

CLIMATE INVESTMENT FUNDS

SREP/SC.21/3

May 8, 2019

Meeting of the SREP Sub-Committee

Washington, DC

June 4, 2019

Agenda 3

SREP SEMI-ANNUAL OPERATIONAL REPORT

PROPOSED DECISION:

The SREP Sub-Committee reviewed the document, SREP/SC.21/3, *SREP Semi-Annual Operational Report*, and welcomes the progress that has been made in advancing the work of the SREP in the pilot countries.

The SREP Sub-Committee appreciates the analysis conducted by the CIF Administrative Unit, in collaboration with the MDBs, on achievements, resource availability, pipeline review, and portfolio updates.

Table of Contents

1	Introduction	3
2	Strategic issues.....	3
2.1	Overview of SREP implementation	4
2.2	Resource availability	7
3	Status of the SREP portfolio	8
3.1	Portfolio overview and updates.....	8
3.1.1	Investment plans.....	11
3.1.2	SREP Sub-Committee approvals.....	13
3.1.3	MDB approvals.....	13
3.2	Update on projects implementation	16
3.3	Co-financing	22
3.4	Disbursement.....	23
4	Cross-cutting themes	24
4.1	Gender	24
4.2	Risk management.....	25
4.3	Knowledge management	26
4.3.1	Update on CIF Evaluation and Learning (E&L) Initiative	28
4.3.2	SREP Pilot Countries Meeting	28
4.3.4	Other knowledge-sharing partnerships	29
	Annex 1: Resource availability (as March 31, 2019)	32
	Annex 2: SREP pipelines	34
	Annex 3: Overview of SREP portfolio with a breakdown by country	36
	Annex 4: Disbursements by project (public sector) in USD million	37

1 Introduction

1. The Scaling up Renewable Energy Program in Low Income Countries (SREP) aims to demonstrate the economic, social, and environmental viability of low-carbon development pathways in the energy sector by creating new economic opportunities and increasing energy access through the use of renewable energy.
2. This report provides an update on SREP, the portfolio of SREP-funded programs and projects under the endorsed investment plans and SREP Private Sector Set-Aside (PSSA), and related activities. This report covers the period from July 1 to December 31, 2018. Some strategic information, such as that related to the SREP resource availability, is provided as of March 31, 2019 to facilitate discussion and decision-making during the upcoming SREP Sub-Committee meeting.
3. The following annexes are included in this report: Annex 1: Resource availability, Annex 2: SREP pipelines, Annex 3: Overview of SREP portfolio by country, and Annex 4: Disbursements by project. Country-level information and updates will be provided in a separate information document, [SREP Country Portfolios](#).

2 Strategic issues

4. It has been over a decade since the global leadership recognized the enormity of the climate change challenge and responded by establishing Climate Investment Funds (CIF) to empower transformations in clean technology, energy access, climate resilience, and sustainable forests in developing and middle-income countries. Since then, CIF resources have grown to USD 8 billion covering 72 countries worldwide.
5. In January 2019, CIF hosted its 10th Anniversary event titled *Power of 10: Shaping the Future of Climate Action* in Ouarzazate, Morocco. The event brought together key stakeholders, including representatives from governments, private sectors, academia, global & regional development banks, among others to share lessons learnt and draw a roadmap forward to address the most daunting challenge of today, climate change.
6. Among other key outcomes, an Independent Evaluation and Evidence Synthesis of Transformational Change in the CIF, led by ITAD and the Overseas Development Institute (ODI), respectively, were launched, with important findings and lessons relevant to SREP and the global climate finance community at large. This external evaluation looked into CIF's contribution to transformational change in key markets and sectors over the past decade and identifies key factors for its success (see section 4.3.2 for details).



7. At the Morocco event, ministers in attendance from CIF recipient countries called for a [joint statement](#) to be signed and issued by CIF recipient countries, ahead of the next Joint Meeting of the Clean Technology Fund and Strategic Climate Fund Trust Fund Committees in June, calling to recapitalize the CIF in response to worsening consequences of climate change and sweeping finance gaps for low-carbon development. As of mid-April, 42 ministers from CIF recipient countries have signed a written statement communicating a shared position on the future of the CIF with more expected to be signing soon.

2.1 Overview of SREP implementation

8. SREP was launched in 2010 as a pilot program in six countries¹ with approximately USD 300 million in pledges and contributions. Over time, the number of countries has increased with the availability of additional resources. In 2012, six new pilots (seven countries) were added², and in 2014, the SREP Sub-Committee agreed to select another 14 countries³. SREP now consists of 27 pilot countries, while the total amount of SREP resources has increased to approximately USD 750 million.
9. The initial six countries, with the support of the MDBs, developed and submitted their investment plans for endorsement between 2011 and 2012. Subsequently, the additional six pilots, with the exception of Yemen, also completed their investment plans. Among the 14 new countries selected in 2014, eleven investment plans were endorsed between 2015 and 2019.
10. To date, the SREP Sub-Committee has endorsed investment plans for 23 pilot countries⁴ with a total indicative allocation of USD 785.4 million and seven project concepts under PSSA with a total indicative allocation of USD 92.4 million. Figure 1 provides a timeline of key milestones.

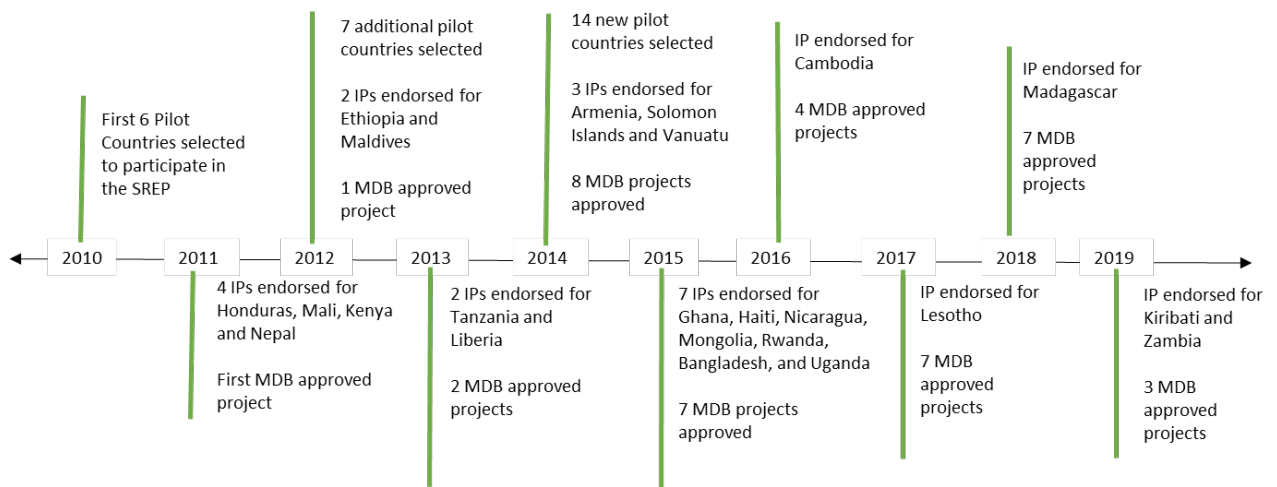
¹ The initial six pilot countries are: Ethiopia, Honduras, Kenya, Maldives, Mali, and Nepal

² These countries were previously on a reserve list: Armenia, Liberia, Mongolia, Pacific region (Solomon Islands and Vanuatu), Tanzania, and Yemen.

³ The 14 new countries are: Bangladesh, Benin, Cambodia, Ghana, Haiti, Kiribati, Lesotho, Madagascar, Malawi, Nicaragua, Rwanda, Sierra Leone, Uganda, and Zambia.

⁴ Including Kiribati investment endorsed by the SREP Sub-Committee at its meeting in February 2019 and revised Zambia investment plan pending decision.

Figure 1: SREP timeline with key milestones



11. The expected results from projects approved by the SREP Sub-Committee and projects in the sealed pipeline include an estimated 6,500-gigawatt hours (GWh) of renewable energy electricity to be generated annually (equivalent to the annual electricity production of Honduras), new or improved energy access for 17.6 million people (approximately the population of Zambia), and total estimated greenhouse gas (GHG) emissions to be avoided of 5.4 million tons CO₂e/yr.
12. Implementation progress varies among the pilot countries. Overall, about 89 percent of the available SREP resources have been approved by the Sub-Committee, with countries that joined SREP earlier reaching a higher approval rate than those that joined later. Figures 2 and 3 show trends in SREP funding approvals by the SREP Sub-Committee and implementing MDBs over time. (Table 4 in Section 3 contains country-specific approval rates).

