CEO Endorsement (CEO) entry - Medium sized Project Child ? GEF - 7

Innovative clean technology enterprise development ? Institutionalisation and expansion of the Global Cleantech Innovation Programme for SMEs in Turkey

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

10455

Project Type

MSP

Type of Trust Fund

GET

CBIT/NGI

CBIT **No**

NGI **No**

Project Title

Innovative clean technology enterprise development ? Institutionalisation and expansion of the Global Cleantech Innovation Programme for SMEs in Turkey

Countries

Turkey

Agency(ies)

UNIDO

Other Executing Partner(s)

Scientific and Technological Research Council of Turkey (TUBITAK)

Executing Partner Type

Others

GEF Focal Area
Climate Change

Taxonomy
Focal Areas, Climate Change, Climate Change Adaptation, Climate finance, Climate resilience, Mainstreaming adaptation, Innovation, Disaster risk management, Private sector, Climate Change Mitigation, Renewable Energy, Financing, Technology Transfer, Energy Efficiency, Agriculture, Forestry, and Other Land Use, Sustainable Urban Systems and Transport, United Nations Framework Convention on Climate Change, Nationally Determined Contribution, Paris Agreement, Learning, International Waters, Sustainable Development Goals, Influencing models, Stakeholders, Civil Society, Non-Governmental Organization, Academia, Partnership, Type of Engagement, Participation, Consultation, Information Dissemination, Communications, Strategic Communications, Education, Public Campaigns, Behavior change, Awareness Raising, Private Sector, Large corporations, Capital providers, Individuals/Entrepreneurs, SMEs, Financial intermediaries and market facilitators, Gender Equality, Gender Mainstreaming, Gender-sensitive indicators, Sex-disaggregated indicators, Gender results areas, Capacity Development, Knowledge Generation and Exchange, Participation and leadership, Capacity, Knowledge and Research, Enabling Activities, Knowledge Generation, Professional Development, Training, Course, Workshop, North-South, Knowledge Exchange, Peer-to-Peer, Conference, South-South, 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($)
159,884.00

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	1,776,484.00	17,050,000.00
		Total Project Cost($)	**1,776,484.00**	**17,050,000.00**

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($)	Confirmed Co-Financing($)

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
1. Transforming early-stage innovative cleantech solutions into commercial enterprises	Technical Assistance	1.1 Early-stage cleantech innovations are accelerated	Output 1.1.1. The GCIP guidebooks and methodologies are adapted for the GCIP Turkey Output 1.1.2. Pool of cleantech innovation and entrepreneurship experts (30 trainers, mentors, judges with atleast 35% of women participants) is trained and certified to support the GCIP Turkey Accelerators Output 1.1.3. Three (3) cycles of the annual competition-based GCIP Turkey Accelerator are conducted (100 firms in total with 35% of women participants)	GET	463,650.00	4,650,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
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 Targeted business growth support services are provided to selected cleantech enterprises towards commercialization (at least 12 firms with atleast 35% women particiapants receive support)	GET	830,000.00	9,173,000.00
			Output 1.2.2 Enterprises are connected to financing opportunities and provided with tipping-point investment facilitation support (at least 12 firms with atleast 35 % of women participants receive financing for early stage business growth)			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
2: Cleantech innovation and entrepreneurship ecosystem (CIEE) strengthening and connectivity	Technical Assistance	Outcome 2.1: The CIEE in Turkey is strengthened and interconnected	Output 2.1.1. Established national level platform to facilitate peer-learning, information exchange and collaboration (4 alumni networks established: 1 per sector, 250 members per network) Output 2.1.2 Cleantech innovation and entrepreneurship policies, regulations and recommendations are developed (1 policy report, 1 policy workshop, 1 policy recommendation) Output 2.1.3 Linkages, collaboration, and synergies across CIEEs are promoted (100 attendees at Global GCIP Forum and 5 additional GCIP Forum events with 100 attendees at each)	GET	173,350.00	1,000,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
3: Project Coordination and Coherence	Technical Assistance	Outcome 3.1 Efficiency and sustainability of the GCIP Turkey is ensured through programme coordination and coherence with other GCIP country project	Output 3.1.1 The GCIP internal guidelines for project management teams are adapted and implemented by the GCIP Turkey Output 3.1.2 Programme level knowledge management, communication and advocacy strategy developed at global level and implemented in child projects	GET	68,000.00	600,000.00
3: Project Coordination and Coherence	Technical Assistance	Outcome 3.2 Impacts and progress of the GCIP Turkey are tracked and reported	Output 3.2.1 Project activities are tracked and reported based on the GCIP monitoring and evaluation (M&E) framework and external mid-term review is conducted. Output 3.2.2. Independent terminal evaluation is conducted	GET	81,484.00	77,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
				Sub Total ($)	**1,616,484.00**	**15,500,000.00**
Project Management Cost (PMC)						
				GET	160,000.00	1,550,000.00
				Sub Total($)	**160,000.00**	**1,550,000.00**
				Total Project Cost($)	**1,776,484.00**	**17,050,000.00**

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	50,000.00
GEF Agency	UNIDO	In-kind	Recurrent expenditures	150,000.00
Recipient Country Government	TUBITAK	Grant	Investment mobilized	9,000,000.00
Recipient Country Government	TUBITAK	In-kind	Recurrent expenditures	1,000,000.00
Recipient Country Government	MoIT	In-kind	Recurrent expenditures	1,000,000.00
Recipient Country Government	MoEU	In-kind	Recurrent expenditures	1,000,000.00
Recipient Country Government	MENR	In-kind	Recurrent expenditures	1,000,000.00
Private Sector	OSTIM	In-kind	Recurrent expenditures	800,000.00
Private Sector	OSTIM	Grant	Investment mobilized	30,000.00
Private Sector	Ar?elik A.?	In-kind	Recurrent expenditures	1,000,000.00
Civil Society Organization	DCUBE	In-kind	Recurrent expenditures	1,000,000.00
Other	METU	In-kind	Recurrent expenditures	1,000,000.00
Recipient Country Government	Izmir Development Agency	In-kind	Recurrent expenditures	20,000.00

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
			Total Co-Financing($)	**17,050,000.00**

Describe how any "Investment Mobilized" was identified

During the PPG phase, extensive consultations entities involved in cleantech accceleration 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 Turkey 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 TUBITAK would support the project through in-kind (USD 1,000,000) and parallel financing (USD 9,000,000) to the total amount of USD 10,000,000; OSTIM would support the project through grants (USD 30,000) and in-kind finance (USD 800,000) to the total amount of USD 830,000; and the MoIT; MoEU; MENR; private sector firm Ar?elik A.?; DCUBE; MoEU all offered USD 1,000,000 in in-kind support. In addition, Izmir Development Agency has offered in-kind support of USD 20,000. MoAF and ?zye?in University have also expressed interest and commitment to the intervention. 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 range of support from various government ministries, and in the long-term commitment of Tubitak towards incorporating cleantech considerations into their acceleration programmes. 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. Unlike in the case of demonstration projects for example, the project contributes to market creation for new innovative cleantech products and services. By design, de-risks cleantech innovations and businesses through coaching,

mentoring and advisory services thereby creating opportunities for follow-on investments into the cleantech companies in terms of angel investors, dedicated cleantech funds (private and public), venture capital funds (corporate and otherwise), impact investors etc. Therefore, the follow-on investments will realised once the specific cleantech companies have been supported by the project and linked to investors. 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 existing network of global investors, hence mobilize co-financing. Furthermore, in countries where PFAN operates, GCIP activities will be linked to PFAN network of expertise and national investors. This is one example of where investment co-financing will likely be mobilized during project implementation. Apart from the planned investment mobilized at the CEO Approval stage, it is important to underline that GCIP participants may receive substantial investment support at a later stage. There are several examples that confirm this process. Under GEF 5 the GCIP India project from 2013-2017, co-financing planned was 3,000,000 USD at CEO Approval stage, consisting out of 450,000 USD investment mobilized and the remaining amount as in-kind . However, GCIP companies such as Agnisumukh and Atomberg managed to mobilize 2,650,000 USD and 10,000,000 USD respectively in investments within four years of completing the GCIP accelerator, thereby reaching a ratio of 1:13 in GEF funding to investment mobilized. . Similarly in the project GCIP Malaysia, investment co-financing at CEO Approval stage encompassed 250,000 USD, while it was subsequently reported in the project?s terminal evaluation that 2,000,000 USD was received by GCIP alumni in form of investment grants by financial organizations, signaling higher involvement and interest by the latter than initially anticipated . In GCIP Turkey, investment mobilized at CEO Approval stage amounted to 250,000 USD, whereas GCIP finalists, such as Positive Energy and Episome Biotech managed to mobilize 1,620,000 USD and 1,700,000 USD respectively, thereby having successfully raised funding from private sector investment groups. These examples are intended to serve as an excerpt for the successful promotion of GCIP award winning cleantech innovations and their potential to attract follow-on investment from the private sector within the project?s lifetime and beyond. GCIP India supported 89 companies, in Malaysia 79 companies and 95 in Turkey; the co-financing ratio will increase as more GCIP companies commercialise and the current project will provide a greater level of support to companies compared to the previous GCIP country projects under GEF 5&6 including investment facilitation.

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	Turkey	Climate Change	CC STAR Allocation	1,776,484	159,884
				Total Grant Resources($)	**1,776,484.00**	**159,884.00**

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	Programming of Funds	Amount($)	Fee($)
UNIDO	GET	Turkey	Climate 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?e (direct)	0	360000	0	0
Expected metric tons of CO?e (indirect)	0	1800000	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?e (direct)				
Expected metric tons of CO?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?e (direct)		360,000		
Expected metric tons of CO?e (indirect)		1,800,000		
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)

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		606		
Male		1,125		
Total	0	1731	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

Regarding Indicator 11: 1730 beneficiaries (at least 35% female) consisting of: 100 enterprises ; 30 cleantech experts (judges, mentors and coaches) trained and qualified ; 1600 cleantech stakeholders sensitized For more information on Indicator 6, refer to section 6) Global environmental benefits (GEFTF). By referring 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 GEBs, including energy savings achieved, increased Renewable energy capacity and GHGs emission reductions, among others, 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 PMU 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. Co-financing mobilisation efforts and results will also be monitored and reported on through the M&E plan, including through the annual GEF PIRs. 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.

Part II. Project Justification

1a. Project Description

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 global 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 10461). 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 GCIP. An overview of the changes are depicted in the two tables below. In addition to the changes described in the tables below, the budget allocation was moderately adjusted: the amount of co-financing slightly decreased based on confirmed co-finance during the PPG phase.

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**
1. Promotion of cleantech innovation and businesses (through national and global accelerators and challenges)	1. Transforming early-stage innovative cleantech solutions into commercial enterprises	The language has changed to reflect the Global GCIP
1.1 Promising cleantech innovators are identified and supported by established Global and the National Platform and Accelerator, and Challenges	1.1 Early-stage cleantech innovations are accelerated	Non-substantial change to reflect Global GCIP

1.1.1. Established national level platform to facilitate peer-learning, information exchange and collaboration 1.1.2. Annual National cleantech competition-based accelerator is held 1.1.3. Capacity of national incubation service providers enhanced	1.1.1 The GCIP guidebooks are adapted for the GCIP Turkey 1.1.2 Pool of cleantech innovation and entrepreneurship experts (30 trainers, mentors, judges with atleast 35% of women participants) is trained and certified to support the GCIP Turkey Accelerator 1.1.3. Three (3) cycles of the annual competition-based GCIP Turkey Accelerator are conducted (100 firms with atleast 35% of women participants attend in total)	Global GCIP 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 GCIP. Accelerator rounds remain the focus of this component.
1.2 Business growth support and tipping point investment facilitation services provided to growth-stage cleantech SMEs to commercialize	1.2. Start-ups and SMEs are supported through advanced and gender-responsive business growth and investment facilitation services	The language has been slightly modified to emphasize a gender-responsive approach.
1.2.1 Advanced national post-accelerator support services delivered (Technology verification, product development and market entry support provided) 1.2.2 Support for investment facilitation is provided	1.2.1 Targeted business growth support services are provided to selected cleantech enterprises towards commercialization (at least 12 firms with atleast 35% of women participants achieve eligibility criteria to receive support) 1.2.2 Enterprises are connected to financing opportunities and provided with tipping-point investment facilitation support (At least 12 firms with atleast 35% of women participants receive financing for early stage business growth)	The investment support is now more specifically described, and is aligned with the global GCIP language.

2. National policy and institutional frameworks strengthening	2. Cleantech innovation and entrepreneurship ecosystem (CIEE) strengthening and connectivity	The policy component, in line with the Global GCIP, has been refocused on supporting a broad policy and institutional network called the Cleantech Innovation Entrepreneurship Ecosystem (CIEE).
2.1 Policy and market environment analysed	2.1 The CIEE in Turkey is strengthened and interconnected	See above.
2.1.1 Policy support provided and roadmaps developed	2.1.1. Established national level platform to facilitate peer-learning, information exchange and collaboration (4 alumni networks established (1 per sector, 250 members per network) 2.1.2 Cleantech innovation and entrepreneurship policies, regulations and recommendations are developed (1 policy report, 1 policy workshop, 1 policy recommendation) 2.1.3 Linkages, collaboration, and synergies across CIEEs are promoted (100 attendees at Global GCIP Forum and 5 additional GCIP Forum events with 100 attendees at each)	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 GCIP network.
3. Synergetic Partnerships, Knowledge Management and Programmatic Coherence	3. Project Coordination and Coherence	

3.1 Improved efficiency and sustainability of child country GCIP ecosystems and projects coming from programmatic coherence, knowledge management, connected innovation ecosystems and synergies leveraged	3.1: Efficiency and sustainability of the GCIP Turkey 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.
3.1.1 Joint activities across GCIP countries that promote linkages among ecosystems, learning and collaboration carried out	3.1.1 The GCIP internal guidelines for project management teams are adapted and implemented by the GCIP Turkey 3.1.2 Programme-level knowledge management, communication and advocacy strategy is adapted and implemented by the GCIP Turkey	3.1.1 Provides more specification as to how linkages will be achieved and harmonised with the global GCIP. 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.
4. Monitoring and evaluation 4.1. Adequate M&E 4.1.1. Tracking mechanisms developed and utilised for SMEs supported 4.1.2 Terminal evaluation	3.2: Impacts and progress of the GCIP Turkey are tracked and reported 3.2.1 Project activities are tracked and reported based on the GCIP monitoring and evaluation (M&E) framework, and an external mid-term review is conducted 3.2.2 Independent terminal evaluation is conducted	Component 4 is streamlined into Component 3. Outcome 3.2 provides more detail as to how the monitoring and evaluation will be delivered.

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

Component 1 budget GEF project financing: 1,327,484 Co-financing: 9,238,883	Component 1 budget GEF project financing: 1,293,650 Co-financing: 13,823,000	Component 1 budget decreased slightly to enable more funds to be allocated to coordinating the global programme. With updated co-financing commitment, the co-financing has been revised.
Component 2 budget GEF project financing: 130,000 Co-financing: 310,000	Component 2 budget GEF project financing: 173,350 Co-financing: 1,000,000	Increase in GEF budget to support coordination of global programme; co-financing increases due to high level of national buy-in.
Component 3+4 budget (combined) GEF project financing: 231,000 Co-financing: 702,784	Component 3 budget GEF project financing: 149,484 Co-financing: 677,000	GEF allocation and co-financing decreased to accommodate increased budget for Component 2 networking and ecosystem building.
Project management budget: GEF project financing: 88,000 Co-financing: 498,333	Project management budget: GEF project financing: 160,000 Co-financing: 1,550,000	Project management costs increased to account for increased coordination activities and to reflect more buy-in and ownership from co-financing partners.
Total GEF project financing: 1,776,484 Total co-financing: 10,750,000	Total GEF project financing: 1,776,484 Total co-financing: 17,050,000	Co-financing decreases slightly in light of firm commitments made during the PPG period. With updated co-financing commitment, the co-financing has been revised.

Introduction

1. 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.

2. This success of the 2011 SA Cleantech encouraged the project expansion into the Global Cleantech Innovation Programme (GCIP) for SMEs, simultaneously implemented in Armenia, India, Malaysia, Pakistan, Turkey and South Africa in 2014. The GCIP takes a competition-based approach to identify 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.

3. 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.

4. In 2015 Thailand joined GCIP and about 10 countries, including Vietnam, Brazil, Ukraine, Nigeria, Turkey 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.

5. 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 Turkey as well as UNIDO?s mandate to promote inclusive and sustainable industrial development (ISID).

6. The widespread adoption and utilization of clean technologies has significant potential to address serious global environmental risks. Technology innovation has emerged as a key driver for economic growth, and today?s clean technologies can shape tomorrow?s economic trajectory and job markets. Start-ups and small and medium-sized enterprises (SMEs) will play a vital role in catalysing breakthrough innovations in cleantech.

7. SMEs are well positioned to participate in future clean technology market and play an instrumental (but often underrecognized) role in advancing growth, innovation, and development which can help drive prosperity in low- and middle-income countries. It is estimated that SMEs make up over 90 percent of clean technology in most countries. Nevertheless, failure rates are high, capital requirements are a barrier, reliance on government policy is a risk, and the technical and commercial capacity of clean technology SMEs can be a challenge. Despite opportunities for SMEs in clean technology markets, many businesses will fail. While there are few statistics on clean technology failure rates, clean technology SMEs likely have failure rates comparable to SMEs in the ICT and biotech sectors - about 80-90 percent. The types of opportunity that exist for SMEs differ by region but tend to include: value chain management, equipment component supply, installation and retrofit, customization, and operations.

8. The Sustainable Development Goals (SDGs) and the Paris Agreement reflect the world?s commitment to safeguarding the global commons. The United Nations Industrial Development Organization (UNIDO), with its unique mandate to support inclusive and sustainable industrial development, has partnered with the Global Environment Facility (GEF) to address the most pressing global environmental challenges of our time. Through fostering innovation and entrepreneurship ecosystems, UNIDO and GEF seek to promote affordable and scalable solutions to enable partner countries to leapfrog to clean economic growth. In order to decouple economic growth and greenhouse gas emissions, the private sector must be fully engaged to leverage innovation, knowledge transfer, investment and market access.

9. In 2011, UNIDO and the Government of South Africa successfully implemented the ?Greening the COP17? project, with support from the GEF. 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 start-ups and SMEs with innovative ideas and concepts. This success of the 2011 SA Cleantech saw the project expand into the Global Cleantech Innovation Programme (GCIP) for SMEs, simultaneously implemented in Armenia, India, Malaysia, Pakistan, Turkey and South Africa in 2014. GCIP has been expanding worldwide ever since.

10. The GCIP has been transforming cleantech development and dissemination for the past decade, its first phase was conducted in 8 countries around the world. There is significant potential of cleantech SMEs in UNIDO?s countries of operation to generate profits and create jobs, estimated to be a USD 1.6 trillion market opportunity.[1][1]

11. Experience from GCIP implementation has 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. Therefore, the GEF 7 GCIP has been modified to integrate lessons learned from the first phase. The GEF 7 GCIP sets the following objectives: promoting integrated solutions and multi-focal area approach, geographic expansion, added

focus on investment facilitation & commercialisation, and deployment of demand-drives solutions. As such, GEF 7 GCIP provides systematic post-competition services to shorten the valley of death for promising start-ups and SMEs that promote green technologies

12. Drawing from the lessons learned and the success of the GEF 5 GCIP in Turkey, the GEF 7 GCIP will build upon already established national capacity by focusing on advancing start-ups to commercial investment, whilst keeping the ongoing activities related to competition component as in GEF 5 GCIP.

Global environmental problems/ Turkey context

13. Turkey is a major economy which straddles Europe and Asia. It is the world?s 20th largest emitter of greenhouse gases (GHGs), accounting for 0.83% of the global total.[2][2] Turkey ranked 64th in the 2021 Global Climate Risk Index, highlighting vulnerabilities to extreme weather events. Turkey is vulnerable due to observed warming temperatures and a fall in rainfall. Increased water stress and natural disaster risk threaten the economic and social stability in the country. Temperature is expected to rise by around 2.3 degrees Celsius, under a high emissions scenario, by 2050.[3][3] Moreover, the number of ?hot? days and nights has risen in recent decades and is expected to rise further throughout the rest of the century. Equally, the energy burden from cooling during warming periods will increase, potentially causing capacity challenges.

14. Turkey is in an unusual position: it is a middle-income country with low historic emissions, yet is also among the developed countries which form the OECD (Organisation for Economic Co-operation and Development). The developing Turkish economy and the nation?s demand for energy have been growing rapidly, trends that are set to continue. With its expanding energy needs, driven in part by population growth, mostly being met by fossil fuels ? in particular, coal for electricity generation ? Turkey?s emissions are set to rise significantly.[4][4] In recent years, Turkey has recorded the fastest growth in electricity demand among OECD members, with an annual growth rate of 5.5% since 2002. Turkey?s energy use is expected to increase by 50% over the next decade. The country?s installed electricity generation capacity exceeded 88 GW as of January 2019, which represents a threefold increase in 15 years.[5][5] All this results in inevitable pressures on the environment, which translates into a range of challenges such as climate change, desertification, deforestation, water scarcity, nature degradation and marine pollution.

