



**The Energy and Environment Partnership Programme,
Southern and East Africa
PHASE II**

SEMI-ANNUAL M&E PROGRAMME REPORT 2015

JUNE 2015

Draft report, 2 August, 2015



TABLE OF CONTENTS

1	Introduction.....	1
2	Project portfolio overview	3
2.1	Portfolio overview	3
3	Progress on results.....	5
3.1	Introduction.....	5
3.2	Outcome 1	6
3.3	Outputs for Outcome 1	8
3.4	Outputs for Outcome 2	13
3.5	Outputs for Outcome 3	15
4	Value for Money	19
5	Risk management & monitoring.....	20
6	Conclusions and recommendations.....	21

Annex I	Results framework with targets and actual results achieved
Annex II	List of projects monitored
Annex III	Risk assessment
Annex IV	Learning stories

ACRONYMS

ADA	The Austrian Development Agency
BDS	Business Development Support
CfP	Call For Proposals
CN	Concept Note
DBSA	Development Bank of South Africa
DD	Due Diligence
DFID	The Department for International Development - UK
ECO	EEP Coordination Office
EE	Energy Efficiency
EEP-S&EA	Energy and Environment Partnership Programme in Southern and East Africa
EoP	End of Programme
EPC	EEP Partners Committee
FP	Full Proposal
HH	Household
KEF	Knowledge Exchange Forum
KM	Knowledge Management
M&E	Monitoring and Evaluation
MFA	Ministry for Foreign Affairs of Finland
MW(h)	Megawatt(hour)
NC	National Coordinator
PD	Project Developer
Q1	First quarter of the calendar year, January-March
Q2	Second quarter of the calendar year, April-June
Q3	Third quarter of the calendar year, July-September
Q4	Fourth quarter of the calendar year, October-December
RE	Renewable Energy
REC	Regional Coordinator
REEEP	Renewable Energy and Energy Efficiency Partnership
S&EA	Southern & East Africa
SvB	Supervisory Board
TA	Technical Assistance
ToR	Terms of Reference
VfM	Value for Money

1 Introduction

The Energy and Environment Partnership Programme of Southern and East Africa (EEP-S&EA) is a regional programme that aims to increase access to sustainable energy through fast tracking of Renewable Energy (RE) and Energy Efficiency (EE) projects in Southern and East Africa. It operates as a challenge fund, with so far 11 Calls for Proposals launched. EEP-S&EA started with a first Phase in 2010, managed by the Development Bank of South Africa (DBSA). A second Phase commenced in August 2013 and is managed by KPMG on behalf of the Ministry for Foreign Affairs of Finland (MFA, the lead donor), the Department for International Development UK (DFID) and the Austrian Development Agency (ADA).

This is the semi-annual M&E report of the EEP-S&EA for the period ending June 2015. It is based on results management principles and as such focuses on the cumulative results set in the Programme result framework as they have been achieved by the programme by the end of June 2015, and where relevant a comparison with the situation reported in the annual report of December 2014.

During the first half year of 2015 the scaling up of the volume and the Call for Proposals have been of high priority in order for the project developers to have sufficient time to complete their project within the Phase II duration. By end of June 23,6 million euro had been allocated to 73 CfP 6 to 10 approved projects. The full proposals of the CfP 11 were presented to the development partners in mid-July and the final decisions of these proposals are expected early August. The completed CfPs and the large number of new projects in the programme offers an opportunity for a growing development impact and achievability of the set targets of the Programme. This offer good knowledge management opportunity for the lessons learnt to guide project developers and to share information among stakeholders in the field.

At the same time key attention has been paid on the knowledge management component. During the first half year 2015 the EEP Programme engaged in a substantial number of national and international forums with the objective of disseminate EEP information, identifying opportunities for more detailed engagements with other initiatives in the field of renewable energy and energy efficiency in Africa and to support joined activities in the sector and to learn from others.

The Programme portfolio management was as well on an active level resulting in 5,1 million euros for 82 project disbursements (5,1 million euro equals the amount that was disbursed during the entire Phase I). During the first half year 55 new projects were contracted under the Innovation and Market Creation windows, 63 projects had managed to complete their activities and nine projects were terminated or cancelled.

Looking forward, the main priority for EEP-S&EA is to continue its effort in Knowledge Management and build on the project implementation support through an effective grant management and result monitoring. Focus will be hold on supporting the project developers in the implementation and challenges they address in the frequent communication with the grant management, following progress reports, provide timely disbursements and analysing results which will provide a base for technical and policy briefs and knowledge sharing.

This semi-annual report is an update from the annual report as presented in January 2015. The reporting is now over the 179 projects that were implemented as part of CfPs 1 to 10.

The report provides an overview of progress made on results, mainly based on field visits to projects. In total 61 projects have been reviewed and the outcomes of those completed projects are used as basis for this report. Overall the results by the end of June shows that EEP has achieved many of the result targets set for the full year 2015 and even reached the Programme targets in several areas. During the first half of the year 2015 more emphasis has been put on the knowledge management component under Outcome 3. Analyses of estimated contribution from projects contracted under CfP 6 to 10 are highly promising and indicate a solid base for reaching all EEP targets. The only indicator still indicating low results is the Economic Time Saved. This indicator is however narrowly defined as the time saved on collecting firewood and the current measurement method does not consider wider economic time saved from the improved access to RE/EE.

For 9 of the 13 indicators on outputs under component 1 the 2015 targets have been surpassed. For 6 indicators EEP-E&SA did already achieve the end of programme targets. The indicator targets set for Outcome 2 (business development support) mainly refer to completed projects from CfP6 onwards. As none of the CfP6-10 projects have been completed, the main emphasis for these outcomes will start to be measurable from the end of 2015. Still a substantial component of business development support has been provided by ECO as part of the preparation of full proposals and through daily support provided by ECO and the grant management team.

Outcome 3 is mainly referring to Knowledge Management. In 2015 ECO has actively presented and promoted the programme through different channels. The activities focused on the knowledge management component is reflected in 5 out of 7 2015 output targets have been surpassed under component 3. The EEP web site has been developed into an information platform and tool for EEP knowledge sharing and during the first half year 2015 the hit rate exceeded 100 thousand.

As part of the knowledge sharing ECO have applied for a Knowledge Exchange Forum type of side event as part of the larger South Africa International Renewable Energy Conference (SAIREC) on 4-7 October, 2015. A side event would enable people to take part not only of the EEP event but as well of the larger event. Tentatively ECO has proposed the topic of the event to be "Success in and barriers to private sector initiatives on increasing energy access". The side event will present the results of a recent analysis of the EEP portfolio in which critical success factors for rural energy access were identified. The event will showcase successful projects in the EEP portfolio and present the identified barriers towards larger uptake of renewable energy for rural energy access.

The preparation and planning procedures for the next Knowledge Exchange Forum (KEF) has as well started. The KEF of 2015 will be arranged in end of November in combination with the Supervisory Board meeting in one of the East African EEP partner countries.

During the first half of 2015 a number of EEP funded projects got recognition through either shortlisting for or actually winning of awards. The Bio2Watt project (SA59) was a runner up for the prestigious Africa Energy Innovation Award. This award has handed out during the Africa Power and Electricity Conference in Johannesburg mid-March and comes with a prize money of USD 30.000. The Bio2Watt biogas installation in Bronkhorstspuit was highly recommended because it has played a pioneer role for biogas projects in South Africa.

At the African Utility Week in Cape Town in May, Devergy (TAN4019, EEP 2014 project of the year) was shortlisted in the category African Community Project of the year and Gigawatt Solar Rwanda (RWA5015) in

the category Clean Energy project of the year. For the same awards ceremony the EEP programme itself was nominated as well for the Clean Energy project of the year.

In June the Gigawatt Global’s Rwanda project (RWA5015) was selected as a Project Of The Year during the Africa Energy Forum (AEF) in Dubai and Burn Manufacturing (REG610) won the Ashden award for Clean Energy for Women and Girls In London.

This report starts in chapter 2 with an overall overview of the current project portfolio of EEP-S&EA including the geographical spread of the applications. It includes an overview of the regional and category distribution of the portfolio.

Chapter 3 is the main section of the report, presenting the results achieved for all outcomes and outputs of the results framework. Results are presented against agreed 2015 targets and End of Programme (EoP) targets. They are also compared to the Programme results at the end of December 2014, as reported in the annual report. Since then, an additional 11 completed or almost completed projects has been monitored.

2 Project portfolio overview

2.1 Portfolio overview

An overview of the project portfolio from the CfP1 to 8 projects was presented in the annual report 2014. An updated overview is presented here, now including all contracted projects from CfP 1 to 10. As per 30 June, 2015 the majority of the contracts related to CfP 6 -10 have been signed. The selection process for CfP11 projects is currently ongoing.

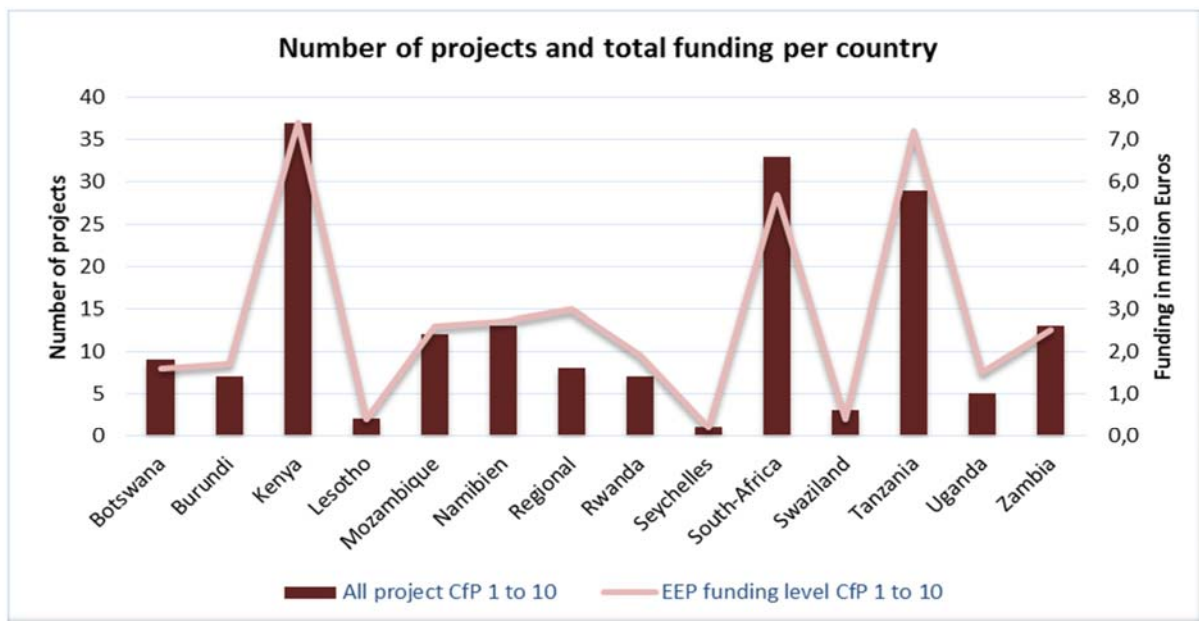


Figure 1 Overview of number of projects and funding levels per country – for CfP 1 to 10 projects

At the end of June, 2015 the EEP project portfolio of the CfP 1 to 10 contains a total of 179 projects. **Error! Reference source not found.** shows how these projects are divided over the countries where EEP-S&EA is active, and also shows the total EEP-S&EA funding per country. Overall, Kenya, South Africa and Tanzania remains to be the dominant recipients of EEP-S&EA project funding. The figure above shows as well that EEP

funding amount is larger in Tanzania compared to South Africa or on similar level to Kenya. While considering the number of projects in the portfolio South Africa have more approved projects than Tanzania. The figure presents as well that the Regional projects are larger than the country specific projects. The portfolio includes eight Regional projects with an average EEP grant size of 375,000 euro.

Overall, Kenya and South Africa were as well the dominant applicants of EEP-S&EA project funding. Whereas over 100 applications each were submitted for these countries the EEP-S&EA received between 42 and 54 Regional, Rwandan, Tanzanian and Ugandan applications. In Cfp 6-10 the applications covers all 13 partner countries.