**Figure 2: SREP Sub-Committee project approvals by fiscal year
(with projections for FY19S2-FY20)**

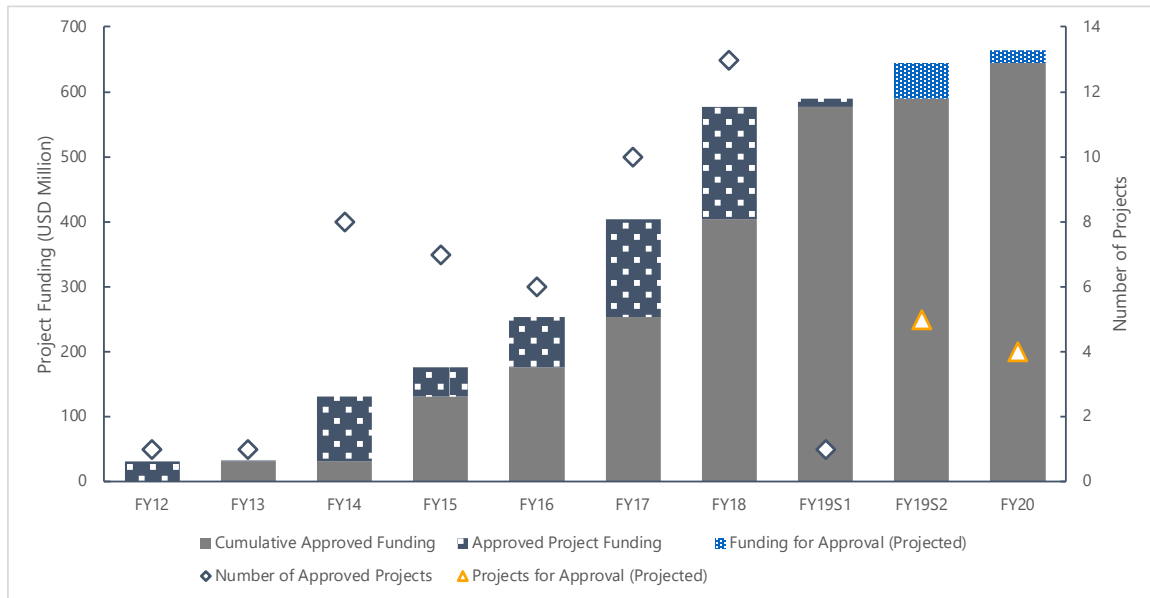
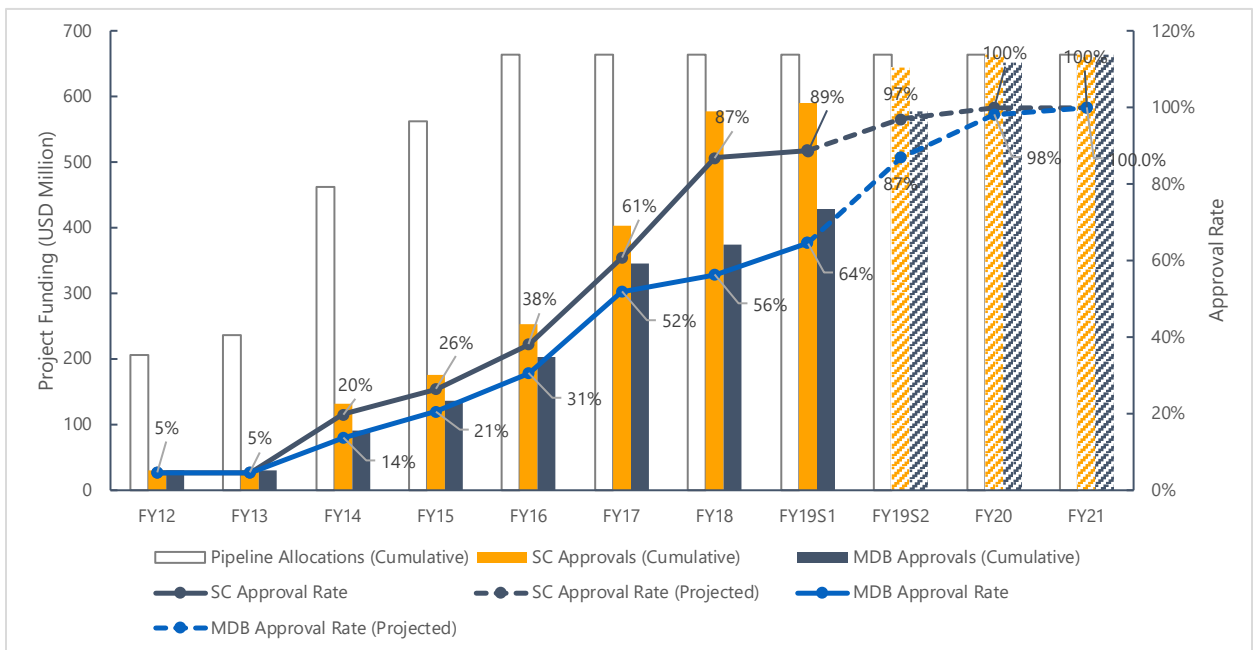


Figure 3: SREP funding approval rates by fiscal year (with projections for FY19S2-FY21)



2.2 Resource availability

13. The Trustee and CIF Administrative Unit have updated the resource availability for each SCF program. As of March 31, 2019, SREP had an unrestricted fund balance after administrative budget reserves of USD 73.7 million (USD 12.7 million grant and USD 61 million non-grant) (see Table 1 and Annex 1). Total anticipated commitments were USD 143.9 million, including projects and programs in the sealed and reserve pipeline, PPGs, and MPIS. As of March 31, 2019, SREP was experiencing a deficit in available resources of USD 70.2 million (USD 59.1 million in grant and USD 11.0 million in non-grant).

Table 1: SREP resource availability schedule summary for combined sealed and reserve pipeline (USD million, as of March 31, 2019)

		Total	Grant	Non-Grant
Unrestricted Fund Balance after reserves (A)		73.7	12.7	61.0
Anticipated Commitments (FY19-FY21)				
<i>Program/Project Funding and MPIS Costs</i>	(1)	143.9	71.9	72.0
Total Anticipated Commitments (B)		143.9	71.9	72.0
Available Resources (A - B)		(70.2)	(59.1)	(11.0)
Potential Future Resources (FY19-FY21)				
<i>Release of Currency Risk Reserves</i>	(2)	18.3	3.9	14.4
Total Potential Future Resources (C)		18.3	3.9	14.4
Potential Available Resources (A - B + C)		(51.8)	(55.2)	3.4

Note:

- (1) Includes both sealed and reserve pipeline.
 (2) Amounts withheld to mitigate over-commitment risk resulting from the effects of currency exchange rate fluctuations on the value of outstanding non-USD denominated promissory notes.

14. For planning purposes, the CIF Administrative Unit and the MDBs develop a sealed pipeline which matches the available resources for programming, including potential resources from the release of current risk reserves. Annex 2 provides an updated sealed pipeline as well as a reserve pipeline and a list of projects that are not under active development. The sealed pipeline will be kept under review and will be shared with the SREP Sub-Committee periodically.
15. Table 2 offers a scenario considering only the sealed pipeline.

Table 2: SREP resource availability schedule summary for sealed pipeline
(USD million, as of March 31, 2019)

		Total	Grant	Non-Grant
Unrestricted Fund Balance after reserves (A)		73.7	12.7	61.0
Anticipated Commitments (FY19-FY21)				
<i>Program/Project Funding and MPIS Costs</i>	(1)	75.7	15.7	60.0
Total Anticipated Commitments (B)		75.7	15.7	60.0
Available Resources (A - B)		(2.0)	(3.0)	1.0
Potential Future Resources (FY19-FY21)				
<i>Release of Currency Risk Reserves</i>	(2)	18.3	3.9	14.4
Total Potential Future Resources (C)		18.3	3.9	14.4
Potential Available Resources (A - B + C)		16.3	0.9	15.4

Note:

(1) Includes only the sealed pipeline

(2) Amounts withheld to mitigate over-commitment risk resulting from the effects of currency exchange rate fluctuations on the value of outstanding non-USD denominated promissory notes

3 Status of the SREP portfolio

3.1 Portfolio overview and updates

16. As of December 31, 2018, total funding approved by the SREP Sub-Committee reached USD 594.2 million⁵ for 47 projects and programs, including five projects under PSSA (see Table 3 for overview and Annex 3 for breakdown by country). This amount accounts for 89 percent of the SREP resource available for programming. These projects are expected to leverage a total of USD 3.3 billion in co-financing from the governments of the recipient countries, MDBs, private sector, and bilateral agencies. This represents an SREP co-financing ratio of 1 to 5.5. Detailed information on co-financing breakdown by project is included in the information document, [SREP Country Portfolios](#). Figure 4 provides a breakdown of the SREP portfolio by MDB, region, sector, and technology.

Table 3: Overview of SREP portfolio (as of December 31, 2018)⁶

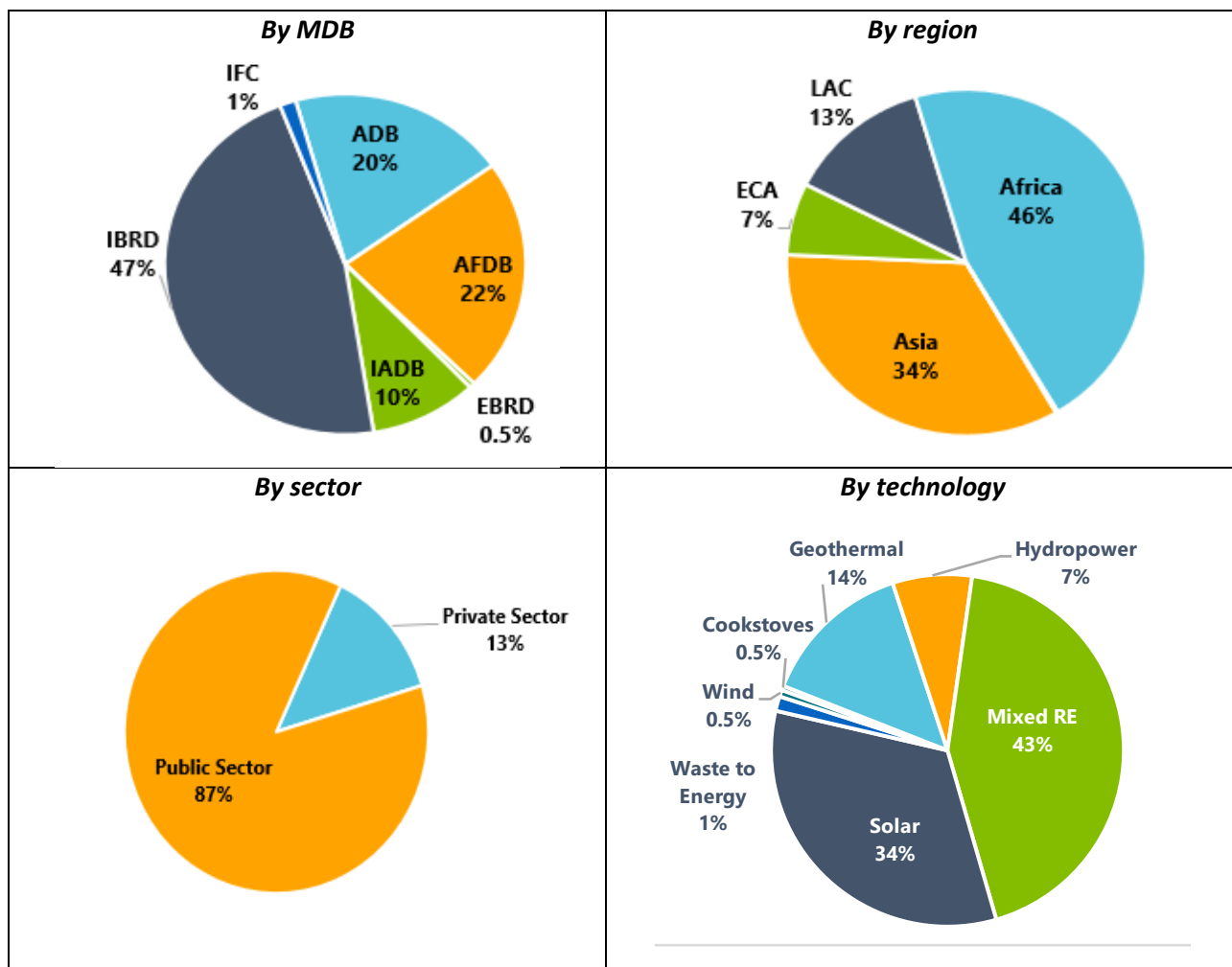
	Indicative pipeline allocation				Approved funding		Disbursement
	TOTAL	IP	PSSA	IPPG	Sub-Committee	MDB	
SREP funding (USD million)*	736.2*	646.4	85.2	4.6	594.2	438	102
Number of projects	63	57	6		47	37	28

Note: * Includes sealed and reserve pipelines, PPGs, and MPIS

⁵ Total approved project funding=project funding+ IPPGs + PPGs

⁶ Excluding projects that have been cancelled or dropped.⁷ Zambia revised IP is pending decision and not included in this table

Figure 4: SREP Sub-Committee-approved funding by MDB, region, sector, and technology
(as of December 31, 2018)



Note: Mixed RE refers to projects considering multiple renewable energy technologies

17. Table 4 presents the status by country of the 22 endorsed investment⁷ plans and PSSA concepts along with the rates of funding approvals. It should be noted that 11 of the 22 countries received endorsement of their investment plans since May 2015.

