sector actor mobilised by IDFC member grants (e.g. to cover costs of a renewable energy feed-in law or premium or CO2-certificates in the CDM) | |
| | Loans to the private sector generated by the revolving use of credit lines or green funds (subtract original loan to avoid double counting) | |
| | Loans and equity mobilised from the private sector in other ways under Public-Private-Partnerships (PPP) | |
| Sampling vs. complete coverage | It is acceptable to derive representative mobilisation factors (e.g.1,5 for revolving credit lines to banks or 1,5 for equity in project finance) for homogenous fractions of the portfolio based on a representative subset of projects. | |
| Several public sector actors are involved | Allocate mobilised investment on a pro-rata basis to different public financiers independent of the specific instruments applied. | |

**Table B5 |** Definition of climate policies

| Definition | Specific climate strategy that the institution acts upon | IDFC green finance mapping |
|---|---|---|
| Specifications | Environment rate: rate that shows the proportion of commitments regarding environmental topics compared to total commitments | |
| | Climate guidelines for new projects (like ESG standards): inclusion of environmental, social & governance criteria/guidelines/policies in investment analysis and decision processes | |



## 1.1 APPENDIX C: ELIGIBLE PROJECT CATEGORIES

Despite the efforts of MDBs and IDFC to develop Common Principles for Climate Finance Tracking, a key challenge of the mapping study is to overcome the varying definitions for green finance and to distinguish the finance flows, attributed to other environmental objectives, green energy and mitigation of GHG and adaptation categories, from each other. In order to most effectively distinguish between these categories, guidance was provided to IDFC members. Much of this guidance was determined in close coordination with representatives of IDFC.

Disaggregated data was collected as shown in Table 4 below. In addition, IDFC members were asked to further disaggregate their financial commitments to green energy and mitigation.

**Table C1 |** Eligible Project Categories (Based on MDBs-IDFC Common Principles 2015

| Category | Sub-category | Activities |
|---|---|---|
| **Green energy and mitigation of greenhouse gas emissions** | | |
| 1. Renewable Energy | 1.1 Electricity Generation | Wind power |
| | | Geothermal power (only if net emission reductions can be demonstrated) |
| | | Solar power (concentrated solar power, photovoltaic power) |
| | | Biomass or biogas power (only if net emission reductions, including carbon pool balance, can be demonstrated) |
| | | Ocean power (wave, tidal, ocean currents, salt gradient, etc.) |
| | | Hydropower plants (only if net emission reductions can be demonstrated) |
| | | Renewable energy power plant retrofits |
| | 1.2 Heat Production or other renewable energy application | Solar water heating and other thermal applications of solar power in all sectors |
| | | Thermal applications of geothermal power in all sectors |
| | | Wind-driven pumping systems or similar |
| | | Thermal applications of sustainably/produced bioenergy in all sectors, incl. efficient, improved biomass stoves |
| | 1.3 Measures to facilitate integration of renewable energy into grids | New, expanded and improved transmission systems (lines, substations). |
| | | Storage systems (battery, mechanical, pumped storage) |
| | | |
| | | New information and communication technology, smart-grid and mini-grid |
| 2. Lower-carbon and efficient energy generation | 2.1 Transmission and distribution systems | Retrofit of transmission lines or substations and/or distribution systems to reduce energy use and/or technical losses including improving grid stability/ reliability, (only if net emission reductions can be demonstrated)[1] |
| | 2.2 Power Plants | Thermal power plant retrofit to fuel switch from a more GHG-intensive fuel to a different and less GHG-intensive fuel type |
| | | Conversion of existing fossil-fuel based power plant to co-generation[2] technologies that generate electricity in addition to providing heating/cooling |
| | | Waste heat recovery improvements. |
| | | Energy-efficiency improvement in existing thermal power plant, |

