



2015

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CTF RESULTS REPORT



## Abbreviations

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ADB	Asian Development Bank
AfDB	African Development Bank
CIF	Climate Investment Funds
CO2e	Carbon Dioxide equivalent
CTF	Clean Technology Fund
EBRD	European Bank for Reconstruction and Development
EE	Energy Efficiency
FI	Financial Intermediary
GHG	Greenhouse Gas
IBRD	International Bank for Reconstruction and Development
IDB	Inter-American Development Bank
IFC	International Finance Corporation
MDB	Multilateral Development Bank
MW	Megawatt
GWh	Gigawatt hours
RE	Renewable Energy
USD	United States Dollar

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## Introduction

The USD 5.3 billion Clean Technology Fund (CTF) aims to scale-up financing to middle income countries to contribute to the demonstration, deployment and transfer of low carbon technologies with a significant potential for long-term greenhouse gas emissions (GHG) reductions. The CTF provides concessional financing, channeled through six partner multilateral development banks (MDB)<sup>1</sup>, to large-scale, country-led projects/ programs in renewable energy, energy efficiency, and transport. The CTF is active in a total of 15 middle income countries, one regional program in the Middle East and North Africa, and a Dedicated Private Sector Program (DPSP) that extends to other countries and regions.

### Countries



The report is based on results originating from projects/ programs hosted in the following countries or region: Chile, Colombia, Egypt, Honduras<sup>2</sup>, India, Indonesia, Kazakhstan, Mexico, Morocco, Nigeria, the Philippines, South Africa, Thailand, Turkey, Ukraine and Vietnam.

<sup>1</sup> CIF partner MDBs are Africa Development Bank (AfDB), Asia Development Bank (ADB), European Bank for Reconstruction and Development (EBRD), Inter-American Development Bank (IDB), and World Bank Group, including the International Bank for Reconstruction and Development (IBRD) and International Finance Corporation (IFC).

<sup>2</sup> Under DPSP II

For the purposes of this report, these regions include the following countries:

- Africa: Egypt, Morocco, Nigeria, South Africa
- Asia: India, Indonesia, the Philippines, Thailand, Vietnam
- Europe and Central Asia: Kazakhstan, Turkey, Ukraine
- Latin America and the Caribbean: Chile, Colombia, Honduras<sup>3</sup>, Mexico

## Scope

This Results Report is based on 55 MDB-approved projects/ programs reporting over a one-year period<sup>4</sup>. The report is divided into three main sections: a global overview of the results across the five key indicators, followed by details on a regional and public-private sector basis, and conclusion outlining the key updates since the 2014 Results Report<sup>5</sup>. Around one-third of the projects/ programs have been implemented and are resulting in GHG reductions. The International Bank for Reconstruction and Development (IBRD) has the largest share of CTF funded projects/ programs reporting results at 33 percent, followed by the Asian Development Bank (ADB) and African Development Bank (AfDB). Together, they represent around three quarters of CTF funded projects/ programs reporting results herein.

## Approach

The results presented here are based on the CTF Revised Results Framework<sup>6</sup> which includes the following core indicators, measured at the project level and reported annually:

- [B1] Tons of greenhouse gas emissions reduced or avoided (tCO<sub>2</sub>e)
- [B2] Volume of direct finance leveraged through CTF funding, disaggregated by public and private finance (USD million, USD m)
- [B3] Installed capacity as a results of CTF interventions (Megawatt, MW)
- [B4] Number of additional passengers, disaggregated by men and women if feasible, using low-carbon transport as a result of CTF intervention (#)
- [B5] Annual energy savings as a result of CTF interventions (Gigawatt hours, GWh)

Apart from these, each project/program is required to identify and report on at least one indicator for a development co-benefit. It may include, but is not limited to, access to energy, health and employment co-benefits, preferably disaggregated by gender.

The CTF focal points in each MDB are responsible for collecting results data on an annual basis. The CIF Administrative Unit provides each MDB with a template listing indicators for projects/ programs approved by the corresponding cut-off date for reporting. The MDB completes these and shares back by July 31. This data is then collated, clarified, analyzed and finally, presented in the Results Report.

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<sup>3</sup> Under DPSP II

<sup>4</sup> Please refer to the Key Points section below.

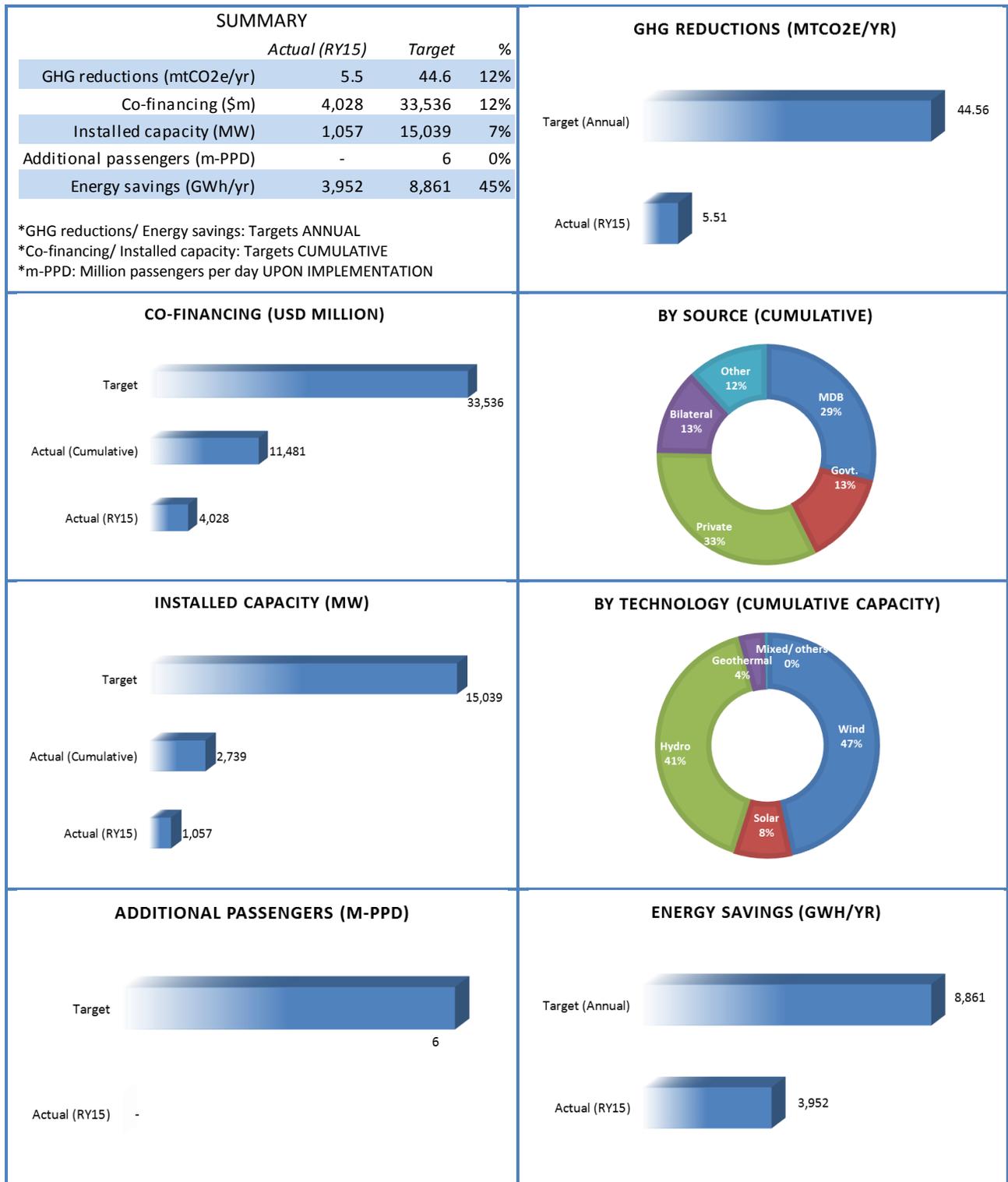
<sup>5</sup> See <http://www.climateinvestmentfunds.org/cif/node/16715>