15. The GDP of Turkey has been increasing along the same trajectory as its energy demand. Turkey?s gross domestic product (GDP) was steadily rising in the period of 2005-2015 except for 2009 and 2010. The cumulative growth in the period was 65%, corresponding to an annual GDP growth of 5.2%. In 2016, the GDP was USD 862.74 billion, or USD 10,833 per capita. Turkey had an overall trade volume of approximately USD 341 billion USD, i.e. USD 143 billion exports and

USD 199 billion imports. However, Turkey, like many other countries, suffered economic shocks resulting from the COVID-19 pandemic. The Turkish economy contracted by 10 percent in the second quarter of 2020 year-on-year[6][6], leading to a higher rate of poverty. While the country?s economy is expected to bounce back by up to 4 percent in 2021[7][7], socioeconomic challenges remain.

16. There is a significant potential to achieve energy savings in Turkey. According to the National Energy Efficiency Action Plan 2017-2023, improvement in industrial energy efficiency offers opportunities to reduce energy consumption and to improve process efficiency, upgrade technology development levels, and reduce GHG emissions. Additionally, Turkey aims to build a competitive agricultural sector which requires effective use of its physical potential, efficient energy and resource use, regulation and aggregation of lands, scale up the utilisation of modern and efficient agricultural machinery, and use renewable energy resources in the sector.[8][8] Turkey ranks in the top 10 countries for agricultural production, with the sector accounting for around 9.5% of national GDP[9][9] and 25% of employment. Upgrading the sector provides the opportunity to benefit economically while simultaneously reducing emissions.

17. Turkey has the lowest levels of per-capita GHG emissions among the OECD countries. However, GHG emissions have increased. For example, Turkey?s emissions have risen faster than any other Annex I country ? doubling between 1990 and 2013.[10][10] Moreover, GHG emissions from the energy and industrial sectors also show an increase - for example between 2011 and 2015 the annual rate of increase was 4%. The figure below shows that even though Turkey?s emissions (excl. LULUCF) increased at a relatively low pace over recent decades, projections expect emissions to double by 2030.

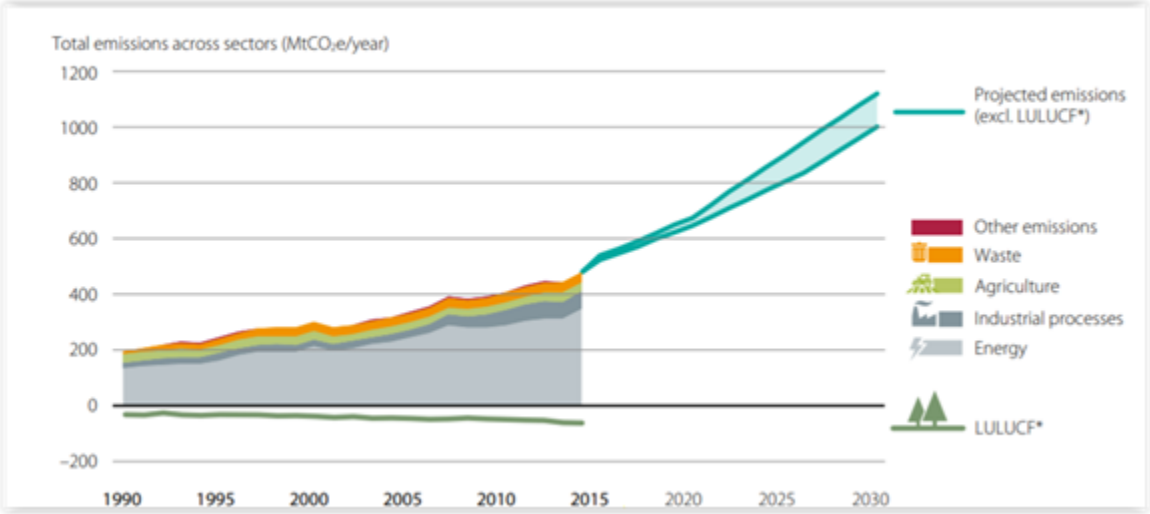


Figure 1: GHG emissions development (past, present, future) in Turkey[11][11].

18. Turkey?s GHG emissions profile over recent years (Figure 1) clearly shows that all economic sectors contribute to the increase of overall GHG emissions. The Seventh National Communication of Turkey gives the following overview of sectoral emissions up to 2016[12][12]:

a. **Energy sector ?** the energy sector is the major source of anthropogenic GHG emissions in Turkey. The energy sector had the highest share in overall emissions with 72.8 %, or 352.7 $MtCO_2eq$. The majority of these emissions originated from the primary energy supply side (fuel combustion), followed by transport, manufacturing and industry, building sector, and agriculture.

b. **Industry ?** the share of the sector in overall GHG emissions was 12.6 %, or 62.4 $MtCO_2eq$. Mineral and non-energy products productions dominated the overall sectoral emissions. The industrial sector is the only source of fluorinated gases emissions.

c. **Agriculture ?** total GHG emissions from the agriculture sector were 56.5 Mt CO_2 eq. or 11.4% of overall GHG emissions (excluding LULUCF). That is an increase of 33.2% when compared to the 1990 levels. The main sources of emission within the sector were enteric fermentation, soil emissions and methane emissions from manure management. It is noteworthy that the sector dominates in overall methane and nitrous oxide emissions.

d. **Waste ?** total GHG emissions from the waste sector were 3.3 % of overall emissions, or 16.3 $MtCO_2eq$. The sector had a substantial raise in its GHG emissions of 45.9% when compared to the 1990 levels. The main source of the waste sector?s GHG emissions are inappropriate solid waste disposal and wastewater discharge and treatment. In 2016, 72.2% of the waste sector GHG emissions were from solid waste disposal and 27.7% from wastewater discharge and treatment. The waste sector was responsible for 25.8% of total CH_4 emissions, and 6.5% of total N_2O emissions in 2016.

19. Although Turkey?s emissions are only around 1% of the world?s total, according to its Intended National Determined Contributors (INDC), the country aims to achieve up to 21% reduction in GHG emissions compared to the BAU level by 2030.[13][13] However, Turkey is only one of a handful of countries that have pledged emissions reductions and signed the Paris Agreement without ratifying the deal. It is thought that Turkey?s emissions may continue to rise significantly in the short term, partially due to the continued use of coal to fuel economic growth combined with demographic expansion. Turkey?s INDC outlines plans and policies to reduce their emissions, including through facilitating increased capacity for renewable energy, implementing

national plans and strategies for energy efficiency, promoting public transport and efficient urban mobility, enforcing energy performance standards in buildings, fuel savings in agriculture, and increasing sink areas in forestry.[14][14]

Startup-up and SME environment in Turkey

20. Small and medium-sized enterprises (SMEs) play a very important role in the Turkish economy owing to their large share in the total number of enterprises and in total employment. Turkey has approximately 3.5 million SMEs which account for 99.9% of all businesses (97.5% of which are micro-enterprises), provide 76% of jobs, and produce 53% of the value added to the national economy. While Turkish SMEs? contribution to jobs creation is seven percentage points higher than the EU average, their contribution to the value addition is five percentage points lower.

21. To showcase the status of Turkey?s SME environment compared to the EU?s, the SME Performance Review data can serve as a benchmark. The SME Performance Review is one of the main tools the European Commission uses to monitor and assess countries' progress in implementing the Small Business Act (SBA)[15][15] on a yearly basis. According to the SBA Fact Sheet for Turkey, Turkish SMEs play an important role in the non-financial business economy, where they provide nearly three in four jobs and account for more than half of total value added. Since 2009, SMEs have benefited fully from the upswing in the economy. From 2010 to 2014, their total value added and employment grew by around 73% and 28% respectively, even though the number of SMEs only increased by 15%. Furthermore, Turkey is significantly improving its education system to increase the number of productive individuals with (a) advanced thinking, perception and problem-solving skills; (b) a sense of self-confidence; and (c) the responsibility to become entrepreneurs and innovators. Nevertheless, in the performance review it was noted that SMEs need to be strengthened in order to succeed in increased global competition, accessing sufficient capital, fostering innovative projects and developing collaborative businesses and partnerships. The need to increase the number of entrepreneurs and their skills is valid, and access to finance also needs to be improved.[16][16]

Cleantech and industry development in Turkey

22. Turkey ranks 33rd in the Global Cleantech Index. The country scores high on entrepreneurial culture indicators and as an active early-stage ecosystem. However, Turkey lacks a cleantech-supportive policy environment, and does not have ready access to private finance.[17][17]

23. The Turkish Industry Strategy 2023 has been in place since 2019, it builds on the country?s relative technological advantage in medium-high tech manufacturing and set out the long-term vision for Turkey to become one of the leading production bases in Eurasia and Africa in medium- and high-tech products. The strategy aims to increase the competitiveness and efficiency of industry and to expedite its transformation by giving it a more qualified labour force and a greater world market share. The National Climate Change Action Plan (NCCAP) 2011-2023 is Turkey?s first green growth

strategy. The goal of the Ministry of Energy is to reduce energy consumption by 20% per unit of GDP by 2023 (baseline 2011), introducing innovative energy efficient processes.[18][18]

24. Turkey?s innovation ecosystem has a variety of players: accelerators, incubators, angel investors and venture capitalists, universities, governmental bodies and their support programmes. Turkey also has a wide network of 59 Technology Transfer Offices (TTO) that assist universities and public research organisations in managing their intellectual property in order to facilitate the conversion of these discoveries into real-life innovations.

25. The volume of early-stage finance is relatively low, despite the presence of several venture capital funds and corporate venture capital investors. An individual capital participation system sets the foundation for personal investments. The system requires investors to obtain a license that enables them to invest, either in an existing venture company or by setting up a new venture company with an entrepreneur. Based on certain criteria, investors can obtain tax deduction incentives for their investments. The venture capital investments and crowdfunding activities are regulated under the Capital Markets Law, which ensures that venture capital company operations are aligned with Capital Market Board approvals. According to the Treasury Under-Secretariat, in November 2016 there were 408 accredited angel investors in Turkey. The Technology Transfer Accelerator (TTA) estimated that 150 of these are active, meaning that they have invested in at least one start-up. According to StartupsWatch, total investment at pre-seed and seed stages amounted to about USD 18 million in 2015. There are around 15 angel investor networks in Turkey. Only three of these (Galata Business Angels, BIC Angels, Keiretsu Turkey) have invested in over 10 start-ups in the country. Most of their investments were in Information and Communication Technology (ICT). Furthermore, apart from the existing GCIP project, there are no accelerator programmes that would identify and support environmentally sound start-ups.

26. Turkey has numerous early stage innovation nurturing programmes that have proven to be quite effective. Nonetheless, as previously mentioned, the amount of early-stage finance is relatively low. Also, despite its extensive research network, Turkey has low patent activity. There are only a few successful Turkish cleantech start-ups that have advanced past the early-funding stage. No Turkish companies were included in Cleantech Group?s (CTG) Global Cleantech 100 shortlist over the past three years. Despite the relatively high presence of venture capital firms, the amount invested in cleantech start-ups by these investors, compared to the GDP, remains low.

Root causes and Barriers to be addressed

27. The implications of Turkey?s continued economic growth, especially through high coal use, carries significant climate risks and vulnerabilities. Tackling such risks through research and development, and technological innovation present an opportunity for Turkey. Moreover, there is certainly scope for ramping up these activities. Turkey ranks 51st out of 131 on the Global Innovation Index (8th out of 37 for the upper middle-income economies), 61st out of 141 on the Global Competitiveness Index and 68th out of 144 on the Knowledge Economy Index. Therefore, there is potential to develop low-carbon solutions in many important areas of Turkey?s economy, such as agriculture, mobility, and energy efficiency.

28. Although innovation, research and development in Turkey have increased in recent years, the cleantech space remains in relative infancy. The Turkish start-up/SME sector related to cleantech still faces numerous barriers that prevent the country from achieving its impressive potential. While many such barriers exist, access to finance that would enable development in all phases in the concept to market pathway is the one that stands out. Equally, informational, capacity and policy barriers also hinder progress. The most relevant barriers are summarized below:

Barrier category	**Description**
Informational and awareness barriers	There is a limited knowledge and awareness of the cleanteach market and its specific needs. 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. Moreover, there is a general lack of awareness from businesses and the private sector about new developments and products related to the cleantech sector. For example, according to Demir (2017)[19][19], technology related companies and R&D organizations should closely follow trends to be able to project future technologies and products. However, sometimes they may not see the future clearly and make wrong choices and investments. The consequences may paralyse future innovation.
Capacity barriers	There is a clear need to strengthen the overall capacity to spur development of the innovative cleantech solutions in the country. There are limited skills in developing the concept, identifying market needs, developing business plans, conducting R&D, etc. According to the above-mentioned study by Demir (2017), it is very difficult to concentrate on one specific area of technology for tech-based organizations. New technologies emerge continuously, and technology management gets more complicated every day. Many products ?die? even before maturity. Therefore, there is a clear need for robust know-how, knowledge transfer, and knowledge management to enhance the Turkish start-up environment.

Policy and regulatory framework	The SME environment is lacking clear policies to support it in relation to cleantech and, furthermore, there is insufficient understanding of the policies that would enhance market development. The absence of cleantech specific policy and regulation is evident. There is a need to analyse and assess the enabling environment to better understand its influence on the sector and the market.
Financial barriers	Financial constraints seem to be the most important obstacle to innovation in Turkey and have been ranked as the number one problem. The financial needs and access to capital for technological investments, infrastructure, research and development in cleantech are considered as a huge economic burden for Turkish SMEs. The R&D stage has been identified as the phase most in need of access to finance. The market potential of the cleantech solutions has not yet been substantially recognised by the seed funding sector. On the other hand, the Turkish private equity sector is in the nascent stage.

2) The baseline scenario or any associated baseline projects

Global Cleantech Innovation Programme (GCIP)

29. Since 2011, UNIDO ? with the support of GEF ? has been supporting cleantech companies in their development via the Global Cleantech Innovation Programme (GCIP). The GCIP uniquely fosters an ecosystem approach that supports cleantech innovations in existing and new SMES and start-ups through the provision of catered tools and methodologies that enhance their productivity and competitiveness while promoting the establishment of a supportive policy and regulatory framework. In 2017, eight countries ? namely Armenia, India, Malaysia, Morocco, Pakistan, South Africa, Thailand and Turkey ? have participated in the GCIP and several others are in the pipeline. By end of 2017, GCIP accelerated over 865 start-ups companies in 8 countries over a period of 4 years. GCIP projects were designed to address incremental reasoning/additionality of GEF involvement in the projects. Without GEF support, it was deemed unlikely that the countries could run a cleantech SME competition and support business acceleration of startups in the coming years. This would result in lost opportunities to nurture entrepreneurs, reduce emissions and strengthen partnerships with the private sector. The GCIP mechanism was designed to identify and nurture the most-promising cleantech innovators in a country. The competition-based accelerator functioned as an ?innovation funnel?.

According to the GEF?s Evaluation of the Global Cleantech Programme,[20][20] all evaluated projects were rated in the satisfactory range for outcomes. The same evaluation concluded that:

a. GCIP is highly relevant and will remain so as countries involved realize the economic and environmental opportunities to take up cleantech innovation as an engine for low-carbon growth;

b. The GCIP projects have meaningfully contributed to development of cleantech innovation ecosystems with improved performance over time through business acceleration, capacity-building, and institutional strengthening;

c. GCIP has demonstrated additionality but not in its planned strengthening of national policy and regulatory environments;

d. The GCIP?s operating model successfully enlarged the available pool of resources through catalyzing the support of private ecosystem actors, although this reliance on their voluntary contributions presents some vulnerabilities;

e. The direct and indirect results of the GCIP are not easy to gauge due to generally weak monitoring and evaluation, including inconsistency in measurement and the lack of systematic guidance for project beneficiaries to estimate global environmental and socioeconomic benefits.

30. Taking into account findings and conclusions, the evaluation has resulted in the following recommendations: Any future ?GCIP? or similar program should be structured using a more globally coordinated approach with appropriate choices of interventions based on strategic country selection;

a. The GCIP should actively support national-level coordination to dynamize the cleantech entrepreneurship ecosystem;

b. Sufficient time should be allowed to customize and sharpen the focus on policy strengthening and regulatory frameworks to foster cleantech innovation and its adoption;

c. The network of private sector partners should be expanded to address GCIP participants? needs for business expertise and early stage technology validation;

d. The direct and indirect impacts of GCIP should be measured by establishing adequate monitoring and evaluation systems and ensure that they are implemented using standardized and relevant indicators;

e. The country engagement should be deepened during the project period, including a plan and resourcing, to sustain activities and expand outcomes after project closure.

31. As a result, the GEF 7 GCIP has been designed by UNIDO. The new design shifts from the technology focus to an ?impact and challenges approach? ? i.e. the focus will be on addressing impacts and overcoming challenges rather than on supporting specific technologies. This will allow more flexibility of the system, tailoring the GEF 7 GCIP to the specific country needs. The GEF 7 GCIP promotes demand-driven solutions with the objective of engaging with the private sector. The ?impact and challenges approach? allows the private sector to define challenges in which they are willing to invest, thus simplifying the link to investments. The GEF 7 GCIP puts a focus on post-competition, more specifically on the product development & commercialisation and outreach to investors. Furthermore, a strong emphasis is put on the global coordination in line with the above-mentioned recommendation 1 from the GEF evaluation.

GEF UNIDO Cleantech Programme for SMEs in Turkey ? GEF 5 GCIP

32. The GCIP was launched in Turkey on 21 October 2013, initially for the duration of 36 months (which was amended with the no-cost extension of additional 24 months), with the aim of removing, or at least mitigating the above-mentioned barriers. This aimed to help facilitate the development of an enabling innovation ecosystem and encourage SMEs (which constitute 99% of all Turkish companies) to contribute towards climate change mitigation and adaptation. The term ?innovation ecosystem? refers to the culture, enabling policies & leadership, and the availability of appropriate finance, quality human capital, venture-friendly markets, and a range of institutional and infrastructural support[21][21].

33. The main outcome of GEF 5 GCIP in Turkey may be summarized as ?the mechanisms are starting to work?, and while there may have been some initial delays, the engagement and participation of other national entities has been reinvigorated. The final evaluation concluded that the successful regular operation of the Competition-Accelerator of the intervention is now well anchored and has moved from project mode to operational mode. This is clear evidence that the project has succeeded in establishing a national-level mechanism/platform, which is now functioning in an ongoing manner to identify, coach, and support cleantech innovators in Turkey. The project bridged a gap not covered by other mechanisms, in that its support was available to nurture early-stage start-ups along a path to maturity and formal establishment. The project operated efficiently, especially when taking into account the achievement in stretching the resources originally allocated for 36 months to cover a 60-month duration, delivering significantly more services than initially envisioned.

34. Continued GEF support will be crucial to implementing the narrative of the next GCIP and to incorporate the findings of GEF Independent Evaluation Office?s thematic evaluation of GCIP. It is expected that without the GEF support, the cleantech SME environment would remain undeveloped and would not be able to overcome the vast variety of barriers burdening the sector.

35. GEF 5 GCIP has succeeded in attracting interest and engaging start-ups in the accelerator programme. Due to the overall successful implementation of GEF 5 GCIP there are substantial lessons learned derived which could be utilised to further enhance the programme moving forward. Essentially, there is a need for comprehensive and robust post-competition support provided to start-ups in order to bridge the gap between concepts and financing. Furthermore, current human and institutional capacity

is not sufficient to provide such support. Finally, GEF 5 GCIP did not address policy gaps, which would be a crucial issue to address moving forward. GEF 5 GCIP has resulted in almost 50 start-ups that went commercial. It is expected that, without the GEF support, the above-mentioned progress would occur at the very slow pace or would not occur at all.

Private Financing Advisory Network (PFAN)

36. 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 Initiatives and baseline projects

37. The current innovation ecosystem consists of a number of actors and initiatives operating at the national level; while this means that SMEs and start-ups have a rich and broad spectrum of support programmes to choose from in general, there remains a lack of resources for cleantech specific innovations, particularly in the field of acceleration services.

38. The **SME Strategy and Action Plan (KSEP)** aims to define the policy of Turkey on SMEs, coordinating at the national level to implement policies related to SMEs.

39. The Scientific and Technological Research Council of Turkey (TUBITAK) was established in 1963 to advance science and technology, conduct research and support Turkish researchers. Within TUBITAK, the Technology and Innovation Funding Programs Directorate (TEYDEB) is responsible for the management of a series of **Research and Development (R&D), Innovation and Entrepreneurship Grant Programmes** that aim to strengthen the competitiveness of Turkish private companies. Those programmes with specific relevance to the proposed project, namely those that support innovative SMEs and start-ups, are outlined below:

a. 1507: SME Research, Development & Innovation (RDI) Grant Programme provides grants to SMEs? research, development and innovation projects to encourage further investment and growth in this field; 75% of eligible project costs can be supported with up to TRY 600,000 over an 18-month period. The grant provided by TEYDEB-TUBITAK supports; conceptual planning (need, product idea, and production idea) and technology development (product design, prototype product, production system design, and pilot production).

b. *1512: Techno-Entrepreneurship Support Programme* aims to create technology-based start-ups with R&D capacity for providing innovative products and services to domestic and international markets. Individual graduates who are not a company shareholder are eligible to apply and the programme is broken down into three phases;

Phase	P1: Idea Creation	P2: Technology Validation	P3: R&D Performing
Support Provided	Outsourced actors support entrepreneurs to transform idea into business plan.	Company establishment with TRY 200,000 seed capital. Aiming at technology validation of the proposed idea under the guidance of the generalist mentors within 18 months? time period.	Invitation to 1507 SME RDI Grant Program. 75% eligible project expenses for projects up to TRY 600,000.