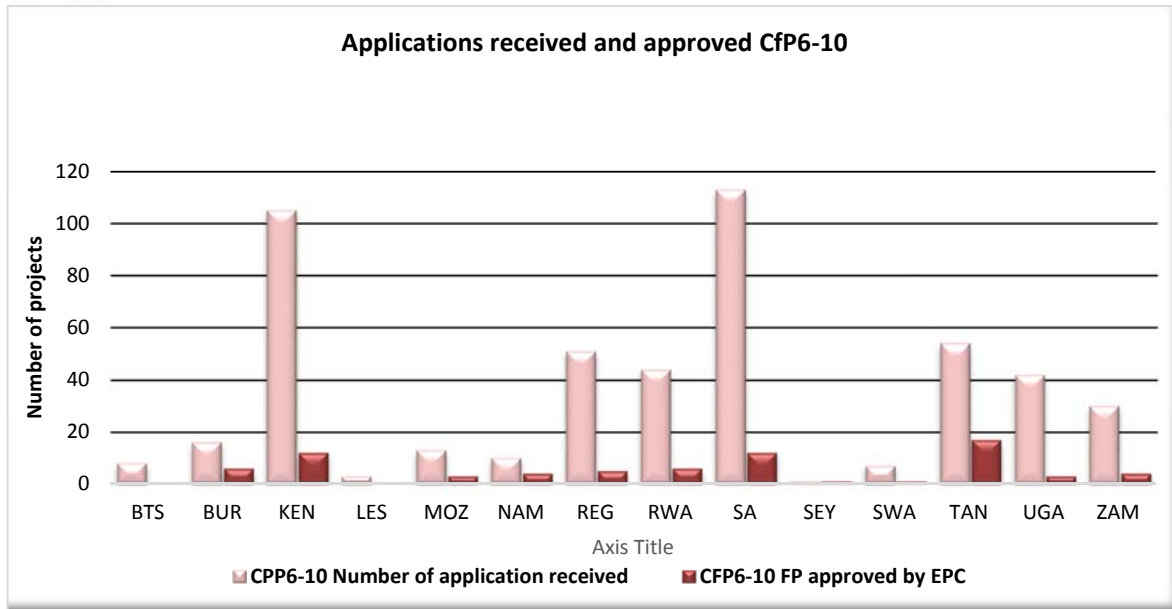


Figure 2 Overview of number of Cfp 6-10 applications received and applications approved

The previous two M&E reports already pointed out that the spread of projects from Cfp 1 to 5 over the countries is not very balanced, with the 4 least developed countries (based on the Human Development Index) Lesotho, Uganda, Mozambique and Burundi receiving a relatively low number of EEP-S&EA projects.

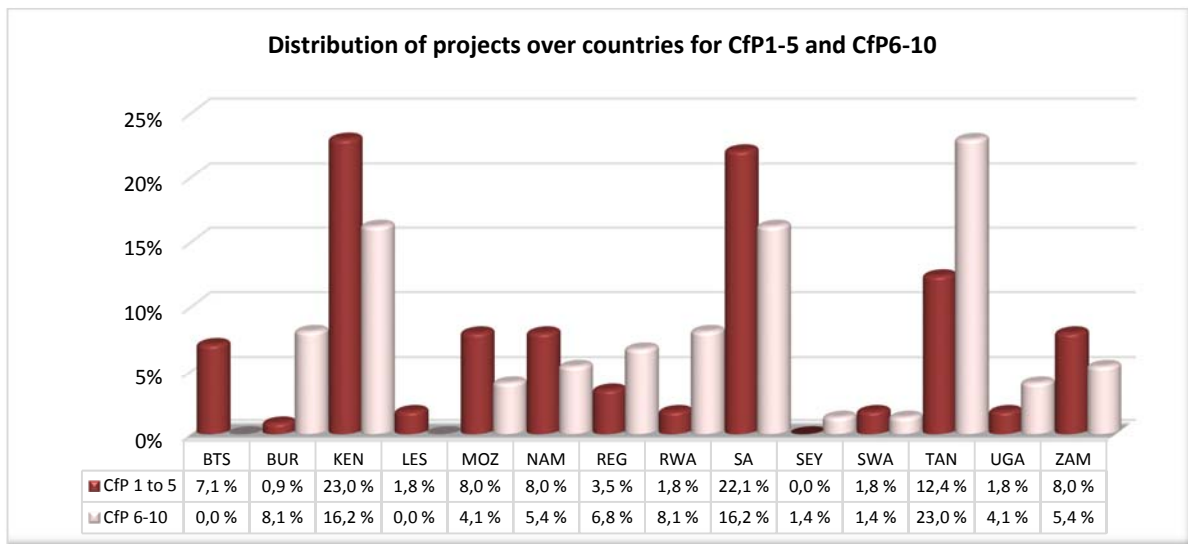


Figure 3 Comparison of projects per country for Cfp 1 to 5 and Cfp 6 to 10

Figure explores whether there has been a change in spread of the projects in CfP 6 to 10 as compared to CfP 1 to 5. It shows that while Burundi and Uganda have increased their EEP-S&EA involvement, Lesotho and Mozambique have in fact an even lower % of the EEP-S&EA projects approved under those calls (Lesotho has no projects at all approved under CfP6 to 10). The most prominent change is a strong reduction of project allocation for South Africa and Kenya versus a strong increase for Tanzania.

Finally, Figure 4 shows the breakdown of the current project portfolio (CFP 1 to 10) over the different project categories. The first categories were set in the beginning of Phase II and some redefinitions were made after the Supervisory Board meeting in November 2014. Noteworthy is that the EEP portfolio has a wide spread of projects in 12 RE categories including liquid biofuel, hydropower, solar thermal, wind power and wave energy. It is clear that Solar PV remains being the dominant category, followed by solid biomass¹ and biogas.

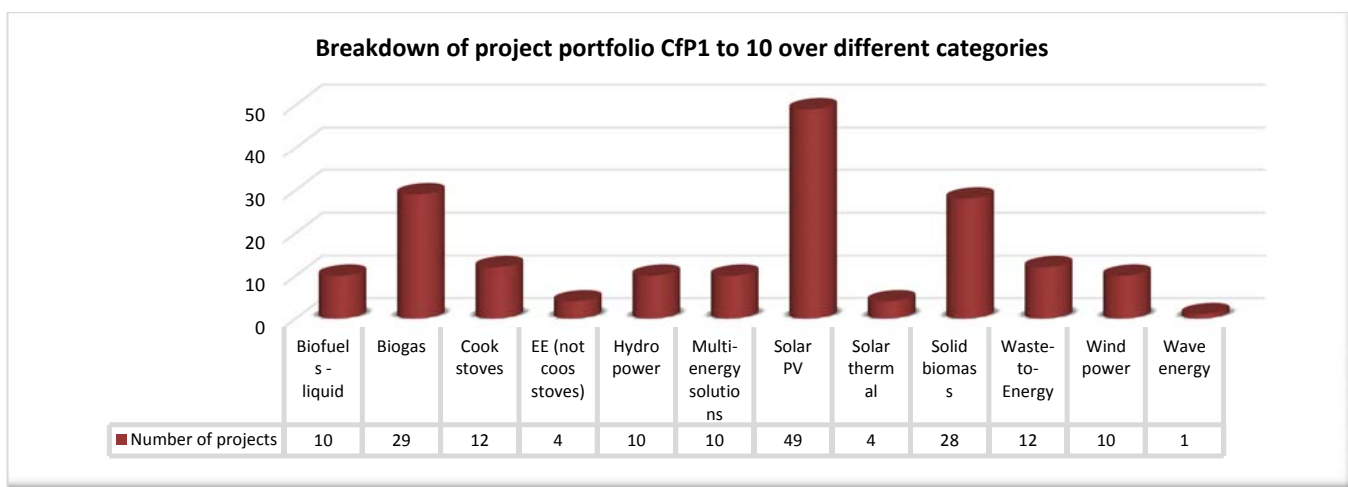


Figure 4 Breakdown of project portfolio over different categories

3 Progress on results

3.1 Introduction

This chapter presents the results achieved so far, from the start of the EEP-S&EA phase I up to June 2015. The results presented are for completed or almost completed projects (the latter mostly concerning projects that have completed their main activities but have not yet finalised the administrative issues related to the grant). All results from implementation projects, i.e. projects other than feasibility studies, as presented in this chapter have been validated through field visits. A typical field visit combined meetings with the Project Developers (PDs) with site visits and, where possible, interviews with beneficiaries. Projects that involved feasibility studies have been quality assured through analysis of the (pre-) feasibility reports, with a few projects also visited for discussions with the PDs. All monitoring information and calculations of indicators have further been quality controlled by the Head of M&E. The discussions with the project developers includes as well lessons learnt.

¹ Note that this category includes projects with cook stoves, but only where this concerns cook stoves that are tailored to the use of the biomass produced, e.g. briquettes. Projects that simply produce improved charcoal or fuel wood cook stoves are counted under Cook stoves.

The total number of projects contributing to the results presented is 61. These are all projects that were approved during CfP 1 to 5 under phase I since no phase II projects have so far been completed. Figure shows from which CfPs these 61 projects derive. It also shows the total number of projects that were approved under each CfP 1 to 5, which indicates that are still a few projects under implementation from the four first CfPs.

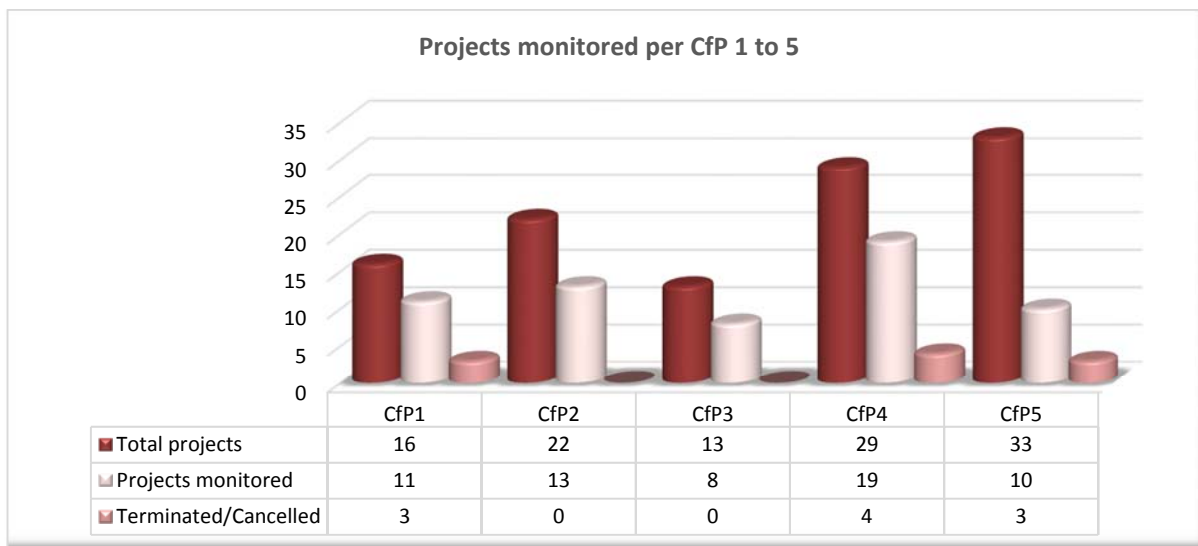


Figure 5 Breakdown of projects monitored per CfP (CfP 1 to 5)

The data presented in this chapter are the consolidated results of these 61 projects. Where projects do not contribute to a specific indicator (e.g. a Solar Home System replacing kerosene lamps does not contribute to Economic Time Saved (Indicator OPI 1.3b)), their contribution is simply defined as zero. This is also done for projects for which we did not manage to obtain consolidated results, so the results presented are on the conservative side. For the few project-derived indicators that are based on percentages (e.g. % of projects replicated/scaled up), the value is calculated on the basis of all relevant projects for which we have validated data.

In line with the approved M&E framework, this semi-annual report presents results for output indicators. The results for the outcome indicators will be presented as part of the annual report.

3.2 Overall progress of the outputs of Outcome 1

Outcome 1 is defined as: *“Green economic growth contributed to through increased access to sustainable energy services, significant scale up of proven energy services, increase in installed capacity, reduction in energy expenditure and mitigation of climate change achieved primarily through support to small to medium size organisations.”* This is to be achieved through 5 outputs, all of which are derived from the implementation of the projects financed by EEP-S&EA. Figure 6 shows the results achieved so far, against the 2015 targets and End of Programme (EoP) targets.