| Category | Sub-category | Activities |
|---|---|---|
| 3. Energy efficiency | 3.1 Energy efficiency in industry in existing facilities | industrial energy-efficiency improvements though the installation of more efficient equipment, changes in processes, reduction of heat losses and/or increased waste heat recovery |
| | | Installation of co/generation plants that generate electricity in addition to providing heating/cooling |
| | | More efficient facility replacement of an older facility (old facility retired) |
| | 3.2 Energy efficiency improvements in existing commercial, public and residential buildings | Energy-efficiency improvement in lighting, appliances and equipment |
| | | Substitution of existing heating/cooling systems for buildings by co/generation plants that generate electricity in addition to providing heating/cooling[3] |
| | | Retrofit of existing buildings: Architectural or building changes that enable reduction of energy consumption |
| | 3.3 Energy efficiency improvements in the utility sector and public services | Energy-efficiency improvement in utilities and public services through the installation of more efficient lighting or equipment |
| | | Rehabilitation of district heating and cooling systems |
| | | Utility heat loss reduction and/or increased waste heat recovery |
| | | Improvement in utility scale energy efficiency through efficient energy use, and loss reduction |
| | 3.4 Vehicle energy efficiency fleet retrofit | Existing vehicles, rail or boat fleet retrofit or replacement (including the use of lower-carbon fuels, electric or hydrogen technologies, etc.) |
| | 3.5 Energy efficiency in new commercial, public and residential buildings | Use of highly efficient architectural designs, energy efficiency appliances and equipment, and building techniques that reduce building energy consumption, exceeding available standards and complying with high energy efficiency certification or rating schemes |
| | 3.6 Energy audits | Energy audits to energy end-users, including industries, buildings, and transport systems |



| Category | Sub-category | Activities |
|---|---|---|
| 4. Agriculture, forestry and land-use | 4.1 Agriculture | Reduction in energy use in traction (e.g. efficient tillage), irrigation, and other agricultural processes |
| | | Agricultural projects that improve existing carbon pools (, rangeland management, collection and use of bagasse, rice husks, or other agricultural waste, reduced tillage techniques that increase carbon contents of soil, rehabilitation of degraded lands, peatland restoration, etc.) |
| | | Reduction of non Co2 GHG emissions from agricultural practices (eg: paddy rice production, reduction in fertilizer use ...). |
| | 4.2 Afforestation and reforestation, and biosphere conservation | Afforestation (plantations) on non-forested land |
| | | Reforestation on previously forested land |
| | | Sustainable forest management activities that increase carbon stocks or reduce the impact of forestry activities |
| | | Biosphere conservation projects (including payments for ecosystem services) targeting reducing emissions from the deforestation or degradation of ecosystems |
| | 4.3 Livestock | Livestock projects that reduce methane or other GHG emissions (manure management with biodigestors, etc.) |
| | 4.4 Biofuels | Production of biofuels (including biodiesel and bioethanol) (only if net emission reductions can be demonstrated) |
| 5. Non-energy GHG reductions | 5.1 Fugitive emissions | Reduction of gas flaring or methane fugitive emissions in the oil and gas industry |
| | | Coal mine methane capture |
| | 5.2 Carbon capture and storage | Projects for carbon capture and storage technology that prevent release of large quantities of CO2 into the atmosphere from fossil fuel use in power generation, and process emissions in other industries |
| | 5.3 Air conditioning and refrigeration | Retrofit of existing industrial, commercial and residential infrastructure to switch to cooling agent with lower global warming potential |
| | 5.4 Industrial processes | Reduction in GHG emissions resulting from industrial process improvements and cleaner production (e.g. cement, chemical), excluding carbon capture and storage |
| 6. Waste and wastewater | | Treatment of wastewater if not a compliance requirement (e.g. performance standard or safeguard) as part of a larger project that reduce methane emissions (only if net GHG emission reductions can be demonstrated) |
| | | Waste management projects that capture or combust methane emissions |
| | | Waste to energy projects |
| | | Waste collection, recycling and management projects that recover or reuse materials and waste as inputs into new products or as a resource (only if net emission reductions can be demonstrated). |

