



Global Cleantech Innovation Programme: Accelerating cleantech innovation and entrepreneurship in start-ups and SMEs in Cambodia

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

10460

Project Type

MSP

Type of Trust Fund

GET

CBIT/NGI

CBIT No

NGI No

Project Title

Global Cleantech Innovation Programme: Accelerating cleantech innovation and entrepreneurship in start-ups and SMEs in Cambodia

Countries

Cambodia

Agency(ies)

UNIDO

Other Executing Partner(s)

Techo Startup Center (TSC)

Executing Partner Type

Government

GEF Focal Area

Climate Change

Taxonomy

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

Rio Markers**Climate Change Mitigation**

Climate Change Mitigation 2

Climate Change Adaptation

Climate Change Adaptation 0

Submission Date

6/18/2021

Expected Implementation Start

1/1/2022

Expected Completion Date

12/31/2026

Duration

60In Months

Agency Fee(\$)

127,610.00

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	1,417,890.00	7,113,800.00
Total Project Cost(\$)			1,417,890.00	7,113,800.00

B. Project description summary

Project Objective

To accelerate the uptake and investments in cleantech innovations and promote coordination and ecosystems connectivity under the Global Cleantech Innovation Programme .

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(\$)
Component 1 : Transforming early-stage innovative cleantech solutions into commercial enterprises	Technical Assistance	Outcome 1.1 Early-stage cleantech innovations are accelerated	<p>Output 1.1.1 The GCIP guidebooks and methodologies are adapted for the GCIP Cambodia</p> <p>Output 1.1.2 Pool of cleantech innovation and entrepreneurship experts (trainers, mentors, judges) is trained and certified to support the GCIP Cambodia Accelerator (at least 30 cleantech experts identified and trained with at least 35% of women participants)</p> <p>Output 1.1.3. Three cycles of the annual competition-based GCIP Cambodia Accelerator are conducted (at least 70 participants with at least 35% of women participants)</p>	GET	423,330.00	1,708,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 1 : Transforming early-stage innovative cleantech solutions into commercial enterprises	Investment	Outcome 1.2. Start-ups and SMEs are supported through advanced and gender-responsive business growth and investment facilitation services	Output 1.2.1 An early-stage development fund is created to provide pre-seed and seed financing support to entrepreneurs and startups (at least 12 firms (with 35% women participants) achieving eligibility criteria)	GET	320,000.00	1,800,000.00
Component 1 : Transforming early-stage innovative cleantech solutions into commercial enterprises	Technical Assistance	Outcome 1.2. Start-ups and SMEs are supported through advanced and gender-responsive business growth and investment facilitation services	Output 1.2.2 Technology verification, product development and market entry support is provided (at least 15 startups (with atleast 35% women participants) for post-acceleration support per year) Output 1.2.3 Mentoring and partnership support is provided to cleantech enterprises for global market expansion	GET	299,363.00	2,387,140.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 2: Cleantech innovation and entrepreneurship ecosystem (CIEE) strengthening and connectivity	Technical Assistance	Outcome 2.1: The CIEE in Cambodia is strengthened and interconnected	<p>Output 2.1.1. An Alumni Network is established and supported to allow peer-learning and foster partnerships</p> <p>Output 2.1.2. Cleantech innovation and entrepreneurship policies, regulations and recommendations are developed</p> <p>Output 2.1.3. Linkages, collaboration, and synergies across CIEEs are promoted</p>	GET	120,390.00	357,860.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 3: Programme Coordination and Coherence	Technical Assistance	Outcome 3.1: Efficiency and sustainability of the GCIP Cambodia is ensured through programme coordination and coherence with other GCIP country projects	<p>Output 3.1.1 The GCIP internal guidelines for project management teams are adapted and implemented by the GCIP Cambodia</p> <p>Output 3.1.2 Programme-level knowledge management, communication and advocacy strategy is adapted and implemented by the GCIP Cambodia</p>	GET	46,034.00	150,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 3: Programme Coordination and Coherence	Technical Assistance	Outcome 3.2: Impacts and progress of the GCIP Cambodia are tracked and reported	<p>Output 3.2.1 The GCIP methodology for impact assessment is adapted and applied</p> <p>Output 3.2.2 i. Project activities are tracked and reported based on the GCIP monitoring and evaluation (M&E) framework , as well as an external mid-term review is conducted</p> <p>Output 3.2.2 ii. Independent terminal evaluation is conducted</p>	GET	81,025.00	70,800.00
Sub Total (\$)					1,290,142.00	6,473,800.00
Project Management Cost (PMC)						
			GET	127,748.00	640,000.00	
			Sub Total(\$)	127,748.00	640,000.00	
			Total Project Cost(\$)	1,417,890.00	7,113,800.00	

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	30,000.00
GEF Agency	UNIDO	In-kind	Recurrent expenditures	175,000.00
Recipient Country Government	Techo Start Up Centre	In-kind	Recurrent expenditures	5,388,800.00
Recipient Country Government	Khmer Enterprise	Grant	Investment mobilized	300,000.00
Other	Impact Hub	In-kind	Recurrent expenditures	800,000.00
Other	Energy Lab	In-kind	Recurrent expenditures	420,000.00
Total Co-Financing(\$)				7,113,800.00

Describe how any "Investment Mobilized" was identified

During the PPG phase, extensive consultations with entities involved in cleantech acceleration resulted in the identification of multiple synergies for cleantech investment. The validation process has resulted in confirmed collaboration and support from the listed entities. Consultations identified many synergies between existing national and international programmes and the Cambodian GCIP child project. Co-financing modalities were discussed with interested entities prior to and during the project preparation phase. With regards to investment mobilised, in the framework of these discussions it was agreed that Techno Startup Center would support the project through in-kind contributions and parallel financing to the total amount of USD 5,388,800; Khmer Enterprise would support the project through grants to the total amount of USD 300,000; Impact Hub would support the project through in-kind resources to the total amount of USD 800,000; Energy Lab would support the project through in-kind and parallel financing to the total amount of 420,000 USD. It is envisaged that the first year of the project implementation will include focused work on aligning GEF support with existing funds for cleantech assistance both national and international in order to establish an early stage development fund that will leverage additional private sector co-finance able to sustain the project's vision after the GEF implementation period. The consultation process has affirmed that long-term government level support for cleantech and for SME acceleration has been institutionalised in the establishment of Khmer Enterprise. 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	Cambodia	Climate Change	CC STAR Allocation	1,417,890	127,610
Total Grant Resources(\$)					1,417,890.00	127,610.00

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 (\$)

50,000

PPG Agency Fee (\$)

4,500

Agency	Trust Fund	Country	Focal Area	Programmin g of Funds	Amount(\$)	Fee(\$)
UNIDO	GET	Cambodi a	Climat e Change	CC STAR Allocation	50,000	4,500
Total Project Costs(\$)					50,000.00	4,500.00

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	126000	0	0
Expected metric tons of CO ₂ e (indirect)	0	630000	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)		126,000		
Expected metric tons of CO ₂ e (indirect)		630,000		
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		438		
Male		812		
Total	0	1250	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

1. From a 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). Slight changes to the project terminology and activity descriptions have been made following stakeholder consultations, and in line with an updated understanding of the GCIP approach during the PPG phase. Specifically, changes have been made to the terminologies and wording used in the project description summary (Table B) and accordingly in the project description to better align this child project to the GEF-UNIDO Global Cleantech Innovation Programme (GCIP) Framework (GEF ID 10408) - Global Framework from now on. Changes were made to the activity descriptions to ensure that they are gender responsive. Some minor changes were made in the ordering of the outputs to better align with the Global Framework. An overview of the changes is depicted in the two tables below. (Note GCIP Global will refer to the Global Child project 10461).
2. In addition to the changes described in the table below, note that the budget allocation was moderately adjusted: the amount of co-financing was increased, and the attribution of co-financing was revised based on confirmed co-finance during the PPG phase.

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 CONCEPT AND THE RCA VERSION

Original child project concept	RCA version	Explanation
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<p>800 beneficiaries (at least 35% female) consisting of:</p> <ul style="list-style-type: none"> - 70 enterprises accelerated - 30 cleantech experts (judges, mentors and coaches) trained and certified - 700 participants sensitized 	<p>1250 beneficiaries (30% women in the first year, 35% in the 2nd and 3rd year, and 40% by yrs. 4-5 consisting of:</p> <ul style="list-style-type: none"> - 120 entrepreneurs identified for pre-incubation support (see targets described above) - 70 start-ups accelerated (see targets described above) - 300 beneficiaries from the start-ups (5 people per start-up; see targets described above) - 30 cleantech experts identified and trained (judges, mentors and coaches (at least 35% women) <p>800 national and regional experts sensitized through workshops, forums, webinars and networking events (30% women in the first year, 35% in the 2nd and 3rd year, and 40% by year 5)</p>	<p>Additional beneficiaries identified through stakeholder engagements during PPG</p>
<p>1. Acceleration of clean technology innovations and business models and advanced post-accelerator support on investment and commercialization readiness for start-ups and SMEs</p>	<p>1. Transforming early-stage innovative cleantech solutions into commercial enterprises</p>	<p>The language has changed to reflect the Global Framework</p>
<p>1.1 Acceleration of clean technology innovations and business models</p>	<p>1.1 Early-stage cleantech innovations are accelerated</p>	<p>Non-substantial change to reflect Global Framework</p>

<p>1.1.1 Three annual GCIP accelerator rounds</p> <p>1.1.2 Technology verification, product development and market entry support are provided</p> <p>1.1.3. GCIP community and national innovation ecosystem</p>	<p>1.1.1 The GCIP guidebooks are adapted for the GCIP Cambodia</p> <p>1.1.2 Pool of cleantech innovation and entrepreneurship experts (trainers, mentors, judges with at least 35% of women participants) is trained and certified to support the GCIP Cambodia Accelerator</p> <p>1.1.3. Three cycles of the annual competition-based GCIP Cambodia Accelerator are conducted (with at least 35% of women participants)</p>	<p>Global Child project services and preparatory outputs now precede the accelerator rounds, and support to the creation of the GCIP ecosystem has moved to Component 2, in line with the Global Framework. Accelerator rounds remain the focus of this component.</p>
<p>1.2 GCIP innovators and entrepreneurs are able to reach the market and have access to adequate financial mechanisms</p>	<p>1.2. Start-ups and SMEs are supported through advanced and gender-responsive business growth and investment facilitation services</p>	<p>The language has been slightly modified to emphasize a gender-responsive approach.</p>
<p>1.2.1 Support for investment facilitation</p> <p>1.2.2 Establishment of Alumni Network to allow peer learning and foster partnerships</p>	<p>1.2.1 An early-stage development fund is created to provide pre-seed and seed financing support to entrepreneurs and start-ups (with at least 35% of women participants)</p> <p>1.2.2 Technology verification, product development and market entry support are provided (with at least 35% of women participants)</p> <p>1.2.3 Mentoring and partnership support is provided to cleantech enterprises for global market expansion</p>	<p>The investment mechanism is now more specifically addressed; the alumni network has been moved to Component 2, in line with the Global GCIP.</p>

2. Policy and institutional framework	2. Cleantech innovation and entrepreneurship ecosystem (CIEE) strengthening and connectivity	The policy component, in line with the Global Framework, has been refocused on supporting a broad policy and institutional network called the Cleantech Innovation Entrepreneurship Ecosystem (CIEE).
2.1 Policy and institutional framework strengthened to promote clean technology innovation and entrepreneurship	2.1 The CIEE in Cambodia is strengthened and interconnected	See above.
2.1.1 National expertise and institutional strengthening to support and sustain the accelerator 2.1.2 Policy recommendations to enhance the clean technology innovation and entrepreneurship Ecosystem	2.1.1. An Alumni Network is established and supported to allow peer-learning and foster partnerships 2.1.2 Cleantech innovation and entrepreneurship policies, regulations and recommendations are developed 2.1.3 Linkages, collaboration, and synergies across CIEEs are promoted	The substance of outputs under 2.1 remains closely aligned with the child project concept, but more emphasis is now placed on creating linkages with the Global network.
3. Project management, monitoring & evaluation (M&E)	3. Programme Coordination and Coherence	
3.1 Adequate project management and monitoring of all project indicators together with regular evaluations to ensure successful project implementation.	3.1: Efficiency and sustainability of the GCIP Cambodia is ensured through programme coordination and coherence with other GCIP country projects	The substance of this component remains closely aligned to the child project concept, but it has been further elaborated to include more detail on how monitoring and evaluation will be harmonized across the child projects.

<p>3.1.1 Project management</p> <p>3.1.2. Project monitoring</p> <p>3.1.3 Terminal project evaluation</p>	<p>3.1.1 The GCIP internal guidelines for project management teams are adapted and implemented by the GCIP Cambodia</p> <p>3.1.2 Programme-level knowledge management, communication and advocacy strategy is adapted and implemented by the GCIP Cambodia</p>	<p>3.1.2 adds additional activities on knowledge management and learning, in light of the findings of the evaluation of the first phase of GCIP.</p>
	<p>3,2: Impacts and progress of the GCIP Cambodia are tracked and reported</p> <p>3.2.1 Project activities are tracked and reported based on the GCIP monitoring and evaluation (M&E) framework</p> <p>3.2.2 External terminal evaluation is conducted</p>	<p>Output 3.2 provides more detail as to how the monitoring and evaluation will be delivered.</p>

Table 2 comparison of the budget allocation (USD) to project components between the original concept and the RCA version

Original child project concept version	RCA version	Explanation
<p>Component 1 budget</p> <p>GEF project financing: 1,137,890</p> <p>Co-financing: 4,551,560</p>	<p>Component 1 budget:</p> <p>GEF project financing: 1,042,693</p> <p>Co-financing: 2,387,140</p>	<p>Component 1 budget decreased slightly to enable more funds to be allocated to coordinating the global programme.</p>
<p>Component 2 budget</p> <p>GEF project financing: 100,000</p> <p>Co-financing: 400,000</p>	<p>Component 2 budget</p> <p>GEF project financing: 120,390</p> <p>Co-financing: 357,860</p>	<p>Negligible change in GEF budget; co-financing increases due to high level of national buy-in.</p>

Component 3 budget GEF project financing: 100,000 Co-financing: 400,000	Component 3 budget GEF project financing: 127,059 Co-financing: 220,800	GEF allocation increased to include coordination and alignment with Global Child project
Project management budget: GEF project financing: 80,000 Co-financing: 320,000	Project management budget: GEF project financing: 127,748 Co-financing: 640,000	PMC increased in line with GEF guidelines and co-financing increased for more favourable leveraging ratio
Total GEF project financing: 1,417,890 Total co-financing: 5,671,560	Total GEF project financing: 1,417,890 Total co-financing: 7,113,800	1025 USD in excess star allocation has been added to the budget; co-financing has increased following stakeholder consultations

Project Description

3. 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.
4. 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, Cambodia and South Africa in 2014. The GCIP takes a competition-based approach to identify 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 four cleantech categories; 58 in renewable energy, 41 in energy efficiency, 32 in waste to energy, and 28 in water efficiency.
5. 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.

6. In 2015 Thailand joined GCIP and about 10 countries, including Vietnam, Brazil, Ukraine, Nigeria, 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 eight 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.
7. 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 Cambodia as well as UNIDO's mandate to promote inclusive and sustainable industrial development (ISID).

1) Cambodia, general overview:

8. Cambodia reached lower middle-income status in 2015, following two decades of intensive growth which has been largely driven by garment exports and tourism. The economy has sustained an average growth rate of 8% between 1998 and 2018, though these gains are now under threat due to the Covid-19 pandemic which has decimated the tourism sector and slowed construction and manufacturing^[1].
 9. Due to its geographic location and socio-economic context, Cambodia consistently ranks in the top tier of climate vulnerability within the Global Climate Risk Index^[2]. Additionally, World Risk Index (2019), calculated as a product of exposure and vulnerability, categorised Cambodia as among the 'very high' impacted countries.^[3] Cambodia is vulnerable due to its agricultural dependence on the monsoon pattern, and the increase and variability of climate-driven events such as floods, droughts, windstorms, seawater intrusion and heat waves. In addition, its status as an emerging economy corresponds with limited infrastructure to enhance the resilience of Cambodians to respond to extreme climate events. According to UNDP
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statistics, 22,695 Cambodians out of every million were impacted by natural disasters in the country between 2005 and 2012, especially by flood and drought.[4]⁴

10. Climate change is a threat to Cambodia development because its impact has affected all Cambodian important sectors. According to the recent Addressing Climate Change Impacts on Economic Growth in Cambodia report[5]⁵, Cambodia's GDP in 2015 was already 4.6 percent lower than it would have been without climate change over the 1993-2015 period, and it will reduce Cambodia's GDP by 9.8 percent in 2050. The reduction of GDP is mainly due to lower labour productivity caused by heat stress due to higher temperatures. Research indicates that Cambodia's GDP would grow at an average of 6.9% annually between 2017 to 2050 without climate change, allowing the country to achieve Upper Middle-Income Country (UMIC) status in 2035.[6]⁶ With climate change however, average GDP growth will be reduced 6.6%, delaying UMIC status.[7]⁷
 11. In Cambodia, three important sectors that propel the Cambodia economic growth include service, industry, and agriculture sectors, which contribute 39.1%, 33.8% and 20.8%, respectively in 2019[8]⁸. Agriculture in Cambodia is still predominantly dependent on traditional methods and rainfed irrigation systems, which are very vulnerable to climate change. Increased temperatures affect the crop yield and labour productivity directly while changing rainfall patterns damage the crops themselves. In Cambodia, the common agriculture products are rice, rubber, corn, vegetables, cashews, cassava (manioc, tapioca), and silk and animal raising. According to Malaysian Agricultural Research and Development Institute (MARDI)[9]⁹ a 2°C rise in temperature could lead to a 13% reduction in paddy yield while drought or a 15% decrease in seasonal rainfall could lead to a drop-in yield of up to 80%. In the dry season, rice yields for crops planted in November and December could decrease by 40%.[10]¹⁰ The hot and dry weather could also increase the population of rice pest, which could contribute to the decline in rice yields.
 12. Other sectors negatively impacted include forestry and coastal zones. It is estimate that over four million hectares of lowland forest will be experience water deficit periods of four to six months and eight months or more.[11]¹¹ Decreasing forest cover can negatively impact the population and increase the risk of landslides.[12]¹² With regards to coastal zones, rising sea levels are expected to cause inundation, flood and storm damage, loss of wetlands, erosion,
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saltwater intrusion and rising water tables.[13]¹³ Analysis included in Cambodia's updated NDC suggests that a total area of 25,000 ha could be permanently inundated by a one meter sea level rise, increasing to 38,000 ha at a sea level rise of two meters. Under a high emission scenario, it is expected that nearly 31,000 people will be negatively impacted by flooding from sea level rises between 2070 and 2100, without significant investments in adaptation.[14]¹⁴ River floods are also a climate risk facing the country and it is projected that an additional 69,800 people may be vulnerable annually.[15]¹⁵

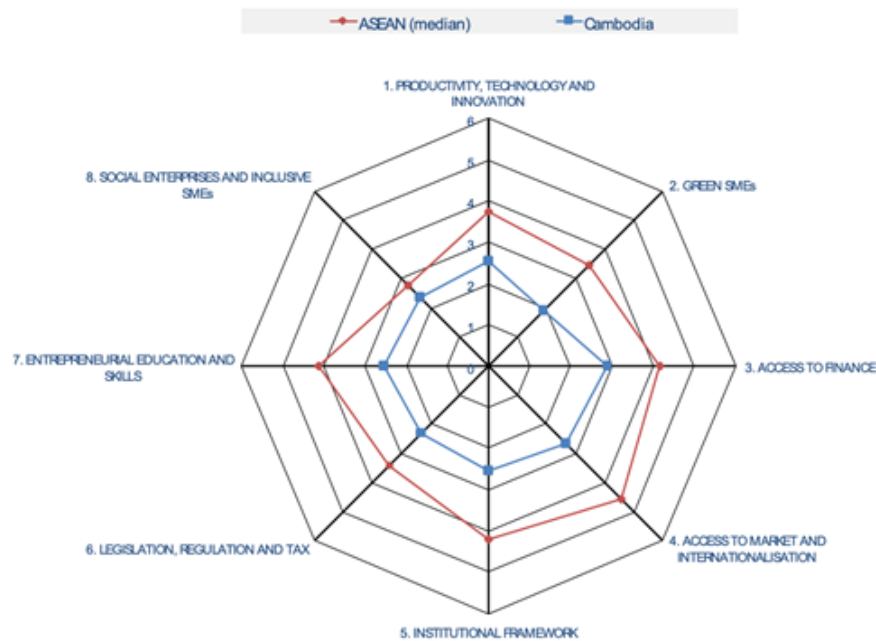
13. Human health will also be affected by climate change. Increasing temperatures will impact vulnerable populations such as children and the elderly. Additionally, higher temperatures accelerate microbial growth, transmission and virulence and can lead to changes in the seasonal and geographic distribution of vector-borne and water-borne diseases.[16]¹⁶
14. Tourism, garments, construction, rice milling, fishing, wood and wood products, rubber, cement, gem mining, textiles are the major economic subsector of industrial sector of Cambodia. Since these sectors are dependent on external supply chains and climate, they are very vulnerable to the climate change impacts. These impacts and consequences will require adaptation to climate change as well as actions to mitigate anthropogenic global warming. It means that active, and selective policy will have to be used to achieve the balancing act of reducing GHG emissions and adaptation capacity ensuring that Cambodia can achieve low carbon development and climate resiliency. Adaptation and mitigation will have costs and opportunities for industrial development. Generally, the challenge is to ensure that industrial development and the prospects for industrial development are not adversely affected by climate change and that industrial development takes place without worsening global warming ideally contributing towards moving global production, distribution and consumption towards a low-carbon and eventually de-carbonized economy. Moreover, industrialization itself could mitigate climate change and facilitate adaptation through providing the means to accelerate the transfer of employment from agriculture to industry with assist from technology this could potentially reduce pressures on deforestation and clearing of land for agriculture, two important sources of GHG emissions. Moving to a low-carbon economy will require industrial policy measures towards innovation and technological change that have different outcomes over the short, medium and long-term. Over the short-term the emphasis needs to be on improving energy efficiency, over the medium term to phase in the greater use of renewable energy and energy diversification for industrial processes, and over the longer term to introduce more path-breaking technologies for low-carbon production[17]¹⁷.

Relevant Policy Context in Cambodia

15. The government's long-term vision, Cambodia Vision 2030, is for the country to become an upper middle-income economy by 2030. To achieve this goal, it has developed a number of long-term economic plans, of which the longest is the Industrial Development Policy (IDP) 2015-2025. The IDP aims to achieve the objectives of Cambodia Vision 2030 by developing a broader base for economic growth and upgrading the country's manufacturing capabilities from labour-intensive to skills-intensive activities by 2025. To accomplish this, it recognises a need to diversify away from textile and garment manufacturing by increasing the share of other industries in GDP and total exports. It also recognises the need to enhance private domestic entrepreneurship and to support the growth of SMEs that drive these sectors.

 16. In 2014, Cambodia counted 513 759 enterprises, according to the last economic census, of which 99.8% were MSMEs, mainly micro enterprises (97.6%).^[18]¹⁸ According to the OECD^[19]¹⁹, Cambodia's SME policy is largely focused on improving the legal and regulatory environment to support SME development. The country is at a relatively early phase when it comes to the development of targeted SME policies, but Cambodia has undergone a wave of long-term economic planning over recent years with the aim of accelerating diversification and maintaining robust economic growth. SME policy is a pillar of this. In Cambodia, a key policy priority is to increase SME integration into global level value chain, particularly higher value-added activities. SMEs provide a similar structural contribution to the economy as in OECD countries, accounting for around 71.7% of employment, with micro enterprises accounting for 58.3% of employment.^[20]²⁰
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Figure 1 2018 SME policy index scores for Cambodia (Source: OECD)



The figure, above, indicates that Cambodia is not meeting the median norms within ASEAN as a whole, with regard to establishing supportive policies for SMEs. It follows that increased promotion and adoption of clean technology innovations will further strengthen the resilience of the Cambodian economy to climate change, while also having positive economic and social benefits through the promotion and support of entrepreneurs and innovation and through its contribution to energy security. The positive impacts of such interventions are magnified when applied to SMEs which operate in a business climate that can be difficult and in a policy environment that is not adequately adapted to their specific needs.

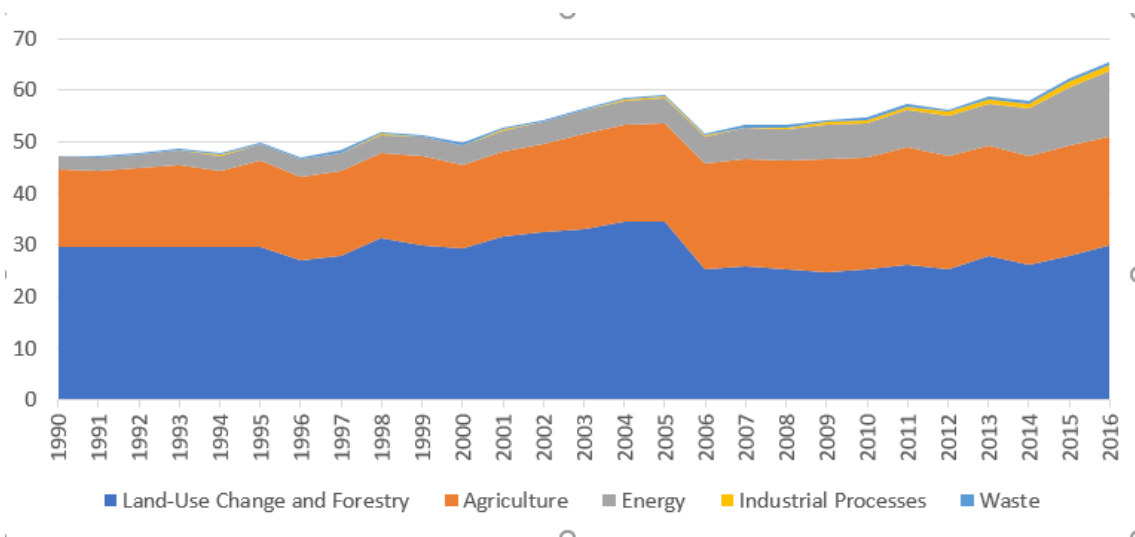
Cambodia and Climate Change

17. In Cambodia, climate change is fully underway and its impacts are expected to increase in the immediate term. The mean annual temperature has increased by 0.8 °C since 1960.[21]²¹ The frequency of hot days and hot nights has increased significantly since 1960 in every season and the average number of 'hot' days per year has increased by 467 since 1960.[22]²² Conversely, the average number of 'cold' days per year has decreased by 19 (5.2% of days) since 1960, and the number of

?cold? nights per year has decreased by 46. Meteorological modelling predicts that temperatures will rise in the future and, in addition to the increased frequency of severe floods experienced over the last decade, rainfall patterns will become more unpredictable by 2050. [23]²³

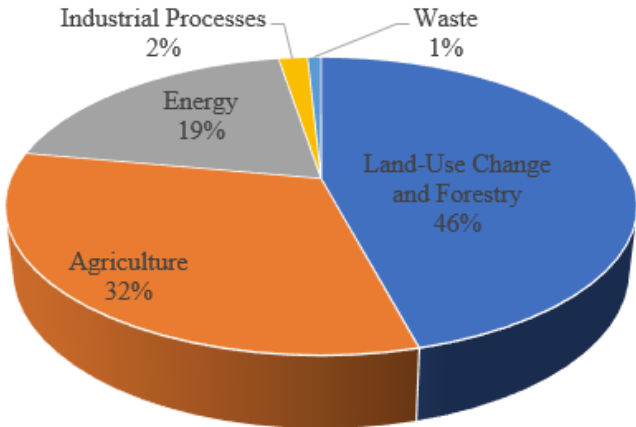
18. Vulnerability assessments predict that increased heat and rainfall will have ?significant ramifications for communities and ecosystems.?[24]²⁴ Mean annual temperature is projected to increase by 0.4°C to 1.3°C by the 2030s, 0.7°C to 2.7°C by the 2060s, and 1.4°C to 4.3°C by the 2090s. Frequency of ?hot days? is annually projected to occur on 14-49% of days by the 2060s, and 20-68% of days by the 2090s, marking a substantial increase in the frequency of hot days from the baseline of 12.2% of days in 1970-1999.[25]²⁵ Rainfall is projected to increase, particularly during wet seasons, offset by a decrease of rain in the dry seasons. Rainfall projections from different models have been consistent in showing increases in rainfall, particularly increases in wet season rainfall from June to August (-11 to 31% by 2090) and September to November (-8 to +42% by 2090), but will be partially offset by projected decreases in December to February (? 54 to +36%). These changes are expected to significantly reduce crop yields, in addition to a projected increase in heat-related injuries and deaths.[26]²⁶
19. In terms of mitigating climate change, the GCIP project addresses the major sources of greenhouse gas emissions in Cambodia. According to the World Resources Institute Climate? Analysis Indicators Tool (WRI CAIT), there are five major sources of GHG emissions in Cambodia: land-use change and forestry, agriculture, energy, industrial processes and waste.[27]²⁷ Figure 2 depicts the amount of emissions from these five sources from 1990 to 2016. It is observed that land-use change and forest, and agriculture are the main source of emissions while energy and industrial processes are rising rapidly during the last decade due to the use of coal for power generation, fuel for transportation, fossil fuel power generation, and industrial development in the country.