⁷ Zambia revised IP is pending decision and not included in this table

Table 4: Endorsement of investment plans and PSSA concepts
(USD million, as of December 31, 2018)

	Country/Region	Endorsement date	Indicative allocation	Indicative pipeline funding ¹	Approved funding	% Approval over indicative pipeline
First group of countries	Ethiopia	Mar-12	50.0	31.6	29.6	94%
	Honduras	Nov-11 ²	30.0	29.1	29.1	100%
	Kenya	Sep-11	50.0	32.9	32.9	100%
	Maldives	Oct-12	30.0	25.9	25.9	100%
	Mali	Nov-11	40.0	28.6	28.6	100%
	Nepal	Nov-11 ³	40.0	39.8	39.8	100%
Second group of countries	Armenia	Jun-14	40.0	40.0	40.0	100%
	Liberia	Oct-13	50.0	50.0	50.0	100%
	Mongolia	Nov-15	30.0	29.9	29.9	100%
	Pacific Region	May-15	2.0	2.0	2.0	100%
	Solomon Islands	Jun-14	14.0	13.4	13.4	100%
	Tanzania	Sep-13	50.0	37.2	37.2	100%
	Vanuatu	Nov-14	14.0	14.0	14.0	100%
Third group of countries	Bangladesh	Nov-15	75.0	68.2	52.7	77%
	Cambodia	Jun-16	30.0	25.3	17.3	68%
	Ghana	May-15	40.0	11.5	1.5	13%
	Haiti	May-15	30.0	27.1	19.6	72%
	Nicaragua	May-15	30.0	7.5	7.5	100%
	Uganda	Nov-15	50.0	4.2	4.2	100%
	Rwanda	Nov-15	50.0	50.0	50.00	100%
	Lesotho	Dec-17	18.8	13.8	1.8	13%
	Madagascar	Jun-18	20.3	0.3	0.3	100%
	Kiribati	Jan-19	1.3	1.3	1.3	100%
Subtotal for IPs			785.4	583.1	528.6	91%
Subtotal for PSSA			92.4	85.2	64.7	76%
TOTAL (IPs +PSSA)			877.8	668.3	593.3⁴	89%

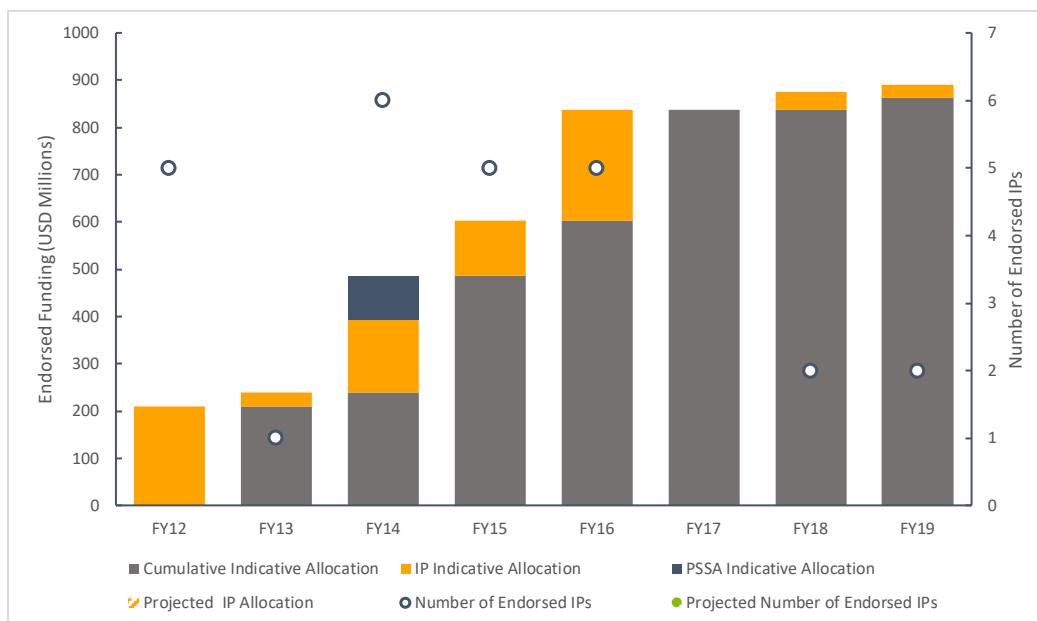
Note:

1. Including approval funding, projects in the sealed pipeline and cancellations.
2. Revised endorsement date is April 2017
3. Revised endorsement date if May 2015
4. Excluding IPPGs received by Malawi, Republic of Yemen and Zambia

3.1.1 Investment plans

18. The SREP Sub-Committee endorsed one new investment plan at its meeting in February 2019, the SREP Investment Plan of Kiribati, for an indicative allocation of USD 4.7 million in SREP funding (see Box 1). The SREP Investment Plan for Zambia was also presented during the February meeting and was welcomed by the SREP Sub-Committee. A revised plan has been submitted in April 2019 for endorsement through decision by mail.
19. The deadline for submission of all the remaining SREP investment plans has expired. No new investment plans are expected to be submitted for endorsement, including those for Benin, Malawi, Sierra Leone, and Yemen. See Figure 5 for trends in SREP investment plan endorsement.

Figure 5: Trends in endorsement of SREP investment plans by fiscal year



Box 1: Addressing constraints to further renewable energy development Kiribati



Kiribati faces two important challenges in the energy sector. It is overly dependent on expensive fossil fuel imports, and there is insufficient reserve generation and energy storage capacity to cope with increasing intermittent generation from renewable energy resources.

The power sector uses almost half of imported diesel. The reliance on imported diesel results in high electricity costs. Kiribati's electricity tariffs are among the highest in the Pacific, behind only Solomon Islands and Cook Islands.

Grid reliability is a serious concern as the percentage of intermittent generation increases in line with the government's goals to reduce its reliance on fossil fuel generation. Continued investments in renewable energy, energy storage, and distributed technologies that shift load can improve the country's energy security by increasing the reliability of the grid, while reducing fossil fuel consumption.

SREP funds will be used to address constraints to further renewable energy development, such as a weak institutional, legal, and regulatory framework; limited availability of financing; affordability concerns; and grid stability issues.

Through the South Tarawa Renewable Energy Project, the SREP will provide:

- Investment in 4.1MW of solar photovoltaic (PV) and 1.9 MW (2.6 MWh) of energy storage.
- Technical assistance for transaction advisory, feasibility studies, a renewable energy integration study, and institutional, legal, and regulatory framework support to create an enabling framework and strengthen local capacity to manage and procure independent power producers.

3.1.2 SREP Sub-Committee approvals

20. During the current reporting period, the Kenya Kopere Solar PV Project (AfDB) was approved by the SREP Sub-Committee for USD 11.6 million in SREP funding, bringing the total approved SREP funding to USD 594 million (see Box 2).
21. After the reporting period, the Off-Grid Electricity Program (IFC) in Haiti was approved by the SREP Sub-Committee for USD 7.5 million in SREP funding.

Box 2: Kenya Kopere Solar PV Project



This project entails the design, construction and operation of a 40 MW solar PV power park five kilometers (km) from the center of Kopere in Nandi County. The project also includes the construction of a 33/132 kV substation and a 1.8 km transmission line to evacuate the electricity to the national grid via an existing 132 kV high voltage network operated by Kenya Power and Lighting Company (KPLC), under a 20-year ‘take or pay’ Power Purchase Agreement.

SREP funds will be essential in providing critical funding to a new on-grid technology in the country, with the ultimate goal of demonstrating the business case for future replication. By supporting the first-mover private sector investment in a utility-scale solar PV plant, SREP will greatly help to establish the bankability of utility-scale solar PV under the Kenyan regulatory framework and contribute to lowering the overall cost of future solar PV projects. This will stimulate private sector participation in financing renewable energy projects. Additionally, SREP will contribute to the reduction of a burdensome reliance on expensive fossil fuel imports and reduce the burden of fossil fuel subsidies in power generation.

3.1.3 MDB approvals

22. During the reporting period, the MDBs approved six projects for USD 58.4 million in SREP funding (see Table 5). This brings total MDB-approved SREP financing to USD 438 million. See the Honduras ADERC transmission project highlighted in Box 3.

Table 5: SREP MDB-approved projects and programs
(July 1 to December 31, 2018)

Country	IP/PSSA	Project title	MDB	SREP funding (USD million)
Bangladesh	IP	Off-grid Solar PV – Solar irrigation	ADB	22.2
Mongolia	IP	Upscaling Renewable Energy Sector	ADB	14.6
Honduras	IP	Grid-Connected RE Development Support (ADERC) - Transmission Phase I	IDB	7.0
Honduras	IP	Grid-Connected RE Development Support (ADERC) - Transmission Phase II	IDB	5.0
Solomon Islands	IP	Electricity Access and Renewable Expansion Project – 2	IBRD	6.6
Armenia	IP	Development of geothermal heat pumps and solar water heaters	EBRD	3.0
TOTAL APPROVAL				58.4

23. After the reporting period, three projects were approved by the MDBs (see Table 6).

Table 6: SREP MDB-approved projects and programs
(January 1 to April 30, 2019)

Country	IP/PSSA	Project title	MDB	SREP funding (USD million)
Bangladesh	IP	Scaling Up RE project	IBRD	29.3
Nepal	IP	Nepal Private Sector Led Mini-Grid Energy Access Project (formerly ABC Business Models for Off-Grid Energy Access)	IBRD	7.6
Kenya	PSSA	Kenya Kopere Solar PV Project	AfDB	11.6
TOTAL APPROVAL				48.5

Box 3: Honduras ADERC transmission project



The Revised SREP Investment Plan for Honduras, endorsed by the SREP Sub-Committee on April 28, 2017, explained that Honduras was experiencing accelerated development of grid-connected, non-conventional renewable energy capacity (partly with the support of SREP and CTF resources), but transmission had become a bottleneck for further development. The government proposed reallocating SREP resources previously earmarked for renewable energy generation and policy development to focus on this strategic priority.