| Category | Sub-category | Activities |
|---|---|---|
| 7. Transport | 7.1 Urban transport modal change | Urban mass transit |
| | | Non-motorized transport (bicycles and pedestrian mobility) |
| | 7.2 Transport oriented urban development | Integration of transport and urban development planning (dense development, multiple land-use, walking communities, transit connectivity, etc.), leading to a reduction in the use of passenger cars |
| | | Transport demand management measures dedicated to reduce GHG emissions (e.g., speed limits, high-occupancy vehicle lanes, congestion charging/road pricing, parking management, restriction or auctioning of license plates, car-free city areas, low-emission zones) |
| | 7.3 Inter-urban transport | Railway transport ensuring a modal shift of freight and/or passenger transport from road to rail (improvement of existing lines or construction of new lines) |
| | | Waterways transport ensuring a modal shift of freight and/or passenger transport from road to waterways (improvement of existing infrastructure or construction of new infrastructure) |
| 8. Low-carbon technologies | 8.1 Products or equipment | Projects producing components, equipment or infrastructure dedicated for the renewable and energy efficiency sectors |
| | 8.2 R&D | Research and development of renewable energy or energy efficiency technologies |
| 9. Cross-cutting issues | 9.1 Support to national, regional or local policy, through technical assistance or policy lending, | Mitigation national, sectorial or territorial policies/planning/action plan policy/ planning/institutions |
| | | Energy sector policies and regulations leading to climate change mitigation or mainstreaming of climate action (energy efficiency standards or certification schemes; energy efficiency procurement schemes; renewable energy policies) |
| | | Systems for monitoring the emissions of greenhouse gases |
| | | Efficient pricing of fuels and electricity (subsidy rationalization, efficient end-user tariffs, and efficient regulations on electricity generation, transmission, or distribution), |
| | | Education, training, capacity building and awareness raising on climate change mitigation/sustainable energy/sustainable transport; mitigation research |
| | | Other policy and regulatory activities, including those in non-energy sectors, leading to climate change mitigation or mainstreaming of climate action |
| | 9.2 Financing instruments | Carbon Markets and finance (purchase, sale, trading, financing and other technical assistance). Includes all activities related to compliance-grade carbon assets and mechanisms, such as CDM, JI, AAUs, as well as well-established voluntary carbon standards like the VCS or the Gold Standard. |
| 10. Miscellaneous | 10.1 Other activities with net greenhouse gas reduction | Any other activity not included in this list for which the results of an ex-ante greenhouse gas accounting (undertaken according to commonly agreed methodologies) show emission reductions |

[1] In case capacity expansion only the part that is reducing existing losses is included

[2] In all cogeneration projects it is required that energy efficiency is substantially higher than separate production.

