



CEO Approval (CEO) entry ? Medium Sized Project Child ? GEF - 7

Promoting clean energy technologies for sustainable start-ups and small medium enterprises development in Nigeria

Part I: Project Information

Name of Parent Program

Global Cleantech Innovation Programme (GCIP) to accelerate the uptake and investments in innovative cleantech solutions

GEF ID

10825

Project Type

MSP

Type of Trust Fund

GET

CBIT/NGI

CBIT No

NGI No

Project Title

Promoting clean energy technologies for sustainable start-ups and small medium enterprises development in Nigeria

Countries

Nigeria

Agency(ies)

UNIDO

Other Executing Partner(s)

Federal Ministry of Science and Technology (FMST), Rural Electrification Agency (REA), Co-Creation Hub (CcHUB)

Executing Partner Type

Others

GEF Focal Area

Climate Change

Taxonomy

Climate Change, Focal Areas, Climate Change Mitigation, Sustainable Urban Systems and Transport, Renewable Energy, Financing, Technology Transfer, Energy Efficiency, United Nations Framework Convention on Climate Change, Nationally Determined Contribution, Paris Agreement, Influencing models, Strengthen institutional capacity and decision-making, Convene multi-stakeholder alliances, Demonstrate innovative approach, Stakeholders, Beneficiaries, Civil Society, Academia, Type of Engagement, Information Dissemination, Partnership, Participation, Private Sector, Capital providers, Financial intermediaries and market facilitators, SMEs, Individuals/Entrepreneurs, Large corporations, Communications, Education, Behavior change, Public Campaigns, Awareness Raising, Gender Equality, Gender results areas, Participation and leadership, Access to benefits and services, Capacity Development, Knowledge Generation and Exchange, Gender Mainstreaming, Gender-sensitive indicators, Capacity, Knowledge and Research, Knowledge Exchange, Learning, Indicators to measure change, Innovation

Rio Markers

Climate Change Mitigation

Climate Change Mitigation 2

Climate Change Adaptation

Climate Change Adaptation 0

Submission Date

9/30/2021

Expected Implementation Start

1/1/2022

Expected Completion Date

12/31/2026

Duration

60In Months

Agency Fee(\$)

164,384.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
CCM-1-4	Promote innovation and technology transfer for sustainable energy breakthroughs for cleantech innovation	GET	1,826,484.00	12,145,400.00
Total Project Cost(\$)			1,826,484.00	12,145,400.00

B. Project description summary

Project Objective

To promote an innovative approach for switching to clean energy technologies and solutions in small and medium enterprises (SMEs) and startups through a strengthened cleantech ecosystem in Nigeria

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
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Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
1. Transforming early-stage innovative cleantech solutions into scalable enterprises	Technical Assistance	1.1 Early-stage cleantech innovations are accelerated under consideration of equality	<p>1.1.1 The GCIP guidebooks are adapted for the GCIP Nigeria (including mapping of cleantech solutions, identification and prioritization of actions in accordance with national strategies for climate change and energy)</p> <p>1.1.2 Pool of cleantech innovation and entrepreneurship experts (both women and men trainers, mentors, judges) is trained and certified to support the GCIP Nigeria Accelerator (15-30 experts accredited, at least 35% women)</p> <p>1.1.3 Three cycles of the annual competition-based GCIP Nigeria Accelerator are conducted</p>	GET	566,468.00	1,350,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
	Technical Assistance	1.2 Start-ups and SMEs are supported through advanced and gender-responsive business growth and investment facilitation services	<p>1.2.1 Targeted business growth support services are provided to selected cleantech enterprises towards commercialization</p> <p>1.2.2 Enterprises (up to 15) are connected to financing opportunities and provided with tipping-point investment facilitation support</p> <p>1.2.3 Mentoring and partnership support is provided to cleantech enterprises for global market expansion</p>	GET	166,532.00	800,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
	Investment		1.2.4 Innovative financial mechanism for rural electrification is designed and operationalised; Investment is mobilized to deploy innovative cleantech solutions improving energy access in underserved regions (leading to wide socio-economic and environmental impacts, e.g. up to 30 enterprises with improved financial performance)	GET	610,000.00	3,900,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
2. Cleantech innovation and entrepreneurship ecosystem (CIEE) strengthening and connectivity	Technical Assistance	2.1 The CIEE in Nigeria is strengthened and interconnected promoting gender equality and the empowerment of women	2.1.1 Institutional capacity building of the CIEE actors is conducted (up to 3 capacity building events conducted with up to 90 participants in total)	GET	200,000.00	3,490,000.00
			2.1.2 Cleantech innovation and entrepreneurship policies, regulations and its recommendations are developed in a gender-responsive manner			
			2.1.3 Linkages, collaboration, and synergies across global CIEEs are promoted			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
3. Programme coordination and coherence	Technical Assistance	3.1 Efficiency and sustainability of the GCIP Nigeria is ensured through programme coordination and coherence with other GCIP country projects	<p>3.1.1 The GCIP internal guidelines for project management teams are adapted and implemented by the GCIP Nigeria</p> <p>3.1.2 Programme-level knowledge management, communication and advocacy strategy is adapted and implemented by the GCIP Nigeria</p> <p>3.1.3 The GCIP Nigeria web platform is operated to maintain the GCIP community</p>	GET	31,140.00	705,400.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
	Technical Assistance	3.2 Impacts and progress of the GCIP Nigeria are tracked and reported	<p>3.2.1 The GCIP methodology for impact assessment is adapted and applied</p> <p>3.2.2 Project activities are tracked and reported based on the GCIP monitoring and evaluation (M&E) framework, and an external mid-term review is conducted</p> <p>3.2.3 Independent terminal evaluation is conducted</p>	GET	86,300.00	800,000.00
Sub Total (\$)					1,660,440.00	11,045,400.00
Project Management Cost (PMC)						
	GET		166,044.00		1,100,000.00	
Sub Total(\$)			166,044.00		1,100,000.00	
Total Project Cost(\$)			1,826,484.00		12,145,400.00	

C. Sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
GEF Agency	UNIDO	Grant	Investment mobilized	35,400.00
GEF Agency	UNIDO	In-kind	Recurrent expenditures	150,000.00
Recipient Country Government	Federal Ministry of Science and Technology	Grant	Investment mobilized	5,500,000.00
Recipient Country Government	Federal Ministry of Science and Technology	In-kind	Recurrent expenditures	3,500,000.00
Recipient Country Government	Rural Electrification Agency (REA)	In-kind	Recurrent expenditures	1,500,000.00
Other	Co-Creation Hub (CcHUB)	In-kind	Recurrent expenditures	1,460,000.00
Total Co-Financing(\$)				12,145,400.00

Describe how any "Investment Mobilized" was identified

The co-financing modalities were discussed with interested entities, i.e. the Federal Ministry of Science and Technology (FMST), the Rural Electrification Agency (REA) and the Co-Creation Hub (CcHUB) during project design. With regard to "Investment Mobilized", in the framework of these discussions it was agreed that: 1) FMST will provide co-financing in the total amount of 9 million USD, of which 3.5 million USD as in-kind contribution and 5.5 million USD a cash contribution to be provided within the lifecycle of the project via budgetary appropriation, which will be utilised to support project activities (in particular, these funds will be used for activities and initiatives aiming to improve the cleantech and innovation ecosystem under the umbrella of Component 2: e.g. linking GCIP Nigeria with the National Innovation Expo); 2) REA will provide 1.5 million USD as in-kind co-financing ? the contribution will come as office spaces, meeting spaces, advisory roles, and technical assistance; 3) CcHUB will provide 1.46 million USD as in-kind co-financing, and will contribute towards personnel, office, meeting spaces, and core support throughout the life cycle of the project; 4) UNIDO will provide a grant in the amount of 35,400 USD as well as in-kind co-financing estimated at 150,000 USD. The GEF grant is focused on supporting the formative stages of cleantech enterprises i.e., prototyping, proof of concept, ecosystems building. Co-financing from the public sector (predominantly in-kind) creates the enabling framework conditions that de-risks the key interventions by the GCIP project. As was already confirmed by the findings of the

Independent Evaluation of the previous GCIP cycles, co-financing in the form of grants, seed funding, equity from angels, venture capital funds, impact investors, crowd funding platforms etc. will be mobilized during the implementation of the project from the private sector in the development, growth and scale-up of the start-ups. In line with GEF Guidelines on Co-financing (<https://www.thegef.org/documents/co-financing>), paragraph 9, co-financing that will be mobilized from the private sector during the implementation of the project will be monitored and reported through the regular reporting mechanisms to the GEF. Under the umbrella project of GCIP, project 10461, a strategic partnership will be established between GCIP and the Private Financing Advisory Network - PFAN (www.pfan.net), under which GCIP alumni companies will be systematically connected to PFAN for specialized project development, business coaching and investment facilitation services and introduction to investors, hence mobilize co-financing. Furthermore, in countries where PFAN operates, GCIP activities will be linked to PFAN network of expertise and investors.

D. Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)
UNIDO	GET	Nigeria	Climate Change	CC STAR Allocation	1,826,484	164,384
Total Grant Resources(\$)					1,826,484.00	164,384.00

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)

PPG Required **false**

PPG Amount (\$)

PPG Agency Fee (\$)

Agenc y	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)
Total Project Costs(\$)					0.00	0.00

Core Indicators

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)	0	135000	0	0
Expected metric tons of CO ₂ e (indirect)	0	675000	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)				
Expected metric tons of CO ₂ e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)		135,000		
Expected metric tons of CO ₂ e (indirect)		675,000		
Anticipated start year of accounting		2022		
Duration of accounting		10		

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)				

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)
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Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female		562		
Male		1,043		
Total	0	1605	0	0

Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

Part II. Project Justification

1a. Project Description

Changes in alignment with the project design with the original child project concept

1. From the substantive point of view, the project design proposed in this Request for CEO Approval (RCA) is fully consistent with that presented in the original child project concept (approved by the GEF CEO in December 2019). However, as deemed appropriate and based on additional consultations with relevant stakeholders: (i) terminologies and wording used in the Project Description Summary (Table B) and accordingly in the Project Description were amended in order to better align this child project to the GEF-UNIDO Global Cleantech Innovation Programme (GCIP) Framework (GEF ID 10408) (hereinafter referred to as GCIP Framework) and to be more gender-responsive; (ii) selected Components/Outcomes/Outputs were merged or split, as outlined in Table 1; (iii) the budget allocation was moderately adjusted, and the attribution of co-financing was revised. An overview of the main changes is further detailed in the two tables below.

Table 1: Comparison of the Project Description Summary (Table B) between the original child project concept and the RCA version.

Original PIF version	RCA version
1 Acceleration, investment and commercialization support for selected start-ups and SMEs	1 Transforming early-stage innovative cleantech solutions into scalable enterprises
1.1 Identification, growth acceleration and advanced support for start-ups and SMEs for access to finance and market entry	1.1 Early-stage cleantech innovations are accelerated
1.1.1 Three clean technology accelerators conducted (1.1.3 RCA version) 1.1.2 Support for technology and product development, for selected innovative cleantech solutions, start-ups and SMEs (1.2.1 RCA version) 1.1.3 Support for investment facilitation and market entry for selected innovative cleantech solutions, start-ups and SMEs (1.2.2 and 1.2.3 RCA version)	1.1.1 The GCIP guidebooks are adapted for the GCIP Nigeria (including mapping of cleantech solutions, identification and prioritization of actions in accordance with national strategies for climate change and energy) 1.1.2 Pool of cleantech innovation and entrepreneurship experts (trainers, mentors, judges) is trained and certified to support the GCIP Nigeria Accelerator 1.1.3 Three cycles of the annual competition-based GCIP Nigeria Accelerator are conducted

1.2 Clean energy solutions deployed for energy intensive SMEs and HH in underserved regions	1.2 Start-ups and SMEs are supported through advanced and gender-responsive business growth and investment facilitation services
1.2.1 Innovative financing mechanism established to help SMEs leverage funding (1.2.2 and 1.2.4 RCA version)	<p>1.2.1 Targeted business growth support services are provided to selected cleantech enterprises towards commercialization</p> <p>1.2.2 Enterprises are connected to financing opportunities and provided with tipping-point investment facilitation support; innovative financial mechanism for rural electrification is designed</p> <p>1.2.3 Mentoring and partnership support is provided to cleantech enterprises for global market expansion</p> <p>1.2.4 Investment is mobilized to deploy innovative cleantech solutions improving energy access in underserved regions</p>
2 Review of existing policy and regulatory framework for a strengthened national cleantech innovation and entrepreneurship ecosystem	2 Cleantech innovation and entrepreneurship ecosystem (CIEE) strengthening and connectivity
2.1 National Science Technology and Innovation policy and institutional framework strengthened to promote and support clean energy technology innovations and entrepreneurship	2.1 The CIEE in Nigeria is strengthened and interconnected
<p>2.1.1 National and regional (sub-national) level partnerships developed with leading institutions, agencies and universities (2.1.3 RCA version)</p> <p>2.1.2 Policy recommendations on strengthening clean technology innovation and entrepreneurship ecosystems developed (2.1.2 RCA version)</p> <p>2.1.3 Networking and knowledge exchange among Global Cleantech Innovation Programme partner countries (2.1.3 RCA version)</p>	<p>2.1.1 Institutional capacity building of the CIEE actors is conducted</p> <p>2.1.2 Cleantech innovation and entrepreneurship policies, regulations and its recommendations are developed</p> <p>2.1.3 Linkages, collaboration, and synergies across global CIEEs are promoted</p>

3 Project monitoring and evaluation	3 Programme coordination and coherence
3.1 National coordinating mechanism established to promote clean energy technology innovations and entrepreneurship	3.1 Efficiency and sustainability of the GCIP Nigeria is ensured through programme coordination and coherence with other GCIP country projects
3.1.1 National Project Management Unit established, and GCIP guidelines and methodologies adapted for Nigeria (3.1.1 RCA version)	<p>3.1.1 The GCIP internal guidelines for project management teams are adapted and implemented by the GCIP Nigeria</p> <p>3.1.2 Programme-level knowledge management, communication and advocacy strategy is adapted and implemented by the GCIP Nigeria</p> <p>3.1.3 The GCIP Nigeria web platform is operated to maintain the GCIP community</p>
3.2 Adequate monitoring of all project indicators together with regular evaluations to ensure successful project implementation	3.2 Impacts and progress of the GCIP Nigeria are tracked and reported
<p>3.2.1 Project impact monitored, captured and reported (3.2.2 RCA version)</p> <p>3.2.2 Lessons learnt and best practices documented and disseminated (3.1.2 RCA version)</p> <p>3.2.3 Terminal project evaluation conducted (3.2.3 RCA version)</p>	<p>3.2.1 The GCIP methodology for impact assessment is adapted and applied</p> <p>3.2.2 Project activities are tracked and reported based on the GCIP monitoring and evaluation (M&E) framework, and an external mid-term review is conducted</p> <p>3.2.3 Independent terminal evaluation is conducted</p>

Table 2: Comparison of the budget allocation to Components between the original PIF and the RCA version.

Original PIF version	RCE version
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Component 1 GEF Project Financing: USD 1,340,000 Co-financing: USD 9,200,000	Component 1 GEF Project Financing: 1,340,000 USD Co-financing: 6,050,000 USD
Component 2 GEF Project Financing: USD 200,000 Co-financing: USD 500,000	Component 2 GEF Project Financing: 200,000 USD Co-financing: 3,490,000 USD
Component 3 GEF Project Financing: USD 120,440 Co-financing: USD 1,213,182	Component 3 GEF Project Financing: 120,440 USD Co-financing: 1,500,000 USD
Project management GEF Project Financing: USD 166,044 Co-financing: USD 1,091,318	Project management GEF Project Financing: 166,044 USD Co-financing: 1,100,000 USD
Total GEF Project Financing: USD 1,826,484 Total Co-financing: USD 12,004,500	Total GEF Project Financing: 1,826,484 Total Co-financing: 12,145,400 USD

During project design, the co-financing was slightly changed. The overall co-financing amount has marginally increased, from USD 12,004,500 to USD 12,140,000. The relative weight of the different components has been modified, with Component 2 receiving a larger portion of the co-financing, reflecting the increased commitment from the FMST.

Project Description

2. In 2011, the United Nations Industrial Development Organization (UNIDO), with the support of the Global Environment Facility (GEF) and the Government of South Africa, successfully implemented the "Greening the COP17" project. One of the four Components of the project focused on the design and implementation of the first South Africa Clean Technology Competition (2011 SA Cleantech) for green entrepreneurs (mainly small and medium-size enterprises, further referred to as SMEs) with innovative ideas and concepts in the areas of energy efficiency, renewable energy and green building practices. All participants were given an opportunity to present their solutions and get feedback, while the best ones were offered additional training, mentoring and access to cleantech networking events.

3. This success of the 2011 SA Cleantech encouraged the project expansion into the Global Cleantech Innovation Programme (GCIP) for SMEs, simultaneously implemented in Armenia, India, Malaysia, Pakistan, Turkey and South Africa in 2014. The GCIP takes a competition-based approach to identify a pool of promising entrepreneurs and support them through ongoing mentoring, webinars and networking events to grow their innovative ideas and concepts into full-fledged products and services ready for entering the national and global markets. Under the 2014 competition cycle, a total of 555 applications were received across the six countries, from which 159 innovative cleantech entrepreneurs were selected to take part in an accelerator programme. The entrepreneurs were chosen across 4 cleantech categories; 58 in renewable energy, 41 in energy efficiency, 32 in waste to energy, and 28 in water efficiency.

4. Having progressed through the GCIP, these entrepreneurs were connected with potential customers, investors, partners and policy-makers at national and international levels through Investor Connect events and National Academies. In addition, the very best entrepreneurs from the GCIP were given the opportunity to attend the Cleantech Open Global Forum, held in November 2014 in Silicon Valley, USA, involving more than 100 cleantech exhibitions and networking events, giving the GCIP winners a high level of exposure to broaden their networks, and to benefit from the global linkages.

5. In 2015 Thailand joined GCIP and about 10 countries, including Nigeria, Vietnam, Brazil, Ukraine, Indonesia and Kazakhstan had expressed interest in becoming part of it thereafter. In the period from 2014 to 2016, GCIP received almost 3000 applications in the 8 countries it was operating, from which 580 entrepreneurs were selected for further acceleration and mentoring, as well as receiving access to investors and media. The growth rate of applications GCIP has received between 2014 to 2015 and 2015 to 2016 was 62.5% and 33% respectively, indicating strong and constant increase in interest towards the acceleration programme.

6. Building on the success and the lessons learned within GCIP in the first 5 years, and taking into account the increased need to accelerate the pace of cleantech innovation, UNIDO together with its counterparts, has developed this project. The project is in line with the GEF's Climate Change Mitigation Focal Area Strategy under the GEF-7 Programming Directions and the GEF Private Sector Strategy. It is also fully aligned with key national priorities of the Federal Republic of Nigeria as well as UNIDO's mandate to promote inclusive and sustainable industrial development (ISID).

1) The global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description)

7. As of 2019, Nigeria's population was approximately 201 million people and was growing at 2.6% per annum^[1]. Nigeria's population is projected to double to more than 400 million people by 2050, making the country the third most populous in the world. More than 40% of Nigerians are younger than 15 years old^[2]. If a favourable policy framework is put in place, the demographic boom can support strong economic growth and development for the country.

8. Nigeria is the largest economy in Africa. It is a lower middle-income developing country with a GDP per capita of 2,230 USD as of 2019[3]³. Its economy is heavily reliant on fossil fuels: petroleum represents around 86% of total exports revenue[4]⁴. Despite the importance of the energy sector for the country's economy, lack of access to modern energy services remains one of the principal constraints to economic development.

9. The International Energy Agency (IEA) estimates that, as at 2018, the total energy consumption in the country was 140,903 ktoe, with total energy supply of 159,881 ktoe[5]⁵. As it can be seen by Figure 1 below, despite a decreasing trend, biofuels and waste are still the dominant energy source, contributing to almost 80% of the total energy consumption in 2018, primarily due to the huge reliance on traditional biomass for cooking and heating by the majority of the country's rural population.

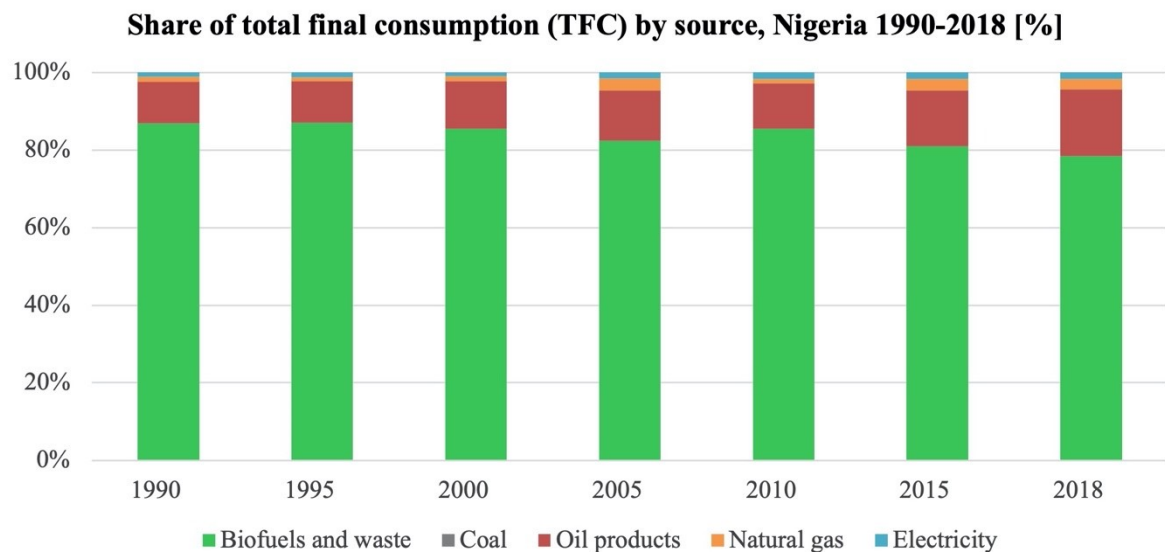


Figure 1: Share of TFC by source in

Nigeria

Source: IEA Energy Statistics

10. Nigeria is endowed with various types of energy resources ranging from fossil fuel (oil, natural gas and coal) to non-fossil fuel (bioenergy, solar, wind, hydropower, ocean thermal energy, geothermal and reasonable amount of tidal energy) yet, these resources are not fully utilized, in particular non-fossil fuel sources[6]⁶. To date, Nigeria has mostly relied on its fossil fuel resources, especially for its electricity sector.

11. The country has one of the highest energy poverty rates of the world: about 47% of its population does not have access to grid electricity and those who do have access, face regular power cuts. The economic impact of unreliable grid operations is estimated to be around 28 billion USD[7]⁷. Lack of reliable access to electricity is one of the major constraints for the private sector according to 2020 Doing Business, a World Bank Group report[8]⁸. Therefore, improving power sector performance, particularly in the non-oil sectors of manufacturing and services, will be crucial to foster economic growth post COVID-19.

12. As a result of a lack of reliable access to the electrical grid, most households and businesses have to resort to private fossil fuel generating sets to meet their energy demand. An estimated 50% of the country's electricity is currently produced off-grid by fossil fuel generators. These privately owned gensets ? now an essential part of the Nigerian landscape ? on top of being extremely expensive to run, constitute a significant source of Greenhouse Gases (GHG) emissions. In the country, even with a drastic reduction of gas flaring in the oil and gas industry, GHG emissions are still increasing. This is largely attributable to the growing transport sector demand as well as a to the continuous use of fossil fuel generating sets by the residential, commercial, and public services sector.

13. Nigeria's contribution to global climate change is relatively small, though non-negligible: in 2018, an estimated 104.3 MtCO₂ were emitted from fossil fuel combustion (roughly the same amount of Austria and Hungary combined). However, on a per capita basis, Nigeria's emissions are relatively low: about 0.5 tCO₂/person/year[9]⁹ (against an average EU of 6.1 tCO₂/person/year). This low figure can be explained by the over-reliance on traditional biomass and waste as the primary energy source.

14. While biomass is not a net source of carbon emissions, the exposure to its smoke is estimated to cause 64,600 premature deaths per year in Nigeria[10]¹⁰. In addition to the adverse impact on people's health, biomass exploitation increases pressure on local natural resources, leading to environmental degradation, and forces women and children to spend many hours each week collecting wood.

15. Rapid population growth is driving an increasing demand for access to affordable, reliable, sustainable and modern energy services, with industry, transport, agriculture and construction being some of the fastest-growing sectors. The country's continued growth in a business-as-usual manner will increase the demand for energy and lead to increasing CO₂ emissions, unless measures are implemented to increase energy efficiency and mainstream clean energy solutions.

16. Nigeria is particularly vulnerable to climate change: it is classified as one of the ten most vulnerable countries in the world, according to the 2017 Climate Change Vulnerability Index. The country is exposed to extreme weather events, such as floods, droughts, sand storms and heat waves.

Almost 6% of Nigeria's land mass is estimated to be severely degraded, at a time when soaring population and numerous sectors depend on the integrity of land resources[11]¹¹.

17. SMEs are uniquely placed to help in tackling the above issues. They have the potential to drive Nigeria's economic development, provide solutions for electricity access and be active players in climate change mitigation. In 2014, Nigeria became the largest economy in Africa, with an economy growing at an average of 7% per annum between 2010 and 2015, which contracted by 1.6% in 2016. Largely due to the over-reliance on crude oil as the primary source of earnings and continuous decline in crude oil price during mid-2014 - 2015, the country went into recession in the second quarter of 2016. By 2019, the economy recovered, yet it did not reach the level at which it was before the crisis. In late 2020, it was confirmed that Nigeria fell into another recession amid the impacts of the COVID-19 pandemic and the plunging oil prices.

18. Micro, Small and Medium Enterprises (MSMEs[12]¹²) are essential for improving the economy's resilience ? via diversification ? and fostering overall development. SMEs contributed on average to about half of the national GDP over the last five years and account for over 95% of the total number of business and 84% of employment. Well-managed and healthy SMEs and start-ups can play a significant role in Nigeria's economy but suffer from lack of information from public institutions, high collateral requirements, and insufficient availability of financing institutions/instruments dedicated to SMEs' specific needs.

19. As pointed out by the Doing Business in Nigeria 2018 report[13]¹³, the business environment has been improving in recent years, but the country is still facing challenges in diversifying its economy and making it easy to start and grow a business. In the 2020 World Bank's Doing Business rankings, Nigeria ranked 131 out of 190[14]¹⁴.