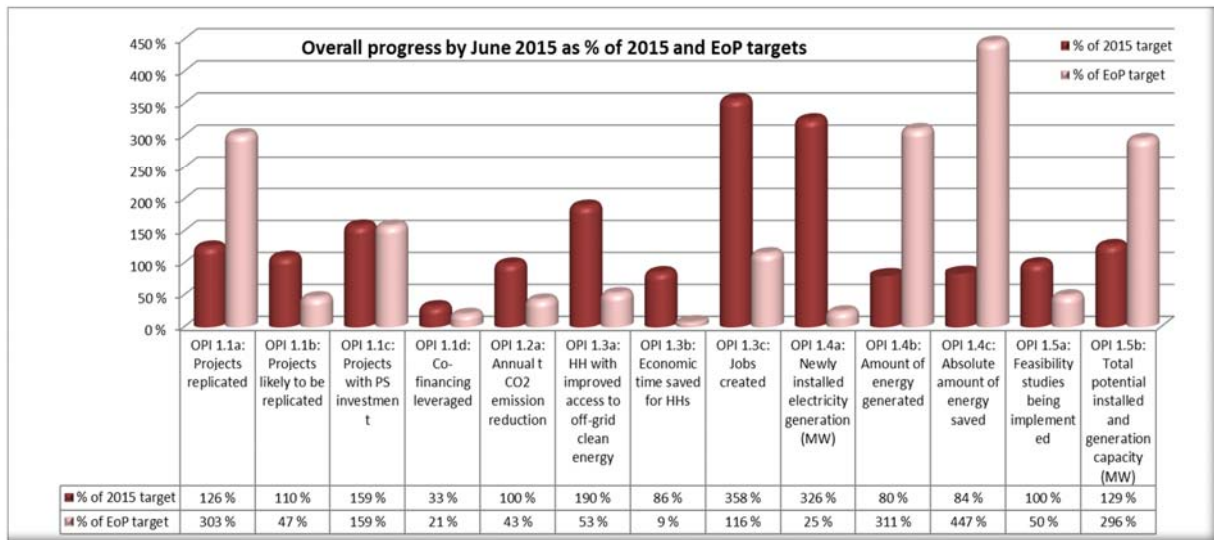


Figure 6 Results for Outcome 1 related outputs

For 9 out of 13 indicators, the 2015 target has been already surpassed at the end of June. In fact, for 6 output indicators the EoP targets have already been achieved, while for 5 output indicators the current results are at or below 50% of the EoP target. For the 4 indicators amongst these 5 for which the project proposals provide expected results, an analysis was made to assess in how far projects in the pipeline from contracted CfP 6 to 10 proposals are expected to contribute to achieving their EoP targets. Figure 7 presents the result of this analysis. If the projects deliver on their expected results, the EoP targets for these indicators will all be exceeded by far.

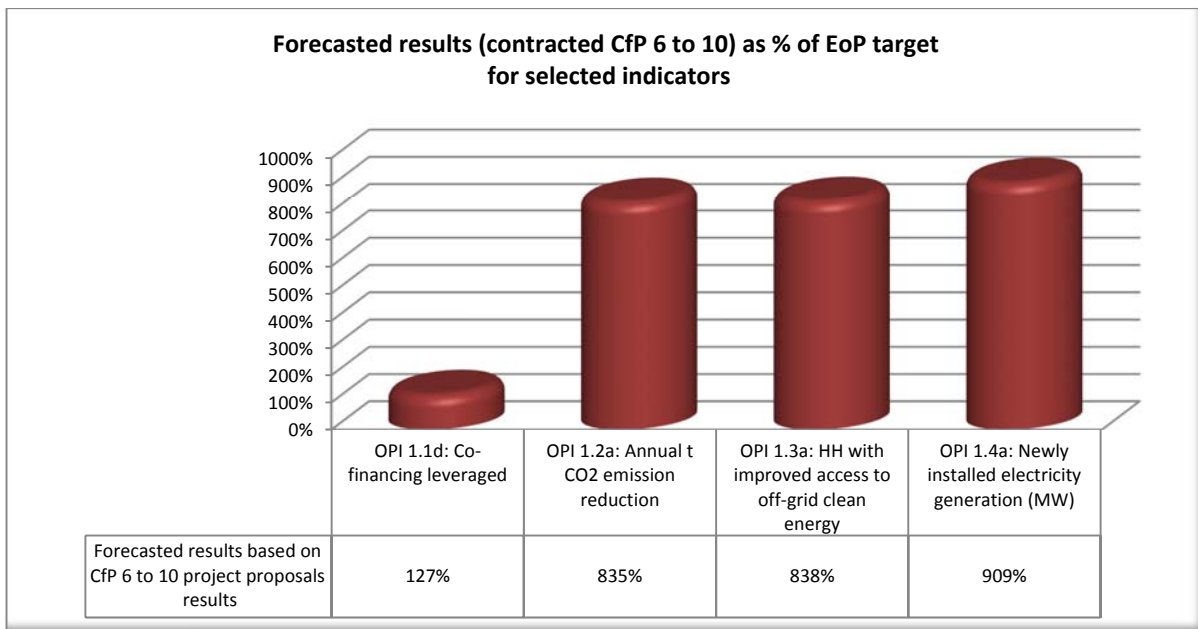


Figure 7 Forecasted results (CfP 6 to 10) for indicators that are currently below 50% of EoP target

Due to the change in the outlines for the funding windows and the accelerating co-funding requirements the set EoP target is expected to be exceeded. During CfP 6 to 10 a relatively low number of large projects that significantly would contribute to the co-funding have still been approved. CfP 11 will likely still contribute with a relatively high share of co-funding. In addition there will be a large amount of additional private sector investment that the projects have indicated to leverage: a total of Euro 70 to 80 million according to their

project proposals. There are further results still to come from as-yet-to-monitor CFP 1 to 5 projects, as well as from projects to be approved under CFP 11.

3.3 Outputs for Outcome 1

3.3.1 Output 1.1: Increased actual and probable commercial scale-up and replication of, and investment in EEP-S&EA supported projects

Indicator	Unit	EoP Target	2015 target	Situation December 2014			Situation June 2015		
				Actual Value	% of 2014 target	% of EoP target	Actual Value	% of 2015 target	% of EoP target
OPI 1.1a: Number of projects replicated and / or scaled up	%	15.00%	36.00%	46.15%	769%	308%	45.45%	126%	303%
OPI 1.1b: Number of projects with high probability of replication and / or scale-up	%	40.00%	17.00%	20.51%	137%	51%	18.75%	110%	47%
OPI 1.1c: Number of projects receiving private sector investment	%	20.00%	20.00%	32.50%	464%	163%	31.82%	159%	159%
OPI 1.1d: Amount of public and private sector finance leveraged by the project	Million Euros	28.10	17.60%	5.53	53%	20%	5.86	33%	21%

Table 1 Indicator results for Output 1.1

EEP-S&EA continues to perform well on output 1.1. The number of projects reporting replication / scaling up is high, and currently stands at 45 % of all projects. During the current reporting period one case is REG610 that attracted USD 750.000 of investments (see <http://acumen.org/blog/acumen-makes-first-cookstove-investment-with-burn-manufacturing/>).

The programme is still behind on the co-financing targets (OPI 1.1d), but this is expected to improve gradually once phase II projects with higher co-financing requirements will be completed and included in the results. Note that the numbers on co-financing presented here are based on the co-financing budgets as provided by the projects. This was done because actual confirmed co-financing numbers are not available yet for a number of projects which, although completed in terms of activities, have not yet finalised the administrative issues (final milestone reports and/or audit reports).

3.3.2 Output 1.2: Reduction in CO₂e emissions achieved through demonstration and deployment of RE/EE energy solutions

Indicator	Unit	EoP Target	2015 target	Situation December 2014			Situation June 2015		
				Actual Value	% of 2014 target	% of EoP target	Actual Value	% of 2015 target	% of EoP target
OPI 1.2a: Annual cumulative t CO ₂ e emission reductions achieved	ton CO ₂	60,000	26,122	25,288	79%	42%	26,056	100%	43%

Table 2 Indicator results for output 1.2

The programme achieved 26,056 tons of annual cumulative CO₂ emission reductions, which is already 100% of the 2015 target. It is expected though that the programme will progressively increase the achievements. The current 61 projects monitored are relatively small yet have already achieved 43% of the EoP target of 60,000 tCO₂. With a total current portfolio of 179 projects (CfP1 to 10) and more (relatively large) projects in the selection process, it can be expected that the EoP target will be achieved and significantly exceeded.

Figure present how the different types of project (project categories) have contributed to the emission reductions. Cook stoves and solid biomass (e.g. briquetting) projects continue to contribute the majority of emission reductions. While the “Solar PV” category has the highest number of projects, its impact on CO₂ abatement is relatively modest. That is because many of these projects only achieve very low levels of CO₂ reductions per product delivered. A solar lantern for example will only lead to 0.092 tCO₂ reduction/year (CDM standard). To put that in perspective: an improved charcoal stove will typically lead to around 1 tCO₂ reduction/year (based on IPCC guidelines of 0.0033 tCO₂/kg charcoal burned, around 60kg of charcoal use per HH per month and 50% efficiency improvement).

The CO₂ emission reduction realized by the programme is expected to rise sharply in the near future when projects that are currently under implementation are completed. As we have seen a steadily increase in the size of projects supported over the respective CfPs, the CO₂ reduction by the portfolio will increase substantially when these projects are completed.

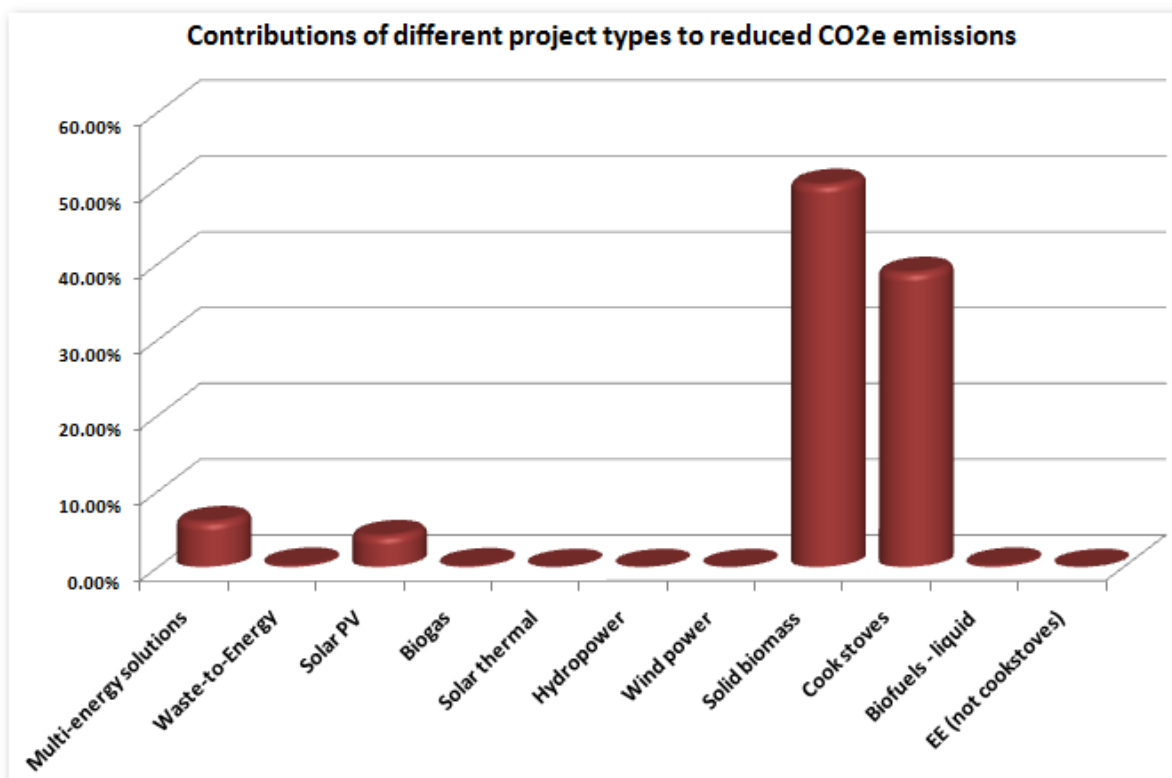


Figure 8 Contribution of different types of projects to CO₂ abatement

3.3.3 Output 1.3: Increased uptake of RE/EE energy solution by the rural and urban poor

Indicator	Unit	EoP Target	2015 target	Situation December 2014			Situation June 2015		
				Actual Value	% of 2014 target	% of EoP target	Actual Value	% of 2015 target	% of EoP target
OPI 1.3a: Number of rural and urban households with improved access to off grid clean energy	Number of HHs; Total and disaggregated rural / urban	100,000	28,034	50,078	134%	50%	53,311	190%	53%
	Rural			44,947			44,947		
	Urban			5,131			5,131		
OPI 1.3b: Economic time saved for households (particularly women and girls)	Euros / year	790,000	79,433	68,438	24%	9%	68,438	86%	9%
OPI 1.3c: Number of direct jobs created for women, men and youth	Full-time job equivalent; Totals and disaggregated for men / women / youth	2,000	647	2,276	305%	114%	2,314 ²	358%	116%
	Total jobs men	600	214	414	185%	69%	417	195%	70%
	Total jobs women	700	168	642	246%	92%	642	382%	92%
	Total jobs youth	700	265	810	310%	116%	845	319%	121%

Table 3 Indicator results for output 1.3

The projects monitored since December have slightly increased the number of households with improved RE/EE access, from 50,078 to 53,311 households, representing 190% of the 2015 target.

