Global Cleantech Innovation Programme in Kazakhstan - Promoting cleantech innovation and entrepreneurship in SMEs for green jobs in Kazakhstan

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
10458

Project Type
MSP

Type of Trust Fund
GET

CBIT/NGI
CBIT **No**
NGI **No**

Project Title
Global Cleantech Innovation Programme in Kazakhstan - Promoting cleantech innovation and entrepreneurship in SMEs for green jobs in Kazakhstan

Countries
Kazakhstan

Agency(ies)
UNIDO

Other Executing Partner(s)
Non-Commercial JSC International Green Technologies and Investment Projects Center (IGTIC), Network for Global Innovation (NGIN), Cleantech Group (CTG)

Executing Partner Type
Government

GEF Focal Area
Climate Change

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

Rio Markers
Climate Change Mitigation
Climate Change Mitigation 2

Climate Change Adaptation
Climate Change Adaptation 0

Submission Date
4/9/2021

Expected Implementation Start
1/1/2022

Expected Completion Date
12/31/2026

Duration
60In Months

Agency Fee($)
159,750.00

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 clean-tech innovation	GET	1,775,000.00	25,850,000.00
		Total Project Cost($)	**1,775,000.00**	**25,850,000.00**

B. Project description summary

Project Objective

To accelerate cleantech innovation and entrepreneurship by SMEs and start-ups and to strengthen the cleantech innovation and entrepreneurship ecosystem of Kazakhstan.

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 Cleantech solutions with high-impact potential are supported to reach commercialization	1.1.1 The GCIP guidebooks are adapted for the GCIP Kazakhstan 1.1.2 Pool of 30 cleantech innovation and entrepreneurship experts (trainers,mentors, judges) is trained and certified to support the GCIP Kazakhstan Accelerator	GET	67,788.00	415,000.00
1. Transforming early-stageinnovative cleantech solutionsinto commercial enterprises	Investment	1.1 Cleantech solutions with high-impact potential are supported to reach commercialization	1.1.3 Three cycles of the annual competition-based GCIP Kazakhstan Accelerator are conducted (with up to 75 semi-finalists)	GET	561,549.00	1,240,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing ($)
1. Transforming early-stageinnovative cleantech solutionsinto commercial enterprises	Technical Assistance	1.2 Start-ups and SMEs are supported through advanced and gender-responsive business growth and investment facilitation services	1.2.1 Targeted business growth support services are provided to selected cleantech enterprises (up to 15 through Advanced Accelerator, up to 45 through Post-Accelerator) towards commercialization 1.2.2 Enterprises (up to 15) are connected to financing opportunities and provided with tipping-point investment facilitation support 1.2.3 Mentoring and partnership support is provided to cleantech enterprises (up to 10) for global market expansion	GET	380,690.00	10,000,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing ($)
2. Cleantech innovation andentrepreneurship ecosystem(CIEE) strengthening andconnectivity	Technical Assistance	2.1 The CIEE in Kazakhstan is strengthened and interconnected	2.1.1 Institutional capacity building of the CIEE actors is conducted (up to 3 capacity building events conducted with up to 90 participants in total)	GET	335,776.00	5,110,600.00
			2.1.2 Cleantech innovation and entrepreneurship policies, regulations and recommendations (up to 50) are developed			
			2.1.3 An inter-ministerial technical working group is established			
3. Programme coordinationand coherence	Technical Assistance	3.1 Efficiency and sustainability of the GCIP Kazakhstan is ensured through programme coordination and coherence with other GCIP country projects	3.1.1 The GCIP internal guidelines for project management teams are adapted and implemented by the GCIP Kazakhstan	GET	159,983.00	5,807,500.00
			3.1 2. Programme-level knowledge management,communication and advocacy strategy is adapted and implemented by the GCIP Kazakhstan			
			3.1.3 The GCIP Kazakhstan web platform is operated to maintain the GCIP community			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing ($)
3. Programme coordinationand coherence	Technical Assistance	3.2 Impacts and progress of the GCIP Kazakhstan are tracked and reported	3.2.1 The GCIP methodology for impact assessment is adapted and applied 3.2.2 Project activities are tracked and reported based on the GCIP monitoring and evaluation (M&E) framework, as well as an external mid-term review is conducted 3.2.3 Independent terminal evaluation is conducted	GET	107,850.00	696,900.00
				Sub Total ($)	**1,613,636.00**	**23,270,000.00**