The approved ADERC transmission project includes USD 7 million in SREP grant resources for Phase 1 and USD 5 million in reimbursable SREP resources for Phase 2. Transmission infrastructure to be financed by this operation includes the construction and conversion of transmission lines and the construction and expansion of substations in the Northern and Central areas of the country. These works will offer the following benefits:

- Strengthen the capacity of the National Interconnected System (SIN) to decongest the overload of several substations at the national level and improve the quality of service
- Meet the growing energy demand and contribute to the economic development of the country
- Optimize the SIN towards an economic and efficient dispatch
- Increase renewable energy's participation in the generation matrix
- Partially comply with Honduras' commitments to finance the reinforcement of the SIN to enhance the operation of SIEPAC (Electrical Interconnection System of Central America Countries)

3.2 Update on projects implementation

24. This section provides a qualitative update on projects under implementation (MDB approved).

25. Armenia:

- Geothermal Exploratory Drilling Project (IBRD): Geothermal exploration drilling was completed and proved that geothermal resources are not economically exploitable. The Government decided to not proceed the geothermal power development. The World Bank is expecting a formal closing request from the client. The grant agreement through which the World Bank extended SREP funding to the Government of Armenia for the project will expire on May 31, 2019.
- Development of Distributed Geothermal Heat Pump and Solar-Thermal Projects (EBRD): EBRD approved the project during the reporting period. Ameriabank became the first EBRD partner in Armenia to receive a loan from EBRD and the Green Climate Fund (program co-financer) for on-lending to small and medium-sized enterprises (SMEs) and corporates for green investments. Companies interested in small-scale renewable energy projects will also benefit from investment incentives funded by SREP.

26. Bangladesh:

- Off-Grid Solar PV-Solar Irrigation (ADB): ADB approved the project on July 5, 2018, and it became effective on August 9, 2018. The project will support the deployment of solar irrigation technology in rural areas and reduce the additional demand for power during irrigation season. Preparation of bidding documents has started.
- Scaling Up Renewable Energy (IBRD): World Bank Board approved the project on March 1, 2019. The project will provide financing for both private sector utility scale renewable energy and rooftop solar PV sub-projects.

27. Ethiopia:

- Geothermal Sector Development Project (IBRD): Though the project was delayed due to procurement and client capacity issues, implementation picked up from FY19. The contract for the Aluto site was awarded and signed in February 2019. The contractor is currently manufacturing the drilling rigs. The drilling operation is scheduled to start before the end of the calendar year.
- Geothermal Sector Strategy and Regulations (IFC): This project was completed and closed in June 2016. It resulted in the development of a geothermal sector strategy, roadmap and licensing regulations. The geothermal sector strategy and roadmap were adopted by the government and used to guide the approach

utilized for the development of the sector. In addition, the licensing regulations are currently drafted as a bill for consideration of the Council of Ministries.

- **Lighting Ethiopia (IFC):** This advisory project is under implementation. Among other achievements, the project has developed compulsory national standards for solar lanterns and voluntary standards for solar home systems (SHS) that were adopted by the Ethiopian Standard Agency; and implemented a pre-export verification of conformity that was adopted by Ethiopian Ministry of Trade to improve the import procedure of off-grid solar technologies.

28. Haiti:

- **Renewable Energy and Access for All (IBRD):** Several workshops were conducted with the client, regulators, and private sector actors to finalize the regulation by contract needed for mini-grids. Request for proposals have been out since February 2019. The World Bank team is now working with the client to finalize the standards needed for solar home systems and productive uses.
- **Renewable Energy for the Metropolitan Area (IBRD):** The government is finalizing the recruitment of a technical adviser to strengthen implementation capacity. Technical evaluations have been completed and the contract will be awarded by June 2019.

29. Honduras (all IDB projects)

- **Grid-Connected RE Development Support (ADERC) - Transmission Phase I:** This project was approved by the IDB Board in August 2018 the government signed the contract on December 28, 2018. Tender documents and the international bidding process concluded and a firm was selected. It is an EPC contract to refurbish substations at Progreso and Toncontin. The firm is conducting final studies prior to construction.
- **Grid-Connected RE Development Support (ADERC) - Generation/Honduras renewable energy financing facility (H-REFF):** Seven investments have been approved (USD 4.3 million), including solar PV (off and on-grid), small hydro, and biomass, with projects in Honduras and other Central American countries (H-REFF allows some resources to be invested outside Honduras). Capitalization is USD 33 million and in 2017, HREFF entered a co-investment agreement with CABEF, the Caribbean Basin Energy Efficiency and Renewable Energy Fund to procure investment totaling USD 27.5 million in Honduras.
- **Sustainable Rural Energization (ERUS) –Clean Cookstoves:** The project allocated funds to develop technology innovations in stove performance. This strengthens the sustainability of the cookstoves market through microcredit and increased commercialization. The project has also worked on an initiative to secure and sustain firewood supply for seven clusters of brick and lime producers. This includes the creation of an association of business' owners committed to work toward energy security.

- Strengthening the RE Policy and Regulatory Framework (FOMPIER) Phase II: the Honduran government is fulfilling the conditions to make the operation effective and eligible.
- Grid-Connected RE Development Support (ADERC) - Transmission Phase II: the loan document was signed by the Honduran government on December 2018. The government is working to accomplish the eligibility conditions.

30. Kenya

- Menengai Geothermal Development Project (AfDB): The project has reached 72.1 percent cumulative disbursement by the end of the reporting period and is expected to close by the end of 2019. The December 2018 SREP ORR mentioned the latest quantitative results, with total wells drilled providing 165 MW at the wellhead. Next SREP ORR will provide an update on these figures.
- Electricity Modernization Project (IBRD): The implementation of the SREP-funded component of the project⁸ experienced significant delays due to the need to undertake specific studies to complement the feasibility studies that were not deemed comprehensive and did not account for the fact that the mini-grids would be located on islands. These studies were related to site selection and the technical design specifications and have been completed. The tender to select the private operators that will operate and maintain the mini-grids has been launched and the contracts will be awarded by July 2019.

31. Liberia

- Energy for Electrification in North and Center Liberia Project-Mini Grids (IBRD): The initial feasibility study (not funded by SREP or the World Bank) was not deemed comprehensive and additional studies were required as a result. The bidding document for the main hydro is now at final stage of preparation. Bidding is expected to be launched by July 2019. The project will be restructured to extend its closing date by two more years for implementation beyond June 2021. A request for extension has been received from the government.

32. Maldives

- Accelerating Sustainable Private Investments in Renewable Energy (ASPIRE) Program (IBRD): The first 1.5 MW solar sub-project under private investment model was commissioned in March 2018. The project received strong government support after the election in November 2018. The government is preparing two new bids under the ASPIRE program to procure around 5 MW in Greater Male, and between 4 to 6 MW (including battery storage) in the southern atoll of Addu. The prequalification phase for a second bidding round of 5 MW was

⁸ The total cost of the project is USD 257.5 million, including USD 7.5m of SREP funds

completed on March 24, 2019 and the bid is expected to be awarded by September 2019. The government has submitted a request to extend the project closing date from December 31, 2019 to December 31, 2021.

Preparing Outer Island Sustainable Electricity Development Project (ADB): The five pilot projects were commissioned and successfully connected to the island grid. Final fine tuning of hybrid control system is in progress now. The ADB portion of the project is progressing ahead of schedule.

33. Mali

- Rural Electrification Hybrid Systems (IBRD): The implementation of the project is progressing at a steady pace. After delays due to the implementation of resettlement action plans, construction works to add solar PV capacity to 45 existing diesel mini-grids were officially launched in February 2019. The construction period will last 8 to 12 months, according to the site and thus, the first hybrid plants will be operational by August 2019. An additional IDA credit of USD 20 million is expected to be approved by June 2019 to cover cost overruns due to underestimation of capital and project management cost.
- Mini Hydropower Plants and Related Distribution Networks Development Project (AfDB): The project was approved in September 2018 and signed in March 2019.
- Project for Scaling Up Renewable Energy in Mali (AfDB): Over 90 percent of project activities are on track to be completed on time. This national coordination project recently held the second annual Semaine Malienne des Énergies Renouvelables (Malian Renewable Energy Week), which brought together hundreds of private sector investors, government, media, and civil society representatives to raise awareness and promote the uptake of renewable energy investments in Mali. Since 2015, the project has helped catalyze the approval of 24 renewable energy projects across the country, totaling approximately USD 366 million in allocated funding.
- Segou Solar Park (AfDB): The project's financial close is yet to be reached as negotiations between the Government of Mali and the sponsor are still ongoing. The financial documentation is finalized, and parties are waiting for this hurdle to be cleared so that project implementation can start.

34. Mongolia

- Upscaling Rural Renewable Energy - Solar PV (IBRD): Progress is very good. Training and capacity building have been carried out in system planning and renewable energy grid integration, grid code development, and phasing out of Feed-in-Tariffs. The technical assistance has supported drafting of legislation to allow competitive tendering of renewable energy and clear rules for licensing renewable energy plants.

- Upscaling Rural Renewable Energy (ADB): The project was MDB approved in September 2018. The project is in the process of recruiting Project Management Unit staff and selecting the project management consultant.

