Home RoadMap

Improving Nigeria's Industrial Energy Performance and Resource Efficient Cleaner Production through Programmatic Approaches and the Promotion of Innovation in Clean Technology Solutions

Review CEO Endorsement and Make a recommendation

Basic project information

GEF ID

9714

Countries

Nigeria

Project Name

Improving Nigeria's Industrial Energy Performance and Resource Efficient Cleaner Production through Programmatic Approaches and the Promotion of Innovation in Clean Technology Solutions

Agenices

UNIDO

Date received by PM

5/30/2019

Review completed by PM

1/3/2020

Program Manager

Akio Takemoto

Focal Area

Climate Change

Project Type

FSP

PIF

CEO Endorsement

Project Design and Financing

1. If there are any changes from that presented in the PIF, have justifications been provided?

Secretariat Comment at CEO Endorsement

AT, 06/24/19: Yes.

There has been no significant change, however, there have been some adjustment from the PIF.

(1) Outcome 3.2 (piloting and demonstrating program): The Bank of Industry confirmed to provide significant co-financing of $20 million, including $19.6 million from credit lines for entreprises that will be used for financing eliible investmens in energy efficient adn cleaner production equipment. Loans, $0.4 million: in-kind). $600,000 of GEF grant funding will be used to establish a "First Loss Loan Guarantee Facility" replacing the grant fund for supplying equipment planned at the PIF stage. This Guarantee Facility will provide the guarantee for loans for eligible investments by pilot enterprises under the project that lack of sufficient collateral, addressing the identified barrier.

(2) Total amount of co-financing has increased from $22,000,000 to $26,838,256

(3) Pilot plant selection criteria was added based on the feedback from the stakeholder validation workshop in Abuja in February 2019. (Annex H)

(4) Candidate Qualifying Criteria for energy management system (EnMS), energy system optimization (ESO) and resource efficiency and cleaner production (RECP) was added based on the feedback from the stakeholder validation workshops in Abuja and Lagos in February 2019. (Annex I)

(5) Calculation of the global environmental benefits have been updated. (PIF: direct 850,000 tons CO2-eq, indirect 1,870,000 tons CO2-eq --> CEO ER: direct 700,271 tons CO2-eq, indirect 2,100,814 tons CO2-eq)

(6) An inventory of manufacturing companies was conducted.

(7) An assessment of selected companies in Nigeria was conducted, which comprises site visits to four companies in steel, petrochemicals, textile and food and beverages.

(8) The approach to assessment of pilot EnMS/ESO/RECP intervention impact was developed further.

(9) Gender considerations were mainstreamed in the proposed alternative scenario and a gender assessment was conducted (Annex P0.

Response to Secretariat comments

2. Is the project structure/ design appropriate to achieve the expected outcomes and outputs?

Secretariat Comment at CEO Endorsement

AT, 06/24/19:

[Comment]

Please proved detailed data on the calculation of direct and indirect GHG emission mitigation in Annex J. (Calculation of GHG benefit) (There is no quantitative information in this Annex.)

AT, 07/30/19: Thanks for clarification. Comment cleared.

Response to Secretariat comments

As mentioned in Annex J and in the RCE Prodoc, the basis of determining the potential of the two methodologies [EnMS & RECP] to result in GHG emissions savings is grounded in the energy and GHG savings realized in South African Industry under UNIDO sister project. This has then been projected over a sample of Nigeria's industrial base (as determined during the Industrial Sector analysis perform during the PPG phase).

The actual detailed quantitative calculations for the expected direct and indirect GHG emission mitigation are contained within the GEF Excel-based Energy & GHG calculation tool (termed '*Annex J (ii) 9714 NGN IEE-RECP GEF-EE-GHG Tool'*).

As shown in the *9714 Nigeria IEE-RECP GEF-EE-Tool,* the GEF Project is expected to generate: (a) The direct lifetime avoided GHG emissions of 700,271 tons COeq from the 70 demonstration projects; (b) The indirect lifetime top-down estimate for avoided GHG emissions is 2,063,857 tons CO2eq; and (c) The indirect lifetime bottom-up estimate for avoided GHG emissions is 2,100,814 tons CO2eq. The direct emission reduction and energy savings figures are based on data on the use by Nigerian manufacturing companies of private generators and grid power, combined with the actual experience and energy saving/GHG emission reduction results of EnMS and ESO implementations that UNIDO has supported in South Africa. The indirect emission reduction figure is based on the CO2 intensity of the Nigerian industrial sector.