<sup>6</sup>[http://www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/CTF\\_Revised\\_Results\\_Framework\\_011413\\_for\\_website.pdf](http://www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/CTF_Revised_Results_Framework_011413_for_website.pdf)

## Key points

The following should be noted while reviewing the results:

- **Reporting Year (RY)**: Depending on the MDB, the report covers the period from January 1, 2014 to December 31, 2014 or July 1 2014 to June 30 2015. Since the reporting is done on an annual basis, the abbreviation RY, or Reporting Year, is used to capture this annual period.
- **Indicators**: Of the above, [B1] and [B2] are core indicators that every projects/ programs must report on, while reporting on [B3], [B4], and [B5] depends on the nature of the project (i.e., whether the project involves renewable energy, transport or energy efficiency measures).
- **Reporting**: Depending on the stage of implementation, not all indicators from a project may be reporting results. For example, a project that just met financial closure might only be reporting on the co-financing indicator, compared to another project which is under operation and hence, reporting GHG emission reductions. However, targets across all indicators are included when comparing results.
- **Actuals**: Actual (RY15) refers to the actual results reported by a project for the latest 12-month reporting period. Actual (Cumulative) refers to total (actual) results as of the latest reporting period since the project started reporting results.
- **Targets**: Target (Annual), in case of B1 and B5, refers to GHG reductions or energy savings expected to be achieved on an annual basis. For other indicators such as co-financing and installed capacity, Target refers to absolute results expected to be achieved during the course of the project. The words “target results” and “expected results” are used interchangeably. They refer to a mix of targets for public sector projects, from MDB board approval documents and for private sector programs, from TFC approved documents.
- **Co-financing**: Different MDBs take different approaches to reporting on actual co-financing- this includes establishing milestones when MDBs recognize co-financing and identifying the relevant co-financing amounts. While some MDBs report the full amount once a project is approved by the respective board, others, like the International Finance Corporation (IFC), do not report until the project commissions commercial operations for confidentiality reasons.
- **GHG reduction**: MDBs use different methodologies for estimating GHG emission reductions, therefore aggregated data are subject to further refinement as MDBs develop more harmonized methodologies.
- **Analysis**: The analyses in the report is based on both annual (for the latest reporting year) as well as cumulative results reported as of the current period. The graphs on sources of co-financing and installed capacity by technology are based on cumulative results reported thus far.
- **Data quality**: The data collection process involves manual effort from the MDBs and the CIF Administrative Unit. As a result, the data may be prone to human error until an automated system to capture and compile this information is implemented.



**Greenhouse gas (GHG) reductions:** Eighteen out of 55 projects/ programs are under operation and producing over 5.5 million tCO2e annually in emission reductions, while the remaining are at different stages of implementation and will report emissions reductions once they become operational.

Cumulatively, total GHG reductions supported by CTF projects/ programs reporting results so far is 20 million tCO<sub>2</sub>e against a lifetime target of over 860 million tCO<sub>2</sub>e. These cumulative reductions are equivalent<sup>7</sup> to:

- Annual greenhouse gas emissions from over 4.5 million passenger vehicles, or
- Annual CO<sub>2</sub> emissions from 6 coal-fired power plants.

**Co-financing:** For projects/ programs reporting results, around one-third of the expected co-financing has been reported on a cumulative basis, of which, around one-third has come from the private sector, around one-third from the MDBs, and over one-third from government, bilateral and other sources combined.

- *Africa:* Cumulatively, most of the co-financing has been mobilized by *Ouarzazate CSP (Noor I)* project implemented by AfDB in Morocco, followed by ESKOM Renewable Support Project- Wind, implemented AfDB and IBRD in South Africa; over half of it has come from bilateral sources.
- *Asia:* Over 40 percent of the co-financing has come from the private sector. Around two-thirds of the co-financing has been reported for *Private Sector Geothermal Energy Program*, implemented by ADB in Indonesia.
- *Europe and Central Asia:* Over two-thirds of the co-financing came from the MDBs, with over three-quarters of that mobilized for *Turkish Private Sector Sustainable Energy Financing Facility (TurSEFF)* and *Private sector RE and EE Project*, implemented by the European Bank for Reconstruction and Development (EBRD) and IBRD respectively in Turkey.
- *Latin America & the Caribbean:* Over one-third of the co-financing in the region has come from the private sector. Over half of the co-financing has been for the *Urban Transport Transformation Project*, implemented by IBRD, in Mexico.

**Installed capacity:** Ten out of 55 projects/ programs are under operation and resulting in 2,739 MW, or around one-fifth of the expected renewable energy capacity on a cumulative basis. This is more than the total installed capacity of electricity from all sources in Iceland. The largest share of renewables is in the Europe and Central Asia region, followed by Asia and Latin America and the Caribbean. Projects in Africa are at early stages of development and hence, not reporting results yet.

- *Wind:* Around half of the installed capacity is in Latin America and the Caribbean with Europe and Central Asia following closely. Two projects/ programs, *Private Sector RE and EE Project* implemented by IBRD in Turkey and *Renewable Energy Financing Facility (REFF)* implemented by the Inter-American Development Bank (IDB) in Mexico make up for over half the portfolio.
- *Solar:* Asia and Latin America and the Caribbean have almost 90 percent of the projects/ programs, shared almost equally. *Private Sector Renewable Energy Program*, implemented by ADB in Thailand and *Large Scale Photo-Voltaic Program*, implemented by IDB in Chile make up for almost 70 percent of the portfolio.
- *Hydro:* Under the *Private Sector RE and EE Project*, implemented by IBRD, in Turkey CTF is supporting over 1,100 MW of small hydro (less than 10 MW).
- *Geothermal:* Altogether 105 MW of geothermal capacity has been installed by projects all of which are in the Europe and Central Asia region with two of the three projects in Turkey.

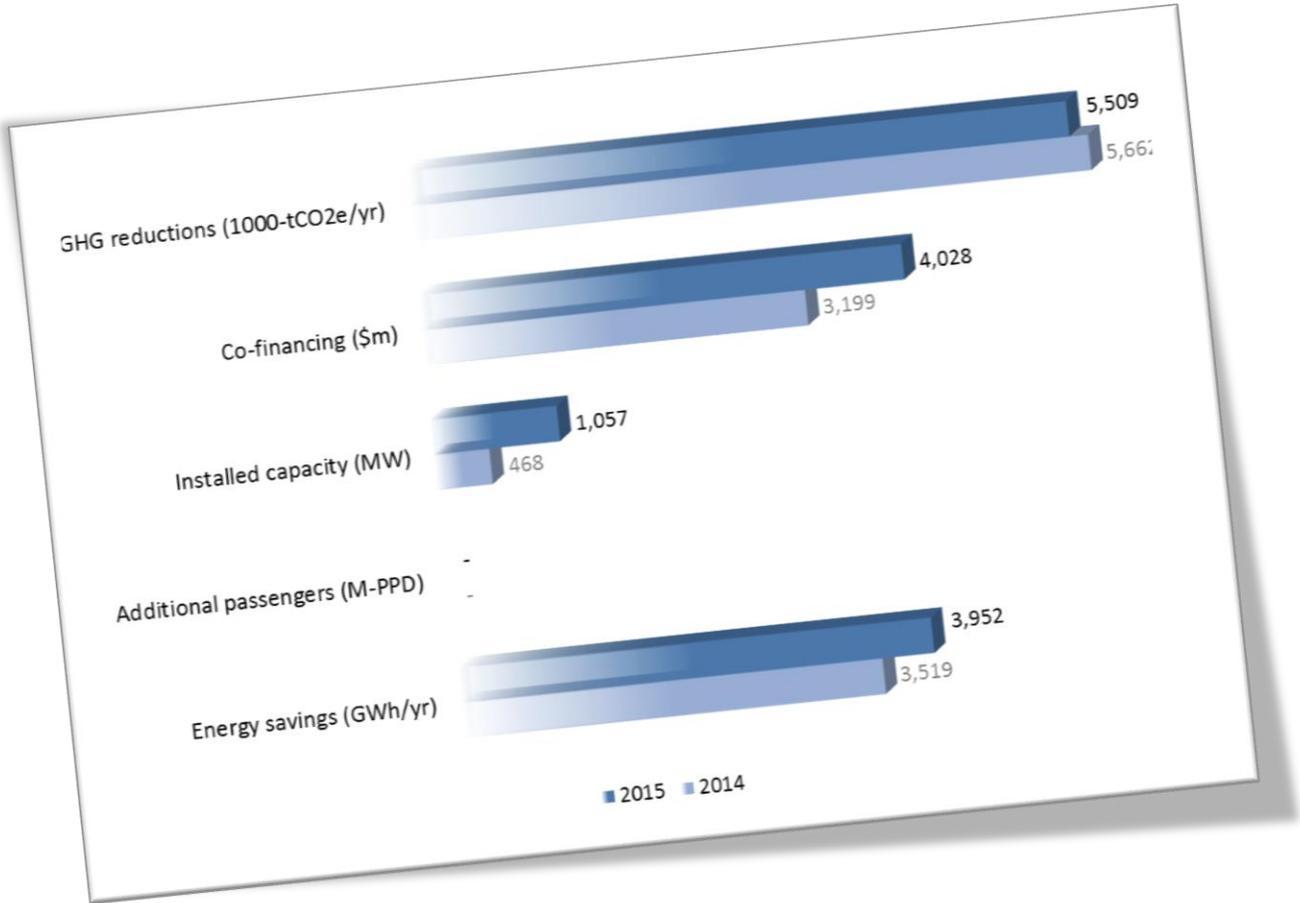
**Energy savings:** Ten out of 55 projects/ programs are under operation and resulting in energy savings. The *Private sector RE and EE Project*, implemented by IBRD and *Private Sector Bank-Intermediated Project (TURSEFF II, TurREFF, Mun SEFF)*, implemented by EBRD, both in Turkey, were responsible for 45 percent of the energy savings reported in 2015. Over 80 percent of projects are in Europe and Central Asia.