Figure 2: Cambodia GHG Emissions (MtCO₂e)



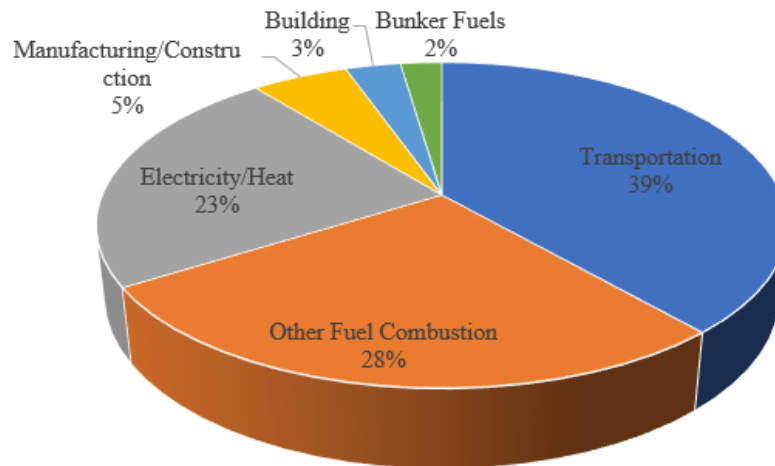
Cambodia's 2016 GHG profile (Figure 2) was dominated by emissions from the land use change and forestry (LUCF) sector, which accounted for 46% of the country's total emissions of 65.44 MtCO₂e. Agriculture was the second highest emitter (32%) with rice cultivation and enteric fermentation from livestock as major sources of agriculture emissions. Energy, industrial processes (IP), and waste contributed 19%, 1.16%, and 1% of total emissions, respectively. According to WRI CAIT, Cambodia's GHG emissions increased by 13.82 MtCO₂e from 2006 to 2016. The average annual change in total emissions during this period was 2.68%, with sector-specific average annual changes as follows: LUCF (1.91%), agriculture (0.15%), energy (14.61%) industrial processes (87.7%), and waste (2.56%). During the last decade, emissions from energy, industrial processes and waste are rising rapidly.

Figure 3: GHG emission profile of Cambodia in 2016



Under the energy emissions, transportation is the major source of GHG emissions accounted for 39% of total emission of 12.97 MtCO_{2e} in 2016. Other fuel combustion was the second highest emitter (28%) with biomass wood for cooking and thermal energy generation in the form of steam. Electricity/heat, manufacturing and construction, building and bunker fuels contributed 23%, 5%, 3%, and 2% of total emissions, respectively.

Figure 4: GHG emissions from Cambodia energy sector in 2016



- Even though Cambodia's national emissions account for less than 1% of world emission, Cambodia has committed to reducing its GHGs. Cambodia's Intended Nationally Determined Contribution (NDC) committed to reduce the GHG emissions by 27% by 2030, relative to its 2010 GHG emissions, contingent upon international support. In the LUCF sector, the INDC reiterates that the National Forest Programme aims to increase and maintain its forest cover at 60% of the total land area. This will be achieved through the reclassification of forest areas and the implementation of the Forest Law Enforcement, Governance and Trade, which aims to reduce illegal logging by strengthening sustainable and legal forest management, improving governance and promoting trade in legally produced timber. The commitment will be implemented in the energy sector (16%) through increased on-grid and off-grid renewable energy generation and promotion of energy efficiency; in the IP sector (7%) through the promotion of renewable energy and adoption of energy efficiency in garment factories, rice mills, and brick kilns; in transport (3%) through the promotion of public transport and use of energy efficient vehicles, and actions in other sectors (1%)^[28].

Barriers (and pathways) to change:

21. The implications of Cambodia's high-speed economic growth through tourism and manufacturing carries serious global climate implications, which will directly impact Cambodia given its intrinsic vulnerability to climate impacts. The need for Cambodia to foster innovation and research on economic grounds alone is highlighted in the Global Innovation Index (98 of 141), the Knowledge Economy Index (131 of 144) and the Global Competitiveness Index (94 of 144). In addition, innovation in cleantech has the potential to help Cambodia to leapfrog certain stages of development that are environmentally, socially and economically harmful or uncondusive. For example, there is a potential to develop low-carbon solutions for sustainable transport, sharing economy (e.g., using a common working space, and thus reducing the overhead costs and optimizing the use of lighting/electricity), or upcycling/downcycling/recycling of products which are no longer used. The potential beneficiaries are not only the artisan entrepreneurs themselves, but also all actors along the value chain, including e.g., distributors and retailers who might come from indigenous minority communities.

22. In Cambodia, SMEs account for 99% of total enterprises, 70% of total employment and 58% of total GDP, thus playing a significant role in the country's development.[29]²⁹ Despite recognition by the Cambodian government of the important roles played by SMEs and innovation for economic growth and stability, administrative hurdles and lack of access to finance continue to hinder entrepreneurship. In terms of investment in innovation, Cambodia allocates around 0.118% of its GDP for R&D investment, which is below the average of the ASEAN but above performances in Indonesia, Myanmar and Lao PDR. For some years, the development of creative industries in Cambodia has been constrained by a range of inter-related factors, including e.g., insufficient productive skills and technical knowledge, limited access to support networks and technology; poor transportation, high- cost communication and infrastructure.

23. With a very young population, more people in Cambodia are devoting themselves to freelancing or they contribute to the buoyant digital economy. Although in the recent years new start-up hubs and incubators have been founded in Cambodia, there is still a limited number of incubators or accelerator programs for mid-stage start-ups, particularly post-seed and pre-venture start-ups. Further on, there is a lack of cooperation and knowledge exchange in between both local start-ups as well as in between potential funders and local entrepreneurs. This offers the opportunity for the Cleantech programme to utilize these established services, while improving on their capacity, reach and visibility.

24. The speed and ambition of Cambodia's economic growth, coupled with its structural vulnerability to climate change impacts, renders it a critical country for cleantech innovation which can both Cambodia's national aspirations while leapfrogging Cambodia into a state-of-the-art, green economic model. The barriers to change are described in the table below:

Table 3: Barriers to Cleantech in Cambodia

Barrier category	Description
Informational and awareness barriers	<p>There is a limited knowledge and awareness of the cleantech market and its opportunities. There is a lack of visibility of the available options, requirements and procedures to access technical assistance, finance and seed funding for cleantech innovators at the national and international level. Furthermore, there is a weak link between innovators and other relevant stakeholders at the global level. Early stakeholder consultations indicate that while accelerators exist and there is national support for enhancing cleantech innovation, there is a lack of understanding (especially beyond Phnom Penh) as to the existence of the cleantech sector and its potential for driving Cambodian growth. In short, the cleantech sector is nascent in Cambodia and early-stage engagement in identifying opportunities and linking potential entrepreneurs to available resources is essential.</p>
Capacity barriers	<p>Within the limited population of entrepreneurs that are aware of the opportunities presented by cleantech innovation, there is a lack of support services for fostering the journey from pre-concept to market-maturity.</p> <p>In addition, targeted capacity building is needed in in Cambodia?s key economic sectors (agriculture, hospitality, manufacturing and industry) in order to drive the nation?s economic growth targets alongside a green development pathway. For example, A report published by the Asian Development Bank found that 90% of employers in the garment industry felt that graduates hired were not prepared for entry level positions.[30]³⁰</p> <p>Accelerators and national support are present but are insufficient given how little capacity exists for cleantech in Phnom Penh and the outer provinces. Additionally, Early stakeholder consultations indicate that there is a lack of understanding (especially beyond Phnom Penh) as to the existence of the cleantech sector and its potential for driving Cambodian growth.</p>

<p>Nascent policy and regulatory framework</p>	<p>The Ministry of Economy and Finance is supportive of the cleantech industry has made initial steps towards creating institutional support for innovation within SMEs. However, these efforts are in their early stages and therefore the need for technical guidance, support and coordination is critical in order to channel early interest in cleantech towards a long-term enabling policy environment. It is understood that a new policy on the digital economy and innovation will be formulated during the proposed period for the Cambodia GCIP, and without the GCIP there is no provision for the needs of cleantech innovators to be incorporated into the policy. Along similar lines, both the Techo Start up Centre and the Khmer Development Enterprise Fund have been tasked with supporting SMEs but, given their recent launch, are unable to feed policy recommendations and data-driven insights to MEF: the GCIP seeks to address the gap between technical expertise and emerging policy through a collaborative process at a critical stage in Cambodian policy making.</p>
<p>Poor institutional coordination</p>	<p>Complex innovation ecosystem and underserved cleantech start-up assistance sector</p> <p>The Cambodian national innovation ecosystem is considered to be complex, including a lot of organisations, institutions and universities, while collaboration networks with academia and industry remain poor. There is poor dialogue between universities/research institutes and the industrial sector, especially in the provinces. Additionally, there are limited start-ups in clean tech and renewable energy sectors that align with national development priorities ? coordination is needed among agricultural extension workers, industrial associations and the tourism board to identify and support cleantech entrepreneurs. Furthermore, there are weak links between innovators and other relevant stakeholders at the global level.</p>
<p>Limited access to the market and finance</p>	<p>Limited access to suitable credit for cleantech start-ups</p> <p>Limited access to suitable early stage and bridging finance for SMEs is a common issue in Cambodia, particularly for the underserved cleantech sector. While initiatives to enhance access to Series A funding exist (and indeed, the global programme is directly working with relevant partners such as PFAN and NGIN) there is a lack of pre-seed and seed funds to assist entrepreneurs in developing pre-market concepts for launch.</p> <p>Poor market access and promotion to support cleantech business growth opportunities.</p> <p>This is caused by some factors such as remote location of SMEs, high costs, limited knowledge, and the lack of business skills. Although it is growing, market for clean technology and renewable energy in Cambodia is limited and currently concentrated in Phnom Penh.</p>

25. It should be noted that the critical barrier within Cambodia is lack of capacity and coordination within an emerging cleantech sector. As will be later described in detail, Cambodia cleantech can align with a supportive stance from the Ministry of Economy and Finance and from an ambitious and energized approach more generally towards stimulating

development. Harnessing Cambodia's ambition to a low-carbon development trajectory requires targeted interventions into a) identifying, supporting, and empowering cleantech entrepreneurs through targeted technical assistance; b) harnessing national commitments toward clean tech through coordination support and the unification of technical understanding with policy-relevant recommendations and c) leveraging global networks and knowledge within the nascent cleantech sector, such that Cambodia can leapfrog past the lessons learned within other countries. The proposed project is therefore designed to directly address the barriers described.

In addition, the project has been designed in reference to existing project initiatives, in order to ensure synergies and to avoid duplication of efforts.

2. The baseline scenario and associated baseline projects

The Private Financing Advisory Network (PFAN):

26. 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.

National activity

27. Cambodia's economic development efforts have been among the fastest worldwide, with sustained 8% growth per annum from 1998 to 2018^[31]³¹. In parallel to the country's focus on stimulating economic development have been concerted national-level actions to ensure that the country's growth is climate-compatible. Cambodia's INDC identified mitigation actions in ?the energy industries, manufacturing industries, transport and other sectors.? Cambodia has also developed a National Strategic Plan on Green Growth for 2013-2030. The objective of the plan is to boost Cambodian economy toward a green economy focusing on efficient use
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of natural resources, environmental sustainability, green jobs, green technology, and economic reform, placing more consideration into green incentives, such as green tax, green finance, more importantly green credit, green microfinance, and green investment. The plan includes the following strategic focuses: Green investment and jobs creation; green economy management in balance with the environment; blue economy development and sustainability; green environment and natural resource management; human resources development and green education; effective green technology management; the promotion of a green social safety system; upholding and protecting green cultural heritage and national identity; and good governance on green growth. Green technologies are flagged as a key factor in promoting green growth, and the plan emphasizes the need to promote the development of green technologies and to stimulate private sector investment in bringing cleantech to market.[32]³²

28. In order to operationalise these goals, focus on stimulating economic development has more recently shifted towards supporting initiatives that can help the Kingdom of Cambodia leapfrog past the traditional development trajectory, i.e., economic development strategies that stimulate growth in Information and Communications Technology alongside promoting technical innovations in industry, manufacturing, agriculture. The tourism sector has also played a critical role in driving economic growth. The proposed project has been developed to align with the national development trajectory, in order to help 'green' the pathways to economic progress that the Kingdom of Cambodia is currently pursuing (i.e., the promotion of agriculture, manufacturing, industrialism and tourism).
 29. An overarching theme across the four sectors is a national-level focus on supporting information communication technology (ICT). The Royal Government of Cambodia (RGC) promulgated the Law on Telecommunications[33]³³ in 2017 to promote the Universal Service Obligations through the construction and development of telecommunications networks in Cambodia and provision of basic country wide telecommunications services coverage. The law mandates that 1% of annual gross revenue of all telecommunication operators in Cambodia be directed towards research and development activities R&D. The Policy on Telecom/ICT Development 2020[34]³⁴ that was released on April 11, 2016 focused on three main areas including Strengthening the Foundation of Telecom/ ICT Development, Strengthening ICT Security and Developing Industry and Promoting ICT Usage, which develops and promote the use of e-Government applications, e-commerce, and disaster relief and environmental protection.
 30. The enabling environment for ICT overlaps with all four cleantech sectors targeted under the Cambodian GCIP. Notably, the Cambodia is actively promoting ICT through government funded programmes under the Ministry of Economy and Finance (MEF). The programs include the establishment of SMEs Bank that will be designed to support the government policy by increasing access of affordable finance for SMEs and stimulating inclusive
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economic growth. The bank aims to support some priority sectors such as manufacturing, service firms supporting manufacturing, post-farm gate agri-business and food processing, innovative start-ups, tourism (particularly services), wholesalers and retailers[35]³⁵. The Techo Startup Center was also established by the government as an autonomous enterprise to promote entrepreneurship, especially SMEs & innovative start-ups, and also to promote entrepreneurial culture. The priority sectors of the centre's program are: agro-processing, manufacturing, tourism and innovative start-ups. The Skills Development Fund (SDF) is designed to stimulate private participation and to establish SDF as a permanent institution that serves as a trusted financing platform. Currently, the fund is being implemented. The fund focuses on five priority sectors such as construction, manufacturing, ICT sector, electrical/electronics, and tourism where private company that is in one of these sectors could apply for cost-sharing of their staff training that could either be skill upgrade or preemployment[36]³⁶.

31. In 2019, Entrepreneurship Development Fund (EDF) was established as a government trust fund mandated under Prakas No 136 SHV/BrK of Ministry of Economy and Finance. The same ministerial decision (Prakas) also established Khmer Enterprise, also known as Entrepreneurship Promotion Center, is an implementation unit of Entrepreneurship Development Fund (EDF). It aims to manage and mobilize resources, from all legitimate sources, to support the development of a vibrant entrepreneurial ecosystem and to provide financial and non-financial support to related entrepreneurial ecosystem builders including entrepreneurs, innovative start-ups, potential SMEs and partner institutions who participate in promoting entrepreneurial activities driving innovation and value-added creation in Cambodia's economy.
32. In addition, the Ministry of Mines and Energy (MME) has developed the Climate Change Action Plan for 2016-2018. With regards to energy, the Plan outlines several priorities relevant to the energy sector. These include: to formulate and analysis of an emissions baseline and implementation measures for mitigation and adaptation actions in the energy and mines sectors; to encourage the effective use of energy with minimal impact on the environment; to conduct a vulnerability assessment of energy infrastructures; to develop a legal and regulatory framework for the energy sector; to ensure reliable electricity supply; to promote the exploration of energy sources including hydro, natural gas and coal for electricity generation; and to promote regional energy trade via bilateral and multilateral cooperation. Other relevant priorities include increasing the institutional capacity for adaptation and mitigation response and strengthening the capacity to mitigate environmental impacts.[37]³⁷

33. In addition, a 6-year USAID funded Development Innovations (DI) project aimed to help social enterprises and young innovators to design and use information and communications technology (ICT) solutions and employ innovative processes to tackle Cambodia's development challenges. Within its framework, it supported Cambodians to learn new tech-related skills, boost entrepreneurial capacity, and employ innovative practices to get results. The activities ranged from digital skills courses to business incubators and accelerators, and social media campaigns to youth professional development programs. USAID is also supporting entrepreneurs who focus on non-timber forest products such as bamboo, honey and resin and link them with business development service providers so they can access productivity-enhancing expertise, technology, equipment, loans, enabling them to become more competitive in the market. USAID is helping the government and local communities identify and take advantage of opportunities for revenue generation from carbon sequestration and the avoidance of emissions from deforestation, and sustainable eco-tourism. In addition, through the 'Feed the Future' program, USAID is developing agricultural solutions to a variety of challenges, including access to finance, private sector engagement, postharvest losses, food safety, lack of market access. The proposed project will build on, complement and bring forward the achievements of the USAID project, by focusing more on supporting the development of clean and environmentally-conscious entrepreneurship, which will strengthen and add value to the cleantech business ecosystem within the country.
34. Another key initiative is currently underway in Cambodia, executed by UNDP. The UNDP Accelerator Labs initiative is a new service introduced in 78 countries that works with people, governments and the private sector to support new market innovation. Similar to the USAID DI project, however, it does not explicitly focus on carbon-constrained development and greenhouse gas reductions. This GCIP program will also leverage from synergies with the Global Affairs Canada's current initiatives such as Partnerships for Municipal Innovation in Local Economic Development, Support to Partnerships for Community Development and CESO - Volunteer cooperation 2020-2027, that promotes local business training and development, women, improvement in local governance capacities while advancing gender equality, and also from German Corporation for International Cooperation (GIZ)'s initiatives such as 'Strengthening the resilience of poor population groups to climate change in selected ASEAN states, taking special account of the impact of COVID-19 in Cambodia and Viet Nam' and 'Supporting MSMEs in Battambang Province, Cambodia'.
35. The Impact Hub and the Energy Lab, both with offices in Phnom Penh, have emerged through the stakeholder consultation process as the lead accelerators within Cambodia. While Energy Lab does focus on clean energy technologies, Impact Hub provides more broad support to entrepreneurs in general. This will be critical for engaging youth who experience significant difficulties in entering the labour market and are in need of support.^[38] In order to ensure that both the vast network that Impact Hub has cultivated and that Energy Lab's technical expertise in clean energy is utilized towards the GCIP goals, both accelerators will assist in the implementation of the programme. The Energy Lab specializes in accelerating clean energy
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within Cambodia and is assisting UNDP on implementing its energy accelerators, whilst Impact Hub is working with UNDP on an urban mobility accelerator. The GCIP envisions building upon the networks and inroads that Energy Lab and Impact Hub are forging through the work with the UNDP Accelerator Labs initiative in order to more efficiently identify potential participants and specialized innovation areas for implementation under GCIP. The GCIP accelerators also differ from the UNDP Accelerator Labs in that they seek to move beyond incubator and early accelerator support to advanced stage support (see ?alternative scenario section?) and will therefore seek to make use of the institutional knowledge gained in prior accelerators at the start of GCIP initiatives.

36. The table, below, describes related initiatives to support the acceleration of SMEs and to support innovation in Cambodia. It is apparent that there is no targeted initiative that focuses on low-carbon development and green growth. In addition, there is a lack of entrepreneurs that are able to bring proven concepts and validated technologies to market, especially in the green tech sectors. Thus, the proposed project seeks to join forces with the current leaders in the SME acceleration space, and to integrate an environmental focus into those existing initiatives whilst also facilitating coordination and synergistic efforts for SME acceleration nation-wide. Among the government programs and initiatives that are either ongoing or under development, the following ones are those that the proposed project will build on and synergize with:

Table 4: relevant projects and Programmes

No	Program, Project or Initiatives	Source of Funding	Amount	Years Run	Notes
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1	Sustainable Assets for Agriculture Markets, Business and Trade (SAAMBAT)	International Fund for Agricultural Development (IFAD) Loan and Grant; FAO, and RGC	92.1 Million USD	2020 - 2025	SAAMBAT Project is designed to address the poverty, labor productivity, defragmented agriculture value chain, climate change impact and women empowerment issues in the rural areas through promoting productive agriculture value chain. The main objective of the project is to sustainably increase productivity of rural youth, enterprises and the rural economy, contributing to the Goal of Reduced Poverty and Enhanced Food Security. There are two Outcomes: (1) poor rural people's benefits from market participation increased; and (2) poor rural people's productive capacities increased. Ministry of Rural Development (MRD) will be the Executing Agency with support from AIMS, ASPIRE and Provincial Department of Rural Development, MEF (Skill Development Fund and Techno Startup Center). The project lays a baseline for GCIP to build on for its market stimulation for sustainable assets for agriculture.
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2	BIO Program	Cambodia Investor Club (CiC)	NA	2018 - Present	<p>BIO Program is a business accelerator program founded by Cambodia Investor Club (CiC) in 2018 with an aim to catapult local SMEs to the next level by giving entrepreneurs the access to capacity development program, mentorship, consultation and opportunities to get investment funds. Moreover, BIO program also provides a platform where business owners can connect to supportive networks of peers whose experience they can learn from; currently we had over 400+ members in various industries and sectors in Cambodia. GCIP will learn from the BIO Program in how it provides opportunity to SME to access to knowledge, access to market, access to finance and access to expertise, and tap on to CiC expertise and resources to develop early-stage financing for cleantech innovation.</p>
3	SHE Incubator and Accelerator Program	The Russian Federation	NA	2020-Present	<p>This SHE incubator and accelerator programme aims to tackle some of these barriers through providing professional training, mentoring, coaching and consulting sessions for a group of 30 women entrepreneurs. It is designed in particular to address gender-specific barriers such as cultural and family pressures, lack of financial literacy and financial management skills, family businesses failing to separate business and family finances, low self-confidence and lack of business management and ICT skills. The project has raise appreciation of the value of entrepreneurship among women and GCIP will build on the momentum developed and focus on female entrepreneurs in the cleantech sector.</p>

4	Promoting Decent Youth Employment in Cambodia: Unpacking the opportunities for the Cambodia's youth in the new area of Industry 4.0	3E-Fii Group \$10.00K Axiata Group Berhad \$10.00K Khmer Enterprise \$15.00K United Nations Development Programme \$236.00K Government of the Russian Federation \$701.84K	\$972,836	2019 - 2021	<p>The "Promoting Decent Youth Employment in Cambodia" project aims to support the Royal Government of Cambodia to promote and expand decent employment among youth and to identify and test avenues for young people to maximize returns on their jobs and income opportunities in the context of the changing landscape of Industry 4.0. The project focuses on the following three results:</p> <ol style="list-style-type: none"> 1. Improving national and sector-specific policies related to youth skills development and employment in the context of Industry 4.0; 2. Developing human capital for higher-value added employment to support Cambodia's transition to Industry 4.0; and 3. Increasing capabilities of young entrepreneurs to start and sustain businesses that are responsive to changing industry needs. <p>The project lays a foundation for GCIP to build on for its interaction with rural youth especially, and in particular for building the capacity related to Industry 4.0 which is relevant to the substantive orientation of the GCIP intervention.</p>
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5	SHE (Support Her Enterprise)	Crowdfunding	14000	2013-present	<p>SHE (Support Her Enterprise) supports women with micro, small and growing businesses to scale, creating social and economic impact for communities. The goal is a gender balance in the Small - Medium Enterprise (SME) sector: more women running larger, sustainable, and impactful businesses. SHE began as an idea in 2013, when we wanted to find out why impact investment (investment into socially and environmentally impactful businesses) wasn't trickling down to SME level, and particularly why women weren't able to access investment or financing above microfinance as easily as men. We realised that in order to improve women's economic empowerment, create sustainable long-term change, and eventually see more women with SMEs receiving investment, we needed to build an ecosystem that supported women to scale up from the informal micro economy, and create a pipeline of investment-ready businesses.</p> <p>The project lays a foundation for GCIP to build on for its support to SMEs, some of which could be stem from the GCIP acceleration process and benefit from crowdfunding.</p>
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6	Impact Hub Phnom Penh	Multi sources of fund including government, private companies, development partners	NA	2014-Present	<p>Formally known as Social Enterprise Cambodia, Impact Hub Phnom Penh is comes to Phnom Penh in 2015 with vision to support the startup eco system in Cambodia. Impact Hub has three roles including incubation and acceleration center, connecting hub, and trainer.</p> <ul style="list-style-type: none"> -IHPP is the biggest community of change makers in Cambodia working to inspire, connect and enable young Cambodians who wants to have a positive impact in Cambodia through entrepreneurial initiatives. - Through the supportive programmes & incubations, workshops & events, mentorship, and valuable & resourceful networks, IHPP is one of the pioneers of the ecosystem that focus the support on the idea-stage social entrepreneurs, to support them to learn more about starting a business and get access to the resources they need and feel part of the strong, diverse community that will help them achieve their goals. We give them access to role models, financial support, human resources and a like-minded community locally and globally. - It also provides our productive and innovative space for change makers to come and connect and build up the dialogue around entrepreneurship as a way to make an impact by collaborating with one another and build entrepreneurial mindset. - During the last 5 years, IHPP has been implementing more than 20 programs. - The approaches of IHPP are <ol style="list-style-type: none"> 1. Inspiration: through events, online and offline to enable thinking to make change 2. Connecting: connecting people together 3. Training, incubation and acceleration <p>The project lays a foundation for GCIP to build on for its established network of mentors.</p>
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7	The Mekong Business Initiative	Australian AID and ADB	10.5 Million USD	2017-Present	<p>The Australian Government's Mekong Business Initiative (MBI) was launched in early 2015 to catalyze private sector-led innovation and growth in the emerging Association of Southeast Asian Nations (ASEAN) market. It is an advisory facility financed jointly by the Asian Development Bank (ADB) and the Government of Australia's Department of Foreign Affairs and Trade (DFAT), for a total of \$10.5 million. MBI, which is managed by ADB, focuses on Cambodia, the Lao People's Democratic Republic (Lao PDR), Myanmar, and Vietnam (collectively CLMV) because these countries are linked geographically; they have similar natural resources and agrarian economies (although Vietnam is more industrialized); and they have strong potential for economic growth but need to improve the environment for private enterprise and innovation to catch up with their ASEAN counterparts.</p> <p>To achieve MBI's expected outcome of an improved business enabling environment for small and medium-sized enterprises (SMEs), MBI carries out its activities through subprojects under three pillars: improved public-private dialogue on private sector development (PSD) policies and regulations, a more robust financing environment, and a more dynamic ecosystem for innovation.</p> <p>The project lays a foundation for GCIP to build on for its efforts to catalyze private sector-led innovation, which GCIP will complement well with a specific focus on cleantech.</p>
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8	TEKHUB	Asia Foundation and Impact Hub Phnom Penh	NA	2016-Present	<p>TEKHUB will be a place where entrepreneurs and innovators can grow their ideas through hands-on prototyping and testing. They will be able to establish meaningful collaborations, while having the opportunity of accessing tech and business-related events, programs and coaching, from coding and programming to project and business management.</p> <p>The project lays a foundation for GCIP to build on for its efforts to support innovation at or prior to ideation stage. It provides a pipeline of innovation for GCIP to consider for further support.</p>
9	Energy Lab Asia	Australian AID, UNDP, Others	NA	2018-present	<p>EnergyLab is a non-government organization having MOU with National Council for Sustainable Development, Ministry of Environment. Energylab supports the growth of the clean energy market in Cambodia, with a focus on business, entrepreneurship and innovation. Established in early 2018 we ran some projects, including the Smart Energy Hackathon, Clean Energy Week, Clean Energy Internships and School Outreach activities. In 2019, the EnergyLab designed additional activities such as the Clean Energy and Agriculture Incubation, Women in Clean Energy Fellowship, and Urban Mobility Showcase with UNDP, Grab, Impact Hub, MPWT and MoE.</p> <p>The project lays a foundation for GCIP to build on. Energy Lab is one of the few institutions with specific expertise and experience in cleantech and clean energy.</p>

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

Project strategy ? overview

36. As part of the larger Global Framework (10408), the Global Cleantech Innovation Programme (GCIP) for SMEs in Cambodia aims to support and nurture clean energy technology entrepreneurship and innovation. The project is based on an underlying theory of change which takes as its premise the need to incentivize Cambodian entrepreneurs towards a green development trajectory. In order to align Cambodia's economic ambitions within a climate-constrained world, the project is designed to closely align with the Ministry of Economy and Finance's aim of facilitating growth within innovative SMES. The proposed project focuses on green innovation, seeking to support entrepreneurs with additional access to finance, technical support, capacity building for their own SME's progress and capacity building for a long-term enabling policy environment. The components of the proposed project represent an integrated and holistic approach that steers the national momentum for growing a vibrant sector of innovative SMEs towards innovations for green growth. While some accelerators are present in Cambodia already, there so far exists no national and coordinated effort to accelerate climate-smart innovations within the country's development strategy.
 37. The project will focus on four key sectors of the Cambodian economy: agriculture; hospitality; manufacturing/creative and industrial Specific technologies within these sectors may pertain to renewable energy and energy efficiency, technologies which support a circular economy, innovations for green buildings and green manufacturing/industrial practices, innovations in green logistics and transportation.
 38. The project is tailored to national priorities and it is simultaneously designed to leverage its impact across the global cleantech innovation programme, which currently includes 10 countries that have committed or are apply to join the GCIP. It is designed to use the global program to increase market adoption of clean technology innovations worldwide, whilst incentivizing and enabling Cambodia to pursue a low-emissions development trajectory that increases its green jobs, national capacity and market development. The proposed project is in line with the national programmes and GEF focal area priorities. It targets the following SDGs: Goal 13: Climate action, Goal 17: Partnerships for the goals, Goal 9: Industry, innovation and infrastructure, Goal 7: Affordable and clean energy, Goal 6: Clean water and sanitation, Goal 5. Achieve gender equality and empower all women and girls, Goal 8: Decent work and economic growth.
 39. An evaluation of the GCIP programme in 8 countries (covering period 2011 ? 2017), showed that the GCIP provides a platform for measuring impact in GHG emission reductions, growth of the cleantech industry and new cleantech jobs created^[39]³⁹. Experience from the GEF 5 GCIP implementation has also shown that after successful completion of the GCIP Accelerator, start-ups and SMEs required further support in accessing additional sources of finance and to break into the market. It is on this basis that the Cambodia child project has
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been designed to build on the strengths of the first GCIP programmes, and to continue to support cleantech SMEs beyond the initial acceleration activities.