3. Is the financing adequate and does the project demonstrate a cost-effective approach to meet the project objective?

Secretariat Comment at CEO Endorsement

AT, 06/24/19: Yes.

This project will fully engage both the private and public sectors for piloting and demonstrating energy efficient technologies in the selected sub-sectors in Nigeria leveraging co-financing and receiving support from Bank of Industry, Manufacturing Association of Nigeria, Nigerian Foundries Limited and other private and public institutions.

Response to Secretariat comments

4. Does the project take into account potential major risks, including the consequences of climate change, and describes sufficient risk response measures? (e.g., measures to enhance climate resilience)

Secretariat Comment at CEO Endorsement

AT, 06/23/19: Yes.

Response to Secretariat comments

5. Is co-financing confirmed and evidence provided?

Secretariat Comment at CEO Endorsement AT, 06/24/19: Yes.

Response to Secretariat comments

6. Are relevant tracking tools completed?

Secretariat Comment at CEO Endorsement

AT, 06/24/19:

[Comment] Please complete the GEF excel-based CCM tracking tool (at the CEO ER stage) and submit it.

AT, 07/30/19: Comment cleared.

Response to Secretariat comments

04 July 2019 -

In accordance with the 'GEF Update Results Architecture for GEF-7 - GEF/C.54/11/Rev.02', UNIDO's understanding is that the submission of the Tracking Tools is no longer a requirement. Quoting from GEF/C.54/11/Rev.02:

"For projects approved during the GEF-6 period, July 1, 2014 to June 30, 2018, that have not yet been completed, Agencies shift to core indicators and sub-indicators at the next available opportunity in the project cycle, and are no longer required to submit tracking tools."

However, should you still require the Tracking Tool, we would be happy to supply the requested item.

7. Only for Non-Grant Instrument: Has a reflow calendar been presented?

Secretariat Comment at CEO Endorsement N/A

Response to Secretariat comments

8. Is the project coordinated with other related initiatives and national/regional plans in the country or in the region?

Secretariat Comment at CEO Endorsement

AT ,06/24/19: Yes.

This project will work together with Government Ministries and agencies, civil society academic and financial institutions, development agencies such as GIZ and the key private sector. It will cooperate with the GEF/UNIDO "De-risking Renewable Energy NAMA for the Nigerian Power Sector project which focuses on policy and institutional aspects.

Response to Secretariat comments

9. Does the project include a budgeted M&E Plan that monitors and measures results with indicators and targets?

Secretariat Comment at CEO Endorsement

AT,

[Comment]

Part II /Project Justification /C. Describe the Budged M&E Plan /Table (M&E budget breakdown by activity): Please clarify the funding allocation for each M&E activity will be budgeted from which project component / project management costs shown in the Table of project budget breakdown (Annex K).

AT, 07/30/19: Comment cleared

Response to Secretariat comments

It is expected that all Project M&E activities will be funded under the M&E Component (n.o. Six). Additional funding for additional ad hoc monitoring activities could be envisaged to come from the Project Management budget, when considering specific activity tracking actions to be performed by PMU based Staff.

The major project evaluation activities under the Project [i.e. the Mid-term Review (MTR) and the Terminal Evaluation (TE)] will be conducted in accordance to UNIDO Evaluation practices. As such the MTR and TE will be conducted by a two-person external evaluation team consisting of one international lead evaluation expert and one national evaluation expert. The costs of these individuals are in Component 6.0 cost breakdown presented in the overall Project Budget in Annex K. The additional cost items that can be seen in the M&E section of the Project Budget in Annex K refer to MTR and TE: (i) local site visit travel costs'; (ii) the evaluation workshops will aim to gather numerous project stakeholders together in one place for experience sharing with each other and with the external evaluators.

Referencing Table Three on Page 52 of the RCE Project Document, a US$ 10,000 cost is described in relation to the setting up and operating a PMU Project monitoring and dashboard system. The setting up of the system will focus on such activities as systems and associated software establishment. Operating the PMU Project monitoring and dashboard system will include activities and cost items such as PMU monitoring site visits and small-scale regional groups meetings of piloting enterprises.

Additional M&E costs will be covered under UNIDO's [cash] co-financing contribution.

10. Does the project have descriptions of a knowledge management plan?

Secretariat Comment at CEO Endorsement AT, 06/24/19: Yes.