[3] ibid



| Category | Sub-category | Activities |
|---|---|---|
| **Adaptation to climate change** | | |
| Water preservation | Water preservation | Improvement in catchment management planning (to adapt to a reduction in river water levels due to reduced rainfall) |
| | | Installation of domestic rainwater harvesting equipment and storage (to adapt to an increase in groundwater salinity due to sea level rise) |
| | | Rehabilitation of water distribution networks to improve water resource management (to adapt to increased water scarcity caused by climate change) |
| Agriculture, natural resources and ecosystem based adaptation | Agriculture, natural resources and ecosystem based adaptation | Conservation agriculture such as provision of information on crop diversification options (to adapt to an increased vulnerability in crop productivity) |
| | | Increased production of fodder crops to supplement rangeland diet (to adapt to a loss in forage quality or quantity caused by climatic changes) |
| | | Adoption of sustainable fishing techniques (to adapt to the loss of fish stocks due to changes in water flows or temperature) |
| | | Identification of protected ecosystem areas (to adapt to a loss of species caused by sudden temperature changes) |
| | | Improved management of slopes basins (to adapt to increased soil erosion caused by flooding due to excess rainfall) |
| Coastal protection | Coastal protection | Building of dykes to protect infrastructure (to adapt to the loss and damage caused by storms and coastal flooding, and sea level rise), |
| | | Mangrove planting (to build a natural barrier to adapt to increased coastal erosion and to limit saltwater intrusion into soils caused by sea level rise) |
| Other disaster risk reduction | Other disaster risk reduction | Early warning systems for extreme weather events (to adapt to an increase in extreme weather events by improving natural disasters management and reduce related loss and damage) |
| | | Improved drainage systems (to adapt to an increase in floods by draining off rainwaters) |
| | | Insurance against natural disasters (to adapt better to extensive loss and damage caused by extreme weather events) |
| | | Building resilient infrastructures such as a protection system for dams (to adapt to exposure and risk to extreme weather impacts, such as flooding, caused by climate change) |
| | | Monitoring of disease outbreaks and development of a national response plan (to adapt to changing patterns of diseases that are caused by changing climatic conditions) |
| Local, sectoral, or national budget support to a climate change adaptation policy | Local, sectoral, or national budget support to a climate change adaptation policy | Dedicated budget support to a national or local authorities for climate change adaptation policy implementation |

| Category | Sub-category | Activities |
|---|---|---|
| **'Other Environment'** | | |
| Water supply | Water supply | Water supply - municipal / industrial / agricultural |

| | | |
|---|---|---|
| Waste water treatment | Waste water treatment | Waste water treatment - municipal / industrial / agricultural |
| Industrial pollution control | Industrial pollution control | Reduction of fluid and air pollutants from industry |
| Soil remediation and mine rehabilitation | Soil remediation and mine rehabilitation | Clean up of hazardous waste sites |
| Waste management | Waste management | Solid waste collection and treatment, recycling |
| Biodiversity | Biodiversity | Forest species protection, biodiversity |
| Sustainable infrastructure | Sustainable infrastructure | Improvement of general transport logistics such as reduction of empty running |



## 1.1 APPENDIX D: DATA TABLES

| GREEN ENERGY AND MITIGATION OF GHG EMISSIONS | $ BILLIONS IN 2015 | $ BILLIONS IN 2016 | $ BILLIONS IN 2017 |
|---|---|---|---|
| **Transport** | **53.4** | **79.6** | **94.6** |
| **Renewable energy** | **46.3** | **37.1** | **47.2** |
| **Energy efficiency** | **18.5** | **25.8** | **25.8** |
| **Lower-carbon and efficient energy generation** | **4.5** | **4.7** | **5.3** |
| **Unattributed** | **0.3** | **2.0** | **-** |
| **Agriculture, forestry, and land-use** | **3.1** | **1.8** | **9.3** |
| **Cross-cutting issues** | **1.3** | **1.0** | **1.2** |
| **Miscellaneous and others—green energy and mitigation** | **0.5** | **0.9** | **0.7** |
| **Waste and wastewater** | **0.4** | **0.4** | **0.3** |
| **TOTAL** | **128.5** | **153.3** | **184.5** |

| ADAPTATION TO CLIMATE CHANGE | $ BILLIONS IN 2015 | $ BILLIONS IN 2016 | $ BILLIONS IN 2017 |
|---|---|---|---|
| Water preservation | 1.9 | 1.7 | 5.6 |
| Agriculture, natural resources and ecosystem based adaptation | 0.6 | 1.2 | 0.7 |
| Other disaster risk reduction | 2.1 | 1.2 | 1.6 |
| Miscellaneous and others - Adaptation | 1.0 | 0.6 | 1.6 |
| Local, sectoral, or national budget support to a climate change adaptation policy | 0.2 | 0.1 | 0.1 |
| Coastal protection | 0.2 | 0.03 | 0.2 |
| TOTAL | 5.9 | 4.8 | 9.7 |