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<sup>7</sup> Source: US EPA Greenhouse Gas Equivalencies Calculator

# Results Comparison: Current vs. Previous Reporting Year

Compared to 37 projects/ programs, with a total CTF funding of USD 2,598 million in 2014, the current report covers 55 projects/ programs with CTF funding of USD 3,509 million.

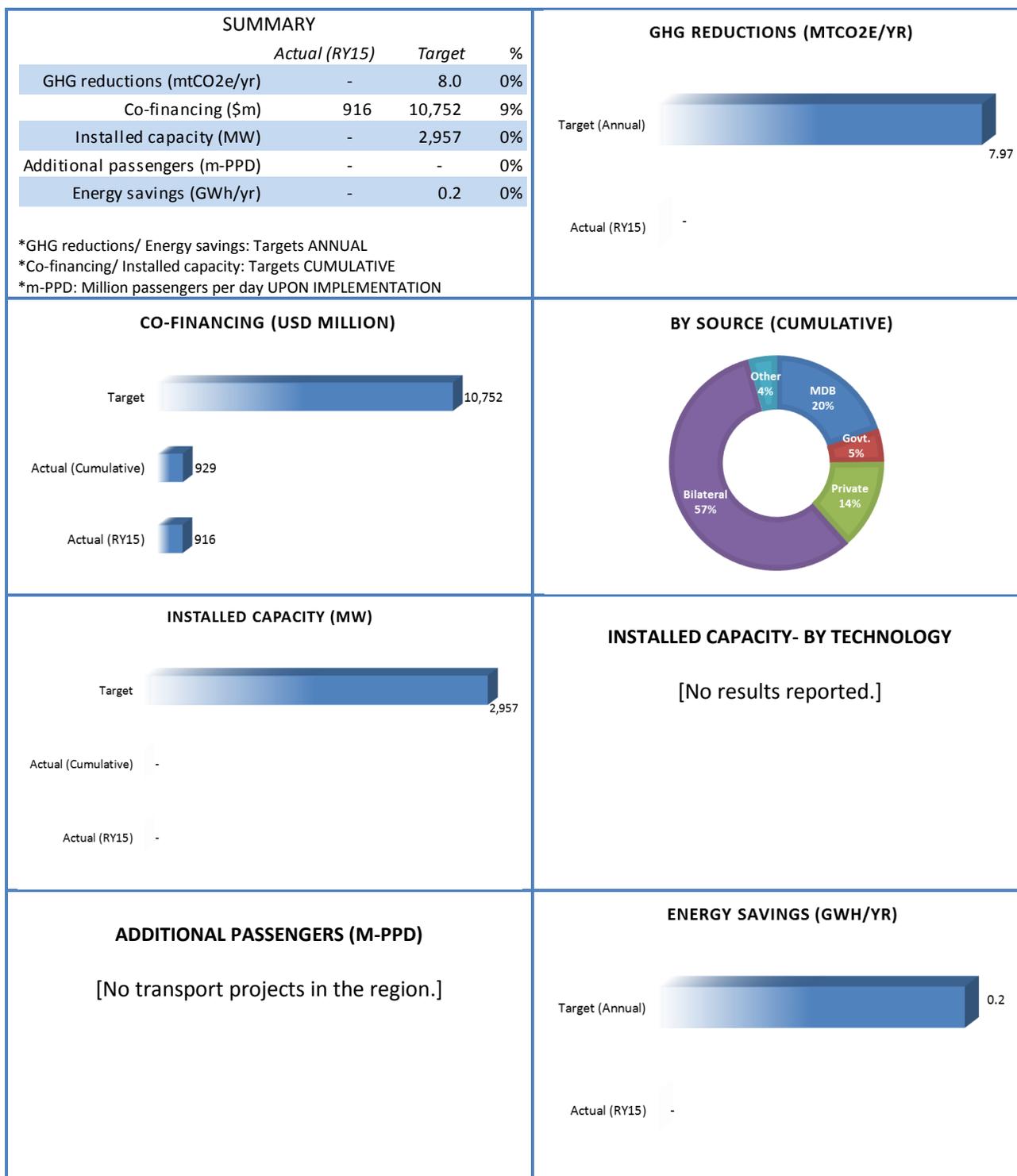


**GHG reductions:** The volume of GHG reductions reported is at similar levels than what was reported during last period with a slight decrease from 2013 to 2014. This decrease is due to the fact that two projects/ programs that reported results in 2013 (over 0.25 mtCO2e) did not report in 2014 due to lack of available data.

**Co-financing:** Results for the current year were higher than last year largely on account of the *Urban Transport Transformation Project* implemented by IBRD in Mexico and the *Ouarzazate CSP (Noor I)* project implemented by AfDB in Morocco that mobilized over half of the total co-financing for this period. Financing was mobilized mainly from the bilateral, government and the private sector sources.

**Installed capacity:** Wind continues to be one of the most installed technologies this year as well with over 425 MW in capacity being installed during the period, almost 50 percent more than last reporting period.

**Energy savings:** The amount of energy savings reported during this period were over 10% higher compared to that reported during the previous period. The latest figure does not include one project that reported around 475 GWh in savings last time, which did not report due to lack of available data.



**Number of projects/ programs** reporting results: 9

All the projects in the portfolio are at an early stage of implementation, hence not reporting on all key parameters such as GHG reductions, installed capacity or energy savings.

**Co-financing:** Cumulatively, most of the co-financing has been mobilized by *Ouarzazate CSP (Noor I)* project implemented by AfDB in Morocco, followed by ESKOM Renewable Support Project- Wind, implemented AfDB and IBRD in South Africa. Over half of the co-financing has come from bilateral sources, followed by those from the MDBs and the private sector.

**Installed capacity:** Wind and solar have the largest share of all the renewable energy technologies planned to be implemented in the region. They account for over three-quarter of the planned installed capacity.