Response to Secretariat comments

Agency Responses

11. Has the Agency adequately responded to comments at the PIF stage from:

GEFSEC

Secretariat Comment at CEO Endorsement

Response to Secretariat comments

STAP

Secretariat Comment at CEO Endorsement Yes.

Response to Secretariat comments

GEF Council

Secretariat Comment at CEO Endorsement

Response to Secretariat comments

Convention Secretariat

Secretariat Comment at CEO Endorsement

Response to Secretariat comments

Recommendation

12. Is CEO endorsement recommended?

Secretariat Comment at CEO Endorsement

AT, 06/24/19: Not at this time. Please address the comments stated above (box 2, 6, 9).

AT, 07/31/19:

The above comments cleared. Please also address the following comments;

(1) Annex K: Please clarify if all expenses on international/national expertise are allocated for hiring consultants (not for UNIDO's staff).

(2) Part I: Rio Marker for climate change mitigation should be '2". Please revise.

(3) Part I / Table A: Focal area strategy framework and program: Entry of Focal Area Outcomes is blank. Please enter. (Select the most appropriate Outcome (A, B, C) provided in the GEF-6 Results Framework)

AT, 09/11/19: Comments (2) and (3) stated on 07/31/19 cleared.

Comment (1):

The PM reviewed the proposed role for the implementing Agency and the Execution partners based on the GEF's Guidelines on the Project and Program Cycle Policy (Annex 8, para. 7-9). This section was created with the intent of allowing -on an exceptional basis only- avenue for GEF Agencies to overcome situations of extreme low capacity challenges in certain countries.

In Annex K; Project budget breakdown, the total expense of activities mentioning UNIDO Technical Execution Support is over 50% ($1.923 million) of the total project cost.

Please clarify;

(4) whether the Nigerian Government clearly understands the expense of activities on the UNIDO's technical execution support for the project which is outlined in Annex K (There is no budgetary information in the OFP letter to request for UNIDO's execution support).

(5) why Nigeria, a non-LDC country which we don't foresee there is extremely low capacity challenges, will need UNIDO's technical execution support with such a large amount of budget mentioned above.

AT, 01/02/2020: Thank you. All comments cleared.

The PM recommends the project for CEO Endorsement.

Response to Secretariat comments

In regard Question 1:

The Project will fully comply with the GEF's separation of implementation and execution functions as laid out in GEF/C.52/INF.06/REV.01. The described expense/costs in Annex K are not intended for UNIDO Staffing. The expenses/costs described in Annex K relate to the contracting and fielding of EnMS, ESO and RECP International Expertise. This expertise will be used for the direct training of Nigerian industrial enterprises and engineering service providers; and also for, direct enterprise EnMS, ESO and RECP implementation support within the selected pilot plants.

UNIDO has a decade-long experience in EnMS, ESO and RECP introduction within developing and emerging economy countries and as such has a considerable and varied resource pool of corresponding international expertise to draw on. As quickly as possible (as per the level of national expertise generated), the training and enterprise support model of the Project will evolve into a model based on national capacity, phasing out international expertise and UNIDO's corresponding role of contracting said expertise. As this progresses, the level and degree of contracting responsibility (and all associated funds) will pass to MAN under suitable contractual agreements between UNIDO and MAN.

In regard to Questions 2-3: Appropriate changes made.

22 November 2012

In response to the GEF Sec's last round of comments [dated 11 September 2019], and in order to be fully in line the GEF's separation of implementation and execution functions as laid out in GEF/C.52/INF.06/REV.01, UNIDO, under consultation, has redesigned the execution functions of Project.

Under the original execution plan [as presented on 31 May 2019] it was envisaged that UNIDO would maintain direct control of approximately 30% of total funding with the majority of these resources being for the hiring of international (only) EnMS, ESO and RECP consultants to introduce and operationalize the methodologies in the county – which are presently absent. International contracting in Hard Currency (US$/EURO) is a significant (and potentially costly) challenge in Nigeria. In addition, the national currency, the Naira, is not internationally tradeable. Additional functions envisaged to be performed focused on Component 1.0, where the Project will potentially secure a body such as the International Energy Agency (IEA) to undertake specific Ministerial capacity building work as they are leaders in this field. The IEA cannot generally accept 'contracts' and generally only performs such work under 'inter-agency agreements'.

In order to be fully in line with the GEF's separation of implementation and execution functions, while at the same time overcoming the types of challenges listed above, the redesigned Project will now enlist the partnership of the '*ECOWAS Centre for Renewable & Energy Efficiency (ECREEE)*'.