40. The evaluation of the GEF 5 GCIP programme also pointed to the need for a globally harmonised approach. Thus, the Techo Support Centre (TSC), which has been selected as the national project executing entity (national PEE), 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 Global PEEs will help to coordinate and ensure that the National PEE has ready access to information resources, technical assistance, and accelerator best practices identified from the full experience of the GCIP Global .

Project approach and alignment with the Global Programme and alignment with national development priorities

41. The Cambodia GCIP project is developed as a child project of the Global Framework. It uses the concept of a Cleantech innovation and entrepreneurship ecosystems CIEE to capture the importance of national, regional and international networks when launching cleantech enterprises. The Cambodia GCIP structure reflects the global programme structure, which organises its interventions across three pillars:
 - a. Pillar 1. Transforming early-stage innovative cleantech solutions into commercial enterprises;
 - b. Pillar 2. Cleantech innovation and entrepreneurship ecosystems strengthening and connectivity;
 - c. Pillar 3. Programme coordination and coherence.

42. The core assumption within the project approach is that technical capacity, financial access, gains in ICT and improved human resources can create an enabling environment for cleantech to thrive in a developing country setting. It is assumed that cleantech is able to compete with traditional technologies, and that by providing a nascent market with adequate knowledge, seed finance, mentoring, and support, a developing country can leapfrog past traditional business models into the low-carbon economy. This theory of change has been well demonstrated at the global level already: the first round of GCIP initiatives outperformed their expectations and have furnished the Cambodia GCIP project with lessons learned and a strong foundation of experience that has informed the project design. It is therefore reasonable to expect that a relatively minimal GEF grant utilised to coordinate an enabling environment and accelerator services in-country, alongside a global knowledge platform, can galvanise paradigmatic change in terms of cleantech investments and entrepreneurial activity in Cambodia.

43. As part of the larger Global Framework (10408), the Global Cleantech Innovation Programme (GCIP) for SMEs in Cambodia, aims to support and nurture clean technology entrepreneurship and innovation. The project has three components, in line with the GCIP Global Framework which has been designed based on the current needs of developing countries and GCIP partner countries including Cambodia, as well as recommendations from the GEF's independent evaluation of GCIP conducted in 2018, and with feedback from the previous nine (Ukraine joined under GEF 6) GCIP country projects implemented between 2013 and 2019. In particular, the project will 1) transform early-stage innovative cleantech solutions into scalable enterprises; 2) strengthen the capacities of CIEE stakeholders and connect them; 3) supporting and working with national policy makers to strengthen the supportive policy framework for SMEs and entrepreneurs; and 4) engage with the GCIP Global to ensure programme coordination and coherence.
44. The project will adopt an inter-disciplinary holistic approach involving start-ups, SMEs, national ministries and institutions, academia and research centres, business associations, financing institutions, foundations, venture capitalists and utilities within and beyond Southeast Asia. The project will closely coordinate with the 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.
45. Moreover, this project will aim to increase market adoption of clean technology innovations, thus leading to a reduction in emissions and fossil fuel consumption, to increasing green jobs, national capacity and market developments. Also, active involvement of innovation and research institutions, universities and other project partners will provide added value to the clean tech areas and support to the participating innovators and entrepreneurs.

1. The entrepreneurs (start-ups and SMEs) in Cambodia 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, lack of strategic coordination among key CIEE players, as pictured on the bottom of the graph above.

2. In order to alleviate the above-mentioned barriers, the GCIP Cambodia focuses on the following lines of intervention (outputs): 1) adaptation of GCIP Cambodia 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 Cambodia 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 Cambodia 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.

3. 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 Cambodia 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.

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

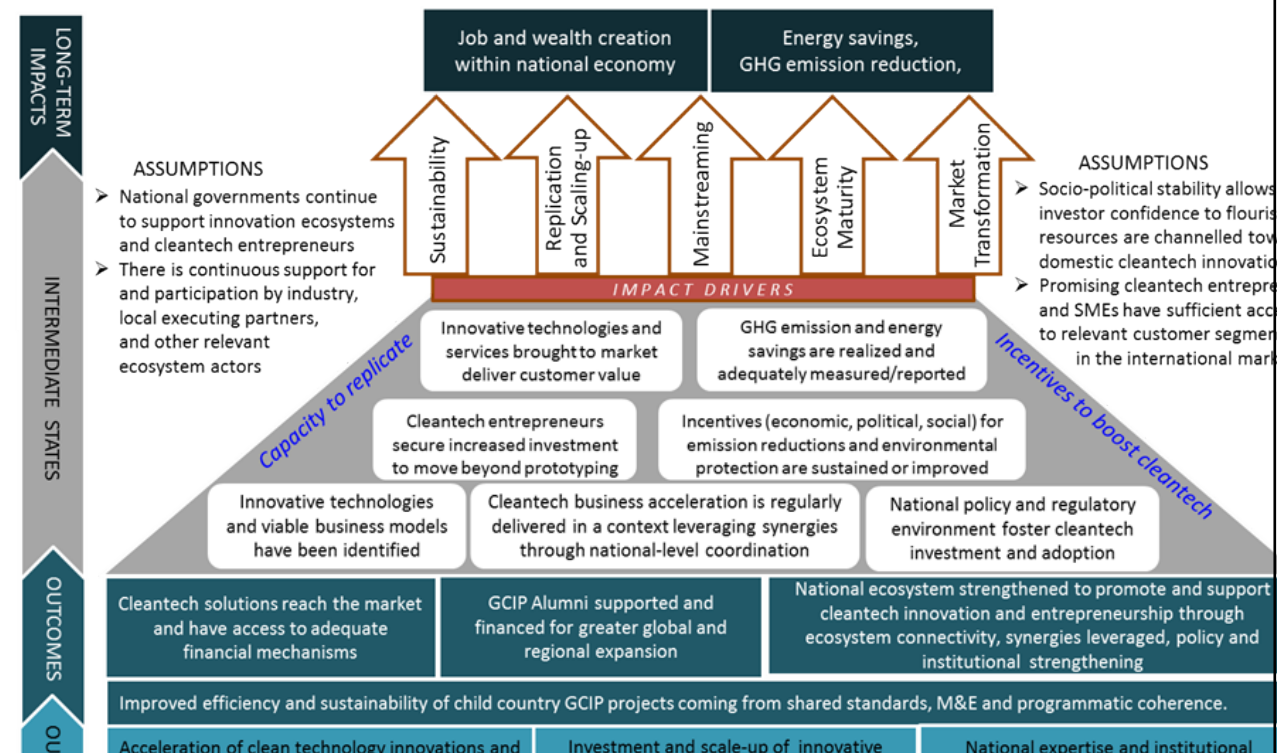
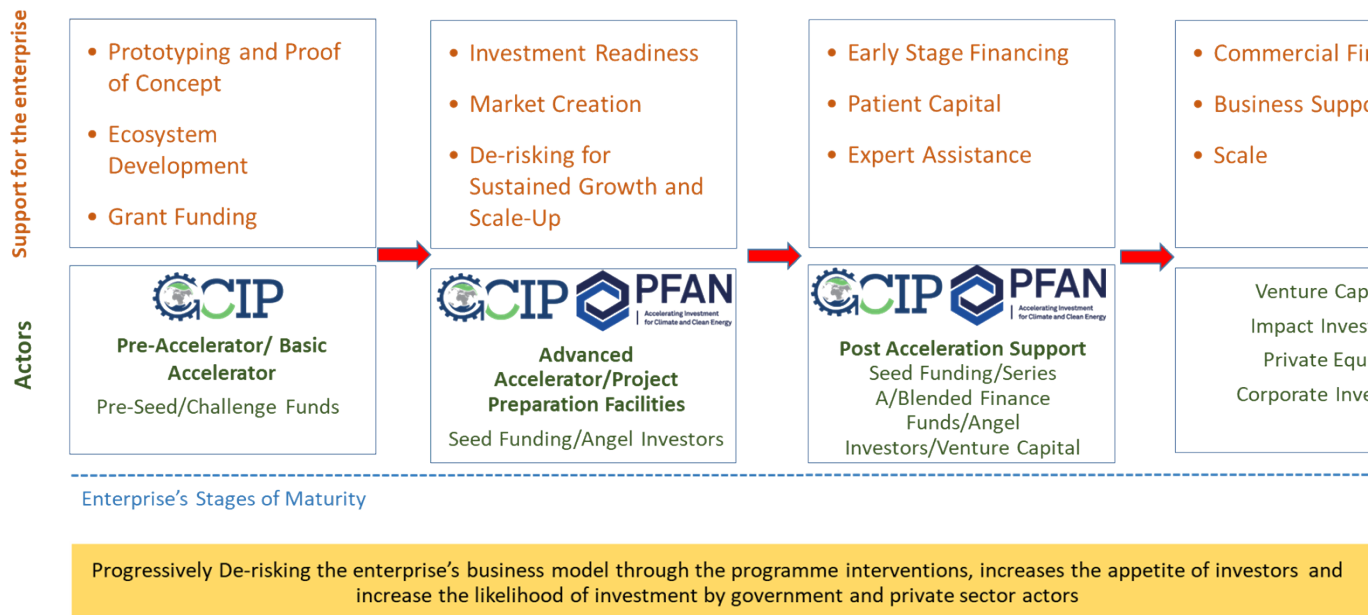


FIGURE 5 CAMBODIA GCIP THEORY OF CHANGE ? GRAPHICAL AND DESCRIPTIVE PRESENTATION

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.

GCIP connection to PFAN to support the start-up to scale up journey of cleantech enterprises

Figure 6 From 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.

48. 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.
49. While no industry sectors will be excluded from the project scope, the consultation process and the recommendation from the UNIDO Programme for Country Partnership (PCP) is that the project should focus on four key sectors which have been nationally prioritised for Cambodia's growth (agriculture; tourism; manufacturing and industry). An overarching focus across the four sectors is ICT, which is a cross cutting priority across the Cambodian development strategy and highly relevant for cleantech. The rapid development of ICT has triggered the 4th industrial revolution worldwide, which is now also promoted in Cambodia through the Techo Startup Centre and Khmer Enterprise. In addition, the Ministry for Economy and Finance is expected to publish a new policy on the digital economy during the duration of the project implementation period (i.e., 2021-2026) rendering the policy-related activities within the Cambodia GCIP particularly timely.
50. The overall priorities for the start-ups/SMEs supported within the project will be aligned to GEF 7 priorities namely, mini-grids with storage, energy efficiency, e-mobility, sustainable cities, foods systems. These priorities will be considered in the broader context of the government's four key sectors.

Within the four key sectors, the following entrepreneurial activities are envisaged.

Development of competitive agro- and creative-industries value chains.

51. With the view to capture value-addition and enhance livelihood through low-carbon development, post-harvest processing offers significant opportunities for innovation and entrepreneurship in Cambodia. Globally, agriculture is currently responsible for 25 percent of GHG emissions, for 70 percent of all water used, and is the main cause of deforestation. Therefore, there is a need to prevent food waste, to enhance nutritional value of food, to extend its shelf life, and to intensify agricultural production to produce 'more with less', in order to reduce emissions and enhance resilience and food security. Entrepreneurial initiatives to develop and deploy tailored technologies would Cambodia adapt to its changing climate and population.
52. Biomass in Cambodia is the main source of energy for cooking and heating, but not for power generation (it accounted for 0.5% of the total power generation in 2015).[40]⁴⁰ At the same time, only around 60% of the population have access to electricity. In this context, the agroindustry could play a crucial role in providing fuel for domestic and industrial uses.

53. Cambodia has one of the largest and most diverse freshwater fisheries in the world. Taking fisheries as illustrative example, it is crucial to support the development and strengthen SMEs and start-ups in the value chain, so as to efficiently utilize the natural fishery resources and limit the environmental burden. In this context, cleantech innovation is a key driver which catalyses opportunities for new and sustainable business models and technology innovations, which at the same time fosters economic growth, create jobs, and improves the livelihoods of the rural community. It will support entrepreneurs across the fisheries value chain to develop demand-driven ideas and green technology solution for climate change mitigation.

Development of sustainable tourism value chains, with upstream linkages to related agro- and creative-industries value chains.

54. Tourism, as a transversal sector strongly interacting with other economic sectors, can contribute significantly to the overall shift towards a more sustainable, cleaner and low-carbon economic growth. In support of the efforts to develop sustainable tourism in Cambodia, innovation and entrepreneurship will be promoted in that sector. This includes supporting the development and deployment of technologies spurring resources efficiency (of non- renewable and renewable raw materials, including water), encouraging the use of sustainable energy in tourism, reducing waste (as e.g., tourism generates large amounts of plastic waste, both water bottles and other products, which ultimately often end up in seas and oceans), as well as promoting sustainable mobility, etc. This also entails upstream linkages in relevant value chains to reduce the carbon footprint whilst catalysing local business opportunities and employment.
55. Importantly for tourism, which is a labour-intensive industry, the innovation to improve its environmental performance is not only about clean technologies. Non-technological innovation, such as introduction of environmental management systems and new business models, preventing forest logging aimed at making space for new hotels, and stopping the subsequent loss of natural habitat, plays an increasingly important role in the transition to a low-carbon green economy. In this context, the government of Cambodia will be a key player in fostering a regulatory/policy framework that is conducive to climate change mitigation in tourism.

Manufacturing/creative industries

56. For some years, the development of creative industries in Cambodia has been constrained by a range of inter-related factors, including e.g., insufficient productive skills and technical knowledge, limited access to support networks and technology; poor transportation, high- cost communication and infrastructure. Adoption of clean technologies and innovative business models may enable the recovering creative industry in Cambodia to leapfrog certain stages of development that are environmentally, socially and economically harmful or uncondusive. For example, there is a potential to develop low-carbon solutions for sustainable transport, sharing economy (e.g., using a common working space, and thus reducing the overhead costs and optimizing the use of lighting/electricity), or upcycling/downcycling/recycling of products which are no longer used. The potential beneficiaries are not only the artisan entrepreneurs

themselves, but also all actors along the value chain, including e.g., distributors and retailers who might come from indigenous minority communities.

Industrial diversification, in particular development of Special Economic Zones (SEZ)

57. There are significant opportunities for developing and deploying clean technologies and business model innovations in industrial clusters and special economic zones. For example, the industrial symbiosis can involve co-using of industrial machines in the spirit of sharing economy, and as a result it can lead to reduced environmental impacts compared to private ownership of machines (especially for machines that consume energy during the non-use phase). It also enables to close the material loops by using someone else's waste as a raw material for own industrial production processes in accordance with the basic circular economy idea. This results in a lower input of virgin raw materials (and associated avoided environmental impacts along the raw material value chain, including e.g., extraction, processing transport) and reduction of waste disposed. In addition, cooperation in industrial clusters and/or special economic zones spurs eco-innovation, which in turn leads to increased efficiency of processes, lowered costs, and enhanced competitiveness, whilst lessening environmental impact.
58. In the effort to capitalize on Cambodia's rapid information and communication technology (ICT) development, the project can focus on promoting and supporting ICT solutions for climate and clean energy projects across all industrial sectors, including e.g., smart metering and smart grids, sustainable transport (including real time navigation and e-logistics), e-commerce, etc. It is in this framework that industry 4.0 and circular economy (e.g., dematerialization) approaches will be mainstreamed, leading to decoupling of the raw materials use from economic growth, and thus reducing the negative environmental impacts of industry. This would in turn enable Cambodia to embark on a fast track to low-carbon sustainable and innovative future.
59. The objective of the project is therefore to accelerate clean technology innovation and entrepreneurship in strategic priority areas of Cambodia. Another expected outcome is the support for products and services validation and access to markets, alongside financing facilitation. Finally, it is expected that the policy and institutional framework will be strengthened to spur clean technology innovation in Cambodia.

Project description:

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

60. The purpose of component one is to directly address the lack of cleantech entrepreneurs and SMEs through awareness raising, targeted capacity building and strategic financial support; it corresponds with Pillar 1 in the Global Framework. Activities under component 1 provide targeted accelerator services and long-term coaching and pre-seed/seed level support for early-stage SMEs that can demonstrate continued and credible progress towards market viability.

To achieve the objectives of Outcome 1, the project will implement activities to effectuate the following outputs.

Outcome 1.1 Early-stage cleantech innovations are accelerated.

61. Lessons learned from the first implementation phase of the GCIP include reference to the need for 'better technical support' under Pillar 1. It follows that activities under Outcome 1.1. seek to rigorously select, train and certify cleantech mentors, judges, and coaches based who will be able to help implement cleantech accelerators.

Output 1.1.1 The GCIP guidebooks and methodologies are adapted for the GCIP Cambodia

62. The training and certification of the cleantech experts will be supported through the development of methodologies, tools and training materials. These materials will be adapted from GCIP Guidebooks, which will be developed by the Network for Global Innovation (NGIN) under the GCIP Global. They will guide the operation and management of the GCIP Cambodia Accelerator, Advanced Accelerator, and Post-Accelerator, in that they will for example include proposed schedules; eligibility requirements and selection criteria for the participants; competition rules; training curricula and handbooks for applicants, experts (mentors, trainers, judges). The guidebooks will be shared with the TSC and appropriate training will be provided on their adaptation and use. The guidebooks will be gender responsive, avoid gender stereotypes, provide recommendations to enhance gender equality in the accelerator programme and highlights the need to launch calls that target women for the accelerators.
63. It is envisaged that Techo Support Centre (TSC) will also select and manage technical partners to assist in the adaptation of the GCIP guidebooks, in order to ensure that the design and coordination of the training programmes are relevant to Cambodia's local context. The adapted materials will be utilised to certify a body of trainers, mentors and judges to assist with the implementation of the accelerator rounds. TSC has expressed interest in working with both Energy Lab and the Impact Hub, which have a demonstrated track record in designing and implementing trainings and accelerators in Cambodia; TSC may select additional partners as well.

Output 1.1.2 Pool of cleantech innovation and entrepreneurship experts (trainers, mentors, judges) is trained and certified to support the GCIP Cambodia Accelerator ((at least 30 cleantech experts identified and trained with at least 35% of women participants))

64. Cleantech is a nascent concept in Cambodia. Throughout the stakeholder consultation and validation process, there was consensus that significant effort should be directed towards the identification of potential cleantech entrepreneurs within Phnom Penh and beyond, and the provision of tailored and early-stage support to enable 'engineers with a good idea' to progress to a market launch. In order to support this goal, comprehensive stakeholder consultations identified the range of institutions that run accelerators within Cambodia and sought guidance on best practice for establishing a pool of cleantech innovation and entrepreneurship experts. The TSC will identify potential trainers, mentors and judges by drawing upon the networks of its technical partners. A key source of identifying potential cleantech trainers, mentors and judges are established local institutions as well as the Private Finance Advisory Network (PFAN)[41]⁴¹, which is also acting as a global project executing entity (PEE) for GCIP Global.
65. Activities under Output 1.1.2 are critical for supporting an inclusive cleantech future in Cambodia, in which both women and men can equally take the lead, participate and benefit from. As such, specific focus will be placed on identifying successful women entrepreneurs and ensuring their participation as mentors and judges in the programme. Women entrepreneurs will receive peer to peer training. In addition, awareness raising, and sensitization will be part of the training for mentors and judges to enhance their gender responsiveness. The Impact Hub is run by a team that is comprised of 80% women, wherein all leadership roles are held by women. Energy Lab is also run by a woman, and both centres have a demonstrated commitment to transforming the engagement of female entrepreneurs in innovative tech. Gender-disaggregated data will be collected on the number of women-led enterprises via the application process. Templates prepared for assessing or reporting on entrepreneurs/SMEs will include gender specific recommendations and observations. Additionally, TORs templates for project experts will include gender aware language and suggestions.
66. For clarification, a brief overview of the types of support that the trainers, mentors, and judges will be certified to provide include:

Pre-Acceleration ? support activities to enable the early-stage teams in their pipeline to develop their initial concepts, team and communication. This could consist of workshops, hackathons, start-up camps or mini-competitions. These activities and events would take place before the launch of the main GCIP accelerator and would be focused on improving concept formation and proof of concept, leading to increasing the applicant pool whilst simultaneously improving the ability of each team to communicate and initially validate their concept.

The **GCIP Accelerator** is a four-to-six-month curriculum designed specifically to support cleantech innovations stemming from developing and emerging countries, to develop viable business models and grow cleantech enterprises. Through the GCIP Accelerator, a cohort of cleantech innovations with high-impact potential are identified and invited to receive intensive business and entrepreneurship mentoring and coaching to accelerate their growth as businesses. Support is provided to improve their business skills and investor pitch and in connecting them to potential business partners, financiers or investors. The goal is for participating enterprises to validate, among others, their market, product and technology leading to their first investment and customer. The tailored mentoring programme combines international expertise through an ongoing training programme with carefully chosen mentors to support the entrepreneur teams. Specific guidance will be provided to help the enterprises to maximize their potential climate benefits and to minimize any negative environmental or social impacts identified, particularly relating to local climate risks

Advanced Acceleration is support focused on building individual businesses in a manner that is tailored to their needs rather than a focus on a whole cohort and creation of specific deliverables (such as investor presentation) in the GCIP accelerator. The intervention would still be time-bound and the level of support would be specific to the needs of those start-ups but will be underpinned by a few key webinars. The objectives would also be very precise and outcome focused such as: entering the first overseas market, closing a partnership, investment agreement or raising venture capital and corporate investment. Unlike a mentor-mentee relationship under the annual accelerator with defined coaching roles (e.g., specialist and general mentors) advanced acceleration requires hands-on tailored support and direct operational input. This would typically take the form of an Executive in Residence (EIR) who would be a senior executive or serial entrepreneur with experience of growing cleantech ventures. They work intimately with a start-up on tackling operational, financial and strategic issues relating to a very specific targets outcome.

The **Post Acceleration support** requirements are much deeper and broader than the support from acceleration. Effective support requires an ability to respond quickly and authoritatively to urgent questions from alumni ventures. This could include guidance/facilitation on investment (e.g., close a VC investment or an IPO), team development (e.g., filling team gaps, recruitment etc.) and entry into new markets (e.g., market intelligence, connection

Output 1.1.3 Three cycles of the annual competition-based GCIP Cambodia Accelerator are conducted (at least 70 participants out of which 35% are women participants)

67. Thus, activities under Output 1.1.3. initially focus on scouting trips, roadshows, and outreach to universities and scientific institutions beyond Phnom Penh. TSC has indicated that it would partner with Energy Lab and Impact Hub, given their track record and ability to build on existing networks in order to source entrepreneurs and design accelerators.
68. Pre-incubation activities will target 30 entrepreneurs/start-ups per sector (agriculture, tourism, manufacturing and industry) in order to assist entrepreneurs in understanding the full range of GHG reducing technologies that may be integrated into their project design. Sourcing and scouting activities will also seek to work with existing SMEs that wish to redesign their focus towards cleantech, i.e., logistics companies that may wish to upgrade their fleet to e-mobility, or SMEs that service tourism which may wish to increase the energy efficiency of their regular operations. Finally, output 1.1.3 will be realised through the implementation of at least three accelerator rounds, which will be run by the technical support partners and overseen by

TSC. Each accelerator round will aim to include 15-25 entrepreneurs and start-ups, and may also include established SMEs that seek to move into cleantech. By dividing the three accelerators between Energy Lab and Impact Hub, more time can be spent in scouting and pre-incubation coaching and mentoring, in order to more critically select the cohort for each accelerator round.

- 69. In addition, the GCIP Global will support the TSC in establishing and aligning the first cycle of the GCIP Cambodia Pre-Accelerator, Accelerator, Advanced Accelerator, and Post-Accelerator. The assistance will be gradually phased out of in the second cycle with a view to capacitating the national institutions to be fully independent by the third cycle. NGIN will also make available a help-line 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. Participants in the accelerator will be offered the possibility of using this service for at least the first year of project implementation.

- 70. Activities under this output will dedicate special attention to integrate the gender action plan and a specialised gender expert will be hired to drive and coordinate these actions: (i) recruitment of women trainers, mentors, judges; (ii) specific training and mentoring to promote women innovators, entrepreneurs, women-led start-ups and address gender related challenges and barriers; (iii) design of specific prizes and follow-up support programmes for women innovators, entrepreneurs, women-led start-ups that will have a significant impact on women's entrepreneurial development; and (iv) design of specific prizes for innovations that have significant impact on women's livelihood.

- 71. In order to further support transformative outcomes in terms of gender and inclusion, winners of the accelerators are envisioned for multiple categories, and may include recognising and promoting women entrepreneurs and start-ups. This includes direct invitation to apply for advanced acceleration support and access to the Early-Stage Development Fund. Awards may distinguish entrepreneurs from underrepresented provinces or particularly challenging business development circumstances; start-ups led by women; start-ups which incorporate ICT and other leapfrog technologies; and other niche awards that shall be identified during the pre-incubation process based on the specific needs in each sector

72. Activities in support of Outcome 1.1

Activities in Support of Output 1.1	Responsibility
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Activity 1.1.1a	Adapt the GCIP guidebooks to the Cambodian context and disseminate them TSC reviews the GCIP guidebooks for Accelerator, Advanced Accelerator, and Post-Accelerator; to share suggestions for improvement of the GCIP guidebooks with NGIN; to adapt the GCIP guidebooks to reflect the context of Cambodia's CIEE, including market conditions, gender context, policy environment, development priorities, technology focus, local examples, etc. (i.e. to develop the GCIP Cambodia guidebooks); to organize information and consultation sessions with relevant stakeholders; to disseminate the GCIP Cambodia guidebooks among relevant stakeholders (translation required).	TSC
Activity 1.1.1b	Identification of criteria for cleantech mentors, judges and coaches, integrating gender-sensitivity within the approach - technical, financial, and gender consultants	TSC
Activity 1.1.1c	Development of methodologies, tools and training materials and certification system, including integration of the gender approach	TSC
Activities in support of Output 1.2		Responsibility
Activity 1.1.2a	Training and certification of selected cleantech experts, with inputs from Global GCIP - technical, financial, and gender consultants NGIN: Support provided to national PEEs to develop the GCIP cleantech innovation and entrepreneurship expert training and certification system for the GCIP Cambodia experts (trainers, mentors, judges), including training curricula/materials, guidance on the training delivery methods, and certification requirements. NGIN will also develop an assessment framework for evaluation of experts (trainers, mentors, judges), as well as to facilitate the expert accreditation at global institutions/initiatives.	TSC
Activity 1.1.2b	Gender expert to oversee gender-related outcomes and the integration of gender-sensitive project implementation throughout the programme - gender consultant	TSC
Activity 1.1.2c	Identification of cleantech entrepreneurs in the four project sectors through roadshows and scouting events NGIN: As a service to the Cambodia GCIP, NGIN will NGIN will compliment this activity by continuously capturing recommendations from GCIP Cambodia experts (trainers, mentors, judges) to ensure continuous improvement of the GCIP cleantech innovation and entrepreneurship expert sourcing, training and certification system.	TSC
Activities in Support of Output 1.1.3		Responsibility

Activity 1.1.3a	Pre-accelerator services for potential accelerator entrants, tailored to the four sectors	TSC
Activity 1.1.3b	<p>Three accelerator rounds targeting each of the four project sectors</p> <p>NGIN: As a service to the Cambodia GCIP, NGIN will pilot a Global Innovation Challenge as part of the GCIP Global Accelerator (as from 2022).</p> <p>As part of the support package outlined in Activity 1.1.2 a; NGIN will provide in-country training support to facilitate national academies, and development of participating national teams. Support would also include the capacitation of national mentors and trainers. (Year 1).</p>	TSC
Activity 1.1.3c	<p>Help desk services to support the accelerator activities from Global GCIP</p> <p>NGIN: To provide ongoing technical support via an accelerator ?help desk? for the entrepreneurs, experts, judges, mentors and TSC staff, as needed (Year 2, \$4,650).</p>	TSC
<p>Summary of additional activities carried out by GCIP Global (10461) as a service to GCIP Cambodia:</p> <ul style="list-style-type: none"> ? Pilot a Global Innovation Challenge as part of the GCIP Global Accelerator (as from 2022) ? Develop an assessment framework for evaluation of experts (trainers, mentors, judges), as well as to facilitate the expert accreditation at global institutions/initiatives ? Capture recommendations from GCIP Cambodia experts (trainers, mentors, judges) to ensure continuous improvement of the GCIP cleantech innovation and entrepreneurship expert training and certification system 		

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

73. 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 Outcome 1.1, 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 and targeted support

Output 1.2.1 An early-stage development fund is created to provide pre-seed and seed financing support to entrepreneurs and start-ups (at least 12 firms achieving eligibility criteria with at least 35% of women participants)

74. Stakeholder consultations and analysis during the PPG phase indicated that identifying high potential entrepreneurs and start-ups will be a critical challenge for the Cambodia GCIP, and

for this reason partnerships with experienced acceleration teams, pre-incubation services, and scouting/road shows have all been budgeted for the Cambodia country programme. In addition, the Cambodia GCIP places a special emphasis on using donor support to build capacity for sustained investment in cleantech. As such, initial conversations with financial specialists and entrepreneurs will further develop during the first year of project implementation, wherein financial specialists will work with existing innovation funds to identify or create a special funding platform for early-stage SME development.