## #CIFImpact

### South Africa: Sere Wind Farm (IBRD/ AFDB)

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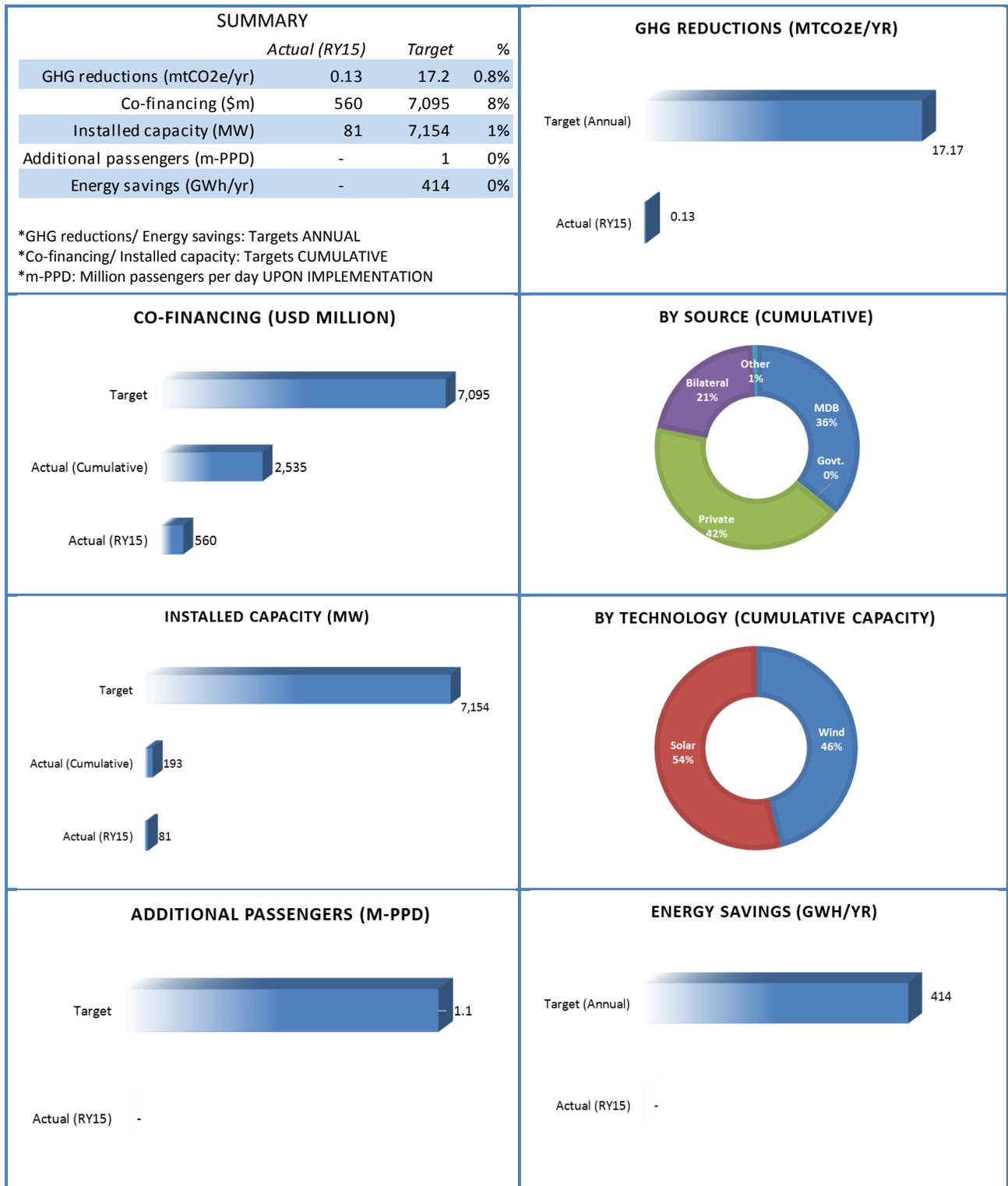
- CTF funding: USD 100 million
- GHG reductions: 238,000 tCO<sub>2</sub>e/year
- Co-financing: USD 787 million
- Installed capacity: 100 MW

The plant consists of 46 turbine towers generating 100 MW, a 132kV distribution line, transmission feeder bay, a substation, operations and maintenance building, and a Visitor Center. It was handed over from the construction to the operations and maintenance team in March 2015 and is now in full commercial operation as **Eskom's first utility scale renewable energy project and one of the largest wind farm projects in Africa.**

Since the energizing of the first wind turbine in October 2014, the plant has contributed over 90 GWh of electricity to the National Grid and is contributing to reducing load shedding. There were no environmental legal contraventions recorded on the project and given the extent of the site and the amount of bush clearing done, this is quite an achievement. Project cost was below appraisal estimates and, although

procurement was delayed due to rebidding of the main engineering, procurement and construction (EPC) contract to include a management and operation (O&M) contract and a delay in Government of South Africa's Financial Management Act approval (PFMA), construction proceeded according to plan. The construction period was two years from the award of contract in December 2012. There is a five-year O&M arrangement with the construction contractor, Siemens Wind Power of Denmark.

The concessional funds from CTF helped mitigate various technological and investment risks by making financing attractive for existing and potential investors. It also helped address risk perception through demonstration effect thereby facilitating further expansion of the renewables in the country. These efforts would not only provide energy security, but also support industrial development and job creation to the local population.



Number of projects/ programs reporting results: 13

**Greenhouse gas (GHG) reductions:** Three out of 13 projects are reporting GHG emissions reductions. The rest are in early stages of development. Most of the GHG reductions have been reported for the *Private Sector Renewable Energy Program*, implemented by ADB in Thailand.

**Co-financing:** Over three-quarters of the co-financing has come from the private sector along with the MDBs, and attributed primarily to one project, *Private Sector Geothermal Energy Program*, implemented by ADB in Indonesia. Under this program, two sub-projects have been approved with a total co-financing of USD 1,627 million from MDB, private, bilateral, and other sources.

**Installed capacity:** Out of the total capacity of renewable energy generation sources installed and supported by CTF actually reporting results so far, the share of solar is by far the largest, followed by wind. IFC's early support of SPCG's solar farms allowed it to mobilize additional capital resulting in over 12 MW of installed capacity. By 2014, SPCG – a woman-owned business – was the largest solar power company in Thailand, having attracted upwards of \$800 million of investment, built over 250 MW of solar PV capacity, mitigating some 200,000 tCO<sub>2</sub>e/year. It was recognized with the prestigious UNFCCC Momentum for Change award which spotlights some of the most innovative, climate-smart projects globally