Figure 2: Programme 1512 - Flow from concept to commercialisation.

c. *1513: Technology Transfer Offices Grant Programme* provides grants to Technology Transfer Offices (TTOs) to support their efforts in transferring the knowledge and technologies originating in universities to the market. Primarily universities and technoparks are eligible for this programme. Up to TRY 1,000,000 (USD 376,000) can be provided to these institutions for activities such as; awareness, publicity and training, support for national/ international grant proposals development, IP management and technology licensing services, etc. The grant percentage is 75% for first 5 years, and 60% for the second 5 years.

d. *1601: Capacity Building for Innovation and Entrepreneurship Grant Programme* for the purpose of improving the national innovation ecosystem. Grants are given to projects that provide mechanisms for: mentorship, training, brokerage events, investor readiness programmes, fundraising events, etc. Firms, universities, chambers, public research institutes, etc. are eligible to apply. In 2015, seventeen (17) institutions were selected to receive support under the 1601 programme and become implementing agencies of TUBITAK.

e. *1514: Tech?InvesTR Venture Capital Support Program* was established to enable venture capital funds to invest in R&D intensive early-stage companies in to meet the financial needs of these companies. With the Tech?InvesTR Venture Capital Support Program that will be carried out jointly by T?B?TAK and the Ministry of Treasury and Finance, it is aimed at;

f. Supporting early stage technology-based venture firms through funding them with the venture capital they need;

g. Creating a high value-added production environment through the commercialization of R&D and innovation products of early stage technology-based enterprises;

h. Contributing to the creation of the venture capital ecosystem through encouraging the establishment of new funds to provide capital for venture firms;

i. Enriching financial support suitable for each stage of the life cycle of companies to ensure the stability of the created ecosystem;

j. Increasing the number of investors in the venture capital ecosystem; and

k. Creating a sustainable venture capital ecosystem to support early stage technology-based initiatives.

40. Furthermore, the **Directorate of Entrepreneurship** within the Small and Medium Enterprises Development Organization of Turkey (KOSGEB) provides the following services to SMEs:

a. entrepreneurship training;

b. business incubators;

c. start-up capital; and

d. business plan awards.

41. The **Technology Development Foundation of Turkey (TTGV)** also promotes technology entrepreneurship in Turkey, providing:

a. pre-acceleration;

b. a risk sharing facility; and

c Start-up support for investing in promoting entrepreneurs and advanced technology innovation.

42. In 2011, Turkey declared the commitment for the ?**Establishment of an International Science, Technology and Innovation Centre** dedicated to LDCs (Least Developed Countries) which will also serve as a ?technology bank? to help LDCs access and utilize critical technologies.? At the beginning of 2017, Turkey - as the host country - announced its offer to host the Technology Bank in the premises of T?B?TAK Marmara Technopark (MARTEK), which is located in its Gebze Campus. In addition to this in-kind contribution, on September 2017, T?B?TAK has allocated USD 2 million to the Bank?s Trust Fund as Turkey?s voluntary financial commitment for 2017. This financial commitment to allocate USD 2 million as its voluntary financial contribution for 2017-2021 (including) has also been declared in the ?Agreement on Financial and In-Kind Support for the Technology Bank?, as signed between the Government of Turkey and the United Nations.

International Initiatives

43. As from 2014, Turkey has full access to the European Union?s **Horizon 2020 Research and Innovation Programme** allowing public and private institutions to apply for and receive EU funding for their projects.

44. Related to investment, the **Clean Technology Fund (CTF)**, jointly implemented by the World Bank, the International Finance Corporation (IFC) and the European Bank for Reconstruction and Development (EBRD), was set up in 2009. Turkey is the first country to have benefitted from CTF funds, so far receiving USD 200 million in soft loans and technical assistance to promote private sector investment in energy efficiency and renewable energy projects. The projects implemented thus far focus primarily on large-scale investment in renewable energy, energy efficiency and smart grids.[22][22]

45. The **Private Financing Advisory Network (PFAN)** is a multilateral public private partnership initiated by the Climate Technology Initiative and the United Nations Framework Convention on Climate Change (UNFCCC). It identifies and nurtures promising, innovative clean and renewable energy projects by bridging the gap between investors, clean energy entrepreneurs and project developers. PFAN is currently jointly hosted by UNIDO and REEEP (Renewable Energy and Energy Efficiency Partnership).

46. The D**eutsche Gesellschaft f?r Internationale Zusammenarbeit (GIZ) GmbH** (English: German Corporation for International Cooperation GmbH), often shortened to simply GIZ, is a German development agency that provides services in the field of international development cooperation and international education work. In Turkey, GIZ?s experience from projects relating to sustainable infrastructure (Promotion of Grid-Connected Renewable Energy) and environment and climate change (Capacity development for the monitoring, reporting and verification of greenhouse gas emissions and Energy Efficiency in Public Buildings in Turkey) can be valuable. It can facilitate a stronger case for climate mitigation efforts in the country.

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

47. As part of the larger GEF-UNIDO global programme (10408), the Global Cleantech Innovation Programme (GCIP) for SMEs in Turkey aims to support and nurture clean technology entrepreneurship and innovation. The proposed project integrates the objectives of the GEF 7 GCIP, the findings of the GEF?s Evaluation of the Global Cleantech Programme, and lessons learned from the Turkey GEF 5 GCIP. It is designed to significantly contribute towards the GEF?s ?CCM-1 Objective 1: Promote innovation and technology transfer for sustainable energy breakthroughs?. The project envisages accelerating GHG mitigation ideas for their implementation on the national level with a high level of replicability. As described in the baseline, the GEF 5 GCIP built a certain level of capacity and established systems for accelerating innovative and environmentally sound initiatives developed by start-ups and SMEs in Turkey. GEF 7 GCIP will build upon GEF 5 GCIP and will address numerous lessons learned from the activities undertaken in its framework.

48. The alternative scenario will assume continuation of already proven and working systems by upgrading them and by adding new vital aspects as in line with the GEF 7 GCIP design, thus focusing it on financing and investment. Rather than having ring-fenced categories the project will use the ?impact and challenge approach?. The following table addresses how the proposed project addresses recommendations given by Independent Evaluation Office of the GEF in the Evaluation of the Global Cleantech Programme.

GEF IEO recommendations	GEF 7 GCIP response
Any future ?GCIP? or similar program should be structured using a more globally coordinated approach with appropriate choice of interventions based on strategic country selection;	The national GCIP for Turkey has been designed in alignment with the Global GCIP programme and a raft of coordinated programmes that link national activities to a global cleantech strategy. Under component 1; globally coordinated methodologies, guidelines and tools will anchor the GCIP Turkey approach, with technical support services and global coordination activities provided from Network for Global Innovation (NGIN) (a global Project Executing Entity (PEE)); Under component 2, CTG (a global PEE) will provide national capacity building towards the development of a national stakeholder engagement strategy and coordinated policy approach for supporting cleantech, in close cooperation with the National PEE. Under Component 3, UNIDO and the global PEEs will support the national implementation in a coordinated and harmonised approach to monitoring and evaluation, knowledge management, and networking across the whole constellation of GCIP interventions. Finally, national, regional and international networking (both via conferences/online events and a globally integrated web platform) will ensure dynamic and timeline information sharing throughout the global programme.
The GCIP should actively support national-level coordination to dynamize the cleantech entrepreneurship ecosystem;	The proposed project is led by The Scientific and Technological Research Council of Turkey (T?B?TAK) ? the national and leading agency for management, funding and conduct of research in Turkey. In addition, the PSC includes the Ministry of Industry and Technology (MoIT), Ministry of Agriculture and Forestry (MoAF), Ministry of Environment and Urban Planning (MEUP), and Ministry of Energy and Natural Resources (MENR)
Allow sufficient time to customize and sharpen the focus on policy strengthening and regulatory frameworks to foster cleantech innovation and its adoption;	Under Component 2 there is dedicated time to undertake policy and regulatory gap analysis; this exercise will be supported by CTG from the global programme. The analysis will be the first step to document the status quo of the enabling environment. It will allow to make a clear regulatory recommendations and ability to adjust to current circumstances.

Expand the network of private sector partners to address GCIP participants? needs for business expertise and early stage technology validation	The proposed project will engage numerous private sector partners, as described in the stakeholder engagement plan. Tubitak, the national PEE, specialises in working with the private sector and it is envisaged that private sector partners will drive the project through the accelerators and advanced acceleration activities.
Measure direct and indirect impacts of the GCIP by establishing adequate monitoring and evaluation systems and ensure that they are implemented using standardized and relevant indicators;	Monitoring and evaluation methodologies will now be globally coordinated through the Global GCIP, with technical support provided to national GCIP programmes as required. Furthermore, all Alumni will be provided with the training on calculation GHG emission reduction levels with respect to reporting at the individual SME level.
Deepen country engagement during the project period, including a plan and resourcing, to sustain activities and expand outcomes after project closure.	The sustainability and country engagement will be deepened throughout the Turkey GEF 7 GCIP throughout the project approach. In particular, output 2.1.3 focuses on building linkages and long-term collaboration within the GCIP network, and it also allocates time and resources towards the development of long-term sustainability plans for financing advanced stage SMEs and maintaining the GCIP network. Beside this, the list of co-financing commitments, both from public and private sectors, exemplifies efforts at design stage already to deepen the country engagement. Finally, the execution will be undertaken by an institution in the country. TUBITAK is well established and recognized, and able to further the country engagement through its reach and network.

Figure 3: GEF 5 GCIP ? GEF recommendations.

49. Overall, the proposed project will nurture the commercialisation of clean technologies in Turkey, partnering clean technology entrepreneurs with the relevant support services and capital required for upscale and growth. Through increased market adoption of these innovations, the proposed project will contribute to a reduction in GHG emissions, nurturing of nascent industries, an increase of capacity, as well as job creation and market development. Additionally, the project will foster cooperation between various critical stakeholders, while taking advantage of already proven and ongoing initiatives, such as TUBITAK's grant schemes.

50. The following figure pictures the Theory of Change (ToC) of the project, including the description of desired outcomes and outputs.

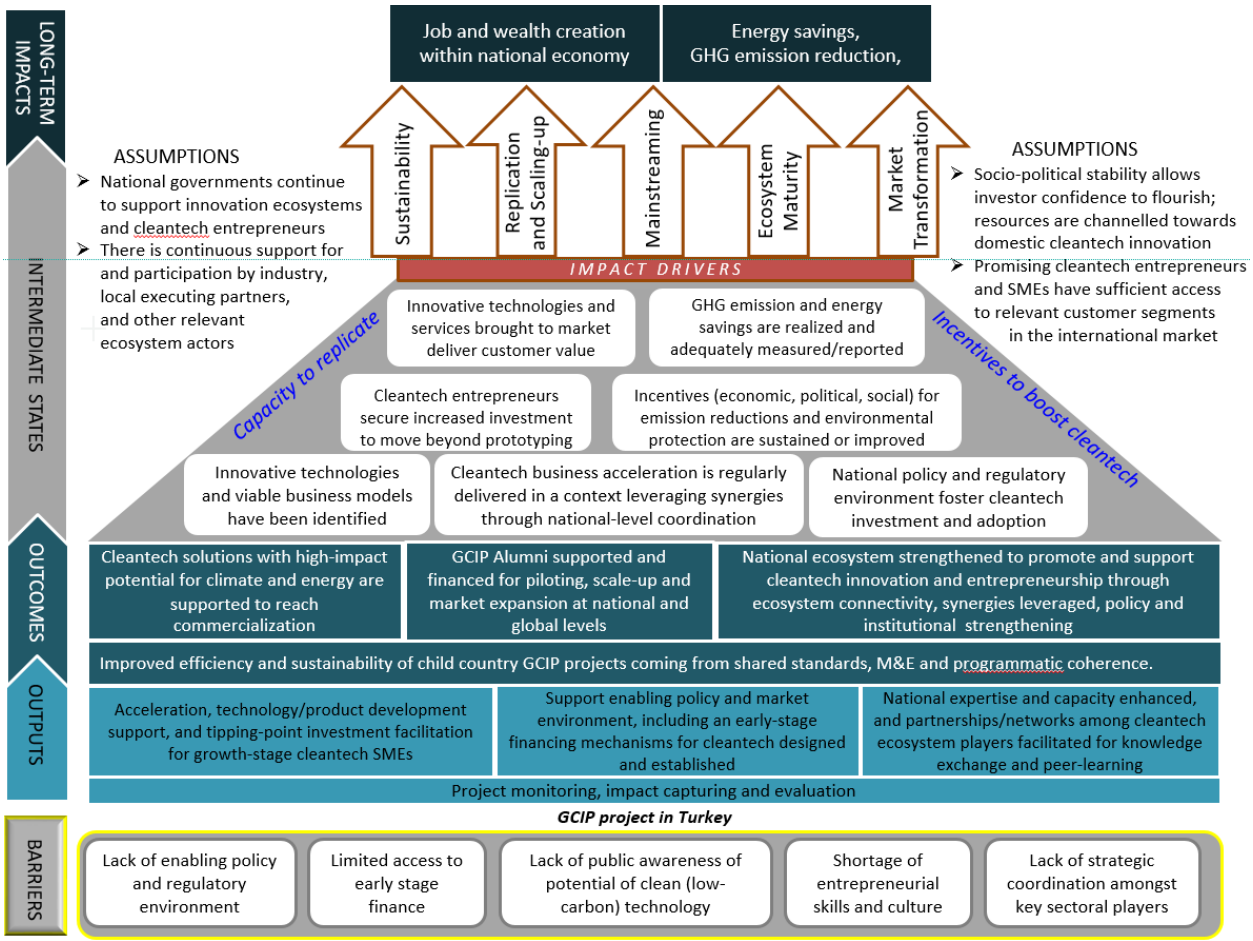


Figure 4: GEF 7 GCIP in Turkey ? theory of change.

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

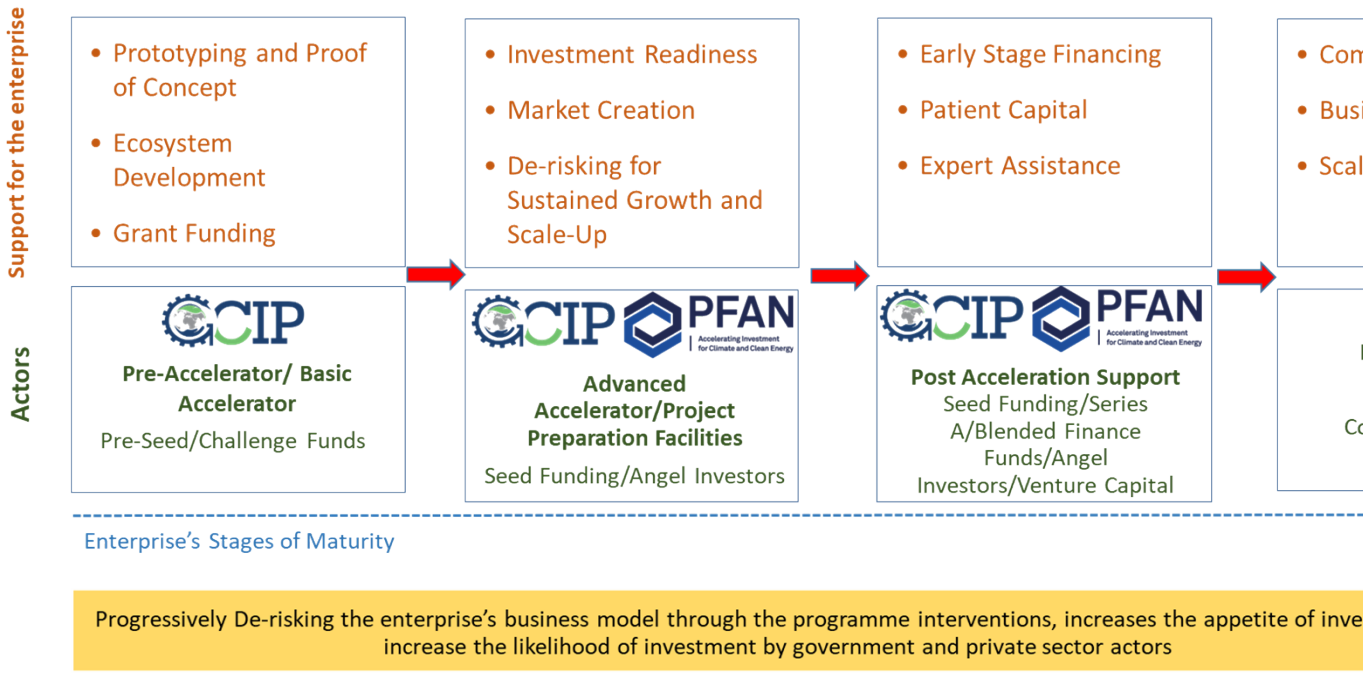


Figure 5: Connection to PFAN to support the start-up to scale up journey of cleantech enterprises

51. 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.

52.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.

53. The entrepreneurs (start-ups and SMEs) in Turkey 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.

54. In order to alleviate the above-mentioned barriers, the GCIP Turkey focuses on the following lines of intervention (outputs): 1) adaptation of GCIP Turkey 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 Turkey 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 Turkey 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 independent terminal evaluation.

55. 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 Turkey 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.

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

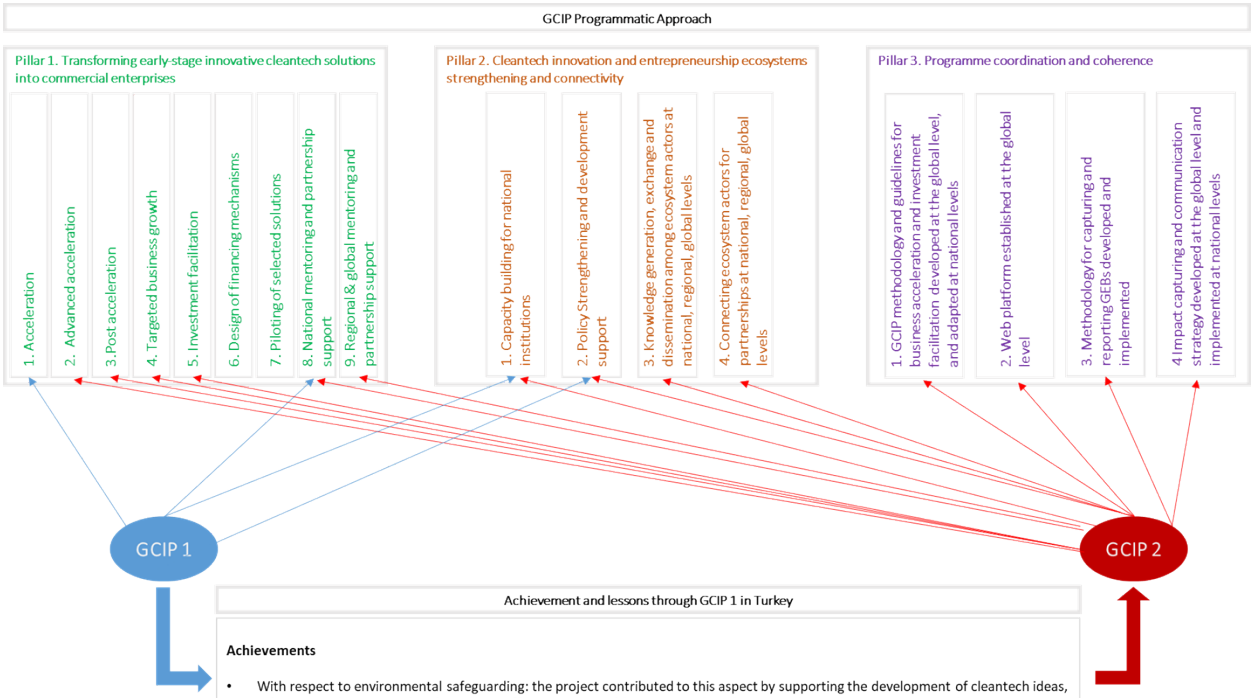
Justification for continued funding to the GCIP in Turkey

57. It is expected that without GEF support the continuation of proven and successful practices will cease. Lack of post-competition support would drastically decrease opportunities for local innovators to develop their ideas and take the share in the market. Consequently, many opportunities would be lost to: (i) reduce GHG emissions, (ii) establish commercial ventures by cleantech entrepreneurs, (iii) transfer of state of the art and comprehensive knowledge, (iv) link between innovators with the private sector and other relevant innovators worldwide. Finally, policy and market gaps would not be identified in a comprehensive resulting in lack of understanding the market for policy-makers to act upon. The incremental reasoning lies in the provision of the support on the development and commercialization of state-of-the-art low carbon technologies, through best international and national acceleration and post acceleration practices. Ultimately, without GEF?s support, it is very likely that promising clean technology innovations will remain off the market, as innovators and entrepreneurs lack the business and technical skills as well as financial means to fully develop and commercialize their products. As a result, the transition to low carbon economy and reduction of GHG emissions in Turkey may be slower.

58. The Competition-Accelerator established in Turkey in the framework of GEF 5 GCIP has already proven its effectiveness and value in identifying, coaching, and developing cleantech innovators. However, experience from GEF 5 GCIP implementation has 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. In order to overcome they ?valley of death?, i.e. to move from the early stage through maturity to commercialization, complementary assistance needs to be provided. With cleantech innovation pipelines, hubs, and institutional relationships defined and coordinated to move startups along a supported path (under the existing direct public support programmes), it is also important to attract/stimulate the development of private sector investment. Angel investors/venture capitalists offer valuable opportunities for partnership under the GEF 7 GCIP framework.

59. Ultimately, GEF 7 GCIP will strengthen the national-level coordinating function that it was set up to fulfil, as well as to serve to build country ownership and anchor the project?s results and benefits. As a result, the policy interventions will become more systematic, structured, and impactful.