75. The establishment of an early-stage development fund for SMEs will provide long-term support for technology verification, product development and market entry support through small pre-seed grants and seed grants, with the expectation that the grants will convert to loans/investments as the start-up develops. If the financial consultants/experts deem that it is impractical to establish a separately-operated early-stage development fund is not viable, TSC will identify a partner to deliver the pre-seed and seed grants from the GCIP programme.
76. In order to ensure that the fund is gender responsive targeted actions to ensure that women can equally access the financial support. This will include targeted support for women entrepreneurs and women-led enterprises. To measure its impact gender-disaggregated data will be collected on recipients of support.

Output 1.2.2 Technology verification, product development and market entry support are provided (at least 15 start-ups (with at least 35% women participants) for post-acceleration support per year)

77. Each accelerator is expected to select approximately 15 start-ups for post-acceleration support and services, which will be furnished by the early-stage development fund or through a TSC support partner. This support will be open to all enterprises that completed the Accelerator and may also be applicable to non-GCIP alumni enterprises in exceptional cases if high-impact potential can be showcased. Activities included towards Output 1.2.2. include provision of training and business growth support to selected cleantech entrepreneurs and start-ups, including the identification of mentors, bespoke mentoring around actions, weekly calls, and workshopping financial models with mentors. Together with mentors, coaches and experts, the start-ups will undergo the validation of selected business models, prototypes and technologies. The provision of the support for these activities will be aligned with the Early-Stage Development Fund as appropriate and administered by the PMU. Women will be actively encouraged to participate as participants and facilitators through targeted outreach and by ensuring that topics of interest to women entrepreneurs are covered.
78. Stakeholder consultations and lessons learned from the GCIP indicate that the provision of mentoring services is an art form, requiring careful pairing between personalities and technical capacities. Thus, the TSC and its technical support partners envision actively fostering and managing the mentor relationships that will drive the activities under Output 1.2.2. Where

possible, coaches, mentors and judges from the accelerator rounds will continue on as one-on-one coaches for the successful graduates of the initial accelerator.

79. In addition, there will be Advanced Accelerator service offered to selected entrepreneurs participating in the GCIP Cambodia Accelerator that will be 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.
80. The GCIP Cambodia Accelerator alumni will also be eligible for the GCIP Cambodia 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 Cambodia guidebook for the Post-Accelerator (Output 1.1.1). It is foreseen that after the second cycle of the GCIP Cambodia Accelerator, the Post-Accelerator support will be provided to a minimum of 10 enterprises. After the third cycle of the GCIP Cambodia Accelerator, the Post-Accelerator services will be provided by the TSC to a minimum of 15 entrepreneurs, with a goal to reach 20 entrepreneurs? total. The GCIP Cambodia will also provide support in overcoming product related market entry barriers, including protection of intellectual property and product life cycle assessments.
81. Finally, a series of trainings (in the form of webinars) will be organized by NGIN at no cost to the Cambodian programme. The trainings 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); 4) trainings targeted towards the needs of women entrepreneurs. Prior to the training for female entrepreneurs, a needs assessment will be conducted by the gender expert to identify and tailor support packages. All trainings will include a module on approaching technology development with a gender lens. Moreover, for selected GCIP Cambodia Accelerator alumni with high impact potential (10-20 enterprises), there will be technology verification, product development, and testing facility support provided through the national PMU. This may include collaboration with research institutions and universities that house relevant expertise, as well as with the industrial sector.
82. Gender disaggregated data will be collected to determine the amount of USD raised for women cleantech entrepreneurs. Women-only networking events will be held to connect women entrepreneurs to investors.

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

83. It is expected that several GCIP Cambodia 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 Cambodia in identifying a suitable mentor with the appropriate expertise. In addition, the GCIP Cambodia 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.
84. On an ad-hoc basis, as opportunities arise, matchmaking services for the GCIP Cambodia 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 Cambodia alumni to build their global presence and extend their partnerships and networks. In addition, the Techo Support Centre (TSC) will encourage GCIP Cambodia alumni for application to the GCIP Global Accelerator, and NGIN will support their application process. Finally, the GCIP Global will provide additional assistance, i.e., the CTG will ensure access for the GCIP Cambodia alumni to the Global GCIP database, and UNIDO will encourage GCIP Cambodia alumni to apply for PFAN support. Targeted mentoring for women will also be provided.
85. From the global budget, Workshops will be conducted for local financial experts, including brief presentations on PFAN (REEEP), its project development journey and coaching process. Selected experts may become future PFAN (REEEP) advisors, and will be sensitized project sourcing and investment facilitation skills and tools. PFAN will lead some initiatives for GCIP Global, and it will launch open calls for GCIP alumni applications.

86. Activities in support of Outcome 1.1

Activities in Support of Outcome 1.2.1		Responsibility
Activity 1.2.1 a	Identification and design of an early stage development fund with co-finance partners and national programmes	TSC
Activity 1.2.1 b	Provision of seed funds to entrepreneurs and start-ups	TSC
Activities in Support of Output 1.2.2		Responsibility

Activity 1.2.2 a	Provision of training and business growth support to selected cleantech entrepreneurs and SMEs through advanced acceleration services, i.e. identification of mentors, bespoke mentoring around actions, weekly calls, workshopping financial models with mentors	TSC
Activity 1.2.2 b	Validation of selected business models, prototypes and technologies	TSC
Activities in Support of Output 1.2.3		Responsibility
Activity 1.2.3 a	<p>Provision of mentorship and partnerships for cleantech enterprises</p> <p>NGIN: to provide networking assistance and mentorship matchmaking to the GCIP Cambodia alumni nominated by the TSC</p> <p>NGIN: to develop additional training support for advanced acceleration, post-acceleration and for priority technology and industry sectors and make available to TSC (as a service to the Cambodia GCIP).</p>	TSC
Activity 1.2.3 b	<p>GCIP Global Accelerator</p> <p>NGIN: to provide application assistance to the GCIP Cambodia alumni nominated by the TSC for support by the GCIP Global Accelerator (as a service to the Cambodia GCIP).</p>	TSC
<p>Summary of additional activities to be carried out by the GCIP Global as a service to GCIP Cambodia:</p> <ul style="list-style-type: none"> ? UNIDO and NGIN: to identify and facilitate cross-border networking and matchmaking opportunities and for stat-ups/SMEs supported by the GCIP Cambodia with internationally recognized mentors, GCIP alumni enterprises, corporations, investors, and governments ? UNIDO and NGIN: to enable the GCIP Cambodia enterprises to showcase their cleantech innovations at high-level national and international events (including GCIP Global Forum and other major international events) ? UNIDO: to encourage applications of the GCIP Cambodia alumni for PFAN support ? NGIN: to develop additional training support for advanced acceleration, post-acceleration and for priority technology and industry sectors and make available to TSC. 		

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

87. The policy framework and institutional capacity are integral parts of GCIP's ecosystems approach. It follows that the objective of the Component 2 is to build capacity of TSC and other key Cambodian stakeholders to engage in cleantech acceleration and commercialization. Further, the GCIP Cambodia will assist the government in improving national policies and regulations that are conducive to cleantech innovation and commercialization.

Output 2.1.1 An Alumni Network is established and supported to allow peer-learning and foster partnerships

88. In order to support the ability of the accelerator alumni and the coaches, judges and mentors, activities to gather, share lessons learned, and realise synergies, a GCIP alumni network will be established and actively supported by the TSC. Activities under output will focus on the establishment of online tools and the maintenance of a web-based platform for the alumni network to gather, share, and correspond. Peer networking emerged as a critical component in GEF 5 GCIP, and as such it will be expanded under Output 2.1.1, even as the impacts of Covid-19 are expected for the foreseeable future.
89. The web platform will be operated and regularly updated to support entrepreneurs, start-ups, SMEs and promote participation of government agencies, R&D institutions, financial institutions, academic institutions, private sector, and others. Furthermore, in order to address barriers to market and information in remote regions, hard copy resources for cleantech start-ups will be made available in province capitals, universities, and research institutes. The web platform is envisaged as an interactive online community for GCIP participants and alumni; it will be used from the beginning of the GCIP Accelerator cycle (call of applications and receipt of applications), during the Accelerator cycle (webinars, submission of assignments etc.), as well as after the Accelerator cycle for alumni companies and potentially investors (impact tracking post-Accelerator, investor matching etc.). The web platform will be a modern, user friendly, online system that empowers the PMU with local ownership of data and GCIP alumni with a sound networking tool. It is expected that hosting and ownership of the web platform will be responsibility of the Techo Startup Centre, in order to ensure its sustained maintenance at the close of the project.
90. The TSC and the GCIP alumni will also support capacity building and training workshops conducted by GCIP alumni. The training events will target universities throughout Cambodia and will make use of the case studies and materials provided by the global GCIP. All global training materials will be translated into Khmer and will be tailored to local circumstances by GCIP alumni. GCIP alumni will also participate in 'train the trainers' events to foster a vibrant and sustainable Cleantech ecosystem through partnerships and collaboration. Where possible, these training events will be held in person, but provision has also been made to design vibrant and interactive on-line courses and materials should Covid-19 restrictions still be in place.

91. National networking will further be strengthened and expanded by enabling the Cambodian alumni network to gather with other GCIP alumna at related regional and international events. Participation at annual events such as the Cleantech Forum Asia, the Asia Clean Energy Summit and the Asia-Pacific Climate Week events will enable the Cambodian alumni network to enhance dissemination of best practices and enhance their exposure to international investors. Regional activities will also include participation at the Global Cleantech alumni meetings, which will bring together competition hosts and partners from around the world to share best practices and experiences and enhance knowledge sharing in Cambodia. Particular attention will be given to garnering participation from successful women entrepreneurs in the programme to promote gender equality and the empowerment of women through involvement of role models.

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

92. The PMU will oversee an assessment of the Cambodian Cleantech Innovation and Entrepreneurship Ecosystem under this output, in order to identify the capacity building needs (with attention to the needs of women) in cleantech, and the optimal set of policy interventions. A kick-off workshop will be held with relevant stakeholders to discuss drivers and challenges of cleantech innovation in Cambodia, as well as to present selected findings of similar evaluations under the GCIP Global.

93. Building from the results of the assessment, the PMU will assist in reviewing existing policies and regulations relating to the promotion of clean energy technologies, innovation and entrepreneurship to identify those that need to be developed and/or improved, especially from the perspective of encouraging and supporting increased engagement and participation of SMEs. The related policies and regulations can be those promoting the clean energy technologies of the selected categories in SMEs, as well as those governing the protection of intellectual property rights, agreements on sponsorships, roles, responsibilities, and rights of different stakeholders involved in the accelerators (competition organizer and entrants, sponsors, mentors, judges, etc.). A gender mainstreaming strategy will be provided by the gender expert in order to ensure that gender considerations are mainstreamed into existing and future policies. In this output gender dimensions will be considered through including a gender lens in policy review and formulation. For instance, organizations and gender focal points are involved in the policy review and formulation workshops, discussions, and focus group meetings. A gender expert will support to ensure that gender dimensions are considered in all policy recommendations made by the project. This shall ensure that gender equality is enhanced and women empowered to become active agents of change in cleantech in Cambodia. Gender-disaggregated data will be collected on policy consultations.

94. Additionally, the project will support the government with the development of policy instruments on innovation technology usage for the purpose of the adjustment to climate change. In 2017, the Global Cleantech Innovation Index- GCIP Country Profiles assessed the

innovation landscape of GCIP partner countries by surveying the inputs to innovation and assessing the outputs to innovation. The GCII-GCIP report will serve as a valuable tool to support advocacy work for policies that support the development of innovation ecosystems for sustainable technologies. Building on this past work, a ?With support from the global child project, a 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. The Ministry of Economy and Finance may use the report to develop and implement a policy on the digital economy, in addition to other protocols and policies under development.

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

- 95. Under the GCIP Global there will be an annual GCIP Forum to ensure connectivity between the GCIP child networks. 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.
- 96. In addition, regional cooperation will be promoted and formalized between the GCIP Cambodia and other GCIP CIEEs in the region (e.g., with Thailand and Cambodia). A forum will be set up to share lessons learned with the aim of feeding into Cambodia’s policy recommendations developed under output 2.12.

97. Activities in support of Outcome 2.1

Activities in Support of Output 2.1.1		Responsibility
Activity 2.1.1 a	Establishment of online tools and maintenance of a web-based platform for the alumni network - technical consultants	TSC
Activity 2.1.1 b	Organisation of matchmaking events for investment facilitation through coordination and cooperation with relevant project stakeholders--connectivity of individuals to financing institutes.	TSC

Activities in Support of Output 2.1.2		Responsibility
Activity 2.1.2 a	<p>Localisation of global framework to Cambodia</p> <p>CTG: Module 1: National Policy Localization :</p> <ol style="list-style-type: none"> 1. Build off of global policy exercises to create baselines assumptions for national project 2. Highlight opportunities for improvement, supported by examples from case studies and observed best practices 3. Identify policies that may be inhibiting innovation 4. Framework for translation of global findings and best practices into national actions 5. Suggest KPIs to account for additional details 6. Revise opportunities and challenges observed at global level 7. Recap findings from global evaluations, frameworks and workshops <p>(year 2)</p>	TSC
Activity 2.1.2 b	To develop recommendations for the cleantech innovation and entrepreneurship policy; and to conduct a stakeholder engagement and capacity building workshops to discuss and validate the gap analysis report and the policy recommendations	TSC
Activities in Support of Output 2.1.3		Responsibility
Activity 2.1.3 a	to promote cooperation (in particular bilateral and regional cooperation) and facilitate its formalization between the GCIP Cambodia with other GCIP CIEEs in the region	TSC

Please note the following complementary activities will be provided as a service by the CTG under GCIP Global to the country child project and will be utilised to support the activities listed above:

- ? CTG: to organize workshops on frameworks for capacity building, stakeholder engagement and cluster development for a cohort of all national PEE representatives (including TSC)
- ? CTG: to develop the Global Cleantech Innovation Index which will enable comparisons of the Turkish CIEE with other countries? CIEEs
- ? CTG: to develop a cleantech innovation capacity building, stakeholder engagement and cluster development frameworks
- ? NGIN: to organize the Global Forum
- ? NGIN: to facilitate Cambodia's membership in the Network for Global Innovation for the duration of the project

Component 3: Project Coordination and Coherence

98 Component 3 is designed to address Pillar 3 under the global programme, and will include GCIP-2 programmatic coherence and coordination activities in order to provide support to national child project PMUs, share guidelines and internal standards as well as promote interaction between PMUs.

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

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 TSC, 2) a sustainability and exit strategy for the project. In addition, TSC will develop the Early-Stage Development Fund as part of the sustainability strategy developed in the first year of project implementation.
100. 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^[42] and Project Steering Committees); description of communication channels between GCIP Cambodia 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
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as gender mainstreaming and principles to be applied by the PMU in the course of project management. In addition, annual meetings for national PEE representatives (including TSC) will be organized across all ten countries 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 developed at global level and implemented in child projects

101. A lesson learned during the GEF 5 GCIP was that an exchange of learnings and experiences across the 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: Promoting visibility of GCIP and communicating its impacts achieved at national and global levels; Increasing awareness of the catalytic role of cleantech in addressing climate change and environmental issues; Showcasing cleantech innovations from the GCIP alumni and enhancing their visibility and credibility.
102. The global GCIP knowledge management, communication, and advocacy strategy framework will be shared with TSU for review and adaptation to the Cambodia GCIP approach. In order to facilitate this work, 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 the PMU 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).
103. More specifically, a series of trainings (in form of webinars) will be organized that 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.

104. The GCIP Cambodia will be assigned a section of the global GCIP web platform (i.e., a GCIP Cambodia web platform). The GCIP Cambodia web platform will be used from the pre-accelerator cycle (call for applications and receipt of applications), during the 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). In addition, there will be a special section on the GCIP Cambodia web platform for alumni to share experiences and continuously foster their network.

105. **Activities in support of Outcome 3.1**

Activities in Support of Output 3.1.1.		Responsibility
Activity 3.1.1 a	Written case studies, identification of best practices and creation of learning tools for sharing with the global programme	TSC
Activity 3.1.1 b	Integration of standardised methodologies and other best practices from the global programme	TSC
Activities in Support of Output 3.1.2.		Responsibility
Activity 3.1.2 a	Knowledge management, advocacy and communication strategy adapted for Cambodia from Global GCIP	TSC
3.1.2b	Sustainability and exit strategy is developed	TSC
<p>Additional services from GCIP Global include:</p> <ul style="list-style-type: none"> ? UNIDO to develop and disseminate GCIP internal guidelines for project management teams, including a) operational guidelines for the PMU to be established within TSC, b) a sustainability and exit strategy framework; ? UNIDO to organize annual meetings for national PEE representatives (including TSC) to provide a platform for training and exchange of experiences/insights. ? UNIDO: to provide online trainings to TSC employees and their Project Management Unit (PMU), with focus on the operational and managerial efficiency and effectiveness required to successfully execute the GCIP Cambodia. ? UNIDO: to provide international GCIP web platform with country sections, and programmatic level information, related guidelines, templates and online trainings for its maintenance and updating ? UNIDO: to develop a knowledge management, communication, and advocacy strategy framework 		

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

106. National impact monitoring will be established and linked to the Global GCIP coordination project, especially the impacts on business development and expansion, approved funding, the number of contestants, the GHG emissions reductions, and the range of sectors included in the acceleration activities.
107. The GCIP methodology for impact assessment will be developed by the GCIP Global and shared with the GCIP Cambodia 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.
108. TSC will receive an online training on the GCIP methodology for impact assessment from UNIDO, and subsequently TSC will train (online or in person) all GCIP Cambodia Accelerator semi-finalists. TSC may request further support to provide a training on the GCIP methodology for impact assessment also to other enterprises supported by the GCIP Cambodia.
109. The GCIP Cambodia enterprises will be expected to periodically provide relevant impact data to TSC for validation and consolidation. The enterprise impact data will then be used to develop and publish a GCIP Cambodia 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.). Data will benefit the GCIP Cambodia 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 as well as an external mid-term review is conducted

110. A detailed monitoring plan for tracking and reporting on project time-bound milestones will be prepared by UNIDO in collaboration with the TSC and project partners at the beginning of project implementation and then periodically updated. The results of the periodic monitoring/impact reports will provide input for period revision to the project's Theory of Change and subsequent implementation strategies. While the theory of change and workplans will be responsive to the results of the project reports, the overarching framework for the M&E

approach will be designed in compliance with UNIDO's standard M&E approach for GEF funded projects. This will include preparation of progress, mid-term and terminal evaluation reports.

111. The GCIP methodology for impact assessment will be developed by the GCIP Global and shared with the GCIP Cambodia 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 and reported which then feeds into PIRs, MTRs and TEs. The data will be gender-disaggregated and gender-sensitive, and youth participation will also be recorded.
112. The TSC will receive an online training on the GCIP methodology for impact assessment from UNIDO, and subsequently the TSC will train (online or in person) all GCIP Cambodia Accelerator semi-finalists. The TSC may request further support to provide a training on the GCIP methodology for impact assessment also to other enterprises supported by the GCIP Cambodia.
113. The GCIP Cambodia enterprises will be expected to periodically provide relevant impact data to the PMU for validation and consolidation. The enterprise-level impact data will then be used to develop and publish a GCIP Cambodia 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 Cambodia enterprises by providing increased credibility and visibility. The impact data will also be shared with the GCIP Global for consolidation on the programme level.
114. An external 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.
115. **Activities in support of Outcome 3.2**

Activities in Support of Output 3.2.1		Responsibility
Activity 3.2.1 a	Annual Progress Reports	TSC

Activity 3.2.2 b	Mid-term Review	UNIDO
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Activities in Support of Output 3.2.2.		Responsibility
Activity 3.2.2 a	Independent terminal evaluation - technical consultants	UNIDO
Activity 3.2.2 b	Annual financial and technical audits - technical consultants	TSC
<p>Additional services from GCIP Global include:</p> <p>? UNIDO: to develop and provide the GCIP methodologies (and the related online training to all PEEs including TSC) for impact calculation and associated tools for its operationalization.</p> <p>? UNIDO: to provide the GCIP M&E framework</p>		

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

116. 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.

117. 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 Cambodia 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;

118. While the current business environment for cleantech SMEs and start-ups in Cambodia is improving, and the launch of the Techo Startup Center is a clear testimony, 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.

119. This project aims to go beyond the current baseline. As discussed in section 1a) the baseline includes SMEs with breakthrough cleantech innovations in developing markets having a very low success rate due to lack of key skills and capacities to transform their innovations into viable, scalable and fast-growing enterprises. Furthermore, the innovation and entrepreneurship ecosystem Cambodia can be hostile and initiatives to support these

120. 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.

121. 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 Cambodia. 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 from this 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 from this project
- ? 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, investors networks to promote networking and learning
- ? create bigger market opportunities for cleantech innovators to expand their businesses and hence increase their success rates and reduction of more GHG emissions.

122. 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 Cambodia, 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.
123. 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 be able 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 that include impact investors and crowdfunding platforms.

124. 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 5.6 USD/tCO₂e and 11.3 USD/tCO₂e.
125. 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 Cambodia, 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);

126. The long-term lifetime of cleantech innovations introduced in the market and the strengthened and interconnected CIEE will be reflected in multiple global environmental benefits (GEBs). The primary benefits are 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)

127. 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.
128. 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.

129. 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 Cambodia 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.
130. 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.).
131. 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.
132. 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 Cambodia (GEF ID: 10460)

133. The three cycles of GCIP Cambodia Accelerator are expected to support 70 enterprises (semi-finalists), as a result of which the avoided direct GHG emissions over a ten-year horizon are estimated at between 126,000 and 252,000 tCO₂e of direct GHG emission savings and 630,000 and 1,260,000 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.
134. To facilitate the achievement of GEBs, there will be awareness raising and promotional activities during the call for applications to the GCIP Cambodia 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.
135. 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), and improved water quality, among others.

7) innovativeness, sustainability and potential for scaling up. ?

Innovation at the national level:

136. Technology and innovation are the key enablers of low-carbon development, and the Royal Government of Cambodia has made serious commitments towards supporting innovation across its strategic areas of growth. The Ministry of Economy and Finance has created and launched a Skills Development Fund, the Techo Startup Centre and Khmer Enterprise, which all work towards building capacity, supporting market-readiness, and facilitating the scale up of technological innovations.
137. The key objective of the proposed project will be to accelerate the promotion and commercialisation of innovative clean technology products. To do so, the project adopts an innovative approach not yet seen in Cambodia wherein the project will support inception-to-

launch activities and seed funds required for identifying, accelerating, and then providing long-term, advanced acceleration support for market launch. The project is also innovative in that it closely aligns with Cambodia's current industrialisation strategy and adds the critical element of utilising low-carbon, environmentally sustainable technologies. In this way, the project harnesses Cambodia's national ambition towards green growth at a critical juncture in the nation's rapid development trajectory. GEF funds are the key to unlock the intellectual potential of the country and steer it towards cleantech. The core focus of this project is innovation.

138. The proposed child project envisages the establishment of an early-stage development fund to serve as a dedicated financial instrument for cleantech entrepreneurs. This will significantly increase the probability of successful and marketable start-ups and SMEs to secure investment. The mechanism itself is an innovative instrument that will secure investment mobilisation for innovation.

Innovation within the GCIP design

139. The GCIP is unique in its approach of fostering the expansion of SMEs and start-ups into cleantech products and markets. From the assessment of the current policy framework and the identification of innovative technologies to their development and commercialization, the GCIP supports entrepreneurs across the whole innovation value chain to develop demand-driven and investment-ready climate solutions that are expected to have a real impact in Cambodia and regional markets. In contrast to other accelerators and incubator programmes, GCIP not only promotes innovation per se but also uses an innovative approach that is cross-sectoral and multi-tiered to strengthen the national innovation and entrepreneurship ecosystem by building capacity in national institutions, creating strong linkages between the most relevant ecosystem players and by raising awareness among them.
140. The connection with the global GCIP framework will ensure that innovation is nurtured and recorded in the most efficient way. The outcomes of the child project are designed to disseminate knowledge and technology transfer from Cambodia to other participating countries abroad. This could especially be beneficial for the developing countries in the Southeast Asian region.

Sustainability:

141. The GCIP Cambodia fosters long-term project sustainability through multiple strategies. First, the project is closely aligned with national priorities and actively coordinates its activities with ongoing initiatives from government-supported programmes, such as Techo Support Centre, Khmer Enterprise, the SME Bank, and with initiatives that work closely to support national strategies such as the Impact Hub and Energy Lab. The GCIP Cambodia was conceived and is designed to utilise GEF funds to help leverage new finance to support green technologies that match the national vision for economic growth.

142. Second, the GCIP project directly addresses the need for early-stage development support for cleantech, and works with existing funds and financial experts within Cambodia to identify and design a long-term financial mechanism (i.e., the Early-Stage Development Fund) that can be seeded with initial support through GEF but Thirdly, the ecosystem approach of the project has been conceptualised to support project sustainability. It involves public and private sector institutions throughout and builds capacity in both sectors to make sure that the activities under the different components can continue after project closure. The comprehensive trainings conducted for participants, judges and mentors will create a critical mass of technicians with sound business skills in different regions of the country, creating a virtuous cycle wherein in-country expertise enables others in-country to gain more expertise.
143. Finally, the project is designed to capitalize upon demonstration effects. Activities under Component 3 will provide a platform for disseminating and demonstrating lessons learned within Cambodia, both to attract new investors and to demonstrate proof-of-concept for other firms within Cambodia and abroad.

Scaling Up

144. The entirety of the GCIP approach is designed to catalyse scaling up of entrepreneurs/start-ups to launch and proliferate in the market. The specific strategy for scaling up is as follows:
145. First, the project utilises accelerators and a financial mechanism to bring high-potential start-ups to scale, supporting them at critical junctures with capacity building, seed financing and support. Advanced acceleration services through the mentoring/training/specialised support for the winners of the accelerators aim to maximize the ability of each supported alumni to reach the commercialization stage. By providing support to alumni and other eligible cleantech innovators, GCIP also contributes to job creation, competitiveness, wealth generation and reduce GHG emissions.
146. Second, it is expected that the project will serve as a catalytic force to advance the innovation and entrepreneurship ecosystem in Cambodia as well as to coordinate and maximize the synergies with national and international relevant players. The activities of the alumni network are designed to broaden the capacity of the tech industry within Cambodia overall, and to support the identification of cleantech opportunities within existing SMEs. By building on existing SME networks and adding new understanding of cleantech opportunities, the project seeks to scale up the environmental sustainability of a rapidly accelerating

economy. In other words, the project seeks to scale up cleantech by hitching itself to the motor of Cambodia's intensive focus on national economic development.