## #CIFImpact

### Central Thailand Solar Power Project (ADB)



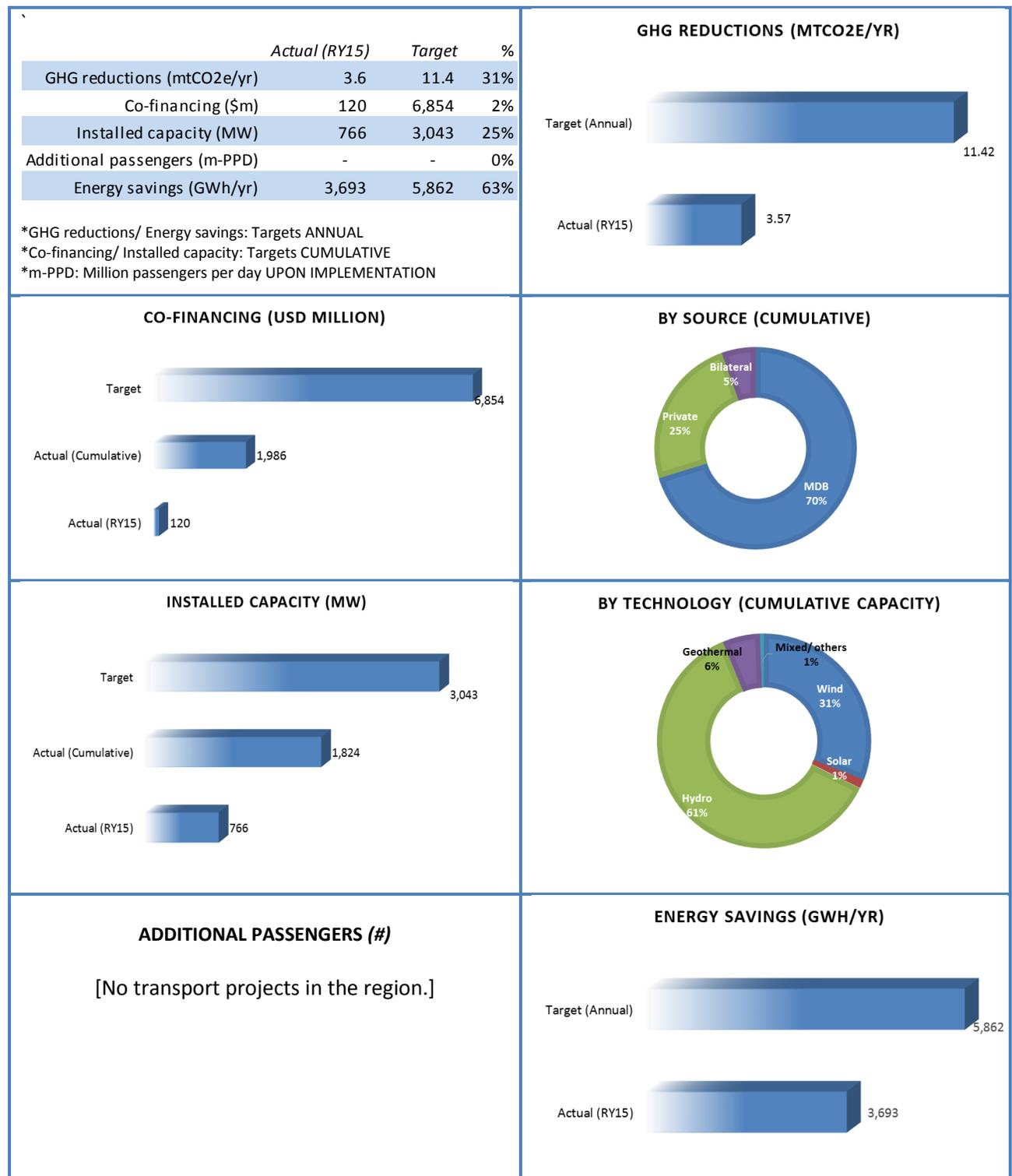
- CTF funding USD 100 million
- GHG reductions: 65,000 tCO<sub>2</sub>e/year
- Co-financing: over USD 175 million
- Installed capacity: 57 MW

The *Private Sector Renewable Energy Program* with total CTF project funding of USD 100 million seeks to build a portfolio of first generation renewable energy projects, with high replication potential and demonstrable developmental effects, to facilitate private sector participation and further catalyze market transformation by enhancing sectoral capacity in implementing solar and wind projects.

The *Central Thailand Solar Power Project* is the third project under this Program and

is designed to install solar photovoltaic (PV)–powered electricity generation facilities with a total capacity of 57 MW. The project is developed as a public–private partnership under the very small power producer (VSPP) program, which buys renewable energy from private sector power plants with capacity of up to 10 MW to provide clean electricity to the grid. It is funded by a combination of loan from ADB, CTF and local commercial bank, and equity from project developer.

CTF financing is critical in co-financing the project, structuring it with minimum concessionality to provide lower interest and transaction fees and longer tenor than what was available through commercial banks. This enhanced the project's financial viability. Launching the commercial operation of this project has had a high demonstration impact by successfully developing a replicable model for national and regional independent power producers (IPP). It has helped establish a critical mass of completed solar power projects that will reduce the perception of risk, resulting in a lower cost of capital and enabling future projects to achieve financial close and sustainability through domestic regulatory support alone (feed-in tariffs/adders). With the reduction of financial and market risks, the project anticipates even greater numbers of private sector project developers and end users. Other development impacts include opportunities for future equipment manufacture, environmental co-benefits like improved air quality, and job creation and economic development, among others.



Number of projects/ programs reporting results: 18

**Greenhouse gas (GHG) reductions:** Eight out of the 18 projects have reported GHG emissions reductions (four in renewable energy, four in energy efficiency). Cumulatively, total reductions supported by projects reporting results so far is 14 million tCO<sub>2</sub>e against a lifetime target of around 200 million tCO<sub>2</sub>e. Over three quarters of reductions can be attributed to *Private Sector RE and EE Program*, implemented by IBRD in Turkey and involving on-lending for renewable energy (90 percent of funds) and energy efficiency (10 percent) projects through two local financial institutions.

**Co-financing:** The largest source of co-financing has been the MDBs, followed by the private sector, which has mobilized over a quarter of the cumulative co-financing so far. Over three quarters of the co-financing being reported herein can be attributed to two projects: *Turkish Private Sector Sustainable Energy Financing Facility (TurSEFF)*, implemented by EBRD, and *Private Sector RE and EE Program*, implemented by IBRD. Together, they have been able to leverage CTF financing of USD 150 million at a ratio of 1:11.

**Installed capacity:** The biggest source of renewable energy generation comes from small hydro (less than 10 MW), followed by wind, under the *Private Sector RE and EE Program*, implemented by IBRD, in Turkey. Together, they constitute over three-quarters of total renewable capacity installed in the region so far.

**Energy savings:** *Private Sector RE and EE Program*, implemented by IBRD, and *Turkish Private Sector Sustainable Energy Financing Facility (TurSEFF)*, implemented by EBRD, both in Turkey, account for most energy savings in 2015, as well as cumulatively; both are implemented through local financial institutions.