20. Although Nigeria's cleantech innovation and entrepreneurship ecosystem (CIEE) is gradually improving, it is still in need of support. The following barriers, limiting the development and wide adoption of innovative cleantech entrepreneurship, have been identified:

Table 3: Barriers faced by cleantech enterprise in developing and scaling-up innovative solutions

Barriers faced by cleantech enterprises in developing and scaling-up innovative solutions

1. Lack of capacity	<p>The cleantech enterprises face following capacity shortages: lack of key skills and know-how on how to transform a cleantech innovation into a viable enterprise, which leads to high rates of failure for early-stage cleantech enterprises; lack of capacity to develop robust business models, which leads to high risk of failure of established businesses; lack of awareness of new developments and trends related to cleantech innovations; limited access to international expertise and limited knowledge of markets and potential partners outside the country. Also, cleantech start-ups and SMEs have insufficient interest and/or inner potential for innovation due to the economy structure dominated by traditional energy sectors, such as the oil and gas sector.</p>
2. Limited access to finance	<p>Limited access to financing is the most pressing issue SMEs in Nigeria are facing. PwC estimated the financing gap for Nigerian SMEs to be about 617.3 billion NGN annually (pre-COVID-19 pandemic). Based on analysis of data from the CBN annual statistical bulletin, small businesses accounted for less than 1% of total commercial banking credit in 2018^[15]. Cleantech SMEs face similar issues. This can be attributed to a number of factors, including: a mismatch between enterprise needs and offerings of financing institutions, and a lack of interaction between cleantech enterprises and potential investors; not easily accessible and expensive seed capital for innovative projects which are often associated with high risks; lack of patient capital and advanced business growth support tailored to the needs of early-stage businesses; limited information on financial schemes (including both national and international), and the requirements and procedures associated with them; limited knowledge of cleantech innovation and investment landscape amongst local investors and their low risk appetite.</p>
Barriers related to the CIEE	

<p>3. Lack of institutional coordination mechanism resulting in a weak and disjointed CIEE</p>	<p>While there are a number of organizations supporting entrepreneurs in Nigeria, there is a lack of established coordination mechanisms between them, which limits the effectiveness of their interventions. In addition, the allocation of responsibilities between different stakeholders is not always straightforward. Therefore, there is a need to create a platform for the CIEE stakeholders to communicate and work with each other in a coordinated manner. In particular, there is an insufficient dialogue and co-operation between public universities/research institutes on the one hand and the private sector on the other hand, which results in a limited uptake of innovative solutions.</p>
<p>4. Suboptimal enabling policy and regulatory framework</p>	<p>In general, the institutional and private sector capacities, including enabling conditions and ecosystems for supporting and driving cleantech innovation, are underdeveloped. Although there are several entrepreneurship development programmes in Nigeria, certain areas would benefit from strengthening, such as entrepreneurship training, management skills development, innovation, internationalization and support for women and youth, business development needs diagnosis, financial literacy development, non-bank financing instruments, and training. The policies should in particular focus on SME productivity growth and high-growth potential enterprises. There is also lack of a comprehensive framework of long-term reforms in taxation, land usage, urbanization, subsidies, public procurement, green banking and cleantech standards (though the interest of the government in this area is ensured by the establishment of the Presidential Enabling Business Environment Council (PEBEC) in July 2016). In addition, the deep roots of traditional energy sectors and the high reliance on fossil fuels for electricity production, combined with very limited availability of long-term financing and patient investors, drastically weaken the business case for cleantech.</p>

5. Limited public awareness	While there is no doubt that climate change is already affecting the country's economy and population, there is still limited public awareness regarding the fact that cleantech innovation presents not only an economic opportunity, but also helps to reduce GHG emissions. With a traditionally resource-based industry and business mindset and an overreliance on traditional biomass, the awareness raising is crucial to enhance the understanding of the industry and society of the benefits associated with the use of innovative cleantech products and services.
6. Limited number of trained experts	There is a shortage of trained experts that could provide mentoring and coaching to cleantech entrepreneurs, including guidance on technology options, best practices, and benchmarks. The number of incubators in the country and in the continent has grown in the past year but the quality and design of the support is oftentimes inadequate.

21. Through its activities and continual engagements with the Government, the private sector and other relevant stakeholders, the project will contribute to the mitigation of the above barriers, promoting clean energy technology innovations. It will also create a platform capable of linking Nigerian entrepreneurs with investors, business, and commercial partners, potentially resulting in the commercialization of new products, manufacturers, services, and ultimately job creation, all of which will stimulate Nigeria's economic growth.

2) The baseline scenario and any associated baseline projects

22. The Nigerian Government initiated the revision of the second National Science, Technology and Innovation (NSTI) Policy in 2005 and approved the revised policy in 2012. The revised policy was aligned with the country's vision 20-2020 and created a mission statement for science, technology and innovation (ST&I): "By 2020, Nigeria will have a large, strong, diversified, sustainable and competitive economy that effectively harnesses the talents and energies of its people and responsibly exploits its natural endowments to guarantee a high standard of living and quality of life to its citizens". The NSTI policy has been focusing on the following: (i) promotion of science and innovation; (ii) human resource development; (iii) intellectual property; (iv) technology transfer diffusion; (v) standardization and quality assurance; (vi) ST&I Information management systems; (vii) women & ST&I; and (viii) research & development in: agriculture, water resources, biotechnology, health, environment, mines and materials.

23. In May 2015, the Federal Executive Government adopted a National Renewable Energy Policy in response to ECOWAS Renewable Energy and Energy Efficiency's mandate for each member state of the West African sub-region to design policies aiming to attract investment towards renewable energy and innovative technology development.

24. Nigeria's government has recognized the importance of clean technology innovations in filling the current gap between energy supply and energy demand. Many initiatives to encourage such designs have been launched. For example, Bank of Industry (BOI) in collaboration with UNDP and 10 State Governments organized a competition on improved access to renewable energy in 2012. Over 200 renewable energy project developers participated in the competition, and 11 winners emerged and were rewarded with grants for further project development.

25. The Federal Ministry of Environment (FMEnv) has actively involved itself in this field, providing support for projects to promote the use of alternative and renewable energy in Nigeria. For instance, the FMEnv has supported the Nigeria Clean Energy Access Program (NCEAP), a project aiming to distribute millions of energy-efficient light bulbs, fluorescent tubes and solar inverter systems throughout the country. The Energy Commission of Nigeria (ECN) has provided funding support to UNIDO to implement two phases of the Regional Centre for Small Hydro Power (RC-SHP) which has given several rural communities access to clean energy for domestic and productive uses.

26. The Federal Ministry of Science and Technology (FMST) has recognized that a resilient and effective innovation system which caters for all the diversities in the country requires the right conditions for innovation and entrepreneurship development where people have the motivation, resources, creativity and timing to absorb, generate and apply new ideas that have value. Hence, FMST drafted a framework for the National System of Innovation (NSI), for promoting successful innovation, and its implementation and diffusion in the country^[16]. This NSI framework aims to create a strategy to foster innovations at the National, Sectoral, Regional, State, and Local levels by focusing on five key parameters: Platform, Inclusion, Ecosystem, Drivers and Discourse. This is targeted at: (i) redefining innovations to go beyond formal research and development parameters; (ii) facilitating platforms of innovative solutions that lead to inclusive growth for the people and by the people; (iii) fostering an innovation ecosystem across domains and sectors to strengthen entrepreneurship; (iv) focusing on key drivers to ensure a multidisciplinary approach to green growth, sustainability, durability and quality, and to expand the space for dialogue and discourse on innovation.

27. FMST launched an NSTI roadmap (2017-2030) in 2017 to address the issue of innovation concerning the 2030 Agenda for Sustainable Development Goals. One of the outputs of the roadmap is the annual NSTI expo. The Government inaugurated a National Research and Innovation Council (NRIC) in 2014 hosted by FMST. The main functions of NRIC are to: (i) encourage innovations and inventions in Nigeria; (ii) assesses and validate all claims to innovations and inventions; and (iii) take all necessary action to ensure full commercialization of all promising and feasible innovations/inventions.

28. The Energy Commission of Nigeria is the government's agency mandated with the responsibility for strategic planning and coordination of national policies in energy in all its ramifications. ECN has established six energy research centers at some of the leading universities in the country, these are: (i) National Centre for Energy Research and Development (NCERD), at University of Nigeria, Nsukka; (ii) Sokoto Energy Research Centre (SERC), at Usmanu Danfodiyo University, Sokoto; (iii) National Centre for Energy Efficiency and Conservation (NCEEC) at the University of Lagos; (iv) National Centre for Hydropower Research and Development (NCHRD) at University of Ilorin; (v) National Centre for Energy & Environment (NCEE) at University of Benin; and (vi) National Centre for Petroleum Research and Development (NCPRD) at Abubakar Tafawa Balewa University, Bauchi.

29. Through FMST, the government has established the National Agency for Science and Engineering Infrastructure (NASENI). The mission of NASENI is to establish and nurture science and engineering infrastructure for achieving home-initiated and home-sustained industrialization through the development of relevant processes, capital goods and equipment necessary for job creation, national economic well-being and progress.

30. The National Board for Technology Incubation (NBTI) has the mandate to promote innovations and new technologies within Nigerian ecosystems. NBTI provides an integrated support programme designed to assist budding entrepreneurs in developing new technology-based firms in Nigeria using research and development outputs. In 2017, FMST held the first edition of the annual technology and innovation expo to showcase and promote innovations and inventions founded on local knowledge and technologies.

31. The Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) mandate includes, but is not limited to, the following: (i) stimulate, monitor and coordinate the development of the SME sub-sector; (ii) initiate and articulate policy ideas for small and medium enterprises growth and development; (iii) promote and facilitate development programmes, instruments and support services to accelerate the development and modernization of SME operations; (iv) serve as a vanguard for rural industrialization, poverty reduction, job creation and enhanced livelihoods; (v) link SMEs to internal and external sources of finance, appropriate technology, technical skills as well as to large enterprises; and (vi) promote and provide access to industrial infrastructures such as layouts, incubators, industrial parks.

32. SMEDAN coordinates a programme – the National Enterprise Development Programme (NEDEP) – initiated by the Ministry of Industry, Trade and Investment to address the main challenges faced by the SME sector. These include: (i) low access to affordable finance; (ii) poor access to Business Development Service (BDS); and (iii) inadequate infrastructure/high cost of doing business. The programme focuses on skills acquisition, entrepreneurship training/business development service (BDS) and access to finance. The entrepreneurship training/business development service component is being implemented under the One Local Government One Product (OLOP) platform, the access to finance component is being handled by the Bank of Industry (BOI) and the skills acquisition by the Industrial Training Fund (ITF). Also, SMEDAN coordinates another programme – the Learning Initiative for Entrepreneurs (LIFE) – which is aimed at people starting up, running or working in the micro and small enterprises. LIFE's objective is to help micro and small business owners overcome the

daily challenges that prevent them to achieve efficiency and grow. The program does so by showing entrepreneurs and their employees how the use of simple and widely available information and communication technology (ICT) can help their businesses thrive.

33. In collaboration with the Federal Government of Nigeria, UNIDO established an Investment and Technology Promotion Office (ITPO) in the country in 2015. Its mandate is to engage with the Nigerian government, private sector, SMEs and ECOWAS region in sustainable economic development through the promotion of technologically based investment, in collaboration with the ITPO network. The ITPO Nigeria has been supporting the creation of SME clusters through state level promotional initiatives related to leather products fashion and shea butter. Other upcoming initiatives will promote clean technologies for cooking and other domestic uses, and support investment in sustainable energy.

34. The Nigerian Rural Electrification Agency (REA) is the implementing agency of the Federal Government of Nigeria in charge of the electrification of rural and unserved communities. Its mandate is to promote rural electrification, co-ordinate rural electrification programmes and administer the Rural Electrification Fund (REF), established to provide more equitable access to electricity across the country.

35. The REA has implemented several projects in line with the objectives of GCIP Nigeria, many of which offer great synergy opportunities for GCIP-accelerated SMEs and start-ups. These are:

- (i) the Solar Power Naija, which supports the roll out of 5 million new solar-based connections in communities that are not grid-connected, part of the NESP 2020 (further details below);
- (ii) the Solar Hybrid Mini Grids for Rural Economic Development, which aims to foster the development of private sector mini grids in underserved areas in the country;
- (iii) the Minimum Subsidy Tender for Solar Hybrid Mini Grid, connected to the above programme, which aims at accelerating private sector delivery of mini grids in off-grid communities (with a particular focus on high economic growth potential areas). The target is to electricity 105,000 households and 20,000 MSMEs thanks to a USD 70,000,000 funding mechanism from the African Development Bank;
- (iv) the Standalone Solar Home Systems (SHSs) for Households and MSMEs, which has the objective of improving energy access through SHSs. Two funding opportunities would be used: a) an Output Based Fund, providing fixed incentive grants of up to 20% of the cost of the system, or b) Market Scale-Up Challenge Fund, whereby grants of up to 20-30% of total funding plan are awarded against business plans capable of delivering at scale;
- (v) Energizing Education Programme, improving the energy access of Universities;
- (vi) the Results Based Financing for Productive Appliances & Equipment, which aims to increase the productive use of energy in remote communities by increasing access to efficient, electric productive equipment. The total value of results-based financing channelled to private sector providers amounts to USD 20,000,000.

36. In response to the 2016 recession, the government formulated the Economic Recovery and Growth Plan (ERGP), a Medium Term Plan for 2017 ? 2020 with the priority to: (i) stabilizing the macroeconomic environment and diversification from oil; (ii) boosting agriculture to achieve food security; (iii) ensuring energy sufficiency (power and petroleum products) through additional

operational capacity and a greater use of renewable energy; (iv) improving Nigeria's transportation sector; (v) driving industrialization focusing on SMEs, by accelerating implementation of the National Industrial Revolution Plan (NIRP)[17]¹⁷.

37. Together with much of the world, in 2020 the Nigerian economy plunged into a severe crisis. Government revenues have dropped, with further implications for wages, overheads and capital expenditure at Federal, State and Local Government levels. Unemployment rate is expected to rise to 33.6% - up from 23.1% at the end of 2018. This crisis is set to hit an already fragile economy: the National Bureau of Statistics published a five-year study which showed that over 40% of Nigerian households earned less than 137000 NGN yearly prior to the shock ? equivalent to about 360 USD[18]¹⁸. The conditions are to be further worsened by the effects of the pandemic.

38. As a result of the oil price crash that occurred during the beginning of pandemic, the Nigerian government scrapped fuel subsidies. The pump price of gasoline ? which is bought on the wholesale market on a dollar-denominated basis ? had been capped at 145 NGN/liter (40 cents/liter) since 2016[19]¹⁹. The government's subsidy was the difference between the landing cost and the regulated pump price. The decision has been estimated to save the government at least 2 billion USD a year[20]²⁰. In June 2020, in response to the impact of the COVID-19 pandemic on the country's economy, the Federal Executive Council (FEC) approved the Nigeria Economic Sustainability Plan (NESP)[21]²¹. Among the proposed key projects are: (i) an agricultural plan, to boost employment and improve food security; (ii) a programme fostering the solar sector, through installation of solar PV home systems; (iii) support for SMEs as well as youth and women entrepreneurship; (iv) initiatives to encourage innovation and digital technology.

39. The Solar Power Strategy, implemented within the NESP, is expected to support 250,000 jobs and impact 25 million people through the installation of 5 million solar PV home systems and mini-grids. Particular attention will be given to rural communities with little to no access to the grid. Private sector installers will be supported and local production of components will be promoted, leveraging on the work done by NASENI. This project is in line with GCIP Nigeria, in particular with Output 1.2.4, under the responsibility of the Nigerian Rural Electrification Agency (REA). The REA, together with the Federal Ministry of Power and the Niger Delta Power Holding Company, is part of the implementing structure of the NESP Solar Power Strategy.

40. As part of the NESP, a project to establish a viable Science and Innovation ecosystem will be developed. Monitoring and review of the policies related to Science, Technology will be performed. Science and Technology parks will be established throughout the country and focus will be put on sustainable R&D in renewable and alternative energy sources. This project is extremely in line with Component 2 of GCIP Nigeria. In addition, the Federal Ministry of Science and Technology (FMST),

responsible for the execution of Component 2, is the implementing body of the Science and Technology NESP project.

41. In addition to national initiatives relevant for the project, several international technical assistance projects have been implemented in Nigeria. An overview of recent technical assistance projects and other international initiatives in Nigeria is shown in Table 4.

Table 4: Recent technical assistance projects in Nigeria

Project title	Funding source	Implementing agency	Budget (USD)	Project Description	Implementation timeline
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1. Nigeria Electrification Project	IDA - World Bank	World Bank	350,000,000	The development objective of the Electrification Project for Nigeria is to increase access to electricity services for households, public educational institutions, and underserved (MSMEs) micro, small, and medium enterprises. The project comprises of four components: (i) solar hybrid mini grids for rural economic development, (ii) stand-alone solar systems for homes and MSMEs, (iii) energizing education, and (iv) technical assistance, designed to build a framework for rural electrification upscaling, support project implementation as well as broad capacity building in key national institutions.	2018-2023
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2. Nigeria Energy Support Programme II	BMZ, EU	GIZ	33,000,000	The objective is to foster investments for renewable energy and energy efficiency and improving access to electricity for disadvantaged, rural communities. NESP II implements a multi-level approach by combining advisory on energy policy, economy and technical knowledge for a wide range of stakeholders.	2017-2021
3. Scaling Up of Small Hydro Power (SHP) for Augmenting Rural Electricity Access - Nigeria	GEF	UNIDO	2,689,680	To project aims to promote investments in SHP technology and strengthen local manufacturing of SHP turbines in Nigeria. This project aims to strengthen the capacities of the existing SHP Technology Centre for a more effective technical support on SHP project development; facilitate both human and institutional capacity building at various levels.	2015-2021

4.	Improving Nigeria's Industrial Energy Performance (IEE) and Resource Efficient Cleaner Production (RECP) through Programmatic Approaches and the Promotion of Innovation in Clean Technology Solutions	GEF	UNIDO	4,018,265	The project will accelerate the adoption of industrial energy efficiency (IEE) and to improve enterprise environmental performance through the mainstreaming of ISO50001 compliant Energy Management Systems (EnMS) and Industrial Energy Systems Optimization (ESO); under the wider umbrella of Resource Efficiency and Cleaner Production (RECP) best practices and innovative approaches within selected small, medium and large scale industrial enterprises in Nigeria.	2017-2024
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5. Power Africa Nigeria Power Sector Program	Multiple (over 170 public and private sector partners)	USAID	n.a.	PA-NPSP, the signature of Power Africa in Nigeria, promotes Power Africa aims by working to increase electricity availability, access, and reliability throughout Nigeria, measuring progress across four outcomes: (i) Increase Private Sector Investment in Gas Supply, Power Generation, and Transmission; (ii) Facilitate Off-Grid Connections to Cleaner Power Supply; (iii) Improve Enabling Environment for Private Sector Participation in Power Sector; (iv) Promote Improved Liquidity throughout the Energy Sector	2013-2023
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The 'Nigeria Electrification Project' is relevant for the GCIP Nigeria because of the focus on rural electrification and improving energy access through clean technologies. Capacity building of key institutions is also a focus of the project, similarly to component 2 of GCIP Nigeria. 'NESP II' shares with GCIP Nigeria a focus on capacity building for a wide range of national stakeholders on energy access and renewable energy. The programme aims to develop an interactive database for the energy market in Nigeria. This is to contain information about on-grid power, off-grid power and energy efficiency, thus providing public actors with a basis for planning and monitoring strategies and services, for example providing market data for the private sector. In the off-grid area, the programme

supports the Rural Electrification Agency (REA) and the federal states in the public-private process to extend the provision of off-grid renewable energy solutions to 100,000 people. Lessons learnt by the REA will feed into the GCIP Nigeria Output 1.2.4. The 'Scaling Up of Small Hydro Power (SHP) for Augmenting Rural Electricity Access ? Nigeria?' project supports local manufacturing of SHP technology. In this context, SMEs accelerated by the GCIP Nigeria focusing on SHP technology could benefit by synergies with the project. The 'Improving Nigeria's Industrial Energy Performance (IEE) and Resource Efficient Cleaner Production (RECP) through Programmatic Approaches and the Promotion of Innovation in Clean Technology Solutions?' project, similarly to GCIP Nigeria, supports innovation in clean technology solutions. Component 1 aims at strengthening the regulatory and policy environment, which could indirectly benefit GCIP Nigeria applicants and/or alumni. PA-NPSP contributes to comprehensive reform within Nigeria's power sector, addressing gas-to-power challenges, competitive procurement of clean and conventional energy, regulatory and policy reforms to foster greater sector transparency and private investment, utility distribution sector reform, and off-grid electricity access. Particularly relevant for GCIP Nigeria are the aspects related to enabling environment for long-term investment, which could directly benefit GCIP-accelerated start-ups and SMEs. The project also aims at unlocking financing for the deployment of off-grid solutions. GCIP could synergise with these aspects, by leveraging finance for GCIP-accelerated start-ups and SMEs. In addition, GCIP Nigeria could synergies with initiatives such as the Hosting the Solar Home System (SHS) Investor Pitch Competition (part of the PA-NPSP).

42. The Private Financing Advisory Network (PFAN), is an initiative hosted jointly by UNIDO and the Renewable Energy and Energy Efficiency Partnership and is a global network of climate and clean energy financing experts that offer business coaching and investment facilitation to entrepreneurs developing climate projects in emerging markets. PFAN mobilizes private financing to reduce greenhouse gas emissions and build climate resilience ? contributing to Paris Agreement and SDGs i.e., SDGs 7 (Energy), 9 (Industry), 13 (Climate Action), and 17 (Partnership). A network of ninety-nine (99) in-country private sector experts in 39 countries are supported by network of forty-five (45) investment partners globally to provide investment advisory services, investment facilitation and financing. To date, PFAN has supported at least 127 climate and clean energy businesses to mobilize more than USD 1.7 billion of investment. Furthermore, PFAN currently has a pipeline of hundreds of projects across the globe that are being supported. Further results demonstrate that through this investment, 3.3 million tonnes of CO₂ have been mitigated annually and an additional 975 MW of clean power installed. This year already, PFAN has facilitated at least 69 investment-ready projects.

43. The proposed Global Cleantech Innovation Programme (GCIP) for start-ups and SMEs intends to build on the national initiatives focusing on strengthening the country's national innovation ecosystem. The GCIP-Nigeria will leverage on lessons learnt and experience gained from the baseline as mentioned above. Three national project executing entities will execute the project:

- a. The Co-Creation Hub (CcHUB), a start-up platform, will be responsible for most of Component 1 and Component 3 of GCIP Nigeria. CcHUB is a social innovation center dedicated to accelerating the application of social capital and technology for economic prosperity. CcHUB's extensive experience in business acceleration will be instrumental in helping SMEs to scale-up,

compete globally and connect with potential investors, customers, and partners through the Global Cleantech Network.

b. The Federal Ministry of Science and Technology (FMST), will be responsible for the execution of Component 2. The FMST's mandate is to facilitate the development and deployment of science and technology solutions in the country.

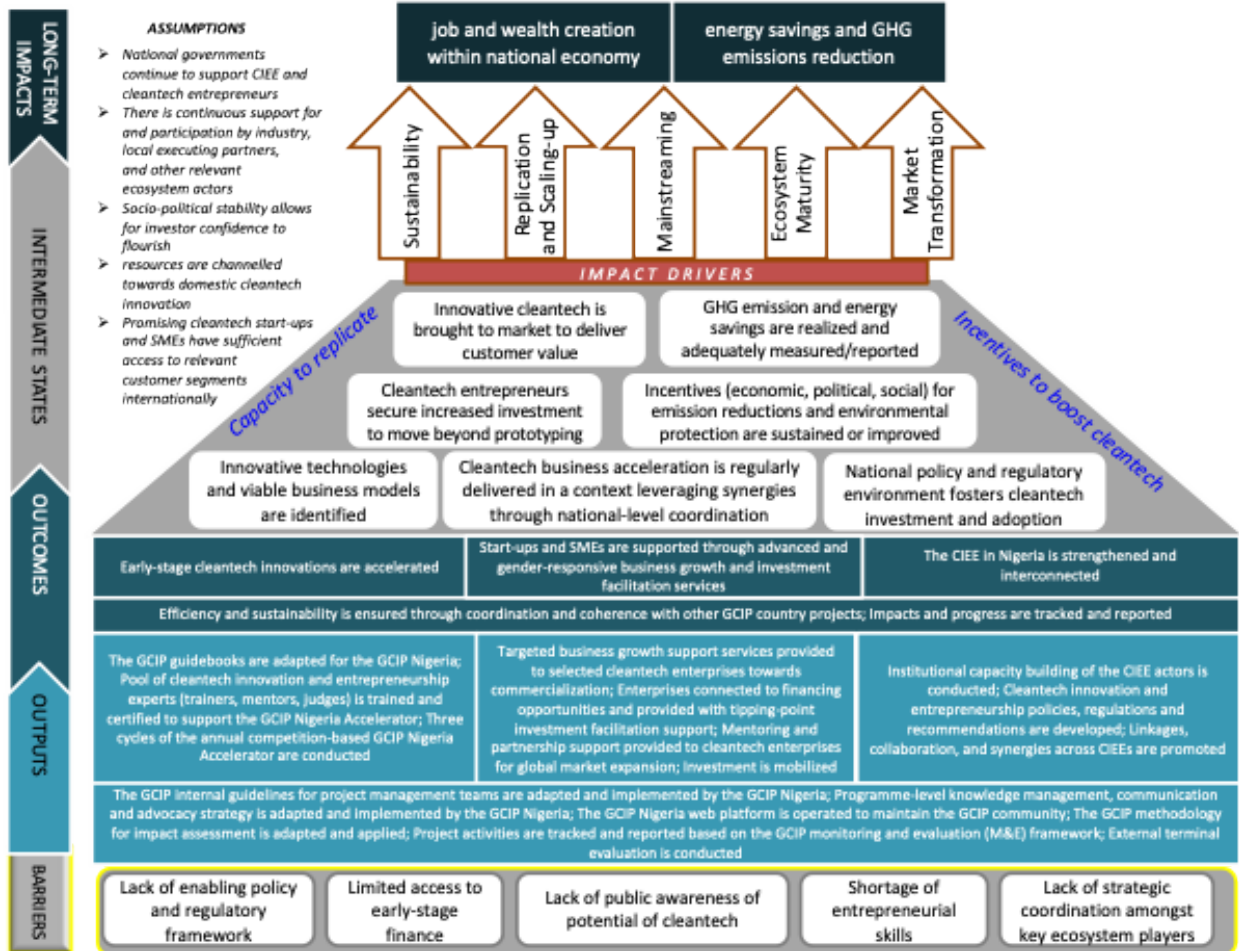
c. The Nigerian Rural Electrification Agency (REA), will be responsible for the design and operationalisation of the financial mechanism established under Output 1.2.4. The REA is the Implementing Agency of the Government of Nigeria tasked with the electrification of rural and underserved communities.

3) The proposed alternative scenario with a description of outcomes and components of the project

44. The proposed alternative scenario will be the implementation of the Global Cleantech Innovation Programme in Nigeria - Promoting clean energy technologies for sustainable start-ups and small medium enterprises development in Nigeria (further referred to as GCIP Nigeria) which forms a part of the GCIP Framework that aims to nurture cleantech entrepreneurs around the world. This project will help cleantech enterprises (SMEs and start-ups) in Nigeria to develop and scale up and will increase market adoption of cleantech innovations, thus leading to a reduction in emissions and resource consumption. Furthermore, it will facilitate increased investment, job creation and market development.

Project Approach

45. This project is developed as a child project of the GCIP Framework. As such, it will link the cleantech innovation and entrepreneurship ecosystem (CIEE) of Nigeria to the global network of CIEEs in other GCIP partner countries and will receive support from the GCIP global coordination child project, the GCIP Child Project 10461 (hereinafter referred to as GCIP Global). More specifically, the national PEEs, including CcHUB, FMST, and REA, will be supported by three global project executing entities (global PEEs), including PFAN (Private Financing Advisory Network), Network for Global Innovation (NGIN), and Cleantech Group (CTG). The project has three components, in line with the GCIP Framework, which have been designed based on: (i) an analysis of the current needs of developing countries and GCIP partner countries, including Nigeria; (ii) recommendations from the GEF's independent evaluation of GCIP conducted in 2018; (iii) feedback from the previous nine GCIP country projects implemented between 2013 and 2019. In particular, the project will: (i) transform early-stage innovative cleantech solutions into scalable enterprises; (ii) strengthen the capacities of CIEE stakeholders and connect them; and (iii) engage with GCIP Global to ensure programme coordination and coherence. The project's Theory of Change is pictured in the Figure 2 below.



The entrepreneurs (start-ups and SMEs) in Nigeria face several barriers, as described in the section a) ?the global environmental and/or adaptation problems, root causes and barriers that need to be addressed?. These barriers include: lack of an enabling policy and regulatory framework, limited access to early-stage finance, lack of public awareness of the potential of cleantech, shortage of entrepreneurial skills, and lack of strategic coordination among key CIEE players, as pictured on the bottom of the graph above.