147. Finally, activities to support knowledge management, project monitoring and evaluation under Component 3 will ensure efficient knowledge recording as well as networking activities that would result in significant level of scaling-up. Furthermore, local and international expansion will be achieved by disseminating the selected case studies using both UNIDO and project partners' communication channels, as well as utilizing the existing GCIP network. Such an approach will encourage knowledge sharing and networking between the various GCIP countries. The global nature of the GCIP will offer ample opportunity for the project to continuously expand, especially with the potential support of global sponsors, investors, etc. beyond the project implementation period.

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[5] http://www.camclimate.org.kh/en/documents-and-media/library/category/39-financing.html?download=912:full-report-on-cc-impacts-on-economic-growth-in-cambodia_may-2018_en

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[8] <https://elibrary.maff.gov.kh/book/5eaa3815b825e>

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[18] Ibid.

[19] OECD (2018) ASEAN SME Policy Index 2018. Available at: <https://www.oecd-ilibrary.org/docserver/9789264305328-en.pdf?expires=1607016466&id=id&accname=guest&checksum=A1CE9A40A48D5B78396E9E9429885481>

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[37] <https://climate-laws.org/geographies/cambodia/policies/climate-change-action-plan-for-mines-and-energy-2015-2018>

[38] Royal Government of Cambodia, UN, SDC, Joint Programme Document: Decent Employment for Youth in Cambodia, 2020.

[39] Based on a representative number of case studies from the participating countries, results showed that 624 ktons of CO₂ have been reduced, US\$23M of revenue was generated and 329 jobs were created. These figures are projected to increase to 4.8 Mtonnes of CO₂, US\$ 263M of generated revenue, and 1,219 jobs, by 2020.

[40] Energypedia, Cambodia energy overview, accessed 25 July 2020.

[41] PFAN is hosted in Phnom Penh by UNIDO and has its own established structure in Cambodia.

[42] Under the Global GCIP, a Global Advisory Board will be established to provide strategic inputs to the global project and to the overall global programme. The Global Advisory Board will comprise of the GEF, UNIDO and government representatives from each GCIP partner country.

1b. Project Map and Coordinates

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

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

Cambodia coordinates are 12.5657° N, 104.9910° E

149. The project will include the entire Royal Kingdom of Cambodia. While the project is targeted at beneficiaries (entrepreneurs and all relevant CIEE stakeholders, such as universities, policy makers, financiers, and R&D institutions) from all over the country, the main project events and activities will be conducted in the current capital city of Phnom Penh. This is due to the benefits resulting from a relatively dense concentration of relevant stakeholders there, and well-developed infrastructure. The project boundary will not overlap any other country's territory.

The latitude of Phnom Penh, Cambodia is 11.562108, and the longitude is 104.888535.



1c. Child Project?

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

150. The national Cambodia 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. The following figure shows how

the Global programme will support the child project and how the national child project will feed into the global programme.

151. The project will also collaborate with NGIN, and CTG, which are both official partners within the Global Programme. It is also expected that the Cambodia child project will collaborate with UNFCCC Climate Technology Centre and Network (CTCN) and the Private Financing Advisory Network (PFAN), which are UNIDO hosted initiatives 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 global project, 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.

Figure 7 below illustrates how the Cambodia national project aligns with the global programme:

GCIP: Program Framework Components

Pillar 1. Transforming early-stage Innovative cleantech solutions Into commercial enterprises

1.1 Acceleration of early-stage cleantech Innovations Into enterprises

- Methodologies, guidelines, tools and training systems for cleantech Innovation and entrepreneurship accelerators developed and implemented
- Pool of business innovation and entrepreneurship experts (coaches, mentors and judges) trained and certified to support cleantech innovation and entrepreneurship accelerators at national and global levels
- Competition-based cleantech Innovations and entrepreneurship accelerators conducted annually at national and global levels

1.2 Targeted business growth support and investment facilitation for cleantech enterprises at growth stage

- Targeted advanced business growth support services provided to selected cleantech enterprises towards commercialization
- Investment facilitation support provided to high impact cleantech enterprises
- Mentorship and partnership support provided to cleantech enterprises for cross-border market expansion.
- Investment project implemented

Pillar 2. Cleantech Innovation and entrepreneurship ecosystems strengthened at national levels and connected at the global level

- Capacity building for national technology innovation and entrepreneurship support institutions, industry associations and business platforms
- Development and dissemination of cleantech innovation and entrepreneurship related policy recommendations and strategies at national and global levels
- Knowledge creation, exchange and dissemination at national and global levels to promote linkages, collaboration and synergies across cleantech ecosystems of GCIP countries

Pillar 3. Strategic program coordination and coherence

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

Outputs:

- Program level internal guidelines developed and implemented for programmatic coherence across countries
- Program level knowledge management, communication and advocacy strategy developed and implemented
- Web platform established and operated to coordinate and consolidate GCIP operations at national and global levels and generate and disseminate knowledge products

3.2 Impact of GCIP tracked and reported at national and global levels

- Methodologies of estimating environmental impact of GCIP (including GHG emissions) established and applied across the program
- Program monitoring and evaluation framework developed and applied

Cambodia National Child project

Component 1. Transforming early-stage Innovative cleantech solutions into commercial enterprises

Output 1.1.1 The GCIP guidebooks and methodologies are adapted for the GCIP Cambodia

Output 1.1.2 Pool of cleantech innovation and entrepreneurship experts (trainers, mentors, judges) is trained and certified to support the GCIP Cambodia Accelerator (at least 30 cleantech experts identified and trained)

Output 1.1.3. Three cycles of the annual competition-based GCIP Cambodia Accelerator are conducted (at least 15 participants per year)

Output 1.2.1 An early-stage development fund is created to provide pre-seed and seed financing support to entrepreneurs and startups

Output 1.2.2 Technology verification, product development and market entry support is provided (at least 15 start-ups for post-acceleration support per year)

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

Component 2. Cleantech Innovation and entrepreneurship ecosystem (CIEE) strengthening and connectivity

Output 2.1.1. An Alumni Network is established and supported to allow peer-learning and foster partnerships

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

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

Component 3. Project Coordination and Coherence

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

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

Output 3.2.1 Project activities are tracked and reported based on the GCIP monitoring and evaluation (M&E) framework

Output 3.2.2 External terminal evaluation and annual financial audits are conducted

FIGURE 7: CAMBODIA CHILD PROJECT ALIGNMENT WITH GLOBAL PROGRAMME

2. Stakeholders

Please provide the Stakeholder Engagement Plan or equivalent assessment.

152. In alignment with the GEF Public Involvement Policy and the GEF Guidelines for the Implementation of the Policy on Stakeholder Engagement, the Stakeholder Engagement Plan (Annex J) seeks to ensure the Project:
- a. Effectively involves the public to enhance the social, environmental, and financial sustainability of projects.
 - b. Takes responsibility for assuring that public involvement rests within the country, normally with the government, project executing agency or agencies and with the support of GEF Partner Agencies.
 - c. Designs and implements public involvement activities in a flexible manner, adapting and responding to recipient countries' national and local conditions and to project requirements.
 - d. Delivers effective, public involvement activities that are broad-based and sustainable.
 - e. Includes the appropriate allocation of resources, throughout the identification, design, implementation, monitoring and evaluation of GEF-Financed Activities, to ensure sustained commitments and actions related to public involvement activities.
 - f. Carries out public involvement activities in a transparent and open manner.
 - g. Has full monitoring and documentation of public involvement.

Objectives

153. The objectives of this Stakeholder Engagement Plan are:
- a. To identify stakeholders involved directly or indirectly in the project as well as the nature and extent of their interests.
 - b. To 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.

- c. To specify procedures and methodologies for stakeholder consultations and feedback.
- d. To establish an accessible, transparent and responsive grievance mechanism for the project.

154. The key stakeholders involved in the proposed child project execution are presented in a stakeholder's analysis matrix further below in this section. The stakeholders include the Government representative bodies, the private sector, universities, multilateral development bodies, local development organisations, and civil society organisations that may be affected by the project activities. Relevant stakeholders were consulted during the project design phase.
155. All relevant stakeholders were consulted on-site to discuss needs, barriers and opportunities for effective project design which would accelerate development of the SME's sector in the cleantech domain. The project management team will be in charge of conducting a coordination with various relevant stakeholders.
156. The project will involve start-ups and individuals that will undergo pre-incubation, acceleration, advanced acceleration and post-acceleration services, as appropriate. Technical assistance and funding will be provided. This assistance will be provided by experts consistent of many stakeholder's groups including national and international cleantech experts, universities, private sector representatives etc. The goal is to attract the seed funding from the private sector and to use markets to support a green technology sector. As such the entirety of the project is based on fostering and supporting stakeholder engagement with the private sector.
157. The project will also work closely with national and international development initiatives. On the global level, NGIN, PFAN and CTG are all officially supporting and partnering with the global programme, and will therefore closely engage with stakeholders in the Cambodia child project in order to share their networks, technical expertise, and to leverage their global platform to help launch the selected SMEs.
158. Stakeholders will form a comprehensive integrated structure to enhance a synergy among the project partners and serve as the knowledge source of new clean technologies, emerging entrepreneurs, knowledge network, applied research collaboration and additional team members. Furthermore, the gender mainstreaming approach will be applied in the form that

early involvement of designated women entrepreneurs, associations and gender focal points will take part in all project activities. This will be in line with the GEF Policy on Stakeholder Engagement [1] that sets out the core principles and mandatory requirements for stakeholders' involvement. The table below outlines the key stakeholders of the project and their roles as devised during the project preparation.

159. The stakeholder's analysis matrix is presented below. The matrix contains all the crucial and relevant stakeholders for the proposed child project design and project implementation. The matrix lists stakeholders and provides qualitative data about each stakeholder or stakeholder group identified.

160. Impacts of Covid-19 on stakeholder engagement: The ongoing impacts of the COVID-19 pandemic (as of March 2021) pose a low threat to stakeholder engagement. Possible reinstatement of COVID-19 containment measures may limit travel and/or group meetings, reduce available capacity or effectiveness of project execution/ implementation. In order to mitigate these risks, the project will focus on strengthening the capacity of stakeholders, and especially the beneficiaries, for remote work and online interactions 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.

[1] The following principles constitute the foundation for Stakeholder Engagement across GEF governance and operations: (a) Constructive, responsive, accountable and transparent Stakeholder Engagement is critical to the success of all GEF-Financed Activities. Including activities funded through all GEF-managed trust funds, unless decided otherwise by the LDCF/SCCF Council in response to guidance from the Conference of the Parties of the United Nations Framework Convention on Climate Change. (b) Stakeholder Engagement in the GEF supports fair, balanced, and inclusive participation in GEF governance and operations. (c) Stakeholder Engagement applies to all GEF-Financed Activities, irrespective of the level of potential social and environmental risks and impacts. (d) In order to be effective and meaningful, Stakeholder Engagement requires sustained commitment and action, including the appropriate allocation of resources, throughout the identification, design, implementation, monitoring and evaluation of GEF-Financed Activities. (e) Effective Stakeholder Engagement in GEF governance and operations is supported by appropriate documentation and easy and timely access to relevant information.

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.

TABLE 5 STAKEHOLDERS AND THEIR ROLES

Organisation name	Contact Name	Description of stakeholder nature and extent of influence	Potential Project Role
Ministry of Industry, Science, Technology and Innovation (MISTI)	Mr. Chhea Layhy, Director of SMEs Department	MISTI has an important role in industry, SMEs, science, technology and innovation in Cambodia. Thus, project can collaborate with MISTI because it supports the mandate of the ministry very well.	Project support on connecting with potential SME and source of SME data
Ministry of Posts and Telecommunications (MPTC)	H.E. Khov Makara, Undersecretary of State	Ministry of Posts and Telecommunications is the government ministry that governs the postal system and the telecommunications systems of Cambodia. It is what project will be based on. The ICT sector is the platform for clean technology development.	Project Support on training because the ministry has National Institute of Posts, Telecoms, and ICT which is very useful for cleantech
Ministry of Economy and Finance	H.E. Chheang Vannarith Director General	The Ministry of Economy and Finance accounts for the administration of financial and economic policy and affair in the Kingdom of Cambodia. With Economic and Financial Policy Committee support, the policy development component can be done with ease.	Project support from government. They will chair the Project Steering Committee.
General Department of Science Technology and Innovation	Dr. Hul, Seingheng, Director General	General Department of STI is newly established under new reform of Ministry of Industry and Handicraft to be Ministry of Industry, Science, Technology and Innovation. It will establish STI institute and work together on R&D, training, program to support STI in Cambodia.	Possible technical support partner

Organisation name	Contact Name	Description of stakeholder / nature and extent of influence	Potential Project Role
National Institute of Posts, Telecoms & ICT (NIPTICT)	Dr. Sopheap SENG President	NIPTICT (ICT) of MPTC is providing undergraduate training in e-Commerce, Telecoms & Networking and Computer Science. They specialise in the digital economy and the fourth industrial revolution (Industry 4.0). They can support the project implementation in term of experiences and resource sharing in term of mentors and best practices.	Possible technical support partner
Ministry of Environment National Council for Sustainable Development	Dr. Tin Ponlok	NCSA is a policy-making body to promote sustainable development and to ensure economic, environmental, social and cultural balance within Cambodia. The NCSA was consolidated from four bodies, namely, the National Council of Green Growth and its Secretariat, the National Climate Change Committee and its Secretariat, the National Biosafety Secretariat and the National Biodiversity Steering Committee.	Project support from government
Cambodia Startup Advisers	David Haskel Director	Cambodia Startup Advisers is an alliance of legal, tax and intellectual property advisory firms, serving the 360-degree needs of tech start-ups in Cambodia.	Technical Support on Legal, Tax and IP

Organisation name	Contact Name	Description of stakeholder nature and extent of influence	Potential Project Role
Techo Startup Center	Dr. Taing, Nguonly, Executive Director	The Techo Startup Center was founded with the goal of helping the country develop a full-fledged digital economy. Techo Startup Center is created to encourage and enable ambitious and capable people to build emerging tech start-ups borne out of innovation and research-based intellectual property. It assists viable early-stage start-ups with innovation and entrepreneurship to grow and scale up.	Executing Entity
Impact Hub Phnom Penh	Ms. Melanie Mossard and Ms. Kosoma Kim	Impact Hub has experience designing accelerators with a strong network of female technical leads and energy experts. Impact Hub is engaged with the implementation of SAAMBAT under IFAD which includes rural business incubators.	Possible technical support partner to the Executing Entity
EnergyLab	Bridget McIntosh Anna Cain	EnergyLab has a demonstrated history of designing accelerators and supporting early-stage energy entrepreneurs. Founded and directed by a woman, the EnergyLab has a strong network both within and beyond Phnom Penh and is currently helping to implement the UNDP Accelerator Labs, which launched in January 2020.	Possible technical support partner to the Executing Entity

Organisation name	Contact Name	Description of stakeholder nature and extent of influence	Potential Project Role
Khmer Enterprise	Mr. Chea Sokun Dr. Chhieng Vanmunin, CEO	Khmer Enterprise (KE) is the implementation unit of Entrepreneurship Development Fund (EDF). The organization aims to mobilize, invest and manage resources to support the development of a vibrant entrepreneurial ecosystem and to provide financial and non-financial support to builders as well.	Possible technical support partner to the Executing Entity
Cambodia Investor Club	Administration	CiC-investment is Cambodia's first crowdfunding platform aiming to mobilize investors to provide Cambodian SMEs a new solution to cash flow financing challenges. To that extent, we commit for SMEs' growth reason standing on our knowledge and expertise to best serve them on cash flow financing solution.	Possible source of cofinance
Smart Axiata/ Forte Digital Innovation Fund	Mr Thomas Hundt Chief Executive Officer Smart Axiata Co., Ltd.	The Smart Axiata Digital Innovation Fund (SADIF) is a venture capital fund created by Smart Axiata, and co-invested by Forte Insurance and Mekong Strategic Partners (MSP). SADIF invests in Cambodian-based digital and disruptive companies and start-ups involved in B2B/B2C businesses, intermediary services, and digital platforms. The fund is managed by MSP who has deep knowledge in investment and the technology sector with unparalleled networks in Cambodia.	Venture Capital Source of cofinance

Organisation name	Contact Name	Description of stakeholder nature and extent of influence	Potential Project Role
OCTANE	Tapas KUILA ? General Partner	OCTANE is a venture capital firm funded by Cambodians for Cambodia. OOCTANE closed its debut US\$55 million Cambodia Investment Fund in late 2018 with a mandate to invest in technology enabled businesses founded in Cambodia, looking to expand into Cambodia, or founded by Cambodians anywhere in the world. OOCTANE is primarily looking to invest in technology enabled businesses focused on the logistics, e-commerce, real estate and financial-services verticals but is open to good opportunities in other industries as well. The fund is chaired by Oknha SEAR Rithy, Chairman of the World Bridge Group.	Venture Capital Source of cofinance
Mekong Business Challenges, National University of Management	Stephen Paterson	The Mekong Challenge is the leading annual entrepreneurship competition between 11 universities across the Mekong Region (Cambodia, Bhutan, Laos, Myanmar, Thailand, Vietnam and China). The programs provide a supportive platform for youth in the region to launch businesses and social ventures. This year the top team will advance to represent the Mekong Region in the International Business Model Competition (IBMC) in the U.S. in early May 2019.	Project Partner
Okra Solar	Afnan Hannan, Co-Founder / CEO	Okra Solar has experience of microgrid and expertise in clean technology. They can be source of mentor and experience sharing with the project.	Private company can be potential and clean start-up candidate

Organisation name	Contact Name	Description of stakeholder / nature and extent of influence	Potential Project Role
Nexus for Development	Clarisse Siebert, Executive Director	Nexus for Development develops and manages innovative financing solutions that blend traditional development funding, debt finance, impact investment, and climate finance. It works with a range of financial partners to target poverty and climate change to overcome market barriers and financing gaps. Nexus for Development operates as not-for-profit. It provides debt only, and hence focuses on companies already generating revenues. It is backed by donors and Development Finance Institutions.	Investor supporting clean energy in Cambodia with financial accelerator functions.
USAID	Kate Heuisler, Chief of Party Chandy Mao, Innovation Project Coordinator	The United States Agency for International Development is an independent agency of the United States federal government that is primarily responsible for administering civilian foreign aid and development assistance. From 2013-2019, USAID supported Development Innovation projects that helped Cambodians learn new tech-related skills, boost entrepreneurial capacity, and employ innovative practices to get results.	This project has ended but lessons learned from reports on the project and from stakeholders who participated in its implementation will be utilised in the design of the accelerators.

Organisation name	Contact Name	Description of stakeholder / nature and extent of influence	Potential Project Role
Private Financing Advisory Network (PFAN)	Peter du Pont, Regional Coordinator, Asia Sabera Khan, Gender Ambassador	The Private Financing Advisory Network is a global network of climate and clean energy financing experts, which offers free business coaching and investment facilitation to entrepreneurs developing climate and clean energy projects in emerging markets. Includes several equity initiatives to encourage female sustainability-focused leadership.	PFAN is a project partner based in Phnom Penh that can assist with the acceleration services and post-acceleration activities.
ENERGIA	Indira Shayka, Gender and Energy Advisor, Southeast Asia	International network focused on the intersection of gender equality and sustainable energy. Has minor presence in Cambodia and larger presence in greater Southeast Asia.	ENERGIA can advise on gender aspects of the project.
Women & Gender Constituency	Ndivile Mokoena, Global South Representative	The Women and Gender Constituency provides a platform to exchange information between members and with the UNFCCC Secretariat and ensures that meetings, workshops and conferences include the participation and representation of women's civil society and non-governmental organizations. One regional network within the constituency focuses on sustainable development and gender equity within the Asia-Pacific region, including Cambodia?the Asia-Pacific Forum on Women Law and Development (APFWLD).	Civil Society Stakeholder

Organisation name	Contact Name	Description of stakeholder nature and extent of influence	Potential Project Role
Clean Energy Ministerial (CEM)	Sarbojit Pal, Manager of Partnerships	The Clean Energy Ministerial (CEM) is a high-level global forum to promote policies and programs that advance clean energy technology, to share lessons learned and best practices, and to encourage the transition to a global clean energy economy. The CEM's C3E Initiative focuses on gender equity in the clean energy sector.	International organisation that can participate in stakeholder consultations and advise on project implementation.
Women's Resource Center (WRC)	Pisey Khim, Program Manager	The Women's Resource Center (WRC) hosts education workshops like women's health, women's rights and gender, parenting, and financial empowerment, to help women gain the skills and confidence they need to change their lives for the better.	NGO/civil society
The Cambodian Women's Development Agency (CWDA)	cwdagency@gmail.com	The Cambodian Women's Development Agency (CWDA) is dedicated to promoting the self-reliant development of disadvantaged Cambodian communities and to the advancement of women's and children's rights. CWDA seeks to empower women through collective organisation, personal development, skills training, access to resources and advocacy on their behalf.	Civil Society Stakeholder

Select what role civil society will play in the project:

Consulted only; Yes

Member of Advisory Body; Contractor; Yes

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.

161. In Cambodia, men are traditionally portrayed as strong, rational and powerful, and women as gentle, emotional, weak, and humble. The moral codes of Chbab Srey (code of conduct for Cambodian women) and Chbab Pros (code of conduct for Cambodian men) that underpin these stereotypes set out the ideal of masculinity and femininity. However, gender norms and roles are not static. Gender inequalities in all societies are rooted in attitudes, institutions and market forces. In Cambodia this translates into a higher burden of childcare and domestic responsibilities on women that lowers their time for productive engagement and often their motivation to take on leadership positions in the workplace. Change in the attitudes and informal rules that influence social expectations of women and men in Cambodia are underway, with for example, educational and professional opportunities opening up for women[1].

162. Cambodia's Gender Development Index (GDI) stands at 0.919 while the Gender Inequality Index (GII) stands at 0.474, ranking the country 114 out of 162 countries. The GDI measures gender inequalities in achievement in three basic dimensions of human development: health (measured by female and male life expectancy at birth), education (measured by female and male expected years of schooling for children and mean years for adults aged 25 years and older) and command over economic resources (measured by female and male estimated GNI per capita)[2]. The GII reflects gender-based inequalities in three dimensions ? reproductive health, empowerment, and economic activity. Reproductive health is measured by maternal mortality and adolescent birth rates; empowerment is measured by the share of parliamentary seats held by women and attainment in secondary and higher education by each gender; and economic activity is measured by the labour market participation rate for women and men. In Cambodia, 19.3 percent of parliamentary seats are held by women, and 15.1 percent of adult women have reached at least a secondary level of education compared to 28.1 percent of their male counterparts. For every 100,000 live births, 161.0 women die from pregnancy related causes; and the adolescent birth rate is 50.2 births per 1,000 women of ages 15-19. Female

participation in the labour market is 75.2 percent compared to 87.6 for men. The female share of graduates in science, technology, engineering and mathematics programmes at tertiary level (%) remains low at 6%. 20.9% of the total female population reported having experienced violence in their lifetime.

163. To remedy important gender disparities, the Ministry of Women's Affairs was established in 1993. The MoWA has been working to mainstream gender issues across all national policies. Neary Rattanak IV, the five-year strategic plan for 2014-2018 recognized that there is a lack of women in decision-making positions, especially in the public sector. Therefore, it is necessary to increase efforts in mainstreaming gender issues in all aspects of Cambodian policies. To bring about systemic and sustainable change in terms of gender parity, efforts still need to be made to increase the number of female legislators, senior officials, and managers.

Embedding Equality and Empowerment

164. 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.
165. Gender equality enhances economic growth, reduces household poverty, and enables human development. Women's entrepreneurship, that can directly contribute to the economic empowerment of women, 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.
166. Cambodia is ranked low in terms of innovation, technological readiness, and overall infrastructure compared to its neighbours, according to the Global Competitiveness Report 2017-2018. With this in mind, the government should consider measures to improve these areas, as well as expand access to education and investment in skills development. This will help compensate for the rapidly rising real wages and keep the country's labour force competitive. The latter is especially important in terms of MSMEs, which account for the majority of existing businesses.

167. In this regard, the policies in Cambodia need to become more gender responsive. For women-owned businesses in Cambodia, reality and perceptions do not match. The reality is that women own the majority of businesses in the country (61%), significantly higher than in many ASEAN countries. Yet, the impression is quite the opposite: business women in Cambodia are perceived as being less outgoing and lacking leadership skills and the necessary initiative to run a business. The numbers reinforce the real story ? 90 percent of the SMEs managed by women in Cambodia were profitable last year. This, despite the fact that only 3% of the nation?s women entrepreneurs have access to formal credit. The unmet demand for credit from women entrepreneurs is estimated at \$4.2 billion[3].
168. Female entrepreneurship is considered a key tool in enabling women?s empowerment. It is often seen as crucial for increasing the quality of life of women in the developing world, a way of triggering changes of the status-quo of women and re-addressing the balance of power within the family. A guiding principle of the programme will be to ensure that both women and men are provided equal opportunities to access, participate in and benefit from the project, without compromising the technical quality of the project results.
169. 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 Cambodia 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 at continuation of this trend and even at an increase of the proportion of women beneficiaries (with a target of at least 30% women beneficiaries in Years 1-2, ratcheting up to 40% women beneficiaries by Years 4-5).
170. 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 K) 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) Consideration of gender dimensions in all decision-making processes (e.g., efforts to achieve gender balance/representation in such processes), including PSC meetings;
 - 3) Collection of gender-disaggregated data;

4) Consultations with and involvement of stakeholders focusing on gender equality and women's empowerment issues, such as gender experts and organizations, CSOs and NGOs, e.g., for outreach purposes.