Achievement and lessons through GCIP 1 in Turkey

Achievements

- With respect to environmental safeguarding: the project contributed to this aspect by supporting the development of cleantech ideas, solutions, and services related to energy efficiency, renewable energy, reduced waste and GHG emissions, improved water sanitation, and increased agricultural productivity.
- Regarding economic performance: project activities were designed to improve the functioning of Turkish startups, promote SME entrepreneurship, and stimulate the national innovation ecosystem
- The implementation of the GCIP concept has inspired the Turkish government institutions about how to organise sector-specific and/or thematic SME support programme calls, funding programmes, and incubators/accelerators.selected
- Members of the “winning” teams could showcase their achievements in the annual Vienna Energy Forum and during COP sessions
- At least 3 GCIP Turkey cleantech teams (1 from 2015 cycle; 2 from 2017 cycle) have successfully raised funding from private sector investment groups
- Succeeded in establishing a national-level mechanism/platform, which is now functioning in an ongoing manner to identify, coach, and support Turkish cleantech innovators
- A number of mentors and Assistant Trainers were trained
- TÜBITAK-TEYDEB launched a Clean Future Fund (CFF) , which is a directly attributable outcome of the GCIP

Lessons

- Competition-Accelerator was expected to spur national coordination amongst direct public support programmes has not been fully materialized
- Activities were carried out on an ad-hoc basis for some specific innovations for which existing policies/regulations were found to represent an obstacle to compliance and commercialisation
- Many startup team members as well as mentors expressed the strong wish for broader contact and exchange with mentors and startups of other GCIP countries - there was very limited exchange on a regional or international basis
- Further improvements are needed in terms of thematic expertise for mentorship and consultancy, post-Competition/Accelerator support for alumni, and developing links for funding and investment
- A second phase of the GCIP was expected to contribute to CFF’s capitalization and complement it with continued and expanded business acceleration and commercialisation services

Figure 6: Linkages from GCIP-1 to GCIP-2.

60. Overall, the proposed project will nurture the commercialisation of clean technologies in Turkey, partnering clean technology entrepreneurs with the relevant support services and capital required for upscale and growth. Through increased market adoption of these innovations, the proposed project will contribute to a reduction in GHG emissions and increase of number of hectares under sustainable management, nurturing of nascent industries, an increase of capacity, and job creation and market development. Additionally, the project will include a substantial level of cooperation between various critical stakeholders while taking advantage of already proven and ongoing initiatives, such as TUBITAK's grant schemes.

Project description by Component:

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

Component 1: An "ecosystem" of cleantech coaches, mentors, judges, entrepreneurs, and SMEs is fostered that builds on the network established under GEF 5 GCIP and is able to sustain paradigmatic change towards cleantech innovation in Turkey.

61. The purpose of component one is to advance and launch cleantech entrepreneurs and SMEs through awareness raising, targetted capacity building and strategic financial support; it corresponds with Pillar 1 in the Global Programme. The project intends to strengthen the national GCIP platform from the first phase by enhancing the current GCIP services and by integrating new support for product commercialisation and financing facilitation. The project will continue a recognised and efficient practice of accelerating project concepts through its established competition system. GEF 5 GCIP will be upgraded with robust post-competition activities. In the competition stage, the focus will move from ring-fenced technology categories to the ?impact and challenges approach?. The competition-accelerator will result in a more customised approach by targeting industrial and sectoral priorities, significantly increasing chances of the private sector involvement.

To achieve the objectives of Outcome 1, the project will implement activities to effectuate the following outputs (see Annex G).

Outcome 1.1 Early-stage cleantech innovations are accelerated.

62. Lessons learned from the first implementation phase of the GCIP 1 include reference to the need for ?better technical support? under Pillar 1. It follows those 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 Turkey

63. 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 Child project (10461). They will guide the operation and management of the GCIP Turkey 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 Tubitak and appropriate training will be provided on their adaptation and use. The guidebooks will be gender sensitive and highlight the need to launch gender inclusive calls for the accelerators.

64. It is envisaged that Tubitak 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 Turkey?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.

65. In addition, NGIN will support TUBITAK in the implementation of country-specific virtual training and support for alumni innovators and entrepreneurs from the first phase of GCIP Turkey. These trainings and support are expected to feed into the pool of expertise that can either assist in the implementation of the accelerators, and/or participate in the advanced acceleration activities offered by the GCIP 2.

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

66. Stakeholder consultations indicate that cleantech SMEs in Turkey require a significant level of technical assistance. It demands a high number of highly qualified mentors and judges. Mentors provide participants with the critical support in evaluating concepts, business plan development, product development and any other relevant aspects that can increase chances of raising investment capital for achieving sustainable commercial success. GCIP will rely on development of national capacity. As already described in the baseline section, TUBITAK provides a vast range of technical assistance and grant schemes for young entrepreneurs such as capacity building grant scheme programme 1601: Capacity Building for Innovation and Entrepreneurship Grant Programme. Since it started, the programme has trained 30 national acceleration service providers, consisting of support firms, universities, and NGOs. They provide start-ups with the mentorship, training, brokerage events, investor readiness programmes, fund raising activities etc. Under GCIP the pool of acceleration service providers will be expanded.

67. In addition to drawing from TUBITAK?s network of cleantech service providers and accelerators, a key source of identifying potential cleantech trainers, mentors and judges will be the Private Finance Advisory Network (PFAN), which is also acting as a global project executing entity (PEE) for GCIP Global[23][23].

68. 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

69. 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.

Output 1.1.3 Three (3) cycles of the annual competition-based GCIP Turkey Accelerator are conducted (100 firms in total with at least 35% of women participants)

70. GCIP in Turkey will build upon and continue the proven practice of annual accelerator programmes in order to ensure sustainability of the programme and leverage on the achieved success of the programme to date. In GEF 5 GCIP was technology oriented with specific clean-tech categories. The ?impact and challenge? approach will be implemented. Indeed, the objective is to stimulate innovation to provide solutions to the market to address critical climate issues. This contrasts with the previous intervention, which aimed at encouraging innovation around particular technologies. Being technology-agnostic allows to make the most on the innovation potential and resources to address the most pertinent challenges. The PMU, led by TUBITAK, will closely coordinate with the private sector in order to identify specific sectoral needs. Therefore, this phase will result in country specific, bottom-up approach.

71. The GCIP in Turkey will also seek synergies with TUBITAK?s 1512 Individual Multiphased Entrepreneurship Programme grant scheme, also called the ?BiGG Programme.? The 1512 Individual Multiphase Entrepreneurship Programme includes two steps, which correspond with the GCIP accelerator cycle. The first phase, concept evaluation, includes natural synergies with the acceleration cycles of GCIP, while the second step is related to commercialisation and thus corresponds with advanced acceleration services and early stage development funding, which occur at later stages of the GCIP.

72. The intention is that the GCIP accelerator helps to identify a pipeline of bankable projects that can draw support from ongoing efforts led by TUBITAK to commercialise cleantech. It is envisaged that there will be 3 rounds of competition in total. Each accelerator round will aim to include 25 entrepreneurs and start-ups, and may also include established SMEs that seek to move into cleantech.

73. Activities under Output 1.1.3 are critical for supporting an inclusive and gender-balanced cleantech future in Turkey. 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. Sex-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.

74. In addition, the GCIP Global will support TUBITAK in establishing and aligning the first cycle of the GCIP Turkey Pre-Accelerator, Accelerator, Advanced Accelerator, and Post-Accelerator to the Global GCIP. 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.

75. 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.

Activities in support of Outcome 1.1

Activities in Support of Output 1.1		**Responsibility**
Activity 1.1.1a	Adapt the GCIP guidebooks to the local context and disseminate them. TUBITAK reviews the GCIP guidebooks for Accelerator, Advanced Accelerator, and Post-Accelerator; to share suggestions for improvement of the GCIP guidebooks with NGIN (feedback loop) to adapt the GCIP guidebooks to reflect the context of Turkey?s CIEE, including market conditions, policy environment, development priorities, technology focus, local examples, etc. (i.e. to develop the GCIP Turkey guidebooks); to organize information and consultation sessions with relevant stakeholders; to disseminate the GCIP Turkey guidebooks among relevant stakeholders (translation required).	TUBITAK
Activity 1.1.1b	Identification of criteria for cleantech mentors, judges and coaches, integrating gender-sensitivity within the approach - technical, financial, and gender consultants	TUBITAK
Activity 1.1.1c	Development of methodologies, tools and training materials and certification system, including integration of the gender approach	TUBITAK
Activity 1.1.1.d	Conduct country-specific virtual training and support for alumni innovators and entrepreneurs based on stage of maturity and size of the alumni community	TUBITAK
Activities in support of Output 1.2		**Responsibility**
Activity 1.1.2a	Training and certification of selected cleantech experts, with inputs from Global GCIP	TUBITAK
Activity 1.1.2b	Gender expert to oversee gender-related outcomes and the integration of gender-sensitive project implementation throughout the programme - gender consultant	TUBITAK
Activity 1.1.2c	Identification of cleantech entrepreneurs in the four project sectors through roadshows and scouting events	TUBITAK

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 NGIN: As a service to the Turkey GCIP, support provided to national PEEs to develop the GCIP cleantech innovation and entrepreneurship expert training and certification system for the GCIP Turkey 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.	TUBITAK
Activity 1.1.3b	Three accelerator rounds targeting each of the four project sectors As part of the support package outlined in Activity 1.1.1 d; 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).	TUBITAK
Activity 1.1.3c	Help desk services to support the accelerator activities from Global GCIP NGIN: To provide ongoing technical support via an accelerator ?help desk? for the entrepreneurs, experts, judges, mentors and TUBITAK staff, as needed	TUBITAK
Summary of additional activities carried out by GCIP Global (10461) as a service to GCIP Turkey: ? 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 Turkey 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

76. Under Outcome 1.2, a robust and comprehensive post-competition phase is envisaged. Experience from previous GCIP interventions has shown that start-ups and SMEs require further assistance ? beyond the Accelerator ? to be able to reach scale. 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.

77. As already mentioned under the baseline scenario, TUBITAK has been developing and implementing a variety of grant schemes in order to help individuals to develop their innovations form

concept stage to commercialisation stage. Under this component, participants will be supported with post-competition technical assistance. For that purpose, the GCIP will merge with platforms of TUBITAK?s 1507 and 1512 Initiatives. Experience gained from GCIP implementation indicates that after successful completion of the GCIP accelerator, alumni require further support in development of their innovations, mainly through business plan development, technology verification, and finance facilitation.

Output 1.2.1 Targeted business growth support services are provided to selected cleantech enterprises towards commercialization (at least 12 firms to receive support with at least 35% of women participants)

78. The project will provide advanced, post-accelerator support to at least 12 cleantech start-ups. They will be selected through the project?s acceleration phase. For selected start-ups, technology verification and product development support will be provided. As already mentioned, the 1512 initiative platform will be used to undertake activities related to post-competition support envisaged by the proposed project. Under this stage at least 12 cleantech innovators will be supported with technical assistance. The companies will be provided with grants from TUBITAK for the development of business plans, the product verification, and finally establishment of the company. Additionally, lessons learned from this output will be taken under consideration when undertaking subsequent acceleration rounds to help increase efficiency. The technical assistance for this output will be provided by national acceleration service providers and the project implementation team. As in the acceleration phase, close and ongoing coordination with the private sector will be maintained.

79. The Advanced Accelerator services are 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 Turkey Accelerator alumni will also be eligible for the GCIP Turkey 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 Turkey guidebook for the Post-Accelerator (Output 1.1.1). It is foreseen that Post-Accelerator support will be provided to a minimum of 12 enterprises. After the third cycle of the GCIP Turkey Accelerator, the Post-Accelerator services will be provided by the TUBITAK to a minimum of 12 entrepreneurs. The GCIP Turkey will also provide support in overcoming product related market entry barriers, including protection of intellectual property and product life cycle assessments.

81. The Private Financing Advisory Network (PFAN) facilitates access to financing for clean energy and climate projects. PFAN has provided support to selected alumni of GCIP. The intention is to institutionalise the support to develop investment-ready propositions and the introduction to investors into project. GCIP alumni will thereby benefit from opportunities to grow their businesses.

82. It is noteworthy that an effort has been made by previous project team to develop a platform that would establish effective connections and bind together domestic and foreign start-up and investment sector, NGO?s and public offices. Relevant stakeholders would include experts, clean tech start-ups, angel investors and networks, venture capitals as well as corporates. The intention is to share their experience and knowledge and potentially provide finance to start-ups using the platform. The aim of the platform would be to commercialize the clean technology business ideas that proved to be successful in GCIP and BIGG programs and to build capacity by providing additional resources to entrepreneurs and help them establish themselves in global markets. The platform will become operational during the proposed project?s lifespan.

Output 1.2.2 Enterprises are connected to financing opportunities and provided with tipping-point investment facilitation support (at least 12 firms with at least 35 % of women participants receive financing for early stage business growth)

83. TUBITAK has a seed funding grant scheme called 1514 Venture Capital Funding Programme. The alumni that have its R&D activities undertaken and completed will become eligible for the 1514 grant scheme. This scheme aims to support early-stage technology-based initiatives and contributing to the capital needs of these companies in Turkey and presents an opportunity to access the public seed funding. Alumni from the accelerators will be encouraged to continue engagement and to seek support from the 1514 Venture Capital Funding Programme.

84. Start-ups and SME?s that finalise the technology verification will also become eligible to apply for the TUBITAK 1507: SME Research, Development & Innovation (RDI) Grant Programme. This programme provides grants to SMEs? research and development of innovative projects to encourage further investment and growth in this field. Successful applicants will be provided with the R&D grant. This grant includes more funds than the one in the previous output. The grant will help in the technology development (product design, prototype product, production system design, and pilot production). Partnerships will be explored with national agencies responsible for standardization and appraisal of product quality. In addition, GCIP will provide support in overcoming product related market entry barriers, including protection of intellectual property (IP), product life cycle assessments, etc. Furthermore, cooperation between various financing institutions will be developed. This will include cooperation with various international initiatives such as PFAN as well as assistance in seeking private sector financing.

85. In order to ensure that the financing efforts are gender inclusive, sex-disaggregated data will be collected on recipients of support. Additionally, women entrepreneurs and women-led enterprises will receive targeted support.

86. As a compliment to the investments previously described, TUBITAK will also provide mentoring support services. Stakeholder consultations and lessons learned indicate that the provision of mentoring services is an art form, requiring careful pairing between personalities and technical capacities. Thus,TUBITAK 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.

87. The project will also undertake continuous outreach activities to raise the profile of GCIP alumni enterprises ensuring that they receive recognition and support. GCIP will establish a robust network with national financial institutions and funds to raise awareness and sensitize various stakeholders on the opportunities and risks associated with cleantech products and market trends. The project will assist alumni in pitching and investment seeking by linking them with the private sector through various activities, including possible investor identification, funding mechanisms, etc. This will be undertaken at the national and international level, where the national related activities will be organised by TUBITAK and internationally by UNIDO. The focus will be put on the pitching events that will occur at the end of each cycle.

88. It is expected that several GCIP Turkey 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 Turkey in identifying a suitable mentor with the appropriate expertise. In addition, the GCIP Turkey 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.

89. On an ad-hoc basis, as opportunities arise, matchmaking services for the GCIP Turkey 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 Turkey alumni to build their global presence and extend their partnerships and networks. In addition, TUBITAK will nominate a few GCIP Turkey alumni for application to the GCIP Global Accelerator, and NGIN will support their application process. Finally, upon selection the GCIP Global will provide additional assistance, and UNIDO will encourage GCIP Turkey alumni to apply for PFAN support. PFAN will lead some initiatives for GCIP Global, and it will launch open calls for GCIP alumni applications.

90. Finally, a series of trainings (in the form of webinars) will be organized by NGIN as a service to the Turkish 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). Moreover, for selected GCIP Turkey 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. 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.

91. Sex-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.

Activities in support of Outcome 1.2

Activities in Support of Output 1.2.1		**Responsibility**
Activity 1.2.1 a	Provision of seed funds to entrepreneurs and start-ups	TUBITAK
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	TUBITAK
Activity 1.2.2 b	Validation of selected business models, prototypes and technologies	TUBITAK

Summary of additional activities to be carried out by the GCIP Global as a service to GCIP Turkey:

? UNIDO and NGIN: to identify and facilitate cross-border networking and matchmaking opportunities and for stat-ups/SMEs supported by the GCIP Turkey with internationally recognized mentors, GCIP alumni enterprises, corporations, investors, and governments

? UNIDO and NGIN: to enable the GCIP Turkey 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 Turkey 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 TUBITAK.

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

92. 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 TUBITAK and other key Turkish stakeholders to engage in cleantech acceleration and commercialization. Further, the GCIP

Turkey will assist the government in improving national policies and regulations that are conducive to cleantech innovation and commercialization.

Outcome 2.1: The CIEE in Turkey is strengthened and interconnected

Output 2.1.1 Established national level platform to facilitate peer learning, information exchange and collaboration (4 alumni networks established: 1 per sector, 250 members per network)

93. Under the GEF 5 GCIP in Turkey, an alumni network culture was established. GCIP will further develop the alumni support system and establish a **National Alumni Network**. The purpose of the network will be to showcase the success of the entrepreneurs and to be a tool to connect with national and international investors. Detailed promotional case studies will be developed and disseminated using both UNIDO?s and project partners? communication channels, and by utilising the existing GCIP network to encourage knowledge sharing and networking between the various GCIP countries. The activities under this platform would include knowledge sharing events, meeting, web site and other media information dissemination. The network will also be used as a tool to raise awareness within investment sector, especially on impact and challenge aspects of this project, thus increasing chances for successful investments into future accelerated GCIP Alumni. Furthermore, the proposed project will result in global connection. The project will closely cooperate with other platforms of GCIP participating countries ensuring the global GCIP coordination and information exchange.

94. Additionally, the project will include comprehensive and well organised awareness raising activities. GEF 5 assessment concluded, among others, that project ought to be more visible and recognised within public throughout the country. Therefore, the proposed project envisages to conduct activities like organising events and visits to various relevant institutions and organisations in order to increase visibility and enhance number of participants. This will result in acceleration quality increase as well as decentralisation of the proposed project.

95. Activities under this output will focus on the establishment of online tools and will focus on sharing material on the GCIP global web-based platform. The GCIP web-based platform will be established at the global level in order to allow alumni network to gather, share, and correspond. Peer networking emerged as a critical component in GCIP 1, 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.

96. 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 TUBITAK, in order to ensure its sustained maintenance at the close of the project.

97. The TUBITAK and the GCIP alumni will also support capacity building and training workshops conducted by GCIP alumni. The training events will target universities throughout Turkey and will make use of the case studies and materials provided by the global GCIP. All global training materials will be translated into Turkish 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.

98. National networking will further be strengthened and expanded by enabling the Turkish alumni network to gather with other GCIP alumna at related regional and international events. 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 Turkey. Particular attention will be given to garnering participation from successful women entrepreneurs? in the programme to support the gender mainstreaming approach.

Output 2.1.2 Cleantech innovation and entrepreneurship policies, regulations and recommendations are developed (1 policy report, 1 policy workshop, 1 policy recommendation)

99. The policy framework and institutional sustainability are integral parts of GCIP?s ?ecosystems approach?, and also of strategic relevance in ensuring that the outputs and outcomes of the project are contributing to the national priorities and sustainability after project closure. One of the main evaluation findings was the recognition of the need to enhance the enabling environment in order to spur development of clean tech related projects. The gap analysis of the policy/regulatory side was recognized as the first and vital step in enhancing the GCIP policy environment. The project will therefore conduct an analysis of the enabling environment and overall market in order to concisely identify barriers and needs that should be taken into account throughout project implementation period.

100. The PMU will oversee an assessment of the Turkish 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 Turkey, as well as to present selected findings of similar evaluations under the GCIP Global.

101. A gap analysis will be conducted and will include an overview of all existing policy and regulations that directly or indirectly have an impact on the clean tech start-ups and SME?s development in Turkey. The GCIP Alumni Network will be used as a starting point. Network members will be surveyed as they can provide very specific insight gained during commercialisation phase. The analysis will include overview of the processes to obtain in intellectual property rights and patents, agreements on sponsorships, company registration, etc. Findings of an analysis will support the start-up

and SME sector in clear overview of the barriers. The analysis will result in clear and concise conclusions and recommendations on the barriers and needs to overcome them.

102. 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 particular, a gender and youth mainstreaming strategy will be developed. Sex-disaggregated data will be collected on policy consultations.

103. 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 ?Policy analysis report? will be provided to define and detail the status and prospects of the development of key economic sectors attractive for Cleantech. 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 (100 attendees at Global GCIP Forum and 5 additional GCIP Forum events with 100 attendees at each)

104. 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.

105. In addition, regional cooperation will be promoted and formalized between the GCIP Turkey and other GCIP CIEEs in the region. A forum will be set up to share lessons learned with the aim of feeding into Turkey?s policy recommendations developed under output 2.12.