35. Nepal

- South Asia Sub-regional Economic Cooperation Power System Expansion Project: Rural Electrification through Renewable Energy (ADB): For mini hydro sub-projects, a contract was awarded for five subprojects with size of 1,600 kW (Target 4,300 kW). For solar/wind mini grid sub-projects, a contract was awarded for seven mini-grid subprojects with size of 365 kWp (Target 500 kWp) and work was completed on three subprojects (90 kWp).
- South Asia Subregional Economic Cooperation Power System Expansion Project (Additional Financing) (ADB) - Five contracts have been signed for a total of at least 24 MW and the installation process has begun. Disbursement will begin in Q4 2019.
- Biogas Extended Program (IBRD): Due to reduced load shedding in Nepal, sub-project developers' interest in investing in bio-gas based electricity generation system has diminished. They are more interested in generating bio-gas for thermal application. The project has already exceeded its current target for off-grid bio gas generated for thermal application from the large-scale projects (>12m2). As part of a recent project restructuring, the target values for result indicators "electricity production" and "thermal energy generation" have been revised and the project approval process has been streamlined to expedite implementation. Based on the strong pipeline of sub projects, the gas generation volume for thermal application is expected to increase further. The commissioning rate of sub-projects is expected to accelerate in the next few months. The project may need to be restructured further to reallocate funding across components.
- Nepal Private Sector-Led Mini-Grid Energy Access Project (formerly ABC Business Models for Off-Grid Energy Access) (IBRD): The World Bank Board approved the project on January 30, 2019.

36. Nicaragua:

- Nicaragua Geothermal Exploration and Transmission Improvement Program under the PINIC (IDB): This operation was approved by the IDB Board on September 7, 2016, and eligibility was reached on August 15, 2017. A preparatory technical cooperation activity (with USD 0.46M of IDB resources) is in execution. The executing agency had difficulties deciding the strategy to advance the project. Two options (slim hole or commercial hole) were analyzed for a year. The decision was made in January 2019 to proceed with the commercial hole drill, thanks to specialized studies supported by El Salvador geothermal power utility and Costa Rica state owned utility.

37. Pacific Region:

- Sustainable Energy Industry Development Project (IBRD): The project is progressing well. The Pacific Power Association is currently working on the contract for renewable energy resource mapping and the recruitment of a consulting company to support the power system investment planning.

38. Rwanda:

- Renewable Energy Fund (IBRD): The Project Implementation Unit is fully staffed. Participating savings and credit cooperatives have received the first tranche of financing and are issuing loans for the purchase of off-grid solar systems (approximately 330 solar systems). A pipeline of mini-grids is under development.

39. Solomon Islands

- Electricity Access and Renewable Expansion Project – 2 (IBRD): The project is progressing well. The project was declared effective on October 23, 2018. The first disbursement was processed on January 25, 2019. The main elements of the project implementation team are in place. Contracts for two out of five planned mini-grids will be awarded in July 2019 and the remaining three will be tendered in late 2019. Preparation of technical assistance activities to support enabling environment is currently ongoing.
- Solar Power Development Project (ADB): Main EPC contract signed. All contracts have now been signed under the project. Construction has commenced on the first site (Munda).

40. Tanzania

- Renewable Energy for Rural Electrification (IBRD): Continued uncertainties in the regulatory framework have stalled the Small Power Producer (SPP) market and have affected the credit facility for SPPs under the project. Commercial banks have shown little interest in participating in the SPP market under current circumstances. Ministry of Energy is consulting with stakeholders to revise the regulations for improvement of the situation.
- Mini-Grids Project (IFC): This advisory project is under implementation. The project has developed technical standards and specifications for mini-grids distribution network that were enacted by Tanzania Bureau of Standards and gazetted (published) in October 2018; carried out a GIS mapping across all of rural Tanzania, published mini-grid benchmarking reports, technology specific checklists to simplify the environmental and social impact assessment by the National Environmental Management Council (NEMC); reviewed more than 50 potential mini-grid projects to identify gaps preventing them from reaching financial closure.

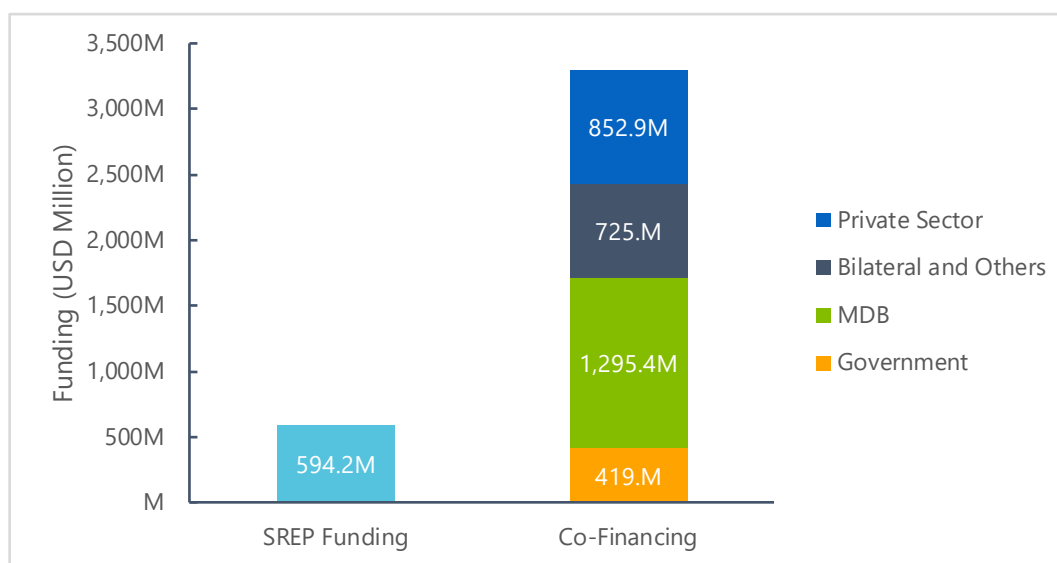
41. Vanuatu

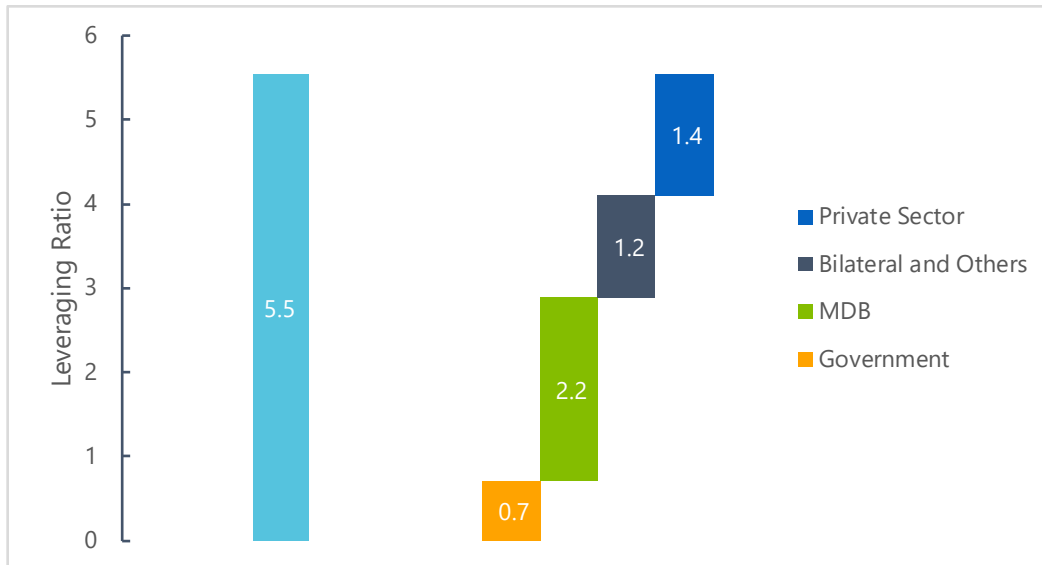
- Rural Electrification Project (IBRD): The Project Operations Manual, Subsidy Implementation Manual, and the Terms of Reference for Owner's Engineer have been finalized. A request for Proposals was advertised and four proposals were received.
- Energy Access Project (Small Hydropower Project) (ADB): The project is estimated to be 16 percent complete per project duration and 2 percent complete per disbursements. The government completed recruitment of three consultant engagements for Owner's Engineer on March 6, 2018, DSC on July 2, 2018, and Independent Peer Reviewer on November 27, 2018. The bidding documents prepared by DSC are currently being reviewed. Contract award is envisaged by end of September 2019.

3.3 Co-financing

42. The 47 projects approved by the SREP Sub-Committee (USD 594.2 million) as of December 31, 2018 are expected to mobilize over USD 3.3 billion in co-financing from governments, MDBs, bilateral, and other sources. This represents a leverage ratio of 1 to 5.5, meaning for every USD 1 invested by SREP, another USD 5.5 will be co-invested by other financiers. As shown in Figure 6, MDBs represent the largest source of co-financing.

Figure 6: Co-financing on SREP Sub-Committee-approved SREP funding by source and ratio
(as of December 31, 2018)

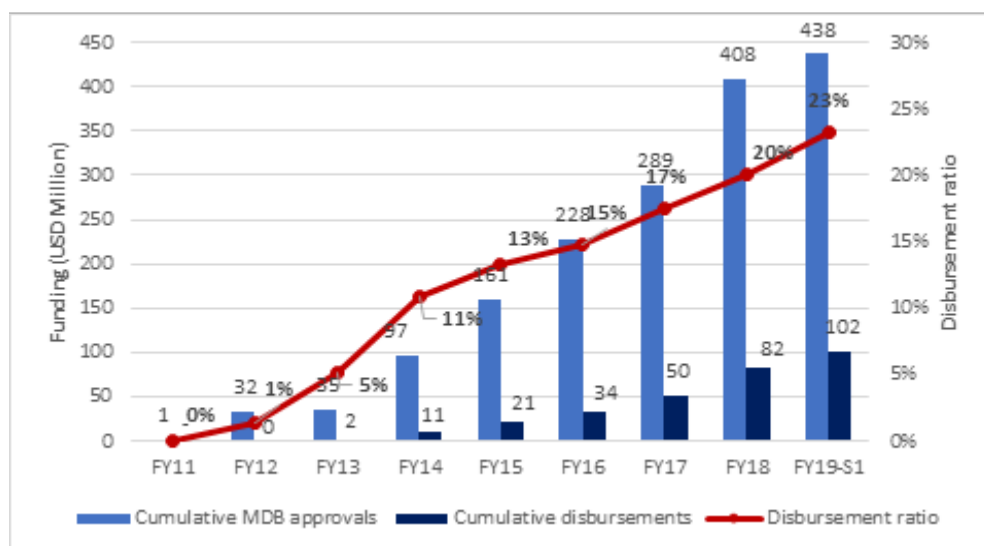




3.4 Disbursement

43. SREP disbursements were USD 19 million during the reporting period, reaching USD 102 million in total. Figure 7 shows the disbursement trend over time. Out of the 37 MDB-approved projects, 28 are disbursing. Annex 4 provides detailed information on disbursements at the project level (for public sector projects, which mirrors Table D2 in [the disbursement report](#)).