In order to alleviate the above-mentioned barriers, the GCIP Nigeria focuses on the following lines of intervention (outputs): 1) adaptation of GCIP Nigeria guidebooks; training and certification of a pool of cleantech innovation and entrepreneurship experts (trainers, mentors, judges); organization of three cycles of the annual competition-based GCIP Nigeria Accelerator; 2) provision of targeted business growth support services to selected cleantech enterprises; connection of enterprises to financing opportunities and provision of tipping-point investment facilitation support; provision of mentoring and partnership support to cleantech enterprises for global market expansion; provision of investment mobilization support; 3) institutional capacity building of the CIEE actors; development of cleantech innovation and entrepreneurship policies, regulations and recommendations; promotion of linkages, collaboration, and synergies across CIEEs; 4) adaptation and implementation of the GCIP internal guidelines for project management teams; adaptation and implementation of the programme-level knowledge management, communication and advocacy strategy; creation of the GCIP Nigeria web platform; adaptation and application of the GCIP methodology for impact assessment; tracking and reporting of project activities based on the GCIP monitoring and evaluation (M&E) framework; and external terminal evaluation.

IF the above listed outputs are successfully realized; **THEN:** innovative cleantech is brought to market to deliver customer value, GHG emission and energy savings are realized and adequately measured/reported, cleantech entrepreneurs secure increased investment to move beyond prototyping, incentives(economic, political, social) for emission reductions and environmental protection are sustained or improved, innovative technologies and viable business models are identified, cleantech business acceleration is regularly delivered in a context leveraging synergies through national-level coordination, and national policy and regulatory environment fosters cleantech investment and adoption; **BECAUSE:** cleantech solutions with high-impact potential are supported to reach commercialization, start-ups and SMEs are supported through advanced and gender-responsive business growth and investment facilitation services, the CIEE in Nigeria is strengthened and interconnected, and the efficiency and sustainability is ensured through coordination and coherence with other GCIP country projects, as well as impacts and progress are tracked and reported.

Ultimately, the project will deliver multifaceted environmental and socio-economic high-level impacts, including job and wealth creation, energy savings, and GHG emissions reductions.

Figure 2: Theory of change ? graphical and descriptive representation

46. The GCIP approach in Component 1 especially, accelerates innovations that have highest GHG emission reduction potential and have highest chances of going to the market through a number of phases and together with its partners like PFAN, continually de-risks the enterprise?s business model in order to increase the likelihood of investor interest. This is important to note since the sources of investment that the GCIP start-ups will be able to mobilize will depend on the alignment of the priorities of the institutions that have shown interest to invest.

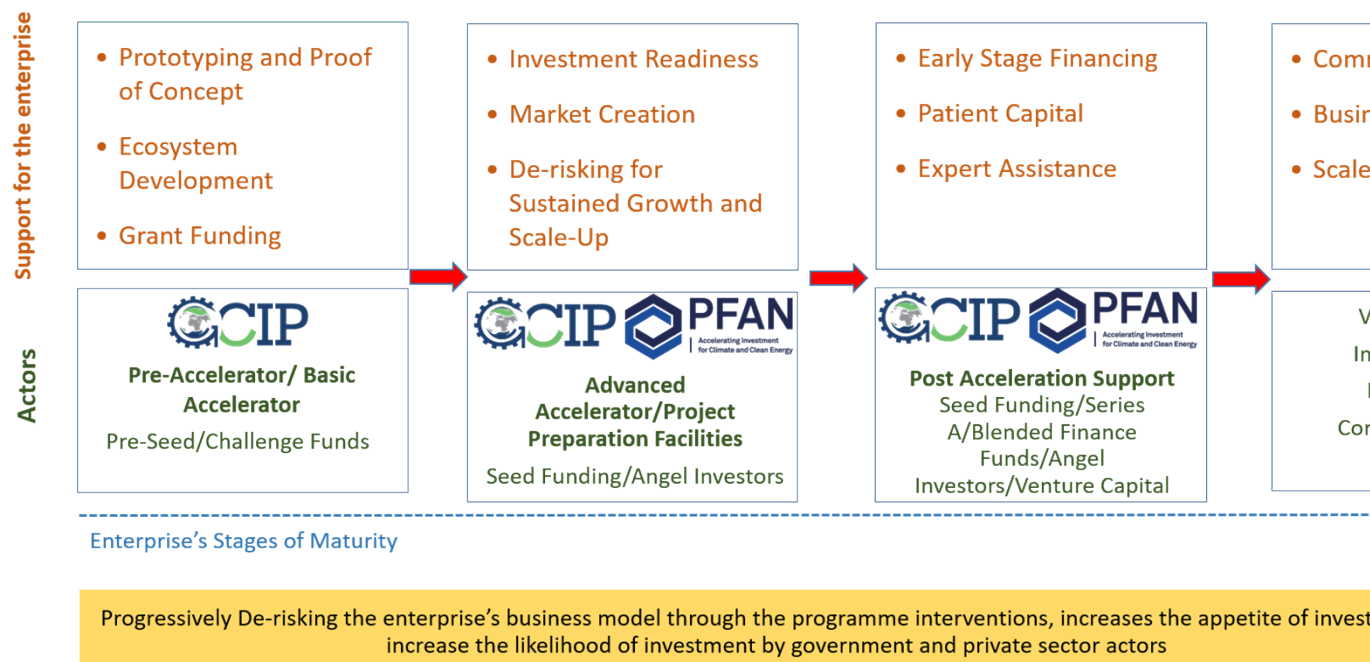


Figure 3: Start to Scale-up Journey, De-risking for Investment Readiness

47. The objective underpinning the linkages established between GCIP and PFAN is to offer the ventures supported by the project a continuum of support services as they mature towards commercial viability and scaling up. GCIP combines a top-down (policy support) with a bottom-up (support for home-grown innovation) approach. It is technology-neutral and its theory of change is grounded in sustainability (incl. energy) transition theories and as such, the type of the innovations that are supported are not pre-determined. The final investment decisions are made between the start-up and the investor, once they find common value. A start-up may have several investors mixing public and private financing. The connection between the country child project and the Global project enables investors at a global level to also access start-ups from each country i.e., through activities like Investor Connect, National Forums and the Global forums.

48. The project will adopt an inter-disciplinary and holistic approach by engaging several stakeholders such as start-ups, SMEs, national ministries and institutions, academia and research centres, business associations, financing institutions, foundations, venture capitalists and utilities within and beyond West Africa. The project will closely coordinate with GCIP Global, as well as other similar national and international efforts, as it is critical to maximize synergies and share knowledge and best practices that can help in enhancing entrepreneurs' contributions towards climate change mitigation, while increasing productivity and generating growth and wealth. UNIDO's extensive experience in implementing GCIP programmes over the years ensures investors' confidence in the quality and chances of success of the cleantech enterprises supported. This is in light of almost 10 years of experience and proven track records, as well as a brand that is recognized and trusted internationally by

investors. Moreover, the project will ensure an immediate integration of the Nigeria’s CIEE and the supported entrepreneurs in a global network of cleantech developers and investors.

Project Description

Component 1: Transforming early-stage innovative cleantech solutions into scalable enterprises

49. Component 1 aims to provide direct support to early-stage enterprises to enhance their capacity and competitiveness, and to leverage market opportunities. More specifically, Outcome 1.1 focuses on entrepreneurial training and business acceleration support while Outcome 1.2 on investment facilitation services for cleantech enterprises at a growth stage that demonstrate market traction and sales evidence, and that can benefit from specialized support.

The diagram below shows the types of assistance required by cleantech enterprises, depending on their stage of growth.

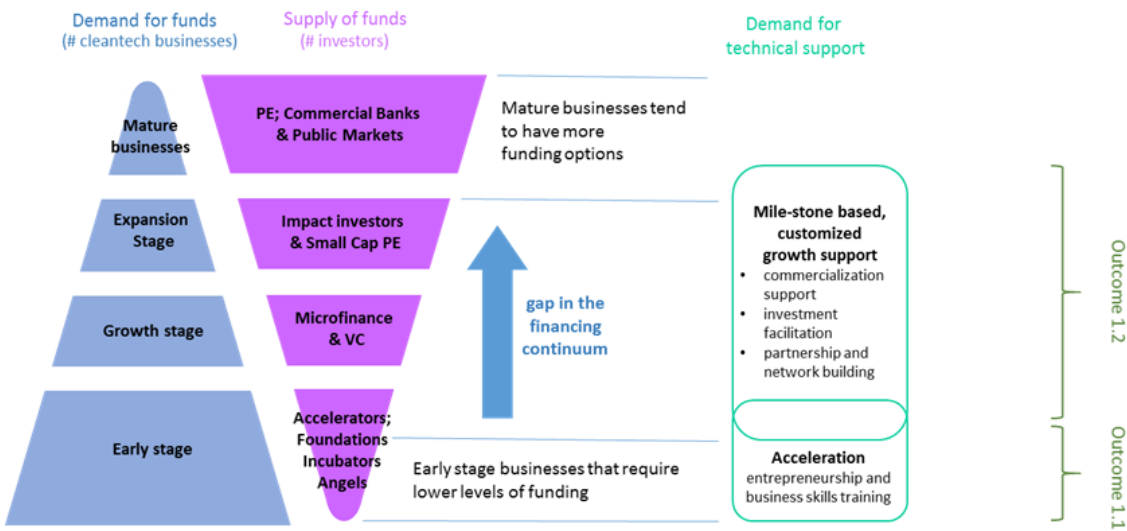


Figure 4: Demand for funds and technical support per development stage

50. For clarification, a brief overview of the available GCIP business acceleration support is provided in the table below.

Table 5: Overview of the available GCIP business acceleration support

1.	The Pre-Accelerator consists of activities that enable the formation of early-stage teams and help them in developing/validating initial concepts (i.e. proof of concept). This type of support encompasses workshops, hackathons, start-up camps, and mini-competitions. The Pre-Accelerator takes place before the launch of the main GCIP Accelerator, leading to an increased number of high-quality applications.
2.	The Accelerator is a four to six-month curriculum designed specifically to support cleantech innovators to develop viable business models and transform their ideas into fast-growing scalable and investable enterprises. Through the GCIP Accelerator, a cohort of cleantech innovators with a high-impact potential is identified and invited to receive intensive business and entrepreneurship training (as a group training in the framework of the GCIP National Academy), mentoring, and coaching based on the state-of-the-art international expertise, in particular with the aim to a) improve their business skills and investor pitch, b) connect them to potential business partners, financiers, and investors, and c) maximize the expected net climate benefits of their solutions.
3.	The Advanced Accelerator is a service offered to selected entrepreneurs participating in the Accelerator and it is focused on providing tailored and needs-based individual support rather than a group training, mentoring, and coaching. The Advanced Accelerator is time-bound and outcome-focused, i.e. there are concrete milestones that need to be achieved within a specific timeframe. The support is provided by one or several Executives in Residence (EIR) that are senior practitioners (executives or entrepreneurs) with hands-on experience in scaling up cleantech enterprises, and it is focused on problem-solving, i.e. tackling very specific operational, financial, and strategic issues.
4.	The Post-Accelerator provides entrepreneurs with assistance in four related but not necessarily linear dimensions: advanced business growth and commercialization, investment readiness, market readiness, and technology readiness. More specifically, a series of trainings (on corporate partnerships and government relationships, international market entry, mergers and acquisitions, exit strategy, challenges specific for selected industry sectors, etc.), needs-based activities, and support in technology verification, product development, and testing facility are offered.

51. Within the framework of the GCIP Global, detailed eligibility criteria will be defined for the above-mentioned types of support as to ensure coherence and to achieve the highest impact potential of GCIP interventions along the start-up-to-scale-up journey cleantech enterprises go through. These criteria will be related to the proof of concept requirements; level of technology readiness (TRL); business and market readiness levels (BRL/MRL); market potential; proof of evidence of business growth; environmental and social impact potential; and effectiveness of environmental and social risk mitigation measures, among others. The criteria will also include adequate definitions of start-ups and SMEs and will be in line with the GEF-7 climate change focal area programming directions, e.g. de-centralized renewable power with energy storage, electric drive technologies and e-mobility, accelerating energy efficiency adoption, and cleantech innovation.

Outcome 1.1 Early-stage cleantech innovations are accelerated

52. Early-stage cleantech innovations with high impact potential will receive business acceleration support for increased market and investment readiness. To enable this, the GCIP Nigeria will be provided with assistance by the GCIP Global in the form of guidebooks for operation and management of the GCIP Nigeria Accelerator, Advanced Accelerator, and Post-Accelerator.

Output 1.1.1 The GCIP guidebooks are adapted for the GCIP Nigeria

53. The GCIP guidebooks, that are to be developed under the GCIP Global, will be comprehensive documents that articulate the GCIP approach to promoting cleantech innovation and entrepreneurship in developing countries. As such, they will guide the operation and management of the GCIP Nigeria Accelerator, Advanced Accelerator, and Post-Accelerator (they will for example, propose schedules, eligibility requirements and selection criteria for the participants, competition rules, training curricula and handbooks for the applicants, experts (mentors, trainer, judges), and EIRs. The guidebooks will be gender responsive, avoid gender stereotypes and provide recommendation to enhance gender equality in the accelerator programmes. These will be shared with CcHUB and appropriate training will be provided on their use. Suggestions for improvement of the GCIP Global guidebook will be shared by CcHUB with the global PEEs.

54. With the support of CcHUB, NGIN, as a Global PEE, will adapt the guidebooks to reflect the CIEE context of Nigeria (i.e. the GCIP Nigeria guidebooks will be developed), including for example market conditions, policy environment, development priorities, technology focus, and local examples. In addition, the GCIP Nigeria Accelerator, Advanced Accelerator, and Post-Accelerator training curricula and delivery format will be customized to meet national needs. The GCIP Nigeria guidebooks will be finalized in consultation with the government, business and civil society organizations, and other relevant stakeholders in the CIEE. NGIN will only deliver the initial adaptation (year 1). CcHUB will be responsible for maintaining the guidebooks up to date.

55. With due consideration of the framework conditions developed by the GCIP Global for each type of available GCIP support, the GCIP Nigeria guidebooks will set the final selection criteria for the Accelerator, Advanced Accelerator, and Post-Accelerator. In particular, in the first phase, the technology focus is expected to be mostly placed on cleantech active in one of the following areas: (i) enabling adoption of energy solutions in energy intensive SMEs; and (ii) improving energy access for households in underserved regions.

56. The achievement of the highest possible impact potential of the GCIP Nigeria is conditional on the appropriate assessment of the CIEE's strengths and weaknesses, followed by an optimal design of the GCIP Nigeria Pre-Accelerator, Accelerator, Advanced Accelerator, and Post-Accelerator, in line with national gaps/needs and advantages identified. While a thorough analysis of the CIEE in Nigeria will be carried out under Output 2.1.1, a focused assessment of the landscape and capacities of potential applicants (start-ups, SMEs), expert (mentors, trainers, judges), and other accelerators? alumni will be conducted under this Output by CcHUB.

57. In addition, in the first year of GCIP Nigeria, the possibility of incorporating a National Innovation Challenge into the GCIP Nigeria Accelerator, as from the second year, will be investigated by CcHUB by partnering with private sector corporations. The goal is to design targeted and immediately deployable solutions to challenges faced by the private sector.

Output 1.1.2 Pool of cleantech innovation and entrepreneurship experts (trainers, mentors, judges) is trained and certified to support the GCIP Nigeria Accelerator

58. Developing a pool of cleantech innovation and entrepreneurship experts to act as trainers, mentors (generalists and specialists), and judges is critical for ensuring the effectiveness of the GCIP

Nigeria Pre-Accelerator, Accelerator, Advanced Accelerator, and Post-Accelerator. The experts are also key stakeholders in the Nigeria's CIEE and they are expected to positively influence the cleantech innovation and entrepreneurship initiatives at the global level. Furthermore, they will ensure the long-term sustainability of the GCIP Nigeria.

59. The cleantech innovation and entrepreneurship expert training and certification system, which is to be developed by the GCIP Global, will be shared with the GCIP Nigeria. The system will include training curricula/materials, guidance on the training delivery methods, as well as certification requirements, all of which will be tailored to the needs of different expert groups (trainers, mentors, judges). Also, the system will encourage increased participation of the GCIP alumni as experts.

60. The cleantech innovation and entrepreneurship expert training and certification system will be reviewed by CcHUB and feedback will be provided. NGIN, with support from CcHUB, will adapt the guidebooks for the GCIP Nigeria in year 1, with a view to addressing specific national needs and ensuring synergies with other existing training and certification systems. CcHUB will be responsible for maintaining the documents up to date.

61. CcHUB will receive support from the GCIP Global in the operationalization of the training and certification system, including webinars and guidance on the provision of the first training and certification cycle (with some follow-up support in the second year). A total of 30 experts (trainers, mentors, judges) will be trained and certified with at least 35% being women.

Output 1.1.3 Three cycles of the annual competition-based GCIP Nigeria Accelerator are conducted

62. Three annual cycles of the GCIP Nigeria Accelerator will be conducted, based on the GCIP Nigeria guidebooks developed under Output 1.1.1. The timing of the cycles will be guided by the GCIP Global to ensure appropriate coordination across different child projects.

The country would benefit from customized assistance in developing a pool of potential applications prior to the launch of the Accelerator. Therefore, a Pre-Accelerator support will be provided to around 50 entrepreneurs each year that would normally not qualify for the Accelerator, so that a pipeline of suitable high-quality projects is generated. The Pre-Accelerator which will be a 10-day virtual programme held each year 6-8 weeks prior to the GCIP Nigeria Accelerator application deadline.

63. In general, the GCIP Global will support CcHUB in establishing and conducting the first cycle of the GCIP Nigeria Pre-Accelerator, Accelerator, Advanced Accelerator, and Post-Accelerator. The assistance will be phased out in the second and third cycles, as it is expected that the relevant national institutions will be capacitated to be fully independent in the next years.

64. Throughout the project, CcHUB will have access to a helpline established by the GCIP Global for queries on the GCIP accelerators and/or general troubleshooting. The help line will combine online tools (wiki, forums, knowledge base, FAQs, etc.) and live calls or chats with an experienced global PEE team member.

65. The outreach and communication activities related to the launch of and calls for applications for the annual GCIP Nigeria Accelerator cycles will be led by CcHUB, with involvement of business and universities. It is expected that each GCIP Nigeria Accelerator cycle will receive around 50 to 100 applications, with higher numbers of entrants expected in the later cycles. From these entrants, around 20-25 semi-finalists and 5-8 finalists will be selected to receive support each year, and ultimately, winners and runners-up will be identified. The selection of winners, runners-up, finalists, and semi-finalists will be made by judging panels based on their evaluation of the business plans and/or pitches delivered by entrepreneurs with the support from their trainers and/or mentors.

66. As explained in Table 5, the GCIP Nigeria Accelerator will be a four to six-month curriculum designed specifically to support cleantech innovators to develop viable business models, and thus transform their ideas into fast-growing scalable and investable enterprises. Through the GCIP Nigeria Accelerator, a cohort of cleantech innovators with a high-impact potential will be identified and invited to receive intensive business and entrepreneurship training (as a group training in the framework of the GCIP National Academy), mentoring, and coaching based on the state-of-the-art international expertise, in particular with the aim to a) improve their business skills and investor pitch, b) connect them to potential business partners, financiers, and investors, c) maximize the expected net climate benefits of their solutions.

67. As previously mentioned, the GCIP Nigeria Accelerator will initially place emphasis on SMEs with innovations that fall under one of these two focus areas: (i) enabling adoption of clean energy solutions in energy intensive SMEs; and (ii) improving energy access for households in underserved regions. Under the latter umbrella, low carbon technologies like clean cooking solutions and/or focussing on energy and resource efficiency, renewable energy utilisation, waste beneficiation ? tailored to reflect local conditions ? will be considered. In the second and third year, the GCIP Nigeria Accelerator might be expanded thematically ? as well as geographically ? to other cleantech categories. However, the potential benefit of the thematic extension of the GCIP Nigeria Accelerator will need to be counterbalanced with the need for standardization and benchmarking. In addition, in the first year of the GCIP Nigeria Accelerator different prize categories might be considered, e.g. for overall sustainability, circularity, or gender.

68. Throughout all cycles of the GCIP Nigeria Accelerator, special attention will be paid to gender mainstreaming activities, as outlined in the Draft Gender Mainstreaming Action Plan (Annex I). These include: (i) recruitment of women trainers, mentors, judges; (ii) efforts to ensure that women and men are given equal opportunity to lead, access, participate in and benefit from the project; and (iii) awareness raising. The project will also seek to ensure women empowerment through (i) specific training and mentoring to promote women innovators, entrepreneurs, start-ups, cleantech experts; and (ii) design of specific prizes and follow-up support programmes for innovative start-ups that will have a significant impact on women's entrepreneurial development and gender responsive employment creation. What is more, the UNIDO Environmental and Social Safeguards Policies and Procedures (ESSPP) will be strictly followed

69. There will be an annual GCIP Nigeria Forum conducted with appropriate guidance provided by the GCIP Global on its successful execution and integration with the annual GCIP Global Forum, including themes and private sector participation.

Table 6: Outcome 1.1 Activities and responsibilities

Activity	Detail	Responsibility	GCIP Nigeria Budget (USD)
Output 1.1.1			
1.1.1a	to review the GCIP guidebooks for Accelerator, Advanced Accelerator, and Post-Accelerator; to share suggestions (5-10) for improvement of the GCIP guidebooks with NGIN (feedback loop)	CcHUB	1,250
1.1.1b	to adapt the GCIP guidebooks (3: 1 for Accelerator, 1 for Advanced Accelerator, 1 for Post-Accelerator) to reflect the context of Nigeria's CIEE, including market conditions, policy environment, development priorities, technology focus, local examples, etc. (i.e. to develop the GCIP Nigeria guidebooks)	CcHUB with NGIN support	9,125
1.1.1c	to organize information and consultation sessions with relevant CIEE stakeholders; to disseminate the GCIP Nigeria guidebooks among relevant CIEE stakeholders (800-1200)	CcHUB	6,100
1.1.1d	to conduct an assessment of the landscape and capacities of potential GCIP Nigeria applicants (start-ups, SMEs) and experts (mentors, trainers, judges)	CcHUB	6,100
1.1.1e	to develop a calendar of all planned GCIP Nigeria events and to investigate the possibility (with 3-7 corporate partners) of incorporating a National Innovation Challenge into the GCIP Nigeria Accelerator (as from second year)	CcHUB	1,600
Activities to be carried out by the GCIP Global as a service to the GCIP Nigeria: 1) NGIN: to develop GCIP guidebooks for Accelerator, Advanced Accelerator, and Post-Accelerator, including e.g. proposed schedules; eligibility requirements and selection criteria for the participants; competition rules; training curricula and handbooks for applicants, experts (mentors, trainers, judges), and EIRs; 2) NGIN: to develop tools for a) assessment of needs of GCIP Nigeria entrepreneurs (applicants, participants, and alumni), b) planning and monitoring of key GCIP Nigeria events; 3) NGIN: to develop (including the identification of interested corporate partners) and pilot the Global Innovation Challenge as part of the GCIP Global Accelerator (as from 2022).			
Output 1.1.2			
1.1.2a	to get acquainted with the GCIP cleantech innovation and entrepreneurship expert training and certification system; to share suggestions (5-10) for its improvement with NGIN (feedback loop)	CcHUB	1,456

1.1.2b	to adapt the GCIP cleantech innovation and entrepreneurship expert training and certification system to national circumstances (i.e. to develop the GCIP Nigeria cleantech innovation and entrepreneurship expert training and certification system)	CcHUB with NGIN support	8,477
1.1.2c	to operationalize the training and certification system	CcHUB	8,972
1.1.2d	to provide support to CcHUB with the GCIP certification of national experts	NGIN in year 1	2,318
1.1.2e	to provide training and certification for at least 30 experts (trainers, mentors, judges) with at least 35% being women (i.e. at least 3 trainings with minimum 10 experts), as well as to conduct the evaluation of experts (based on the NGIN assessment framework) and to support the accreditation of at least 15 experts	CcHUB	21,472
Activities to be carried out by the GCIP Global as a service to the GCIP Nigeria: 1) NGIN: to develop the GCIP cleantech innovation and entrepreneurship expert training and certification system for the GCIP Nigeria experts (trainers, mentors, judges), including training curricula/materials, guidance on the training delivery methods, and certification requirements; 2) NGIN: to provide training to CcHUB employees, with focus on the operational and managerial efficiency and effectiveness required to successfully execute the GCIP Nigeria; 3) NGIN: to develop an assessment framework for evaluation of experts (trainers, mentors, judges), as well as to facilitate the expert accreditation at global institutions/initiatives; 4) NGIN: to capture recommendations from GCIP Nigeria experts (trainers, mentors, judges) to ensure continuous improvement of the GCIP cleantech innovation and entrepreneurship expert training and certification system.			
Output 1.1.3			
1.1.3a	to deliver the GCIP Nigeria Pre-Accelerator as a 10-day (7 days virtual/3 day in-person) programme for around 40-50 participants annually, around 6-8 weeks prior to the Accelerator application deadline	CcHUB in year 2	6,925
		CcHUB with NGIN support in year 1	8,817
1.1.3b	to deliver three annual cycles of the GCIP Nigeria Accelerator (each year for around 20-25 semi-finalists and 5-8 finalists selected from a pool of at least 50 applicants), including the 4-day GCIP National Academy	CcHUB	165,325
1.1.3c	to support CcHUB in the delivery of the GCIP Nigeria Accelerator (incl. facilitation national academies, development of participating national teams, and capacitation of national mentors and trainers - includes travel costs for two NGIN trainers	NGIN in year 1	26,265
1.1.3d	to organize the annual GCIP Nigeria Forum (3 in total)	CcHUB	273,925

1.1.3e	to provide guidance to CcHUB on GCIP Nigeria forum and integration with the annual Global Forum, including themes and private sector participation	NGIN	3,467
1.1.3f	to establish a helpline for queries on the GCIP Accelerator and troubleshooting, combining online tools (wiki, forums, knowledge base, FAQs, etc.) and live calls or chats with an experienced NGIN team member	NGIN	14,875

Outcome 1.2 Start-ups and SMEs are supported through advanced and gender-responsive business growth and investment facilitation services

70. Experience from previous GCIP interventions has shown that start-ups and SMEs require further assistance ? beyond the Accelerator ? to be able to scale up. Therefore, building on activities conducted under the Output 1.1.3, additional support will be provided to selected enterprises under the Outcome 1.2. At the same time, the emphasis will be placed away from the competition aspect and efforts will focus on individual case-by-case assistance. Outputs and Activities under this Outcome will also have a myriad of synergy points with Outcome 2.1, as engagement of the investor community and customers is crucial for the ultimate success of the GCIP Nigeria.

Output 1.2.1 Targeted business growth support services are provided to selected cleantech enterprises towards commercialization

71. There will be Advanced Accelerator service offered to selected entrepreneurs participating in the GCIP Nigeria Accelerator that will be focused on providing tailored and needs-based individual support including some group training, mentoring, and coaching. The Advanced Accelerator is time-bound and outcome-focused, i.e. there are concrete milestones that need to be achieved within a specific timeframe. The support is provided by one or several Executives in Residence (EIR) that are senior practitioners (executives or entrepreneurs) with hands-on experience in scaling up cleantech enterprises, and it is focused on problem-solving, i.e. tackling very specific operational, financial, and strategic issues.

72. The GCIP Nigeria Accelerator alumni will be eligible for the GCIP Nigeria Post-Accelerator support (provided in four related, but not necessarily linear dimensions: advanced business growth and commercialization support, investment readiness, market readiness, and technology readiness) if they meet requirements set out in the GCIP Nigeria guidebook for the Post-Accelerator (Output 1.1.1). It is foreseen that after the second cycle of the GCIP Nigeria Accelerator, the Post-Accelerator support will be offered to a minimum of 10 enterprises. After the third cycle of the GCIP Nigeria Accelerator, the Post-Accelerator services will be provided to a minimum of 15 entrepreneurs. More specifically, a series of trainings (in form of webinars) will be organized. These will cover topics such as: 1) corporate partnerships and government relationships (3-4 virtual training modules of 1-2 hours each); 2) international market entry, mergers and acquisitions, and exit strategy (3-4 virtual training modules of 1-2 hours each); 3) challenges specific for selected industry sectors (3-4 virtual training modules of 1-2 hours each). The trainings will be based on the state-of-the-art international

knowledge and best practices. A part of the Post-Accelerator, conducted under GCIP Global, will be targeted to alumni from all child projects and will therefore not be country-specific. Another part will be tailored to GCIP Nigeria and will be conducted by CcHUB with support from NGIN in year 1.