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	TUBITAK (with no cost assistance from NGIN)
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.	TUBITAK
Activities in Support of Output 2.1.2		**Responsibility**
Activity 2.1.2 a	To review existing policy and regulations relating to the promotion of cleantech, innovation, and entrepreneurship, and to develop a gender-responsive gap analysis report CTG: Module 1: National Policy Localization : 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 (year 2) (USD 30,000 one off package)	TUBITAK
Activity 2.1.2 b	To develop recommendations for the cleantech innovation and entrepreneurship policy; and to conduct a stakeholder engagement workshop to discuss and validate the gap analysis report and the policy recommendations	TUBITAK
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 Turkey with other GCIP CIEEs in the region	TUBITAK

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: Disseminate and international best practices concerning policies and CIEE building

? CTG: Document lessons learned from GCIP countries

? CTG: Organize workshops on frameworks for capacity building, stakeholder engagement and cluster development for a cohort of all national PEE representatives (including TUBITAK)

? CTG: Develop the Global Cleantech Innovation Index which will enable comparisons of the Turkish CIEE with other countries? CIEEs

? CTG: Develop a cleantech innovation capacity building, stakeholder engagement and cluster development frameworks

? NGIN: Organize the Global Forum

? NGIN: Facilitate Turkey?s membership in the Network for Global Innovation for the duration of the project

Component 3: : Project Coordination and Coherence

106. Component 3 is designed to address Pillar 3 under the global programme, and will include 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.

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

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

107. 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 TUBITAK, 2) a sustainability and exit strategy for the project.

108. 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[24][24] and Project Steering Committees); description of communication channels between GCIP Turkey and the GCIP Global; information on risk management and data protection; a list of foreseen support activities to be available from the GCIP Global; introduction to the IT management of the GCIP web platform; environmental/social management principles, as well as gender mainstreaming and principles to be applied by the PMU in the course of project management. In addition, annual meetings for national

PEE representatives (including TUBITAK) 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

109. A lesson learned during the first phase of the Global 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:

a. Promoting visibility of GCIP and communicating its impacts achieved at national and global levels;

b. Increasing awareness of the catalytic role of cleantech in addressing climate change and environmental issues;

c. Showcasing cleantech innovations from the GCIP alumni and enhancing their visibility and credibility.

110. The global GCIP knowledge management, communication, and advocacy strategy framework will be shared with TUBITAK for review and adaptation to the Turkey 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).

111. The GCIP Turkey will be assigned a section of the global GCIP web platform (i.e. a GCIP Turkey web platform). The GCIP Turkey 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 Turkey webplatform for alumni to share experiences and continuously foster their network.

Activities in Support to Outcome 3.1

Activities in Support of Output 3.1.1.		Responsibility
Activity 3.1.1 a	to review and adopt GCIP internal guidelines for project management teams, and to participate in the annual meetings for national PEE	TUBITAK
Activity 3.1.1 b	to develop the GCIP Turkey sustainability and exit strategy	TUBITAK
Activities in Support of Output 3.1.2.		**Responsibility**
Activity 3.1.2 a	Development of the KM, communication and advocacy strategy - technical consultants	TUBITAK

Additional services from GCIP Global include:

? UNIDO to develop and disseminate GCIP internal guidelines for project management teams, including a) operational guidelines for the PMU to be established within TUBITAK, b) a sustainability and exit strategy framework;

? UNIDO to organize annual meetings for national PEE representatives (including TUBITAK) to provide a platform for training and exchange of experiences/insights.

? 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

Outcome 3.2: Impacts and progress of the GCIP Turkey are tracked and reported

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

112. A detailed monitoring plan for tracking and reporting on project time-bound milestones will be prepared by UNIDO in collaboration with the TUBITAK 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 work plans 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 annual, mid-term and terminal evaluation reports.

113. The GCIP methodology for impact assessment will be developed by the GCIP Global and shared with the GCIP Turkey for review and application. This will ensure a common understanding of

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

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

115. The GCIP Turkey 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 Turkey 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 Turkey 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 Independent terminal evaluation is conducted

116. An independent terminal evaluation will be started six months prior to the expected completion date of the project. The independent 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.

117. In addition, financial audits will be prepared on an annual basis.

Activities in Support to Outcome 3.2

Activities in Support of Output 3.2.1.		**Responsibility**
Activity 3.2.1 a	Annual progress report, including reporting on GAP - technical consultants Tubitak, with assistance from the Global GCIP, will implement the GCIP methodology for impact assessment within its annual progress report cycle.	TUBITAK
Activity 3.2.1 b	External MTR is conducted ? technical consultants	UNIDO
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 audit - technical consultants	TUBITAK

Additional services from GCIP Global include

? UNIDO: to develop and provide the GCIP methodologies (and the related online training to all PEEs including TUBITAK) for impact calculation and associated tools for its operationalization.

? UNIDO: to provide the GCIP M&E framework

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

118. The proposed project is fully aligned with the GEF-7 Climate Change Focal Area Strategy. Especially with the **Objective 1. Promote innovation and technology transfer for sustainable energy breakthroughs.** According to the same Strategy, ?*Technology is key area for the UNFCCC and in Article 10 of the Paris Agreement, and is one of the key means to reduce, or slow the growth in GHG emissions, and to stabilize their concentrations. To that end, technology innovation with the private sector can help create or expand markets for products and services, generating jobs and supporting economic growth. Supportive policies and strategies are fundamental to catalyze innovation and technology transfer for mitigation and enhance private sector investment*?. 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.

119. 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.

5) Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF,

LDCF, SCCF, and co-financing

120. The GEF support to implementation of GEF 7 GCIP will substantially promote cleantech innovation sector, as it will provide essential tools and processes for efficient mobilisation and commercialisation of environmentally sound technologies. The GEF support was essential for

successful implementation and operation of GEF 5 GCIP and thus it is for continuation through GEF 7 GCIP.

121. As elaborated in the baseline scenario section, GEF-5 GCIP was successfully implemented and has become operational. However, at the global level as well as in Turkey, the need for robust and effective post-competition support has been recognised. Consequently, many opportunities would be lost to: (i) reduce GHG emissions, (ii) establish commercial ventures by cleantech entrepreneurs, (iii) transfer of state of the art and comprehensive knowledge, (iv) link between innovators with the private sector and other relevant innovators worldwide. Finally, policy and market gaps would not be identified in a comprehensive resulting in lack of understanding the market for policymakers to act upon. The incremental reasoning lies in the provision of the support on the development and commercialization of state-of-the-art low carbon technologies, through best international and national acceleration and post acceleration practices. Ultimately, without GEF?s support, it is very likely that promising clean technology innovations will remain off the market, as innovators and entrepreneurs lack the business and technical skills as well as financial means to fully develop and commercialize their products. With cleantech innovation pipelines, hubs, and institutional relationships defined and coordinated to move startups along a supported path (under the existing direct public support programmes), it is also important to attract/stimulate the development of private sector investment. Angel investors/venture capitalists offer valuable opportunities for partnership under the GEF-7 GCIP framework. As a result, the transition to low carbon economy and reduction of GHG emissions in Turkey may be slower. GEF-7 GCIP is aimed at addressing that need. It will build upon lessons learned and experience from GEF-5 GCIP by upgrading the acceleration process with the GEF-7 GCIP narrative and additional post-competition support. TUBITAK has various grant schemes intended to support development and commercialisation of innovative start-ups by providing support in all development phases. GEF-7 GCIP will leverage synergies with Tubitak?s existing initiatives by aligning these financial mechanisms with GCIP objectives. GEF support is crucial to ensure current initiatives in Turkey ? such as those forwarded by Tubitak ? are embedded with cleantech and sustainability goals and supported by a long-term enabling environment.

122. Ultimately, GEF-7 GCIP will strengthen the national-level coordinating function that it was set up to fulfil, as well as to serve to build country ownership and anchor the project?s results and benefits. As a result, the policy interventions will become more systematic, structured, and impactful.

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

123. The project will result in direct and indirect GHG emission reductions, in that it is aimed at development of cleantech innovations through acceleration, development, and commercialization. The anticipated environmental benefits will be measured and quantified on the basis of commercialization efficiency, mainly through up-take of cleantech innovations. Given the nature of the project, environmentally sound technologies which are developed and commercialized will achieve environmental benefits beyond the project lifespan. The project is designed to be strongly linked with international initiatives and platforms, therefore increasing the potential of successful cleantech

innovations to reach international markets. There is a wide range of technologies in which the proposed project can result in increased environmental benefits, including:

a. Low-carbon energy systems - acceleration and dissemination of innovative energy efficient technologies and renewable energy systems;

b. Urban design and sustainable cities ? cross sectoral area where the impact can be achieved through implementation of innovative technologies and processes for resilient, inclusive and resource efficient cities;

c. Sustainable agriculture and forestry ? acceleration and ultimately implementation of innovative products, processes, techniques, and systems such as precision agriculture, efficient irrigation etc.

i) Background on GCIP's target for avoided GHG emissions for the GCIP framework (GEF ID: 10408)

124. 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.

125. 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.

126. A ten-year horizon was selected for estimating the GHG emission savings. However, assessing a priori the GHG reduction potential of cleantech solutions (products, services) to be identified through GCIP has proven to be difficult, as by definition GCIP encourages open innovation, and the types and categories of cleantech products and services that will be supported can only be determined after the selection of semi-finalists as part of the GCIP Accelerators. Also, expected difficulties include attribution of the incremental GEBs of the cleantech solutions to the GCIP support. However, the design of past GCIP assumed abatement costs (for GEF funding) of between 0.68 USD/tonne CO2e in Turkey (during the GEF 5 GCIP) 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.

127. 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. Even though the cost of abatement was notably low in Turkey during the first phase of the GCIP, the 5-10 USD figure is still used for GEF 7 GCIP as it is assumed that there is less low-hanging fruit in terms of cleantech related GHG mitigation. 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.).

128. 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.

129. 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 Turkey (GEF ID: 10455)

130. The three cycles of GCIP Turkey Accelerator are expected to support 100 enterprises (semi-finalists), as a result of which the avoided direct GHG emissions over a ten-year horizon are estimated at between 180,000 to 360,000 tCO2e of direct GHG emission savings and 900,000 to 1,800,000 tCO2e of indirect GHG emission savings (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.

131. To facilitate the achievement of GEBs, there will be awareness raising and promotional activities during the call for applications to the GCIP Turkey 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.

132. 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. NOx, SOx, PM and CO), and improved water quality, among others.

7) Innovation, sustainability and potential for scaling up

Innovation at the national level:

133. Technology and innovation are key enablers of high-tech entrepreneurship and together with low-carbon economy are becoming a high priority for the Turkish government. Through the development of a supportive innovation ecosystem, 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 Turkey outside of the existing GCIP for SMEs, and aims to institutionalize the GCIP approach within the Turkish innovation ecosystem. The involvement of TUBITAK as the project executing entity will allow GCIP entrepreneurs to be directly short-listed for acceptance into other TUBITAK?s programmes. Since neither of these programmes has a clean technology focus, TUBITAK would be able to explore the potential for a separate cleantech-specific sub-unit to be established within the existing programmes to be managed by the proposed project and seeded with capital from the GEF grant. At the same time, the project will connect the cleantech innovation and entrepreneurship and the capital required for commercialization.

134. In 2011 Turkey declared its commitment to the establishment of an International Science, Technology and Innovation Centre dedicated to LDCs (Least Developed Countries) which will also serve as a technology bank to help LDCs access and utilize critical technologies. The technology bank

should contribute to the strengthening of the knowledge capacity of the world?s LDCs, so that they can foster development of their innovation ecosystems to attract foreign technology transfer, generate homegrown research, and promote their integration into the global knowledge-based economy.[25][25] The close relationships with the Centre will generate scientific and technical knowledge and the ability to integrate innovative technologies, which is crucial to overcome the structural challenges and provides the project sustainability. This would, together with the ongoing mentoring and acceleration support, ensure that the SMEs and start-ups achieve sustainable commercial success after completion of GEF 7 GCIP. 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 Turkey 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. 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 Turkey to other participating countries abroad.

Innovation within the GCIP design:

135. 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 Turkey 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.

136. 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 Turkey to other participating countries abroad. This could especially be beneficial for the developing countries in the Southeast Asian region.

Sustainability:

137. To ensure sustainable impact, the project is closely aligned with national priorities and will actively seek to coordinate with ongoing initiatives and governmental programs. The sustainability of the project beyond its completion will be achieved with three underlying mechanisms applied:

a. Continuation of accelerators programme competition;

b. Comprehensive post-competition acceleration;

c. Strengthening of the regulatory framework and enabling policies with regard to supportive mechanisms of cleantech SMEs.

138. The annual cleantech accelerator programmes and competitions will be the integral part of the GEF 7 GCIP not only to ensure the continuation of the programme but also to leverage the achieved success to date. To ensure that the GEF 7 GCIP solutions are sustainable within the Turkish innovation ecosystem, GCIP will be incorporated into TUBITAK?s network of implementing agencies, which will also provide the access of GCIP Alumni the access to other potential funding sources beyond the GEF-funding period.

139. The GCIP Turkey 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 that work closely to support national strategies. The GCIP Turkey 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.

140. Second, the GCIP project directly addresses the need for early-stage development support for cleantech, and works with existing funds and financial experts within Turkey 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-county to gain more expertise.

141. 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 Turkey, both to attract new investors and to demonstrate proof-of-concept for other firms within Turkey and abroad.

Scaling Up:

142. The GEF 7 GCIP bears a considerable potential for local and regional expansion in terms of cooperation and networking, as well as sectoral expansion through inclusion of additional technology categories. Among others, the National Alumni Network aims to integrate SME associations and national agencies in order to share knowledge, ideas and to form working partnerships. The regional expansion will be achieved through dissemination of 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 various GCIP countries. There is also potential to spread the concept to other specific thematic fields (e.g. biotechnology, health, health tourism, defence, agriculture, etc.) as well as to adjust it to sectors with high environmental impacts including sustainable cities, smart agriculture and food systems, etc.[26][26] In addition, the global nature of the GCIP will offer ample opportunity for the project to continuously expand geographically, especially with the potential support of global sponsors, investors, etc. beyond the project implementation period.

143. 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:

a. 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.

b. It is expected that the project will serve as a catalytic force to advance the innovation and entrepreneurship ecosystem in Turkey 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 Turkey 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 Turkey?s intensive focus on national economic development.

c. 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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[1] World Bank (2014) ?Building Competitive Green Industries: The Climate and Clean Technology Opportunity for Developing Countries?.

[2] Carbon Brief. 2018. Climate Profile: Turkey

[3] World Bank Climate Change Knowledge Portal. 2019. Turkey.

[4] https://www.carbonbrief.org/carbon-brief-profile-turkey

[5] http://www.mfa.gov.tr/turkeys-energy-strategy.en.mfa

[6] https://www.worldbank.org/en/country/turkey/overview#3

[7] Brookings Institute. 2020. Turkey economic recovery from COVID-19: Preparing for the long haul.

[8] http://www.yegm.gov.tr/document/20180102M1_2018_eng.pdf

[9] World Bank Climate Change Knowledge Portal. 2019. Turkey

[10] Carbon Brief. 2018. Climate Profile: Turkey

[11] https://www.climate-transparency.org/wp-content/uploads/2017/07/B2G2017-Turkey.pdf

[12] https://unfccc.int/sites/default/files/resource/496715_Turkey-NC7-1-7th%20National%20Communication%20of%20Turkey.pdf

[13] https://www4.unfccc.int/sites/submissions/INDC/Published%20Documents/Turkey/1/The_INDC_of_TURKEY_v.15.19.30.pdf

[14] https://www4.unfccc.int/sites/submissions/INDC/Published%20Documents/Turkey/1/The_INDC_of_TURKEY_v.15.19.30.pdf

[15] The Small Business Act (SBA) is an overarching framework for the EU policy on (SMEs). It aims to improve the approach to entrepreneurship in Europe, simplify the regulatory and policy environment for SMEs, and remove the remaining barriers to their development.

[16] Enterprise and Industry, 2017 SBA Fact Sheet: Turkey. European Commission, 2017.

[17] https://www.unido.org/sites/default/files/files/2017-11/GCII_GCIP_report_2017.pdf

[18] STI Outlook 2016, Country Profile Turkey, The innovation policy platform.

[19] https://waset.org/Publications/innovation-strategies-and-challenges-in-emerging-economies-the-case-of-research-and-technology-organizations-in-turkey/10007195

[20] https://www.gefieo.org/sites/default/files/ieo/council-documents/files/c-55-me-inf-03.pdf

[21] Draft Terms of Reference for the Review of the Global Cleantech Innovation Programme for SMEs, GEF Independent Evaluation Office, January 2018

[22] http://www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/CTF_Turkey.pdf

[23] PFAN is hosted by UNIDO and has an established structure in Turkey.

[24] 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.

[25] T?B?TAK International Cooperation Department, TECHNOLOGY BANK, Info Note_April 2018

[26] Independent Thematic Evaluation, GEF UNIDO Cleantech Programme for SMEs in Turkey, 2018

1b. Project Map and Coordinates

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

The project will be undertaken throughout the entire country ? Tubitak to submit map of key areas/coordinates

144.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 are expected to be conducted in Istanbul, Ankara and Izmir provinces: these estimates are based on the breakdown of current investments/startup support that TUBITAK provides within Turkey. Istanbul and Ankara provinces host a dense population of investors and entrepreneurs, and Izmir province is distinguished in cleantech due to the presence of the Institute of Solar Energy and the Izmir Development Agency (which runs accelerator programs in green technologies which will be leveraged for synergies with the GCIP accelerators). It is therefore expected that these three regions will be the main areas of GCIP activity focus

139. The project boundary will not overlap any other country?s territory.

The coordinates of Istanbul are: 41.0082? N, 28.9784? E

The coordinates of Ankara are: 39.9334? N, 32.8597? E

The coordinates of Izmir are: 38? 25' 25.4388" N, 27? 8' 34.1736" E

1c. Child Project?

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

145. The national child project will engage with the global framework to ensure synergies, knowledge sharing, learning, consistence and efficiency, as well as additional support to enable Turkish 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.

146. The project will also collaborate with NGIN, and CTG, which are both official partners within the Global Programme. It is also expected that the Turkish 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:

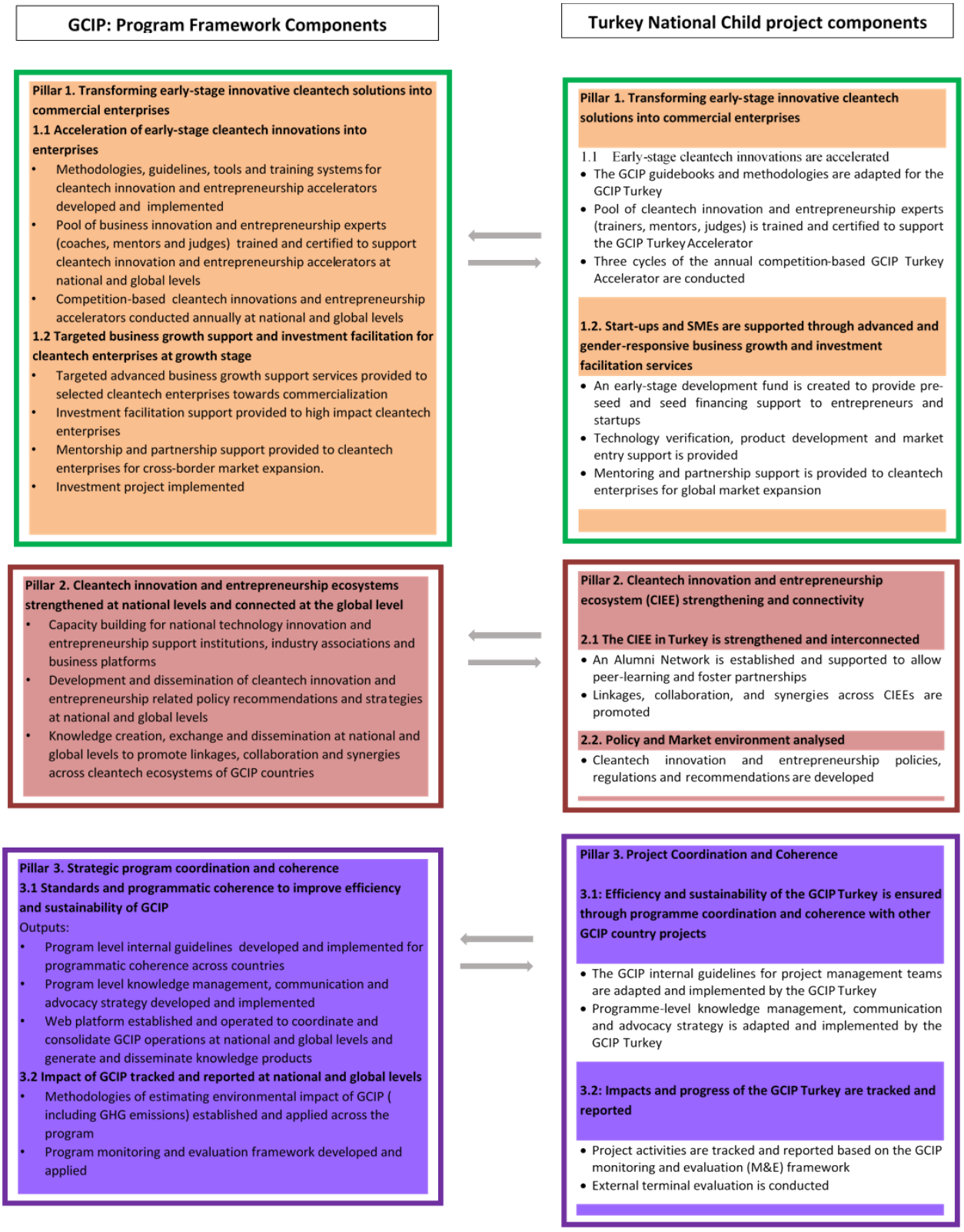
a. **Methodologies, guidelines, tools for acceleration, and training systems**: These will be developed and harmonized at the global level and the national project will focus on adapting these to the national circumstances. Experiences in applying the tools and systems across child project will be used 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. **Enterprises 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: Engagement between the global program and child project.



2. Stakeholders

Please provide the Stakeholder Engagement Plan or equivalent assessment.