5) A gender analysis was carried out and a Gender Mainstreaming Action Plan developed (Annex K) 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 Cambodia can best contribute to the gender equality and empowerment of women. The full Gender Analysis Report is available in Annex K and the Gender Mainstreaming Action Plan is described below:

Project output	Stage/Activity	Gender equality measure	Baseline (if known)	Target	Responsibility	Timeline	Resources required*
Component 1: Transforming early-stage innovative cleantech solutions into commercial enterprises							
Pillar 1: Transforming early-stage innovative cleantech solutions into commercial enterprises							

<p>Output 1.1.1 The GCIP guidebooks and methodologies are adapted for the GCIP Cambodia</p>	<p>Development of GCIP methodologies, guidelines and training material</p>	<p>? Guidebooks (guidelines and methodologies) developed will consider gender dimensions and highlight the need to launch gender inclusive calls to apply to the accelerators. Guidebooks shall provide gender responsive communications material (e.g., videos, success stories) and explicitly state that GCIP encourages applications from women ? Ensure that training material is gender-responsive, e.g., avoid stereotypes ? Gender equality will be addressed in the curricula and content of all training material developed for trainers, mentors and judges as well as in the training. As such specific material for capacity building on gender awareness will be developed as part of the material/toolkits developed by the global child project, and a clear</p>	<p>Limited capacity to conduct cleantech innovation accelerators and provide business growth services</p> <p>Limited technical and administrative capacity of entrepreneurs</p>	<p>Specific methodologies, guidelines, tools and training systems for the uptake of cleantech ecosystem developed</p> <p>At least 30 cleantech experts (mentors, judges and coaches) are trained and equipped with the necessary skills and tools to support the uptake of cleantech innovation and early-stage business growth (of which 35% are women) Targeted outreach and gender responsive communications material (e.g. videos, success stories) and explicitly stating that GCIP encourages applications from women</p>	<p>? PEE adapt for Cambodia ? NGIN to develop material under the GCIP global project</p>	<p>Year 1</p>	<p>? GCIP material developed by NGIN ? Gender expert</p>
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<p>Output 1.1.2 Pool of cleantech innovation and entrepreneurship experts (trainers, mentors, judges) is trained and certified to support the GCIP Cambodia Accelerator (with at least 35% women participants)</p>	<p>Selection of both men and women semi-finalists, and mentors and judges</p>	<p>? Stringent selection criteria will be defined that provide equal opportunities for both women and men. The objective would also be to involve women in the mentoring/training and judging processes so that more role models could be created, thus mitigating the impact of this inequality in the future.</p> <ul style="list-style-type: none"> o Efforts will be made to ensure gender balance of judges for selecting semi-finalists. o Evaluation methodology for selection of semi-finalists will consider the gender balance alongside other readiness factors. <p># trained and certified national mentors/judges (>35% women participants)</p> <p># of mentors focusing on women's needs</p> <p>% of mentors that participate in gender-sensitization</p>	<p>No confirmed outreach for hospitality sector, industry and manufacturing; some existing outreach to agricultural sector</p>	<p>30 national mentors/judges trained and certified (>35% women participants; 100% participate in the "I know Gender" training) Evaluation methodology for selection of semi-finalists will consider the gender balance</p>	<p>? PEE ? Advice from NGIN</p>	<p>? annual</p>	<p>? GCIP material from NGIN ? Gender Expert</p>
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<p>Output 1.1.3. Three cycles of the annual competition-based GCIP Cambodia Accelerator are conducted (with at least 35% women participants)</p>	<p>Training and mentoring</p>	<p>? Provide specific mentoring for women through women mentors ? Specific training module as part of the accelerator curriculum to address gender-related challenges and barriers ? Ensure equal participation of women and men as participants, facilitators and judges (included in selection of semi-finalists and trainers above) ? Consult women on appropriate times and conditions for their engagement.> ? 35% women participants ? Trainings targeted at women's needs Gender responsive presentation material Gender responsive outreach</p>	<p>Limited accelerators in agriculture and industry that lack a specific cleantech focus</p>	<p>1 training module addressing gender-related challenges and barriers 35% of trainings targeted at women's needs >1 woman focussed support provided Training recorded At least 5 mentors are able to address the specific barriers and challenges women experience Gender responsive presentation material Gender responsive outreach</p>	<p>? PEE ? Advice from NGIN</p>	<p>Annual</p>	<p>? GCIP material from NGIN ? Gender Expert</p>
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<p>Output 1.2.1 An early-stage development fund is created to provide pre-seed and seed financing support to entrepreneurs and start-ups (with at least 35 % women participants)</p>	<p>Investment Facilitation</p>	<p>Financial mechanism established to provide access to pre-seed and seed support for SMEs and start-ups.</p> <p># targeted support for women-led enterprises</p> <p># targeted support for products/services that promote gender equality and women's empowerment</p>	<p>No early-stage development fund exists for cleantech SMEs</p>	<p>At least 12 and up to 20 firms achieving eligibility criteria to receive pre-seed and seed financing for early-stage business growth (of which 30% are women-owned and/or promote products/services that promote gender equality)</p> <p>30% of early-stage funds targeted for women-led enterprises and/or products/services that promote gender equality and women's empowerment</p>	<p>? PEE ? Gender expert</p>	<p>Annual</p>	<p>? GCIP material from NGIN ? Gender Expert</p>
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<p>Output 1.2.2 Technology verification, product development and market entry support are provided (with at least 35% women participants)</p>	<p>Investment Facilitation</p>	<p>? Investment facilitated under GCIP will have gender lens investing principles applied to all investment decisions. To support this GCIP investing guidelines will be developed which will incorporate gender lens investing principles. ? Specific training material for investors will be developed on investment with a gender lens. ? Disaggregated data on USD raised for cleantech entrepreneurs ? Women-only investor-connect events</p>	<p>Limited availability of early-stage business growth coaching and capacity building.</p>	<p>GCIP investing guidelines incorporate gender lens >1 training for FIs and investors on gender-lens investment or gender sensitization 15 investors received gender-sensitization or training on gender-lens investment # USD raised for cleantech entrepreneurs (at least 30% to women led business) Outreach to include >3 women?s organisations Gender responsive outreach >35% participants women</p>	<p>? PEE ? Gender expert</p>	<p>Annual</p>	<p>? Gender Expert</p>
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<p>Output 1.2.3 Mentoring and partnership support is provided to cleantech enterprises for global market expansion</p>	<p>Training and mentoring</p>	<p>Gender responsive presentation material Gender responsive outreach # targeted events for women # of partners that promote GEEW # GCIP alumni receiving mentoring and partnership support (gender-disaggregated)</p>	<p>None</p>	<p>200 participants attending peer-networking events, alumni events, high level forums, workshops (at least 35% women) >15 GCIP alumni receiving mentoring and partnership support (networking, introductions etc.) Membership of NGIN (at least 35% women) 3 training for FIs and investors on gender-lens investment or gender sensitization 35% participants attending forums (gender-disaggregated) Gender responsive presentation material Gender responsive outreach 2 targeted events for women</p>	<p>? PEE ? Gender expert</p>	<p>Annual</p>	<p>? Gender Expert</p>
<p>Component 2: Cleantech innovation and entrepreneurship ecosystem (CIEE) strengthening and connectivity</p>							

Pillar 2: Ecosystem building

<p>Output 2.1.1. An Alumni Network is established and supported to allow peer-learning and foster partnerships</p>	<p>Stakeholder meetings and partnerships</p>	<p># of Alumni Networks established # of alumni included in the network # partner institutions? staff trained to be able to operate platform and organize competition and accelerator programme (gender-disaggregated) %/# of stakeholders that participated in gender-sensitization and completed ?I-know-gender? trainings Youth and gender mainstreaming strategy # students trained on Cleantech Entrepreneurship (gender-disaggregated) # new Entrepreneurship trainers (gender-disaggregated) %/# of students that participated in gender-sensitization trainings</p>	<p>Limited access to entrepreneurial networks</p>	<p>4 alumni networks established (1 per sector, 100 per network) 3 partner institutions? staff trained to be able to operate platform and organize competition and accelerator programme (>35% women participants) 50 % of stakeholders participated in gender-sensitization and completed ?I-know-gender? trainings (>35% women participants) Youth and gender mainstreaming strategy (>35% women participants) # new Entrepreneurship trainers (>35% women participants) %/# of students that participated in gender-sensitization trainings (>35% women participants)</p>	<p>? PEE ? Gender expert</p>	<p>Annual</p>	<p>? Gender Expert</p>
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<p>Output 2.1.2 Cleantech innovation and entrepreneurship policies, regulations and recommendations are developed</p>	<p>Stakeholder meetings and partnerships</p>	<p># Policy analysis report #cleantech innovation policy workshop # Policies and regulations developed to promote clean technology innovations in SMEs # Recommendations reports on digital policy % of attendants at policy consultation workshops who are women (gender disaggregated) # policy clauses relating to gender equality</p>	<p>Limited coordination between stakeholders Limited capacity of stakeholders to sustain cleantech acceleration Limited commercialisation support</p>	<p>1 Policy analysis report 1 cleantech innovation policy workshop 1 Policies and regulations developed to promote clean technology innovations in SMEs 1 Recommendations report on digital policy At least 30% of attendants at policy consultation workshops are women At least 1 policy clause relating to gender equality</p>	<p>? PEE ? Gender expert</p>	<p>Annual</p>	<p>? Gender Expert</p>
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Output 2.1.3 Linkages, collaboration, and synergies across CIEEs are promoted	Stakeholder meetings and partnerships	#Forums developed to create more supportive environment for clean energy technology innovations in/by SMEs # attendees at stakeholder meetings (>35% women participants) # of associations included in the consultations that promote GEEW	Current policy and institutional frameworks are new and require more information sharing on the needs and progress of clean energy technology innovations	100 attendees at Global GCIP Forum (virtual attendees included, at least 35% women) 5 additional GCIP Forum events (20 attendees at each) At least 2 associations included in the consultations that promote GEEW	? PEE ? Gender expert	Annual	? Gender Expert
Component 3: Project Coordination and Coherence							
Pillar 3: Programme coordination and coherence							
Output 3.1.1 The GCIP internal guidelines for project management teams are adapted and implemented by the GCIP Cambodia	Project execution/coherence	? Gender expert to train the national Project Executing Entity (NPEE) team ? Gender sensitization trainings for all stakeholders involved in GCIP	N/A	At least one training for the PEE team (100% of PEE team should be trained) At least one gender sensitization workshops per year (gender balanced participants, i.e., at least 40% of men/ women) One set of training materials NPEE gender expert appointed	? PEE ? Gender expert	Annual	? Gender Expert

<p>Output 3.1.2 Programme-level knowledge management, communication and advocacy strategy is adapted and implemented by the GCIP Cambodia</p>	<p>Project execution/coherence</p>	<p>? Gender expert to train the national Project Executing Entity (NPEE) team ? Gender sensitization trainings for all stakeholders involved in GCIP ? Development of a gender training package (material for national capacity building on gender awareness) will be adapted for Cambodia from the training package developed by the global child project. ? Gender focal point within the PEE</p>	<p>N/A</p>	<p>At least one training for the PEE team (100% of PEE team should be trained) At least one gender sensitization workshops per year (gender balanced participants, i.e., at least 40% of men/ women) One set of training materials NPEE gender expert appointed</p>	<p>? PEE ? Gender expert</p>	<p>Annual</p>	<p>? Gender Expert</p>
<p>Output 3.2.1 Project activities are tracked and reported based on the GCIP monitoring and evaluation (M&E) framework</p>	<p>Project execution/coherence</p>	<p>Project-level MRV system established, indicators tracked (incl. GHG emissions) and disaggregated by gender</p>	<p>N/A</p>	<p>Gender action plan monitored on an annual basis, gender participation overall moves from 30% in Year1-2 to 40% by Year 5, reaching 35% overall.</p>	<p>? PEE ? Gender expert</p>	<p>Annual</p>	<p>? Gender Expert</p>

[1] World Bank (2018) Health Equity and Quality Improvement project (H-EQIP) ? Gender Assessment.

[2] UNDP (2018) Human Development Report 2019 ? Cambodia Country Profile.

[3] IFC (2019) Exploring the Opportunities for Women-owned SMEs in Cambodia.

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 Yes

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

171. 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.
172. 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. . The project is also aiming at engaging with private sector through promotion and events related activities. The GCIP on a global level has a substantial and successful experience in engaging with the private sector.
173. The project will reach out to and engage with amplifiers, such as Cambodia Business Association and Cambodia Chamber of Commerce, as well as with sectoral and thematic bodies like for instance Cambodia Women Entrepreneur Association, Young Entrepreneurs Association of Cambodia, and Cambodia Hotel Association. Those will allow the project to access innovators. On the demand side as well, such organisation could be instrumental in defining the innovation challenges, and to engage in the uptake of the innovations supported.

174. The project will seek to attract potential start-ups and other SMEs to participate in advanced acceleration and post acceleration phases of the project. Therefore, the project will directly involve individuals and companies that will be accelerated and supported in helping them to secure investment, preferably, from private sector. Within the project, public and private finance support is expected in the concept and product development phases. It is expected that private funding would fully replace public support in the commercialisation phase.
175. Additionally, the project will seek to attract private sector in supporting cleantech innovations by leveraging it through various national and international initiatives. For example, it is expected that PFAN and NGIN will contribute to the project in terms of introducing Alumni with the private investment sector on the international level.

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):

?

TABLE 6 PROJECT RISKS AND MITIGATION MEASURES

Risks	Rating	Proposed mitigation measures
Limited interest shown by the public, and industry, for the advanced acceleration and post-acceleration GCIP support leads to too few applications or applications of low quality	Low	In order to ensure that adequate and high quality applications are made to the accelerators, the project design includes a variety of mitigation measures: 1) The PMU has been selected to include two organisations with a long track record and wide network within Cambodia to coordinate the accelerator application process and execution; 2) SMEs that are already established and looking to move into cleantech will be eligible, thus widening the pool of potential applicants; 3) roadshows; outreach and pre-incubation programmes will be run in order to foster a higher quantity and higher quality of application to the GCIP.

<p>Macroeconomic/ country risk (including Covid-19 risks)</p>	<p>Low</p>	<p>The COVID-19 pandemic has significantly impacted Cambodia's economy in 2020 during a year when Cambodia also faces the partial suspension of preferential access to the EU market under the 'Everything but Arms' initiative. Most of Cambodia's main engines of growth slowed in the first quarter of 2020, including weakened tourism and construction activity due to the pandemic. As described in the baseline section, the GCIP project aligns closely with Cambodia's national development strategies and it is expected that government support continues for the diversification of the economy and support for entrepreneurs and innovators. The project has been designed to flexibly respond to a macroeconomic slowdown through the creation of an early-stage development fund in the first year (including a feasibility assessment that takes Covid-19 into account) and through its focus on capacity building, which will enhance economic resilience during potential macroeconomic shocks.</p>
<p>Lack of political support for innovative clean technologies</p>	<p>Low</p>	<p>The executing entity has been established by the Ministry of Economy and Finance, thus ensuring that there is political buy-in for the project at the highest levels. The project has been carefully designed through a comprehensive stakeholder consultation process to ensure buy-in from the full range of ministries and influential institutions in Cambodia.</p> <p>Within Component 2, the project will focus on strengthening the policy and institutional framework to promote clean technology innovations and entrepreneurship together with the Cambodian government. An integral part of the project will be advocacy and awareness raising activities in order to support a conducive policy and regulatory environment.</p>
<p>Sustainability risk</p>	<p>Medium</p>	<p>Sustainability will be ensured through the strategic use of institutional arrangements to ensure that the GCIP objectives are embedded within long-term Cambodian governance structures at the end of the GCIP. 1) Both the TSC and the Khmer Enterprise Development Fund have been created by the Ministry of Economy and Finance. It is envisaged that pre-seed and seed support to the start-ups under Component 1 will eventually be covered by the Khmer Enterprise Development Fund. In addition, national institutional capacity building will ensure development of adequate skill and expertise to run the programmes.</p>

Lack of effective coordination between various project partners	Low	Proper coordination will be sought through the Project Management Unit and ad-hoc working groups will be established if necessary.
Incentive and financial support system are insufficient	Low	<p>Linkages to other financing schemes for clean energy technology promotion and innovation programmes will be established as early as possible. The establishment of the financing mechanism will be of the highest priority.</p> <p>The proposed child project will facilitate applications of entrepreneurs to existing start-up supporting finance programmes. Exposure of start-up/SME supported entities to regional and global investors and partners will be ensured.</p>
Low success rate of new innovative cleantech businesses	Medium	The GCIP aims to promote an innovation and entrepreneur ecosystem by identifying and nurturing cleantech innovators and entrepreneurs with skills required to develop and commercialize their innovations.[1] This project will focus on comprehensive advanced competition and post-competition acceleration, by linking Alumni with potential investors and by ?derisking? them for financial institutions. This approach will support selected innovators and entrepreneurs to overcome the ?Valley of Death? towards sustainable business.
Climate Change Risks	Low	There are no explicit climate change risks foreseen for the achievement of the project?s objectives.

176. Cambodia is part of the southeast Asian mainland in the Greater Mekong subregion. This region has a diverse landscape including massifs, plateaus and limestone karsts, lowlands, floodplains, and deltas, forests, and grasslands ? dominated by the geographical and topographical influences of the Mekong River. The climate is primarily tropical, with monsoon cycles that interact with both the deltaic, riparian landscape as well as the adjacent Tonle Sap Great Lake (an outlet of the Mekong river).

177. Cambodia is consistently ranked among the top ten countries most vulnerable to climate change, and among the three most vulnerable in Asia ? according to the Cambodia Climate Change Alliance (which brings together actors such as Danida, EU, SIDA and UNDP).[2] A recent ADB study for South-East Asia (Philippines, Thailand, Vietnam and Indonesia) suggests that the loss of climate change could be 6.7% of GDP by 2100 in the Mekong and surrounding region. No figure is currently available for Cambodia, but ADB?s research in peer economies and countries are indicative of the climate change-related GDP loss for Cambodia.[3]

178. The climate risks faced by Cambodia ? the potential of adverse consequences from extreme and non-extreme weather and climate events ? will depend primarily on the level of vulnerability and exposure to these events.[4] These risks result from the interaction of vulnerability (susceptibility of the affected system to climate risks), exposure over time (frequency and intensity of climate risks, and rate of occurrence), as well as the potential of the climate hazard (slow or fast onset, extreme or non-extreme) and the likelihood of occurrence.

179. The GCIP Child Project focuses on delivering global environmental benefits through GEF and co-financing investments in clean technology innovations, SMEs and institutional capacity building. In this context, the consideration of climate risks and mitigation of these issues is important to ensure that the GCIP project is resilient to climate shocks, but also to ensure that the outcomes and consequent impacts of the project endure.[5] Mainstreaming climate risks in project design takes cognizance of both GEF STAP guidance[6], and also Cambodia's Climate Change Strategic Plan (2014 ? 2023)[7], which aims to integrate climate issues in national and sub-national level planning.

Observed and projected temperature changes

180. Cambodia experiences characteristic hot temperatures of tropical regions, with two distinct seasons: a monsoon-driven rainy season (May?October) with south-westerly winds ushering in clouds and moisture that accounts for anywhere between 80-90% of the country's annual precipitation, and a dry season (November-April), with cooler temperatures, particularly between November and January.[8] Average temperatures are relatively uniform across the country, and are highest (26-40°C) in the early summer months before the rainy season begins. Temperatures remain at 25 to 27°C throughout the rest of the year.

181. Climate change projections for 2050 indicate that in the dry season, the maximum temperature will rise steadily from 32°C to 35°C, and the main part of the dry season will become drier.[9] Mean annual temperatures are projected to increase across Cambodia by 0.7-2.7°C by the 2060s, and 1.4-4.3°C by the 2090s. This may lead to drying out and water stress on the wetlands. Monsoon season is expected to start earlier, and maximum temperatures are expected to increase from 27.5°C to over 31°C. Shallow waters in dry season will become hotter due to increased temperatures under climate change.[10]

182. A similar, but more moderate pattern is expected for minimum temperatures throughout the year: with the baseline ranging from 19°C in December-January through to about 24°C in May to October. With climate change, the minimum temperatures may increase from 21°C in January to 25°C through the late dry season and wet season.[11]

183. All projections, thus, indicate substantial increases in the frequency of days and nights that are considered ?hot? in current climate, with hot days increasing by 14-49% and hot nights increasing

by 24-68% by 2060.[12] All projections indicate decreases in the frequency of days and nights that are considered 'cold,' with these events becoming exceedingly rare, according to USAID findings.[13]

Precipitation trends

184. Mean rainfall trends over Cambodia are unclear, mainly due to the lack of large-scale meteorological modelling. Rainfall patterns witnessed include both increases and decreases in different areas of the country, however these changes are not statistically significant. According to USAID research, an increase in the intensity of heavy rainfall events of 1 to 15 percent by 2050 is very likely.[14] However, projected changes in average annual precipitation are uncertain by 2030, though likely positive (0 to 6 percent) by 2050.[15] There is likely to be an increase in frequency and intensity of heavy rainstorms.

185. In a localized study conducted by IUCN at the Boueng Chhmar Ramsar site,[16] villagers reported that rainfall had become erratic with wet seasons starting later, until recently when they reported that the rainfall began starting earlier in the season. Residents also noted that rainfall was heavier but lasted for a shorter period. It was also observed that heavy rainfalls led to flash floods near the catchment area, leading to topsoil runoff and soil erosion.

Natural and climate-induced hazards

186. Cambodia is one of the more disaster-prone countries in southeastern Asia, affected by floods and droughts on a seasonal basis. Cambodia's vulnerability to climate change is linked to its characteristics as a post-civil war, least developed, predominantly agrarian country, with nearly 80% of the population living in rural areas with limited basic services. Limited adaptive capacity, poor infrastructure, and institutional deficiencies exacerbate the country's vulnerability to climate variability and change. Indeed, floods and droughts are recognized by the government as one of the main drivers of poverty.

187. Floods: In Cambodia, the southwest monsoons begin in mid-May and last through the end of October, bringing over three-quarters of the country's annual rainfall. As a result, floods along the Mekong River and its tributaries, as well as from the Tonle Sap Lake, are recurrent and often themselves constituting major disasters. Approximately 80% of the country's population lives along the Mekong River, which is known to have large fluctuations. Floods affect the provinces of Kandal, Kampong Cham, Kratie, Prey Veng, Stung Treng, Svay Rieng, and Takeo. Flash floods in tributaries around the Tonle Sap Lake affect other regions. The severe floods that occurred from 2000 to 2002 resulted in 438 casualties and caused damages amounting to US \$205 million. Over the period 1998-2002, as much as 70% of rice production loss was attributed to floods and 20% to droughts. Estimates suggest that floods kill 100 people annually, cause agricultural losses of US \$100-170 million each year, and can significantly affect critical infrastructure along the floodplain. The World Health Organization identifies that, in addition to death from drowning, flooding causes extensive direct health effects, including impacts on food production, water provision, ecosystem disruption, infectious disease outbreak and vector distribution.[17]

188. Droughts: Coupled with poor management, access, and storage of existing water resources, delays or early ending of the monsoon rains and erratic rainfall have contributed to droughts in Cambodia.[18] For Cambodia's large rural population, with natural resource-dependent and agriculture-dependent livelihoods, droughts have social, economic and environmental impacts. This is especially observed in the Svay Rieng province, which is one of the most drought-prone provinces in the country. On a national scale, the 21st century has witnessed the highest frequency of droughts, such as in 2002, 2003, 2004 (the longest and most damaging until 2006) and 2016. The drought in 2016 is, in fact, the most severe recorded for many decades. It has been made worse by the presence of the El Niño weather pattern since 2015, resulting in below-average rainfall. The UNDMRT has observed that the Mekong River is at its lowest level since records began nearly 100 years ago[19] particularly, in March 2016, the river was down 30-50% compared to its average level for that time of year.

189. *Coastal areas* :The Cambodian coastal zone comprises four provinces (Kampong Som - Sihanoukville, Kampot, Koh Kong and Kep)[20] extending along the northeastern shore of the shallow Gulf of Thailand between the Thai and Vietnamese borders for approximately 435 km. The coast consists of estuaries, bays and approximately 64 islands. The country has claimed its Exclusive Economic Zone (EEZ) of 200 nautical miles from the coastline to cover approximately 62,515 km² of the Gulf of Thailand although transgressions from more powerful neighbouring countries are a common complaint. Apart from geopolitical issues, rising sea levels pose significant threat to marine coastal areas in Cambodia, which are already exposed to storm surges, high tides, beach erosion, and seawater intrusion. Low-lying areas, including settlements, beach resorts, seaports, coastal fisheries, and mangrove forests are directly impacted. Potable water access for the Cambodian populace is further threatened by sea-level rise which is resulting in saline intrusion. Saline intrusion is also projected to increasingly impact inland waterways, which are integral for freshwater fish and rice production. Post-disaster reports of Typhoon Ketsana and IUCN research on mangroves found that Cambodia's southern mangroves, which host and protect marine and coastal ecosystems through coastline stabilization and protection for reefs and sea grass meadows, are heavily threatened by typhoons, sea-level rise, industrial dredging, and flooding. These climate and non-climate stressors impact the amount of sediment reaching the mangrove systems while inundating them with sand, ultimately killing mangroves.[21] These impacts may also lead to beach recession, which could in turn result in further vulnerability of mangrove and coastal ecosystems to inundation of sand and greater exposure to increasing wave energy.

190. *Forest and land use changes*: Currently, about 25% of Cambodia's forests lie within a system of 23 protected areas. The 3.2 Mha of protected areas, including national parks, wildlife sanctuaries, protected landscapes, and multiple use areas, was established to conserve the country's biodiversity. According to Global Forest Watch, in 2010, Cambodia had 7.22Mha of natural forest, extending over 42% of its land area.[22] From 2002 to 2020, Cambodia has lost 1.28Mha of humid primary forest, which made up 53% of its total tree cover loss in the same time period. From 2001 to 2020, Cambodia lost 2.46Mha of tree cover (53% being humid primary forests), equivalent to a 29% decrease in tree cover since 2000, and 1.45Gt of CO₂ emissions. Kratie had the most tree cover loss at 331kha compared to an average of 98.3kha. The drivers

of such drastic levels of deforestation in Cambodia are anthropogenic: expansion of industrialized agriculture and mining activities, climate risks are expected to be threat multiplies for the aftereffects. To elucidate, increase in erosion and degradation of agricultural land is expected to worsen with flash floods, caused by erratic rainfall. Cambodia's protected areas, too, have been under pressure from non-climate stressors such as logging, forest conversion, illegal wildlife trade and mining. The loss of dry land forest is mainly due to agricultural expansion, illegal logging and over-exploitation, although in recent years.[23]

Outcome-based climate risk analysis (scale: low, moderate and high)

Key Project Outcomes	Potential effect of climate risks on project implementation and outcomes	Risk Level	Mitigation Measures
<p>? promote the acceleration of high-impact clean technology innovation for large-scale deployment and green job creation;</p> <p>? implement national cleantech innovation competition-based accelerators;</p>	<p>? Participation at events due to heat stress/flooding</p> <p>? Technologies supported, increase the likelihood of adverse effects that exacerbate climate risk</p> <p>? Failure of businesses supported by GCIP due to risk from hazards within the project area.</p>	<p>Moderate</p>	<p>? Some of the support is intended to be face to face. However, if this is not possible due to climate events then the training/events will be organized on-line with the aim of providing an experience as close as possible to the physical events, with side events and one to one meetings also possible.</p> <p>? To safeguard against climate change risks the screening of technologies for selection for GCIP support will include an assessment of the climate risks, over the next 30 years, and where a risk is identified it will be necessary for the SME/entrepreneur to propose suitable adaptation or management measures.</p> <p>? GIZ's Climate Expert Tool[24] for example could be used as one tool available to entrepreneurs. Once selected the alignment of proposed technologies will continue to be reviewed against local climate risks, as part of the support provided within the accelerator.</p>

<p>? Enhance access to financing through investment facilitation support targeted for start-ups and SMEs in early and growth stage to support commercialization and deployment of cleantech solutions with highly transformational impact for the global commons;</p>	<p>? In-country Financing diluted or diverted to disaster and resilience</p>	<p>Low</p>	<p>? Introduce new categories of technologies to address some of the prevailing climate risks</p> <p>? Facilitate the connectivity of ecosystems and greater opportunities for scaling-up of innovations across different countries and globally through the global programme;</p> <p>? Raise awareness with PMUs to assess climate risk on an annual basis</p> <p>? Increase impact tracking and monitoring of Climate Risk profile through tools like ?Think Hazard?</p>
<p>? build a cleantech community consisting of relevant ecosystem players at national and global level and build strategic partnerships with key influencers that can lead and guide policy and business decisions in the cleantech space;</p>	<p>? diverted human and political resources and stakeholder attention to disaster and resilience measures</p>	<p>Low</p>	<p>? Enhance visibility, credibility and understanding of identified solutions to the local political community through the stakeholder engagement plan and communications plan;</p> <p>? Support policy roadmaps that anticipate the effects of possible climate risk factors through project outcome 2.</p> <p>? Through the global programme ensure coordination and cooperation among GCIP national execution partners for knowledge and experience sharing on how to anticipate and mitigate the risks identified;</p>
<p>? Production, scale up and deployment of cleantech innovations</p>	<p>? Floods and droughts endangering cleantech production infrastructure, deployment and disbursement</p>	<p>Low</p>	<p>? Once accelerated cleantech SMEs/ start-ups are starting to scale up the production of their products or services, climate risks, such as floods could slow down the entire process. However, based on the availability of domestic Early Warning Systems (1294), cleantech producers will be able to avoid severe damages to the deployment and disbursement of products and services.</p>

Technical and institutional capacity and information needed to address climate risks and resilience enhancement measures

191. Potential responses to the climate risks in the focus sectors, i.e., energy, water and agriculture, of the project in Cambodia include:

? Ensuring favourable market conditions for climate technologies (e.g., support to an enabling environment for cleantech; identification of incentives for innovation)

? Policy environment to regulate energy production, climate-smart agriculture, cleantech innovation in industry sectors and in the digital economy.

? Planning infrastructure should take into account mitigation and adaptation to climate risks. Buildings can be designed using features that promote adaptation, for example to enable circulation of air for cooling, and with shaded windows in the direction of the sun ? whilst also being constructed with energy-efficient materials.

? Urban management (e.g., natural ventilation for cooling, safeguard critical infrastructure; create rainwater storage and flood retention areas)

? Land-use planning (e.g., protect high-yield agricultural land, environmentally sensitive areas and natural landscapes from urban sprawl; plan greater inter-connectivity between different land uses and transport; intensify land uses where appropriate; revise flood lines)

? Soft adaptation options, e.g., livelihood protection, social safety nets, support towards cleantech SMEs that target the promotion of women and women?s needs

? Encouraging the opportunities for innovation in this sectors and technology areas through the GCIP also provide alternative mitigation and adaptation benefits in the future

? Awareness-raising and education, communication of climate information and early warning systems are important adaptations across all sectors. These require institutional cooperation and coordination across sectors, particularly in planning and development practices that reduce vulnerability to climate hazards.

TABLE 7 COVID-19 RISK ANALYSIS

<p>Technical expertise is not readily available due to the pandemic</p>	<p>Low</p>	<p>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</p>
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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 8 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 Cambodia 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 Cambodia 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 Cambodia curriculum so that the entrepreneurs are fully informed of the market and policy trends
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[1] <https://www.unido.org/our-focus/safeguarding-environment/clean-energy-access-productive-use/climate-policies-and-networks/global-cleantech-innovation-programme>

[2] UNDP ? Cambodia Climate Change Alliance (CCCA) Phase II.

[3] NAP Global Network. (2018) sNAPshot ? Cambodia (country brief).

[4] Cardona, O.D., M.K. van Aalst, J. Birkmann, M. Fordham, G. McGregor, R. Perez, R.S. Pulwarty, E.L.F. Schipper, and B.T. Sinh, 2012: Determinants of risk: exposure and vulnerability. In: *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation* [Field, C.B., V. Barros, T.F. Stocker, D. Qin, D.J. Dokken, K.L. Ebi, M.D. Mastrandrea, K.J. Mach, G.-K. Plattner, S.K. Allen, M. Tignor, and P.M. Midgley (eds.)]. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change (IPCC). Cambridge University Press, Cambridge, UK, and New York, NY, USA, pp. 65-108.

[5] GEF and UN Environment. (2019) *STAP guidance on climate risk screening*.