## #CIFImpact

### Turkey: Turkish Private Sector Sustainable Energy Financing Facility (TurSEFF) (EBRD)

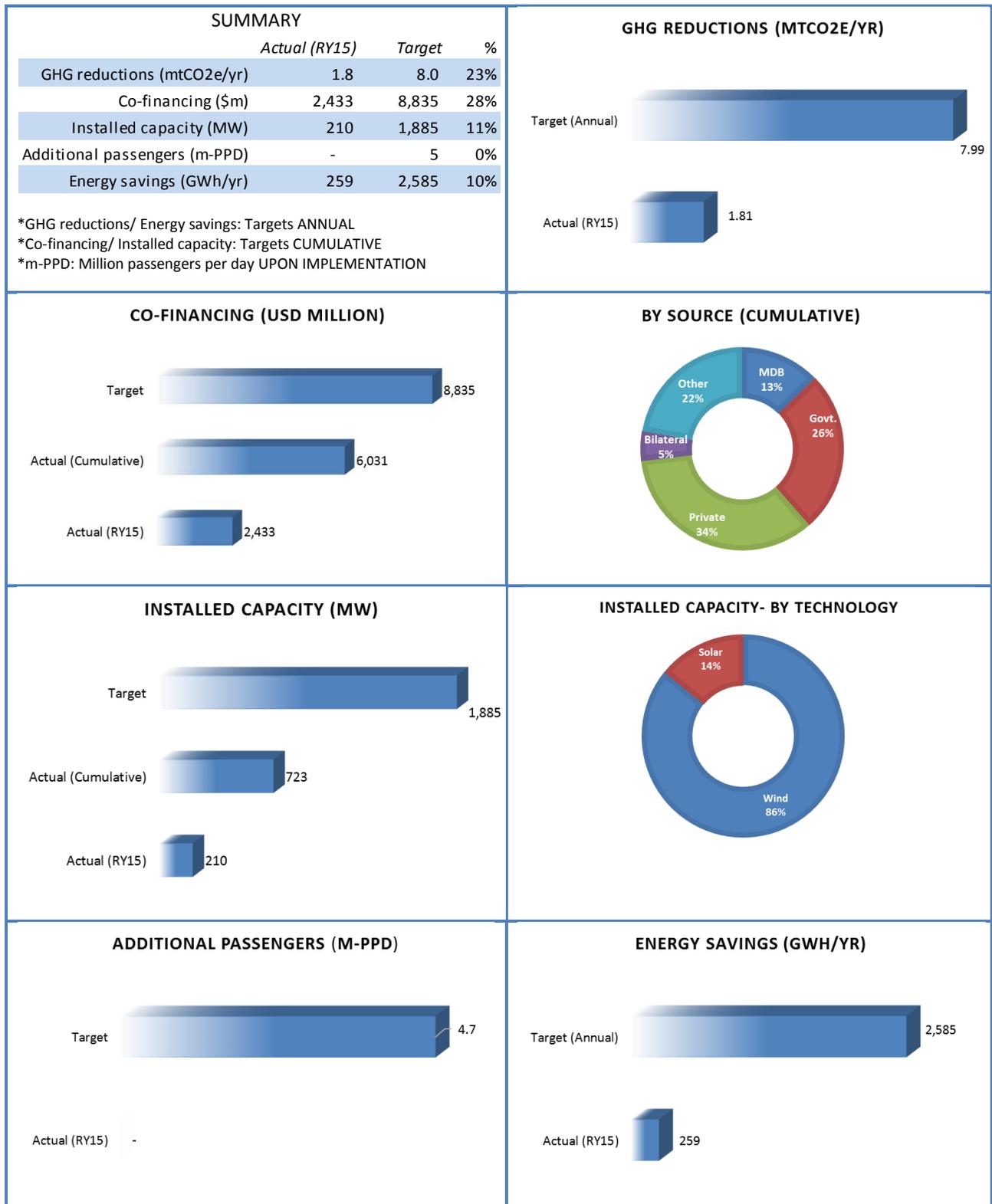


- CTF funding USD 50 million
- GHG reductions: 750,000 tCO<sub>2</sub>e/yr
- Co-financing: USD 200 million
- Energy savings: 684 GWh/yr.

TurSEFF is a financing facility currently valued at USD 289 million. It was launched by EBRD to support major banks—Akbank, Denizbank, Garantibank, Isbank, and Vakifbank—, as they created lending products for sustainable energy, developed a project pipeline, assessed loan requests, and verified the implementation of projects.

The project involved concessional funding from the CTF, non-concessional funding from the EBRD, and technical assistance to banks and investors financed by resources from

the CTF and European Union. CTF concessional funding combined with EBRD commercial funding created more attractive pricing and longer maturities for local partner banks. While EBRD loans had a maturity of five years, including a two-year grace period, CTF funds were offered with a maturity of 15 years and a grace period of seven years. About 65 per cent of the funds financed energy efficiency projects, with process machinery replacement (18 per cent), heating, ventilation and air-conditioning (16 per cent), co-generation (14 per cent), and pumps and motors (12 per cent) accounting for the bulk of investments (60 per cent); while 35 per cent of the loans were used to support renewable energy projects with hydropower projects having the biggest share (92 per cent), followed by wind projects (5 per cent).



Number of projects/ programs reporting results: 15

**Greenhouse gas (GHG) reductions:** Almost half of the projects have reported GHG emission reductions so far. Cumulatively, total reductions supported by projects reporting results so far is around 6 million tCO<sub>2</sub>e against a lifetime target of over 129 million tCO<sub>2</sub>e. *Efficient Lighting and Appliance Project*, implemented by IBRD and *Renewable Energy Program*, implemented by IDB, both in Mexico, are the top two sources of GHG reductions in the region, on an annual as well as cumulative basis so far.

**Co-financing:** Most co-financing mobilized last year, as well as cumulatively so far, has been by the *Urban Transport Transformation Project* implemented by IBRD in Mexico. The government and private sector are the main sources of co-financing of this project.

**Installed capacity:** Total installed capacity of renewable energy generation sources supported by CTF actually reporting results so far is over 720 MW, over a quarter of which came online last year. Most of the installed capacity involves wind based generation followed by solar PV.

**Energy savings:** *Efficient Lighting and Appliance Project* has been the source of almost all of the energy savings reported in the region, which has almost one-third of all the energy efficiency projects.

### #CIFImpact

#### Mexico: ECOCASA Energy Efficiency Program (IDB)



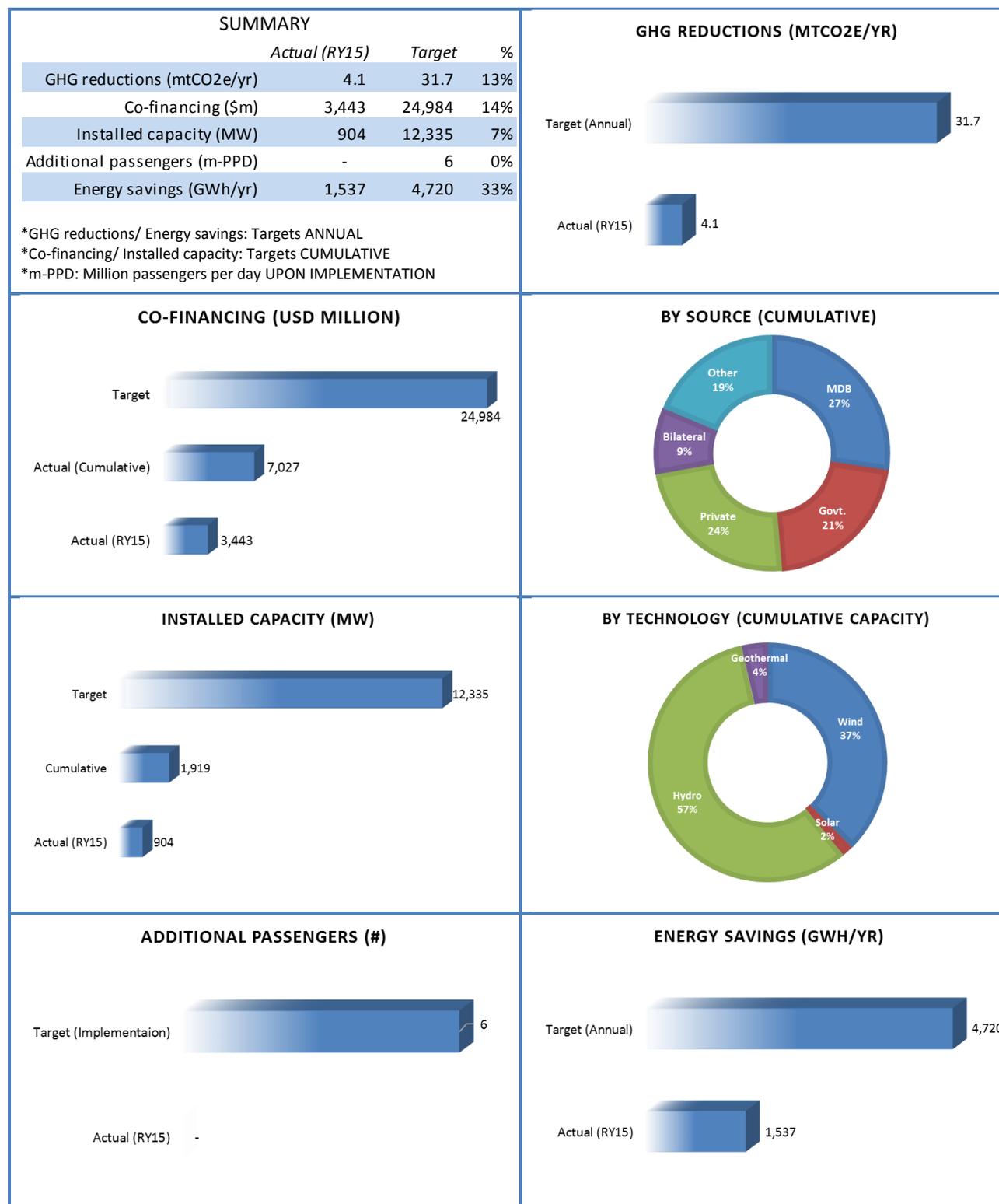
- CTF funding USD 52 million
- GHG reductions: 25,000 tCO<sub>2</sub>e/yr
- Co-financing: over USD 160 million
- Energy savings: 36 GWH/year

The Ecocasa Program is helping Mexico build more efficient low-cost houses and tackle climate change by unlocking financing under the framework of the NAMA for Sustainable New Housing. It contributes to the efforts to reduce GHG emission of the residential sector by pursuing two specific objectives: (i) increase the production of low carbon housing by financing developers through the National Housing Development Bank (SHF); and (ii) increase the supply of mortgages for low-carbon housing, by providing resources for local financing intermediaries to fund mortgage loans. SHF provides support to

housing developers, based on an ex-ante assessment of energy consumption carried out with SISEVIVE, a tool developed by the National Workers' Housing Fund Institute (INFONAVIT).