Project Management Cost (PMC)		
GET	161,364.00	2,580,000.00
Sub Total($)	**161,364.00**	**2,580,000.00**
Total Project Cost($)	**1,775,000.00**	**25,850,000.00**

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($)
GEF Agency	UNIDO	Grant	Investment mobilized	60,000.00
GEF Agency	UNIDO	In-kind	Recurrent expenditures	90,000.00
Recipient Country Government	Ministry of Digital Development, Innovations and Aerospace Industry (MDDIAI)	Grant	Investment mobilized	10,000,000.00
Recipient Country Government	JSC Science Fund	Grant	Investment mobilized	4,900,000.00
Recipient Country Government	JSC Center for Engineering and Technology Transfer (Qazinnovations)	Grant	Investment mobilized	7,300,000.00
Recipient Country Government	Kazakhstan Center of Modernization and Development of Housing and Communal Services	In-kind	Recurrent expenditures	2,000,000.00
Recipient Country Government	Qaztech Ventures	Grant	Investment mobilized	1,500,000.00
			Total Co-Financing($)	**25,850,000.00**

Describe how any "Investment Mobilized" was identified

The GEF grant is focused on supporting the formative stages of cleantech enterprises, i.e. prototyping, proof of concept, ecosystems building. Co-fi nancing fromthe public sector (predominantly in-kind) creates the enabling framework conditions that de-risk 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 phases ofdevelopment, growth and scale-up of the start-ups/SMEs. 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 GCIP Global, a strategic partnership will

be established between GCIP and the Private Financing AdvisoryNetwork (PFAN), 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 belinked to the PFAN network of expertise and investors. The co-financing modalities were discussed with interested entities, i.e. Ministry of Digital Development, Innovations and Aerospace Industry (MDDIAI); JSC Science Fund; QazTech Ventures, Kazakhstan Center for Housing and Development and JSC Center for Engineering and Technology Transfer (Qazinnovations) prior to and during the PPG phase. With regard to "Investment Mobilized", in the framework of these discussions it was agreed that: 1) The MDDIAI will provide grants in the total amount of up to USD 10 million. In particular, the MDDIAI is focused on supporting the development of the digitalization, an innovative ecosystem, and the information security/cybersecurity; 2) The JSC Science Fund will provide grants in the total amount of USD 4.9 million (up to USD 700,000 per project) under the provision that the GCIP Kazakhstan participants fulfill prescribed financial criteria and conditions. The JSC Science Fund annually conducts enterprise competitions, in the framework of which it is possible to win a grant for commercialization in the amount of USD 700,000 per project. In this way, up to 7 GCIP Kazakhstan projects could be supported; 3) The Qazinnovations will provide grants in the total amount of USD 7.3 million (up to USD 365,000 per project). Qazinnovations operates the innovation grant financing programme and coordinates the Technology Platform (TP) in Kazakhstan under the overall supervision of the MDDIAI. The following kinds of innovation grants are foreseen: for technology commercialization (up to 90% of project costs, but not more than KZT 150 mln), for technological development of industries (up to 85% of project costs, but not more than KZT 800 mln), for technological development of industry/science consortia (up to 70% of project costs, but not more than KZT 400 mln). The GCIP Kazakhstan participants are invited to apply for the above-mentioned grants; 4) QazTech Ventures will provide up to USD 150,000 per project, for a total amount of up to 10 projects to fund early-stage start-ups under the "Kazakhstan Digital Accelerator"; 5) The Kazakhstan Center of Modernization and Development of Housing and Communal Services will provide an in-kind contribution of up to USD 2,000,000 as a state agency that seeks to invest in innovative and resource-saving energy-efficient technologies. Regarding co-financing, the project will receive in-kind and cash support from different public and private institutions highlighting the high level of ownership and interest from national stakeholders. Even though the GEF contribution is expected to foster technology innovation and entrepreneurship in Kazakhstan, the additional co-financing is essential to successfully reach the project objectives. GEF assistance is essential to encourage and ensure the required stable co-financing particularly by attracting foreign and domestic investments for employing advanced cleantech with all related benefits. Apart from the planned investment mobilized at the CEO Approval stage, it is important to underline that GCIP participants may receive substantial follow-on investment support at a later stage. There are several examples that adequately demonstrate this fact. 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, signalling 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 investment from the private sector within the project?s lifetime and beyond as confirmed by GEF?s IEO report available on : https://www.gefieo.org/evaluations/cleantech-programme-2018 .