Figure 7: SREP disbursement trend by fiscal year



4 Cross-cutting themes

4.1 Gender

44. As requested by the SCF Trust Fund Committee, this report shifts its program reporting to reflect changes in the portfolio over time in relation to quality at entry, rather than reporting only on investment plans and projects approved during the current reporting period. Tables 7 and 8 show an increase in the quality of the SREP portfolio since the baseline at the start of the CIF Gender Action Plan in 2014, in all three scorecard indicator areas.

Table 7: Gender scorecard indicators in SREP investment plans
(Inception to December 2018)

Indicators	Inception - Dec 2018 % (n)	Baseline 2014 % (n)
Sector-specific gender analysis	67% (14)	64% (7)
Women-targeted activities	81% (17)	45% (5)
Sex-disaggregated M&E indicators	86% (18)	73% (8)

Table 8: Gender scorecard indicators in SREP projects
(Inception to December 2018)

Indicators	Inception - Dec 2018 % (n)	Baseline 2014 % (n)
Sector-specific gender analysis	73% (33)	47% (7)
Women-targeted activities	82% (37)	40% (6)
Sex-disaggregated M&E indicators ⁹	76% (34)	80% (12)

45. Note also that the Kenya Kopere Solar PV Project was approved during the period under review and scored positively in terms of three gender scorecard indicators (i.e., hosting sector-specific gender analysis, women-specific activities, and gender-disaggregated indicators) (see Box 4).

⁹ As both the total number of projects in the SREP portfolio and the number of those with sex-disaggregated indicators change from period to period, the percentage share of the portfolio that has sex-disaggregated indicators may not always increase even if the absolute number of such projects increases. In the case of this table, the baseline portfolio in 2014 hosted 15 projects, of which 12 hosted sex-disaggregated indicators (i.e., 80 percent), while the Cumulative portfolio had 45 projects as of Dec 2018 of which 34 had sex-disaggregated indicators (i.e., 76 percent)

Box 4: Enhancing energy access and women's employment through solar photovoltaic power investment in Kenya

The Kopere Solar Park Project in Kenya is expected to directly benefit Kisumu District, one of the poorest in the country with 60 percent of the population living in slums and having low energy access rates.

Project construction is expected to generate around 290 temporary jobs that will be tracked for sex-disaggregated accounting of employment generation for women and men. Construction will also create indirect jobs that will benefit local communities, including women. Once the plant is constructed, its operation will require around 18 personnel over a minimum of 20 years, and the project commits that 10 of these will be female. This commitment is over and above Government of Kenya's *2030 Vision* requirement that at least 30 percent of positions be targeted to women applicants. In addition, local benefits are expected through project technical training to about 60 people. To improve women's participation in energy value chains through the project, the project borrower and AfDB will follow guidelines in project-level gender assessment and reporting, collection of sex-disaggregated data on employees and procurement announcements, and women's equal participation in community consultations, as well as sharing lessons on gender best practices collected during implementation.

4.2 Risk management

46. Implementation risk is the risk that a project, once effective, is not implemented in a timely manner. The CIF Administrative Unit flags a project for implementation risk if the project meets at least one of the following two criteria:
- The project has been effective for 36 months but has disbursed less than 20 percent of approved funds.
 - The project is within 15 months of the date by which all SREP funds are to be disbursed but has disbursed less than 50 percent of approved funds.
47. The MDBs provide this information semi-annually, and the most recent information available is as of December 31, 2018. This section provides a summary of the issues related to SREP implementation risk. More information is available in the [SREP Risk Report](#).
48. At the *program-level*, SREP's score for implementation risk increased to Medium from Low as three projects representing USD 27 million of approved funding have been flagged for this risk. At the *project-level*, each of these projects have exceeded SREP's tolerance for this risk.

49. Table 9 lists the three projects flagged under the first criterion (vs. one project totaling USD 8 million as of June 30, 2018). The project flagged as of June remains on the December list and is highlighted in orange (although it has increased disbursements by USD 0.3 million).

Table 9: SREP public sector projects effective for 36 months with less than 20 percent of approved funds disbursed (USD millions)

COUNTRY	PROJECT TITLE	MDB	SREP Funding (USD million)	Cumulative Disb. FY19-S1	Disbursement Ratio	Effectiveness Date	Months Since Effectiveness Date	MDB Co-Financing (USD millions)
Nepal	Biogas Extended Program	IBRD	7.9	1.4	17%	9/15/2014	52	0
Maldives	Accelerating Sustainable Private Investments in Renewable Energy (ASPIRE) Program	IBRD	11.7	2.0	17%	10/1/2014	52	16
Kenya	Electricity Modernization Project	IBRD	7.5	-	0%	9/17/2015	40	10

50. Table 10 illustrates that two projects representing USD 20 million of MDB-approved funding are flagged under the second criterion. Both of these projects are also flagged under the first criterion.

Table 10: SREP public sector projects within 15 months of closing with less than 50 percent of approved funds disbursed (USD millions)

COUNTRY	PROJECT TITLE	MDB	SREP Funding (USD million)	Cumulative Disb. FY19-S2	Disbursement Ratio	Expected Date of Final Disbursement	Months Before Expected Date of Final Disbursement	Co-Financing (USD millions)
Maldives	Accelerating Sustainable Private Investments in Renewable Energy (ASPIRE) Program	IBRD	11.7	2.0	17%	4/1/2020	15	16
Nepal	Biogas Extended Program	IBRD	7.9	1.4	17%	4/1/2020	15	0

4.3 Knowledge management

51. Update on RISE (Regulatory Indicators for Sustainable Energy) : According to the [RISE 2018 report](#), between 2010 and 2017, there was consistent improvement in electricity policy and regulations in all access-deficit countries assessed by RISE. Overall, three-quarters of access-deficit countries established some key policy or regulation required to expand access to electricity (green and yellow zone). More than one-third of the countries, mainly located in Sub-Saharan Africa, have initiated the transition from an insufficient regulatory framework for electricity access in 2010 to the adoption of at least some necessary policy attributes by 2017, with more than a quarter of the countries now having a comprehensive policy and regulatory framework (green zone).
52. **Bangladesh, Cambodia**, and the Philippines are the top-scoring countries for policy regulatory environment for electricity access in 2017. Indonesia, **Rwanda**, and **Tanzania** are the fastest policy improvers from 2010 to 2017. Examples of SREP countries that have moved from red to yellow (from 2010 to 2017) are Haiti, Mali, and Nepal. Examples of SREP countries that have moved to green (from 2010 to 2017) are Ethiopia, Ghana, Kenya, Nicaragua, and Uganda.

53. The most relevant information related to country-specific improvements and achievements is noted in Table 11.

Table 11: Improvements in electricity policy and regulations in RISE countries (as of 2017)

Country	Specific improvements/achievements
Bangladesh	<ul style="list-style-type: none"> • Among the three top-scoring countries for policy regulatory environment for electricity access in 2017
Cambodia	<ul style="list-style-type: none"> • Among the three top-scoring countries for policy regulatory environment for electricity access in 2017 • Leading the way in grid electrification policies • Using information from the MTF surveys, such as households' willingness to pay, expenditures, consumption patterns, appliance use, and other variables, to quantify the need for private-sector investment in the sector
Ethiopia	<ul style="list-style-type: none"> • Achieved a green rating for their policy environment • Has the most comprehensive energy-access-enabling environment on the continent • Has developed a national electrification plan with a comprehensive scope that scores in the green zone in the last seven years, allowing it to develop clear policy frameworks for grid electrification, mini grids, and standalone systems • Using the MTF terminology to set or adjust their energy access targets
Ghana	<ul style="list-style-type: none"> • Strong renewable energy policy frameworks, scoring in the green zone • Has filled most gaps in electricity access policy and regulation and have more mature access policy frameworks in 2017
Kenya	<ul style="list-style-type: none"> • Stands out for its accelerated progress in electrification underpinned by rapid adoption of supporting policy measures, following the paradigm shift contained in the country's National Electrification Program. • Has dedicated their efforts to developing mini grids and standalone systems by establishing national programs and providing dedicated financing facilities
Rwanda	<ul style="list-style-type: none"> • Achieved a green rating for their policy environment • Using the MTF terminology to set or adjust their energy access targets. The Rural Electrification Fund in Rwanda, the entity responsible for rural electrification, is using information obtained from the MTF surveys to inform their investment needs.
Tanzania	<ul style="list-style-type: none"> • Achieved a green rating for their policy environment • Has developed a national electrification plan with a comprehensive scope that scores in the green zone in the last seven years • Has dedicated their efforts to developing mini grids and standalone systems by establishing national programs and providing dedicated financing facilities
Uganda	<ul style="list-style-type: none"> • Achieved a green rating for their policy environment

4.3.1 Update on CIF Evaluation and Learning (E&L) Initiative

54. Among other key outcomes, an [independent evaluation](#) and [evidence synthesis on transformational change in the CIF](#)¹⁰, led by ITAD and the Overseas Development Institute (ODI), respectively, were launched at the CIF 10th Anniversary event titled *Power of 10: Shaping the Future of Climate Action* in Ouarzazate, Morocco, with important findings and lessons relevant to SREP:
55. The studies highlight how SREP seeks to achieve systemic change by piloting new approaches to clean energy generation and access, delivering impacts primarily through demonstration/first-time projects, supported by strengthening of the enabling environment (policies, institutions, and knowledge). SREP has also been able to influence risk perceptions among investors as the size of SREP investments are generally significant in relation to the size of the energy sector.
56. SREP is creating business models and demonstration projects that can serve as the basis for future scaling (e.g., mini-grid programs). Signals of sustainability in SREP are yet to emerge, reflecting the early stage of implementation of the portfolio, and the pilot nature of many of the projects. Overall, challenges related to weaker country contexts, investment climate barriers, and ongoing constraints around affordability are likely to result in longer timeframes to achieve transformation in SREP countries.
57. **Effectiveness of public financing in attracting private capital in grid connected solar project:** This evaluation and learning activity was commissioned by the CIF E&L Initiative and was implemented by the World Bank Energy and Extractives unit. It explores the role of the public sector in enabling commercial investment in the grid-connected solar market in developing countries. The analysis considers five key public sector interventions: (i) direct and indirect financing, (ii) legal policy and regulatory instruments, (iii) government-sponsored guarantees; (iv) planning technical and operational capacity, and (v) investment in enabling infrastructure. It draws on empirical evidence and selected examples from developing countries to identify lessons that could be relevant for other countries and inform future action by governments and their development partners. A webinar occurred on November 28, 2018, centered on the procurement process for grid-connected solar projects. The final report has been completed and a management meeting has taken place. The study is expected to be released in 2019.