Stakeholder Engagement Plan

147. The Stakeholder Engagement Plan (SEP) is designed to ensure effective engagement between various stakeholders throughout the lifecycle of the Project ?Global Cleantech Innovation Programme: Accelerating cleantech innovation and entrepreneurship in start-ups and SMEs in Turkey?.

148. Relevant stakeholders were consulted during the project design phase. 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.

Regulations and Requirements

149. 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 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.

150. The objectives of the Stakeholder Engagement Plan (see Annex I) are:

To identify stakeholders involved directly or indirectly in the project as well as the nature and extent of their interests.

a. 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.

b. To specify procedures and methodologies for stakeholder consultations and feedback.

c. To establish an accessible, transparent and responsive grievance mechanism for the project.

151. 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.

152. 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.

153. 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.

154. 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 Turkey child project in order to share their networks, technical expertise, and to leverage their global platform to help launch the selected SMEs.

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.

155. 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 that 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.

Table 3 Stakeholder matrix

Stakeholder group	**Description of a stakeholder**	**Nature & Extent of interest**	**Nature & Extent of Influence**	**Potential Role in the Project**
Scientific and Technological Research Council of Turkey (TUBITAK)	The Scientific and Technological Research Council of Turkey (T?B?TAK) is the leading agency for management, funding and conduct of research in Turkey. It was established in 1963 with a mission to advance science and technology, conduct research and support Turkish researchers. The Council is an autonomous institution and is governed by a Scientific Board whose members are selected from prominent scholars from universities, industry and research institutions.	TUBITAK will be the lead executing agency of the proposed project and will support the project directly through its ongoing entrepreneurship programmes. TUBITAK will form the project management team and will also be a member of the Project Steering Committee (PSC).	Leading executing agency that will organise and conduct crucial technical assistance within the project	Leading executing agency and member of the PSC
Ministry of Industry and Technology (MoIT)	The Ministry of Industry and Technology is a government ministry office of the Republic of Turkey, responsible for industrial and commercial affairs in Turkey	MoIT will act as the Chairman of the PSC, and will participate in every component of the project.	MoIT will head the Project Steering Committee and will provide TA	Chair of the PSC
Ministry of Environment and Urban Planning (MoEU)	The Ministry of Environment and Urban Planning is responsible for the environment, public works, and urban planning in Turkey.	The Ministry will be a member of the PSC and involved as appropriate in the delivery of the project	The Ministry will be a member of PSC and TA provider	PSC member

Stakeholder group	Description of a stakeholder	Nature & Extent of interest	Nature & Extent of Influence	Potential Role in the Project
Ministry of Energy and Natural Resources (MENR)	The Ministry of Energy and Natural Resources is a government ministry office of the Republic of Turkey, responsible for energy and natural resources related affairs in Turkey.	The Ministry will be a member of the PSC and involved as appropriate in the delivery of the project	The Ministry will be a member of PSC and TA provider	PSC member
Ministry of Agriculture and Forestry (MoAF)	Ministry of Agriculture and Forestry (MoAF) is a government ministry office of the Republic of Turkey, responsible for food, agriculture and livestock in Turkey	MoAF will be a key project partner, a member of the PSC and will work closely with TUBITAK to implement the project in its support of SMEs.	MoAF will be a member of the PSC giving a special attention to the land degradation related project activities	Member of the PSC and TA provider.
Middle East Industry and Trade Centre (OSTIM)	OST?M is an SME city with international brand value as a solution centre for meeting the national needs in which more than 6,200 enterprises and more than 60,000 employees operate in 17 sectors and 139 business lines.	OSTIM will be a member of the PSC and involved as appropriate in the delivery of the project	OSTIM will be a member of PSC and TA provider	Official partner
Ar?elik A.?	Ar?elik A.?. is a household appliances manufacturer from Turkey. The Company engages in the production and marketing of durable goods, components, consumer electronics and after-sale services.	Ar?elik A.?. will be a member of the PSC and the private sector representatives and involved as appropriate in the delivery of the project	Ar?elik A.?. will be a member of PSC, TA provider, and potential funding provider	Service provider

Stakeholder group	Description of a stakeholder	Nature & Extent of interest	Nature & Extent of Influence	Potential Role in the Project
DCUBE Circular Economy Cooperative	DCube is a scientific R&D and social development cooperative which aims to raise awareness by using the circular economy model for sustainable development, capacity building, solution design and development of related policies.	DCube will be a member of the PSC and involved as appropriate in the delivery of the project	DCube will be a member of the PSC and TA and service provider	Service provider
Middle East Technical University (METU)	METU is a public technical university located in Ankara, Turkey. The university puts special emphasis on research and education in engineering and natural sciences, offering about 40 undergraduate programs within 5 faculties, and 97 masters and 62 doctorate programs within 5 graduate schools.	METU will be a service provider and technical assistance provider to various phases of the project implementation	METU will closely cooperate with the proposed project and will provide technical assistance	Service provider
?zye?in University	?zye?in University is a private, non-profit university located in Istanbul.	?zye?in University will be a service provider and technical assistance provider to various phases of the project implementation	?zye?in University will closely cooperate with the proposed project and will provide technical assistance	Service provider
Gender related organisations	Interested associations relevant for the gender-balanced entrepreneurship development in Turkey	Relevant women entrepreneurs, associations and gender focal points will be invited to participate in project implementation; for example, whether the project will have adequately addressed gender issues and mainstreaming.	Gender related associations will be consulted in the project design group in order to secure efficient gender mainstreaming within the project	Supporting entities that will enable efficient project development and implementation

Stakeholder group	Description of a stakeholder	Nature & Extent of interest	Nature & Extent of Influence	Potential Role in the Project
Winning GEF 5 GCIP Alumni	Start-ups that received support in the first phase of the project.	Winning alumni will be invited to give their insight in order of better understanding of needs for the second phase of the project	Winning alumni have insight from the beneficiary point of view which would be useful in the project development phase of the proposed project.	Provided inputs on project design
PFAN	The Private Financing Advisory Network (PFAN) is a multilateral public private. It identifies and nurtures promising, innovative clean and renewable energy projects by bridging the gap between investors, clean energy entrepreneurs and project developers.	PFAN is seeking projecs and businesses to support in accessing financing.	PFAN could be used to provide financing facilitation services. It can help the start-ups develop their ideas into an investment-ready proposal, introduce those to investors, and facilitate deal closure. PFAN has already supported GCIP alumni, including one from Turkey.	Provided inputs for the project design and will contribute to the execution
The Technology Bank	International Science, Technology and Innovation Centre based in Turkey dedicated to LDCs which will also serve as a ?technology bank? to help LDCs access and utilize critical technologies.	The Technology Bank has been established at TUBITAK premises and present a good cooperation opportunity with the GCIP.	The Technology Bank could potentially exploit GCIP innovation technologies and implement them in LDCs.	Potential project partner for the project indirect dissemination of the GCIP innovative technologies

Stakeholder group	Description of a stakeholder	Nature & Extent of interest	Nature & Extent of Influence	Potential Role in the Project
Universities and institutes	All relevant education institutions that would like to participate in the GCIP process	The project will aim to work closely with Turkish universities to encourage participation and increase awareness among university students	Universities are one of the target groups for the GCIP accelerator	Potential project participants and valuable insight contributors
Venture capitalist, angel networks and other potential financing sources for start-ups	All relevant stakeholders that offer an opportunity to finance start-ups both from public and private sector	Potential start-up financing stakeholders will be invited to discuss the requirements that start-ups need to fulfil to be eligible for financing	The financing stakeholders have interest to invest in the GCIP-supported projects	The involvement of this target group of stakeholders is essential for successful realisation of the GCIP post-acceleration phase

Select what role civil society will play in the project:

Consulted only;

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.

Relevance and background

156. Gender equality is a fundamental human right. While the world has achieved progress towards gender equality and women?s empowerment, women continue to suffer discrimination and violence in every part 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. Enhancing the role of women as drivers of poverty reduction, promoting female investors and entrepreneurs, and recognizing the link between gender equality and safeguarding the environment all promote inclusive and sustainable industrialization, and directly contribute to SDG 9 on industry, innovation and infrastructure, and to SDG 5 on gender equality.

157.Gender equality enhances economic growth, reduces household poverty and enhances human development whilst female entrepreneurship can directly contribute to women?s economic empowerment. Engaging a nation?s entire population to support growth is an important development strategy for a country and the benefits of supporting women in the economy (and in entrepreneurship) has particular appeal in countries where female inclusion in the economy is unequal.

158. In Turkey, female owned businesses represent up to 60 percent of MSMEs, although the figure is likely to be higher if informal and very new businesses are included. A recent World Bank report noted that past initiatives to support women entrepreneurs in Turkey had not fared as well as they could have, mainly due to inadequate targeting. The study provides a number of recommendations for targeting women entrepreneurs in different market segments (?necessity? and ?growth-oriented?) and highlights that ?growth-oriented? entrepreneurs are an underserved segment. The findings of the study were used to inform the design of a women?s entrepreneurship pillar under a Trust Fund from SECO. The potential features of programmes targeting women include: TA for designing new/improved financial products for women entrepreneurs; TA to develop BDS modules; and TA to develop an instrument to identify growth-oriented women entrepreneurs.

159. The dialogue on gender and cleantech is shifting from women being identified as part of the vulnerable groups, to also becoming key agents of change as consumers, entrepreneurs, distributors and decision makers across the value chain. Women and their organization have the potential to play a critical role in contributing to the SDGs. A large number of women are engaged in small and medium sized enterprises, with a female ownership representing 30-70% of all SMEs in emerging markets (IFC and McKinsey, 2011), nevertheless the enterprises undertaken by women tend to be concentrated in a relatively narrow range of activities. They are often very energy intensive, rely on biomass fuels and have disproportionately low rates of return compared to the activities undertaken by men.

160. Nonetheless, networks of women entrepreneurs could be leveraged to promote new and clean technologies and could provide a springboard off which to sell new energy services and cleantech products.

161. The influence of women is also important since women are responsible for or influence 80 % of buying decisions worldwide, and control US$ 20 trillion in global spending. Thus they play a key role in spending decision-making in the home. It is projected that by 2028 women will control nearly 75 % of discretionary spending worldwide (Ernst & Young, 2012, cited in SEforALL 2017b). Furthermore,

since women are close to their customers and know local circumstances, women entrepreneurs have enormous potential to manage supply chains and acquire new creditworthy customers in rural areas, lowering customer acquisition costs (Glemarec et al., 2016). New research from Ernst & Young also shows that female entrepreneurs are powerful job creators, even outperforming their male counterparts on this front. As a result, a number of energy enterprises have begun to employ women as sales representatives in order to reach outlying energy markets. (UN 2018)

162. The Global Cleantech Innovation Programme (GCIP) overall, and this national child project, have been identified as a project with ?significant gender mainstreaming? impact according to the Gender Marker used in categorizing UNIDO projects. It is expected to significantly contribute to gender equality and/or women?s empowerment. These projects possess multiple entry-points for gender mainstreaming activities and/or affirmative action, but do not explicitly state gender equality and/ or women?s empowerment as a principal objective. Rather, gender equality and/or women?s empowerment is a secondary objective and the project has corresponding outputs and indicators that measure how gender equality will be advanced.

163. Work on gender will be governed by the UNIDO Policy on Gender Equality and the Empowerment of Women (2019) and the UNIDO Strategy for Gender Equality and the Empowerment of Women, 2020-2023 as well as the GEF gender policy. GCIP projects are aligned with GEF?s focal area strategy under climate change mitigation and GEF?s Policy on Gender Mainstreaming. In the phase the project promoted gender mainstreaming with the intention to create more opportunities for women entrepreneurs. The 10% target set for recruiting female trainers, mentors & judges and promoting women entrepreneurs was substantially exceeded. During 2014-2017, women held 18%-32% team leader positions. Social inclusiveness was bolstered through the delivery of a ?Women-Led Entrepreneur Award? and ?Young-Led Entrepreneur Award? in the 2015 cycle.

164. The overall objective of the project is to catalyse transformational solutions to environmental challenges by fostering clean technology innovation and entrepreneurship ecosystem for SMEs and start-ups. It has been identified as ?significant gender mainstreaming? project according to the gender categories. As such, the project will enable women to access income generating activities and capital to develop their innovations through targeted awareness raising and tailored capacity building.

165. The project will actively seek to make gender a key dimension of project execution, including conducting a gender analysis. Based on this analysis, gender mainstreaming of other project outputs and activities, notably in awareness raising and capacity building, will take place. The project will pay special attention to encourage women to participate in the programme; to this end, the project will develop gender disaggregated indicators at the project inception phase to consistently measure the impact of the project on gender dimensions in Turkey, for example percentage of women participating in various trainings/events, percentage of women applicants, etc.

Gender mainstreaming approach

166. 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 Turkey 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).

167. UNIDO?s Guide on Gender Mainstreaming in Energy and Climate Change Projects, as well as a Draft Gender Mainstreaming Action Plan developed in the framework of this project (Annex I) will serve as a framework for the project implementation, as to ensure that both UNIDO and GEF requirements are fulfilled. Based on the guidelines, attention will be paid to:

a 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;

b Consideration of gender dimensions in all decision-making processes (e.g. efforts to achieve gender balance/representation in such processes), including PSC meetings;

c Collection of gender-disaggregated data;

d 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.

e A gender analysis was carried out and a Gender Mainstreaming Action Plan developed (Annex I) in the framework of this project, which also influenced the ultimate project design. In the project design UNIDO has ensured that the gender dimensions are considered, and that the project log-frame reflects key gender dimensions in the respective outputs, activities, indicators and targets. Also, a review of previous GCIP projects enabled insights into how the GCIP Turkey can best contribute to the gender equality and empowerment of women. The full Gender Analysis Report including the Gender Action Plan is available in Annex J .

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

168. Private Sector Engagement is fundamental in this project and it will heavily rely on it. Private sector will be involved in crucial phases of the project. The capacity building activities will include engagement from public sector, universities, research centers, and private sector. Preferably, the private sector will get a significant share in trained GCIP mentors and judges, thus making them one of the GEF 7 GCIP implementors and direct project partners. GCIP aims to leverage private sector financing to support the promising cleantech solutions. Private sector stakeholders are already project partners of the TUBITAK?s 1512 grant scheme, alongside universities and commercial banks.

169. GEF 7 GCIP puts strong emphasis to involvement of private sector in undertaking envisaged project activities. As elaborated in previous sections, the GEF 7 GCIP narrative is being implemented in the proposed project. The GEF 7 GCIP aims to engage with private sector through the impact & challenge approach. This approach will allow for specific challenges/categories in acceleration phase to be identified and tailored according to private sector needs. This will result in putting a demand which will incentivise innovators to focus towards solving challenges. Ultimately, this will lower costs for investment seeking activities and increase potential for successful commercialisation of cleantech innovators.

170. The project will seek to attract potential start-ups and other SME?s to participate in the competition and post-competition phase of the project, to become GCIP Alumni. 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. The baseline section contains information on venture capital sources, many of which are private sector stakeholders. Within the project, public and private finance support is expected in the concept and product development phases. Ideally, the private funding would fully replace public support in the commercialisation phase.

171. 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 contribute to the project in terms of binding Alumni with the private investment sector on the international level.

172.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.

173. 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.

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 4 Risk Matrix

Risks:	Rating:	Mitigation:
Limited interest shown by the public, and industry, for the competition and accelerator programme leads to too few applications or applications of low quality, especially in the initial pilot year	Low	The GCIP Accelerator Programme and Competition, first implemented in Turkey in 2014, was highly successful and received a high number of applications. The proposed project will leverage on this existing success and awareness, as well as that of other countries under the GCIP to promote the benefits of the programme and raise awareness.
Lack of political support for innovative clean technologies	Low	Turkey has made significant strides in building up its innovation capacities, and innovation and entrepreneurship are high in the governmental agenda. Supreme Council for Science and Technology (SCST) set the GERD goal (Gross Domestic Expenditure on R&D) to reach 3% GDP by 2023.[1] Within Component 3, the project will focus on strengthening the Policy and institutional framework to promote clean technology innovations and entrepreneurship together with the Government of Turkey. As an integral part of the project will be advocacy and awareness raising activities in order to support a conducive policy and regulatory environment of Turkish innovation and entrepreneurship ecosystem. It should be noted that the Ministry of Industry and Technology has outlined innovation in cleantech as one of the focus points of the industrial strategy, and TUBITAK, the Scientific and Technical Research Council, also treats it as a core innovation track. The cooperation between UNIDO and TUBITAK will continute to mitigate this risk.

Risk of enabling environment not being in place to support the cleantech ech sector	Low	Whilst still well under the global average, the country shows some evidence for commercialised cleantech innovation, mainly attributable to its cleantech commodity imports. These imports are most likely explainedby the increase in renewable energy capacity that Turkey is experiencing. The project will cinduct a comprehensive policy gap analyis which will result in policy recommendations.
Lack of interest by mentors and voluntary trainers	Low	The GCIP for SMEs in Turkey already has a large database of mentors from the first two cycles of the Accelerator Programme and Competition, and this is expected to continue to grow. The proposed project will leverage on this, as well as the existing mentor pool of TUBITAK.
Lack of absorptive capacity by the acceleration service providers	Medium	Capacity building of the acceleration service providers will be an ongoing process throughout the project implementation period to ensure that the staff is comprehensively trained and sustainability of the programme is ensured. As TUBITAK will be closely involved in the process through their existing support programme to the incubators, their experience and support will be leveraged.
Lack of effective coordination between various project partners	Low	A proper coordination will be sought through the Project Steering Committee and ad-hoc working groups will be established if necessary.
Incentive and financial support system are insufficient	Low	Linkages to other financing schemes for clean energy technology promotion and innovation programmes will be established as early as possible. In particular, the proposed project will facilitate applications of entrepreneurs to existing grant programs, such as those offered by TUBITAK. Exposure of winners, runners-up and finalists to regional and global investors and partners will be ensured.
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.[2] This project will focus on comprehensive post-competition acceleration, by linking Alumni with potential investors and by ?derisking? them for financial institutions. Additionally, National Alumni Network will integrate SME associations and national agencies in order to share knowledge, ideas and from working partnerships be highly recognized by national and international investors. 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. To safeguard against climate change risks, the screening of technologies to be supported by the GCIP Turkey will include an assessment of the climate risks with a time horizon of 30 years, and where a risk is identified, it will be necessary for the entrepreneur to propose suitable adaptation or management measures. The GIZ?s Climate Expert Tool could be used as a tool available to entrepreneurs in that context.
Environmental Risk	Low	It is recognized that some potential clean technologies may have significant environmental risks such as the use of block chain, which could have major GHG emissions associated with it unless powered entirely by renewable energy, which is difficult to ensure. Similarly, technologies related to storage, in particular, can have harmful environmental impacts if not mitigated or managed effectively. Clear environmental safeguarding measures are proposed that include any cleantech innovation applying for support will need to meet strict E&S criteria and be subject to stringent screening by an expert to ensure that any related impacts are mitigated appropriately. An Environmental and Social Management Plan (ESMP) has been prepared (Annex K).

Climate Risk Screening: Projected climate trends and likelihood of hazards, impacting project outcomes

174 Turkey is located between 36? ? 42? north latitude and 26? ? 45? east longitude in the northern hemisphere, with a coastal border of diverse waters: the Black Sea in the north, the Aegean Sea in the west and the Mediterranean Sea in the South. This places Turkey in a mid-latitude climate and subtropical climate zones, which also derive micro-climatic features from the country?s diverse topographical characteristics.

175 The climate zones observed in Turkey are the Mediterranean climate, where summers are hot and dry and the winters are mild and rainy; the Black Sea climate where summers are cool and winters are warm in the coastal area and snowy and cold at the higher parts; the Terrestrial climate where temperature differences between summer and winter and day and night are large, and the Marmara climate showing the characteristics of a climate transition between the terrestrial, Black Sea and Mediterranean climates.

175 Turkey has witnessed progressive economic and population growth, with rising income levels and continued reliance on a carbon-intensive fuel mix in tandem with GHG emissions rise. Climate impacts are already being felt in the country: challenges relating to water shortages and security, sea-level rise, droughts and floods. According to Climate Action Tracker, Turkey?s commitments to GHG emission reduction are inconsistent with international commitments, and its COVID?19 stimulus efforts focus on ensuring employment, reviving export and production-oriented growth, as opposed to green recovery. Climate change impacts, therefore, are expected to bolster climate-sensitive sectors such as agriculture ? concomitantly implicating vulnerable population subsects.

176 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. Mainstreaming climate risks in project design takes cognizance of both GEF STAP guidance, and also Turkey?s Climate Change Strategy, running from 2010 ? 2023.

Observed and projected temperature changes

177 According to Turkey?s Sixth National Communication to the UNFCCC, Turkey?s climate is under the influence of Azores High Pressure Center (HPC) usually from the southwest and causing an increase in temperature in the summer and the Basra Low Pressure Center (LPC) from the southeast and with a hot and without precipitation season in summer. In the winter, while a rainy climate is observed with the effect of Iceland LPC and Mediterranean LPC systems, a cold and dry season is experienced when under the effect of Siberia HPC.

178 When the temperature change between the years of 1970 ? 2014 in Turkey was examined, it was seen the average temperature which was 12.70?C between 1970 to 1978 increased to 13.80?C between 2006-2012. When the temperature distribution data is analyzed, the highest average temperature is observed in the Eastern Mediterranean and the lowest average temperature is observed in the Northeast. This ties in with general agreement of the scientific community that the Mediterranean region will witness higher-than-average warming due to climate change.