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	Kazakhstan	Climate Change	CC STAR Allocation	1,775,000	159,750
				Total Grant Resources($)	**1,775,000.00**	**159,750.00**

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	Kazakhstan	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	135000	0	0
Expected metric tons of CO?e (indirect)	0	675000	0	0

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

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

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

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

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

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)

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		420		
Male		780		
Total	0	1200	0	0

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

Part II. Project Justification

1a. Project Description

Changes between the original PFD (and related child project concepts) and the CEO Approval Request

1. From the substantive point of view, the project design proposed in this CEO Approval Request is fully consistent with that presented in the original original PFD and related child project concepts (approved by the GEF CEO in December 2019). However, as deemed appropriate and based on additional consultations with relevant stakeholders in the PPG phase: 1) terminologies and wording used in the Project Description Summary (Table B) and accordingly in the Project Description were amended in order to better align this child project to the GEF-UNIDO Global Cleantech Innovation Programme (GCIP) Framework (GEF ID 10408) (hereinafter referred to as GCIP Framework) and to be more gender responsive; 2) selected Components/Outcomes/Outputs were merged or split; 3) the budget allocation was moderately adjusted, the amount of co-financing was increased, and the attribution of co-financing was revised. An overview of the main changes is further detailed in the two tables below.

Table 1: Comparison of the Project Description Summary (Table B) between the original PFD (and related child project concepts) and the CEO Approval Request version.

original PFD and related child project concepts version	CEO Approval Request version
1 Identification and acceleration of cleantech innovations and businesses for commercialization, market access, and scale-up	1 Transforming early-stage innovative cleantech solutions into commercial enterprises
1.1 Cleantech solutions with high-impact potential for climate energy are supported to reach commercialization	1.1 Cleantech solutions with high-impact potential are supported to reach commercialization
1.1.1 Mapping of cleantech solutions is conducted and appropriate actions are identified and prioritized in accordance with national strategies for climate change and energy	1.1.1 The GCIP guidebooks are adapted for the GCIP Kazakhstan
1.1.5 At least 30 national experts are trained and qualified through train-the-trainers and coaching sessions	1.1.2 Pool of 30 cleantech innovation and entrepreneurship experts (trainers, mentors, judges) is trained and certified to support the GCIP Kazakhstan Accelerator
1.1.2 Three annual competition-based GCIP Accelerators are organized	1.1.3 Three cycles of the annual competition-based GCIP Kazakhstan Accelerator are conducted (with up to 75 semi-finalists)
n/a	1.2 Start-ups and SMEs are supported through advanced and gender-responsive business growth and investment facilitation services

1.1.3 Post-accelerator support for start-ups and SMEs to access finance and reach market entry is provided	1.2.1 Targeted business growth support services are provided to selected cleantech enterprises (up to 15 through Advanced Accelerator, up to 45 through Post-Accelerator) towards commercialization
1.1.6 Innovative financial mechanism to help SMEs leverage funding established	1.2.2 Enterprises (up to 15) are connected to financing opportunities and provided with tipping-point investment facilitation support
1.1.4 Cross-border investment facilitation and market expansion support is provided for selected enterprises at regional and global levels 3.2.1 Participation of Kazakhstan ecosystem players (partner institutions, investors, etc.) at national, regional and international events for knowledge exchange is facilitated	1.2.3 Mentoring and partnership support is provided to cleantech enterprises (up to 10) for global market expansion
2. Strengthening of the national cleantech innovation and entrepreneurship ecosystem	2 Cleantech innovation and entrepreneurship ecosystem (CIEE) strengthening and connectivity
2.1 Policy and regulatory frameworks and financial mechanisms are strengthened for the development and deployment of innovative cleantech solutions	2.1 The CIEE in Kazakhstan is strengthened and interconnected
2.1.1 Evidence-based and systematic analysis of the national cleantech innovation and entrepreneurship ecosystem (CIEE) is conducted 3 Institutional capacity building, networking and knowledge sharing for cleantech innovation and entrepreneurship 3.1 National partner institutions have the capacity to provide systematic and holistic support to cleantech enterprises and their innovations for acceleration and commercialization 3.1.1 Capacity of national institutions and cleantech ecosystem players is strengthened to conduct the GCIP Accelerator	2.1.1 Institutional capacity building of the CIEE actors is conducted (up to 3 capacity building events conducted with up to 90 participants in total)
2.1.2 Policies and regulations required for enhancing the Kazakhstan?s cleantech innovation and entrepreneurship ecosystem developed	2.1.2 Cleantech innovation and entrepreneurship policies, regulations and recommendations (up to 50) are developed
2.1.4 An inter-ministerial technical working group is established to advise and provide support to start-ups/SMEs on compliance issues associated with their cleantech innovations	2.1.3 An inter-ministerial technical working group is established
4 Programme coherence, monitoring and evaluation	3 Programme coordination and coherence