73. In addition to trainings, selected enterprises will also receive needs-based support in accessing additional sources of finance, market entry, identifying networking opportunities, dealing with technical and administrative issues, accessing IT services, and tax registration, as well as they will be provided with specialized mentoring and courses on cleantech, entrepreneurship, and innovation. The project will leverage on the facilities and expertise already available in Nigeria.

74. Moreover, for selected GCIP Nigeria Accelerator alumni with high impact potential (minimum 5 enterprises), there will be technology verification, product development, and testing facility support provided, facilitated by CcHUB. This may encompass collaboration with research institutions and universities that house relevant expertise, as well as with the industrial sector. In addition, partnerships will be explored with national agencies responsible for standardization and appraisal of product quality. The GCIP Nigeria will also provide support in overcoming product related market entry barriers, including protection of intellectual property and product life cycle assessments.

Output 1.2.2 Enterprises (up to 15) are connected to financing opportunities and provided with tipping-point investment facilitation support

75. Identifying investment opportunities for cleantech products and services is a lengthy and iterative process. In many instances, high-impact and high-market potential cleantech innovations/businesses fail due to lack of access to financial resources. Recognizing this need, under Output 1.2.2 support will be provided to early-stage enterprises in addressing the financing gap. The intention is to assist as many GCIP Nigeria Accelerator alumni as possible to raise funding, find customers, and build partners within 12 months of completing the GCIP Nigeria Accelerator.

76. Taking advantage of various investment and promotion opportunities in Nigeria, direct support for the GCIP Nigeria Accelerator alumni will allow them to connect with potential investors, financiers, and tech scouts of large corporations. To this end, half-day Investor Connect events will be co-organized regularly (at least 1 event after each cycle) with partners including corporations and government agencies to highlight opportunities for investment, loans, grants, technology adoption and partnerships. The project will also explore targeted investment/financing vehicles and connect them with selected GCIP Nigeria Accelerator alumni as appropriate.

77. In addition to support services designed to benefit enterprises, specific activities to engage the investment community (e.g. venture capital funds, angel investor networks, impact investors, etc.) will also be conducted. CcHUB will establish a robust network with national financial institutions and funds to raise the awareness of financiers representing them, as well as to train them and sensitize on the opportunities and risks associated with cleantech products and market trends. For example, communication efforts tailored for investors will be made to promote the profitability and impact potential of the cleantech businesses, thereby influencing the investment landscape for the cleantech sector. The intention is to broaden the engagement of impact investors in the country, both in terms of number of investors, as well as scope of their interest. Therefore, awareness raising events and trainings

will be provided to the local investor community by specialist financiers with in-depth experience in the cleantech sector (at least 1 event/training after each cycle).

78. Trainings will also be conducted for local financial experts. More specifically, the PFAN will offer workshops structured as half day events, covering brief presentation of PFAN, its project development journey, gender lens investment principles, and successful examples of enterprises supported. The goal of this activity is also to facilitate cross-fertilization between GCIP and PFAN, in that current PFAN advisors might support the training of experts (trainers, judges, and mentors) selected by GCIP on the one hand, and the GCIP-selected experts, after provided with project sourcing and investment facilitation skills and tools, may be invited to join PFAN as new advisors on the other hand. CcHUB will support PFAN in delivering such trainings, which will be covered by GCIP Global. PFAN will also launch open calls for GCIP alumni applications.

79. In addition, in order to encourage the participation of seed funding providers from the national, regional and global stages in the GCIP Nigeria and to leverage on the experience and knowledge of other GCIP countries, a number of suitable regional and international events will be attended by a representative of the GCIP Nigeria.

Output 1.2.3 Mentoring and partnership support is provided to cleantech enterprises for global market expansion

80. It is expected that several GCIP Nigeria supported cleantech innovations will have potential for replication in other developing countries. Therefore, international mentors will be assigned in the target country of expansion to facilitate connections and network building. This service will be offered through the GCIP Global, with support from the GCIP Nigeria in identifying a suitable mentor with the appropriate expertise. In addition, the GCIP Nigeria graduates will be offered curated peer networking opportunities with GCIP alumni enterprises from other countries, as well as cleantech enterprises within UNIDO's partner network. Through peer networking, the enterprises will explore opportunities for technology collaboration, product co-development, joint venture for market expansion, etc. in a business-to-business context.

81. On an ad-hoc basis, as opportunities arise, matchmaking services for the GCIP Nigeria enterprises will be provided with interested corporations, investors, and governments. Further, opportunities to showcase cleantech innovations at high-level national and international events, such as the UN Climate Summit, UNFCCC Conference of Parties (COP), Vienna Energy Forum, etc. will be offered. Such high-profile events will be instrumental in enabling the GCIP Nigeria alumni to build their global presence and extend their partnerships and networks. In addition, CcHUB will encourage the participation of a few GCIP Nigeria alumni in the GCIP Global Accelerator, and help them with their application. What is more, UNIDO will encourage application of GCIP Nigeria alumni for PFAN support.

82. Under the GCIP Global there will be an annual GCIP Forum organized as an integral part of efforts to ensure connectivity between CIEEs. The GCIP Forum will bring selected finalists of the global and national Accelerators together for recognition and awards, and for opportunities to be connected with potential partners, customers, technology scouts and investors from around the world.

Importantly, the GCIP Forum will also serve as a platform for innovation showcasing, and investment matching, and will be an important annual milestone for networking, advocacy, and knowledge exchange among CIEE players. The GCIP Forum will not be a stand-alone event, but it will be organized on the margins of highly visible global gatherings, such as for example the UNFCCC COP, Cleantech Group forums, etc. CcHUB will be responsible for nominating and supporting the participation of a group representing GCIP Nigeria at the GCIP Global Forum.

83. In addition, as part of the global GCIP Framework, Nigeria will receive membership in the Network for Global Innovation for the duration of GCIP Global (5 years). This will provide CcHUB and other GCIP Nigeria stakeholders with access to international best practices and with opportunities to build cross-border connections with partners in additional countries.

Output 1.2.4 Investment is mobilized to deploy innovative cleantech solutions that help improve energy access in underserved regions

84. Stakeholder consultations in Nigeria confirmed that a special focus must be put on improving electricity access for rural and underserved communities. Within the GCIP Nigeria framework and in collaboration with REA, special focus will be put on these issues. In particular, a financial mechanism that would enable de-risking and leveraging of public and private investment towards rural electrification will be designed by REA. REA will be responsible for operating this early-stage development fund with the aim of supporting (by e.g. dispersing grants) the accelerated SMEs which solutions help improve energy access in underserved regions. In the first year of project implementation, the details of the financial mechanism will be designed. REA activities build on its extensive experience in rural electrification with e.g. the Rural Electrification Programme (REP) and the Rural Electrification Fund (REF).

85. The financial mechanism supporting rural electrification, operated by REA, designed will be operationalized. Its main purpose will be to improve energy access in underserved regions and to facilitate the disbursement of funds (e.g. run for calls for applicants for pre-seed/seed funding or grants and conduct their technical evaluation). A minimum of 5 enterprises will be targeted annually (from second year). Special attention will be put on women-led enterprises and the mechanism will be designed in a way that ensures that women can equally access the financial support.

Table 7: Outcome 1.2 Activities and Responsibilities

Activity	Detail	Responsibility	GCIP Nigeria Budget (USD)
Output 1.2.1			
1.2.1a	to identify Accelerator participants (9-15) that would benefit from the Advanced Accelerator support from an EIR to tackle specific operational, financial, and strategic issues; and to facilitate this support	CcHUB	1,281

1.2.1b	to conduct three cycles of the GCIP Nigeria Post-Accelerator focused on advanced business growth and commercialization support, investment readiness, market readiness, and technology readiness (based on the GCIP Nigeria guidebooks developed under Output 1.1.1) to benefit 10-15 GCIP Accelerator graduates annually	CcHUB in year 2 and 3	13,371
		CcHUB with NGIN support in year 1	6,545
1.2.1c	to provide needs-based support to the GCIP Nigeria Post-Accelerator enterprises (15-25 in total) in accessing additional sources of finance, market entry, identifying networking opportunities, dealing with technical and administrative issues, accessing IT services, and tax registration, etc.	CcHUB	26,481
1.2.1d	to provide technology verification, product development and testing facility support to enterprises with high impact potential (minimum 5 enterprises, up to 25)	CcHUB	17,881
Activities to be carried out by the GCIP Global as a service to the GCIP Nigeria: NGIN to deliver a series of trainings/webinars (in the framework of the GCIP Nigeria Advanced and Post-Accelerator) on 1) corporate partnerships and government relationships (3-4 virtual training modules of 1-2 hours each); 2) international market entry, mergers and acquisitions, and exit strategy (3-4 virtual training modules of 1-2 hours each); 3) challenges specific for selected industry sectors (3-4 virtual training modules of 1-2 hours each); as well as to provide a report on best practices for acceleration based on state-of-the art international knowledge.			
Output 1.2.2			
1.2.2a	to organize national investment facilitation events (Investor Connect) for the GCIP Nigeria alumni (at least 1 event after each cycle)	CcHUB	51,525
1.2.2b	to establish a robust network with 10-15 national financial institutions and funds, and to manage related communication and outreach activities, including awareness raising events for the local investor community to increase investor confidence and ensure accurate risk perception with regard to cleantech solutions (at least 1 event after each cycle)	CcHUB	17,525
1.2.2c	to support PFAN in providing 3-5 workshops for local financial experts	CcHUB	2,025
1.2.2d	to attend 3-5 suitable events in order to encourage the participation of seed funding providers from the national, regional and global stages in the GCIP Nigeria and to leverage on the experience and knowledge of other GCIP countries	CcHUB	9,275
Activities to be carried out by the GCIP Global as a service to the GCIP Nigeria: PFAN to offer workshops structured as half day events, covering brief presentation of PFAN, its project development journey, gender lens investment principles, and successful examples of enterprises supported			
Output 1.2.3			

1.2.3a	to encourage participation of 5-10 GCIP Nigeria alumni for the GCIP Global Accelerator and to support them with their application	CcHUB	1,686
1.2.3b	to nominate and support the participation of a group (at least 2 people) representing GCIP Nigeria at the Global Forum	CcHUB	18,936
Activities to be carried out by the GCIP Global as a service to the GCIP Nigeria: 1) NGIN: to identify and facilitate cross-border networking and matchmaking opportunities and for stat-ups/SMEs supported by the GCIP Nigeria with internationally recognized mentors, GCIP alumni enterprises, corporations, investors, and governments; 2) NGIN: to enable the GCIP Nigeria enterprises to showcase their cleantech innovations at high-level national and international events (including GCIP Global Forum and other major international events); 3) NGIN: to organize the Global Forum; 4) NGIN: to facilitate Nigeria's membership in the Network for Global Innovation for the duration of GCIP Global; 5) UNIDO: to encourage applications of the GCIP Nigeria alumni for PFAN support; 6) NGIN: to provide application assistance to the GCIP Nigeria alumni nominated by CcHUB for support by the GCIP Global Accelerator.			
Output 1.2.4			
1.2.4a	to design a financial mechanism with the purpose of improving energy access in underserved regions (operated by REA in the form of an early-stage development fund providing pre-seed and seed funding; or disbursement of grants) that would enable de-risking and leveraging of public and private investment, including the process of application for the pre-seed/seed financing or grants	REA	5,500
1.2.4b	to operationalize the financial mechanism designed under the Output 1.2.2 (a financial mechanism with the purpose of improving energy access in underserved regions) and to facilitate the disbursement of funds (e.g. run for calls for applicants for pre-seed/seed funding or grants and conduct their technical evaluation) to minimum 5 enterprises (annually from second year)	REA	604,500

Component 2: Cleantech innovation and entrepreneurship ecosystem (CIEE) strengthening and connectivity

86. The policy framework and institutional capacity are integral parts of GCIP's ecosystems approach, and also of strategic relevance in ensuring that the outputs and outcomes of the project are contributing to the national priorities and are sustained after the project closure. Therefore, the objective of the Component 2 is to build capacity of FMST and other key CIEE stakeholders in Nigeria to engage in cleantech acceleration and commercialization. Further, the GCIP Nigeria will assist the government in improving national policies and regulations that are conducive to cleantech innovation

and commercialization. FMST will be responsible for the execution of the activities under Component 2.

87. The GCIP Global will provide tools (Global Cleantech Innovation Ecosystem Benchmark; cleantech innovation capacity building framework) for CIEE strengthening and connectivity, which will be reviewed and adapted for Nigeria by FMST. In addition, policy best practices and roadmaps will be identified through desktop research and interviews with relevant policy makers by the GCIP Global.

Outcome 2.1 The CIEE in Nigeria is strengthened and interconnected

Output 2.1.1 Institutional capacity building of the CIEE actors is conducted (up to 3 capacity building events conducted with up to 90 participants in total)

88. A CIEE assessment is to be conducted by FMST, which will be instrumental in identifying the capacity building needs (with particular attention to the needs of women) and deciding on optimal set of interventions. A kick-off workshop will be held with relevant CIEE stakeholders to discuss drivers and challenges of cleantech innovation in Nigeria, as well as to present selected findings of evaluations of CIEEs globally.

89. In addition, a national stakeholder engagement strategy and a cleantech innovation cluster strategy will be drafted, and they will also both encompass an action plan and a progress measurement framework. Subsequently, two engagement workshops (kick-off and a follow-up) will be organized to train up to 10 national facilitators (>35% women) to act as agents of change and support the implementation of both strategies.

90. Additionally, there will be tailored training materials developed and capacity building events organized for selected CIEE stakeholders, including national institutions, industry associations, and business platforms on how to support cleantech innovations. The capacity building events will encompass, among others, on-the-job training, as well as workshops on knowledge management, technology benchmarking, and coordination mechanisms. Appropriate efforts will be made to promote gender equality in the framework of the capacity building events, in that the participation of women will be encouraged; gender balance of the training participants, as well as trainers and other experts will be secured; and gender aspects will be appropriately considered in the training materials. The training materials will also incorporate elements relevant in the context of the ESSPP.

91. The universities in Nigeria are a potential source of cleantech innovations. Therefore, under the GCIP Nigeria there will be at least one cycle of the Entrepreneurship Train-the-Trainer Programme on cleantech entrepreneurship and innovation organized for university professors and teachers. As a result, they will be well equipped to promote cleantech entrepreneurship among their students and to encourage them to engage in innovative activities, to form teams, and subsequently to apply for the GCIP Nigeria support. Also, the professors and teachers will be engaged in the development of case studies and co-hosting of student outreach events, as well as in the promotion of the establishment of entrepreneurship centres within universities.

92. Also, two FMST representatives, that are going to be nominated/employed by FMST to manage the execution of Component 2, will be offered a workshop on cleantech innovation policy and strategy to be held by the CTG for a cohort of all national PEE representatives. The experience gained by FMST representatives will enable the sustainability of the GCIP Nigeria beyond the project closure, as it is envisaged that the management of the project will be handed over to FMST post-GEF funding. Necessary financial resources to sustain the GCIP Nigeria activities could be mobilized from the private sector companies interested in corporate social responsibility involvement.

Output 2.1.2 Cleantech innovation and entrepreneurship policies, regulations and recommendations are developed

93. With support from the global child project and CTG, a gender responsive national cleantech innovation policy localization framework document will be developed along with a workshop on policy localization. The work will build off the global policy research to create baseline assumptions at the national level and highlight opportunities for improvement, supported by examples from case studies and observed best practices. A framework for translating the global findings into best practices for national actions will be developed, along with KPIs being suggested for any additional details. Any policies that are inhibiting innovation will also be identified. On the basis of the work conducted by CTG as well as of the gender analysis report (Annex I), policy recommendations will be developed by FMST that are gender-responsive. The policy localization document and the policy recommendations will be presented to relevant stakeholders during a dedicated workshop. Following a stakeholder discussion, both documents will be amended in line with feedback received.

94. Under the leadership of FMST, in a process of consultations with GCIP alumni and relevant national CIEE stakeholders, a roadmap will be prepared to guide long-term implementation of the policy recommendations, also beyond the GCIP Nigeria framework.

Output 2.1.3 Linkages, collaboration, and synergies across CIEEs are promoted

95. Under the GCIP Global there will be an annual GCIP Forum organized as an integral part of efforts to ensure connectivity between CIEEs. As outlined under Output 1.2.3, the GCIP Forum will bring selected finalists on the global and national Accelerators together for recognitions and awards, and for opportunities to be connected with potential partner, customers, technology scouts and investors from around the world. Importantly, the GCIP Forum will also serve as a platform for innovation showcasing, and investment matching, and will be an important annual milestone for networking, advocacy, and knowledge exchange among CIEE players. The GCIP Forum will not be a stand-alone event, but it will be organized on the margins of highly visible global gatherings, such as the UNFCCC COP, Cleantech Group forums, etc.

96. As previously mentioned, as part of the global GCIP Framework, GCIP Nigeria will receive membership in the Network for Global Innovation (NGIN) for the duration of GCIP Global (5 years). This will provide FMST, as well as CcHUB, REA and other GCIP Nigeria stakeholders, with access to international best practices and with opportunities to build cross-border connections with partners in additional countries.

97. In addition to international connections (in particular between GCIP CIEEs), national and regional (sub-national) level partnerships will be promoted and developed between national leading institutions, agencies and universities. Synergies will be secured between the project and other ongoing initiatives related to the CIEE, such as the FMST-led National Innovation Expo, which brings together innovative ideas, in partnership with the Abuja Chamber of Commerce and Industry.

Table 8: Outcome 2.1 Activities and responsibilities

Activity	Detail	Responsibility	GCIP Nigeria Budget (USD)
Output 2.1.1			
2.1.1a	to conduct analysis of Nigeria's CIEE (including consultations with relevant CIEE stakeholders)	FMST	25,000
2.1.1b	to develop relevant tools for CIEE strengthening and connectivity, including a stakeholder engagement strategy and a cleantech innovation cluster strategy (in consultation with relevant CIEE stakeholders); as well as to conduct 2 engagement workshops (kick-off and follow-up) to train up to 10 national facilitators	FMST	35,000
2.1.1c	to conduct 1-3 capacity building events (based on the cleantech innovation capacity building framework developed by CTG) for selected CIEE stakeholders (60-75 in total), including national institutions, industry associations, and business platforms on how to support cleantech innovations	FMST	25,000
2.1.1d	to deliver at least 1 cycle of the Entrepreneurship Train-the-Trainer Programme	FMST	33,000
Activities to be carried out by the GCIP Global as a service to the GCIP Nigeria: 1) CTG: to organize a workshop on cleantech innovation policy and strategy for a cohort of all national PEE representatives (including FMST); 2) CTG: to develop the Global Cleantech Innovation Ecosystem Benchmark which will enable comparisons of the Nigeria's CIEE with other countries' CIEEs; 3) CTG: to develop a cleantech innovation capacity building framework.			
Output 2.1.2			
2.1.2a	to review existing policy and regulations relating to the promotion of cleantech, innovation, and entrepreneurship, and to develop a gender-responsive localization document	CTG	30,000

2.1.2b	to develop 40-50 recommendations for the cleantech innovation and entrepreneurship policy; and to conduct 2 stakeholder engagement workshop to discuss and validate the gap analysis report and the policy recommendations; to prepare and consult (with GCIP alumni and relevant national CIEE stakeholders) a roadmap guiding a long-term implementation of the policy recommendations	FMST	43,000
Output 2.1.3			
2.1.3a	to promote cooperation (in particular bilateral cooperation) at an international as well as at a national and sub-national level	FMST	9,000
Activities to be carried out by the GCIP Global as a service to the GCIP Nigeria: 1) NGIN: to organize the Global Forum; 2) NGIN: to facilitate Nigeria's membership in the Network for Global Innovation for the duration of GCIP Global.			

Component 3: Programme coordination and coherence

98. The activities under Component 3 are aimed at ensuring that the achievements of the GCIP Nigeria are captured and communicated globally, as well as that the GCIP Nigeria and other GCIP country projects are implemented in a coherent and coordinated way. To this purpose, CcHUB, FMST and REA are expected to collaborate with the GCIP Global through the global PEEs (PFAN, NGIN, CTG, UNIDO), as well as to contribute to information gathering, knowledge sharing, and dissemination efforts.

Outcome 3.1 Efficiency and sustainability of the GCIP Nigeria is ensured through programme coordination and coherence with other GCIP country projects

Output 3.1.1 The GCIP internal guidelines for project management teams are adapted and implemented by the GCIP Nigeria

99. To maintain coherence of the GCIP approach across multiple countries, GCIP internal guidelines for project management teams will be developed and disseminated by UNIDO, including 1) operational guidelines for the Project Management Unit (PMU) to be established within CcHUB, 2) a sustainability and exit strategy framework (to be developed in the first year of project implementation, and subsequently shared with CcHUB and FMST for review and adaptation, i.e. for development of the GCIP Nigeria sustainability and exit strategy). The operational guidelines will cover: a general introduction to the GCIP Framework, including explanation of organizational roles within it (e.g. of Global Advisory Board and Project Steering Committees); description of communication channels between GCIP Nigeria and the GCIP Global; information on risk management and data protection; a list of foreseen support activities to be available from the GCIP Global; introduction to the IT management of the GCIP web platform; environmental/social management principles, as well as gender mainstreaming and ESSPP principles to be applied by the PMU in the course of project management. In addition, annual meetings for national PEE representatives (including CcHUB, FMST and REA) will be organized to offer a platform for training and exchange of experiences/insights related to the implementation of the GCIP internal guidelines.

Output 3.1.2 Programme-level knowledge management, communication and advocacy strategy is adapted and implemented by the GCIP Nigeria

100. The experience so far has shown that an exchange of learnings among national PEEs and PMUs is key for their successful operation. To facilitate this exchange, a knowledge management, communication, and advocacy strategy framework will be developed by UNIDO with a particular focus on: (i) promoting visibility of GCIP and communicating its impacts achieved at national and global levels; (ii) increasing awareness of the catalytic role of cleantech in addressing climate change and environmental issues; (iii) showcasing cleantech innovations from the GCIP alumni and enhancing their visibility and credibility. This will be a continuous process whereby takeaways from one of the child projects feeds into the others so that constant improvement and fine-tuning can be ensured.

101. The knowledge management, communication, and advocacy strategy framework will be shared with CcHUB for review and adaptation to the GCIP Nigeria needs. As a result, the GCIP Nigeria knowledge management, communication, and advocacy strategy will be developed.

102. In line with the knowledge management, communication, and advocacy strategy framework, CcHUB and FMST (and/or their subcontractors) are expected to provide briefing sessions, press releases, social media presence and advertising, all of which will be targeted at different audience groups, with a special attention to the needs of women and youth. These activities will be supported by partners, including local entrepreneurs, celebrities, GCIP alumni, relevant service providers (e.g. patent attorneys, accountants), university departments and societies (e.g. engineering, entrepreneurship and energy clubs), organizations that are in frequent contact with cleantech entrepreneurs (e.g. trade groups, entrepreneur groups), and investors (e.g. venture capital funds, angel networks).

Output 3.1.3 The GCIP Nigeria web platform is operated to maintain the GCIP community

103. There will be a global GCIP web platform launched to be used as the main vehicle for internal and external communication at the programmatic level, and in particular it will serve four key functions: a) to support project management by CcHUB, FMST, REA and UNIDO (as a platform for dissemination of relevant documents, e.g. guidelines, guidebooks, frameworks); b) to enable execution of the Accelerator (as a platform for calls for application and their receipt, as well as for submission of assignments and delivery of trainings/webinars during the Accelerator); c) to facilitate the maintenance of the GCIP community at national and global levels (all CIEE stakeholders, e.g. investors, enterprises, including alumni, and experts will be invited to join the online community, and the enterprises will be given an opportunity to showcase their cleantech solutions to increase their visibility among potential investors); d) to provide a knowledge depository for the general public (all relevant knowledge, communication, and advocacy materials will be available on the website).

104. The GCIP Nigeria will be assigned a section of the global GCIP web platform (i.e. a GCIP Nigeria web platform). The GCIP Nigeria web platform will be used from the beginning of the GCIP Nigeria Accelerator cycle (call for applications and receipt of applications), during the GCIP Nigeria Accelerator cycle (e.g. for webinars/trainings, submission of assignments), as well as after it (e.g. by alumni companies and potential investors for the purpose of matching, progress tracking).

105. On the global GCIP web platform there will be affinity/interest fora created to spur interactions, such as for example self-directed introductions, in specialized groups and to facilitate collaboration, for example between various enterprises from different GCIP Nigeria cohorts, between alumni and the currently supported entrepreneurs, or between entrepreneurs and investors. Also, there will be a GCIP Nigeria alumni network created, gathering GCIP Nigeria Accelerator entrants, and assigned a special section on the GCIP Nigeria web platform.

Table 9: Outcome 3.1 Activities and responsibilities

Activity	Detail	Responsibility	GCIP Nigeria Budget (USD)
Output 3.1.1			
3.1.1a	to review and adopt GCIP internal guidelines for project management teams, and to participate in the annual meetings for national PEE	CcHUB	2,550
3.1.1b	to develop the GCIP Nigeria sustainability and exit strategy	CcHUB (and FMST)	10,550
Activities to be carried out by the GCIP Global as a service to the GCIP Nigeria: UNIDO to organize annual meetings for national PEE representatives (including CCHUB) to provide a platform for training and exchange of experiences/insights.			
Output 3.1.2			
3.1.2a	to review and adapt the knowledge management, communication, and advocacy strategy framework, i.e. to develop a GCIP Nigeria knowledge management, communication, and advocacy strategy	CcHUB	973
3.1.2b	to capture knowledge gathered by the GCIP Nigeria through 50-150 policy briefs, impact reports, brochures, webinars, and other types of promotional materials, and to disseminate this knowledge through briefing sessions, press releases, social media presence and advertising, etc. (in line with the GCIP Nigeria knowledge management, communication, and advocacy strategy)	CcHUB (and FMST)	8,473
3.1.2c	to seek 20-30 partnerships that would support implementation of the GCIP Nigeria knowledge management, communication, and advocacy strategy (e.g. with local entrepreneurs, celebrities, GCIP alumni, relevant service providers, university departments and societies, organizations that are in frequent contact with cleantech entrepreneurs, investors, etc.)	CcHUB	973
Activities to be carried out by the GCIP Global as a service to the GCIP Nigeria: UNIDO to develop a knowledge management, communication, and advocacy strategy framework.			
Output 3.1.3			

3.1.3a	to create and maintain a section for the GCIP Nigeria on the global GCIP web platform	CcHUB	6,560
3.1.3b	to launch the GCIP Nigeria alumni network (incl. 80-100 participants) and create a special section on the GCIP Nigeria web platform to maintain it	CcHUB	1,060
Activities to be carried out by the GCIP Global as a service to the GCIP Nigeria: UNIDO to launch the global GCIP web platform and to deliver training on its use to the GCIP Nigeria.			

Outcome 3.2 Impacts and progress of the GCIP Nigeria are tracked and reported

Output 3.2.1 The GCIP methodology for impact assessment is adapted and applied

106. The GCIP methodology for impact assessment will be developed by the GCIP Global and shared with the GCIP Nigeria for review and application. This will ensure a common understanding of estimation, tracking, and reporting approaches amongst all involved stakeholders, and will allow for data aggregation, comparisons, and extrapolation, not only on the national, but also on the global programme level. The methodology will enable assessment of social, economic, and environmental impacts, and at a minimum, it will account for global environmental benefits (GEBs), energy saved and increase in installed renewable energy capacity, job creation, gender mainstreaming, and investment leveraged. The data will be sex-disaggregated and gender-sensitive, and youth participation will also be recorded.

107. CcHUB will receive an online training on the GCIP methodology for impact assessment from UNIDO and, subsequently, CcHUB will train (online or in person) all GCIP Nigeria Accelerator semi-finalists. CcHUB may request further support to provide a training on the GCIP methodology for impact assessment also to other enterprises supported by the GCIP Nigeria.