4.3.2 SREP Pilot Countries Meeting

58. The CIF Administrative Unit, working with the Government of Rwanda and the MDBs, organized an SREP Pilot Countries Meeting in Kigali from September 18 to 20, 2018. The meeting was attended by more than 80 people from 24 SREP pilot countries, MDBs, and experts from other countries and organizations.

¹⁰ See [Independent Evaluation of Transformational Change in the CIF](#), ITAD 2019, and [Evidence Synthesis on Transformational Change in the CIF](#), ODI 2019. See also a [summary of findings](#) from both reports.

59. The event focused on major themes, such as successes and challenges of SREP implementation, renewable energy and energy access, financing renewable energy projects and the role of the private sector, Multi-Tier Framework (MTF) on energy access, gender, results, and evaluation and learning.
60. The pilot countries meeting provided a platform for the SREP countries to exchange experiences in the planning and implementation processes related to investments under SREP, and more broadly under the renewable energy and energy access initiatives undertaken by their respective governments. This allowed participants to discuss how best to draw out the results that are starting to emerge from project implementation, as well as early impressions and lessons learned from country representatives, and how this body of knowledge can best be shared for future use.

4.3.4 Other knowledge-sharing partnerships

61. GDI partnership: CIF has entered into a learning partnership with the Global Delivery Initiative (GDI) as part of an effort to showcase CIF project-level results and lessons learned. The GDI is a collaborative effort to create an evidence base of delivery know-how that can be used to inform development practice and improve implementation. The GDI and its partners support practitioners on the ground to adapt to dynamic contexts and solve persistent delivery challenges. In October 2017, CIF officially joined the GDI partnership as its 40th member.
62. In 2018, CIF has conducted six case studies in collaboration with the MDBs using the GDI methodology, two of which are based on SREP projects: [Geothermal Field Development through Public-Private Partnerships in Menengai](#), and [Promoting Sustainable Business Models for Clean Cookstoves \(PROFOGONES\)](#). CIF is now embarking on a new set of studies that will commence in the coming months. The POISED mini-grid project in Maldives will be included in this round of studies.
63. Special initiative on Multi-Tier Access Framework: A status update on other SREP countries under the MTF is as follows:
- Bangladesh: This nationally representative and government-implemented survey has been supported by MTF-ESMAP since late 2016. After data collection and analysis were completed, findings were formally presented to the government on September 26, 2018. A report on results was drafted in November 2018. It is being updated with peer feedback and will include a re-estimation of the cooking tiers. The report is expected to be finalized by April 2019.
 - Cambodia: MTF Cambodia launched in January 2017 and held its kick-off workshop in March 2017. Cambodia MTF data results and its analysis are complete. The country's MTF Energy Access Country Diagnostic Report was published in June 2018 and disseminated at Lisbon's 2018 Sustainable Energy for All Forum; this report can also be accessed [here](#).

- Ethiopia: In addition to the nation-wide sample for both rural and urban areas, an additional oversample of around 700 Addis Ababa urban households was also collected. This country's MTF Energy Access Country Diagnostic Report was completed in June 2018 and was disseminated at Lisbon's 2018 Sustainable Energy for All Forum; it can be accessed via this [link](#).
- Haiti: The energy access survey is implemented by government with MTF team support. In addition to the household survey, the initiative will include an expansive enterprise survey. Shortlisting of MTF survey firms was led by the government, and a firm to execute the survey is expected to be selected soon.
- Honduras: In September 2016, MTF launched its initiative in Honduras. Data has been collected, cleaned, and analyzed. The final country diagnostic report for Honduras is expected to be delivered by May 2019.
- Kenya: Data collection and analysis is completed, and the team is working on the country diagnostic report. The core MTF and oversampled data will support the World Bank/IDA KOSAP (Kenya Off-Grid Solar Access Project) project in Kenya and KEMP (Kenya Energy Management Program), as well as utility's slum electrification efforts supported by the World Bank and GPOBA. In collaboration with the Rockefeller Foundation, MTF Kenya's enterprise survey is ongoing as is the pilot for remote data gathering. MTF analysis was presented to the government on October 22, 2018 and has been approved. In addition, the Electricity Supply Monitoring Initiative (ESMI) is also being currently implemented in Nairobi, Kenya. Fifty ESM devices were installed in different locations in Nairobi and these devices have been transmitting data to a central server for past 16 months. This initiative is funded by the World Bank but is being jointly implemented by World Resources Institute, Prayas, India, and EED Advisory. The team has drafted the MTF country diagnostic report and is currently revising the report, incorporating the comments from reviewers. The final report will be published by June 2019.
- Liberia: MTF Liberia discussion with the government began in December 2016 and the national data collection was launched in March 2017. Collected data has been cleaned and analyzed. The writing of this country's MTF energy access country diagnostic report is currently underway and will be published by June 2019.
- Madagascar: In November 2018, the MTF identified and finalized its partnership with the firm for implementing the MTF in Madagascar. The first draft of the inception report is expected in early February 2019 and enumerator training should begin in mid-March 2019. Implemented by the World Bank, the MTF's household survey will also include a mini-grid operator survey and an oversampling of approximately 500 households using mini-grids as a source of electricity. The team is finalizing the preparation of the survey instrument and sampling strategy. The team will start training enumerators in early May and the data collection will begin in June 2019.

- Nepal: An MTF workshop with the Nepalese government and international development stakeholders took place in November 2016. In July 2017, household survey data collection began, and is now complete. Both mini-grid and enterprise survey activities began in October 2017; the data has since been cleaned and analyzed. This country's MTF energy access country diagnostic report draft is currently under peer review.
- Rwanda: MTF Rwanda has the distinction of being MTF's first executed survey, which began in late June of 2016. The MTF Rwanda Energy Access Country Diagnostic Report was delivered in June 2018 and disseminated at the Vienna Energy Forum; this Energy Access Country Diagnostic Report and is available for download [here](#).
- Uganda: MTF began its dialog with the Ugandan government early 2016. The MTF survey will also be used for the World Bank's impact evaluation on the Electricity for Rural Transformation (ERT)-III project. The Ugandan Bureau of Statistical Office (UBOS) will be responsible for executing both the household and enterprise surveys using MTF's questionnaire. As of August 2018, data is being collected. UBOS has drafted the first draft of the survey completion report and MTF team is reviewing the report and providing the technical assistance to the UBOS in carrying out the data analysis and tier calculation.
- Zambia: MTF Zambia activities began in September 2017; data has been cleaned and analysis of these results was finalized in July 2018. Findings have been shared with the government. Electricity access findings were shared in November 2018 at a Lusaka workshop. Cookstove and gender section results will subsequently be shared in February/March 2019. Final diagnostic reporting on MTF Zambia is expected to be delivered by April 2019

Annex 1: Resource availability (as March 31, 2019)

SREP TRUST FUND - RESOURCES AVAILABLE for COMMITMENTS						
Inception through March 31, 2019 (USD millions)				Total	Capital	Grant
Cumulative Funding Received						
Contributions Received						
Cash Contributions				625.9	151.1	474.8
Unencashed Promissory Notes	b/			122.2	122.2	-
Allocation of Capital to Grants from Unencashed Promissory Notes	a/				(25.9)	25.9
Total Contributions Received				748.1	247.4	500.7
Other Resources						
Investment Income earned -up to Feb 1, 2016	c/			9.9		9.9
Other Income				-		
Total Other Resources				9.9		9.9
Total Cumulative Funding Received (A)				758.0	247.4	510.6
Cumulative Funding Commitments						
Projects/Programs				643.7	202.5	441.2
MDB Project Implementation and Supervision services (MPIS) Costs				21.2	-	21.2
Administrative Expenses-Cumulative to 1st Feb 2016	c/			14.2	-	14.2
Country Programming Budget expense from 1st Jan 2018	c/			0.2		0.2
Total Cumulative Funding Commitments				679.4	202.5	476.9
Project/Program, MPIS and Admin Budget Cancellations	d/			(46.7)	(30.5)	(16.2)
Net Cumulative Funding Commitments (B)				632.7	172.0	460.7
Fund Balance (A - B)				125.3	75.4	49.9
Currency Risk Reserves				(18.3)	(14.4)	(3.9)
Unrestricted Fund Balance				107.0	61.0	46.0
Future Programming Reserves:						
Admin Expenses-Reserve (includes Country Programing budget/Learning and Knowledge exchange reserve) and for FY 19-28 (net of estimated investment income and reflows).Breakup of various components are provided below. (Model Updated as of December 31,2017)						
	f/			(31.6)		(31.6)
Subtract						
Administration Expense reserve for CIFAU, MDB & Trustee			USD 37.9 Million			
Country Programming Budget Reserve			USD 2.2 Million			
Learning and Knowledge Exchange Reserve			USD 1.1 Million			
Add						
Estimated Investment Income Share for SREP			USD 9.0 Million			
Projected Reflows			USD 0.6 Million			
Technical Assistance Facility Reserve	i/			(1.7)		(1.7)
Unrestricted Fund Balance (C) after reserves				73.7	61.0	12.7
Anticipated Commitments (FY19-FY21)						
Program/Project Funding and MPIS Costs	g/			143.9	72.0	71.9
Total Anticipated Commitments (D)				143.9	72.0	71.9
Available Resources (C - D)				(70.2)	(11.0)	(59.1)
Potential Future Resources (FY19-FY21)						
Pledges				-		-
Contributions Receivable	h/			3.6		3.6
Potential Technical Assistance Facility Payable	i/			(3.6)		(3.6)
Release of Currency Risk Reserves	e/			18.3	14.4	3.9
Total Potential Future Resources (D)				18.3	14.4	3.9
Potential Available Resources (C - D + E)				(51.8)	3.4	(55.2)
Reflows from MDBs				j/	0.0	0.0

- a/ Promissory Notes amounting to GBP 19.84 million received as capital contributions are available to finance grants (including administrative costs) according to the terms of the contribution agreements/arrangements. The Promissory Notes are valued as of December 31, 2018 exchange rate.
- b/ This amount includes USD equivalent of GBP 93 million from the UK.
- c/ From Feb 1, 2016, Investment income across all SCF programs has been posted to a notional Admin "account", from which approved Administrative Budget expenses for the Trustee, Secretariat and MDBs are committed. The Country Programming budgets are recorded under individual programs.
- d/ This refers to cancellation of program and project commitments approved by the SCF TFC.
- e/ Amounts withheld to mitigate over-commitment risk resulting from the effects of currency exchange rate fluctuations on the value of outstanding non-USD denominated promissory notes.
- f/ The amount of this reserve is estimated by the CIFAU and Trustee using the 10-year forecast of the Admin Budget less the 10-year estimate of Investment Income and reflows. Pro-rata estimates across three SCF programs are based on the 37% fixed pro rata share of the SREP's cash balance as at December 31, 2017 approved by the SCF TFC on March 8, 2018. The decision reads as "allocate USD 31.6 million from the available grant resources in the SREP Program Sub-Account to finance estimated Administrative Costs from FY19 to FY28, such that the projected, indicative amount of approximately USD 59.6 million in SREP grant resources remains available for allocation to SREP projects".
- g/ Includes both sealed and Reserve pipeline.
- h/ Contribution Receivable from Denmark is DKK 24.05 million (USDeq. 3.6 million).
- i/ The CTF and SCF Trust Fund Committees agreed on July 20, 2018 to establish the Technical Assistance Facility for Clean Energy Investment Mobilization under the terms of the SCF.
- j/ The usage of reflow from MDBs are approved by the SCF TFC on March 8, 2018 to cover the shortfall in administrative expenses net of the SCF investment income.