3.2 Kazakhstan cleantech ecosystem players are better connected to regional and international cleantech ecosystems and benefit from synergies and knowledge exchange	3.1 Efficiency and sustainability of the GCIP Kazakhstan is ensured through programme coordination and coherence with other GCIP country projects
4.1.1 GCIP guidelines and methodologies adapted and applied for Kazakhstan	3.1.1 The GCIP internal guidelines for project management teams are adapted and implemented by the GCIP Kazakhstan
2.1.5 Advocacy and outreach activities for cleantech solutions are organized at the national and regional level	3.1 2 Programme-level *knowledge management, communication and advocacy strategy* is adapted and implemented by the GCIP Kazakhstan 3.1.3 The GCIP Kazakhstan web platform is operated to maintain the GCIP community
4.1 Adequate regular monitoring of project's performance and indicators together with regular evaluations to ensure successful project implementation and achievement of set objectives	3.2 Impacts and progress of the GCIP Kazakhstan are tracked and reported
4.1.2 Regular monitoring exercises conducted, PIRs prepared; tracking tools prepared according to UNIDO and GEF requirements 4.1.3 Mid-term review conducted	3.2.1 The GCIP methodology for impact assessment is adapted and applied 3.2.2 Project activities are tracked and reported based on the GCIP monitoring and evaluation (M&E) framework, as well as an external mid-term review is conducted
4.1.4 Independent final evaluation conducted	3.2.3 Independent terminal evaluation is conducted

Table 2: Comparison of the budget allocation to Components between the original PFD (and related child project concepts) and the CEO Approval Request version.

original PFD and related child project concepts version	**CEO Approval Request version**
Component 1 GEF Project Financing: USD 1,020,000 Co-financing: USD 4,470,000	Component 1 GEF Project Financing: USD 1,010,027 Co-financing: USD 11,655,000
Component 2 GEF Project Financing: USD 243,636 Co-financing: USD 1,830,000	Component 2 GEF Project Financing: USD 335,776 Co-financing: USD 5,110,600
Component 3 GEF Project Financing: USD 250,000 Co-financing: USD 2,000,000	Component 3 GEF Project Financing: USD 177,833 Co-financing: USD 6,504,400
Component 4 GEF Project Financing: USD 100,000 Co-financing: USD 250,000	
Project management GEF Project Financing: USD 161,364 Co-financing: USD 300,000	Project management GEF Project Financing: USD 161,364 Co-financing: USD 2,580,000

Total GEF Project Financing: USD 1,775,000 Total Co-financing: USD 8,850,000	Total GEF Project Financing: 1,775,000 Total Co-financing: 25,850,000

Project Description

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

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

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

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

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

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

7. The widespread adoption and utilization of cleantech has significant potential to address the serious climate change and environmental risks that the global community and its governments are

facing today, with the Republic of Kazakhstan (further referred to as Kazakhstan) being no exception. The economy of Kazakhstan is mostly dependent on the extraction and processing of natural resources. Despite the substantial progress made over the last decade to advance towards a green economy, Kazakhstan?s main industries continue to contribute to the GHG emissions substantively.

8. The country now faces an urgent need to address the legacy of ecological mismanagement. Between 1949 and 1991 the Soviet government conducted about 70% of all its nuclear tests in Kazakhstan, mostly in the north-eastern area. Another vulnerable area in Kazakhstan today is the Aral Sea, which has shrunk to less than half of its original size since the 1960s, due to intensive cotton farming started by the Soviet government.

9. Being a country abundant with natural resources, Kazakhstan relies on extensive mining operations as the main driver of its economic development, which however also contributes to environmental pollution and climate change. For instance, in the eastern part of the country harmful emissions are generated from lead and zinc smelters, uranium-processing mills and other heavy industries. Overall, the ecological systems of Kazakhstan are under strong technogenic and anthropogenic influence, in particular stemming from the energy sector, construction industry, and transport.

10. Recently Kazakhstan has taken a strong course of actions towards promoting and urging technology innovation and renovation in all branches of its economy, including housing, utilities, and industry. In 2016 the country ratified the Paris Agreement and communicated its Intended Nationally Determined Contribution (INDC), according to which it intends to achieve an economy-wide target of 15%-25% reduction in GHG emissions by 2030 compared to 1990.