CTF concessional resources are used to provide bridge loans to housing developers. At present, there are no financial mechanisms to encourage developers to build sustainable housing beyond the inclusion of some specific technologies under existing programs. The provision of bridge loans with concessional rates will set incentives for the developers to construct more energy efficient houses over time. This will not only lead to energy and, ultimately, cost savings but also provide improved living conditions to home owners. In the process, it will help create a market for sustainable housing and support growth of local industry and skills.

Ecocasa has won international awards such as the UNFCCC Lighthouse Activity Award and the Ashden Award for Sustainable Buildings. The Program has fostered collaboration between SHF, INFONAVIT, the Ministry of Land Use and Urban Development (SEDATU), and the National Housing Commission (CONAVI), with the support of international development finance institutions (IDB and KfW) and development agencies (GIZ). Ecocasa is currently undergoing an impact evaluation that will provide further lessons. Visit [www.ecocasa.gob.mx](http://www.ecocasa.gob.mx)



Number of projects/ programs reporting results: 28

**Greenhouse gas (GHG) reductions:** Five of 28 projects have reported GHG reductions so far. The rest are large infrastructure projects in the early stages of development. Cumulatively, total reductions supported by projects reporting results so far is around 15 million tCO<sub>2</sub>e against a lifetime target of over 650 million tCO<sub>2</sub>e. *Private Sector RE and EE Program*, implemented by IBRD in Turkey, and *Efficient Lighting and Appliance Project* implemented by IBRD in Mexico, are the top two sources of GHG reductions out of all the public sector projects supported by the CTF, on an annual as well as cumulative basis so far.

**Co-financing:** While most of the co-financing comes from the MDBs, they are closely followed by the government and the private sector. Together, they make up over three-quarters of the total co-financing mobilized. The largest volume of co-financing has been mobilized by the *Urban Transport Transformation Project* implemented by IBRD in Mexico that has mobilized over USD 3 billion, mostly from private sector and government sources.

**Installed capacity:** Cumulatively so far, most renewable energy capacity has been installed through the *Private Sector RE and EE Program*. The project also installed the most renewable capacity, primarily hydro and wind, in the latest reporting period.

**Energy savings:** Results can primarily be attributed to *Private Sector RE and EE Program* in Turkey and *Efficient Lighting and Appliance Project* in Mexico, both implemented by IBRD. The latter project involves replacement of incandescent bulbs with 45 million CFLs and 1.7 million inefficient appliances (refrigerators and air conditioners) thereby resulting in energy and, ultimately, cost savings.

#CIFImpact

Morocco: Noor Concentrated Solar Power (CSP) Program (AfDB/ IBRD)

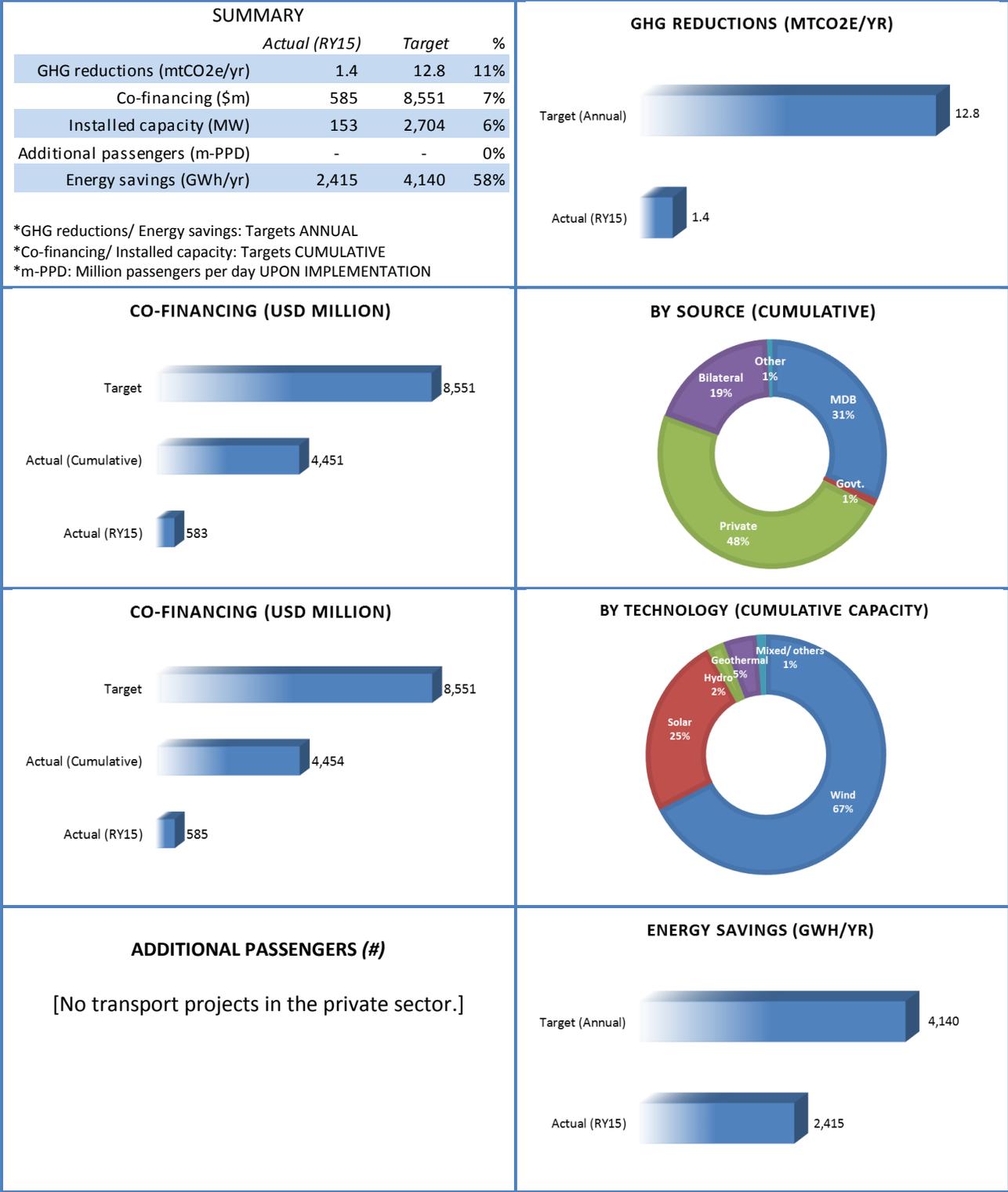


- CTF funding: USD 238 million
- GHG reductions: 521,000 tCO<sub>2</sub>e/yr
- Co-financing: USD 2,785 million
- Installed capacity: 350 MW

With the project's first phase (Quarzazate I, now referred to as Noor I) underway, the CTF, AfDB and the World Bank are funding the next phase of the Noor Complex, comprising *Noor II and III CSP projects*. It is made up of two path-breaking Independent Power Producer (IPP) projects to design, finance, construct, operate, and maintain thermal solar power plants: Noor II will be a 200 MW CSP parabolic trough CSP plant with a

storage capacity of five hours and a 600 GWh/year output. Noor III will be a 150 MW CSP tower plant with a five-hour thermal storage capacity and an output of 500 GWh/year. The Noor Solar Complex is **one of the largest planned Concentrate Solar Power (CSP) plants in the world**, and is estimated to reduce CO<sub>2</sub> emissions by 700,000 tons per year and supply power to 1.1 million Moroccans. Noor I is under construction and should be operational by the end of 2015.