108. The GCIP Nigeria enterprises will be expected to periodically provide relevant impact data to CcHUB for validation and consolidation. The enterprise impact data will then be used to develop and publish a GCIP Nigeria impact report, as well as to create other promotion and advocacy materials (news articles, social media posts, brochure and leaflets, videos, etc.) that are tailored to diverse types of audiences (investors, national government agencies, donors, students, etc.). This will benefit the GCIP Nigeria enterprises by providing increased credibility and visibility. The impact data will also be shared with the GCIP Global for consolidation on the programme level.

Output 3.2.2 Project activities are tracked and reported based on the GCIP monitoring and evaluation (M&E) framework including operationalization and monitoring of gender mainstreaming action plan, as well as an external mid-term review is conducted

109. There will be a GCIP monitoring and evaluation (M&E) framework provided by the GCIP Global, based on which CcHUB will prepare a GCIP Nigeria M&E plan, including time-bound milestones and deliverables. CcHUB will also draft progress review reports every six months. There will be an external mid-term review of the project conducted halfway through project implementation

(UNIDO will be responsible for it). The ESSPP considerations, global environmental benefits (GEBs), energy saved and increase in installed renewable energy capacity, job creation, and investment leveraged as well as gender-responsive targets, indicators and baseline for gender related targets will be appropriately captured in the GCIP Nigeria M&E plan, in the progress review reports, PIRs, the external mid-term review report, as well as in the collection and assessment of relevant data.

Output 3.2.3 Independent terminal evaluation is conducted

110. An Independent terminal evaluation will be started six months prior to the expected completion date of the project. The external terminal evaluation will focus on the assessment of project progress and impact, as well as its long-term sustainability. There will be an evaluation report prepared that will also include recommendations for follow-up activities.

Table 10: Outcome 3.2 Activities and responsibilities

Activity	Detail	Responsibility	GCIP Nigeria Budget (USD)
Output 3.2.1			
3.2.1a	to review the GCIP methodology for impact assessment (including the accompanying tools) and to participate in the training on its use provided by UNIDO	CcHUB	1,100
3.2.1b	to provide 3 trainings on the GCIP methodology for impact assessment to the GCIP Nigeria Accelerator semi-finalists (30-75 in total)	CcHUB	4,100
3.2.1c	to validate and consolidate the GCIP Nigeria enterprise impact data, and to develop and publish 4-5 GCIP Nigeria impact report	CcHUB	1,100
Activities to be carried out by the GCIP Global as a service to the GCIP Nigeria: UNIDO to develop the GCIP methodology for impact assessment and appropriate tools for its operationalization.			
Output 3.2.2			
3.2.2a	to prepare the GCIP Nigeria M&E plan and regular (every six months) progress reports (6) including the status of operationalization of gender mainstreaming action plan, as well as to conduct an external mid-term review	CcHUB (and UNIDO for the mid-term review)	35,000 (M&E)
Activities to be carried out by the GCIP Global as a service to the GCIP Nigeria: UNIDO to provide the GCIP M&E framework.			
Output 3.2.3			
3.2.3a	to conduct the Independent terminal evaluation	UNIDO	45,000 (M&E)

4) Alignment with GEF focal area and/or impact program strategies

111. GCIP generally, and this child project specifically, are fully aligned with the objectives of GEF-7 Climate Change Focal Area Strategy CCM 1-4, "Promoting innovation and technology transfer for sustainable energy breakthrough". This project seeks to foster private sector engagement in accelerating the uptake and investments in innovative cleantech solutions at scale. The project prioritizes cleantech innovations in the domains that are fully aligned with GEF 7 priorities i.e. electric drive technologies and electric mobility, accelerating energy efficiency, decentralized renewable energy power with energy storage, and cleantech innovations related sustainable cities and sustainable food systems. In particular, the project supports cleantech innovation and entrepreneurship by providing catalytic support to early-stage cleantech innovation SMEs so that they commercialize and

scale-up their operations thereby delivering climate and sustainable energy solutions that reduce GHG emissions.

112. Therefore, GCIP is a transversal intervention that supports all priorities of GEF 7's Climate change focal area. The project provides much needed and best available catalytic technical assistance to cleantech SMEs so that they commercialize and scale-up globally and in the process create new industries and green jobs. In line with GEF strategy on private sector engagement, the child project capitalizes on the growing interest by national and international private actors in the sustainability agenda and creates the conditions for SME driven creation and transformation of cleantech markets. This ultimately harnesses the ingenuity and creativity of SMEs and "crowds-in" private sector investments to deliver environmental benefits beyond business as usual. On behalf of the GCIP framework (10408), the child project promotes synergies with other GEF Programmes to leverage more impacts. In particular, it looks to establish operational, investment and/or knowledge management links with other GEF flagship initiatives such as the prospective Africa Minigrids Programme, Sustainable Cities IP, GreenChem and FOLUR. Furthermore, the Nigeria child project will also exchange knowledge and lessons on opportunities for technology and business model innovations across these programmes.

5) Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing

113. While the current business environment for cleantech SMEs and start-ups in Nigeria is improving, long-term and effective impact is being hindered by the limited connection between the support available and the one required for a conducive environment for cleantech innovation and entrepreneurship.

114. This project aims to go beyond the current baseline. As discussed above, the baseline highlights the lack of key skills and capacity as a crucial barrier that prevent entrepreneurs and SMEs to succeed and scale up their cleantech innovations and transform them into viable, scalable and fast-growing enterprises. Furthermore, the innovation and entrepreneurship ecosystem Nigeria can be hostile and initiatives to support the SMEs are not well coordinated.

115. SMEs remain disjointed and uncoordinated. This project has been designed to learn from GCIP supported under GEF 5 & 6, to create opportunities for greater impact through providing greater commercialisation support and investment facilitation services to expand opportunities for market expansion. This project is designed to provide catalytic and effective interventions that galvanise private sector interest and investments in the cleantech innovation and entrepreneurship space and also strengthen the national cleantech innovation and entrepreneurship ecosystem and connect it at a global level. These interventions, create a critical mass of interest in the cleantech sector, drive the transformation cleantech markets and result in more cleantech SMEs contributing to climate change mitigation and low-emission development.

116. Building on the baseline, including GCIP under GEF 5 & 6, the project will:

- ? Adapt and institutionalise methodologies, guidelines, tools and training systems for accelerator, advanced acceleration and post-accelerator support and for mentors, judges, trainers to be trained and certified in Nigeria. This will ensure that the country will continue to run the GCIP accelerators long after the GEF project has ended.
- ? Provide post acceleration support and investment facilitation services so that cleantech innovators will be able to commercialise their innovation and mobilise funding for scaling-up.
- ? Support the design and establishment of early-stage financing mechanism to ensure that GCIP alumni can have the chance to access finance support.
- ? Increase focus on developing policy and regulations on cleantech innovations at national level.
- ? Participate in global events around the global competition-based accelerator such as dialogues, investor networks to promote networking and learning.
- ? Create bigger market opportunities for cleantech innovators to expand their businesses and, hence, increase their success rates and, consequently, achieve more extensive GHG emissions reduction.

117. One of the many incremental services that the child project provides (through its programmatic linkages) is access to global investors. As an estimate, evidence from GCIP under GEF 5&6 shows that some GCIP alumni were able to mobilise global funding and expand their operations. From Turkey, Episome Biotech (2017 semi-finalist) raised ?1.7million in investment through 3 rounds from Diffusion Capital Partners based in The Netherlands; Seyisco raised USD 100,000 and B-Preg and Solter Vision also raised foreign capital. Actual figures are not yet available as to the level of increased GHG emission reductions achieved as a result of the international funding but the global funding allowed B-Preg (bio-composite parcel shelves) to expand internationally and they now estimate annual emission reductions of 4180 tCO₂e/year and growing. Similarly, Solter Vision (remote PV plant analysis) now estimates annual emission reductions of 15,300 tCO₂/yr and Seyisco (efficient pot hole filling) already estimates 826k tCO₂e per year saved. Episome (biotech) has the potential to reduce GHG emissions by 40 million tonnes/year once expanded globally. Therefore, SMEs with innovative cleantech solution can rapidly expand their businesses by accessing international financing opportunities and simultaneously rapidly expand global environmental benefits.

118. The differential is further enhanced through the inclusion of more opportunities for networking and investments, support to expand cleantech business in other countries, development of policies and regulation to support cleantech innovators, and building and strengthening ecosystem. For example:

- ? The project ensures that GCIP Alumni are able to truly mature and to harness local and global market opportunities brought about by dedicated support and ecosystems connectivity provided by this project.
- ? GCIP alumni will have higher chances of commercializing their innovations and of getting connected to investors and the private sector through the national project and global innovations challenges, international mentoring for global

expansions and linkages to other sources of financing (which include impact investors and crowdfunding platforms).

119. Since these interventions ensure sustainability of the project, they result in more GHG emission reductions beyond the baseline. Without GEF funds there will be lost opportunities to nurture entrepreneurs to scale, to further reduce emissions and to strengthen private sector partnerships. With approximately 70 new cleantech enterprises supported and each saving between 1,800 and 3,600 tCO₂e by 2030, the cost effectiveness of the GEF funds is between 5 to 10 USD/tCO₂e (see the following section for more detail on avoided GHG emissions).

120. Regarding co-financing, the project will receive in-kind and cash support from different public and private institutions highlighting the high level of ownership and interest from national stakeholders. Even though the GEF contribution will act as the trigger for the technology innovation and entrepreneurship in Nigeria, the additional co-financing is essential to successfully reach the project objectives. GEF assistance is essential to encourage and ensure the required stable co-financing particularly by attracting foreign and domestic investments for employing advanced technologies with all related benefits.

6) Global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF)

121. The long-term lifetime of cleantech innovations introduced in the market and the strengthened and interconnected CIEE will be reflected in multiple GEBs including, primarily, GHG emission reductions. The GEBs achieved through the implementation of this project will be identified and quantified on the basis of the innovations marketed and their uptake. Given the nature of the project, the low-carbon products and services developed and commercialized will contribute to the GEBs beyond the project life and scope.

i. Background on GCIP's target for avoided GHG emission for the GCIP Framework (GEF ID: 10408)

122. In order to ensure that GCIP supports innovative cleantech solutions with high impact potential, and delivery of GEBs at the programme level, a target approach is applied. To achieve cost effectiveness of GEF funding for GEBs, a value of 5 to 10USD/tCO₂e avoided is targeted (corresponding to an overall cost per tonne at programme level of USD38-76/tCO₂e). This means that, with GEF funding of almost USD 18 million, GCIP Framework aims to deliver between 1.8 million and 3.6 million tonnes CO₂e by 2030. As 10 countries will be a part of the overall GCIP Framework, almost 1000 semi-finalists are expected to be supported through the accelerators in all countries across the programme. Therefore, the target for the minimum projected potential of avoided GHG emissions per enterprise is between 1,800 to 3,600 tCO₂e by 2030.

123. To put this minimum target approach in context, a review of previous GCIP alumni GHG reductions was carried out. The review, looking at three sources of information, shows that the proposed avoided emission target is plausible and quite conservative. It also demonstrates the huge likely variety of emission reductions due to the different country contexts and technology innovations. The review also shows that where an innovation has real market potential, the avoided GHG emissions

are very significant and that the GCIP approach has experience in successfully identifying and accelerating such companies.

- a. Firstly, a survey carried out by UNIDO of 14 of its GCIP alumni showed that these companies had already generated 600,000 tCO₂e savings by 2017 and projected to generate over 4.8 million tonnes of GHG emission savings by 2020 (or 340,000 tCO₂e/year per company).
- b. Secondly, the Independent Evaluation Office (IEO) report of eight GCIP projects included a sample of alumni in its annex with projected avoided emissions between zero (either they had not been estimated yet or the cleantech was not related to CCM) and 5 million tCO₂e per year. A median for emission reductions that were reported (which occurred only for a small proportion of the total alumni, namely 60 out of 900) is 88 tCO₂ per year. If alumni with estimated reduction are included (34) in the calculations, then the median increases to 12,200 tCO₂/year with the interquartile range from 350 tCO₂ to 81,000 tCO₂/year.
- c. Thirdly, the Mission Innovation Framework for Assessing Avoided Emissions, in which a number of GCIP alumni (selected as part of Mission Innovation's 100 innovative clean energy solutions in 2019) were included, shows for example that Atomberg Technologies (which manufactures an energy efficient fan) is estimated to avoid 5 million tCO₂e/year by 2030. In turn BEAD, an energy management AI optimization enterprise, is estimated to avoid 319 million tCO₂e/year by 2030. These two companies were also covered by the IEO report mentioned above, but Atomberg had not provided an estimate (so was assumed zero) and BEAD's estimate was 5 million tCO₂e/year.

124. A ten-year horizon was selected for estimating the GHG emission savings. However, assessing a priori the GHG reduction potential of cleantech solutions (products, services) to be identified through GCIP has proven to be difficult, as by definition GCIP encourages open innovation, and the types and categories of cleantech products and services that will be supported can only be determined after the selection of semi-finalists as part of the GCIP Accelerators. Also, expected difficulties include attribution of the incremental GEBs of the cleantech solutions to the GCIP support. However, the design of past GCIP assumed abatement costs (for GEF funding) of between 0.68 USD/tonne CO₂e in Turkey to 29.77 USD/tonne CO₂e in Armenia. As the targets were exceeded in those countries, and as the proposed benchmarks are within the same range, they are considered realistic and conservative.

125. The target of between 5 to 10 USD/tCO₂e avoided, that is set for the GCIP Framework, translates into avoided GHG emissions per enterprise of between 1,800 to 3,600 tCO₂e. The provided target range will enable the GCIP country child projects to support a mix of technologies with different CO₂ emission reduction potentials, and in particular allow innovations into the GCIP Accelerators that a) have a relatively low CO₂ reduction potential, but a considerable demand and market growth potential (that can lead to amplification of GEBs), as well as b) that create multiple benefits (including socio-economic, such as job creation, gender mainstreaming, etc.).

126. In addition, indirect GEBs facilitated through the CIEE strengthening are also expected. In particular, indirect GHG emission reductions could result from: strengthened capacity of institutions

and human resources to support commercialization and uptake of cleantech solutions at large; investments mobilized for cleantech solutions at large due to reduced risk perceptions; as well as longer-term emission reductions from behavioural change. An estimated factor of 5 is chosen to provide a projection for indirect GEBs. Where possible, efforts will be made to verify the indirect GHG emission reductions achieved at national and global levels through terminal evaluations.

127. This target-based approach for the estimation of GHG emission reductions will be applied across all 10 child projects under the GCIP Framework (GEF ID: 10408). A GCIP methodology for the calculation and monitoring of GHG reduction potential will be developed by the GCIP Global (GEF ID: 10461) in the first year of the project implementation, as well as it will be shared with all GCIP partner countries to enable coherent approach. In order to ensure that the desired GEBs are cumulatively delivered by the GCIP Framework, appropriate measures will be applied across the programme. They will entail placing a benchmark for the estimated GEB to be delivered by the cleantech innovations at the GCIP Accelerator application stage, so that only solutions with sufficient impact potential are supported. If the projected GHG emission reduction does not meet the minimum requirement set, the innovation will not be accepted into the GCIP Accelerators.

ii) Estimation of Global Environmental Benefits of the GCIP Nigeria

128. The three cycles of GCIP Nigeria Accelerator are expected to support 75 enterprises (semi-finalists), as a result of which the avoided direct GHG emissions over a ten-year horizon are estimated at between 135,000 and 270,000 tCO₂e of direct GHG emission savings and 675,000 and 1,350,000 tCO₂e of indirect GHG emission saving (based on an estimated factor of 5). The lower range has been used as input to the GEF corporate core GHG indicator target (indicator 6) as a conservative estimation.

129. To facilitate the achievement of GEBs, there will be awareness raising and promotional activities during the call for applications to the GCIP Nigeria Accelerator, and also the applicants will be supported in calculating GHG emission reduction potential of their innovations. Additional training on GHG monitoring and calculation will be provided to all semi-finalists.

130. In addition to the substantial mitigation of CO₂ emissions, it is expected that other environmental co-benefits will result from this project. These are likely to include reduction in waste, material use, air pollutants (e.g. NO_x, SO_x, PM and CO), improved water quality, and reduced forest degradation among others. Some of these benefits will be delivered by the support of clean cooking solutions.

7) Innovativeness, sustainability and potential for scaling up

Innovativeness

131. The GCIP Nigeria is unique in its multi-tiered and multi-stakeholder approach to fostering the expansion of start-ups and SMEs into innovative cleantech markets. In comparison with other incubator or accelerator programmes, the GCIP Nigeria does not only focus on enterprises, but also on

strengthening the entire CIEE by building capacity in national institutions, creating strong linkages between the most relevant ecosystem players, and by raising awareness of the society at large.

132. Importantly, the GCIP Nigeria supports entrepreneurs across the whole innovation value chain to develop demand-driven and investment-ready cleantech solutions that will have an extensive positive impact in the global markets. Additionally, GCIP Nigeria enables achievement of not only environmental, but also socio-economic benefits, in that it for example promotes gender equality and women's empowerment.

Sustainability

133. The GCIP Nigeria is designed with the view to ensuring self-sufficiency and long-term sustainability of the acceleration and coordination mechanisms established in its framework through: 1) Enhancing the capacity of CcHUB to provide the Pre-Accelerator, Accelerator, Advanced Accelerator, and Post-Accelerator services in a self-reliant manner. More specifically, while CcHUB is strongly supported in several activities by the global PEEs in the first year, the assistance is gradually phased out in the subsequent years; therefore, CcHUB is expected to run all activities and coordinate with relevant stakeholders fully autonomously by the end of the project; 2) Building capacity of local experts (trainers, mentors, judges), so that they are able to offer their services on market terms (independently from GCIP Nigeria) to entrepreneurs not supported by the project. Collaboration with Government stakeholders such as FMST and SMEDAN is particularly important; 3) Linking CIEEs across countries and creating incentives for cleantech start-ups/SMEs, policy makers, industry associations, etc. to formalize their commitments, and in particular to sign bilateral cooperation agreements that would guide their cooperation for the next years, without further involvement of GCIP Nigeria; 4) Providing several tools that can be referred to and used by different CIEE stakeholders beyond the lifetime of GCIP Nigeria, such as guidebooks, systems, tools, guidelines, website, etc.; 5) Guiding entrepreneurs to incorporate sustainability considerations in their business models, such as meeting the needs of the present generation without compromising the ability of the future generations to meet their own needs; as well as ensuring business resilience to external shocks and stable growth potential (through a thorough analysis of the demand, competition, etc.); 6) Facilitating early-stage investment, and thus enabling the entrepreneurs to bridge the valley of death in their scale-up journey, which in turns mitigates risks for future investors and increases chances for further rounds of finance, including commercial lending; 7) Creating the GCIP Nigeria section of the global GCIP web platform to be used also after the project lifetime (as a market place, where entrepreneurs will continue to showcase their solutions, investors will continue to scout for new innovations, policy makers and regulators will continue to interact). In fact, the web platform will catalyse connectivity between different stakeholders in the long term; 8) Working closely together with other GCIP partner countries, and thus enabling GCIP Nigeria to be part of a global and recognized brand that is expected to last in the future.

134. A GCIP Nigeria sustainability and exit strategy will be developed based on a framework delivered by the GCIP Global, and it will among other include specific considerations related to a formal project handover process and the point in time when UNIDO's exit takes place (based on targets achieved by the GCIP Nigeria). **The role of knowledge management is crucial: it**

underpins GCIP's sustainability through building capacity, publishing and sharing standards, methodologies, practices and resources and providing the platform for ongoing communication.

Potential for scaling up

135. The GCIP Nigeria bears a considerable potential for local and regional expansion in terms of cooperation and networking, as well as sectoral expansion through inclusion of additional cleantech categories. For example, through close relationship with other GCIP partner countries, the GCIP Nigeria stakeholders are enabled to form international partnerships and to enter foreign markets. Furthermore, through continuous extension of GCIP into additional countries, these opportunities are continuously augmenting. **Knowledge management integral to GCIP will assist in the scaling up by providing the models and resources to easily replicate in different sectors and regions.**

136. Furthermore, the experience gained by CcHUB, FMST and REA during the implementation of the proposed project will be shared with other countries in the region to replicate the programme in these countries. With the Nigerian population accounting for more than 50% of the total ECOWAS population, this project will also significantly impact the region. The success already achieved through cooperation within the ECOWAS region in promoting energy efficiency and harnessing renewable energy resources indicates the potential experience-sharing and collaboration that could occur.

[1] The World Bank

(<https://data.worldbank.org/indicator/SP.POP.TOTL?end=2019&locations=NG&start=2017>)

[2]

https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/files/documents/2020/Jan/un_2017_world_population_prospects-2017_revision_databooklet.pdf

[3] <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=NG>

[4]

https://www.opec.org/opec_web/en/about_us/167.htm#:~:text=The%20oil%20and%20gas%20sector,country%20joined%20OPEC%20in%201971.

[5] [https://www.iea.org/data-and-](https://www.iea.org/data-and-statistics?country=NIGERIA&fuel=Energy%20supply&indicator=TPESbySource)

[statistics?country=NIGERIA&fuel=Energy%20supply&indicator=TPESbySource](https://www.iea.org/data-and-statistics?country=NIGERIA&fuel=Energy%20supply&indicator=TPESbySource)

[6] ALIYU A., RAMLI, A. and SALEH, M., 2013. Nigeria electricity crisis: power generation capacity expansion and environmental ramifications. *Energy*, 61, pp354-367.

[7] <https://www.worldbank.org/en/news/press-release/2020/06/23/nigeria-to-keep-the-lights-on-and-power-its-economy>

- [8] <http://documents1.worldbank.org/curated/en/688761571934946384/pdf/Doing-Business-2020-Comparing-Business-Regulation-in-190-Economies.pdf>
- [9] <https://www.iea.org/countries/nigeria>
- [10] <https://www.cleancookingalliance.org/country-profiles/focus-countries/3-nigeria.html>
- [11] <https://www.worldbank.org/en/results/2019/04/18/building-climate-resilience-experience-from-nigeria#:~:text=The%20country%20is%20highly%20vulnerable,sand%20storms%20and%20heat%20waves>
- [12] For simplicity's sake, the term SMEs will be used to include also MSMEs.
- [13] https://www.doingbusiness.org/content/dam/doingBusiness/media/Subnational-Reports/DB_in_Nigeria_2018_w-bookmarks.pdf
- [14] <https://www.doingbusiness.org/en/data/exploreconomies/nigeria>
- [15] <https://www.pwc.com/ng/en/assets/pdf/pwc-msme-survey-2020-final.pdf>
- [16] <https://absrelisresearchonlinecom.files.wordpress.com/2019/09/ministry-of-science-and-technology-draft.pdf>
- [17] <https://statehouse.gov.ng/policy/economy/economic-recovery-and-growth-plan/#:~:text=The%20Economic%20Recovery%20and%20Growth,the%20nation's%20most%20prices%20assets>
- [18] Exchange rate as of 14th January 2020 (1USD=381.2NGN).
- [19] <https://www.spglobal.com/platts/en/market-insights/videos/market-movers-europe/011121-winter-fundamentals-covid-uncertainties-platts-jkm-lng>
- [20] <https://www.bloomberg.com/news/articles/2020-05-09/oil-crash-spurs-nigeria-to-end-fuel-subsidies-risk-backlash?sref=Oz9Q3OZU>
- [21] <https://media.premiumtimesng.com/wp-content/files/2020/06/ESC-Plan-compressed-1.pdf>

1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.

137. Details on the specific regions will be determined during Year 1. Please see a map of the country in Annex D. While the project is targeted at beneficiaries (entrepreneurs and all relevant CIEE stakeholders, such as universities, policy makers, financiers, and R&D institutions, etc.) from all over the country, the main project activities will be conducted in the Abuja and Lagos. This is due to benefits resulting from a relatively dense concentration of relevant stakeholders there, and well-

developed infrastructure. In addition, there will be regional technology brokerage and Investor Connect events organized in other major cities (the specific list will be defined during project implementation). The project boundary will not overlap any other country's territory.



Figure 5: Map of the Federal Republic of Nigeria and project locations.

Source: www.britannica.com

1c. Child Project?

If this is a child project under a program, describe how the components contribute to the overall program impact.

138. The Nigeria child project will engage with the global framework to ensure synergies, knowledge sharing, learning, consistence and efficiency as well as additional support to enable national SMEs to scale globally. The outputs and outcomes from the national child project will contribute to the overall project impact through the number of cleantech innovations, entrepreneurs and SMEs supported, finance mobilized and the resulting green growth, jobs created and GHG emission reductions.

139. Figure 5 shows how GCIP Global will support the child project and how the national child project will feed into the global programme. The project will also collaborate with NGIN, and CTG, which are both official partners within the GCIP Global. It is also expected that the Nigeria child project will collaborate with the Private Financing Advisory Network (PFAN), a UNIDO-hosted initiative with expertise in supporting the technology innovation value chain. Engagement with the global framework is integrated into all components of the project and will include all stakeholders. It includes the following main activities:

a. Methodologies, guidelines, tools for acceleration, and training systems: these will be developed and harmonized at the global level and the national project will focus on adapting these to the national circumstances. Experiences in applying the tools and systems across child project will be used to improve the tools. The global accelerators and global forums will help national enterprises to bring their innovations to the global stage and link with entrepreneurs and from other countries to explore opportunities for joint co-innovation, joint ventures and mobilizing investments.

b. Enterprise's growth support, investment facilitation and cross border growth support: through GCIP Global, national cleantech SMEs will be supported to expand their businesses to other countries. In addition, the global framework will provide investment facilitation services to national enterprises so that they can be linked to investors (impact, venture, angels, and commercial) at regional and global levels. Furthermore, the global framework will provide support to the national child project in establishing market enabling frameworks to promote investments in cleantech.

c. Targeted training, innovation policy support, knowledge management, and peer-to-peer networking and learning: The global framework will provide methodologies for training national institutions, development of policies on cleantech innovation and entrepreneurship, and document best-practices. By linking policy makers, institutions, financiers and entrepreneurs across countries, the global framework will facilitate knowledge exchange and documentation of best-practices and peer-to-peer networking and learning.

d. Program standards, communication and advocacy, and monitoring and evaluation: to promote coherence and coordination across all GCIP countries, the global framework will develop program guidelines that will be applied by the countries. Through the global web platform that will be developed by the global framework, communications and advocacy will be promoted across countries. In addition, the global framework will develop methodologies for impact tracking and monitoring and evaluation that will then be applied across countries.