Precipitation trends

179 According to available precipitation distribution data available, the northeast of the Black Sea is the region with the most precipitation with 2100?2200 mm, the Central Anatolia Region as well as Igdir and Sanliurfa are the regions with the least precipitation with 260?480 mm. The total annual average precipitation was 635.50 mm between 2006 and 2014 in Turkey. Numerous climate simulation studies carried out on Turkey (including at sub-regional levels, and trans-boundary regions), temperature increase leading to higher levels of evapotranspiration is expected to cause decrease in annual precipitation.

180 When looking at precipitation projections, according to HadGEM2-ES modelling in the first period (2016-2040), it would be an increase about 10% 40% in precipitation during the winter months in the coast part of the Aegean, Central Black Sea and East Anatolia Regions. Conversely, other two models show an increase up to 20% in precipitation in interior and north part of country and a decrease in the coast part of the Aegean. Unfortunately, it is expected to decrease about 20% in the precipitation in the spring in a large part of the country. Therefore, the data not only draws attention to decreases in precipitation rates but also to the irregularity introduced by climate impacts in the precipitation regime of the country.

Natural and climate-induced hazards

181 Turkey is among the most exposed countries to disaster risk in the world due to its tectonic, seismic, topographic and climactic characteristics. Of these risks, naturally-induced seismic risk is the most critical, as Turkey experiences on average one earthquake with a magnitude of 5-6 every year. The annual average population effected by earthquakes in Turkey is about 1 million and the annual affected GDP is US $ 10 billion, according to a 2019 World Bank study. Climate impacts are expected to worsen the following types of hazards:

182 Floods: Although less documented, floods are frequent events that cause localized losses Climate change induced events faced by the country in the last decade entail more intense precipitation increasing the risks of fluvial and pluvial flooding, and rising sea levels, increasing the risks of flooding in low-lying areas of river deltas and coastal cities. In this context, the most vulnerable sectors are agriculture, electricity, gas, steam and air conditioning supply, forestry, manufacturing as well as restrictive habitats and sensitive ecosystems. The results of the *The Effect of Climate Change on Water Resources Project* of the Ministry of Forestry and Water Affairs reveal the negative trend in river discharges, causing, among other things, problems related to water availability, water quality and affect the intensity of droughts and floods.

183 Droughts: Increased intensity and duration of droughts and hot spells in Turkey, and indeed the greater Mediterranean region, are leading to increased water stress and food insecurity. This is particularly observed in the southern region of the country, as an EBRD study demonstrates: there are trends of decline in agricultural productivity, with the consequence that agribusinesses are faced with declining profits and increased operational costs. Additionally, increase in water stress has become particularly obvious in Gediz and Sakarya basins in the west and Euphrates and Tigris in the east.

Coastal areas

184 Low-lying areas on Turkey?s substantial coastline are at risk from coastal inundation, tidal range and storm surge, as well as saline intrusion ? as documented by CGIAR. Effects on the private sector, according to the EBRD adaptation study on Turkey are as follows: flooding of low-lying areas of the river deltas and coastal cities, resulting in damage to physical assets and disruption to operations. Insurance premiums may increase or insurance may become unavailable and the value of exposed assets decreases. Disruption to agricultural activities in the low-lying parts of the coastal plains. Damage to historical and cultural sites along the Bosphorous Strait, including Dolmabah?e Palace and mosque, Beylerbeyi Palace and Ortak?y Mosque, which will have detrimental impacts on the tourism industry.

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**

? promote the acceleration of high-impact clean technology innovation for large-scale deployment and green job creation; ? implement national cleantech innovation competition-based accelerators;	? Participation at events due to heat stress/flooding ? Technologies supported, increase the likelihood of adverse effects that exacerbate climate risk ? Failure of businesses supported by GCIP due to risk from hazards within the project area.	Moderate	? 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. ? 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. ? GIZ?s Climate Expert Tool 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.
? 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;	? In-country Financing diluted or diverted to disaster and resilience	Low	? Introduce new categories of technologies to address some of the prevailing climate risks ? Facilitate the connectivity of ecosystems and greater opportunities for scaling-up of innovations across different countries and globally through the global programme; ? Raise awareness with PMUs to assess climate risk on an annual basis ? Increase impact tracking and monitoring of Climate Risk profile through tools like ?Think Hazard?

? 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;	? diverted human and political resources and stakeholder attention to disaster and resilience measures	Low	? Enhance visibility, credibility and understanding of identified solutions to the local political community through the stakeholder engagement plan and communications plan; ? Support policy roadmaps that anticipate the effects of possible climate risk factors through project outcome 2. ? 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;
? Production, scale up and deployment of cleantech innovations	? Floods, fires and droughts endangering cleantech production infrastructure, deployment and disbursement	Moderate	? 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. A South-East European Multi-hazard Early Warning Advisory System is in place in Turkey, but serious capacity gaps remain in the delivery of timely information.

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

185 Potential responses to the climate risks in the focus sectors, i.e., energy, water and agriculture, of the project in Turkey 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 4 COVID-19 RISK ANALYSIS

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

TABLE 5 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 Turkey 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 Turkey 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 Turkey curriculum so that the entrepreneurs are fully informed of the market and policy trends

Table 5 COVID-19 Risk Analysis

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

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Table 6 COVID-19 Risk Opportunity Analysis

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[1] https://www.innovationpolicyplatform.org/content/turkey
[2] https://www.unido.org/our-focus/safeguarding-environment/clean-energy-access-productive-use/climate-policies-and-networks/global-cleantech-innovation-programme

[3] Under the UNFCCC ? Republic of Turkey, Ministry of Environment and Urbanization ? Sixth National Communication of Turkey, prepared under the project titled ? Preparation of National Communications on Climate Change, conducted by the Scientific and Technological Research Council of Turkey ? Marmara Research Center (TUBITAK-MRC).
[4] *ibid.*
[5] GEF and UN Environment. (2019) *STAP guidance on climate risk screening.*
[6] *ibid.*
[7] Demircan, M., Hudaverdi, G., Eskioglu, O., Aravaci, H., and Coskun, M. ?Climate Change Projections for Turkey: Three Models and Two Scenarios? in *Turkish Journal of Water Science and Management.*
[8] *Ibid.*
[9] *Ibid.*
[10] *Ibid.*
[11] The World Bank. (2019) *Building Resilience in Turkey: Quantifying Climate and Disaster Risks to Critical Infrastructure, Lifelines and Agriculture in Turkey ? New Approaches*.
[12] Alcamo, Joseph , Fl?rke, Martina and M?rker, Michael (2007) 'Future long-term changes in global water resources driven by socio-economic and climatic changes', Hydrological Sciences Journal
[13] 2013, International Finance Corporation and European Bank for Reconstruction and Development.
[14] 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.

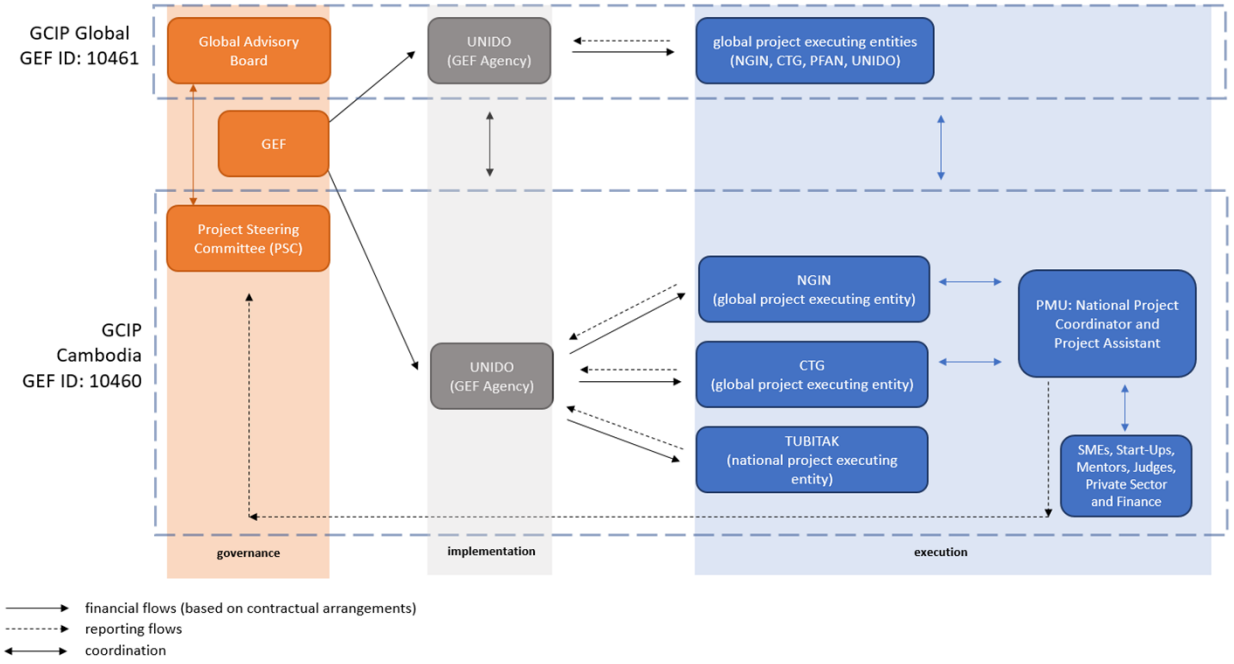

Figure 8: Relationships between project stakeholders under the framework of coordination

Implementation:

186 UNIDO as the GEF Agency will be responsible for the implementation of the GCIP Turkey, 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

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

188. 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. TUBITAK 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.

189. The global PEEs, that will support the execution of GCIP Turkey, are PFAN (Private Financing Advisory Network), Network for Global Innovation (NGIN), and Cleantech Group (CTG). The global PEEs will perform several activities - some as a service to the GCIP Turkey (i.e., covered from the GCIP Global budget) and some covered from the GCIP Turkey budget - as specified in details in the tables outlining "Activities and responsibilities" in the project description. NGIN and CTG 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.

190. With regard to GCIP Turkey, 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 TUBITAK, as well as training and workshops provided to TUBITAK to strengthen its capacity to adopt and operationalize the tools and guidelines developed.

Project Steering Committee (PSC)

191. 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 Industry and Technology (MOIT) and including representatives from key project partners. TUBITAK will be the secretariat to the project steering committee.

192. 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). TUBITAK forms the secretariat of and reports to the PSC, and it is not a voting member of the PSC.

Global Advisory Board

193. 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

194. This project will be conducted in coordination with ongoing GEF projects in Turkey, 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 program will have synergies with the Private Financing Advisory Network (PFAN), a multilateral public private partnership initiated by the Climate Technology Initiative and the United Nations Framework Convention on Climate Change (UNFCCC) that identifies and nurtures promising, innovative clean and renewable energy projects by bridging the gap between investors, clean energy entrepreneurs and project developers. In addition, the program will have synergies with Deutsche Gesellschaft f?r Internationale Zusammenarbeit (GIZ) GmbH?s iniatives such as ?Beyond Recovery of SMEs through Digitalization (Digital Way)?, ?Employability, Entrepreneurship and Social Cohesion for Syrian and Turkish Youth - in response to the Syria Crisis Project?, ?I Can Manage My Business?, which support entrepreneurship and help build SMEs? management skills, knowledge, attitudes and confidence to maximise the potential of their business or the benefit of their enterprises and that of the wider economy.

Coordination within Turkey

195. The proposed project will be executed primarily by TUBITAK, the national project executing entity. The roles and responsibilities of UNIDO and TUBITAK as the implementing and executing entity respectively are described in detail in the GEF Guidelines on the Project and Programme Cycle Policy. TUBITAK will lead the Project Management Unit (PMU) which will consist of the technical and operational personnel responsible for the day to day implementation of the project. The PMU will consist of the National Programme Coordinator (NPC), two technical experts (one responsible for project component 1 and the other for project component 2), a knowledge management and information dissemination expert and a gender expert. The PMU will coordinate all project activities being carried out by project national experts and partners and an advisory working group might be established whenever necessary.

196. A Project Steering Committee (PSC) will be established to monitor the project progress, to guide its execution and to support the project in achieving its listed outputs and outcomes. TUBITAK will be represented, but will not chair, the project steering committee. The UNIDO Regional office in Ankara will also nominate a representative to the PSC. The primary roles of the PSC are: (1) to provide overall guidance to the execution of the project; (2) to ensure good coordination among participating agencies and other organizations; and (3) to advise the PMU on response to the emerging issues. The PSC will meet on an annual basis to review and monitor the progress of the project implementation and to approve the work plan for subsequent years. The PSC will consist of representatives of relevant stakeholder groups.

Coordination with UNIDO initiatives:

197. 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 Turkey, e.g. through the participation of Turkish 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.

198. 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 Turkey project will feed into the global programme.

199. The Turkey GCIP Project is a child project under the GCIP Global programme. 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 products

g Communication, advocacy and outreach

h A global community of GCIP stakeholders

i Programme coherence and coordination

Legal Context

200. ?The Government of the Republic of Turkey agrees to apply to the present project, mutatis mutandis, the provisions of the Revised Standard Technical Assistance Agreement concluded between the United Nations and the Specialized Agencies and the Government on 21 October 1965.?

Transfer of assets

201. 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 assesments under relevant conventions from below:

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

a. National Action Plan for Adaptation (NAPA) under LDCF/UNFCCC

b. National Action Program (NAP) under UNCCD

c. ASGM NAP (Artisanal and Small-scale Gold Mining) under Mercury

d. Minamata Initial Assessment (MIA) under Minamata Convention

e. National Biodiversity Strategies and Action Plan (NBSAP) under UNCBD

f. National Communications (NC) under UNFCCC

g. Technology Needs Assessment (TNA) under UNFCCC

h. National Capacity Self-Assessment (NCSA) under UNCBD, UNFCCC, UNCCD

i. National Implementation Plan (NIP) under POPs

j. Poverty Reduction Strategy Paper (PRSP)

k. National Portfolio Formulation Exercise (NPFE) under GEFSEC

l. Biennial Update Report (BUR) under UNFCCC

m. Others

202. The project is consistent with the Paris Agreement and the Intended Nationally Determined Contribution (INDC). Turkey prepared and submitted its INDC in 2016 (UNFCCC, 2016) after COP21 in Paris in 2015. The major measurable highlights in Turkey's INDC, which sets targets for the year 2030, are as follows: up to 21% reduction in GHG emissions compared to the business-as usual (BAU) scenario of the government. This decrease corresponds to have a CO_2 equivalent (CO_2e) emission level of 929 million tonnes (Mt) in 2030, installed capacity of 10 gigawatts (GW) solar power and 16 GW wind power, full utilization of hydro plants which sums up to 36 GW.

203. The project will support the National Climate Change Action Plan (NCCAP) that was finalized in Turkey in July 2011 after undergoing a round of stakeholder reviews and consultations, prior to being adopted by the Government. Mitigation actions being considered under this project are covered under the NCCAP sectoral plans for energy, transport and building sectors among others. It will also support the National Climate Change Strategy Document (NCCSD, 2010-2020) that addresses policies related to emissions reductions, adaptation, finance and technology.

204. The Seventh National Communication of Turkey was submitted to the UNFCCC and published in 2018. The document showcases the importance of reducing the GHG emissions from the GCIP relevant sectors. The National Communication scenario projects an increase in GHG emissions of up to three times compared to year 2015 in the sectors such as industry, agriculture, and energy. Additionally, the National Communication mentions the GEF 5 GCIP as the one of the flagship projects in the domain of the industry development by shifting it from energy intensive to clean and sustainable.[1]The proposed project?s outputs are also in line with the National Energy Efficiency Strategy for Turkey (2004) that aims to define measures and a roadmap for the improvement of energy efficiency in the industrial, residential, transport and municipal sectors. The Strategy?s focus on supporting policy and institutional frameworks and improving the legislative environment is similarly consistent with Component 3, Output 3.1.1. of the proposed project.

205. Turkey announced NEEAP (National Energy Efficiency Action Plan) in Official Gazette 30289 (2018) for the period 2017-2023 targeting energy savings in buildings and services, energy, transport, industry and technology and agriculture. The NEEAP is in line with the Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency.[2] The Action Plan aims to save 23.9 mtoe from Turkey?s primary energy consumption. According to the NEEAP, within domain of Industry and Technology Sector, the proposed project is in line with action codes: 1) S3 ? Improve efficiency in industry, which aims to increase the R&D support in energy efficiency projects and companies and 2) S5 ? Support Efficiency Improvement Projects in Industry, in order to support processes and projects with high potential for savings. [3]

206. The proposed project is in line with The Tenth Development Plan ? which aims at advancing the society to high prosperity levels. It has a broad focus at economic and social development processes through a multi-dimensional view and a participatory approach. In the energy sector, the Plan focuses on high value-added products via developing technological infrastructure and R&D activities for clean technologies and green products with high value added. Therefore, enabling the efficient use of natural resources and prevention of environmental degradation.[4]

207. The proposed project is in line with Turkish Industrial Strategy Document (2015-2018). The Strategy indicates transformation to a greener and more competitive industry structure as one of the 3 strategic goals within the context of the Strategy. It is stated that a special importance has s been given to SMEs in order to increase their competitive power and raise their contribution to economic growth, since they constitute the majority of the manufacturing industry. With the support of the new policies and measures, low carbon development measures can be implemented also by SMEs in many sectors.

208. Today, the development of renewable energy sources and the promotion of energy efficiency measures are two of the priorities of Turkish energy policy, supporting a sustainable industrial development under environmental considerations. The intention of Turkey?s REAP (Renewable Energy Action Plan) is to have at least 20% of renewable energy sources for its general energy consumption in 2023. This project is fully in line with National REAP targeting the reduction of greenhouse gas emissions based on clean energy from renewable energy sources in amount of 21.7 Mtoe.[5]

209. The project is also in line with the ?Supporting Sustainable Energy Project Implementations of SMEs? implemented by General Directorate for Development and Support of SMEs (KOSGEB). The aim

of the Strategy was provision of support for SMEs that implement sustainable energy projects that reduce GHG emissions.

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[1] https://unfccc.int/sites/default/files/resource/496715_Turkey-NC7-1-7th%20National%20Communication%20of%20Turkey.pdf

[2] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32012L0027

[3] https://www.ebrd.com/news/2018/ebrd-welcomes-turkeys-national-energy-efficiency-action-plan.html

[4] https://policy.asiapacificenergy.org/node/3168

[5] https://www.iea.org/policiesandmeasures/pams/turkey/name-22856-en.php

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.

210. 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 2011, and this dimension has proven to be of benefit to all stakeholders. Building on the lessons learned and requests received, UNIDO is currently designing a global platform that will allow knowledge management and coordination in a more systematic manner. This knowledge management component will also be facilitating South-South and North-South collaboration in policies, structures and frameworks promoting innovations in sustainable energy, water and waste management, through captured by the interaction between the respective Project Steering Committees and PMUs and national counterparts in each of the GCIP partner countries. Establishment of the National Alumni Network will be the main tool for KM in this project. The network will archive all the lessons learned as well any other outcomes relevant for the GEF 7 GCIP. Reports, conclusions and recommendations will be shared on the national and international level.

211. Based on the evaluations from previous GCIP in other countries, a global platform where programme information, challenges, lesson learned and successful case studies could be shared has been recommended. As such, this project takes into consideration, the lessons learned from other global GCIP projects and the feedback from stakeholders to enhance the overall knowledge management. In this regard, a GCIP web platform will be created to serve as a basis for efficient national and international cleantech network collaboration.

212. Lessons learned, best examples, recommendations, etc. will be shared through workshops and reports. It is envisaged that workshops will occur annually after each competition and post-competition phase cycle. Knowledge presented at workshops will be followed up by annual reports. These reports would account in all relevant conclusions drawn from the workshops.

213. This practice will have a significant contribution to a paradigm-shift to the less carbon-intensive environment on the country level and beyond. The KM activities will help to better understand how to adjust the project processes over time. Due to the nature of the project, it will be crucial to monitor and report project progress as the project successfulness substantially depends on the successful acceleration of the innovative ideas which managed to mobilize private sector funding. The KM outputs will significantly increase chances of successful implementation of innovative and environmentally sound business practices and technologies.

TABLE 7 PRELIMINARY TIMELINE FOR KNOWLEDGE MANAGEMENT ACTIVITIES

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 Turkey; 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 Turkey 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

214. 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.

215. 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 Turkey 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, and a Risk Mitigation Plan, Budget and Co-financing requirements.

216. The technical review report will be submitted to UNIDO, and thus will also fall under their responsibility.

217. The GCIP methodology for impact assessment will be developed by the GCIP Global and shared with the GCIP Turkey for review and application along with monitoring and reporting through the project implementation report, mid-term review and independent technical review. 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, energy savings, increased renewable energy capacity and investment leveraged. The data will be sex-disaggregated and gender-sensitive, and youth participation will also be recorded.

218. 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 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. 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.

Table 8 M&E activities and budget estimations.

Type of M&E activity	Responsible Parties	Time Frame	Indicative Cost (US$)	
			GEF	UNIDO & Project Partners (in-kind)

Annual progress report, including reporting on GAP	Executing entity, PMU	Yearly	26,000	24,000
External MTR Process - complete with all preparation and data packaging	UNIDO, External Consultants	At mid-point of project implementation	26,025	24,000
Project Terminal Evaluation	UNIDO	At end of project implementation	29,459	20,000
TOTAL INDICATIVE COST			81,484	68,000

10. Benefits

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

219 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:

1. 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.

2. 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.

3. 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.

4. 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.

5. 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/Approval	MTR	TE
	Medium/Moderate		

Measures to address identified risks and impacts

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

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 K.

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
Annex K 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).