Projects using solar PV technology did account for nearly 70% of the households that were provided with renewable energy access, while the remaining thirty percent were served by cookstoves (approx. 20%) and solid biomass projects (10%).

EEP-S&EA scores low on the indicator on Economic Time Saved with 9 % of the EoP target reached at the end of June 2015. This indicator is narrowly defined as the time saved on collecting firewood (typically when introducing more efficient cook stoves that use less firewood). It does not consider other possible economic time saved such as no more need to walk long distances to charge cell phones after installation of an SHS, or reduced cooking times (also see section 3.8 – Other results). Given that cook stove projects are less prominent in the projects currently in the pipeline, it seems unlikely that scoring on this indicator will improve considerably in the future.

The EEP-S&EA projects have created a total of 2314 full-time job equivalents, with women and youth benefiting more than men in terms of number of jobs. This number significantly exceeded the 2015 target and even the EoP target. Typical jobs that are created through the projects include:

- producing clay cook stoves / assembling metal stoves
- collecting waste material for biomass projects
- installing and maintaining Solar Home Systems
- char production from agricultural residues using an ARTI kiln.

² Note that the total of 2314 jobs is higher than the sum of the reported jobs for men, women and youth (1903). This is because for one project only a total job number could be obtained (411), and no details with regard to breakdown for men, women and youth.

- sales representatives for pay-as-you-go solar home systems
- customer support personnel on bicycles for solar home projects
- biogas unit sales and maintenance personnel
- shop stewards for selling solar units and solar lanterns

The figure below provides a breakdown of the type of job (temporary or permanent) for each of the beneficiary groups' men, women and youth. It also shows the estimated income (taken from outcome indicator 1.a) from the permanent jobs. The graph makes clear that job for women are mostly temporary ones, whereas men and youth (young men³) have a relatively high number of permanent jobs. The trend continue to show that men earn a better income from permanent jobs than women: while they have about the same number of total permanent jobs, the total income for men from those jobs is around Euro 556,000 while for women it is Euro 392,000. Unfortunately the monitoring data do not enable us to draw conclusions from this observation as we do not request the project developers to record the type of position associated with a job created. Therefore we cannot distil whether the difference in remuneration between men and women could result from the different types/level of jobs between men and women.

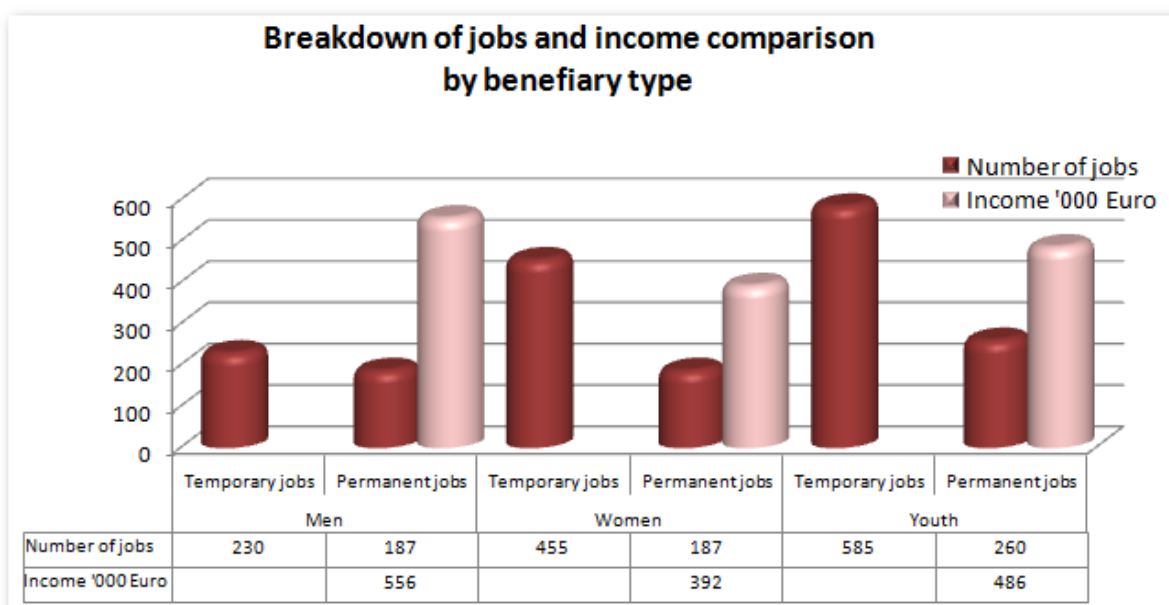


Figure 9 Breakdown of jobs and income by men, women and youth

³ Young women (under 35 years of age) are always counted under the “Women” category, whereas young men are counted under Youth. So the Youth category is basically consisting of young men.

3.3.4 OP1.4: Increased energy generation from RE technologies and energy savings from EE measures

Indicator	Unit	EoP Target	2015 target	Situation June 2014			Situation June 2015		
				Actual Value	% of 2014 target	% of EoP target	Actual Value	% of 2015 target	% of EoP target
OPI 1.4a: Newly installed electricity generation from demonstration projects	MW	2.00	0.15	0.49	446%	25%	0.50	326%	25%
OPI 1.4b: Amount of energy generated disaggregated by heat and electricity		6,000	23,272	18,200	814%	303%	18,661	80%	311%
OPI 1.4c: Absolute amount of energy saved through installation of energy efficient technologies / projects.	MWh	6,000	31,932	26,804	1198%	447%	26,804	84%	447%

Table 4 Indicator results for output 1.4

The result achieved for newly installed electricity has not changed considerably during January-June 2015 and the cumulative result at the end of June however still is at 326 % of the 2015 target. All of the newly installed electricity capacity derives from solar PV projects, typically SHS and solar lanterns, and as such do not contribute much to new electricity capacity expressed in MW. The average installed capacity for solar projects is in fact only 0.03MW per project. Assuming that at least some of the pipeline projects from categories like hydropower or wind power will be successfully completed (see the analysis on expected future results in section 3.2.1), this indicator is expected to increase significantly in the future, and the EoP target is therefore considered achievable even if 25% of the target has been achieved at the end of June 2015.

The indicator on amount of energy generated should be analysed only in its disaggregated form i.e. by electricity and by heat since these are really different and incomparable types of energy. The aim is to report on these components separately in the annual report. It would therefore be worthwhile to provide separate annual targets for each in the future. As it is now, the projects have already generated an amount of energy (MWh / year) that surpasses the end of programme target.

The absolute amount of energy savings stands at 26,804 MWh, already 447% of the EoP target. All energy savings have so far come from cook stove and solid biomass (e.g. briquettes production) projects.

3.3.5 OP1.5: Increased number of commercially viable business models and feasibility studies

Indicator	Unit	EoP Target	2015 target	Situation December 2014			Situation June 2015		
				Actual Value	% of 2014 target	% of EoP target	Actual Value	% of 2015 target	% of EoP target
OPI 1.5a: Number of feasibility studies going forward to implementation.	Number	4	2	2	200%	50%	2	100%	50%
OPI 1.5b: Total potential installed and generation capacity (MW and MWhr)	MW	40.00	91.94	110.70	738%	277%	118,22	129%	296%

Table 5 Indicator results for output 1.5

3.4 Outputs for Outcome 2

Outcome 2 relates to the grant management support and Business Development Support to be provided to the Project Developers. It is formulated as “EEP-S&EA project developers are successful in starting and managing RE/EE energy businesses, raising and leveraging finance, managing project implementation”.

3.4.1 Output 2.1 - Increased capacity and competence amongst RE/EE developers in Southern and Eastern Africa

Indicator	Unit	EoP Target	2015 target	Situation December 2014			Situation June 2015		
				Actual Value	% of 2014 target	% of EoP target	Actual Value	% of 2015 target	% of EoP target
OPI 2.1a: Percentage of projects (from CfP6 onwards) completed according to schedule.	%	40%	0%	N/A yet	N/A yet	N/A yet	N/A yet	N/A yet	N/A yet
OPI 2.1b: Percentage of projects requiring technical assistance receiving support	%	90%	30%	N/A yet	N/A yet	N/A yet	N/A yet	N/A yet	N/A yet

Table 6 Indicator results for Output 2.1

There were no projects completed from Cfp 6 to 10 at the end of June 2015 which is in line with the 0 target for 2015.

There were a few Phase II contracted project developers that had reached their first EEP project milestones by June 2015. The challenges addressed by these project developers were mainly related to the project time-frame and possible changes between milestones, disbursements, procurement and specific reporting queries. The projects were well on track with their activities.

Business Development Services has thus not yet been measured by Phase II selected project developers as a few CfP6 contracted project had implemented their first milestone activities by end of June. The aim is to start reporting on indicator 2.1b on projects requiring and receiving support from the annual report 2015.

The most active business development support has been related to the Phase II applications in the full proposal preparation phase and an active ongoing support provided by the grant management. As part of the CfP 6-11 application processes the projects have been developing their full proposals with the support of ECO in order to reflect the EEP objectives and development partners’ requests. Most proposals have been asked to work on the business model of their proposal. Emphasize has also been set on adequate co-financing and measurable sales targets.

Many of the new projects have been active with questions related to the project reporting and implementation details. Grant management team frequent face-to-face, Skype and phone meetings with the project developers, giving the guidance of those specific topics and get to know the projects. Most questions were related to the reporting, procurement and time schedules. Also small changes within the budget lines were requested. Overall, the new projects seemed to be well organized and professional, so good results can be expected after a year or two of completing these projects.

With the support of effective grant management, including weekly grant disbursements and daily communication via emails and phone, the Phase I portfolio continued to reduce and comprise currently of 20 ongoing projects from CfP 1 to 4. From the CfP 5 projects that were contracted in the beginning of Phase II 42 % had been completed (including 5 cancelled projects). Moreover, even though the progress has been slow for some of the older projects; the grant management team has closely followed-up the progress by updating the reporting schedules and has undertaken project site visit or meetings with the projects on frequent basis in order for the project developers to complete their EEP activities. Projects with too extensive implementation challenges have after substantial discussions on different solutions models been terminated based on the project developers conclusion and request. The termination reasoning have so far been mostly project specific but refers to common issues around a non-feasible and sustainable business, difficulties in cooperation among project partners, changes in the accumulation of co-funding, overwhelming obstacles of key project concept elements (site changes, land acquisition, lack of environmental and human resources etc.). The outcome of a positive support is a project that can complete its implementation with some tangible sustainable results achieved (although maybe below what has originally been targeted).

Project lessons learned

As part of the business development support ECO aims to share lessons. Based on the discussions with the project developers several EEP projects are faced with interesting lessons that are worth sharing. For this purpose a platform has been recently initiated to all EEP-S&EA users for sharing lessons, commenting and adding business value to follow EEP-S&EA projects.

The ECO team updated two lessons learnt stories on the eepafrica.org site. The first lessons learnt story was about a biogas project in Swaziland (SWA202) with numerous of challenges. The project is struggling with the project management but moreover with the chosen technology (bottled biogas for household use). The story summarizes the main lessons of that case without going into too much detail to cause negative publicity for the project developer. The second lessons learnt story was about a solar led light project in Namibia (NAM4001). The project is a good case study of a socioeconomic aspects that a renewable energy project can have in rural communities. Also this project had challenges caused by a challenging working environment, but it was completed and results can be considered successful. These two case studies can be found in the annexes to this report.