GCIP Framework (10408)

Pillar 1: Transforming early-stage cleantech innovations into commercial enterprises

1.1 Early-stage cleantech innovation enterprises accelerated towards commercialization

- Methodologies, guidelines, tools and training systems for cleantech innovation and entrepreneurship accelerators developed and disseminated to GCIP partner countries
- Methodology for training and certifying cleantech innovation and entrepreneurship experts (trainers, mentors, judges) developed and disseminated to GCIP partner countries
- Four cycles of the global cleantech innovation and entrepreneurship competition based accelerator conducted in 10 countries (including centrally rung Global Accelerator)
- Four global innovation and entrepreneurship forums to showcase GCIP enterprises and link to investors organized

1.2 SME access innovative financing opportunities to grow and scale their business

- Investment facilitation support provided to high impact cleantech enterprises in the growth and expansion stages
- Mentorship and partnership support provided to cleantech enterprises for cross-border market expansion
- SMEs leverage funding to grow and scale-up their enterprises

Pillar 2: Cleantech ecosystem strengthening and connectivity

Synergistic partnerships and knowledge exchange among cleantech ecosystems and actors

2.1 Cleantech innovation and entrepreneurship ecosystems strengthened at national levels and connected at the global level

- Tools and guidelines for national capacity building for technology innovation and entrepreneurship institutions, industry associations and business platforms developed and disseminated
- Policy recommendations and strategies for cleantech innovation and entrepreneurship developed and disseminated at national and global levels
- Knowledge creation, exchange and dissemination across GCIP countries to promote learning

Pillar 3: Programme coordination and coherence

Strategic guidance for efficiency and effectiveness in achieving impact among GCIP countries

3.1 Standards and programmatic coherence to improve efficiency and sustainability of GCIP interventions

- Programme level internal guidelines developed and implemented for programmatic coherence across countries
- Programme level knowledge management,

GCIP Nigeria

Component 1: Transforming early-stage innovative cleantech solutions into scalable enterprises

1.1 Early-stage cleantech innovations are accelerated

- 1.1.1 The GCIP guidebooks are adapted for the GCIP Nigeria (including mapping of cleantech solutions, identification and prioritization of actions in accordance with national strategies for climate change and energy)
- 1.1.2 Pool of cleantech innovation and entrepreneurship experts (trainers, mentors, judges) is trained and certified to support the GCIP Nigeria Accelerator
- 1.1.3 Three cycles of the annual competition-based GCIP Nigeria Accelerator are conducted
- 1.2 Start-ups and SMEs are supported through advanced and gender-responsive business growth and investment facilitation services
- 1.2.1 Targeted business growth support services are provided to selected cleantech enterprises towards commercialization
- 1.2.2 Enterprises are connected to financing opportunities and provided with tipping-point investment facilitation support
- 1.2.3 Mentoring and partnership support is provided to cleantech enterprises for global market expansion
- 1.2.4 Investment is mobilized to deploy innovative cleantech solutions across various sectors

Component 2: Cleantech innovation and entrepreneurship ecosystem (CIEE) strengthening and connectivity

2.1 The CIEE in Nigeria is strengthened and interconnected

- 2.1.1 Institutional capacity building of the CIEE actors is conducted
- 2.1.2 Cleantech innovation and entrepreneurship policies, regulations and recommendations are developed
- 2.1.3 Linkages, collaboration, and synergies across CIEEs are promoted

Component 3: Programme coordination and coherence

3.1 Efficiency and sustainability of the GCIP Nigeria is ensured through programme coordination and coherence with other GCIP country projects

- 3.1.1 The GCIP internal guidelines for project management teams are adapted and implemented

Figure 6: Interrelation between the GCIP Framework and GCIP Nigeria

2. Stakeholders

Please provide the Stakeholder Engagement Plan or equivalent assessment.

140. UNIDO is the implementing agency of the project and, as such, it is accountable to GEF and other funding sources to be provided by the public and private sector. Inclusive stakeholder consultations, that took place during the project design period (e.g. see Annex L - Evidence of Stakeholder Engagements), paved the way for strong involvement and commitment from all relevant actors. This will continue throughout the project, as the facilitation of coordination between all CIEE stakeholders is a key objective of the GCIP Nigeria. A Stakeholder Engagement Plan (SEP) was developed (Annex K) to outline the strategy for engaging with stakeholders, including a range of activities and approaches, from information sharing and consultation, to participation, negotiation, and partnerships. The SEP also sets out resources and responsibilities as well as any related monitoring and reporting requirements.

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement.

141. The Stakeholder Engagement Plan (SEP) is designed to enable effective engagement of various stakeholders and to maintain dialogue with them throughout the lifecycle of the GCIP Nigeria, including information sharing and consultation, participation, negotiation, and partnerships. The SEP also seeks to ensure that the views of women and other underrepresented stakeholder groups (e.g. youth) are captured. To achieve the above-mentioned objectives, the SEP also sets resources and responsibilities, as well as monitoring and reporting procedures. In summary, the SEP:

- ? Identifies stakeholders directly or indirectly involved in the project, and the nature and scope of their interests;
- ? Outlines how and when stakeholders should be consulted;
- ? Guides how relevant information should be disseminated;
- ? Captures responsibilities and resource needs to ensure that the stakeholder engagement is meaningful;
- ? Sets monitoring and reporting procedures.

An overview of the stakeholders as well as their foreseen roles in the project is included below. All the stakeholders will be consulted during project execution by the relevant national executing entity. Depending on the COVID-19 situation and the location of the various stakeholders, the engagement will be either virtual (email, Skype, Zoom) or in-person. The exact modality and timeline of engagement as well as the best way of disseminating information will be identified during project implementation.

Table 11: Overview of stakeholders in GCIP Nigeria

Stakeholder	Current role in Nigeria	Envisaged role in GCIP Nigeria
Federal Ministry of Science and Technology (FMST)	FMST role is to facilitate the development and deployment of science and technology apparatus to enhance the pace of socio-economic development of the country.	FMST will be the chair of the Project Steering Committee (PSC). FMST will also be responsible for the execution of certain activities of the project (mostly within Component 2).
CcHUB	CcHUB is a social innovation center dedicated to accelerating the application of social capital and technology.	CcHUB will be one of the three executing agencies during project implementation. It will be responsible for the execution of activities in parallel to FMST and REA. In particular, CcHUB, in light of its extensive experience with running accelerators, will be responsible for most of Component 1.
Rural Electrification Agency (REA)	The role of REA is to catalyse the off-grid market to increase electricity access in rural and underserved communities. It does so by both public and private sector engagement.	Building on its extensive experience in rural electrification, in particular with the Rural Electrification Programme (REP) and the Rural Electrification Fund (REF), REA will be the entity responsible for the design and operation of the financial mechanism designed to support SMEs which solutions improve energy access in underserved regions.

Federal Ministry of Environment (FMEnv)	The FMEnv works to ensure environmental protection, natural resources conservation and sustainable development. The GEF Operational Focal Point (OFP) lies within the FMEnv.	The FMEnv will be part of the Steering Committee and its expertise in sustainable development will feed into the regulatory and policy framework of the project.
National Board for Technology Incubation (NBTI)	NBTI is Nigeria's central agency supporting small business development. The office serves to help new companies begin operations in Nigeria by linking management, financial capital, technology, labor and resources to build commerce.	NBTI will be part of the Steering Committee and its expertise will feed into the relevant project activities.
Federal Ministry of Industry, Trade and Investment	The Federal Ministry of Trade and Investment was created to help diversify the resource base of the economy by promoting trade and investment with special emphasis on increased production and export of non-oil and gas products.	The Federal Ministry of Industry through its role of policy formulation and regulation of the industrial sector will formulate regulatory policy framework to help mainstream the utilization of innovative clean energy ecosystem to increase the competitiveness of industries, SMEs and Start-ups
Energy Commission of Nigeria (ECN)	The ECN has the role to carry out overall energy sector planning and policy implementation, promote the diversification of the energy resources (including the introduction of new and alternative energy resources).	FMST and ECN, through its research centres, will support the research and development of clean energy technologies in several institutions and centres of excellence in Nigeria. Thus, they will be invited to participate vigorously in the execution of this project.
Bank of Industry (BOI)	The BOI mandate is to provide financial assistance for the establishment of large, medium and small projects as well as the expansion, diversification and modernisation of existing enterprises; and rehabilitation of existing ones.	FMST and BOI will take the lead in sustaining and expanding the Cleantech Competition and Accelerator programme after the completion of the project cycle through the existing annual technology expo. The BOI will be part of the PSC.

Universities and/or Academic institutions	N.A.	The project will also closely cooperate with the University of Benin, Usmanu Danfodiyo University Sokoto and University of Nigeria Nsukka, Federal University of Technology Minna, Federal University of Technology Akure, University of Ibadan and the Obafemi Awolowo University Ile-Ife to encourage participation and increase awareness among university students. Some of these institutions will be involved in the Entrepreneurship Train-the-Trainer Programme organized under Component 2.
Small and Medium Enterprises Development Agency of Nigeria (SMEDAN)	SMEDAN has the overarching role of stimulating, monitoring and coordinating the development of the SMEs sub-sector. Activities span from articulating policy ideas to facilitating development programmes.	SMEs and Start-ups will be the most critical stakeholders and will be the project's primary beneficiaries. SMEDAN will provide the database of SMEs and Start-ups in the country and assist with the identified clusters to promote the GCIP.
CSOs/NGOs	N.A.	It is expected that GCIP alumni will actively collaborate with the participants of the other cycles through the post-competition services offered such as, serving as mentors and GCIP ambassadors. There is a huge pool of national innovators available from the first annual technology and innovation expo organized by FMST.
Private Sector/Investors/Private Banks	N.A.	The private sector will provide the financial resources required to support innovative technology into a product and market entry through the investors connect event that would be organized during implementation. Tony Elumelu Foundation (TEF) and Dangote Foundation would be approached to support future technology and innovation expos. Local banks would also be approached to assess the possibility of providing financing for start-ups and SMEs. Notably, the First City Monument Bank (FCMB), which, by the end of 2021, will receive a \$50 million loan from the AfDB to increase lending to female-owned businesses and other local small and medium-scale enterprises (SMEs).

ECOWAS Centre for Renewable & Energy Efficiency (ECREEE)	The ECOWAS Centre for Renewable & Energy Efficiency (ECREEE) was established in July 2010 with technical support from UNIDO and funding from the Austrian Development Cooperation (ADC) and the Spanish Agency for International Development Cooperation (AECID). Now an independent legally established entity, ECREEE's objectives are to assist the ECOWAS countries to improve energy access, energy security and climate change mitigation by promoting an enabling environment for RE&EE investment and industry.	Within GCIP Nigeria, ECREEE could promote targeted interventions in the areas of capacity development, policy support knowledge management and awareness-raising as well as by creating investment and business opportunities for local industries and businesses.
Associations promoting gender equality and women's empowerment, Gender Focal Points and Gender Experts		Relevant women entrepreneurs, gender experts, associations that promote GEEW and gender focal points will be involved in all activities of the project. The project will deliberately mobilize interest from women entrepreneurs by targeting the involvement of their associations in the project process. This will be done by taking into consideration the cultural context that exists in Nigeria. That way, the project would adequately address the gender imbalances in SMEs and provide a solid basis for gender mainstreaming in clean technology innovations.

Table 12: Overview of stakeholder groups and engagement details

Stakeholder group	Purpose of engagement	Means of engagement	Responsibility	Frequency
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Stakeholders to be affected directly by the results of project implementation	Entrepreneurs: GCIP Nigeria current and potential participants	To be encouraged to participate in the GCIP Nigeria, to provide feedback, to promote GCIP Nigeria	Project website, training, webinars, workshops, acceleration support, contact with mentors/coaches, investment facilitation, networking, project reports and flyers, e-newsletter	CcHUB	Continuous
	PSC members: FMST, NBTI, REA, FMEnv, BOI	To effectively and efficiently perform their role as GCIP Nigeria PSC members	Project website, training, webinars, capacity building and policy workshops, policy support, links with other GCIP country projects, project reports and flyers, e-newsletter	CcHUB/FMST	Continuous
	Potential investors: Venture Platform, GreenHouse Capital, SPARK Capital, Growth Capital Fund, etc.	To consider investing in start-ups and SMEs supported by the GCIP Nigeria	Project website, training, webinars, Investor Connect, events, curated introductions, project reports	CcHUB	Continuous

	University of Benin, Usmanu Danfodiyo University Sokoto and University of Nigeria Nsukka, Federal University of Technology Minna, Federal University of Technology Akure, University of Ibadan and the Obafemi Awolowo University Ile-Ife	To participate in the Entrepreneurship Train-the-Trainer Programme and to promote GCIP Nigeria among students and youth	Project website, training, webinars, workshops, networking, project reports and flyers, e-newsletter	FMST	At least two cycles of the Entrepreneurship Train-the-Trainer Programme, continuous promotion
Stakeholders to be affected indirectly by the results of project implementation	Business associations: Women in management, Business and Public Service (WIMBIZ), National Association of Small and Medium Enterprises (NASME), etc	To provide feedback and advice, to promote GCIP Nigeria among their members, to support GCIP Nigeria outreach activities	Project website, stakeholder consultation workshops, e-newsletters, meetings, reporting	CcHUB	Continuous
	Civil society	To provide feedback on the design and results of GCIP Nigeria, including its environmental and socio-economic impacts and effectiveness of mitigation measures		CcHUB	Twice a year

Stakeholders that participate in the project management, including NGIN, PFAN, CTG, UNIDO	To provide feedback on project implementation (including suggestions for improvement)	<p>Meetings, trainings, emails, phone calls, exchange of minutes, memos and official letters, project website;</p> <p>Two-way interaction between GCIP Global and GCIP Nigeria on development of guidebooks and guidelines, training material and capacity building, global advocacy, coordination and coherence, international forums, knowledge products, etc.</p>	CcHUB/FMST	Continuous
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Stakeholders involved in the project implementation as contractors, mentors, judges, policy makers, financiers, and knowledge partners	<p>Ministries: FMST, FEMnv, Federal Ministry of Industry, Trade and Investment (FMITI)</p> <p>Other public institutions: Energy Commission of Nigeria (ECN), NBTI, BOI, REA, Small and Medium Enterprises Development Agency of Nigeria (SMEDAN)</p>	To be Informed and to inform, to be offered capacity building activities, to develop conducive policy and regulations, to communicate impacts of GCIP Nigeria	Meetings, training, workshops, official letters, policy development, email, website, reporting, e-newsletter	CcHUB/FMST	Continuous
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	Business associations: Women in management, Business and Public Service (WIMBIZ), National Association of Small and Medium Enterprises (NASME), etc. R&D institutions / clusters / hubs: Tony Elumelu Foundation (TEF), Dangote Foundation Other incubators (SPARK)	To support the identification of and outreach to potential entrepreneurs and forum & workshop participants To provide feedback on project implementation, to identify synergies and investment opportunities	Meetings, workshops, email, website, e-newsletter	CcHUB	Continuous
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Select what role civil society will play in the project:

Consulted only;

Member of Advisory Body; Contractor;

Co-financier;

Member of project steering committee or equivalent decision-making body;

Executor or co-executor;

Other (Please explain)

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

142. Gender equality is a fundamental human right. While some progress has been achieved towards gender equality and women's empowerment globally, women continue to suffer from discrimination and violence in some parts of the world. Gender issues need to be addressed by creating equal employment and capacity building opportunities, as well as social infrastructure and safe working conditions responding to the specific needs of women. The importance of gender equality and women's empowerment, particularly women's economic empowerment, is at the core of UNIDO's mandate. Commitment of UNIDO towards gender equality and women's empowerment is demonstrated in its policy on Gender Equality and the Empowerment of Women (2019), and the UNIDO Strategy for Gender Equality and the Empowerment of Women (2020-2023). UNIDO has also developed an operational energy-gender guide to support gender mainstreaming within its sustainable energy initiatives.

143. Gender equality enhances economic growth, reduces household poverty, and enables human development. Women's entrepreneurship can directly contribute to the economic empowerment of women and is often seen as crucial for increasing the quality of life of women in the developing world, as well as a trigger for changes of the status-quo of women and for re-addressing the balance of power within the family.

144. The focus of dialogue on gender and cleantech is shifting from women being identified as part of the vulnerable groups to them becoming key agents of change as consumers, entrepreneurs, distributors and decision makers across the value chain. Women and their organizations have the potential to play a critical role in contributing to the SDGs. A large number of women are engaged in entrepreneurship, with a women ownership of 8-43% of all SMEs in emerging markets (IFC and McKinsey, 2011)[1]. Nevertheless, the enterprises led by women in developing countries tend to be concentrated on a relatively narrow range of activities. Moreover, they are often very energy-intensive, rely on biomass fuels and have disproportionately low rates of return compared to the activities undertaken by men.

145. In 2019, Nigeria's human development index (HDI) was 0.539. The country ranked 161st out of 189 countries and territories, positioning itself in the low human development category[2]. However, it must be stated that, thanks to national efforts to reduce poverty and improve the social and economic well-being of the population, Nigeria's HDI value increased by 16% between 2005 and 2019, from 0.465 to 0.539. Although in general both women and men benefit from higher human development, more data and analyses are needed to assess if and how different these benefits are for both groups.

146. The Global Gender Gap Index (GGGI) published by the World Economic Forum enables a cross-country comparison of gender equality. It measures gender-based gaps in resources and opportunities independently from a country's level of development. The GGGI takes into consideration four basic categories: economic participation and opportunity, educational attainment, health and survival, and political empowerment. In 2020, Nigeria received a score of 0.635, resulting in a ranking of 128th out of 153 countries globally. Nigeria performs relatively better in offering comparable

economic opportunities to both men and women than it does on the other dimensions. The country has improved considerably in recent years and has closed 73.8% of its Economic Participation and Opportunity gender gap to date (38th globally). Labor force participation, wages and income are low for both men and women, which has led to relatively positive gender parity outcomes that are however unsatisfactory from a human development point of view. Performance for educational attainment, health and survival, and political empowerment remain among the lowest across the countries considered. The score is particularly low in the latter, reflected by the fact that only 3.4% of parliament members are women.

147. The SMEs are a key foundation of Nigeria's business sector and woman participation rate is considerable: it is estimated that about 40% of Nigerian entrepreneurs are women. However, women currently operate less than a fourth of the formal SMEs in the country[3]. The only sectors where women in Nigeria have equal or marginally higher representation than men, in terms of employment, are the education, health & social work (respectively at 53% and 56%).

148. Studies show that women entrepreneurs are more likely to face challenges in upscaling businesses than their male counterparts. One of the main hurdles is the equal access to financing: the gender financing gap is one of the most high-profile and persistent problems in entrepreneurship. Start-ups with at least one female founder receive a disproportionately small share of the flow of global venture capital[4]. In 2020, a group of researchers[5] showed that accelerators may actually be counterproductive, helping women-led businesses raise more debt and not equity ? as opposed to men-led businesses. This was ultimately conducted to investor bias, rather than the intrinsic quality of the enterprises.

149. In order to help tackle financial inclusion of women, steps have been taken by public as well as private organizations in Nigeria: (i) the BOI has special funds targeted at women; (ii) some commercial banks also have special credit programmes and initiatives aimed at providing support, capacity development and funding to women-owned businesses; (iii) the N90 million Business Development Fund for Women (BUDFOW), a special fund by the Federal Ministry of Women Affairs and Social Development (FMWASD) provides soft loans to women entrepreneurs. Also, worth flagging is the presence of support networks like Women in Management, Business and Public Service (WIMBIZ), a non-profit organization that implements programs that aim to achieve a greater representation of women in leadership positions in the public and private sector. Globally, Goldman Sachs 10,000 Women is an initiative that fosters economic growth by providing women entrepreneurs around the world with a business and management education, mentoring and networking, and access to capital.

150. Gender mainstreaming will be central in GCIP Nigeria. A guiding principle of the project is to ensure that both women and men can equally lead, participate in and benefit from the project (UNIDO Gender Policy 2019). Particularly, in the GCIP Nigeria Pre-Accelerator, Accelerator, Advanced Accelerator, and Post-Accelerator, gender-responsive activities will be streamlined to ensure the achievement of this goal. Special efforts will be made to promote equal participation of women and men, both at managerial and technical levels, as consultants, participants, entrepreneurs, mentors, etc. in all stages of project implementation. Previous GCIP projects have already shown higher levels of women's participation than other acceleration and incubation programmes, with 25% of the 900 alumni

supported to date being women-led enterprises. This project aims to continue this trend and to even increase the proportion of women beneficiaries (with a target of at least 35% women beneficiaries).

151. UNIDO's Guide on Gender Mainstreaming in Energy and Climate Change Projects, as well as a draft gender mainstreaming action plan developed in the framework of this project (Annex I) will serve as a framework for the project implementation, as to ensure that both UNIDO and GEF requirements are fulfilled. Based on the guidelines, attention will be paid to: 1) Gender-sensitive recruitment at all levels where possible, especially in selection of project staff. Gender responsive TORs will be used to mainstream gender in the activities of consultants and experts. In cases where the project does not have direct influence, gender-sensitive recruitment will be encouraged. Furthermore, whenever possible existing staff will be trained and their awareness raised regarding gender issues; 2) gender dimensions will be considered in all decision-making processes (e.g. efforts to achieve gender balance/representation in such processes), including PSC meetings; 3) sex-disaggregated data will be collected; 4) Consultations will be held with stakeholders promoting gender equality and women's empowerment, such as gender experts and organizations, CSOs and NGOs, e.g. for outreach purposes.

152. A gender analysis was carried out and a draft gender mainstreaming action plan developed (Annex I) in the framework of this project, which also influenced the ultimate project design. In the project design, UNIDO has ensured that the gender dimensions are considered, and that the project log-frame reflects key gender dimensions in the respective outputs, activities, indicators and targets. Also, a review of previous GCIP projects enabled insights into how the GCIP Nigeria can best contribute to the gender equality and empowerment of women.

153. A summary of gender mainstreaming activities integrated in this project is shown in the table below. A full list and further details are provided in the Gender Analysis Report (Annex I).

Table 13: Summary of gender mainstreaming activities in GCIP Nigeria

Stage/Activity	Gender equality measure
Project execution	Gender sensitization workshops will be conducted for all stakeholders involved in GCIP Nigeria; A gender training package (material for national capacity building on gender awareness) will be adapted for Nigeria from the training package developed by the GCIP Global; Gender focal point will be nominated within CcHUB. Gender mainstreaming targets will be included in the ToR for the national PEE and international contractors.
Training of GCIP Nigeria consultants and experts	Consultants/experts will be required to complete the 'I know gender' UN course; Mentors and judges will be provided with training on awareness raising and gender-bias; Consultants will be expected to provide evidence on how gender equality is addressed in the material they develop.

Development of GCIP Nigeria guidebooks	Guidebooks will highlight the need to make special effort to encourage women to apply for the GCIP acceleration support, including targeted outreach and gender specific communications material (e.g. videos, success stories) and explicit statements that GCIP encourages applications from women; Training materials for entrepreneurs will include topics on gender awareness; Gender equality will be addressed in the curricula and content of all training material developed for experts.
Application stage for GCIP Nigeria Accelerator	Sex-disaggregated data will be collected in application forms; There will be targeted and gender responsive outreach; It will be considered to organize events specifically targeted at connecting women technicians and engineers with businesswomen; A target of the 35% of women-led enterprise applications is set.
Selection of GCIP Nigeria semi-finalists and recruitment of experts	Stringent selection criteria will be defined that provide equal opportunities for both women and men; Women will be involved in the mentoring/training and judging processes so that more role models are created; Efforts will be made to ensure gender balance of judges; Special support will be provided to women to prepare for the competition, e.g. women could receive possibility to select their slot, so it does not overlap with their household responsibilities or could be offered safe transport to the competition venue; Evaluation methodology for selection of semi-finalists will consider the gender balance within entrepreneur's management teams and beneficiaries, as well as gender-responsive policies within their firms.
Special Awards	Special consideration will be given to the creation of a gender related prize (e.g. a prize for the women's entrepreneur of the year and/or a special award for the team with the product/service with the highest gender equality impact potential). Such a prize was offered in a number of previous GCIPs, which led to an increase in the number of women-led innovators applying for support (e.g. in South Africa, Pakistan, and Morocco the number of applications from women entrepreneurs was between 25% and 40%). In sum, the project design will acknowledge the differences between women and men considering distribution of economic activities and social roles.
Provision of support to entrepreneurs participating in the GCIP Nigeria Accelerator, Advanced Accelerator, and Post-Accelerator	Where considered necessary, GCIP will seek to remove barriers to ensure inclusion of women (e.g. segregated financial training might be offered); There is a specific training module foreseen as part of the GCIP Accelerator curriculum to address gender-related challenges and barriers; The training material will be gender-responsive (e.g. stereotypes will be avoided); Trainings will be organized at times suitable for both women and men, and recordings will be provided.
Forums/events	Women participants will be encouraged to attend the forums/events through focused outreach activities; It will be ensured that topics of interest to women entrepreneurs are included in the forum/event agendas; There will be a targeted event or panel to discuss women's entrepreneurship; Participant data will be disaggregated.
Investment facilitation	Gender lens investing principles will be applied in all investment decision making processes; Specific training material and guidelines on gender lens investment will be developed for financiers and other stakeholders.

Capacity building	Capacity building on gender equality will be mainstreamed throughout the project implementation and with regard to all stakeholders; A gender sensitization training for relevant stakeholders will be organized.
Policy support	Gender and youth empowerment policy framework will be developed.

[1] <https://www.ifc.org/wps/wcm/connect/44b004b2-ed46-48fc-8ade-aa0f485069a1/WomenOwnedSMes+Report-Final.pdf?MOD=AJPERES&CVID=kiiZZDZ>

[2] http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/NGA.pdf

[3] <https://www.pwc.com/ng/en/assets/pdf/pwc-msme-survey-2020-final.pdf>

[4] https://www.weforum.org/agenda/2021/01/gender-finance-gap-startups-accelerators-entrepreneurs?utm_source=twitter&utm_medium=social_scheduler&utm_term=Entrepreneurship&utm_content=27/01/2021+14:15

[5] <https://www.ifc.org/wps/wcm/connect/f62312ad-7ef5-4b90-b57d-6b793ae20a17/20200216-VC-WeFi-Research-Snapshot.pdf?MOD=AJPERES&CVID=n15Iznn>

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment?

Yes

Closing gender gaps in access to and control over natural resources;

Improving women's participation and decision making Yes

Generating socio-economic benefits or services or women

Will the project's results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement

Elaborate on private sector engagement in the project, if any

154. The private sector is key to the creation and expansion the market of cleantech products and services, achieving GEBs, generating jobs and supporting economic growth. The proposed project is designed in line with the GEF policy on Stakeholder Engagement that sets out the core principles and mandatory requirements for stakeholders. The private sector is a key source of co-financing, thus the project PMU will be explicitly tasked to connect the start-ups to as many potential investors (public, private, national, regional, global) through activities like Investor Connect, National Forums and the Global forums especially. Accordingly, the PMU will become a platform through which GCIP start-ups

will be connected and establish relationships with network of private investors, industry association, VCs, impact investors, etc.

155. There will be direct interactions with and support for entrepreneurs (SMEs and start-ups) offering innovative cleantech solutions. The entrepreneurs are considered as agents of change that bear the potential of instigating a market transformation. The SMEs and start-ups will be supported in the framework of GCIP Nigeria in Pre-Accelerator, Accelerator, Advanced Accelerator, and Post-Accelerator, as described before.

156. Corporate partnerships will be formed to connect GCIP Nigeria participants with various companies with the aim to create joint venture opportunities across borders, to facilitate market expansion and product co-development. This has already been successfully piloted with the Korean Financing Technology Corporation (KOTEC) with collaborations established between Korean SMEs and GCIP alumni from Morocco, Pakistan, Thailand and Turkey. Similar partnerships are expected under this project.

157. The GCIP Nigeria will also partner with corporations that seek to identify and invest in innovative cleantech. More specifically, the National Innovation Challenge, to be integrated into the GCIP Nigeria Accelerator, will connect selected corporations ? looking for concrete demand-driven solutions ? with GCIP entrepreneurs.

158. Moreover, the GCIP Nigeria will work together with financing institutions, venture capitalists, and angel investors (such as Venture Platform, GreenHouse Capital, SPARK Capital, Growth Capital Fund, Tony Elumelu Foundation, etc.) that seek to invest in cleantech solutions. In addition, Investor Connect events will be organized to connect potential financiers with entrepreneurs and to facilitate investments.

159. Furthermore, during implementation phase, expanding private sector co-financing will be sought. Due to the dynamics that characterize the private sector, it is complex to secure co-financing at a design stage.

160. The GCIP Nigeria will also cooperate with industry and business associations (such as Women in Management, Business and Public Service (WIMBIZ), National Association of Small and Medium Enterprises (NASME), etc.) to leverage their know-how, capital and interest in cleantech innovations, as well as to build their capacity. In addition, industry experts will be engaged as mentors, trainers, judges, and EIRs (Entrepreneurs in residence) to support the GCIP Nigeria Accelerator, Advanced Accelerator, and Post-Accelerator.

5. Risks to Achieving Project Objectives

Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):

161. The tables below provide an overview of the identified general risks to achieving the projects objectives, as well as specific COVID-19 risks and opportunities.