[6] *ibid.*

[7] Royal Government of Cambodia ? National Climate Change Committee (2013). *Cambodia Climate Change Strategic Plan 2014 ? 2023*.

[8] The World Bank. (2011) *Climate Risk and Adaptation Country Profile: Cambodia*.

[9] IUCN. Meynell, P.J., Kong, K., Sorn, P. and Lou, V. (2019). *Climate Change Vulnerability Assessment Boueng Chhmar Ramsar Site, Cambodia*.

[10] *ibid.*

[11] ICEM. (2013) USAID Mekong ARCC Climate Change Impact and Adaptation Study for the Lower Mekong Basin: Main Report. Prepared for the United States Agency for International Development by ICEM ? International Centre for Environmental Management. Bangkok: USAID Mekong ARCC Project.

[12] UNDP Climate Change Country Profiles: Cambodia.

[13] USAID Climate Risk Profile: Cambodia.

[14] *ibid.*

[15] *ibid.*

[16] IUCN. Meynell, P.J., Kong, K., Sorn, P. and Lou, V. (2019). Climate Change Vulnerability Assessment Boueng Chhmar Ramsar Site, Cambodia.

[17] WHO. (2015) Climate and Health Country Profile: Cambodia.

[18] The World Bank?s Climate Change Knowledge Portal: Cambodia.

[19] USAID Climate Risk Profile: Cambodia.

[20] European Union Delegation to Cambodia (2012). Country Environment Profile: Cambodia.

[21] IUCN. (2013) Mangroves for the Future (MFF) in Cambodia.

[22] Global Forest Watch dashboard ? Cambodia (maintained by the World Resources Institute.

[23] Royal Government of Cambodia ? Second National Communication to the UNFCCC.

[24] <https://www.climate-expert.org/en/home/>

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.

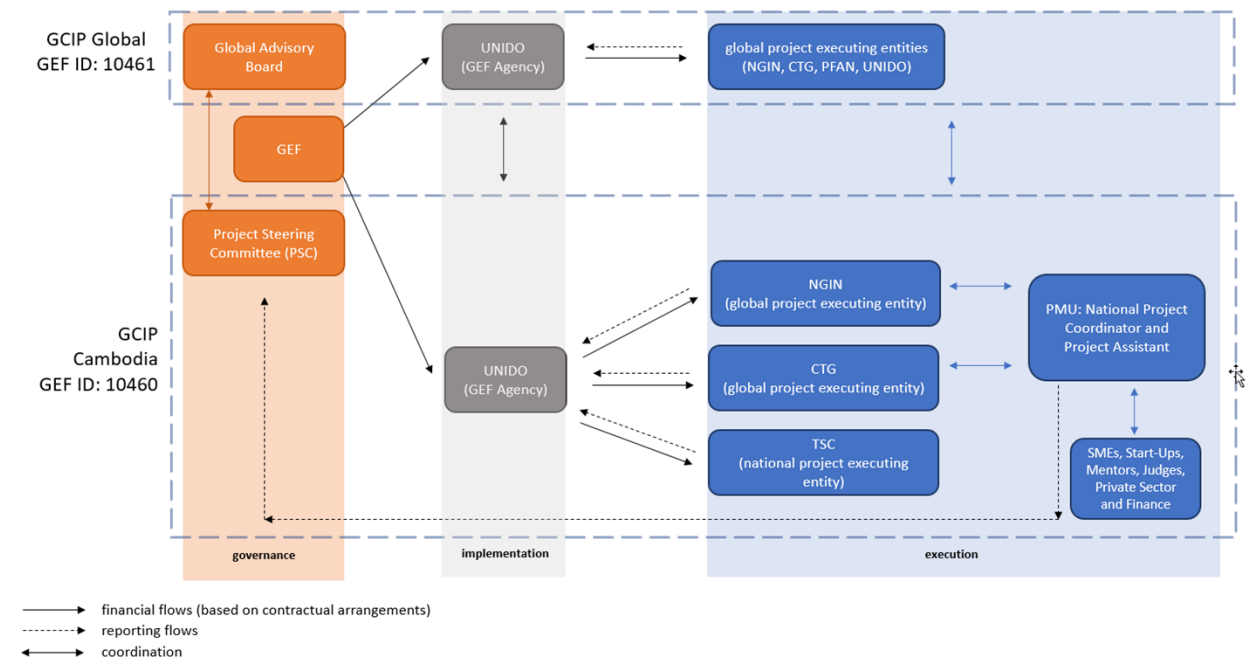


Figure 8: Institutional Arrangements

Implementation:

192. UNIDO as the GEF Agency will be responsible for the implementation of the GCIP Cambodia, 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

193. GCIP Cambodia will be executed by a national PEE with support from three global PEE. TSC was nominated by the GEF OFP in Cambodia to be the national PEE. TSC was assessed using the HACT methodology. The outcome of the assessment provided UNIDO an understanding of how TSC operates and an appropriate agreement shall be established. The TSC 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).

194. The PMU will be responsible for the day-to-day management, as well as monitoring and evaluation of project activities, as to be specified in the project workplan. TSC will 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.

195. The global PEEs, that will support the execution of GCIP Cambodia, 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 Cambodia (i.e., covered from the GCIP Global budget) and some covered from the GCIP Cambodia budget - as specified in details in the tables 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
196. With regard to GCIP Cambodia, 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 TSC, as well as training and workshops provided to TSC to strengthen its capacity to adopt and operationalize the tools and guidelines developed.

Project Steering Committee (PSC)

197. To ensure proper oversight and institutional ownership of the project, as well as to provide advisory inputs, an independent project steering committee (PSC) will also be established, chaired by the Ministry of Economy and Finance (MEF) and including representatives from key project partners and including the GEF OFP. The TSC will be the secretariat to the project steering committee.
198. 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). TSC forms the secretariat of and reports to the PSC, and it is not a voting member of the PSC.

Global Advisory Board

199. 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

200. This project will be conducted in coordination with ongoing GEF projects in Cambodia, 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. This GCIP project will synergize with UNDP Accelerator Labs initiative especially regarding support for new market innovation; with Global Affairs Canada's current initiatives such as Partnerships for Municipal Innovation in Local Economic Development, Support to Partnerships for Community Development and CESO - Volunteer cooperation 2020-2027, that promotes local business training and development, women, improvement in local governance capacities while advancing gender equality, with Green Climate Fund (GCF) and Korea Development Bank's recently approved initiative to provide financial support for technological innovators striving to accelerate low-carbon and climate resilient transitions across Southeast Asia including Cambodia and also from German Corporation for International Cooperation (GIZ)'s initiatives such as 'Strengthening the resilience of poor population groups to climate change in selected ASEAN states, taking special account of the impact of COVID-19 in Cambodia and Viet Nam' and 'Supporting MSMEs in Battambang Province, Cambodia'. GCIP will strive to integrate an environmental focus into those existing initiatives (listed below) whilst also facilitating coordination and synergistic efforts for SME acceleration nation-wide.

Coordination within Cambodia

201. During the PPG phase, TSC conducted stakeholder consultations and identified key technical partners that it will engage to ensure that the GCIP builds synergies with existing initiatives and builds upon the baseline of related work on accelerating technological innovation in Cambodia. As such, TSC has indicated that it envisages the following partnerships with technical partners:
- 1) Impact Hub Phnom Penh: Impact Hub has successfully run 27 acceleration programs resulting in support to 403 start-ups, and includes a staff of 80% women, of which all leadership roles are held by women. The Impact Hub includes a special focus on empowering youths in the techno-space, and has a strong track record on targeting entrepreneurs in the provinces, women, and young people in order to ensure that the movement towards technological innovation is inclusive and fully representative of Cambodia's future leaders.
 - 2) EnergyLab: The EnergyLab works to support the growth of the clean energy market, with a particular focus on innovation, start-ups and entrepreneurship. EnergyLab runs a range of

programs to help entrepreneurs develop, launch and grow new energy businesses in the region. It includes fellowship opportunities for women in clean energy, and its Country Director brings over two decades of clean energy experience in Cambodia to her extensive network when setting up accelerators and mentorship programmes. EnergyLab is modelled after EnergyLab Australia, which has achieved world-leading programs in catalysing clean energy through its approach.

202. In addition to coordinating inputs from the technical partners, the TSC will oversee the creation of an Early-Stage Development Fund, which will likely include collaborative partnerships with the following financial partners:
 - 1) Khmer Enterprise: Khmer Enterprise (KE) was created by the Ministry of Economy and Finance and is the implementation unit of Entrepreneurship Development Fund (EDF). The organization aims to mobilize, invest and manage resources to support the development of a vibrant entrepreneurial ecosystem and to provide financial and non-financial support to builders as well.
 - 2) Small and Medium Enterprise Bank of Cambodia (SME Bank): The SME Bank launched in April 2020 and has been created, with support from the Ministry of Economy and Finance and in partnership with 23 commercial banks, 2 specialised banks, and seven microfinance institutions, to provide working capital and investment capital to SMEs.
203. The TSC, KE and SME Bank are all actively supported by the MEF, indicating that they are conceptually well aligned to build a financial partnership that addresses the need for early-stage support to start-ups that focus specifically on environmentally sustainable cleantech. TSC will lead a collaborative approach to the creation of the Early-Stage Development Fund.

Coordination with UNIDO initiatives:

204. It is also foreseen that the project is closely coordinated with other participating countries in *the Global Cleantech Innovation Programme for SMEs*, also implemented by UNIDO in neighbouring countries, *and* other similar ongoing country and regional initiatives to avoid overlap of activities. This could also create opportunities for Cambodia, e.g., through the participation of Cambodian entrepreneurs at the Cleantech Global Forum or other shared training programmes for the project teams and other events. Additionally, the project will be executed with taking into account lessons learned and experience during implementation of other GEF/UNIDO Cleantech and international development projects.
205. The outputs and outcomes from this child project will contribute to the overall project impact through the number of cleantech innovations, entrepreneurs and SMEs supported, value chain activities, finance mobilized and the resulting green growth, jobs created and GHG emission reductions. The following figure shows how the Global framework will support the child project and how the Cambodia project will feed into the global programme.
206. The Cambodia GCIP Project is a child project under the GCIP Global Framework. Engagement with the global framework is integrated into all components of the project and is intended to

include all stakeholders. It includes the following main activities and is shown in the figure below. Specific budget has been allocated for involvement in all these activities.

- a. Common methodologies and web platforms
- b. Exchange, cooperation and networking
- c. Global commercialization support for GCIP alumni
- d. Global linkages to markets, investors and partners
- e. Global and regional events
- f. Knowledge product
- g. Communication, advocacy and outreach
- h. A global community of GCIP stakeholders
- i. Programme coherence and coordination.

Legal Context

207. The Government of the Republic of Cambodia agrees to apply to the present project, *mutatis mutandis*, the provisions of the Standard Basic Assistance Agreement between the United Nations Development Programme and the Government, signed and entered into force on 2 October 1992.

Assets Transfer

208. 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.

209. Cambodia's main national development priorities are enshrined in the National Strategic Development Plan (NSDP) for 2014-2018: reduce poverty while fostering economic growth at a steady rate of 7-8% per year. Cambodia aims to progress from least-developed country (LDC) status towards a low and high middle-income developing country by 2018 and 2030 respectively.

The Royal Government of Cambodia designed a comprehensive strategic framework (including Rectangular Strategy, National Strategic Development Plan, Sectorial Development Strategies, Industrial Development Policy, and other policy documents) which have enabled it to track progress towards this goal by diversifying the economy, including through industrialization and the development of physical infrastructure. However, the Covid-19 pandemic is likely to set Cambodia back in terms of meeting its economic goals, and redoubled efforts are expected once the pandemic abates.

Cambodia National Priorities

210. Cambodia graduated from Low Income Country to Lower Middle Income Country status in 2015, with a medium- and long-term vision to become an Upper Middle-Income Country in 2030 and High-Income Country in 2050, respectively. Political Platforms and Rectangular Strategy IV of the RGC in the Sixth Legislature of the National Assembly, National Strategic Development Plan (NSDP), and the Cambodian SDGs (the CSDGs) 2016-2030 are the high strategic documents developed to transform Cambodia to be the and High-Income Country in 2050 as well as to contribute to the implementation of the global development agenda such as Agenda 2030 for sustainable development and global Sustainable Development Goals which was endorsed in 2015.
211. Coinciding with every parliamentary election, successive Royal Governments have set out their socioeconomic platform within the framework given by Rectangular Strategy (RS) since 2004, centered on the themes of Growth, Employment, Equity and Efficiency. Developing with the synchronization with each other, NSDP and RS have become pivotal for framing the direction of the national plan. The RS IV consists of four policy rectangles: (1) human resource development; (2) economic diversification; (3) private sector development and employment; and (4) inclusive and sustainable developments, which are the RGC priorities in the NSDP 2019-2023.
212. The current project will support all four corners of the RS IV. For example, the project will provide technical training in cleantech start up that will help in human resource development by mobilizing the resource around the globe to support the Cambodia. The focus of sectors including agroindustry, tourism, industry and SME are all the main priority of RGC development agenda.

NSDP listed 7 themes to be taken forward including (1) promoting poverty reduction and inclusive growth; (2) **expanding agriculture**; (3) securing greater competitiveness; (4) managing migration and urbanization; (5) **combating climate change and deforestation**; (6) securing better governance; and (7) improving the human resource base.

213. In 2018, agriculture contributed approximately 23.5% of the gross domestic product including 58.1% for crops, 11.1% for livestock and poultry, 24.1% for fisheries and 6.7% for forestry. With the trends or migration of labor in agriculture sector, the government is working to promote the efficiency and productivity of labor and adoption of technology to ensure the continuous growth of the sector. In this case, the project can play an important role to promote clean technologies from the first place.

214. The importance of agriculture is reflected through policy frameworks and development strategies, as well as the government's policy that focus on promotion improvement and promotion of agriculture through increased productivity, diversification and agriculture commercialization in a new turn to accelerate national economic growth and alleviate poverty. In addition, the RGC promulgated Industrial Development Policy (IDP) 2015-2025 in which the main goal relevant to agriculture is to promote exports of agriculture processed products to 12% of the total exports in 2025.
215. The management of the environment and natural resources, including climate change, is an important issue in terms of sustainability and stability of Cambodia's economic growth and development. Environmental issues are a cross-cutting issue and require coordination within the whole government at both the national and sub-national level, in collaboration with all stakeholders. The Ministry of Environment has a leading role in achieving environmental sustainability. The Ministry has made good progress in preparing strategic plans such as Cambodia Climate Change Strategic Plan (CCCSP) 2014 - 2023 with supporting sector climate change action plan including industry, energy, agriculture, public works, transport, buildings sectors. The action plans are the road map for implementation to achieve the common strategic objectives set in CCCSP. Cambodia has also established National Council for Sustainable Development and the General Secretariat to promote sustainable development and climate change in order to ensure the balance between economic, social and cultural development in the Kingdom of Cambodia. Besides, the government has developed and implemented "National Environment Strategy and Action Plan 2016-2023" and "National REDD+ Strategy" to ensure economic development with low-carbon emission and resilience to climate change.
216. Clean technology is also on the top priority of RGC. The government has recently adopted Science, Technology and Innovation Policy 2020-2030 in 2020 to promote the STI environment, and to develop STI ecosystem for sustainable development and enhancing quality of people's life, at all levels and sectors. In line with this development, government has changed the Ministry of Industry and Handicraft to Ministry of Industry, Science, Technology and Innovation as marshals of the Royal Government on the leadership and management of the Science, Technology and Innovation sector, including the water and handicraft sectors of the Kingdom of Cambodia. The Ministry has also set up new general department and institute of science, technology and innovation to promote research and development, capacity building and technology transfer. Ministry of Environment with NCSA are also work on the development and implementation of the Nuclear Energy Utilization program for the purposes of peace, renewable energy, clean energy, biomass, energy efficiency and greenhouse gas emission reduction to mitigate the greenhouse gases emission as well as low carbon development of Cambodia.

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.

Overview of existing lessons and best practice that inform the project document:

217. an Overview of existing lessons and best practice that inform the project document: Knowledge management and exchange at the global level is a key strength of the GCIP's design as a global flagship programme. UNIDO has been facilitating information and knowledge exchange among GCIP PMUs and GCIP supported entrepreneurs across borders since 2013, and this dimension has proven to be of benefit to all stakeholders. The premise of this project is built upon stakeholder consultations and the conclusions and recommendations from the previous Terminal Evaluations and ongoing experiences of the GEF5/6 GCIP projects as well as the findings and recommendations of the GEF IEO independent thematic evaluation of GCIP. In particular,

? More focus on Investor outreach and connecting with investor networks

? Improved cross-country coordination and system to ensure coherence and quality

? Advanced business-support for SMEs post GCIP acceleration needed

? An increased focus on policy strengthening and regulatory frameworks to foster cleantech innovation

? Knowledge exchange between national executing agencies and government counterparts

? Improved monitoring and evaluation of impact

Plans to learn from relevant projects in Cambodia:

218. As described within the section on baseline projects, lessons learned will be incorporated from successfully completed and ongoing projects. The USAID funded project "Development Innovations" enabled Cambodian-led technology products to be designed and built to meet civil society and user demands and trigger changes in the ways civil society conducts programs and design solutions. As a result 91 technology solutions were deployed, that aimed at enhancing education, flood resilience, family care and the management of natural resources. Therefore, GCIP Cambodia will interact with technology providers that contributed to the USAID projects in understanding the needs and leveraging the potential of cleantech providers in Cambodia.

219. Equally, GCIP Cambodia will build on lessons learned by the UNDP Accelerator Labs initiative, which was launched in January 2020 in Cambodia and seeks to test and try to scale up innovative solutions helpful in combating poverty, climate change, and inequality. Best practices will be enquired by active stakeholders from several sectors, in order to generate an overview on the innovation potential of the country.

220. The Impact Hub and the Energy Lab, both with offices in Phnom Penh, have emerged through the stakeholder consultation process as the lead accelerators within Cambodia. While Energy Lab does focus on clean energy technologies, Impact Hub provides more broad support to entrepreneurs in general. This will be critical for engaging youth who experience significant difficulties in entering the labor market and are in need of support.

Proposed processes to capture, assess and document information, lessons, best practice & expertise generated during implementation:

221. Knowledge capture, assessment and documenting will be a continuous effort during project implementation. Through the various monitoring and reporting exercises, bi-annually and annually i.e. progress reports, PIRs, MTR and TE, the lessons learned, best examples, recommendations, etc. will be recorded. Best practice processes and examples are to be shared through annual meetings of the country PMUs with UNIDO and the Global PEEs.

Proposed tools and methods for knowledge exchange, learning & collaboration:

222. . Each child project will be assigned a section on the global GCIP web platform, where country-specific project information, press releases, relevant news articles, social media posts, relevant studies and alumni profiles will be made available and maintained by the PMU throughout the project's lifetime and beyond. This will also allow the UNIDO and the country PMU to track alumni progress as well as for alumni to share experiences and continuously foster their network. The establishment of the National and Global Alumni Networks will be a key mechanism for Knowledge sharing in this project.

223. Knowledge sharing will be conducted through trainings, workshops, roundtable, printed materials and through the GCIP web platform at global and national levels. The combined set of outreach activities will ensure recognition of and support for GCIP at the programmatic level and at national levels beyond the project duration

Proposed knowledge outputs to be produced and shared with stakeholders

224. As envisaged under output 1.1.1 GCIP guidebooks and methodologies will be adapted for the GCIP Cambodia. This includes training and certification of cleantech experts, supported through the development of methodologies, tools and training materials. These materials will be adapted from GCIP Guidebooks, which will be developed by the Network for Global Innovation (NGIN) under the GCIP Global. They will guide the operation and management of the GCIP Cambodia Accelerator, Advanced Accelerator, and Post-Accelerator, and will include proposed schedules; eligibility requirements and selection criteria for the participants; competition rules; training curricula and handbooks for applicants, experts (mentors, trainers and judges).

Moreover, at the programme level, M&E frameworks, knowledge management, communication and advocacy strategy/ies and well as impact calculation methodologies will be developed and shared across all child projects, as a blueprint for the development of country-specific strategies.

Discussion on how knowledge and learning will contribute to overall project impact and sustainability in Cambodia

225. Knowledge sharing and learning are key aspects of this project. From training the trainers, to providing support to cleantech innovators, throughout the pre accelerator cycle, accelerator cycle and post accelerator cycle, as well as through providing technology verification and product development support services to ease the potential market entry of cleantech products ? this project's impact is dependent on successful knowledge sharing and learning that will be provided to its beneficiaries.

226. The Knowledge and learning will contribute to the overall impact and sustainability in the following ways:

a) the dissemination of relevant documents, e.g. operational guidelines, guidebooks for impact determination, frameworks, the PMU and National Project Execution Entity is empowered to strengthen their project management capabilities as well as being able to run a Business 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). This ensures the competent commercialization of technologies and products, for the growth of the SME base in-country.

b) through the web platform and the adoption of international best practice communications and sustainability strategies, the GCIP community at national levels, e.g. investors, enterprises, alumni, and experts will be maintained locally. The continued connectivity in-country and across borders ensures the continued market and financing opportunities for innovative products, resulting the consequent economic and environmental benefits.

c) by providing a knowledge depository for the general public (all relevant knowledge, communication, and advocacy materials will be available on the website), the brand, lessons and successes encourage further innovation in cleantech and enhance consumer awareness.

Plans for strategic communications:

227. The communications strategy will include the development of awareness raising and marketing material, for public and awareness raising and for marketing material for entrepreneurs and officials. This will include briefing sessions, press releases, social media activity, attendance at events etc.

228. The knowledge management component facilitates South-South and North-South collaboration in policies, methodologies and frameworks promoting innovations in sustainable energy, water and waste management, through captured by the interaction between the respective UNIDO, GPTEs, PMUs and national counterparts in each of the GCIP partner countries.

229. Annually the Global Advisory Board comprising the GEF, UNIDO and government representatives from each GCIP partner country will meet to provide strategic guidance to the

programme. It will address potential problems and discuss strategic and policy issues affecting the programme whilst also defining key advocacy messages

230. The GCIP Cambodia 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.

Overview of deliverables relevant for knowledge management

Deliverable	Timeline
A pool of experts (trainers, mentors, judges) created	Intensive focus for Year 1-2 of project implementation/execution with regular updates after every six months.
The knowledge management, communication, and advocacy strategy framework reviewed and adapted to GCIP Cambodia; including regular online trainings that are gender sensitive and actively seek participation from women (Output 3.1.2)	Integrated throughout the project, with intensive focus in the second quarter of every implementation year.
Policy briefs, impact reports, brochures, webinar sand other types of promotional materials distributed through briefing sessions, press releases, social media presence, advertising, etc. ? in line with the GCIP Cambodia knowledge management, communication, and advocacy strategy	Intensive focus for Year 1-2 of project implementation/execution with regular updates after every six months.

9. Monitoring and Evaluation

Describe the budgeted M and E plan

231. Under this project, project monitoring and evaluation (M&E) will be conducted in accordance with established UNIDO and GEF procedures: ?According to the Monitoring and Evaluation 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.? The overall objective of the monitoring and evaluation is to provide visibility of the progress being made in the implementation of the project by observing and reviewing project activities. The evaluation team reports and verifies the actual progress against the work plan approved by the Project Steering

Committee. Thus M&E enables the project manager to take corrective measures in case there are significant deviations between the forecasted work plan and the actual implementation.

232. In order to harmonise the approach, there will be a GCIP M&E framework provided by the GCIP Global, including time-bound milestones and deliverables. The M&E procedure will consist of project inception, project progress report, PIRs, a project final report and tracking tools following GEF requirements. A detailed monitoring plan for tracking and reporting on project time-bound milestones and accomplishments will be prepared by GCIP Global in collaboration with the PMU and project partners at the beginning of project implementation and then periodically updated. There will be an external mid-term review of the project conducted half way through project implementation. Gender dimensions and baseline for gender related targets will be appropriately captured in the GCIP Cambodia M&E plan, in the progress review reports, as well as in the collection and assessment of relevant data. The plan will encompass monitoring of the Environmental and Social Management Plan, the Stakeholder Engagement Plan, the Gender Action Plan, a Risk Mitigation Plan, Budget and Co-financing commitments.
233. The independent terminal evaluation report will be submitted to the ODG/EVA, and thus will also fall under their responsibility.
234. The GCIP methodology for impact assessment will be developed by the GCIP Global and shared with the GCIP Cambodia 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 gender-disaggregated and gender-sensitive, and youth participation will also be recorded.
235. By making reference to the impact and performance indicators defined in the Project Results Framework, the monitoring plan will track, report on and review project activities and accomplishments in relation to the energy savings achieved, increased Renewable energy capacity and GHGs emission reductions generated as a result of the project. The Project Management Unit (PMU) will be responsible for continuous monitoring of project activities implementation, and performance in relation to the project results framework, the gender action plan, environmental and social management plan, stakeholder engagement plan and the risk mitigation plan. The executing entity project manager will be responsible for tracking overall project milestones and progress towards the attainment of the set project outputs and will also be responsible for narrative reporting to the GEF. The GEF OFP will be engaged in the M&E activities, such as regularly receiving all project progress reports, and providing inputs and comments, etc.

Type of M&E	Responsible	Time Frame	Indicative Cost (US\$)
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activity	Parties		GEF	UNIDO & Project Partners (in-kind)
Progress reports	Executing entity, PMU	Quarterly/ Six monthly and Annually	25,000	9,800
MTR Process - complete with all preparation and data packaging	UNIDO, External Consultants	At mid-point of project implementation	26,025	20,000
Project Terminal Report	UNIDO	At end of project implementation	30,000	20,000
TOTAL INDICATIVE COST			81,025	49,800

Table 9 M&E budget

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 (LDCE/SCCF)?

236. In summary, the project yields the following socioeconomic benefits as a result of supporting and introducing new cleaner technologies into the market, strengthening national institutional capabilities, enhancing the availability of financial instruments, and encouraging inclusivity in the entrepreneurial and job markets. Specifically these interventions lead to:

? Enhancement of human capital

Entrepreneurial, environmental and technological skills development and awareness raising have the effect of a larger number of cleantech products being commercialized and entering the market. Better decisions are made by entrepreneurs regarding the sustainability and life cycle approach to the products and businesses.

? Local product development and production with job creation, generating more income

Fostering new local technologies lowers costs benefiting both the technology developer and end-user and encourages consumers to buy more efficient products and have a great benefit from this technological change.

? An enriched innovation ecosystem

The high quality institutions attract the build confidence in local and foreign investors as well as the small business community in an economy due to low volume of transactions costs that result in the advancement of environment friendly technologies.

? Improved energy access for people living in rural areas

At the same time investing in energy access, electrification and renewables are well known to contribute to the decarbonization of the economy. Also the move away from traditional cooking and heating methods reduce health risks.

? Promotion of women and youth entrepreneurial development and job creation

The promotion of gender and youth inclusion and mainstreaming in a country tends to be productive, innovative and creative for problem solution so it is an advantage to obtain environmental targets. Mainstreaming diversity will encourage the cooperation and cohesion of people in advocating for environmentally beneficial practices and products

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

PIF	CEO Endorsement/Approval	MTR	TE
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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.

The project has been categorized as Category B as per the UNIDO ESSPP and based on an analysis of the environmental and social risks of the project; i.e. there are few likely adverse impacts, which will be site-specific, and few if any will be irreversible. In most cases, impacts can be readily avoided or mitigated with appropriate mitigation measures or incorporating internationally recognized design criteria and standards. The Environmental and Social Management Plan (ESMP) is included as an attachment under Annex .

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
Annex L Cambodia_ESMP	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).