During the current cycle of project evaluations and visits we have started to collect noteworthy issues that can feed in the Knowledge Management component of the projects. The lessons learnt refers mainly to policy/regulatory, technical and business aspects in addition to project implementation issues and concerns related to the project time-frame, possible changes between milestone activities, timely disbursements, procurement and EEP reporting queries. Some project specific snapshots of lessons learnt and/or challenges addressed, to be noticed that these only refers to project specific issues and do not at this stage necessary present programme level lessons:

- Permits and contract issues may take more time than originally anticipated in the application stage (delays in implementation due to outstanding Environmental certificates, land acquisitions etc.)
- Approval of justified changes in budget and/or target lines of importance to support the project in achieving results, addressing challenges or to cover more justified expenses/targets than originally was determined in proposal stage. Some statements as well on too ambitious targets.
- Detailed additional project specific technical solutions in order to achieve better results and/or solutions

- Market studies of importance to address that there is an overall demand of the services/products offered. More of importance is how to attract the specific market and demand especially designated for the business model created
- Business attractiveness, affordability, availability, replicability and functionality of solutions generated (Permits, expense structure, know-how (technical and HR), commitment, investments etc.)
- How to take a concept from to the next stage of implementation (feasibility, pilot, demonstration, replication, market creation etc)
- EEP a trustworthy funding; Importance of timely payments, timely replies on implementation clarification and flexibility on approval of changes in order to solve challenges, reach better results or reduce risk taking.

ECO will further elaborate on and disseminate these “lessons learned” on the Programme website, the yearly incoming KEF and in external events where ECO takes part of.

3.5 Outputs for Outcome 3

Outcome 3 is formulated as “EEP-S&EA is an active regional partner in generating RE / EE knowledge and evidence, sharing of experiences, and informing effective and inclusive regional RE/EE policies”.

The outputs for Outcome 3 relates primarily to Knowledge Management activities. During the first half year 2015 the EEP Programme engaged in a substantial number of national and international forums with the objective of dissemination EEP information, identifying opportunities for more detailed engagements with other initiatives in the field of renewable energy and energy efficiency in Africa, to support joined activities in the sector and to learn from others.

3.5.1 OP 3.1 Increased networking between RE/EE actors within the regions

Indicator	Unit	EoP Target	2015 target	Situation December 2014			Situation June 2015		
				Actual Value	% of 2014 target	% of EoP target	Actual Value	% of 2015 target	% of EoP target
OPI 3.1a: Number of forums engaged in (policy, technology, investor, business to business)	Number	10	3	7	> 100%	40%	25	833%	250%
OPI 3.1b: Number of partnerships formed with complementary initiatives	Number	5	3	2	200 %	40 %	4	133 %	120 %
OPI 3.1c: Percentage of EEP-S&EA projects engaged in relevant networks	%	30%	53%	73%	1459%	243%	72%	135%	239%

Table 7 Indicator results for Output 3.1

EEP-S&EA has progressed well on output 3.1, with the three indicators already above the 2015 targets.

In Q1 the EEP programme engaged in a large number of national and international forums with the objective of dissemination EEP information, identifying opportunities for more detailed engagements with other

initiatives in the field of renewable energy and energy efficiency in Africa, to support joint activities in the sector and to learn from others.

The EEP team continued to be part of the National Biogas Forum in South Africa. This GiZ initiative brings together the stakeholders in the biogas industry and is backed by the South African Department of Energy. The forum meets every two months to discuss developments in the sector and includes a number of working groups that focus on specific issues like legislation & licensing, information gathering and financing. As part of the interactions within the Forum, EEP has been in more detailed contact with the Southern African Biogas Industry Association and have agreed to share information on EEP's biogas projects in southern Africa for SABIA's project database.

On recommendation by the Finnish Embassy in Pretoria, EEP participated in the SADC ICP meeting end February. This meeting of International Cooperation Partners aims at coordination of and collaboration between energy initiatives in the SADC region by ICPs. In the February meeting EEP Programme Director Mr. Wim Jonker Klunne gave a presentation on the current status of EEP.

The EEP team also participated in the second and third Energy Efficiency workshop as organized by the South African Department of Energy. This workshop is part of a series of engagement with key stakeholders in the energy efficiency arena in South Africa. Programme Director Mr. Wim Jonker Klunne earlier participated in the first meeting (in September 2014).

Energy Indaba (17 & 18 February 2015): Programme Director Mr. Jonker Klunne participated as a panel member in discussions around energy efficiency together with representatives of the financial, legal and business community. The discussion focused around the best way to promote energy efficiency

National Biogas Conference (5 & 6 March 2015): at this conference that was organized by the South Africa Department of Energy (and more specifically by EEP National Coordinator Ms. Qase) Mr. Jonker Klunne was a panel member in the session on the use of biogas in rural areas. During this session the experience of EEP with rural biogas digesters was brought to the front.

Power & Electricity World Africa (24 & 25 March 2015): Mr Jonker Klunne and Mr Boshoff presented at this conference on the solar energy projects in the EEP portfolio, with specific attention to the business models applied (and lessons that can be learnt from this). This presentation was given at the exhibition floor and open to the public.

As part of the same conference, Mr. Jonker Klunne was a member of the jury for the 2015 energy rewards. This included the inaugural Energy Innovation Prize of USD 30,000. In the jury discussions, the EEP experience with assessing projects and project proposals served as a valuable background. One of the runner-ups for the Energy Innovation Prize was EEP project SA59, the Bio2Watt biogas installation in Bronkhorstspuit. This project was highly recommended because it has played a pioneer role for biogas projects in South Africa (the prize was eventually awarded to a school that developed an innovative biomass stove).

Vaasa Energy Week (17 & 18 March 2015): the EEP programme was represented at this conference by Ms. Riikka Sievanen. Her presentation focused on the EEP programme, the 11th Call for Proposals and the possible opportunities for Finnish companies.

During 11th – 12th of April EEP made two presentations at the Africa African Regional Workshop on Carbon Finance in Marrakesh, Morocco. This workshop was organized by the UNFCCC for the African DNAs (Designated National Authorities for CDM projects). The first presentation as on the promotion of clean technology investments in Africa in general, highlighting policy options available to support the uptake of

clean energy technologies and a presentation on scaling up energy access using results based financing. For this second presentation the EEP programme was used as a case study.

On the 13th – 14th of April the Programme Director was co-moderator and lead for the Q&A in AfDB session on low carbon energy access at the Africa Carbon Forum 2015 in Marrakesh, Morocco. As part of the forum the PD also made a presentation on mobilizing climate finance - available finance and information.

On the 20th of April the Programme Director made a presentation of EEP at the Regional network meeting on Energy (Embassy of the Netherlands) in Pretoria, South Africa, outlining the role of renewable energy in providing energy access in southern and east Africa.

At the 22nd – 23rd of April ECO participated in the 3rd Workshop for the Development of the Post 2015 National Energy Efficiency Strategy, Targets and Measures in Pretoria, South Africa.

During 12th – 14th of May EEP was presented at the African Utility Week / Clean Power Africa in Cape Town, South Africa. The Programme Director was both chairperson and panelist in the different sessions. ECO managed also to secure a speaking slot in the rural electrification stream of the conference for EEP Project of the Year 2014, Devergy.

At this conference two EEP projects were shortlisted for an award: Devergy in the category African Community Project of the year and Gigawatt Solar Rwanda in the category Clean Energy project of the year. Unfortunately neither of the two did win the respective award. (The EEP programme itself was nominated as well for the Clean Energy project of the year, but did not make it to the shortlist)

At the 23rd of May the Programme Director made a presentation and participated as panelist in the 2015 Scaling-up Clean and Sustainable Energy in Africa / What role can parliamentarians play? This was an event for members of Pan African Parliament in Midrand, South Africa. Main objective was to expose the parliamentarians to issues around energy and energy access. The EEP presentation focused on key ingredients for successful projects.

On the 3rd of June ECO made a presentation of EEP in Zambia at the Finland Energy Seminar (Finnish Embassy Lusaka) in Lusaka, Zambia. During this event, 6 of the EEP projects in Zambia did give brief presentations on their respective projects.

During the 3rd – 4th of June ECO made a presentation (by Finnish embassy Pretoria) at the 3rd African Public Officials Energy and Environment Conference & Workshop 2015 in Pretoria, South Africa.

During 18th – 20th of June EEP was represented at the Vienna Energy Forum in Vienna, Austria, including participation as a panelist in one of the high level panels of the conference.

During the first half year 2015 ECO has been active in working with identifying and establishing new partnerships and the 2015 target has already been exceeded by the end of June.

A partnership has been established with the organizers of the African Utility Week / Clean Power Africa conference that will be held in May 2015 in Cape Town. As part of this collaboration, the EEP Programme Director is a member of the conference's Advisory Board and was chairperson of one of the streams at the conference, as well as a panellist in one of the other sections. We also have been able to secure a speaking slot in the rural electrification stream of the conference for EEP Project of the Year 2014, Devergy.

ECO is currently establishing a cooperation with IRENA (International Renewable Energy Agency) HQ in Dubai. They have addressed their keen interest of cooperation and ECO is now in an active phase with the planning of joint activities in either the Sairec event in October or the KEF in November. The cooperation might open up for a possibility to include EEP as a pilot in a new platform that Irena is establishing for investors, donors,

project developers and service providers. There are several areas of synergies and a cooperation would provide new opportunities in for the EEP Programme as well as EEP funded projects in respect of partnership creation, investor relations and knowledge sharing.

Previously ECO has established a partnership with the REEEP Programme, a similar but smaller initiative as EEP S&EA. Cooperation and synergies were discussed and it was agreed to continue the dialogue. ECO has also established a cooperation with Finnpartnership with a link from the EEP S&EA website to the Matchmaking services provided by Finnpartnership.

Preliminary discussions have started with the Global Alliance for Clean Cook stoves on possible synergies. While we are working with the Southern African Biogas Industry Association (SABIA) on information sharing and joint knowledge management.

In June, the percentage of projects engaged in relevant networks was already high at 67%. This has now further increased to 73%. Through this networking EEP-S&EA indirectly also contributes to further awareness raising on RE/EE in general, and on EEP-S&EA supported RE/EE activities in particular.

3.5.2 OP 3.2: Increased amount of and access to relevant evidence and information on RE / EE

Indicator	Unit	EoP Target	2015 target	Situation December 2014			Situation June 2015		
				Actual Value	% of 2014 target	% of EoP target	ActualValue	% of 2015 target	% of EoP target
OPI 3.2a: Number of technical briefings published, including case studies	Number	5	0	0		0%	1		20%
OPI 3.2b: Number of policy briefings generated and disseminated to relevant forum and decision making bodies	Number	5	2	0	0%	0%	0	0%	0%
OPI 3.2c: Number of quality tools developed and utilised to disseminate and share information disaggregated by tools; EEP-S&EA website, media articles, social media networks, newsletter, workshops, events and donor information channels.	Number	7	2	4	200%	57%	4	200%	114%
OPI 3.2d: Number of people / organisation accessing EEP-S&EA information through information / knowledge management tools.		3450	1,725	10,845	629%	314%	16,787	487%	143%

Table 8 Indicator results for Output 3.2

In Q1 of 2015 one technical brief was produced, an article on the hydropower projects in the current EEP portfolio for the Water Power & Dams journal. The article appeared in their special issue on hydropower in Africa and outlines the support provided by EEP so far.

The technical and policy briefings of the Programme will use as base the lessons learnt from the Programme funded projects in combination with the business development services and networking activities. In the second half year of 2015 the existing portfolio of projects will be critically analysed in order to identify areas of importance to the Knowledge Management component of the EEP-S&EA and the lessons learnt.

During 2015, ECO team has continuously built up the new EEP-S&EA S&EA website and the content related to the EEP-S&EA funded projects has been increased. The information is linked to the Google map, a “matchmaking” function making it easy to oversee and link project both from a regional as well as field and category perspective. Nearly half of the project portfolio is currently included in the database available through the web platform www.eepafrica.org. The database includes information about the project, the contact details of the project office, site location (for feasibility only office due to non-public information, community excitement and competitor information), duration and stage of implementation. For networking purpose each project is as well linked to similar initiatives. For example by selecting ZAM5004 “Commercializing sustainable process for waste-to-biogas production in Ndola, Zambia” you are linked to 25 other EEP portfolio biogas projects.