| PROJECTS WITH ELEMENTS OF BOTH MITIGATION AND ADAPTATION | $ BILLIONS IN 2015 | $ BILLIONS IN 2016 | **$ BILLIONS IN 2017** |
|---|---|---|---|
| TOTAL | 1.3 | 1.4 | 1.6 |

| OTHER ENVIRONMENTAL OBJECTIVES | $ BILLIONS IN 2015 | $ BILLIONS IN 2016 | $ BILLIONS IN 2017 |
|---|---|---|---|
| Industrial pollution control | 1.6 | 5.97 | 14.0 |
| Water supply | 2.2 | 3.18 | 1.8 |
| Waste water treatment | 0.8 | 2.10 | 2.7 |
| Miscellaneous and others - 'other environment' | 2.4 | 1.65 | 1.3 |
| Sustainable infrastructure | 0.2 | 0.66 | 2.6 |
| Waste management | 0.1 | 0.15 | 1.5 |
| Biodiversity | 0.05 | 0.13 | 0.3 |
| Soil remediation and mine rehabilitation | 0.013 | 0.001 | 0.001 |
| TOTAL | 7.3 | 13.83 | 24.2 |

## 1.1 APPENDIX E: INDEX OF ACRONYMS

| | |
|---|---|
| ADB | Asian Development Bank |
| AFD | Agence Française de Développement |
| AfDB | African Development Bank |
| Bancoldex | Banco de Comercio Exterior de Colombia |
| BE | Banco de Estado |
| BNDES | Brazilian Development Bank |
| BOAD | Banque Ouest Africain de Développement |
| BSTDB | Black Sea Trade and Development Bank |
| CABEI | Central American Bank for Economic Integration |
| CAF | Development Bank of Latin America |
| CDB | China Development Bank |
| CDG | Caisse de Dépôt et de Gestion |
| $CO_2$ | Carbon dioxide |
| COFIDE | Corporación Financiera de Desarrollo S.A. |
| MDB-IDFC Common Principles | Common Principles for Climate Mitigation as well Climate Change Adaptation Finance Tracking, jointly developed by MDBs and IDFC |
| COP | Conference of Parties |
| CPI | Climate Policy Initiative |
| DBSA | Development Bank of Southern Africa |
| HBOR | Croatian Bank for Reconstruction and Development |
| ICD | Islamic Corporation for the Development of the Private Sector |
| IEB | Indonesia Exim Bank |
| IDFC | International Development Finance Club |
| IFC | International Finance Corporation |
| JICA | Japan International Cooperation Agency |
| KFW | Kreditanstalt für Wiederaufbau |
| KDB | Korean Development Bank |
| MDB | Multilateral Development Bank |
| NAFIN | Nacional Financiera S.N.C |
| OECD | Organisation for Economic Cooperation and Development |
| OECD-DAC | Organisation for Economic Cooperation and Development Assistance Committee |
| PV | Photovoltaic |
| SEI | Stockholm Environment Institute |
| SIDBI | Small Industries Development Bank of India |
| TDB | Trade and Development Bank |
| TSKB | Industrial Development Bank of Turkey |
| UNEP | United Nations Environmental Program |
| UNEP BFI | United Nations Environmental Program Bilateral Finance Institutions |
| UNFCCC | United Nations Framework Convention on Climate Change |
| VEB | Vnesheconombank |



ENDNOTES

The value of the largest category is assumed to be more accurate than the sum of the subcategories. For example, IDFC members' reported totals for green finance commitments is taken to be more accurate than the sum of finance commitments for green energy and mitigation, adaptation to climate change, projects with both elements of mitigation and adaptation, and other environmental objectives. If the former is larger than the latter, this negative fraction is not shown on the graph. If the former is larger than the latter, the difference is unattributed and is shown on the graphs when it exceeds 1 percent of the total for green finance. This same methodology applies to all finer categories.

http://www.eib.org/attachments/documents/mdb_idfc_mitigation_common_principles_en.pdf