ECREEE is an independent legally established entity, with the mandate to assist the ECOWAS Member countries to improve energy access, energy security and climate change mitigation by promoting an enabling environment for RE&EE investment.

ECREEE's inclusion into the Project presents a number of positive factors. Firstly, knowledge management is key area of ECREEE's operations; Secondly, their regional focus offers significant potential for regional dissemination of the EnMS, ESO and RECP methodologies and for project replication; and lastly ECREEE directly assists ECOWAS country governments in energy and climate policy development. ECREEE is also fully capacitated to issue international hard currency contracts and already has experience in UNIDO EnMS/ESO Projects and the underlying methodologies.

That said, it remains the firm goal of the Project to as rapidly as possible replace all intentional trainers and EnMS/ESO/RECP pilot enterprise support personnel with national experts as they are nurtured and certified under the Project (as this increases the footprint of the Project and its sustainability - while at the same time maximizing the budget). National (and hence all eventual) contracting will thus be performed by MAN on increasing basis as the project progresses.

The Project RCE and Project Budget Annex K have therefore been amended to reflect the above. UNIDO will only retain M&E funding. The changes are highlighted in the attached "9714_CEO_ED_Nigeria IEE-RECP-Master Copy - 21Nov 2019 HIGHTLIGHT).doc" for easy reference.

Review Dates

	Secretariat Comment at CEO Endorsement	Response to Secretariat comments
First Review		
Additional Review (as necessary)		
Additional Review (as necessary)		
Additional Review (as necessary)		
Additional Review (as necessary)		

CEO Recommendation

Brief Reasoning for CEO Recommendations

The objective of this project is to accelerate the adoption of industrial energy efficiency (IEE) and to improve enterprise environmental performance under the wider umbrella of Resource Efficiency and Cleaner Production (RECP) best practices and innovative approaches within selected small, medium and large scale enterprises in Nigeria.

This project will be supported with 3,898,265 of the GEF project financing, leveraging $26,638,256 of co-financing from the private sector, government and UNIDO. This project is comprised of the following six components (component 3 includes investment, while other components are technical assistance);

(1) Strengthening of national industrial and environmental policies and regulatory frameworks;

(2) Training and capacity building on IEE Energy Management Systems (EnMS) / Energy System Optimization (ESO) and RECP for industrial entreprises;

(3) Piloting and demonstration of EnMS, ESO and RECP;

(4) Enhancing investment in relevant sectors in Nigeria;

(5) Awareness rasing for industrial commercial sectors in Nigeria;

(6) Monitoring and Evaluation.

During the PPG stage, the Bank of Industry (BOI) confirmed to provide co-financing (loan) of $19.6 million from credit lines for enterprises that will be used to finance eligible investments in energy efficient and cleaner production equipment. It has been identified that lack of collateral is the principal barrier for the limiting lending by Nigerian banks to SMEs, $600,000 in GEF grant funding will be made available through a ”First Loss Loan Guarantee Facility” in place of original intention to simply supply equipment grants. Under the project, this Guarantee Facility will provide guarantee for loans for eligible investments by pilot entreprises.

This project will target the following sub-sectors within the industrial zone; (i) Building materials, (ii) iron and steel, (iii) non-ferrous materials, (iv) food processing, (v) agriculture, (vi) glass, (vii) breweries and distillers, (viii) manufacturing.

Types of investments will be; (1) EnMs equipment including purchase of metering/sub-metering sets and the accompanying monitoring software, (2) ESO equipment; 1st stage: basic equipment such as energy flow software, clip on meters, small amount of cladding/insulation, 2nd stage: pumps steam, compressed air, fans and motors, 3rd stage: significant energy user component.

The GHG benefits are estimated utilizing the spreadsheet tool proved by the GEF (Calculating GHG Benefits of the GEF Energy Efficiency Projects). This project is expected to generate: (a) The direct lifetime avoided GHG emissions of 700,271 tons CO2eq from the 70 demonstration projects; (b) The indirect lifetime top-down estimate for avoided GHG emissions is 2,063,857 tons CO2eq; and (c) The indirect lifetime bottom-up estimate for avoided GHG emissions is 2,100,814 tons CO2eq. The direct emission reduction and energy savings figures are based on data on the use by Nigerian manufacturing companies of private generators and grid power, combined with the actual experience and energy saving/GHG emission reduction results in South Africa. The indirect emission reduction figure is based on the CO2 intensity of the Nigerian industrial sector.