Results	Indicators	Baseline	Targets	Means of Verification	Assumptions and Risks
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<p>Objective: Promote the acceleration of high-impact clean technology innovation for large-scale deployment and green job creation for SMEs and start-ups in Cambodia</p>	<p>National cleantech ecosystem to support competition-based accelerators and cleantech ecosystem</p>		<p>National cleantech ecosystem established to promote SMES within Cambodia</p>		
	<p># SMEs/startups pursuing innovations in clean technologies (gender-disaggregated for leadership)</p>	<p>Existing pool of relevant start-ups supported by PFAN and other relevant cleantech service providers in Cambodia Weak clean technology innovations ecosystem</p>	<p>1250 beneficiaries (30% women in the first year, 35% in the 2nd and 3rd year, and 40% by yrs 4-5 consisting of:</p> <ul style="list-style-type: none"> - 120 entrepreneurs identified for pre-incubation support (see targets described above) 	<p>Project progress reports;</p>	<p>Technology innovation, energy productivity and creation of jobs remains the top priority of the Government</p>
	<p>Successful Cleantech (CT) programmes organized after project completion</p>	<p>Limited investments in innovative clean technology, especially by SMEs</p>	<p>- 70 startups accelerated (see targets described above)</p>	<p>Final independent project evaluation report;</p>	<p>SMEs and Start-ups are committed to the Cleantech approach;</p>
	<p>Additional investment into clean technology innovations due to increased interest in the CT programme</p>	<p>Data on emission reductions related to clean technology innovations in SMEs not available</p>	<p>- 300 beneficiaries from the startups (4-5 people per startup; see targets described above)</p>	<p>GEF Tracking Tools;</p>	<p>Government of Cambodia remains committed to the Cleantech approach.</p>
	<p># SMEs as members of the national platform (gender-disaggregated)</p>	<p>Limited numbers</p>	<p>- 30 cleantech experts identified and trained (judges, mentors and coaches (at least 35% women)</p>	<p>Database and records maintained during and after project completion.</p>	
	<p>Tonnes of GHG emissions directly or indirectly avoided</p>		<p>800 national and regional experts sensitized through workshops, forums, webinars and networking events (30% women in the first year, 35% in the 2nd and 3rd year, and 40% by year 5)</p>		
<p># new jobs associated with cleantech innovations</p>					

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

Pillar 1: Transforming early-stage innovative cleantech solutions into commercial enterprises

Results	Indicators	Baseline	Targets	Means of Verification	Assumptions and Risks
<p>Outcome 1.1 Early-stage cleantech innovations are accelerated</p>	<p>New technical and financial services provided through accelerator services and the identification and certification of cleantech mentors, judges and coaches for SMEs and Start ups.</p>	<p>Limited awareness of cleantech innovations</p> <p>Limited resources for early stage cleantech innovators</p> <p>Limited access for early stage cleantech experts into broader networks</p> <p>No existing certified pool of cleantech experts</p> <p>Limited business and market entry support services available for cleantech SMEs and entrepreneurs</p>	<p>Technical tools and experts are developed, trained and operational to enable the conduct of cleantech accelerators</p> <p>Strengthened market readiness support to start-ups and SMEs through the provision of advanced acceleration services</p> <p>Understanding on gender dimensions of cleantech enhanced within Cambodia</p>	<p>Criteria used for the identification of potential cleantech experts</p> <p>Project progress and evaluation reports</p> <p>Attendance reports and evidence of accelerator rounds (pictures, news articles etc.)</p> <p>Training sessions reports</p> <p>Surveys of experts trained</p> <p>Methodologies, guidelines and tools developed</p>	<p>Continuous support and participation by government, R&D institutions, SMEs and other project partners</p> <p>Sufficient commitment and participation from all project stakeholders involved</p>

<p>Output 1.1.1 The GCIP guidebooks and methodologies are adapted for the GCIP Cambodia</p>	<p># of potential cleantech experts identified (gender disaggregated)</p> <p># of methodologies, guidelines and tools and training systems developed, which consider gender dimensions</p> <p># and quality of training and mentoring cleantech experts capable of organising cleantech accelerators at national level</p> <p># training material including gender awareness training</p>	<p>Limited capacity to conduct cleantech innovation accelerators and provide business growth services</p> <p>Limited technical and administrative capacity of entrepreneurs</p>	<p>Specific methodologies, guidelines, tools and training systems for the uptake of cleantech ecosystem developed</p> <p>At least 30 cleantech experts (mentors, judges and coaches) are trained and equipped with the necessary skills and tools to support the uptake of cleantech innovation and early-stage business growth (of which 35% are women)</p>	<p>Criteria used for the identification of potential cleantech experts</p> <p>Project progress and evaluation reports</p> <p>Training sessions reports</p> <p>Surveys of experts trained</p> <p>Number of methodologie s, guidelines and tools developed</p>	<p>Executing Entity has the capacity to develop relevant tools, methodologies and guidelines to meet Cleantech innovation needs</p>
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<p>Output 1.1.2 Pool of cleantech innovation and entrepreneurship experts (trainers, mentors, judges) is trained and certified to support the GCIP Cambodia Accelerator (at least 30 cleantech experts identified and trained with at least 35% of women participants)</p>	<p># of roadshows and outreach events in the provinces, with targeted outreach to women</p> <p># trained and certified national mentors/judges (>35% women participants)</p> <p># of mentors focusing on women's needs</p> <p>% of mentors that participate in gender-sensitization and took the "I-know-gender" training</p>	<p>No confirmed outreach for hospitality sector, industry and manufacturing; some existing outreach to agricultural sector</p>	<p>30 potential entrepreneurs/early stage business concepts identified per sector (120 in total)</p> <p>30 national mentors/judges trained and certified (>35% women participants; 100% participate in the "I know Gender" training)</p>	<p>Project progress and evaluation reports</p> <p>Attendance reports and evidence of accelerator rounds (pictures, news articles etc.)</p>	<p>Ability to identify 75 eligible firms; ability to identify adequate number of female-owned firms.</p>
	<p># of sectors / cleantech categories (agri-value chains/industry; industry; manufacturing; hospitality) supported through early stage awareness building and outreach</p>	<p>PFAN has supported one cleantech company in Cambodia and various organisations focusing on relevant sectors are organising support for startups in Cambodia, though capacity is currently insufficient (see baseline table).</p>	<p>4 of the 4 targeted sectors are covered by the selected SMEs/Startups</p>	<p>Survey of accelerator participants and other stakeholders</p>	<p>Sufficient access to online capabilities in the event of a prolonged Covid-19 pandemic.</p> <p>Continuous commitment and participation of mentors, judges and coaches</p>

<p>Output 1.1.3. Three cycles of the annual competition-based GCIP Cambodia Accelerator are conducted (at least 70 participants with at least 35% of women participants)</p>	<p># of pre-accelerator courses held</p> <p># pre-accelerator participants per course (gender disaggregated)</p> <p># GCIP Cambodia accelerators held</p> <p># competition entries,</p> <p># semi-finalists and finalists (gender-disaggregated)</p> <p># entrepreneurs identified, coached and promoted during the Cleantech programme (gender disaggregated)</p> <p>#national GCIP forum</p> <p># semi-finalists and finalists (>35% women participants)</p> <p># of partners involved that promote GEEW for the outreach</p> <p># entrepreneurs</p>	<p>Limited accelerators in agriculture and industry that lack a specific cleantech focus</p>	<p>3 accelerator rounds conducted</p> <p>25 firms attend each round (at least 30% women owned, and at least 35% of women in the staff population of the winners) and receive training and networking</p> <p># of partners involved that promote gender equality and the empowerment of women for the outreach</p> <p># of trainings targeted at women's needs</p> <p>Gender responsive presentation material Gender responsive outreach</p>	<p>Project progress and evaluation reports</p> <p>Project documentation</p> <p>Training records ? material and participants</p> <p>Participant feedback on pre-accelerator and accelerator</p> <p>Meeting/forum records</p>	<p>Continuous commitment and participation of mentors, judges and coaches</p> <p>There is a risk that there will not be enough participants available for the accelerators.</p>
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<p>Outcome 1.2. Start-ups and SMEs are supported through advanced and gender-responsive business growth and investment facilitation services</p>	<p>Financial mechanism established to provide access to pre-seed and seed support for SMEs and start ups.</p>	<p>Limited pre-seed and seed support for start-ups</p>	<p>SMEs and start ups receive adequate business support and financing to potentially engage with commercial investors; an alumni network is established that is able to further support start ups and SMEs to develop investor-ready cleantech businesses.</p>	<p># finalised business plans # of firms reaching investment closure # of events and tools contributing to facilitate cleantech learning and collaboration among SMEs and start-ups</p>	<p>Cleantech innovators may fail to meet results-based targets Insufficient financing capacity of potential investors Lack of participation and continuous contribution of alumni network and other project stakeholders</p>
<p>Output 1.2.1 An early-stage development fund is created to provide pre-seed and seed financing support to entrepreneurs and startups (at least 12 firms achieving eligibility criteria with at least 35 % of women participants)</p>	<p>Financial mechanism established to provide access to pre-seed and seed support for SMEs and start ups. # entrepreneurs participating in webinars (gender disaggregated) # targeted support for women-led enterprises # targeted support for products/services that promote gender equality and women's empowerment</p>	<p>No early-stage development fund exists for cleantech SMEs</p>	<p>At least 12 and up to 20 firms achieving eligibility criteria to receive pre-seed and seed financing for early stage business growth (of which 30% are women-owned and/or promote products/services that promote gender equality) 30% of early stage funds targeted for women-led enterprises and/or products/services that promote gender equality and women's empowerment</p>	<p>Finalised market feasibility studies</p>	<p>There is sufficient capacity and technical skills to provide business growth support services Continuous participation of selected SMEs and entrepreneurs</p>

<p>Output 1.2.2 Technology verification, product development and market entry support is provided (at least 15 start-ups for post-acceleration support per year with at least 35% women participants)</p>	<p># of market feasibility studies, product verification assessments and business plans developed (gender disaggregated)</p>	<p>Limited availability of early-stage business growth coaching and capacity building.</p>	<p>At least 12 and up to 20 firms achieving eligibility criteria to receive pre-see and seed financing for early stage business growth (of which 30% are women-owned)</p>	<p>Final product verification assessments and prototypes</p>	<p>Continuous support from the Government and national partner institutions Commitment from project partners and committed participation of SMEs and entrepreneurs Sufficient commitment and participation by national experts and mentors Interest from impact investors in cleantech</p>
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<p>Output 1.2.3 Mentoring and partnership support is provided to cleantech enterprises for global market expansion</p>	<p># high level international events attended (gender-disaggregated)</p> <p># participants attending peer-networking activities, workshops, and national events (gender-disaggregated)</p> <p># GCIP alumni receiving mentoring and partnership support (networking, introductions etc.)</p> <p>Membership of NGIN (gender-disaggregated)</p> <p># USD raised for cleantech entrepreneurs (% to women led business)</p> <p># training for FIs and investors on gender-lens investment or gender sensitization</p> <p># investors trained (gender-disaggregated)</p> <p># participants attending forums (gender-disaggregated)</p> <p>Gender responsive presentation material</p> <p>Gender responsive outreach</p>	<p>None</p>	<p>200 participants attending peer-networking events, alumni events, high level forums, workshops (at least 35% women)</p> <p>>15 GCIP alumni receiving mentoring and partnership support (networking, introductions etc.)</p> <p>Membership of NGIN (at least 35% women)</p> <p># training for FIs and investors on gender-lens investment or gender sensitization</p> <p># participants attending forums (gender-disaggregated)</p> <p>Gender responsive presentation material</p> <p>Gender responsive outreach</p> <p># targeted events for women</p>	<p>Project documentation</p> <p>Company reporting</p> <p>Participant lists and forum schedules</p> <p>Training records</p> <p>Training participant lists and feedback</p> <p>Tracking tools</p> <p>Meeting notes</p>	<p>Continuous support from the Government and national partner institutions</p> <p>Commitment from project partners and committed participation of SMEs and entrepreneurs</p> <p>Sufficient commitment and participation by national experts and mentors</p> <p>Interest from impact investors in cleantech</p>
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Component 2: Cleantech innovation and entrepreneurship ecosystem (CIEE) strengthening and connectivity

**Pillar 2:
Ecosystem
building**

**Outcome 2.1:
The CIEE in
Cambodia is
strengthened
and
interconnected**

Capacity of relevant national institutions to coordinate and accelerate investments into Cleantech start-ups/SMEs is enhanced

Low national capacity to coordinate and accelerate investments

Relevant national institutions supported with specific insights as to the needs of the cleantech industry within the four sectors of national priority: agriculture, industry, manufacturing and hospitality

Project progress and evaluation reports

Best practice policy report

Surveys from training and capacity building sessions participants

Meeting minutes

Continuous support and participation from Government of Cambodia and national partner institutions

Sufficient capacity to undertake policy gap analysis and formulate applicable recommendations

Capacity building and training sessions are assumed to accommodate women's needs and schedules

<p>Output 2.1.1. An Alumni Network is established and supported to allow peer-learning and foster partnerships</p>	<p># of Alumni Networks established</p> <p># of alumni included in the network</p> <p># partner institutions? staff trained to be able to operate platform and organize competition and accelerator programme (gender-disaggregated)</p> <p>%/# of stakeholders that participated in gender-sensitization and completed ?I-know-gender? trainings</p> <p>Youth and gender mainstreaming strategy</p> <p># students trained on Cleantech Entrepreneurship (gender-disaggregated)</p> <p>) # new Entrepreneurship trainers (gender-disaggregated)</p> <p>%/# of students that participated in gender-sensitization trainings</p>	<p>Limited access to entrepreneurial networks</p>	<p>4 alumni networks established (1 per sector, 100 per network)</p> <p># partner institutions? staff trained to be able to operate platform and organize competition and accelerator programme (>35% women participants)</p> <p>%/# of stakeholders that participated in gender-sensitization and completed ?I-know-gender? trainings (>35% women participants)</p> <p>) Youth and gender mainstreaming strategy (>35% women participants)</p> <p># new Entrepreneurship trainers (>35% women participants)</p> <p>%/# of students that participated in gender-sensitization trainings (>35% women participants)</p>	<p>Number of alumni identified and included on the networking mailing list and other coordination tools</p> <p>Number of online tools to facilitate alumni networking</p>	<p>Lack of participation in alumni network</p>
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<p>Output 2.1.2 Cleantech innovation and entrepreneurship policies, regulations and recommendations are developed</p>	<p># Policy analysis report</p> <p>#cleantech innovation policy workshop</p> <p># Policies and regulations developed to promote clean technology innovations in SMEs</p> <p># Recommendations reports on digital policy</p> <p>% of attendants at policy consultation workshops who are women (gender disaggregated)</p> <p># policy clauses relating to gender equality</p>	<p>Limited coordination between stakeholders</p> <p>Limited capacity of stakeholders to sustain cleantech acceleration</p> <p>Limited commercialisation support</p>	<p>1 Policy analysis report</p> <p>1 cleantech innovation policy workshop</p> <p>1 Policies and regulations developed to promote clean technology innovations in SMEs</p> <p>1 Recommendations report on digital policy</p> <p>At least 30% of attendants at policy consultation workshops are women</p> <p>At least 1 policy clause relating to gender equality</p>	<p>Project progress reports / project documentation</p> <p>The final project evaluation report</p> <p>Policy documents</p> <p>Meeting minutes and attendance records</p> <p>GCIP Cambodia website</p>	<p>Continuous support from the Government and national partner institutions</p>
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<p>Output 2.1.3 Linkages, collaboration, and synergies across CIEEs are promoted</p>	<p>#Forums developed to create more supportive environment for clean energy technology innovations in/by SMEs</p> <p># attendees at stakeholder meetings (>35% women participants)</p> <p># of associations included in the consultations that promote GEEW</p>	<p>Current policy and institutional frameworks are new and require more information sharing on the needs and progress of clean energy technology innovations</p>	<p>100 attendees at Global GCIP Forum (virtual attendees included, at least 35% women)</p> <p>5 additional GCIP Forum events (20 attendees at each)</p> <p>At least 2 associations included in the consultations that promote GEEW</p>	<p>Project progress and evaluation reports</p> <p>Meeting notes and participant lists</p> <p>Agreements</p> <p>Insomina records</p>	<p>Continuous support from Government of Cambodia and national partner institutions</p> <p>Continuous support from the Government and national partner institutions</p> <p>Interest from cleantech innovators and from national and global stakeholders</p>
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Component 3: Programme Coordination and Coherence

Pillar 3: Programme coordination and coherence

<p>Outcome 3.1: Efficiency and sustainability of the GCIP Cambodia is ensured through programme coordination and coherence with other GCIP country projects</p>	<p>Increased capacity and strengthened partnerships for replication and scale-up of GCIP interventions in Cambodia and in the region</p>	<p>Non-existent standards and tools to enable the replication, scale-up and sustainability of cleantech / innovative business ventures</p>	<p>Effective toolkit and skillset in place to enable the replication and scale-up of GCIP interventions</p>	<p>Project progress and evaluation reports</p> <p>Web platform</p> <p>GCIP Theory of Change</p>	<p>Lessons from the Cambodian GCIP experience are effectively shared and aligned with learning processes within the global GCIP</p>
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<p>Output 3.1.1 The GCIP internal guidelines for project management teams are adapted and implemented by the GCIP Cambodia</p>	<p>#Global GCIP methodologies, tools and standards adapted and followed</p> <p>#PMU training sessions attended</p> <p>GCIP Cambodia sustainability and exit strategy</p>	<p>N/A</p>	<p>Operational GCIP methodologies, tools and standards adapted and followed for Cambodia</p> <p>GCIP Cambodia sustainability and exit strategy</p>	<p>Project progress and evaluation reports</p> <p>Web platform</p>	<p>Sufficient commitment and participation by national experts and mentors</p> <p>Continuous support from the Government and national partner institutions</p>
<p>Output 3.1.2 Programme-level knowledge management, communication and advocacy strategy is adapted and implemented by the GCIP Cambodia</p>	<p>Gender responsive, knowledge management, communication and advocacy strategy and action plan for GCIP Cambodia</p> <p>Awareness raising and marketing material available for the public</p> <p>Awareness raising and marketing material available for entrepreneurs and officials</p> <p># briefing sessions</p> <p># press releases</p> <p># social media activity</p>	<p>No strategy</p> <p>Lack of awareness of cleantech</p> <p>Shortage of effective and good quality public awareness raising and marketing material on cleantech</p>	<p>Gender responsive knowledge management, communication and advocacy strategy and action plan for GCIP Cambodia</p> <p>Public awareness raising, marketing and training material developed and adapted for Cambodia and made available in printed and electronic format</p> <p>>3 briefing sessions</p> <p>>6 press releases</p> <p>Monthly social media activity</p>	<p>Website and project documents</p> <p>Social media</p> <p>Programmes and attendance lists for regional and international events</p> <p>GCIP</p>	<p>Sufficient commitment and participation by national experts and mentors</p> <p>Continuous support from the Government and national partner institutions</p>

Outcome 3.2: Impacts and progress of the GCIP Cambodia are tracked and reported	Systems established for effective project implementation, responsive management and tracking of project results	N/A	Efficient M&E system is in place	M&E reports produced and verified	M&E is undertaken efficiently and in accordance with the Programmatic framework
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) number of participants in trainings on the GCIP methodology for impact assessment number of GCIP Cambodia impact reports	None	At least 3 trainings 90-100 (at least 35% women) participants 5 Impact reports	Project progress reports Training attendance records	Sufficient commitment and participation by national experts and mentors Continuous support from the Government and national partner institutions
	Impact of GCIP tracked according to	N/A	Impact data uploaded to website	Project reporting and project correspondenc	M&E is undertaken efficiently and effectively;

	programme-level guidelines		<p>MTR report</p> <p>Terminal Evaluation Annual progress reports</p>	<p>e</p> <p>Global GCIP impact tracking</p> <p>Websites of Global GCIP and Cambodian GCIP</p> <p>Project documents MTR report</p> <p>Terminal Evaluation Project completion report</p> <p>Annual progress reports</p>	<p>project participants are willing to make adjustments as the MRV findings indicate</p>

<p>Output 3.2.2</p> <p>i. Project activities are tracked and reported based on the GCIP monitoring and evaluation (M&E) framework, as well as an external mid-term review is conducted</p>	<p>Project-level M&E system established, indicators tracked (incl. GHG emissions global environmental benefits, energy saved and increase in installed renewable energy capacity, job creation and investment leveraged and reported which then feeds into PIRs, MTRs and TEs) and disaggregated by gender</p> <p>M&E plan for GCIP Cambodia Progress reports on Gender action plan, ESMP, SEP, Risk Management</p>	<p>N/A</p>	<p>M&E plan for Cambodia Progress reports every six months (including progress report on gender action plan and all related gender-responsive targets)</p> <p>External mid-term evaluation report halfway through project implementation</p>	<p>Project reporting and project correspondence</p> <p>Global GCIP impact tracking</p> <p>Websites of Global GCIP and Cambodian GCIP</p> <p>Project documents</p>	<p>Continuous support from the Government and national partner institutions Sufficient commitment and participation by national experts and mentors</p>
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ii. Independent terminal evaluation is conducted	Independent Terminal evaluation report	N/A	Independent Terminal evaluation report (including evaluation on execution of gender action plan and all related gender dimensions, ESMP, SEP and Risks)	Project reporting and project correspondence Global GCIP impact tracking Websites of Global GCIP and Cambodian GCIP Project documents	Continuous support from the Government and national partner institutions Sufficient commitment and participation by national experts and mentors
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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).

	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. <u>Germany requests that the following requirements are taken into account during the design of the final project proposal:</u>	
1	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.	The environmental risk section has been reviewed and revised based on the comments and the environmental risks of some technologies have been acknowledged and mitigation measures proposed. The criteria for technology selection (output 1.1.1) has also been updated to include for mitigation measures for possible negative environmental and social impacts. Where necessary expertise will be used to help the entrepreneurs to minimise the negative impacts and if the mitigation measures are not sufficient then that technology will not be supported by GCIP.

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 alignment of proposed technologies will be reviewed against local climate risks in the target markets, as part of the support provided within the accelerator. Minimising any negative environmental and social impacts has been added as specific guidance available to the entrepreneurs (under output 1.1.3). Adaptation strategies will also be prepared if necessary. GIZ's Climate Expert Tool could be used as one tool available by entrepreneurs and GCIP mentors and judges.</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 it is cleantech and in line with GEF 7 CCM priorities (electric drive technologies and electric mobility, accelerating energy efficiency, and decentralised renewable energy power with energy storage) plus sustainable cities and food systems. The level of IT or technology will not be defined so low-tech and lower-tech approaches to energy will be included. A footnote has been added to section Output 1.1.1. The criteria for each national project will be defined 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 on SME's ability to develop and scale-up. Component 2 is designed to address 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>The full design of the Morocco child project will consider working with GIZ's project in the country.</p>
1	<p>Germany further invites consideration of potential additional synergies with research institutes (e.g. by leveraging the partnership 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 is in discussion with Climate KIC, which will be a collaborating partner in the project</p>
<p>United States</p>		

	<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, CSLF, 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>From 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 UN programmes or initiatives. Rather, the GCIP may collaborate with these institutions and initiatives so as to enhance GCIP the impact services.</p>
	<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>UNIDO has successfully implemented GCIP in a total of nine countries, namely Armenia, India, Malaysia, Morocco, Pakistan, Thailand, Turkey, Ukraine and South Africa[1]. Four of these countries have requested additional GCIP support. The independent evaluation of GCIP unequivocally concluded that GCIP was very successful. Any shortcomings and findings from the evaluation and feedback from participants has been used to design the activities of the GCIP global child project. Further details regarding the findings of the GEF IEO thematic evaluation of GCIP are provided in Annex N.</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	<p>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</p>	<p>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.</p>

3	<p>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</p>	<p>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.</p>
4	<p>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.</p>	<p>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.</p>

[1] More information on GCIP is available on - <https://www.unido.org/our-focus/safeguarding-environment/clean-energy-access-productive-use/climate-policies-and-networks/global-cleantech-innovation-programme>

ANNEX C: Status of Utilization of Project Preparation Grant (PPG).
(Provide detailed funding amount of the PPG activities financing status in the table below:

<i>Project Preparation Activities Implemented</i>	<i>GETF Amount (\$)</i>		
	<i>Budgeted Amount</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>
<p>Description of the project implementation/execution modalities and agencies, incl.</p> <ul style="list-style-type: none"> - Draft TOR for contractual arrangements - HACT assessment of the proposed executing agency - Obtaining of co-financing letters from donors, NGOs, Agencies and government 	20,000	24,344.83	0

Development of the project document (incl.), incl. - Analysis of baseline and ongoing/planned initiatives - gender analysis/ assessment - Preparation of environmental and social management plan (ESMP) (for Category B projects)	20,000	8,501.68	0
Stakeholder engagement activities: Stakeholder Workshop to verify the project document. Training to the national PEE on the project execution arrangements. Translation of documents in local language	10,000	4,200.00	12,953.49
Total	50,000	37,046.51	12,953.49

ANNEX D: Project Map(s) and Coordinates

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

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

Cambodia coordinates are 12.5657° N, 104.9910° E

The project will include the entire Royal Kingdom of Cambodia. While the project is targeted at beneficiaries (entrepreneurs and all relevant CIEE stakeholders, such as universities, policy makers, financiers, and R&D institutions) from all over the country, the main project events and activities will be conducted in the current capital city of Phnom Penh. This is due to the benefits resulting from a relatively dense concentration of relevant stakeholders there, and well-developed infrastructure. The project boundary will not overlap any other country's territory.

The latitude of Phnom Penh, Cambodia is 11.562108, and the longitude is 104.888535.



ANNEX E: Project Budget Table

Please attach a project budget table.

Years 1-5												
Expenditure Category	Detailed Description (Activity)									Total (US\$eq.)	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	Activity 1.1.2.c. Identification of cleantech entrepreneurs in the four project sectors through roadshows and scouting events in Phnom Penh and the provinces	32,620					32,620			32,620	TSC	
	Activity 1.1.3.a Pre-accelerator services for potential accelerator entrants, tailored to the four sectors	120,000					120,000			120,000	TSC	
	Activity 1.1.3.b Three accelerator rounds targeting each of the four project sectors	150,000					150,000			150,000	TSC	
	Activity 1.1.3.c Help desk services to support the accelerator activities from Global GCIP	4,650					4,650			4,650	TSC	
	Activity 1.2.1.a Identification and design of an early stage development fund with co-finance partners and national programmes		60,000				60,000			60,000	TSC	
	Activity 1.2.2.a Provision of training and business growth support to selected cleantech entrepreneurs and SMEs through advanced acceleration services		85,602				85,602			85,602	TSC	
	Activity 1.2.1.b Provision of seed funds to entrepreneurs and startups		260,000				260,000			260,000	TSC	
	Activity 1.2.2.b Validation of selected business models, prototypes and technologies		93,761				93,761			93,761	TSC	
	Activity 2.1.1.b Organization of matchmaking events for investment facilitation through coordination and cooperation with relevant project stakeholders- connectivity of individuals to financing initiatives.			8,000			8,000			8,000	TSC	
	Activity 2.1.2.a Policy localisation and needs analysis in coordination with CTG			30,000			30,000			30,000	TSC	
	Activity 2.1.2.b Develop recommendations for the cleantech innovation and entrepreneurship policy; and to conduct stakeholder engagement and capacity building workshops to discuss and validate the gap analysis report and the policy recommendations			40,000			40,000			40,000	TSC	
	Activity 3.1.1.a Written case studies, identification of best practices and creation of learning tools for sharing with the global programme				15,000		15,000			15,000	TSC	
	sub-total		327,270	499,363	78,000	15,000	-	919,633			919,633	TSC
International consultants	Activity 1.1.1.a Adapt the GCIP guidebooks to the local context and disseminate them	10,505					10,505			10,505	TSC	
	Activity 1.1.1.b. Identification of criteria for cleantech mentors, judges and coaches, integrating gender-sensitivity within the approach	16,521					16,521			16,521	TSC	
	Activity 1.1.1.c. Development of methodologies, tools and training materials and certification system, including integration of the gender approach	18,035					18,035			18,035	TSC	
	Activity 1.1.2.a. Training and certification of selected cleantech experts, with inputs from Global GCIP	30,000					30,000			30,000	TSC	
	Activity 1.1.2.b Gender expert to oversee gender-related outcomes and the integration of gender-sensitive project implementation throughout the programme	21,000					21,000			21,000	TSC	
	Activity 3.1.1.b integration of standardised methodologies and other best practices from the global programme				13,534		13,534			13,534	TSC	
	Activity 3.2.1.b MTR						-	26,025		26,025	UNIDO	
	Activity 3.2.2.a Terminal evaluation						-	30,000		30,000	UNIDO	
sub-total		96,061	-	-	13,534	-	109,595			109,595	TSC, UNIDO	
National staff and consultants	Activity 1.2.3.a. Provision of mentorship and partnership to cleantech enterprises		120,000				120,000			120,000	TSC	
	Activity 2.1.1.a Establishment of online tools and maintenance of a web-based platform for the alumni network			18,000			18,000			18,000	TSC	
	Activity 2.1.3.a Promote cooperation (in particular bilaterals and regional cooperation) and facilitate its formalization between the			24,390			24,390			24,390	TSC	
	Activity 3.1.2.a Development of the KM, communication and			17,500			17,500			17,500	TSC	
	Activity 3.2.1.a Annual progress report						-	25,000		25,000	TSC	
	Activity 3.2.2.a Annual financial and technical audit						-	13,000		13,000	TSC	
PMU staff	Project Coordinator							96,142	96,142	TSC		
sub-total		-	120,000	42,390	17,500	-	179,890	81,025	109,142	370,057	TSC	
Office (supplies, rent, equipment, etc.)										18,606	18,606	TSC
YEARS 1-5 TOTAL		Outcome 1.1	Outcome 1.2	Outcome 2.1	Outcome 3.1	Outcome 3.2	Sub-total	M&E	PMC	TOTAL		
Outcomes		423,330	619,363	120,390	46,034	-						
Components			1,042,693	120,390		46,034	1,209,117	81,025	127,748	1,417,880		
Entity	YEARS 1 - 5											
TSC	1,361,865											
UNIDO	56,025											
TOTAL	1,417,880											

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 Agency 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