The hit rate of the EEP website has been excellent, 100.727 during the first half year 2015. Information related to ongoing calls, events and news has been updated on ongoing basis. The platform has worked well during massive traffic in relation to the application processes. Information related to the Knowledge and Exchange forum including information about the EEP project of the year award were published on the web site.

Additionally, EEP-S&EA is present in LinkedIn and Flickr social media networks. The statistics show, that LinkedIn can be a usable tool to reach relevant stakeholders; most of the page visitors are at a senior level and the follower number is growing steadily, however slow. Total number of followers by end of the second quarter 2015 was 261 followers. The change from the quarter one (31st March 2015) was +51 followers, the number being 210 followers.

During the first half year 2015, ECO published two newsletters. The total number of subscribers was for 1484 for the latest 1484. Again, the percentage of the opened newsletters was comparatively high, 36%. By the end of the second quarter the total number of the newsletter subscribers had increased to 1553 people.

4 Value for Money

Quantitative measurement of Value for Money is done through 4 key cost effectiveness indicators:

- Overall cost per household which has improved access to off grid clean energy (EEP-S&EA grant + co-funding)
- Overall cost per household which has improved access to off grid clean energy (EEP-S&EA grant only)
- Cost per tonne of carbon abated (EEP-S&EA grant + co funding)
- Cost per tonne of carbon abated (EEP-S&EA grant only)

Results for these indicators were presented in the annual report, and an update is provided here. Table 13 presents the overall VfM result for the above indicator, comparing the values of December 2015 with those obtained in June⁴.

⁴ There are some differences with the June results presented in the semi-annual 2014 M&E report. That is because it was in the Annual 2014 M&E report decided to use budget numbers rather than actual expenditures. For the latter, complete data for all monitored projects are not yet available, since some of them are still finalising the financial / administrative issues. It means that the final actual EEP-S&EA funding amount and the final actual co-funding amounts would be considerably underestimated. Since actual expenditures have proven to be very close to budgeted expenditures for the EEP-S&EA funds, and fairly close for the co-financing ones, it was concluded that using budget numbers would provide more accurate results. However, since actual numbers were used in June, the amount of funds

VfM indicator	Unit	Result achieved Dec 2014	Cost per unit (EEP+CF) Dec 2014	Cost per unit (EEP only) Dec 2014	Result achieved June 2015	Cost per unit (EEP+CF) June 2015	Cost per unit (EEP only) June 2015
Cost per HH	HH	50,078	245 €	133 €	53,311	273 €	155 €
Cost per tCO ₂ abated	tCO ₂	25,288	485 €	263 €	26,056	559 €	317 €

Table 9 VfM indicators based on budgets of overall project portfolio

As already noted in the previous reports, the VfM values presented in table 9 above are based on the contracted budgets of all projects, irrespective of whether a project was in fact supposed to contribute to the indicators behind the VfM values (providing RE/EE services to households, and reducing CO₂ emissions). In table 10 the reported number of households provided with energy services and the abated CO₂ shows against the budgeted funds for only those projects that contributed to that result. The resulting figures show more realistic and much better Value for Money. Using this methodology, we see a slight improvement of VfM both for HHs and for CO₂ abatement from December to June.

A note has to be made here that the reported CO₂ abatement figures are based on the approved M&E framework that makes use of standardized emission reduction indicators. These calculations do not take CO₂ abatement through avoiding CH₄ (methane) emissions in consideration. Particular biogas projects are therefore underreporting in CO₂ emission reductions, with a resultant negative impact on the Value for money indicator.

VfM indicator	Unit	Result achieved Dec 2014	Cost per unit (EEP+CF) Dec 2014	Cost per unit (EEP only) Dec 2014	Result achieved June 2015	Cost per unit (EEP+CF) June 2015	Cost per unit (EEP only) June 2015
Cost per HH	HH	50,078	71 €	30 €	53,311	67 €	29 €
Cost per tCO ₂ abated	tCO ₂	25,288	155 €	72 €	26,056	150 €	69 €

Table 10 VfM indicators based on budgets of projects contributing to the indicators

5 Risk management & monitoring

The risks associated with EEP-S&EA program are categorized into project level and program level risks. At project level the risks are further categorised as: policy and regulatory risks, technical and organizational capacity risks and market access risks. At program level, the risks are categorized as: development risks, financial and fiduciary risks, reputational risks, sustainability risks and policy and regulatory risks.

The risks are managed at 2 levels:

- **Risk management at the call for proposals (CfP) and selection process** - At the CfP stage, defined selection criteria and processes are used to identify and decline projects that are deemed to have a high level of risk and for which no effective risk mitigation strategies can be proposed. Where risk mitigation strategies are feasible, these are incorporated in the contract as conditions for contracting and disbursement.
- **Risk monitoring during the implementation of EEP-S&EA supported projects** - During project implementation, risks are managed by the ECO's Grants Management and M&E teams who track project

used to achieve the results (HH reached and tCO₂ abated) were underestimated at the time, hence leading to better VfM values than those presented here based on the budgets.

developers' compliance to the guidelines and requirements provided for in the EEP-S&EA Administrative Manual for Project Implementation, track project progress against activities and results (through assessment of milestone and financial reports and through technical/economic/grant progress/risk assessments during monitoring visits) and assess the capacity needs of project developers (PDs).

Details with regard to how the above is implemented is provided in the EEP-S&EA Phase II M&E Framework document.

One of the risks EEP is facing during the implementation of the projects is political risk: insecurity in the country due to political unrest. This can impact on a/o the ability of the project developer to secure the project site, procure and transport building materials and equipment, impact on the safety of staff at the Project Developer's or partner's offices and/or at the project site.

This risk has materialized in Burundi where civil unrest emerged during the running up to the elections. Although the election have now taken place, the situation has not yet returned to normal. EEP has seven ongoing projects in Burundi, of which two have requested an extension of the implementation period to accommodate for the current inactivity of the projects due the current unrest. The EEP portfolio include as well projects in full implementation despite the surrounding uncertainties. The issue has been table at the EPC meeting in July and is under constant monitoring by ECO and the donors

An overview with the current status of the risk areas can be found in annex III.

6 Conclusions and recommendations

Overall performance

Results

Validated results have now been obtained for 61 completed or almost completed projects, out of a current portfolio of 179 projects. The results show that EEP-S&EA is progressing attractively towards the targets set for the indicators for the results that are derived from the funded projects as well as for the indicators for the knowledge management component. For 9 of the 13 indicators on outputs under component 1 the 2015 targets have been surpassed. For 6 indicators EEP-E&SA did already achieve the end of programme targets.

Analyses of estimated contribution from projects contracted under CfP 6 to 10 are highly promising and indicate a solid base for reaching all EEP targets. If the projects deliver on their expected results, the EoP targets for these indicators will all be exceeded by far. Due to the change in the outlines for the funding windows and the accelerating co-funding requirements the set EoP target is expected to be exceeded. During CfP 6 to 10 a relatively low number of big projects that significantly would contribute to the co-funding have still been approved. CfP 11 will most likely still contribute with a relatively high share of co-funding.

The main indicator for which achievement of the EoP target is still unlikely is the indicator on Economic Time Saved. This is to a high extent due to the indicator is narrowly defined as only considering time saved from reduced need to collect firewood, and no other time saved such as reduced cooking times and reduced need to go to markets to buy kerosene or batteries or to charge cell phones.

The outcome of a systematic follow up of results for outcome 2 (has been established with the aim of having first measurable results from milestone 1 reviews, grant management communication and project

developers' progress reports) will be presented as part of the 2015 annual report. The most active business development support has been related to the Phase II applications in the full proposal preparation phase and an active ongoing support provided by the grant management. As part of the CfP 6 to 11 application processes the projects have been developing their full proposals with the support of ECO in order to reflect the EEP standards and development partners' requests.

Outcome 3 is mainly referring to Knowledge Management. In 2015 ECO has actively presented and promoted the programme through different channels. The activities focused on the knowledge management component is reflected in 5 out of 7 output targets of the 2015 have been surpassed under component 3. The EEP web site has been developed into an information platform and tool for EEP knowledge sharing and during the first half year 2015 the hit rate exceeded 100 thousand.

ANNEX I
EEP S&EA phase II
Outcome and Output results – June 2015

Logframe outputs	Indicators	Unit	End of Programme Target	End of Year target 2015	Results by December 2014			Results by June 2015		
					Achieved by Dec 2014	% of 2014 target	% of EoP target	Achieved by June 2015	% of 2015 target	% of EoP target
Outputs for Outcome 1										
OP1.1: Increased actual and probable commercial scale-up and replication of, and investment in EEP supported projects	OPI 1.1a: Number of projects replicated and / or scaled up	%	15.00%	36.00%	46.15%	769%	308%	45.45%	126%	303%
	OPI 1.1b: Number of projects with high probability of replication and / or scale-up	%	40.00%	17.00%	20.51%	137%	51%	18.75%	110%	47%
	OPI 1.1c: Number of projects receiving private sector investment	%	20.00%	20.00%	32.50%	464%	163%	31.82%	159%	159%
	OPI 1.1d: Amount of public and private sector finance leveraged by the project	Million Euros / year	28.10	17.60%	5.53	53%	20%	5.86	33%	21%
OP1.2: Reduction in CO2e emissions achieved through demonstration and deployment of RE/EE energy solutions.	OPI 1.2a: Annual cumulative t CO2e emission reductions achieved	ton CO2	60,000	26,122	25,288	79%	42%	26,056	100%	43%
OP1.3: Increased uptake of RE/EE energy solution by the rural and urban poor	OPI 1.3a: Number of rural and urban households with improved access to off grid clean energy	Number of HHs; Total and disaggregated rural / urban	100,000	28,034	50,078	134%	50%	53,311	190%	53%
	Rural				44,947			44,947		

Logframe outputs	Indicators	Unit	End of Programme Target	End of Year target 2015	Results by December 2014			Results by June 2015		
					Achieved by Dec 2014	% of 2014 target	% of EoP target	Achieved by June 2015	% of 2015 target	% of EoP target
	Urban				5,131			5,131		
	OPI 1.3b: Economic time saved for households (particularly women and girls)	Euros / year	790,000	79,433	68,438	24%	9%	68,438	86%	9%
	OPI 1.3c: Number of direct jobs created for women, men and youth	Full-time job equivalent; Totals and disaggregated for men / women / youth	2,000	647	2,276	305%	114%	2,314 ¹	358%	116%
	Total jobs men		600	214	414	185%	69%	417	195%	70%
	Total jobs women		700	168	642	246%	92%	642	382%	92%
	Total jobs youth		700	265	810	310%	116%	845	319%	121%
OP1.4: Increased energy generation from RE technologies and energy savings from EE measures	OPI 1.4a: Newly installed electricity generation from demonstration projects	MW	2.00	0.15	0.49	446%	25%	0.50	326%	25%
	OPI 1.4b: Amount of energy generated disaggregated by heat and electricity		6,000	23,272	18,200	814%	303%	18,661	80%	311%
	OPI 1.4c: Absolute amount of energy saved through installation of energy efficient technologies / projects.	MWh	6,000	31,932	26,804	1198%	447%	26,804	84%	447%
OP1.5: Increased number of commercially viable business models and feasibility studies.	OPI 1.5a: Number of feasibility studies going forward to implementation.	Number	4	2	2	200%	50%	2	100%	50%

¹ Note that the total of 2314 jobs is higher than the sum of the reported jobs for men, women and youth (1903). This is because for one project only a total job number could be obtained (411), and no details with regard to breakdown for men, women and youth.