Table 14: General risk analysis

Risk	Risk level	Risk mitigation measures
Institutional Risk ? Lack of absorptive capacity by the national counterparts	Low	Capacity building of CcHUB, FMST and REA will be an ongoing process throughout the project implementation period to ensure that staff are comprehensively trained and sustainability of the programme is ensured.
Institutional Risk ? Insufficient administrative and organizational capacity of CcHUB, FMST and REA for successful execution of the project	Low	An organizational assessment - a micro assessment under the Harmonized Approach to Cash Transfers (HACT) framework - was conducted to evaluate potential execution risks for CcHUB. The results showed the risks to be low in all areas under consideration. The REA underwent a HACT assessment in October 2019, commissioned by another UN agency. The overall risk assessment resulted as low. FMST underwent an institutional assessment which confirmed the institution is suitable for executing components under GCIP Nigeria.
Institutional Risk ? Insufficient technical capacity of CcHUB, FMST and REA for successful execution of the project	Low	CcHUB was identified in consultation with key stakeholders as the most appropriate national agency to execute the project, and therefore it is assumed that it has the technical capacity for successful achievement of the project objective and associated outputs and activities. This is corroborated by the results of the HACT Assessment. The REA has been identified as the most appropriate national PEE for Output 1.2.4 thanks to its experience in administering the Rural Electrification Fund (REF) in Nigeria.
Institutional Risk ? Lack of effective coordination between various project partners	Low	Proper coordination will be ensured through the establishment of the Project Steering Committee (PSC) and ad-hoc working groups will be formed if necessary. Throughout the project implementation, support will be provided by UNIDO to ensure effective coordination between the key project stakeholders.

Operational Risk ? On-going global restrictions due to global shocks (e.g. COVID-19)	Medium/High	In case of travel and/or group meeting restrictions, the GCIP Nigeria trainings and meetings/events will be organized on-line.
Sustainability Risk ? Lack of ownership of project results and inability to source funding to continue the activities in the medium and long term	Low	A GCIP Nigeria sustainability and exit strategy will be developed based on a framework delivered by the GCIP Global, and it will among other include specific considerations related to a formal project handover process and the point in time when UNIDO's exit takes place (based on targets achieved by the GCIP Nigeria).
Political Risk ? Lack of political support to mainstream innovative cleantech	Low	The project is supported by the Government of Nigeria, and different ministries have been involved in the design of the project.
Market Risk ? Lack of interest by entrepreneurs and other stakeholders to participate in the GCIP Nigeria	Medium	Outreach and communications activities will be a key Component of the GCIP Nigeria in the lead-up to the opening of application process and throughout the project to attract entrepreneurs, potential sponsors and partners, and mentors and judges. More specifically, the GCIP Nigeria knowledge management, communication, and advocacy strategy will be developed to guide these efforts.
Market Risk ? Failure of businesses supported by GCIP Nigeria	Medium	The GCIP guidebooks (for Accelerator, Advanced Accelerator, and Post-Accelerator) will be comprehensive documents that articulate the GCIP approach to promoting cleantech innovation and entrepreneurship in developing countries. As such, they will help ensure that the businesses supported have real market potential. In particular, the GCIP Nigeria guidebooks will define eligibility requirements and selection criteria for the participants.
Financing Risks ? Incentive and financial support system are insufficient	Low	The outreach and communications activities will be targeted at, among others, financing institutions, venture capitalists, and angel investors. Moreover, the strong GCIP brand, and the direct involvement of renowned global PEEs are expected to build confidence of national and international financiers. The PSC will include at least one representative of a financing institution or an investor.

Social and Gender Risk	Low	To ensure gender inclusiveness of all project activities, UNIDO methodology for gender assessment and gender responsive communication showing the benefits of gender equality for both women and men will be applied. To mainstream women and youth entrepreneurship, adequate and gender responsive communication strategy will be implemented, and sensitization workshops will be organized. A full gender analysis was carried out and its recommendations were incorporated into the project design.
Climate Change Risks	Low	Climate change is not likely to have severe impacts on this project, with an exception for cleantech innovation applied to agriculture or dependent on biomass/water supplies. In particular, the North of the country is prone to suffer from aridity, drought and desertification, while the South is susceptible to flooding and erosion. To safeguard against climate change risks, the screening of technologies to be supported by the GCIP Nigeria will include an assessment of the climate risks with a time horizon of 30 years, and where a risk is identified it will be necessary for the entrepreneur to propose suitable adaptation or management measures. The GIZ's Climate Expert Tool could be used as a tool available to entrepreneurs in that context.
Environmental Risks	Medium	It is recognized that some technologies that could potentially be supported by the GCIP Nigeria, such as the use of blockchain, could lead to major GHG emissions unless powered entirely by renewable energy. Similarly, technologies related to energy storage can have harmful environmental impacts if not managed effectively. Therefore, any cleantech innovation supported by the GCIP Nigeria will need to meet strict environmental screening criteria. In addition, an Environmental and Social Management Plan (ESMP) was prepared (Annex J) to mitigate the environmental (and social) risks.

Table 15: COVID-19 risk analysis

Risk	Risk level	Risk mitigation measures
Technical expertise is not readily available due to the pandemic	Low	Necessary efforts will be made to identify alternative technical experts in case it is required. Planning will be flexible enough to reschedule activities onsite that require specific expertise.

Possible re-instatement of COVID-19 containment measures limits available capacity or effectiveness of project execution/ implementation	Medium	The capacity of stakeholders, and especially the beneficiaries, for remote work and online interactions will be strengthened by securing access to commercially available conferencing systems. The current design of the curriculum for entrepreneurs is based on online interactions and deliverables, using webinars and web platforms, and therefore COVID-19 is not expected to pose a significant risk to the conduct of the acceleration cycles.
Some project supporters, co-financiers or beneficiaries may not be able to continue with project execution/ implementation	Low	The situation will be closely monitored in order to find alternate supporters or co-financiers, or to readjust the list of beneficiaries if needed.
Price increases for procurement of goods/services	Medium	The project team will undertake efforts needed to find alternative providers and make sure that competitive pricing is obtained.

Table 16: COVID-19 opportunity analysis

Opportunity	Opportunity level	Opportunity optimization measures
New business opportunities created in response to COVID-19 related restrictions and measures	High	Response to COVID-19 restrictions, such as remote working arrangements and no-contact business modalities will require solutions that can be turned into new business models. These opportunities will be analyzed at the national level and shared with the GCIP Nigeria entrepreneurs. Examples of former GCIP alumni responding to new business opportunities by providing innovative solutions during the pandemic are summarized here: https://www.unido.org/stories/cleantech-innovators-take-covid-19 .

New business opportunities to build back better for business continuity and economic recovery post-COVID-19	High	By design, the GCIP Nigeria engages private sector to promote and scale up cleantech products and services, and business models with resilience to climate change (e.g. circular business models). Information on relevant new business opportunities as well as policy/regulations will be added to the GCIP Nigeria curriculum so that the entrepreneurs are fully informed of the market and policy trends.
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6. Institutional Arrangement and Coordination

Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

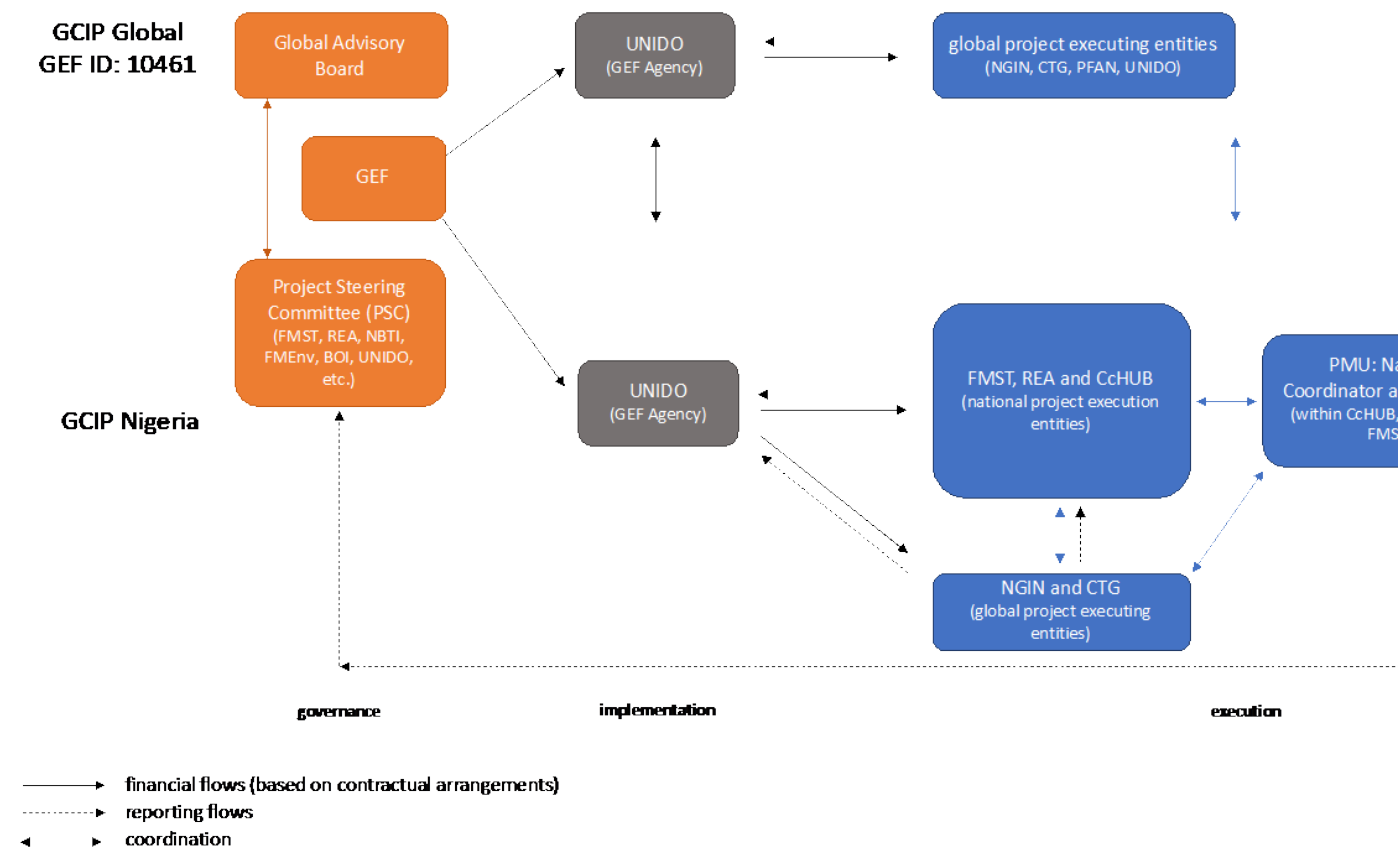


Figure 7: Institutional arrangement

Implementation

162. UNIDO as the GEF Agency will be responsible for the implementation of the GCIP Nigeria, which entails oversight of project execution to ensure that the project is being carried out in accordance with agreed standards and requirements. UNIDO as the GEF Agency will also be accountable to the GEF

Council for the GEF-financed activities, as well as it will be responsible for project cycle management services and corporate activities.

Execution

163. GCIP Nigeria will be executed by three national PEEs with support from three global PEEs. The Co-Creation Hub (CcHUB) was selected to be one of the three national PEE and, subsequently, CcHUB successfully underwent a HACT assessment initiated by UNIDO. FMST will be responsible for the execution of Component 2 of GCIP Nigeria while REA will execute Output 1.2.4. Similarly to CcHUB, both FMST and REA underwent a due diligence process (micro-assessment) in order to be granted execution functions. CcHUB will designate internally or recruit externally project management personnel to form the project management unit (PMU). The PMU will consist of the National Project Coordinator (NPC) and a Project Assistant (PA). FMST and REA will internally designate a team responsible for the management of the activities under their respective responsibility areas, as specified above.

164. The PMU will be responsible for the day-to-day management of CcHUB's activities and overall coordination of the reporting on the project's status to the PSC, as well as monitoring and evaluation of project activities, as to be specified in the project workplan. CcHUB, FMST and REA may sub-contract qualified service providers for the execution of certain activities. An open and competitive process will be applied to select the service providers. Also, a number of activities, as outlined in this document, will be delivered by the global PEEs - **as subcontractors to the national PEE**.

165. The global PEEs, that will support the execution of GCIP Nigeria, are PFAN (Private Financing Advisory Network), Network for Global Innovation (NGIN), and Cleantech Group (CTG). The global PEEs will perform several activities - some at no cost to the GCIP Nigeria (i.e. covered from the GCIP Global budget) and some covered from the GCIP Nigeria budget - as specified in details in the Tables 6-10 outlining "Activities and responsibilities" in the project description. NGIN, CTG, and PFAN were identified and selected by UNIDO through an open competitive process according to UNIDO procurement rules and regulations. There will be a contractual agreement between UNIDO and NGIN, CTG and PFAN detailing the expected outputs and deliverables.

166. With regard to GCIP Nigeria, NGIN and PFAN will be supporting the execution of outputs related to enterprise acceleration, post-acceleration support and investment facilitation (Component 1), whilst CTG will support the execution of outputs related to policy and ecosystem development (Component 2). An integral role of all global PEEs will be to facilitate collective interaction, training, knowledge sharing, and communication with the GCIP country projects through the national PEEs. This includes the development of tools and guidelines for dissemination to CcHUB and FMST, as well as training and workshops provided to CcHUB and FMST to strengthen its capacity to adopt and operationalize the tools and guidelines developed.

Project Steering Committee (PSC)

167. To ensure proper oversight and institutional ownership of the project, as well as to provide advisory inputs, a PSC will be established under the chairmanship of FMST. Representatives from institutions involved in the different project Components as well as government financial institutions will be members of the PSC: FMST, REA, FMEnv, BOI, NBTI, UNIDO, CcHUB, etc. The complete list of stakeholders in the PSC will be identified at the beginning of the implementation period.

168. The PSC will meet twice per year to review the project implementation and execution progress and confirm the workplan for the subsequent year. Any amendments proposed to the workplans and budgets by the PSC are done in accordance with the approved project document, the GEF policy, and UNIDO rules and regulations. Minutes of meetings are signed by UNIDO and the PSC chairperson(s). CcHUB's PMU forms the secretariat of and reports to the PSC, and it is not a voting member of the PSC.

Global Advisory Board

169. The GCIP Framework is supported through a Global Advisory Board that is to be established under the GCIP Global and that fulfils a role of a PSC. The Global Advisory Board will provide strategic guidance to the GCIP Framework, including the GCIP Global and GCIP country projects, and is the approval body for items of major impact on the programme. It will meet once a year to monitor progress against the objectives of the overall GCIP at the programmatic level, address potential problems and discuss strategic and policy issues affecting the programme. It will review impact tracking and it will also be responsible for defining strategy and advocacy messages.

Coordination with other projects and initiatives

170. This project will be conducted in coordination with ongoing GEF projects in Nigeria, as well as other projects and initiatives identified above in the baseline scenario, as to build upon lessons learned, increase synergies, and avoid duplication of efforts. In particular, coordination will be sought with two ongoing GEF/UNIDO initiatives, described in Table 4 (par. 42): (i) Scaling Up of Small Hydro Power (SHP) for Augmenting Rural Electricity Access - Nigeria and (ii) Improving Nigeria's Industrial Energy Performance and Resource Efficient Cleaner Production through Programmatic Approaches and the Promotion of Innovation in Clean Technology Solutions. In addition, coordination will be sought with USAID initiatives in the country, in particular with the Power Africa Nigeria Power Sector Program (PA-NPSP) - which is Nigeria's flagship Power Africa intervention. Synergies will be also secured with ongoing national initiatives that involve the national PEEs. Beyond Nigeria, the Global GCIP Programme will ensure that the Nigerian PEEs, as well as the network of entrepreneurs and experts, are linked up to GCIP child projects in Cambodia, Indonesia, Kazakhstan, Moldova, Morocco, South Africa, Turkey, Ukraine and Uruguay.

Legal Context

171. ?The present project is governed by the provisions of the Standard Basic Cooperation Agreement between the Federal Republic of Nigeria and UNIDO, signed and entered into force on 5 November 1992.

Transfer of assets

172. Full or partial ownership of equipment/assets purchased under the project may be transferred to national counterparts and/or project beneficiaries during the project implementation as deemed appropriate by the government counterpart in consultation with the UNIDO Project Manager.

7. Consistency with National Priorities

Describe the consistency of the project with national strategies and plans or reports and assessments under relevant conventions from below:

NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.

177. The GCIP Nigeria is fully consistent with all the relevant national strategies and policy documents outlined in the description of the baseline scenario. In line with these, the project will contribute to economic development and job creation, by fostering the SME sector, as well as improved energy access through mainstreaming renewable energy technologies. The project is in line with Nigeria's 2nd National Communication to the UNFCCC. It will also complement the already existing national programmes and objectives such as: Vision 20:2020 of Nigeria, the National Adaptation Strategy and Plan of Action on Climate Change for Nigeria (NASPA-CCN) (specifically, the strategies for energy and industry and commerce), the Energy Management Training and Manpower Development Department (EM-TMD) and the National Center for Energy Efficiency and Conservation (NCEEC), at the Energy Commission of Nigeria.

178. There is a strong synergy between the GCIP Nigeria objectives and the targets set in relevant national strategies and policy documents with regard to both environmental (with focus on climate change mitigation) and socio-economic development (including job creation, wealth generation, gender mainstreaming, innovativeness and competitiveness of the economy, and private sector development).

179. The project is in alignment with the recently implemented Nigeria Economic Sustainability Plan (NESP), the Nigerian Industrial Revolution Plan (NIRP), the National Enterprises Development Programme (NEDEP) and the Economic Recovery and Growth Plan ((ERGP) (2017-2020)). In particular, NIRP clearly identifies innovation as one of the industrial enablers for Nigeria.

8. Knowledge Management

Elaborate the "Knowledge Management Approach" for the project, including a budget, key deliverables and a timeline, and explain how it will contribute to the project's overall impact.

180. The GCIP Global will institutionalize knowledge sharing and management across country projects by making the structure of the programme accessible and replicable, and bringing selected finalists from around the world together, among others to showcase their innovations at the GCIP Global Forum.

181. A key element in knowledge management will be the creation of a national pool of experts (trainers, mentors, judges), which will allow for best practices and business knowledge to be shared with participants and stakeholders in a structured manner. The national pool of experts will be created from

representatives of universities with business development programs, national banks, investment companies and businesses. All of them will be trained to provide entrepreneurs with the skills needed to participate in the GCIP Nigeria, and ultimately to bring their innovations to the market.

182. Knowledge sharing will be conducted through trainings, workshops, roundtable discussions, printed materials, and through the GCIP web platform at global and national levels. A set of carefully designed outreach activities will ensure recognition of and support for GCIP Nigeria enterprises at the programmatic and national levels beyond the project duration.

183. CcHUB, FMST and the PMU will be tasked with ensuring the national and international visibility of the GCIP Nigeria and accessibility of key findings through the GCIP web platform. This will provide an opportunity to reach out to future entrepreneurs and investors, while raising public awareness on cleantech and climate change mitigation. All knowledge management activities will be gender responsive: e.g. gender dimensions will be integrated into publications and it will be assured that women, men, and the youth have equal access to and benefit to the same extent from the knowledge created. For instance, gender responsive training and advocacy material will not perpetuate gender stereotypes through presenting women only in their traditional roles.

184. Continued networking among entrepreneurs during and after the annual acceleration cycles will be facilitated through the GCIP Nigeria web platform. The web platform will be a modern and user-friendly information sharing and networking tool that will also equip CcHUB and FMST with local ownership of data.

185. A knowledge management, communication, and advocacy strategy framework will be developed by UNIDO with a particular focus on: (i) Promoting visibility of GCIP and communicating its impacts achieved at national and global levels; (ii) Increasing awareness of the catalytic role of cleantech in addressing climate change and environmental issues; (iii) Showcasing cleantech innovations from the GCIP alumni and enhancing their visibility and credibility. The knowledge management, communication, and advocacy strategy framework will be shared with CcHUB for review and adaptation to the GCIP Nigeria needs, as specified under Output 3.1.2.

186. The GCIP Nigeria knowledge management, communication, and advocacy strategy will specify the exact knowledge products to be delivered along with relevant timelines and milestones. The table below provides a general overview of deliverables relevant for knowledge management.

Table 17: Overview of deliverables relevant for knowledge management

Deliverables	Timeline
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A pool of experts (trainers, mentors, judges) created	By the 6th month of project implementation/execution with regular updates after every half a year
The knowledge management, communication, and advocacy strategy framework reviewed and adapted to GCIP Nigeria (Output 3.1.2)	By the 6th month of project implementation/execution with regular updates each year
Policy briefs, impact reports, brochures, webinars and other types of promotional materials distributed through briefing sessions, press releases, social media presence, advertising, etc. ? in line with the GCIP Nigeria knowledge management, communication, and advocacy strategy	From the 6th months of project implementation/execution and according to the timeline as to be specified in the GCIP Nigeria knowledge management, communication and advocacy strategy
GCIP Nigeria web platform created and operationalized (Output 3.1.3), including a special section for the GCIP Nigeria alumni network	By the 6th month of project implementation/execution
GCIP Nigeria Forum and GCIP Global Forum, as well as Investor Connect and regional technology brokerage events organized	Annually / bi-annually

9. Monitoring and Evaluation

Describe the budgeted M and E plan

193. The monitoring and evaluation (M&E) will be conducted in accordance with established UNIDO and GEF procedures. The overall objective of the M&E is to ensure successful and quality implementation of the project by: i) tracking and reviewing project activities execution and actual accomplishments; ii) providing visibility into progress as the project proceeds so that the implementation team can take early corrective action if performance deviates significantly from original plans; and iii) adjusting and updating project strategy and implementation plans to reflect possible changes on the ground, results achieved and corrective actions taken.

194. According to the M&E policy of the GEF and UNIDO, follow-up studies like Country Portfolio Evaluations and Thematic Evaluations can be initiated and conducted. All project partners and contractors are obliged to: (i) make available studies, reports and other documentation related to the project and (ii) facilitate interviews with staff involved in the project activities.

195. The Project Result Framework (Annex A) provides performance and impact indicators for project implementation/execution along with their corresponding means of verification. The actual progress will be reported against the workplan approved by the PSC. The PSC will assess progress against the framework and gender indicators. In case there are significant deviations between the forecasted workplan and actual implementation, corrective measures will need to be taken.

196. There will be a GCIP M&E framework provided by the GCIP Global, based on which CcHUB will prepare a GCIP Nigeria M&E plan, including time-bound milestones and deliverables. CcHUB will

also draft progress review reports every six months. There will be an external mid-term review of the project conducted halfway through project implementation. The ESSPP considerations, as well as gender dimensions and baseline for gender related targets will be appropriately captured in the GCIP Nigeria M&E plan, in the progress review reports, as well as in the collection and assessment of relevant data. The M&E plan will encompass monitoring of the Environmental and Social Management Plan, the Stakeholder Engagement Plan, the Gender Analysis Report, and a risk analysis.

197. The GCIP methodology for impact assessment will be developed by the GCIP Global and shared with the GCIP Nigeria for review and application. This will ensure a common understanding of estimation, tracking, and reporting approaches amongst all involved stakeholders, and will allow for data aggregation, comparisons, and extrapolation, not only on the national, but also on the global programme level. The methodology will enable assessment of social, economic, and environmental impacts, and at a minimum, it will account for global environmental benefits (GEBs), job creation, gender mainstreaming, and investment leveraged. The data will be sex-disaggregated and gender-sensitive, and youth participation will also be recorded.

198. An overview of indicative costs of M&E activities is provided in the table below.

Table 18: M&E activities

M&E Activity	Timeframe	GEF Budget (USD)	UNIDO in-kind co-financing (USD)	CcHUB in-kind co-financing (USD)	Responsible Parties
M&E plan	first 3 months after implementation start	1,000	20,000	20,000	CcHUB
Periodic progress reports	6-monthly	7,100	20,000	20,000	CcHUB
Mid-term review	at 1.5 years	26,900	20,000	40,000	UNIDO

Independent terminal evaluation	started six months prior to the expected completion date of the project	45,000	20,000	40,000	External evaluator, submission to UNIDO
Total		80,000	80,000	120,000	

10. Benefits

Describe the socioeconomic benefits to be delivered by the project at the national and local levels, as appropriate. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF)?

199. The project is expected to result in more cleantech startups and SMEs being identified and supported, thus acting as a catalyst for entrepreneurship development and cleantech investment in Nigeria. The GCIP Nigeria, as a dedicated national platform for promoting and supporting cleantech innovation, will result in an enhancement of human capital, thereby leading to job creation and poverty reduction as well as to an increased women participation in the entire value chain of technology development. New job opportunities in the country will in turn contribute to stemming the current brain drain. Local development and production of cleantech will very likely result in lower costs benefiting both the technology developers and end-users. It is noteworthy to underline that so far around 84% of startups and SMEs that have completed the GCIP acceleration program globally, have remained in business for minimum of five years. In addition, the increased use of cleantech innovations supported by the GCIP Nigeria will also result in GHG emission reductions. Finally, the project will also support increased energy access in underserved communities in rural areas of Nigeria.

200. The GCIP Nigeria will highlight the need for a stronger support at the national level for cleantech innovations and start-ups/SMEs. In particular, it will provide added value by bridging the gap between cleantech innovators and investors, thereby paving the way for the creation of new businesses opportunities resulting in a value added for the domestic economy. At the same time, through engaging all relevant stakeholders in the national CIEE, and encouraging their cooperation, as well as through linking different CIEEs across countries, the GCIP Nigeria will provide opportunities for international business scale-up and exchange of knowledge.

11. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

Overall Project/Program Risk Classification*

PIF	CEO Endorsement/Approva I	MTR	TE
Medium/Moderate			

Measures to address identified risks and impacts

Elaborate on the types and risk classifications/ratings of any identified environmental and social risks and impacts (considering the GEF ESS Minimum Standards) and any measures undertaken as well as planned management measures to address these risks during implementation.

Please refer to the attached Environmental and Social Management Plan (Annex J).