<table>
<tr><th>Results</th><th>Indicators</th><th>Baseline</th><th>Targets</th><th>Means of Verification</th><th>Assumptions and Risks</th></tr>
<tr><td colspan="6">GEF 7 Core indicators</td></tr>
<tr><td colspan="6">Greenhouse gas emissions mitigated (metric tons of carbon dioxide equivalent)</td></tr>
<tr><td>Sub indicator 2: Emissions avoided</td><td rowspan="2">Tonnes of CO2 avoided</td><td rowspan="2">0</td><td rowspan="2">180,000 to 360,000 tCO2eq of direct GHG emission savings and 900,000-1,800,000 tCO2eq of indirect GHG emission savings at the end of project implementation</td><td rowspan="2">Project progress reports

Final independent project evaluation report

GEF Tracking Tools

Database and records maintained during and after project completion</td><td>SMEs and Start-ups are committed to the CleanTech approach</td></tr>
<tr><td>Contextual sub-indicators</td><td>Government of Turkey remains committed to the CleanTech approach

SMEs perform at target level of emissions reductions</td></tr>
</table>

Direct and indirect beneficiaries dissagregated by gender	Total # of beneficiaries # of SMEs/Startups supported (of which female-owned) # of cleantech experts trained and certified # of participants in cleantech accelerators	0	National cleantech ecosystem established to promote SMES within Turkey. 1730 beneficiaries (30% women in the first year, 35% in the 2nd and 3rd year, and 40% by year five) consisting of: - 100 enterprises identified for pre-incubation support (see targets described above) - 30 cleantech experts identified and trained (judges, mentors and coaches (at least 35% women) 1600 national and regional cleantech participants 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)	Project progress reports Final independent project evaluation report GEF Tracking Tools Database and records maintained during and after project completion	Adequate participation is possible based on eligible potential beneficiaries
Results	**Indicators**	**Baseline**	**Targets**	**Means of Verification**	**Assumptions and Risks**

Nurture the commercialisation of clean technologies in Turkey, partnering clean technology entrepreneurs with the relevant support services and capital required for upscale and growth as well as contribute to a reduction in GHG emissions.	National cleantech ecosystem to support competition-based accelerators and cleantech ecosystem # SMEs/startups pursuing innovations in clean technologies (sex-disaggregated for leadership) Successful Cleantech (CT) programmes organized after project completion Additional investment into clean technology innovations due to increased interest in the CT programme # SMEs as members of the national platform (sex-disaggregated) Tonnes of GHG emissions directly or indirectly avoided # new jobs associated with cleantech innovations (sex disaggregated)	Existing pool of relevant start-ups supported by PFAN and other relevant cleantech service providers in Turkey Weak clean technology innovations ecosystem Limited investments in innovative clean technology, especially by SMEs Data on emission reductions related to clean technology innovations in SMEs not available Limited numbers	National cleantech ecosystem established to promote SMES within Turkey 1730 beneficiaries (30% women in the first year, 35% in the 2nd and 3rd year, and 40% by year five) consisting of: - 100 entrepreneurs/startups accelerated (see targets described above) - 30 cleantech experts identified and trained (judges, mentors and coaches (at least 35% women) 1600 national and regional cleantech participants 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) 180,000 to 360,000 tCO2eq of direct GHG emission savings and 900,000-1,800,000 tCO2eq of indirect GHG emission savings at the end of project implementation	Project progress reports; Final independent project evaluation report; GEF Tracking Tools; Database and records maintained during and after project completion.	Technology innovation, energy productivity and creation of jobs remains the top priority of the Government SMEs and Start-ups are committed to the Cleantech approach; Government of Turkey remains committed to the Cleantech approach.
Component 1 : Transforming early-stage innovative cleantech solutions into commercial enterprises					

Pillar 1: Transforming early-stage innovative cleantech solutions into commercial enterprises					
Outcome 1.1 Early-stage cleantech innovations are accelerated	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.	Limited awareness of cleantech innovations Limited resources for early stage cleantech innovators Limited access for early stage cleantech experts into broader networks No existing certified pool of cleantech experts Limited business and market entry support services available for cleantech SMEs and entrepreneurs	Technical tools and experts are developed, trained and operational to enable the conduct of cleantech accelerators Strengthened market readiness support to start-ups and SMEs through the provision of advanced acceleration services	Criteria used for the identification of potential cleantech experts Project progress and evaluation reports Attendence reports and evidence of accelerator rounds (pictures, newsarticles etc.) Training sessions reports Surveys of experts trained Methodologies, guidelines and tools developed	Continuous support and participation by government, R&D institutions, SMEs and other project partners Sufficient commitment and participation from all project stakeholders involved

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

	hospitality) supported through early stage awareness bulding and outreach	organisations focusing on relevant sectors are organising support for start-ups in Turkey, though capacity is currently insufficient (see baseline table).			Continuous commitment and participation of mentors, judges and coaches
Output 1.1.3. Three (3) cycles of the annual competition-based GCIP Turkey Accelerator are conducted (100 firms in total with atleast 35% of women particiapants)	# of pre-accelerator courses held # pre-accelerator participants per course (gender disaggregated) # GCIP Camboda accelerators held # competition entries, # semi-finalists and finalists (gender-disaggregated) # entrepreneurs identified, coached and promoted during the Cleantech programme (gender disaggregated) #national GCIP forum # semi-finalists and finalists (>35% women participants) # of partners involved that promote GEEW for the outreach # entrepreneurs identified, coached and promoted during the Cleantech programme (>35% women participants) # of trainings targeted at women?s needs Gender responsive presentation material Gender responsive outreach	Limited accelerators in agriculture and industry that lack a specific cleantech focus	3 accelerator rounds conducted 100 firms attend in total (at least 30% women owned, and at least 35% of women in the staff population of the winners) and receive training and networking # of partners involved that promote gender equality and the empowerment of women for the outreach # of trainings targeted at women?s needs Gender responsive presentation material Gender responsive outreach	Project progress and evaluation reports Project documentation Training records ? material and participants Participant feedback on pre-accelerator and accelerator Meeting/forum records	Continuous commitment and participation of mentors, judges and coaches There is a risk that there will not be enough participants available for the accelerators.

Outcome 1.2. Start-ups and SMEs are supported through advanced and gender-responsive business growth and investment facilitation services	Financial mechanism established to provide access to pre-seed and seed support for SMEs and start ups.	Limited pre-seed and seed support for start-ups	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.	# finalised business plans # of firms reaching investment closure # of events and tools contributing to facilitate cleantech learning and collaboration among SMEs and start-ups	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
Output 1.2.1 Targeted business growth support services are provided to selected cleantech enterprises towards commercialization (at least 12 firms with atleast 35% of women participants receive support)	# entrepreneurs participating in support services (gender disaggregated) # targeted support for women-led enterprises # targeted support for products/services that promote gender equality and women?s empowerment	Limited availability of early-stage business growth coaching and capacity building.None	At least 12 firms achieving eligibility criteria to receive business support services	Finalised business plans and progress reports	There is sufficient capacity and technical skills to provide business growth support services Continuous participation of selected SMEs and entrepreneurs

Output 1.2.2 Enterprises are connected to financing opportunities and provided with tipping-point investment facilitation support (At least 12 firms with atleast 35% of women partcipants receive financing for early stage business growth)	# GCIP alumni receiving mentoring and partnership support (networking, introductions etc.) # USD raised for cleantech entrepreneurs (% to women led business) # participants attending forums (gender-disaggregated) # GCIP alumni receiving mentoring and partnership support (gender-disaggregated)	Limited availability of early-stage business growth coaching and capacity building.	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)	Final product verification assessments and prototypes	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
Component 2: Cleantech innovation and entrepreneurship ecosystem (CIEE) strengthening and connectivity					
Pillar 2: Ecosystem building					
Outcome 2.1: The CIEE in Turkey 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 Turkey and national partner institutions Sufficient capacity to undertake policy gap analysis and formulate applicable recommendations Capacity building and training sessions are assumed to accomodate women's needs and schedules

Output 2.1.1. Established national level platform to facilitate peer-learning, information exchange and collaboration (4 alumni networks established (1 per sector, 250 members per network)	# 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	Limited access to entrepreneurial networks	4 alumni networks established (1 per sector, 250 members per network) # partner institutions? staff trained to be able to operate platform and organize competition and accelerator programme (>35% women participants) %/# of stakeholders that 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)	Number of alumni identified and included on the networking mailing list and other coordination tools Number of online tools to facilitate alumni networking	Lack of participation in alumni network

Output 2.1.2 Cleantech innovation and entrepreneurship policies, regulations and recommendations are developed (1 policy report, 1 policy workshop, 1 policy recommendation)	# 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	Limited coordination between stakeholders Limited capacity of stakeholders to sustain cleantech acceleration Limited commercialisation support	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	Project progress reports / project documentation The final project evaluation report Policy documents Meeting minutes and attendance records GCIP Turkey website	Continuous support from the Government and national partner institutions
Output 2.1.3 Linkages, collaboration, and synergies across CIEEs are promote (100 attendees at Global GCIP Forum and 5 additional GCIP Forum events with 100 attendees at each)	#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 (100 attendees at each) At least 2 associations included in the consultations that promote GEEW	Project progress and evaluation reports Meeting notes and participant lists Agreements	Continuous support from Government of Turkey and national partner institutionsContinuous support from the Government and national partner institutions Interest from cleantech innovators and from national and global stakeholders
Component 3: Project Coordination and Coherence					
Pillar 3: Programme coordination and coherence					

Outcome 3.1 Efficiency and sustainability of the GCIP Turkey is ensured through programme coordination and coherence with other GCIP country project	Increased capacity and strengthened partnerships for replication and scale-up of GCIP interventions in Turkey and in the region	Non-existent standards and tools to enable the replication, scale-up and sustainability of cleantech / innovative business ventures	Effective toolkit and skillset in place to enable the replication and scale-up of GCIP interventions	Project progress and evaluation reports Web platform GCIP Theory of Change	Lessons from the Turkey GCIP experience are effectively shared and aligned with learning processes within the global GCIP
Output 3.1.1 The GCIP internal guidelines for project management teams are adapted and implemented by the GCIP Turkey	#Global GCIP methodologies, tools and standards adapted and followed #PEU training sessions attended GCIP Turkey sustainability and exit strategy	N/A	Operational GCIP methodologies, tools and standards adapted and followed for Turkey GCIP Turkey sustainability and exit strategy	Project progress and evaluation reports Web platform	Sufficient commitment and participation by national experts and mentors Continuous support from the Government and national partner institutions

Output 3.1.2 Programme-level knowledge management, communication and advocacy strategy is adapted and implemented by the GCIP Turkey	Gender responsive, knowledge management, communication and advocacy strategy and action plan for GCIP Turkey Awareness raising and marketing material available for the public Awareness raising and marketing material available for entrepreneurs and officials # briefing sessions # press releases # social media activity	No strategy Lack of awareness of cleantech Shortage of effective and good quality public awareness raising and marketing material on cleantech	Gender responsive knowledge management, communication and advocacy strategy and action plan for GCIP Turkey Public awareness raising, marketing and training material developed and adapted for Turkey and made available in printed and electronic format >3 briefing sessions >6 press releases Monthly social media activity	Website and project documents Social media Programmes and attendance lists for regional and international events GCIP	Sufficient commitment and participation by national experts and mentors Continuous support from the Government and national partner institutions
Outcome 3.2 Impacts and progress of the GCIP Turkey are tracked and reported	Systems established for effective project implementation, responsive management and tracking of project results	N/A	Efficient MRV system is in place	MRV reports produced and verified	MRV is undertaken efficiently and in accordance with the Programmatic framework

Output 3.2.1 Project activities are tracked and reported based on the GCIP monitoring and evaluation (M&E) framework, and an external mid-term review is conducted	GCIP Turkey website developed as part of global GCIP web platform # frequent platform users Establishment of the alumni network # active alumni in network # entrepreneurs attending regional and global events # sharing of best practice/experience between GCIP countries and Turkey	No network established	GCIP Turkey website developed as part of global GCIP web platform 100 frequent platform users Alumni network established 50 alumni active in the network (at least 35% women) >9 entrepreneurs attending regional and global events (at least 35% women) >10 examples of sharing of best practice between GCIP Countries and Turkey	Website and project documents Social media Programmes and attendance lists for regional and international events GCIP	Sufficient commitment and participation by national experts and mentors Continuous support from the Government and national partner institutions
	Project-level MRV system established, indicators tracked (incl. GHG emissions) and disaggregated by gender Impact of GCIP tracked according to programme-level guidelines	N/A	MTR report Terminal Evaluation Annual progress reports	MTR report Terminal Evaluation Project completion report Annual progress reports	MRV is undertaken efficiently and effectively; project participants are willing to make adjustments as the MRV findings indicate
	M&E plan for	N/A	M&E plan for Turkey	Project reporting and	Continuou

	GCIP Turkey Progress reports Gender action plan		Progress reports every six months (including progress report on gender action plan and all related gender-responsive targets) ? one of which will serve as mid-term evaluation report halfway through project implementation	project correspondence Global GCIP impact tracking Websites of Global GCIP and Turkey GCIP Project documents	s support from the Governme nt and national partner institution s Sufficient commitme nt and participati on by national experts and mentors
Output 3.2.2. Independent terminal evaluation is conducted	Terminal evaluation report	N/A	Terminal Evaluation report (including evaluation on execution of gender action plan and all related gender dimensions)	Project reporting and project correspondence Global GCIP impact tracking Websites of Global GCIP and Turkey GCIP Project documents	Continuou s support from the Governme nt and national partner institution s Sufficient commitme nt and participati on by national experts and mentors

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

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

	GEF Secretariat Comments ? January 2020	UNIDO response
	Germany	

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

3	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.	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. 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.
4	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.	The full design of the Morocco child project will consider working with GIZ?s project in the country.
	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	UNIDO is in discussion with Climate KIC, which will be a collaborating partner in the project
United States		
	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	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.

	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.	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.
	STAP Comments ? January 2020	**UNIDO Response**
1	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)	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.
2	Adequate presentation of stakeholders engagement is provided throughout the proposal. However, engagement with particular businesses that have experience with Clean-Tech development through organizations such as the World Business Council on Sustainable Development may be appropriate	UNIDO totally agrees with this. In the RCE several private sector stakeholder engagements have been included in the stakeholder engagement plan. This comment was also cascaded across the 10 country child projects where greater engagement with local private sector associations was prioritised.

3	The Global Environmental Benefits from this program are linked to a range of other efforts including the Sustainable Cities program. Hence the project will require coordination between this project and these other efforts. A good review article that can guide on planning and assessing potential benefits of CleanTech is recommended: Thomassen, G. et al. 2019. How to assess the potential of emerging green technologies? Towards a prospective environmental and techno-economic assessment framework. Green Chemistry, 21(18), 4868?4886. https://doi.org/10.1039/C9GC02223F	The project will be systematically coordinated with the Sustainable Cities, E-mobility and Africa Mini-grids Programmes for scaling the pipeline of technologies nurtured by the programme. The principles from the article mentioned will be applied in addition to the impact methodologies developed under the global child project.
4	There is considerable emphasis on scaling based on prior experiences. In this regard, the differential experience between the countries will need to be carefully monitored, particularly with regard to the effective implementation of co-financing arrangements.	Each country project is designed and developed with its unique context in mind while still ensuring that coherence exists in the programmatic approach i.e. common tools and methodologies. Co-financing is country-specific and will be monitored through the regular monitoring and tracking activities, such as the PIRs.

[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:

The committed funds will be spent in the project start-up phase, i.e. they will be used 1) predominantly to strengthen the capacity of and provide training to the national PEE (Tubitak) on the project execution arrangements with due consideration of the updated GEF guidelines on the project and programme cycle policy (the training of the national PEE is directly related to project/country preparation and as such its cost is eligible to be financed from the PPG), 2) as well as to fund additional relevant start-up phase activities, such as for example translation of documents in local language, etc.

Project Preparation Activities Implemented	*GETF Amount ($)*		
	Budgeted Amount	*Amount Spent To date*	*Amount Committed*

Description of the project implementation/execution modalities and agencies, incl. - Draft TOR for contractual arrangements - HACT assessment of the proposed executing agency - Obtaining of co-financing letters from donors, NGOs, Agencies and government - Training of PEE on execution modalities	20,000	14,069.10	5930.90
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	20385.59	0
Stakeholder engagement activities: Stakeholder Workshop to verify the project document	10,000	7,214.42	2400.00
Total	50,000	41,669.1	8330.89

ANNEX D: Project Map(s) and Coordinates

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

1. 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 city of Istanbul and Ankara. 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 coordinates of Istanbul are: 41.0082? N, 28.9784? E

The coordinates of Ankara are: 39.9334? N, 32.8597? E

ANNEX E: Project Budget Table

Please attach a project budget table.

Expenditure Category		Detailed Description (Activity)	Years 1-5								Total (USDeq.)	Responsible Entity (*UNIDO's subcontract to executing entities)
			Outcome 1.1	Outcome 1.2	Outcome 2.1	Outcome 3.1	Outcome 3.2	Sub-Total	M&E	PMC		
Contractual services		Activity 1.1.2.c. Identification of cleantech entrepreneurs in the four project sectors through roadshows and scouting events	60,000					60,000			60,000	TUBITAK
		Activity 1.1.3.a Pre-accelerator services for potential accelerator entrants, tailored to the four sectors	120,000					120,000			120,000	TUBITAK
		Activity 1.1.3.b Three accelerator rounds targeting each of the four project sectors	150,000					150,000			150,000	TUBITAK
		Activity 1.1.3 c Help desk services to support the accelerator activities from Global GCIP	6,650					6,650			6,650	TUBITAK
		Activity 1.2.1.a Provision of seed funds to entreprenuers and startups		500,000				500,000			500,000	TUBITAK
		Activity 1.2.2.a Provision of training and business growth support to selected cleantech entrepreneurs and SMEs through advanced acceleration services		150,000				150,000			150,000	TUBITAK
		Activity 1.2.2.b Validation of selected business models, prototypes and technologies		180,000				180,000			180,000	TUBITAK
		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 intitutes.			36,000			36,000			36,000	TUBITAK
		Activity 2.1.2.a Capacity development and training workshops conducted by GCIP alumni			30,000			30,000			30,000	TUBITAK
		Activity 2.1.2.b Regional meetings held with the Turkey alumni network to enhance dissemination of best practices and enhance exposure and potential partnerships with international investors			10,000			10,000			10,000	TUBITAK
		Activity 2.1.3.a National Policy Localisation			30,000			30,000			30,000	TUBITAK
		Activity 2.1.3.b Workshop with relevant ministries and national stakeholders to present Cleantech successes and to present policy assessments and findings			24,000			24,000			24,000	TUBITAK
		Activity 3.1.1.a Written case studies, identification of best practices and creation of learning tools for sharing with the global programme				20,000		20,000			20,000	TUBITAK
		sub-total	336,650	830,000	130,000	20,000	-	1,316,650			1,316,650	TUBITAK
International consultants		Activity 1.1.1.a Adapt the GCIP guidebooks to the local context and disseminate them	23,455					23,455			23,455	TUBITAK
		Activity 1.1.1.b. Identification of criteria for cleantech mentors, judges and coaches, integrating gender-sensitivity within the approach	15,000					15,000			15,000	TUBITAK
		Activity 1.1.1.c. Development of methodologies, tools and training materials and certification system, including integration of the gender approach	21,000					21,000			21,000	TUBITAK
		Activity 1.1.1.d Conduct country-specific virtual training and support for alumni innovators and entrepreneurs based on stage of maturity and size of the alumi community	6,545					6,545			6,545	TUBITAK
		Activity 1.1.2.a. Training and certification of selected cleantech experts, with inputs from Global GCIP	40,000					40,000			40,000	TUBITAK
		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	TUBITAK
		Activity 2.1.3. cPublication of policy reports and recommendations for promoting Cleantech and finalisation of a corresponding report			25,350			25,350			25,350	TUBITAK
		Activity 3.1.1 b Integration of standardised methodologies and other best practices from the global programme				30,000		30,000			30,000	TUBITAK
		Activity 3.2.1.b MTR					-	-	26,025		-	UNIDO
		Activity 3.2.2.a Terminal evaluation					-	-	29,459		-	UNIDO
		sub-total	127,000	-	25,350	30,000	-	182,350			182,350	TUBITAK, UNIDO
National staff and consultants	Short-term consultants	Activity 2.1.1.a Establishment of online tools and maintainence of a web-based platform for the alumni network			18,000			18,000			18,000	TUBITAK
		Activity 3.1.2.a Development of the KM, communication and advocacy strategy				18,000		18,000			18,000	TUBITAK
		Activity 3.2.1.a Annual progress report					-	-	26,000		26,000	TUBITAK
		Activity 3.2.2.bAnnual financial and technical audit					-	-		15,000	15,000	TUBITAK
	PMU staff	Project Coordinator								128,794	128,794	TUBITAK
		sub-total	-	-	18,000	18,000	-	36,000	81,484		117,484	TUBITAK
Office (supplies, rent, equipment, etc.)										16,206		TUBITAK

YEARS 1-5 TOTAL	Ouctome 1.1	Outcome 1.2	Outcome 2.1	Outcome 3.1	Outcome 3.2	Sub-total	M&E	PMC	TOTAL
Outcomes	463,650	830,000	173,350	68,000	-				
Components		1,293,650	173,350		68,000	1,535,000	81,484	160,000	1,776,484

Entity	YEARS 1 - 5
TUBITAK	1,721,000
UNIDO	55,484

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.

Not Applicable

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 Agencys 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.

Not Applicable

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).

Not Applicable