Logframe outputs	Indicators	Unit	End of Programme Target	End of Year target 2015	Results by December 2014			Results by June 2015		
					Achieved by Dec 2014	% of 2014 target	% of EoP target	Achieved by June 2015	% of 2015 target	% of EoP target
	OPI 1.5b: Total potential installed and generation capacity	MW	40.00	91.94	110.70	738%	277%	118,22	129%	296%
Outputs for Outcome 2										
OP 2.1: Increased capacity and competence amongst RE/EE developers in Southern and Eastern Africa	OPI 2.1a: Percentage of projects (from Cfp6 onwards) completed according to schedule.	%	40%	0%	N/A yet	N/A yet	N/A yet	N/A yet	N/A yet	N/A yet
	OPI 2.1b: Percentage of projects requiring technical assistance receiving support	%	90%	30%	N/A yet	N/A yet	N/A yet	N/A yet	N/A yet	N/A yet
	OCI 3c: Evidence in place to support RE/EE policy development	Number of policy processes influenced	5	2	0	0%	0%	3	150%	60%

Outputs for Outcome 3										
OP 3.1: Increased networking between RE/EE actors within the regions	OPI 3.1a: Number of forums engaged in (policy, technology, investor, business to business)	Number	10	3	7	> 100%	40%	25	833%	250%
	OPI 3.1b: Number of partnerships formed with complementary initiatives	Number	5	3	2	200 %	40 %	4	133 %	120 %
	OPI 3.1c: Percentage of EEP projects engaged in relevant networks	%	30%	53%	73%	1459%	243%	72%	135%	239%
OP 3.2: Increased amount of and access to relevant evidence and information on RE / EE	OPI 3.2a: Number of technical briefings published, including case studies	Number	5	0	0		0%	1		20%
	OPI 3.2b: Number of policy briefings generated and disseminated to relevant forum and decision making bodies	Number	5	2	0	0%	0%	0	0 %	0%
	OPI 3.2c: Number of quality tools developed and utilised to disseminate and share information disaggregated by tools; EEP website, media articles, social media networks, newsletter, workshops, events and donor information channels.	Number	7	2	4	200%	57%	4	200%	114%
	OPI 3.2d: Number of people / organisation accessing EEP information through information / knowledge management tools.	Number	3450	1,725	10,845	629%	314%	16,787	487%	143%

ANNEX II
List of projects monitored up to June 2015

Nr	Project Code	When monitored	Project name	Project Type (updated)	Project Category (updated)	Total Budget [€]	EEP Budget Financing [€]
1	BTS1	First half 2014	Lobatse Green Town Initiative, Botswana	Feasibility study	Biogas	64,288	58,000
2	KEN1	First half 2014	Efficiency Enhancement & Enterpreunership Development in Sust Biomass Charcoaling in Kenya	Pilot	Solid biomass	176,000	156,000
3	KEN7	First half 2014	Forest Diesel for Improved Rural Livelihoods, Kenya	Feasibility study	Biofuels - liquid	116,000	96,450
4	KEN209	Second half 2014	Developing and Delivering Product and Financing Packages for Income Generating Clean Energy Systems for Rural Farmers and Small and Micro Businesses.	Pilot	Multi-energy solutions	74,600	47,600
5	KEN219	First half 2014	Micro HydroPower Generation and Coffee Husk Briquetting Project	Demonstration	Solid biomass	223,215	178,572
6	KEN225	First half 2014	Briquettes Commercialization Project: Turning Waste to Energy	Demonstration	Solid biomass	229,955	170,000
7	KEN303	First half 2014	The Solanterns Initiative	Demonstration	Solar PV	190,522	93,504
8	KEN307	First half 2014	Demonstrating solar approaches for Tourism and surrounding communities in Maasai Mara	Demonstration	Solar PV	273,600	200,000
9	KEN4001	First half 2014	Briquetting from Agricultural Waste and Improved Charcoaling in Uasin Gishuand West Pokot countries, Kenya	Demonstration	Solid biomass	124,000	100,000
10	KEN4003	First half 2014	Briquette Manufacturing and Boiler Furnace Conversion from Fossil Fuel fired to Briquette fired Basis	Scale up	Cook stoves	280,000	196,000

11	KEN4013	First half 2015	Renewable Energy Utilization for Enhanced Livelihoods	Feasibility study	Biogas	220,000	198,000
12	KEN4021	First half 2014	Fuel efficient energy saving stoves, the project aims to transform rural communities from use of three stone fires to cleaner safer cook stoves	Demonstration	Cook stoves	220,000	200,000
13	KEN4028	Second half 2014	Harnessing renewable energy in schools and prisons for improved livelihood	Demonstration	Biogas	225,000	200,000
14	KEN4032	Second half 2014	Affordable wind energy for families, small businesses and organizations in rural Kenya	Pilot	Solar PV	120,000	60,000
15	KEN5006	First half 2014	Biogas For Schools - Towards Energy Self-Sufficient Schools	Pilot	Biogas	206,400	154,800
16	KEN5008	First half 2015	Solar Energy for Rural Telecom Towers and Surrounding Villages	Feasibility study	Solar PV	88,325	65,324
17	KEN5018	First half 2015	River Kapkateny Community Hydro-Power Project	Feasibility study	Hydropower	530,725	299,530
18	KEN5023	First half 2014	Scaling up pilot plant to commercialisation by installation of efficient processing equipment and expansion of the feedstock supply base	Scale up	Biofuels - liquid	132,290	72,290
19	KEN5029	First half 2015	Pathway to sustainable charcoal production and use in Kenya	Scale up	Solid biomass	400,000	300,000
20	MOZ1	First half 2014	Rural Electric Smart Grid, Mozambique (Feasibility Study)	Feasibility study	Wind power	125,400	100,000
21	MOZ202	First half 2014	Enabling 1.200 people to access sustainable small scale solar power in Changalane, Namaacha district, Maputo Province, Mozambique.	Demonstration	Solar PV	114,622	104,622
22	MOZ204	First half 2014	Introduce and promote a biogas system to provide alternative gas and energy to institutions in rural areas of Cabo Delgado Province, Mozambique.	Pilot	Biogas	163,900	129,990
23	MOZ301	First half 2014	Access to high quality innovative solar based technology for rural households in remote areas of Mozambique on a pilot basis	Pilot	Solar PV	216,000	194,000
24	MOZ304	First half 2014	Improved cook-stoves	Demonstration	Cook stoves	2,000,000	180,000

25	MOZ4002	Second half 2014	Biomass saving stoves to meet the energy needs of low-income population in Mozambique in a socially and environmentally sustainable manner	Demonstration	Cook stoves	155,996	137,196
26	NAM3	First half 2014	National Wind Resource Assessment Project for Namibia - Development of Regional Observational Wind Atlases (Prefeasibility Study)	Feasibility study	Wind power	464,400	40,000
27	NAM212	First half 2014	Namibia CSP Project	Feasibility study	Solar thermal	329,464	140,000
28	NAM213	First half 2014	Energy Efficient Building in Namibia	Demonstration	EE (not cookstoves)	70,000	40,000
29	NAM4001	First half 2015	Solar for all partnership	Demonstration	Solar PV	199,200	176,900
30	REG4006	First half 2015	Regional agricultural development: Biomass and food crop cultivation for electricity generation, biochar production and food security	Feasibility study	Solid Biomass	300,000	200,000
31	REG4008	Second half 2014	Upscaling Simgas urban biogas digester production and distribution in Tanzania and Kenya	Scale up	Biogas	561,800	200,000
32	RWA5011	First half 2015	Detailed feasibility study of the proposed microhydropower plant project of Karambo in Rubavu district, Rwanda	Feasibility study	Hydro Power	138,000	103,500
33	RWA5015	Second half 2014	10 MW Grid Connected Solar PV Project in Rwanda's Eastern Province, developed by Gigawatt Global	Feasibility study	Solar PV	19,413,630	245,000
34	SA9	First half 2014	Arid Areas Biodigestion Demonstration Plant, South Africa (pilot project)	Feasibility study	Waste-to-Energy	45,773	35,000
35	SA50	First half 2015	Goodwood Correctional facility waste treatment and biogas pilot project feasibility	Feasibility study	Biogas	79,372	74,000
36	SA59	First half 2014	Waste to Energy biogas Plant	Feasibility study	Waste-to-Energy	235,340	50,000

37	SA2052	First half 2014	Automatic Meter Reading (AMR) Electricity Consumption Meters and Energy Management Programme in City of Cape Town Owned Administrative Buildings	Demonstration	EE (not cookstoves)	310,000	100,000
38	SA2059	First half 2014	Utilising a Biomass-to-Energy solution as an instrument to stimulate Economic Development, Community Upliftment and Wealth Creation in Nkomazi District of Mpumalanga	Feasibility study	Solid biomass	286,080	100,000
39	SA2070	First half 2014	Mkhomazi Run-of-River Hydro-Electric Feasibility Study	Feasibility study	Hydropower	104,105	82,684
40	SA2116	First half 2014	Solar Water Heater Mass Rollout Businesses in Cape Town and Ekurhuleni	Demonstration	Solar thermal	768,421	189,474
41	SA304	First half 2014	Res clean cookstoves	Demonstration	Cook stoves	70,360	28,000
42	SA4018	Second half 2014	Demonstrating solar pv costs vs. grid parity	Demonstration	Solar PV	100,000	90,000
43	SA4023	Second half 2014	Riverbank wind energy facility phase 2	Feasibility study	Wind power	184,715	164,715
44	SA4027	First half 2014	The emonti green hub	Feasibility study	Waste-to-Energy	320,000	200,000
45	SWA1	First half 2014	Photovoltaic grid-tied system for the Bulembu Community	Demonstration	Solar PV	113,495	100,000
46	TAN7	Second half 2014	Watu na Nuru - Project to provide affordable Solar Capabilities to rural communities and schools in Iringa Region, Tanzania	Pilot	Solar PV	236,184	199,000
47	TAN11	First half 2014	Modern Energy Technologies Demonstration Pilot Project for Increasing Access to Modern Energy Services in Institutions (Tanzania)	Demonstration	Multi-energy solutions	127,825	100,000
48	TAN223	First half 2014	Credit Supply and Installation of Solar Home Systems to Residents of Longoi Village in Lushoto District, Tanga region	Pilot	Solar PV	205,694	184,946
49	TAN236	Second half 2014	Provision of Sustainable Energy Access to Education and Health Social Service Sector Institutions in Tanzania	Pilot	Multi-energy solutions	117,261	87,506
50	TAN307	Second half 2014	Kiagata Rural Lighting Scheme	Demonstration	Solar PV	906,996	199,000
51	TAN4004	First half 2015	Feasibility study on development of the river Lwega in decentralized power production of Mranda township, Ikola	Feasibility study	Hydropower	193,750	143,750

52	TAN4018	Second half 2014	Scaling up sustainable charcoal briquette production in Tanzania	Scale up	Solid biomass	236,100	197,100
53	TAN4019	First half 2014	Prepaid electricity micro-grids for rural villages in Tanzania	Pilot	Solar PV	309,657	174,657
54	TAN4021	Second half 2014	Mobisol - affordable and sustainable electricity provision for off-grid areas	Scale up	Solar PV	790,000	200,000
55	TAN5011	Second half 2014	M-POWER: Community Access Energy Hubs	Scale up	Solar PV	928,154	192,000
56	TAN5017	First half 2015	Feasibility study for the construction of hydro electric plant in Mfereke, Njombe, Tanzania	Feasibility study	Hydropower	65,900	53,000
57	ZAM219	First half 2014	Copperbelt Wood Waste Based Power Generation Feasibility Study	Feasibility study	Waste-to-Energy	250,000	125,000
58	ZAM305	First half 2014	Waterhyacinth waste to biogas energy	Pilot	Waste-to-Energy	164,000	140,000
59	ZAM4001	First half 2014	Biodiversity, environmental protection and economic development: the challenge of Mongu Zambia	Demonstration	Solid biomass	254,704	105,846
60	ZAM4010	First half 2014	Replacing charcoal with waste biomass pellets for cooking in Zambia	Demonstration	Solid biomass	159,000	112,000
61	ZAM5004	First half 2015	Commercializing a sustainable process for waste-to-biogas production in Ndola, Zambia	Feasibility study	Biogas	147,500	87,900

ANNEX III
EEP S&EA phase II
Risk Assessment – June 2015

Risk Management

The risks associated with EEP program are categorized into project level and program level risks as summarized in the table below. At project level the risks are further categorized as: policy and regulatory risks, technical and organizational capacity risks and market access risks. At program level, the risks are categorized as: development risks, financial and fiduciary risks, reputational risks, sustainability risks and policy and regulatory risks.

These risks are managed at 2 levels:

- Risk management at the call for proposals (CfP) and selection process: At the CfP stage, defined selection criteria and processes are used to identify and decline projects that are deemed to have a high level of risk and for which no effective risk mitigation strategies can be proposed. Where risk mitigation strategies are feasible, these are incorporated in the contract as conditions for contracting and disbursement.
- Risk management during the implementation of EEP supported projects: During project implementation, risks are managed by the ECO’s Grants Management and M&E teams who track project developers’ compliance to the guidelines and requirements provided for in the EEP Administrative Manual for Project Implementation, track project progress against activities and results (through assessment of milestone and financial reports and through technical/economic/grant progress/risk assessments during monitoring visits) and assess the capacity needs of project developers (PDs).