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
Annex J - Environmental and social management plan	CEO Endorsement ESS	

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

Project Strategy	KPIs/Indicator[1]	Base -line	Target (for the entire project duration)	Means of Verification	Assumptions
Objective To accelerate cleantech innovation and entrepreneurship by SMEs and start-ups and to strengthen the cleantech innovation and entrepreneurship ecosystem of Nigeria	USD mln investment leveraged	0	1,5-2	Project progress reports	Continuous support from the Government of Nigeria and national partner institutions Commitment by CIEE stakeholders Interest by cleantech entrepreneurs and investors
	number of enterprises with economic gains (sales, savings)	0	30-50 (at least 35% women-led)	Project evaluation reports	
	number of additional jobs created or retained	0	40 (at least 35% women employed)	Project impact reports	
	number of enterprises with an increase in exports	0	5-10 (at least 35% women-led)		
	number of SMEs with increased inclusion in value chains	0	10-15 (at least 35% women-led)		
	CO2eq emissions reduced (tons) directly and indirectly	0	at least 135,000 (directly) and at least 675,000 (indirectly)		
	MW added generation capacity	0	n/a[2]		
	cumulative improved energy efficiency	0			
	number of new technologies adopted	0	75		
Component 1 Transforming early-stage innovative cleantech solutions into scalable enterprises					
Outcome 1.1 Early-stage cleantech innovations are accelerated					
Output 1.1.1 The GCIP guidebooks are adapted for the	number of suggestions for improvement of the GCIP guidebooks	0	5-10	Project progress reports	Continuous support from the

GCIP Nigeria (including mapping of cleantech solutions, identification and prioritization of actions in accordance with national strategies for climate change and energy)	number of GCIP Nigeria gender-responsive guidebooks for Accelerator, Advanced Accelerator, and Post-Accelerator	0	3 (1 for Accelerator, 1 for Advanced Accelerator)	Attendance records from consultation meetings	Government of Nigeria and national partner institutions Commitment by CIEE stakeholders Interest by cleantech entrepreneurs
	number of consultation sessions on GCIP Nigeria guidebooks with relevant CIEE stakeholders (gender-responsive)	0	2	Meeting minutes	
	number of stakeholders with whom the GCIP Nigeria guidebooks shared	0	800-1200 (at least 35% women)		
	number of corporate partners with interest to participate in the National Innovation Challenge identified	0	3-7 (at least 35% woman-led/women in the management board)		
	number of gender experts involved to promote GEEW, e.g. gender-responsive GCIP Nigeria guidebooks	0	1		
	number of associations involved that promote GEEW in consultation sessions	0	2		
Output 1.1.2 Pool of cleantech innovation and entrepreneurship experts (trainers, mentors, judges) is trained and certified to support the GCIP Nigeria Accelerator	number of suggestions for improvement of the GCIP cleantech innovation and entrepreneurship expert training and certification system	0	5-10	Project progress reports	
	number of GCIP Nigeria cleantech innovation and entrepreneurship expert training and certification systems (gender responsive)	0	3 (1 for trainers, 1 for mentors, 1 for judges)		

	number of trainings provided to experts (gender responsive)	0	3 (1 for trainers, 1 for mentors, 1 for judges)	
	number of participants per one expert training	0	10	
	share of women in expert training	0	at least 35%	
	number of experts evaluated	0	30 (at least 35% women)	
	number of experts accredited	0	15-30 (at least 35% women)	
	share of expert that completed the 'I-know-gender' training	0	100%	
Output 1.1.3 Three cycles of the annual competition-based GCIP Nigeria Accelerator are conducted	number of GCIP Nigeria Pre-Accelerator cycles conducted (gender responsive)	0	1	Attendance records from trainings
	number of GCIP Nigeria Pre-Accelerator participants	0	100-120 (at least 35% woman)	Project progress reports
	number of teams participating in the GCIP Nigeria Pre-Accelerator that apply for GCIP Nigeria Accelerator	0	30-40 (at least 35% woman-led teams)	
	number of GCIP Nigeria Accelerator cycles conducted (gender responsive)	0	3	
	number of GCIP Nigeria Accelerator applicants	0	150-300 (at least 30% women)	
	number of GCIP Nigeria Accelerator semi-finalists	0	60-75 (at least 40% woman)	
	number of GCIP Nigeria Accelerator finalists		15-24 (at least 40% woman)	
	share of women among semi-finalists and finalists	0	at least 35%	
	number of GCIP National Academies conducted (gender responsive)	0	3	

	number of GCIP Nigeria Forums and regional brokerage events conducted (gender responsive)	0	10-12 (3 GCIP Nigeria Forums and 7-9 regional brokerage events)		
	number of help-lines for queries established	0	1		
	number of targeted gender-responsive outreach activities promoting the GCIP Nigeria Pre-Accelerator, Accelerator, GCIP National Academy, and GCIP Nigeria Forum	0	10-20		
	number of panels at GCIP National Academy and GCIP Nigeria Forum focusing on women entrepreneurship	0	8-10		
	number of partners involved that promote gender equality and women's empowerment	0	5-10		
Outcome 1.2 Start-ups and SMEs are supported through advanced and gender-responsive business growth and investment facilitation services					
Output 1.2.1 Targeted business growth support services are provided to selected cleantech enterprises towards commercialization	number of enterprises provided with Advanced Accelerator support	0	9-15 (at least 35% woman-led)	Project progress reports	Continuous support from the Government of Nigeria and national partner institutions Commitment by CIEE stakeholders Interest by cleantech entrepreneurs and investors
	number of GCIP Nigeria Post-Accelerator cycles conducted (gender responsive)	0	3	Meeting attendance records	
	number of enterprises participating in the GCIP Nigeria Post-Accelerator	0	30-45 (at least 35% in the first year and at least 40% in the second and third year)	Meeting minutes	
	number of GCIP Nigeria Post-Accelerator enterprises provided with needs-based support	0	15-25 (at least 35% in the first year and at least 40% in the second and third year)		

	number of enterprises provided with technology verification, product development and testing facility support	0	15-25 (at least 35% in the first year and at least 40% in the second and third year)
	number of targeted support activities for products/services that promote gender equality and women's empowerment	0	3-5
	number of targeted support activities for women entrepreneurs	0	3-5 (at least 35% in the first year and at least 40% in the second and third year)
Output 1.2.2 Enterprises are connected to financing opportunities and provided with tipping-point investment facilitation support; innovative financial mechanism for rural electrification is designed	number of Investor Connect events organized (gender responsive)	0	3-6
	number of financial institutions and funds with which contacts established	0	20-25
	number of gender-responsive awareness raising events for investor community	0	3-7
	number of investors (representatives of commercial banks, investment funds, public/private companies, as well as individuals, etc.) participating in the awareness raising events	0	15-35 (at least 35% women)
	number of trainings for local financial experts (gender responsive)	0	3-5
	share of women financial experts participating in the trainings	0	at least 35%

	number of events organized/attended to encourage seed funding providers to participate in the GCIP Nigeria (gender responsive)	0	3-5		
	number of trainings on gender-lens investment or gender sensitization for investors	0	3-5		
Output 1.2.3 Mentoring and partnership support is provided to cleantech enterprises for global market expansion	number of GCIP Nigeria alumni nominated for support by the GCIP Global Accelerator	0	5-10 (at least 35% women)		
	number of global engagement strategies (gender responsive)	0	1		
	number of global engagement workshops (gender responsive)	0	2		
	share of women among the workshop participants	0	at least 35%		
	number of targeted mentoring activities for women entrepreneurs	0	3-5		
Output 1.2.4 Innovative financial mechanism for rural electrification is designed and operationalised; Investment is mobilized to deploy innovative cleantech solutions improving energy access in underserved regions	criteria to access funding (gender responsive)	0	1 set of criteria to access funding		
	calls for proposals for funding	0	3 Calls for proposals for funding		
	funds disbursed	0	USD 600,000 USD funds disbursed (at least 35% benefits women)		
	co-finance leveraged	0	USD 3,900,000 co-finance leveraged (at least 35% benefits women)		
Component 2 Cleantech innovation and entrepreneurship ecosystem (CIEE) strengthening and connectivity					
Outcome 2.1 The CIEE in Nigeria is strengthened and interconnected					

Output 2.1.1 Institutional capacity building of the CIEE actors is conducted	number of analyses of Nigeria's CIEE (gender responsive)	0	1	Project progress reports	Continuous support from the Government of Nigeria and national partner institutions Commitment by CIEE stakeholders Interest by cleantech entrepreneurs
	number of tools for CIEE strengthening and connectivity (gender responsive)	0	2	Meeting attendance records	
	number of gender-responsive stakeholder engagement strategies and cleantech innovation cluster strategies	0	2 (1 engagement strategy and 1 cleantech innovation cluster strategy)	Meeting minutes	
	number of engagement workshops organized (gender responsive)	0	2	Project progress reports	
	number of facilitators trained	0	10 (at least 35% in the first year and at least 40% in the second and third year)	Meeting attendance records	
	number of (gender responsive) capacity building events for selected stakeholders	0	1-3	Meeting minutes	
	number of participants in the stakeholder capacity building events	0	30-90 (at least 35% in the first year and at least 40% in the second and third year)	Project progress reports	
	number of stakeholders that completed the ?I-know-gender? training	0	400-700 (at least 45% men)		
	number of the gender-responsive Entrepreneurship Train-the-Trainer Programme cycles	0	2-4		
	number of university professors and teachers trained	0	15-20 (at least 35% in the first year and at least 40% in the second and third year)		

Output 2.1.2 Cleantech innovation and entrepreneurship policies, regulations and recommendations are developed	number of gender-responsive recommendations for the cleantech, innovation, and entrepreneurship policy	0	40-50		
	number of gender-responsive roadmaps guiding implementation of the policy recommendations	0	1		
	number of policy clauses relating to gender equality	0	5		
Output 2.1.3 Linkages, collaboration, and synergies across CIEEs are promoted	number of international partnerships with other GCIP CIEEs	0	1-3		
	number of partnerships with national leading institutions, agencies and universities	0	3-5 (at least 1 partnership with a national institution, agency and university with a focus to promote women's entrepreneurship)		
Component 3 Programme coordination and coherence					
Outcome 3.1 Efficiency and sustainability of the GCIP Nigeria is ensured through programme coordination and coherence with other GCIP country projects					
Output 3.1.1 The GCIP internal guidelines for project management teams are adapted and implemented by the GCIP Nigeria	number of gender-responsive tools/books (with operational guidelines for the PMU)	0	1	Project progress reports	Continuous support from the Government of Nigeria and national partner institutions
	number of sustainability and exit strategies	0	1	Meeting attendance records	
Output 3.1.2 Programme-level knowledge management, communication and advocacy strategy is adapted and implemented by the GCIP Nigeria	number of GCIP Nigeria gender-responsive knowledge management, communication, and advocacy strategies	0	1	Meeting minutes	Commitment by CIEE stakeholders
	number briefing sessions, press releases, social media posts and adverts	0	50-150		Interest by cleantech entrepreneurs

	number of memorandums of understanding (MoUs)/cooperation agreements	0	20-30		
	number of targeted communications to women		3-5		
Output 3.1.3 The GCIP Nigeria web platform is operated to maintain the GCIP community	number of GCIP Nigeria web platforms	0	1		
	number of GCIP Nigeria alumni networks and associated web platforms	0	1		
	number of members in the GCIP Nigeria alumni network	0	80-100 (at least 35% women)		
	share of members of the GCIP Nigeria alumni network that are women	0	at least 35%		
	number of alumni network chapter for women entrepreneurs established	0	1		
Outcome 3.2 Impacts and progress of the GCIP Nigeria are tracked and reported					
Output 3.2.1 The GCIP methodology for impact assessment is adapted and applied	number of trainings on the GCIP methodology for impact assessment (gender responsive)	0	3	Project progress reports	Continuous support from the Government of Nigeria and national partner institutions Commitment by CIEE stakeholders Interest by cleantech entrepreneurs
	number of participants in trainings on the GCIP methodology for impact assessment	0	30-75 (at least 35%)	Training attendance records	
	number of GCIP Nigeria impact reports	0	4-5		
Output 3.2.2 Project activities are tracked and reported based on the GCIP monitoring and evaluation (M&E) framework, as	number of GCIP Nigeria monitoring and evaluation (M&E) plans (gender responsive)	0	1		
	number of project progress reports (gender responsive)	0	6		

well as an external mid-term review is conducted	number of external mid-term review reports	0	1		
	number of reviews of the Gender Mainstreaming Action Plan	0	3		
Output 3.2.3 External terminal evaluation is conducted	number of external terminal evaluation reports	0	1		

[1] Sex-disaggregated wherever possible.

[2] The targets will be set after the first cycle of the GCIP Nigeria Accelerator, based on the review of the number and quality of applications featuring renewable energy and energy efficiency technologies.

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

The Global Cleantech Innovation Programme (GCIP) to Accelerate the Uptake and Investments in Innovative Cleantech Solutions (GEF ID: 10408) consists of 11 child projects as follows: Global, Cambodia, Indonesia, Kazakhstan, Moldova, Morocco, Nigeria, South Africa, Turkey, Ukraine, Uruguay. Therefore, UNIDO responses as presented below show how the comments from Council were addressed across all the 11 child projects and, where feasible, country-specific responses are provided.

	GEF Secretariat Comments ? January 2020	UNIDO Response
	Germany	
	Germany welcomes this innovative proposal that aims to foster clean tech start-ups and SMEs through capacity building, access to finance, policy and regulatory strengthening and learning and exchange, building on the lessons learnt from a previous project. The proposal is aligned with the relevant GEF focal strategy and comprehensive. Germany requests that the following requirements are taken into account during the design of the final project proposal:	n/a

1	<p>Germany asks to review the risks section of the document as to identify environmental risks for relevant strategies and develop associated mitigation measures. The proposal currently considers environmental risks to be low without providing detail. However, some (e.g. blockchain) have concerning carbon footprints, unless they are powered exclusively by renewable energies, which is rarely the case. Industrial processes related to battery-based technologies can have harmful environmental impacts if these are not mitigated through environmental regulation and risk mitigation measures, which are often not effectively enforced.</p>	<p>Across all 11 child projects, the environmental risk section was reviewed and revised based on the comments, and the environmental risks of some technologies were acknowledged and mitigation measures proposed. More specifically, the project now includes environmental experts amongst the mentors, judges and trainers that will support the SMEs. This will ensure that all possible environmental risks for all innovations are systematically identified and mitigated. The technology selection criteria for applications submitted to GCIP will be devised to include assessment of mitigation measures for possible negative environmental and social impacts. Where required, specialized expertise will be sourced to help the entrepreneurs to minimize the negative impacts and, in the event that mitigation measures are not sufficiently addressed, then that technology will not be supported by GCIP.</p>
2	<p>In this context, Germany also suggests to review the technologies alignment with local climate risks, when deployed. The GIZ 'Climate Expert' tool could provide a relevant frame to do so in a local context.</p>	<p>The impact of technologies will be assessed against local climate risks in the target markets, as part of the support provided within the GCIP Accelerator. Minimizing any negative environmental and social impacts will be accounted for in the technology selection criteria for applications submitted to GCIP. Adaptation strategies will also be prepared if necessary. UNIDO reviewed the 'Climate Expert' tool in details and found it to be quite relevant. UNIDO will systematically recommend the 'Climate Expert' as one of the tools available to entrepreneurs and GCIP mentors, judges and trainers across the 10 countries.</p>

3	<p>Germany suggests further broadening the scope to support low-tech and lower-tech approaches to energy, resource efficiency or waste management that do not exclusively rely on strong IT skills. It might not be the local SMEs? lack of access to finance and entrepreneurial capacities alone that hinder their development and scaling up.</p>	<p>The scope of technologies to be supported is not prescriptive as long as they are cleantech and in line with GEF 7 CCM focal area programming directions https://www.thegef.org/council-meeting-documents/gef-7-programming-directions (i.e. electric drive technologies and electric mobility, accelerating energy efficiency adoption, decentralized renewable power with energy storage, cleantech innovation, sustainable cities, and food systems, land use and restoration, etc.). As such, low-tech and lower-tech approaches to energy, resource efficiency, waste management, etc. will not be excluded from the GCIP scope of support. Their uptake will depend on the state of the markets in each of the countries. In the Global child project, an appropriate footnote was added to Output 1.1.1. For the 10 country child projects, the technology selection criteria for the GCIP Accelerators will be adapted at the national level and will take into account the local skills and technology base.</p> <p>The GCIP approach is designed to address other ecosystem weaknesses that may impact SME's ability to develop and scale-up beyond finance and skills. For example, Component 2 tackles some of these weaknesses by building capacity and supporting policy development that will strengthen the local ecosystem.</p>
4	<p>Germany also suggests seeking synergies with KfW's SME and start up support program for energy-efficient production processes, as well as the GIZ project on the promotion of smallest, small and medium-sized enterprises in Morocco.</p>	<p>All GCIP child projects will actively identify synergies with other programmes or initiatives in respective countries and, as outlined in the stakeholder engagement plans, they will engage and work with others, such as for example KfW and GIZ.</p>
5	<p>Germany further invites consideration of potential additional synergies with research institutes (e.g. by leveraging the partners with Climate-KIC); such partnerships might be able to provide some of the IT technology needed or help to bring technologies to maturity and to foster market readiness</p>	<p>UNIDO has been in discussions with various other accelerators with a view to establishing strategic partnerships and synergies. Such accelerators include Cleantech Scandinavia, Impact Hub, and Climate-KIC. In the case of Climate-KIC, UNIDO recognized the need for a strategic partnership on GCIP and other programmes. Accordingly, UNIDO and Climate-KIC will sign a Memorandum of Understanding to promote partnership under GCIP so as to leverage opportunities for co-innovation and joint ventures between GCIP alumni and Climate-KIC alumni. Part of the collaboration is focused on creating linkages between the two programmes (Climate-KIC and GCIP) as well as on application of common methodologies and tools, and on organization of joint events that will give the opportunity for GCIP alumni to link with each other and with investors. Next to collaborating with other accelerators, GCIP also engages with R&D institutes. They are a key stakeholder in GCIP's ecosystem approach, which is reflected for example in the GCIP child project stakeholder engagement plans, and targeted activities, such as the train-the-trainer programme that is conducted in cooperation with national universities.</p>
	United States	

1	<p>We are supportive of this project, through there were initial concerns that the program appears to be duplicative of other major UN programs and IERNA efforts. Reviewers noted that as long as UNIDO, IRENA, the World Bank, Clean Energy Ministerial, CSL F, IEA, OECD, USAID, the EU, GiZ, and other major donors who are active in this space coordinate and de-conflict their efforts, or receive funding for their efforts from the program, it seems fine to promote innovation in clean technologies</p>	<p>In the meeting the Secretariat clarified that the GCIP uniquely combines an array of comprehensive and interlinked services to promote innovative cleantech solutions in developing countries and emerging economies. There are no known overlaps with any existing programmes or initiatives pursued by the UN, IRENA or other institutions. As specified in the descriptions of baseline scenario and any associated baseline projects in the respective RCEs, all child projects are designed with careful consideration of other ongoing projects/initiatives and with the objective to maximize synergies and avoid duplications with them.</p>
2	<p>Other reviewers are supportive of this initiative and think it is well-designed for Cambodia. However, there is concern about partnering with UNIDO who has struggled with implementing programs in the past.</p>	<p>The independent evaluation by GEF IEO - https://www.gefio.org/evaluations/evaluation-gef-unido-global-cleantech-innovation-programme-2018 of past GCIP projects unequivocally concluded that the programme was successfully implemented. These evaluation findings and feedback from participants have served as a basis to design the activities of the GCIP Global child project and cascaded to all the 10 countries. Furthermore, UNIDO has also been successfully implementing projects under other GEF programmes within the GEF 7 CCM focal area but with a focus on topics other than cleantech, such as e-mobility and sustainable cities. In implementing GCIP, UNIDO will continuously review lessons from these and other successful programmes pursued by various institutions, so as to learn and apply best practices.</p>

	STAP Comments ? January 2020	UNIDO Response
1	<p>Good discussion is provided on barriers and lesson-drawing from past experiences. Transferability will need to be monitored closely for the new countries added (that were not in earlier GEF 5 and 6 Cleantech programs)</p>	<p>The coordinated approach through the global child project allows for the development of common tools and methodologies that are adapted to local contexts. Regular meetings and trainings on methodologies and operationalization of the in-country projects with all countries ensures knowledge transfer from the Global coordination team but also between countries to the benefit of the new countries especially. In particular, component 3 is primarily focused on programmatic and coherence efforts across the countries to ensure transferability.</p>

2	Adequate presentation of stakeholders engagement is provided throughout the proposal. However, engagement with particular businesses that have experience with Clean-Tech development through organizations such as the World Business Council on Sustainable Development may be appropriate	UNIDO totally agrees with this. In the RCE several private sector stakeholder engagements have been included in the stakeholder engagement plan. This comment was also cascaded across the 10 country child projects where greater engagement with local private sector associations was prioritised.
3	The Global Environmental Benefits from this program are linked to a range of other efforts including the Sustainable Cities program. Hence the project will require coordination between this project and these other efforts. A good review article that can guide on planning and assessing potential benefits of CleanTech is recommended: Thomassen, G. et al. 2019. How to assess the potential of emerging green technologies? Towards a prospective environmental and techno-economic assessment framework. Green Chemistry, 21(18), 4868-4886. https://doi.org/10.1039/C9GC02223F	The project will be systematically coordinated with the Sustainable Cities, E-mobility and Africa Mini-grids Programmes for scaling the pipeline of technologies nurtured by the programme. The principles from the article mentioned will be applied in addition to the impact methodologies developed under the global child project.
4	There is considerable emphasis on scaling based on prior experiences. In this regard, the differential experience between the countries will need to be carefully monitored, particularly with regard to the effective implementation of co-financing arrangements.	Each country project is designed and developed with its unique context in mind while still ensuring that coherence exists in the programmatic approach i.e. common tools and methodologies. Co-financing is country-specific and will be monitored through the regular monitoring and tracking activities, such as the PIRs.

ANNEX C: Status of Utilization of Project Preparation Grant (PPG).

(Provide detailed funding amount of the PPG activities financing status in the table below:

n/a

ANNEX D: Project Map(s) and Coordinates

Please attach the geographical location of the project area, if possible.

**GCIP Nigeria:
locations of
the main
project
activities**



Figure 7: Map of the Federal Republic of Nigeria and GCIP Nigeria main project activities locations

Source: www.britannica.com

ANNEX E: Project Budget Table

Please attach a project budget table.

Years 1 - 3											
Expenditure Category	Detailed Description (Activity)									Total (USDeq.)	Responsible Entity (*UNIDO's subcontract to executing entities)
		Outcome 1.1	Outcome 1.2	Outcome 2.1	Outcome 3.1	Outcome 3.2	Sub-Total	M&E	PMC		
Contractual services	to review the GCIP guidebooks and to share suggestions for their improvement (Activity 1.1.1a)	650	-	-	-	-	650			650	CcHUB
	to adapt the GCIP guidebooks (Activity 1.1.1b)	5,525	-	-	-	-	5,525			5,525	CcHUB
	to consult, and disseminate the GCIP guidebooks (Activity 1.1.1c)	5,500	-	-	-	-	5,500			5,500	CcHUB
	to conduct assessment of landscape and capacities of potential GCIP Nigeria applicants and experts (Activity 1.1.1d)	5,500	-	-	-	-	5,500			5,500	CcHUB
	to develop a calendar of events and investigate the possibility of incorporating a NIC into the accelerator	1,000	-	-	-	-	1,000			1,000	CcHUB
	to get acquainted with the GCIP expert training; to share suggestions for improvement (Activity 1.1.2a)	651	-	-	-	-	651			651	CcHUB
	to adapt the GCIP expert training and certification system (Activity 1.1.2b)	4,505	-	-	-	-	4,505			4,505	CcHUB
	to operationalise the GCIP expert training and certification system (Activity 1.1.2c)	7,000	-	-	-	-	7,000			7,000	CcHUB
	to provide support to CcHUB with the GCIP certification of national experts (Activity 1.1.2d)	1,513	-	-	-	-	1,513			1,513	CcHUB
	to provide training and certification to experts, as well as to conduct their evaluation (Activity 1.1.2e)	16,000	-	-	-	-	16,000			16,000	CcHUB
	to deliver the GCIP Nigeria Pre-Accelerator (Activity 1.1.3a)	14,817	-	-	-	-	14,817			14,817	CcHUB
	to deliver the GCIP Nigeria Accelerator (Activity 1.1.3b)	105,000	-	-	-	-	105,000			105,000	CcHUB
	to support CcHUB in the delivery of the GCIP Nigeria Accelerator (Activity 1.1.3c)	25,340	-	-	-	-	25,340			25,340	CcHUB
	to organize the annual GCIP Nigeria Forum, incl. awards (Activity 1.1.3d)	273,000	-	-	-	-	273,000			273,000	CcHUB
	to provide guidance to CcHUB on GCIP Nigeria forum and integration with the annual global forum (Activity 1.1.3e)	2,542	-	-	-	-	2,542			2,542	CcHUB
	to establish and maintain a helpline (Activity 1.1.3f)	13,950	-	-	-	-	13,950			13,950	CcHUB
	to conduct the GCIP Nigeria Post-Accelerator (Activity 1.2.1b)	-	18,635	-	-	-	18,635			18,635	CcHUB
	to provide technology verification (Activity 1.2.1d)	-	6,000	-	-	-	6,000			6,000	CcHUB
	to organize the Investor Connect event (Activity 1.2.2a)	-	36,000	-	-	-	36,000			36,000	CcHUB
	to establish a network of financial institutions and funds (Activity 1.2.2b)	-	2,000	-	-	-	2,000			2,000	CcHUB
	to support PFAN in providing 3-5 workshops (Activity 1.2.2c)	-	750	-	-	-	750			750	CcHUB
	to attend 3-5 suitable events in order to encourage participation to funding (Activity 1.2.2d)	-	8,000	-	-	-	8,000			8,000	CcHUB
	to encourage participation of GCIP Nigeria alumni in the GCIP Global Accelerator and support with the application	-	750	-	-	-	750			750	CcHUB
	to nominate and support the participation of a group representing GCIP Nigeria at the GCIP Global Forum	-	18,000	-	-	-	18,000			18,000	CcHUB
	to design a financial mechanism with the purpose of improving energy access in underserved regions (Activity 2.1.1a)	-	5,500	-	-	-	5,500			5,500	REA
	to conduct and consult an analysis of Nigeria's CIEE, including policy framework (Activity 2.1.1a)	-	-	25,000	-	-	25,000			25,000	FMST
	to develop tools for CIEE strengthening and connectivity, as well as to train facilitators (Activity 2.1.1b)	-	-	35,000	-	-	35,000			35,000	FMST
	to conduct capacity building event for selected stakeholders (Activity 2.1.1c)	-	-	25,000	-	-	25,000			25,000	FMST
	to deliver the Entrepreneurship Train-the-Trainer Programme (Activity 2.1.1d)	-	-	33,000	-	-	33,000			33,000	FMST
	to review existing policy and regulations and to develop a gender responsive localisation document (Activity 2.1.2a)	-	-	30,000	-	-	30,000			30,000	FMST
	to develop recommendations; to conduct stakeholder engagement workshops; to prepare and consult a roadmap	-	-	36,000	-	-	36,000			36,000	FMST
	to promote cooperation at national and international level (Activity 2.1.3a)	-	-	9,000	-	-	9,000			9,000	FMST
	to review and adapt GCIP internal guidelines for project management teams (Activity 3.1.1a)	-	-	-	2,000	-	2,000			2,000	CcHUB
	to develop GCIP Nigeria sustainability & exit strategy (Activity 3.1.1b)	-	-	-	10,000	-	10,000			10,000	CcHUB
	to capture knowledge gathered by the GCIP Nigeria (Activity 3.1.2b)	-	-	-	7,500	-	7,500			7,500	CcHUB
	to create and maintain a section for the GCIP Nigeria on the global GCIP web platform (Activity 3.1.3a)	-	-	-	5,500	-	5,500			5,500	CcHUB
	to conduct the external mid-term review (Activity 3.2.2a)	-	-	-	-	-	-	26,900		26,900	UNIDO
	to conduct the external terminal evaluation (Activity 3.2.3a)	-	-	-	-	-	-	45,000		45,000	UNIDO
	sub-total	482,493	95,635	193,000	25,000	-	796,128	71,900	-	868,028	CcHUB, FMST, REA, UNIDO
Grants/Seed-funding	to operationalise the financial mechanism with the purpose of improving energy access in underserved regions (Activity 1.2.4b)	-	604,500	-	-	-	604,500			604,500	REA
	sub-total	-	604,500	-	-	-	604,500	-	-	604,500	REA
International consultants	financial consultant(s) (Activities 1.1.3b, 1.2.2a, 1.2.2b)	19,500	16,500	-	-	-	36,000			36,000	CcHUB
	technical/business consultant(s) (Activities 1.1.3b, 1.2.1c, 1.2.1d)	19,500	10,800	-	-	-	30,300			30,300	CcHUB
	sub-total	39,000	27,300	-	-	-	66,300	-	-	66,300	CcHUB

The above table is the condensed version of the budget. For the extended version, please see the Excel annex.

ANNEX F: (For NGI only) Termsheet

Instructions. Please submit an finalized termsheet in this section. The NGI Program Call for Proposals provided a template in Annex A of the Call for Proposals that can be used by the Agency. Agencies can use their own termsheets but must add sections on Currency Risk, Co-financing Ratio and Financial Additionality as defined in the template provided in Annex A of the Call for proposals. Termsheets submitted at CEO endorsement stage should include final terms and conditions of the financing.

n/a

ANNEX G: (For NGI only) Reflows

Instructions. Please submit a reflows table as provided in Annex B of the NGI Program Call for Proposals and the Trustee excel sheet for reflows (as provided by the Secretariat or the Trustee) in the Document Section of the CEO endorsement. The Agencies is required to quantify any expected financial return/gains/interests earned on non-grant instruments that will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. Partner Agencies will be required to comply with the reflows procedures established in their respective Financial Procedures Agreement with the GEF Trustee. Agencies are welcomed to provide assumptions that explain expected financial reflow schedules.

n/a

ANNEX H: (For NGI only) Agency Capacity to generate reflows

Instructions. The GEF Agency submitting the CEO endorsement request is required to respond to any questions raised as part of the PIF review process that required clarifications on the Agency Capacity to manage reflows. This Annex seeks to demonstrate Agencies? capacity and eligibility to administer NGI resources as established in the Guidelines on the Project and Program Cycle Policy, GEF/C.52/Inf.06/Rev.01, June 9, 2017 (Annex 5).

n/a