The project's innovative financing support mechanism, including USD 238 million from the CTF, will bring down the capital cost of CSP to levels comparable with traditional technologies and the wholesale cost of power in Morocco. It can be expected to reduce the CSP global cost curve by 3 percent. The project will help diversify Morocco's energy mix, enhance energy security, contribute to industrial development, and help create an estimated 11,000 new jobs.



Number of projects/ programs reporting results: 27

Greenhouse gas (GHG) reductions: Almost half of the projects, split between renewable energy and energy efficiency, are reporting emission reductions. Cumulatively, total reductions supported by projects reporting

results so far is over 5 million tCO<sub>2</sub>e against a lifetime target of over 210 million tCO<sub>2</sub>e. The *Renewable Energy Program*, implemented by IDB in Mexico, had the biggest share of GHG reductions for the most recent reporting period, as well as on a cumulative basis.

**Co-financing:** Close to half of the co-financing has been mobilized by the private sector; together with the MDBs, they account for over 90 percent of the co-financing. *Private Sector Geothermal Energy Program*, implemented by ADB in Indonesia, has mobilized USD 1.6 billion in co-financing, primarily from MDB, private, and bilateral sources.

**Installed capacity:** Cumulatively so far, the most renewable energy capacity has been installed through the *Renewable Energy Program*, implemented by IDB in Mexico. In the latest reporting period, another ADB project in Thailand, *Private Sector Renewable Energy Program*, reported the most renewable capacity installed- 81 MW of wind based generation.

**Energy savings:** While *Turkish Private Sector Sustainable Energy Financing Facility (TurSEFF)*, implemented by EBRD in Turkey has reported the biggest energy savings on a cumulative basis, *Private Sector Bank-Intermediated Project (TURSEFF II, TurREFF, Mun SEFF)*, also implemented by EBRD in Turkey, started reporting significant savings (850 GWh) in the latest reporting period.

### #CIFImpact

#### Turkey: Commercializing Sustainable Energy Financing (CSEF) Program (IFC)



- CTF funding USD 22 million
- GHG reductions: 280,000 tCO<sub>2</sub>e/yr
- Co-financing: USD 80 million
- Energy savings: 220 GWh/ yr.

Turkish financial institutions have been reluctant to offer financing to businesses to support energy efficient initiatives. To help local banks increase energy efficiency financing, IFC launched the *Commercializing Sustainable Energy Financing Program (CSEF)*. With almost USD 100 million of IFC capital blended with USD 20 million from CTF, CSEF helped some of Turkey's

leading financial institutions develop, market, and scale their energy efficiency and renewable energy leasing solutions with the focus on small and medium-sized enterprises (SMEs). Through a series of successful investments into three local leasing companies (FinansLeasing, IsLeasing, and Yapi Kredi Leasing/YKL), IFC has helped over 50 end-use customers achieve operational costs reductions, while improving their environmental footprint. YKL, for example, has witnessed its energy efficiency finance portfolio increase from USD 20 million to USD 200 million under CSEF in just few years. YKL credits IFC and CSEF for increasing the company's internal capacity to offer energy efficiency financing, allowing it to quickly grow the business on a fully sustainable and scalable basis. In 2014, IFC provided YKL with a follow-up investment of USD 96 million, the largest loan provided by IFC to the leasing sector globally to date. In 2015, Finans Leasing expanded its energy efficiency product line for SMEs with an additional USD 60 million in financing from IFC (including USD 20 million from institutional investors).

## Co-benefits

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In addition to core indicators, at least one indicator for a development co-benefit is expected to be identified and integrated into each project/program financed under the CTF with reporting done when appropriate, preferably annually.

**Economic co-benefits:** CTF-funded projects reporting results so far have facilitated growth in local industries like solar, wind, among others. Through demonstration effect, these projects address risk perception around new technologies, like CSP, or efficient equipment, such as lighting and appliances, and in the process, facilitate private sector participation thereby increasing competitiveness and lowering costs. Indirectly, projects result in both short and long-term job creation. Over 25,000 jobs are expected to be created during different stages of project development, from short-term jobs during construction phase to more long-term jobs during the implementation phase. With improved affordability due to lower costs and increased income levels from new jobs, these projects help improve local economic conditions.

**Environmental co-benefits:** Due to increased use of renewable energy sources and more efficient equipment that reduce further dependence on fossil fuel, CTF-funded projects result in avoided local pollution, leading to public health benefits associated with improved living conditions. For example, the *Urban Transport Transformation Project* implemented by IBRD in Mexico aims to improve transport infrastructure by creating integrated mass transit systems, introducing low-carbon buses, and building local capacity to help promote a sustainable model of urban development in the country.

**Social development co-benefits:** CTF funding has also been used by project developers toward building local capacity. In many cases, local manufacturing, workers, or local financial intermediaries have not been exposed to certain risks or a technologies, as was the case of the ECOCASA project in Mexico or the TurSEFF project in Turkey. Renewable energy projects, such as the geothermal program in Indonesia, are expected to expand access through over 950,000 new connections. One of the critical benefits of sustainable transport projects is reduction in traffic accidents. It all adds up to savings on public health expenditure.

## Topics of Further Interest

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### **Online reporting**

The CIF Administrative Unit has been working to migrate the results data to an online platform to ensure quality control and convenient access to CTF Trust Fund Committee members and other users to serve their individual analytical needs. The migration is expected to be a two-step process where the data will first be moved to the World Bank's Online Open Source Data platform, also known as SOCRATA, which provides internal and external users the ability to create ad-hoc, on-demand visualizations of datasets using a toolkit provided within the dataset view on the web portal. It does not require downloading the dataset or any software application.

In parallel, there has been an ongoing work to migrate all data—operations financial, and results—to an online system known as FIF Collaboration Platform. The move has been gradual and is being developed in two stages. Stage 1 involves migrating the operations and financial data—work that is well advanced. Stage 2 will include migration of the results data. The platform will provide analytical tools per user demand and an interface to users (in this case, the MDBs) to enter data directly into the system. This will enhance accuracy by reducing human error and further improve data quality.

### **Leverage Common Practice Working Group**

In October 2014, six MDBs<sup>8</sup> formed a working group to explore ways in which the approach to calculating and reporting “leverage” could be harmonized. The primary objective of this group is to lead and oversee the development of a single methodology to be used across MDBs, and possibly other DFIs, that harmonizes the definition and propose indicators that assess leverage or mobilization of public and private investment from MDB climate investments. Furthermore, this work is expected to lower reporting costs at the client level, facilitate the learning process from each other, and, eventually, tell a shared development story in terms of overall climate finance.

Based on the final outcomes, the CIF Administrative Unit can update the CTF Trust Fund Committee of the approach agreed upon by these institutions and thereby support the committee in deciding whether the approach should be considered to further refine the co-financing indicator as currently reported by the MDBs as project or program results.

### **IFI Working Group on GHG Harmonization**

In discussing cost-effectiveness of CTF projects, the CTF Trust Fund Committee agreed, among other things, that “[T]he MDBs will report every two years, beginning in 2014, to the Trust Fund Committee on the current and planned work of each MDB in GHG analysis and the development and application of methodology for estimating GHG emissions reduction and their joint efforts to harmonize GHG estimation methodology among the MDBs.”

The International financial institutions have continued to work on harmonized approaches<sup>9</sup> to project-level greenhouse gas (GHG) accounting for renewable energy, energy efficiency and transport projects. While the renewable energy methodology is close to finalization, energy efficiency is at a much advanced stage even as the transport method is picking up speed. The CIF Administrative Unit will provide the next round of updates in November 2016 as requested by the Trust Fund Committee.

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<sup>8</sup> African Development Bank (AfDB), the Asian Development Bank (ADB), the European Bank for Reconstruction and Development (EBRD), the European Investment Bank (EIB), the Inter-American Development Bank (IADB) and the World Bank Group (WBG).

<sup>9</sup>[https://www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/CTF\\_14\\_Inf%20Greenhouse\\_Gas\\_Analysis\\_and\\_Harmonization\\_of\\_Methodology.pdf](https://www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/CTF_14_Inf%20Greenhouse_Gas_Analysis_and_Harmonization_of_Methodology.pdf)