Details with regard to how the above is implemented are provided in the EEP Phase II M&E Framework document.

The tables below detail the current level of risk at project and program levels

Project Level Risks		Comment	Method of Assessment	Current Risk Level (L/M/H)
Policy and Regulatory	EEP project delay/failure associated with delay/inability to secure permits, licenses and/or approvals for data collection (e.g. RE resource assessment), energy generation and/or energy distribution	For EEP Phase II this is primarily addressed at the CfP stage where project applications where such challenges are anticipated are declined or contracted with conditions	The grants management team keeps track of the number of projects with implementation challenges and of projects in the EEP portfolio experiencing delay/failure due to this	M

Project Level Risks		Comment	Method of Assessment	Current Risk Level (L/M/H)
	Lack of enabling policy and regulatory environment	As above; addressed at CFP stage for EEP Phase II and tracked by grants management for EEP Phase I	As above	M
	Project delay/failure related to delay/inability to lease or acquire land required for successful project implementation	As above; addressed at CFP stage for EEP Phase II and tracked by grants management team for EEP Phase I	As above	L
Technical and Organizational Capacity and Market Access	Project developers lack requisite capacity/skills for project implementation or project developers have weak business model (i.e. marketing & distribution strategy) or inappropriate RE/EE solutions	As above; addressed at CFP stage for EEP Phase II and tracked by the M&E team during M&E visits for EEP Phase I projects. For EEP Phase II projects a site-visit at the end of first milestone will be undertaken to assess the capacity of the PDs and determine business development support requirements. This will be measurable for the first time in the 2015 annual report.	Assessment of projects based on their level of technical quality by the M&E team during site visits	M
	Procurement related delays	As above; addressed at CFP stage for EEP Phase II and tracked by grants management team for EEP Phase I projects	The Grant management team follow projects in the EEP portfolio experiencing delay due to procurement related delays	M
Total Overall Project Level Risk Score				M

	Program Level Risks	Comment	Method of Tracking	Current Risk Level (L/M/H)
Development	Failure of project developers to complete EEP supported projects	Tracked by grants management team through tracking compliance with milestone reporting timelines	# of projects in the EEP portfolio that have stalled or been terminated Based on the EEP Phase I portfolio, this is <u>8/113</u> (representing 7,1_%)	L
	Disbursement delays hampering project implementation	The disbursement process is based on regular review of the milestone/progress report against the approved budget, activity plan and reporting schedule. The review is carried out by the grant management team. Projects are required to report on progress through regular progress/financial reports. These reports need to be submitted once an agreed milestone has been achieved or six months after the previous report (which ever comes first).	The grant management follows the lead times on ongoing basis. Delays are caused by poor reporting and additional assessment required.	L
Financial & Fiduciary	PDs mismanaging EEP funds or non-compliance with project administration guidelines and requirements	Tracked by grants management team through tracking compliance with financial reporting requirements	ECO and Grant management follows and projects in the EEP portfolios that has mismanaged funds or are non-compliant. ECO react fast in cases of non-compliance or mismanagement of EEP funds.	M
	Incomplete financial reporting	Tracked by grants management team through tracking compliance with financial reporting requirements	ECO and grant management team follows projects in the EEP portfolio that persistently submit incomplete financial reports	M

Program Level Risks		Comment	Method of Tracking	Current Risk Level (L/M/H)
	M&E framework ineffective in tracking project progress and results in onerous reporting requirements for PDs	EEP Phase II M&E framework and tools (i.e. reporting templates and monitoring forms) approved by EEP Supervisory Committee	2014 semi-annual M&E report based on M&E framework favourably scored by external evaluator	L
Reputational	Failure of PDs to meet their KPI targets	Due to omissions in the proposal and reporting templates EEP Phase I. It is not possible to compare the KPI targets proposed and those achieved for all EEP Phase I projects. This has been restructured in the proposal and reporting requirements for EEP Phase II projects. For EEP Phase II projects, this will be tracked by the grants management and M&E teams through milestone reports and site visits to validate the reports.	Progress is followed through milestone reporting. The Phase I related projects not possible to track.	Not presently applicable
	Loss of credibility of the EEP program due to failure to meet expectations amongst project developers and stakeholders; leading to reduced participation	At this stage the level of participation of project developers and stakeholders is measured through the # of CfP applications and the # of EEP website visits Once the CfPs have been finalized it will be tracked through website visits and online surveys	# of applications mobilized through EEP phase II CfPs (applications) compared to EEP phase I CfPs (applications) Measure of EEP website visits during phase II (website hits) compared to phase I (website hits)	L
	Corruption and Fraud	Tracked by grants management team through tracking compliance with financial reporting requirements and in general by KPMG ECO through correspondence with stakeholders	# of projects in the EEP portfolio for which corruption and fraud have been officially reported	M

Program Level Risks		Comment	Method of Tracking	Current Risk Level (L/M/H)
Sustainability	EEP projects not continuing to sustainably deliver access to RE/EE solutions post-EEP Low probability of continuation, replication or scale up of EEP supported projects	Tracked by the M&E team during M&E visits for EEP Phase I projects.	# of projects scaled up or with high probability of replication and / or scale-up	L
	EEP projects not leveraging additional post- EEP investment support	Tracked by the M&E team during M&E visits for EEP Phase I projects.	# of projects receiving private sector investment Based on the EEP Phase I portfolio projects monitored to date, this is 32%.	L
Other	Loss of country support for the EEP program due to reduced engagement of National Coordinators in the EEP program	Terms of reference for National Coordinators to better define their role under EEP Phase II are currently being finalized	# of countries that have formally requested to be de-registered from the EEP program Currently none	L
Total Overall Program Level Risk Score				L

ANNEX IV
EEP S&EA phase II
Learning stories – June 2015

SWA202 - Small scale biogas production and distribution in Swaziland

The overall expected project output was to build a biogas pilot plant that aims to use pig manure to produce household energy to be used for cooking at the community of Lwandle in the Manzini region, Swaziland.

The project was planned to be a showcase project of biogas as an option for meeting some energy needs in Swaziland. The original plan was to build one biogas digester which would produce biogas to provide energy to the piggery. In addition, the plan was to provide clean biogas cook stoves and bottled biogas to the community to compensate the work the women (one from each of 20 households) contributed to build up the biogas plant. The broader objective was to use this project as an example to roll out similar plants across the country.

Shortly after starting off with the project, it became a reality that distributing the bottled biogas to the households was not achievable (too complex and risky to carry out at household level). Also the stoves were never purchased due to challenges with the overall project objectives.

Eventually, two biogas digester plants were constructed instead of one because there was not enough manure at the chosen site to feed one big tank and there were also concerns about the operation stability of one large plant during the cold months. Initially 500 pigs were supposed to be present on the farm, currently there are only about 100. The biogas digesters have been constructed and pipelines to the piggery are in place. There are few remaining activities to be done to make the biogas plant operational.

Lessons learnt:

The business model for a small-scale biogas production must be carefully assessed. The project was not technically feasible from the beginning and bottling and delivering biogas at a household consumer level is extremely challenging to make feasible and low in risks.

This project has had challenges with the funding and the time schedule due to lack of funds. The co-financing is always recommendable to be secured to the level that a project is not fully depended on grant funding that is reimbursable by its nature.

The biogas technology, even at a small scale, must be installed and tested by people who are familiar with the concept. The farm owner was not comfortable starting to run the production without an expert's assessment and training. To make the project functional, to produce biogas for the piggery and farm workers, the ECO team has provided a detailed, standard manual of how to run this type of biogas digester to the project developer and the farm owner. The ECO team has been supporting the business and technical support plan to carry out the remaining activities at the plant. The project developer is also seeking support from the ministry.

For the continuation of the project, a MoU should be drawn up between a biogas expert (company, university, etc) and the farm owner to ensure that the site can be accessed for educational and biogas training purposes. As this was the purpose of the project initially, to create a reference plant for small

scale biogas production from pig manure in Swaziland, this project needs to be accessible to persons and community members that would like to replicate it. Some University students have already been involved with operating the digester during its first fill, but this as not sustainable managed. A working agreement between the farm owner and operator and the University should therefore be put in place.

NAM 4001 - Solar energy as a driver societal impacts

Elephant Energy: Solar for all partnership, in six Northern regions of Namibia (Kavango, Kunene, Ohangwena, Omusati, Oshana and Oshikoto)

Elephant Energy is an American project developer that has a background in promoting solar energy for off-grid communities in Namibia already prior receiving the EEP grant for this project, called "Solar for all partnership".

Currently, more than 70% of Namibia's urban population has access to the national grid, whereas the respective figure for the rural population is only 15%. As Namibia's population is scattered, it will still take time before a larger part of the rural population is reached by the national grid. Given this context and Elephant Energy's previous success with solar lamps in Namibia, the motivation to implement this project was strong.

The project started on the 1st of November 2013, and was planned to be finalised on the 28th of April, 2014. Due to some unexpected delays, the project was finalised around six months after the planned finalisation date.

Project targets

The project targeted the following issues to ensure sufficient development impacts:

- 1) Solar lights are not available in rural areas
- 2) Much more information on RE alternatives is needed: without providing this information, people simply cannot know about how e.g. solar lamps can make a great change in their lives
- 3) Sustainable distribution network is needed, including marketing and financing
- 4) The affordability of solar lamps is questionable, even if it is clear that then less money is needed for other energy sources

Due to these for reasons, the aim of this project was to sell 10 000 solar lamps to rural people. High quality solar lamps with maintenance and reparation possibilities were chosen as it was clear that satisfied customers are the key for successful adoption of solar energy. To reach the project target, the project activities comprised of establishing at least one distribution hub for the solar lamps, training 30 rural sales agents on the use, marketing and sales of solar lamps, as well as administering a rent-to-own program. In addition, implementing a marketing campaign to educate rural Namibians about the benefits of solar energy was one of the project activities.

Project results

In general, the project results have been positive and this project can considered to be a successful. The project started with a wide selection of solar products (10-15 different) but along the way the product range has been updated to better fit the needs of the customers (in total five solar products: four lamps and one radio).

The planned distribution network, a sales hub and independent sales representatives have been implemented and put in place, as well as the other project activities. The capability of the project developer to update the distribution network model according to the needs of the project shows substantial flexibility. In a revised model, it is the regional sales managers that have a more crucial role which at the same time increases their motivation to sell and to take responsibility. The sales agents are coordinated by the regional sales managers.

The sales results did not reach the target although the distribution network was in place. In this project, the unexpected sales barriers comprised of challenges in the product procurement due to lack of capital and lack of suitable warehouses. Other barriers included revision of the distribution network model as well as competitors.

Lessons learnt

Although not only this project specific, it seems that people often tend to be optimistic with sales targets and the time needed to implement a project. Therefore it is worthwhile to keep in mind that although a project plan with its targets and schedules might be perfectly done, there can always be one of more unexpected issues that draw the project to the opposite direction than what the original plan is. Some extra time is good to have – it is unlikely to be a problem if all goes as planned and even faster.

By implementing this project, the Elephant Energy has found that processes such administration, internal controls, recruitment and training can easily take substantially more time than expected – especially if the project takes place in several regions. When the key personnel is busy with these, it is clear that other important tasks need to wait. The positive outcome of this is that for the next projects, it is much easier to assess the time these necessary tasks might take. Another learning is in the credit model for the end-user: lowering of the upfront cost and paying in instalments is the safest way. Otherwise the credit model becomes “manual” and is limited to customers that are known by the sales personnel.

This project has also shown the huge role the right employees have: the sales personnel is very motivated to help their communities and therefore understanding this can be a key for successful recruitment and sales.

As part of measuring and assessing the results, Elephant Energy made a survey among the customers of solar lamps. Findings from the survey confirmed that the solar lamp facilitated the completion of household activities, lead to reduced energy expenditures, and in some cases assisted with income generation. Real-life examples include a successful delivery during the night: thanks to the neighbours who brought their solar lamps to assist, the baby was happily born. Another example from the market place shows the benefits of using a solar lamp: the stearin of candles does not drop any more on meat, which helps with the quality of the products. In addition, the use of solar has tripled the income of this meat seller which has resulted, for the first time in the life of the seller, an opportunity to save money.

These positive outcomes are reflected in Elephant Energy’s thoughts too: the societal impact and the huge positive difference that the solar lights make in the lives of the people are for sure the key motivations for the Elephant Energy to continue with similar projects.