Annex 2: SREP pipelines

IP/ PSSA	COUNTRY	PROJECT TITLE	MDB	Public/ Private	PPG	Grant (USD million)	Non-Grant (USD million)	MPIS Balance	SUBMISSION DATE
SEALED PIPELINE									
IP	Lesotho	Lesotho RE and Energy Access Project ¹¹	IBRD	Public		4.00	8.00	0.40	Apr-19
IP	Bangladesh	Grid Connected Renewables: Investment in Utility-scale solar, wind and rooftop solar (including technical assistance)	IFC	Private		0.50	15.00	0.50	Jun-19
PSSA	Kenya	Olkaria IV Geothermal Power Plant	AfDB	Private			20.00		Jun-19
IP	Kiribati	South Tarawa Renewable Energy Project	ADB	Public	1.00	3.70			Sep-19
IP	Cambodia	Policy Support and Public Awareness	ADB	Public		3.00	-		Dec-19
IP	Cambodia	Private Sector Solar Development - Utility Scale/Parks	ADB	Private			5.00	0.14	Dec-19
IP	Ethiopia	Clean Energy SMEs Capacity Building and Investment Facility	IFC	Private		-	2.00		Jun-20
IP	Ghana	Utility-scale Solar PV/Wind Power Generation	IFC	Private		-	10.00	0.45	Jun-20
IP	Zambia	Wind power promotion	AfDB	Public	1.15 ¹²				
		<i>Sub-Total</i>			2.15	12.10	60.00	1.49	
RESERVE PIPELINE									
IP	Cambodia	Private Sector Solar Development - Rooftop Solar	ADB	Private		5.00	1.00	0.14	Jun-20
IP	Lesotho	On-Grid RE Technologies	AfDB	Public			5.00		Jun-20
IP	Ghana	RE Mini-Grids and Stand Alone Solar PV Systems	AFDB	Public		16.60	-	0.20	Jun-20
IP	Ghana	Solar PV Based Net Metering with Battery Storage	AFDB	Public		11.89	-	0.20	Jun-20
IP	Uganda	Decentralized Renewables Development Program: Mini-Grids & Urban Small Scale Solar PV Net Metering	AFDB	Public		7.10	-	0.08	Jun-20
IP	Uganda	Wind Resource Map and Pilot Wind Power Development Program	AFDB	Public		4.93	-	0.08	Jun-20
IP	Nicaragua	Integral Development of Rural Areas Project	IDB	Private		7.50	-		Jun-20
IP	Madagascar	Funding scheme for hybridization of the JIRAMA priority isolated centers	AfDB	Public		2.00	6.00	0.43	Dec-20

¹¹ Proposal submitted in April 2019

¹² Earmarked for PPG after IP is endorsed

		<i>Sub-Total</i>				55.02	12.00	1.12	
		TOTAL			2.15	67.11	72.00	2.60	
NOT UNDER ACTIVE DEVELOPMENT									
IP	Madagascar	Funding scheme for rural electrification by renewable energy plants and mini-grids	IBRD	Public		2.00	10.00	0.43	n/a
IP	Maldives	Waste-to-Energy Thilafushi	IFC	Private		4.00	-		n/a
IP	Kenya	Menengai Geothermal Project	AFDB	Public		10.50	4.50	-	n/a
IP	Uganda	130MW Geothermal Development Program	IFC	Private		2.00	-		n/a
IP	Uganda	130MW Geothermal Development Program	AFDB	Public		4.30	27.50	0.21	n/a
IP	Mali	Solar PV IPP	AFDB	Private		-	11.05	0.20	n/a
IP	Bangladesh	Off-Grid Solar PV-Mini Grids	ADB	Public		5.00	-	0.21	n/a
IP	Nicaragua	Geothermal Development Project	IBRD	Public		7.71	7.29	0.30	n/a
IP	Kenya	Climate Venture Facility (KCVF) Project	IBRD	Public		0.80	6.80		n/a

Annex 3: Overview of SREP portfolio with a breakdown by country

	Indicative Pipeline Funding ¹³	COMMITTEE APPROVALS	% APPROVAL	MDB approvals	% approval (vs Indicative Pipeline Funding)	% approval (vs Committee Approvals)	Disbursements
First Set of Countries							
Ethiopia	31.6	29.6	94%	29.6	94%	100%	11.0
Honduras	49.6	49.6	100%	37.5	76%	76%	7.5
Kenya	64.5	44.5	69%	32.9	51%	74%	18.2
Maldives	25.9	25.9	100%	25.9	100%	100%	14.9
Mali	53.6	53.6	100%	44.9	84%	84%	8.7
Nepal	47.4	47.4	100%	39.8	84%	84%	5.1
	272.6	250.6	92%	210.7	77%	84%	65.4
Tanzania	37.2	37.2	100%	15.5	42%	42%	8.5
Liberia	50.0	50.0	100%	26.5	53%	53%	5.0
Armenia	40.0	40.0	100%	14.0	35%	35%	9.3
Solomon Islands	13.4	13.4	100%	13.4	100%	100%	0.7
Vanuatu	14.0	14.0	100%	14.0	100%	100%	0.9
Yemen	0.3	0.3	100%	0.3	100%	100%	0.1
Mongolia	29.9	29.9	100%	29.9	100%	100%	2.9
Pacific Region	2.0	2.0	100%	2.0	100%	100%	1.0
	186.8	186.8	100%	115.5	62%	62%	28.4
Bangladesh	68.2	52.7	77%	23.4	34%	44%	0.4
Cambodia	25.3	17.3	68%	1.6	6%	9%	0.3
Ghana	11.5	1.5	13%	1.5	13%	100%	0.5
Haiti	27.1	19.6	72%	19.6	72%	100%	-
Kiribati	1.3	1.3	100%	1.3	100%	100%	0.2
Lesotho	13.8	1.8	13%	1.8	13%	100%	0.3
Madagascar	0.3	0.3	100%	0.3	100%	100%	0.3
Malawi	0.3	0.3	100%	0.3	100%	100%	-
Nicaragua	7.5	7.5	100%	7.5	100%	100%	-
Rwanda	50.0	50.0	100%	50.0	100%	100%	5.9
Sierra Leone	IPPG canceled and funds returned						
Uganda	4.2	4.2	100%	4.2	100%	100%	-
Zambia	0.3	0.3	100%	0.3	100%	100%	0.1
	209.8	156.8	75%	111.8	53%	71%	8
TOTAL	669.2	594.2	89%	438	65%	74%	101.6

¹³ Including approval funding, projects in the sealed pipeline and cancellations

Annex 4: Disbursements by project (public sector) in USD million

COUNTRY	PROJECT TITLE	MDB	SREP Funding (USD million)	SC Approval Date	MDB Board Approval Date	Cumulative Disb. FY19-S1	Disbursement Ratio
Honduras	Strengthening the Renewable Energy Policy and Regulatory Framework Program (FOMPIER), Part I	IDB	0.02	Oct-12	Dec-12	0.02	100.0%
Maldives	Preparing Outer Island Sustainable Electricity Development Project	ADB	12.00	Jul-14	Sep-14	10.84	90.3%
Armenia	Geothermal Exploratory Drilling Project (GEDP)	IBRD	8.55	Mar-15	Jun-15	6.88	80.4%
Kenya	Menengai Geothermal Development Project	AFDB	25.00	Nov-11	Dec-11	18.03	72.1%
Maldives	Technical Assistance: Capacity Development of the Maldives Energy Authority	ADB	0.40	Jul-14	Mar-15	0.28	69.2%
Mongolia	TA-Strengthening Renewable Energy Regulations	IBRD	1.20	Aug-16	Aug-16	0.75	62.2%
Pacific Region	Sustainable Energy Industry Development Project	IBRD	1.92	May-15	Sep-15	0.90	46.8%
Mali	Rural Electrification Hybrid Systems	IBRD	15.24	Oct-13	Dec-13	5.83	38.2%
Mali	Project for Scaling Up Renewable Energy in Mali	AFDB	1.50	Sep-14	Oct-14	0.54	36.3%
Nepal	South Asia Sub-regional Economic Cooperation Power System Expansion Project: Rural Electrification Through Renewable Energy	ADB	11.20	May-14	Jul-14	3.01	26.9%
Tanzania	Rural Electrification Expansion Project	IBRD	9.00	Apr-16	Jun-16	2.25	25.0%
Ethiopia	Geothermal Sector Development Project (GSDP)	IBRD	24.50	Apr-14	May-14	5.90	24.1%
Rwanda	Renewable energy Fund	IBRD	48.94	Apr-17	Jun-17	5.27	10.8%
Nepal	Biogas Extended Program	IBRD	7.90	Feb-14	Aug-14	1.35	17.1%
Maldives	Accelerating Sustainable Private Investments in Renewable Energy (ASPIRE) Program	IBRD	11.68	Apr-14	Jun-14	1.95	16.7%
Liberia	Renewable Energy for Electrification in North and Center Liberia Project-Mini Grids	IBRD	25.00	Dec-15	Jan-16	4.15	16.6%
Mongolia	Upscaling Rural Renewable Energy - Solar PV	IBRD	12.40	Feb-17	Jun-17	0.75	6.0%
Vanuatu	Rural Electrification Project	IBRD	6.77	Feb-17	May-17	0.38	5.6%
Vanuatu	Energy Access Project	ADB	7.00	Nov-15	Sep-17	0.32	4.5%