11. Several government programs are aimed at development and deployment of energy and resource efficient technologies, digitalization of housing and utilities, and waste recycling. One of them is the ?Concept on the transition to a green economy?, which sets an objective to raise the share of renewable energy sources (RES) in the total energy balance of the country to 3% by 2020 and 50% by 2050, which will result in GHG emissions reduction in the energy sector. The programme for infrastructure development ?Nurly Zhol? aims in turn at the modernization of existing residential building stocks and other relevant utilities. The goal of the ?State program of development of regions for 2020-2025? is to modernize the heat supply, water supply and sewage system through budget sponsored mechanisms. The programme ?Digital Kazakhstan? aims at digitalization of energy production, financial technologies, smart cities, smart metering and other applications. Although the government understands the need for a transition towards green development and undertakes relevant steps that facilitate it, several challenges still remain.

12. SMEs and start-ups are the key engines of growth in the cleantech sector in emerging and developing economies. Their understanding of the local needs and most pressing environmental issues places locally grown SMEs and start-ups in a unique position to supply cleantech products and services that meet the actual demand. The increased promotion and adoption of cleantech innovations is expected to further strengthen Kazakhstan?s efforts to ensure low-carbon sustainable development.

13. In Kazakhstan there are relatively many SMEs, compared to international standards, with more than 10 SMEs per 100 working age inhabitants. What is more, the nascent and new business owners represent 11,3% of the adult population (2017). At the same time however, only 25% of the value added of the national economy can be attributed to the SMEs, which is lower than in any OECD country and several CIS countries.

14. The promotion of entrepreneurship and innovation is one of government?s priorities, and in particular the following government organizations are strongly engaged in this field: the Damu

Entrepreneurship Development Fund (that concentrates on financial support), the National Chamber of Entrepreneurs (that provides training and consultancy through a network of Entrepreneurship Support Centres), the National Agency for Technological Development (that focuses on innovation), and Autonomous Cluster Fund (that supports high-technology start-ups). While this system is well constructed, there is a need for capacity building and professional development support to ensure high quality business advice from Entrepreneurship Support Centres and incubators.

15. As a result of the implementation of programmes promoting investment, entrepreneurship and innovation, Kazakhstan has risen from 74th in 2010 to 25th (of 190) in 2020 in the World Bank?s Doing Business rankings. However, there is still a clear need to foster a beneficial environment for entrepreneurship. In particular, business surveys identify barriers to SME development, such as corruption, business informality, inadequately educated workforce, insufficient access to finance, as well as low expenditures on research and development.

16. Although Kazakhstan's cleantech innovation and entrepreneurship ecosystem (CIEE) is gradually improving, it is still in an urgent need of support. The following barriers, which have been identified through consultation with government, entrepreneurs, business, academic and civil organizations, are indicative of a weak CIEE and represent key limitations to the development and adoption of innovative cleantech entrepreneurship.

Table 3: Barriers to development and adoption of innovative cleantech entrepreneurship in Kazakhstan.

Barriers faced by cleantech enterprises in developing and scaling-up innovative solutions	
Lack of capacity	The cleantech enterprises face following capacity shortages: lack of key skills and know-how on how to transform a cleantech innovation into a viable enterprise, which leads to high rates of failure for early-stage cleantech enterprises; lack of capacity to develop robust business models, which leads to high risk of failure of established businesses; lack of awareness of new developments and trends related to cleantech innovations; limited access to international expertise and limited knowledge of markets and potential partners outside the country. Also, start-ups and SMEs have insufficient interest and/or inner potential for innovation due to the economy structure dominated by sectors with low ?science intensity? and still high profit margins.
Limited access to finance	The limited access to financing, particularly private investment, can be attributed to a number of factors, including: a mismatch between enterprise needs and offerings of financing institutions, and a lack of interaction between cleantech enterprises and potential investors; not easily accessible and expensive seed capital for innovative projects which are often associated with high risks; lack of patient capital and advanced business growth support tailored to the needs of early-stage businesses; limited information on financial schemes (including both national and international), and the requirements and procedures associated with them, and limited government financial incentives to support uptake of cleantech innovations; limited knowledge of cleantech innovation and investment landscape amongst local investors and their low risk appetite. Although Kazakhstan has attracted substantial Foreign Direct Investment (FDI), its linkages with the domestic SMEs are limited.
Barriers related to the CIEE	

Lack of institutional coordination mechanism resulting in a weak and disjointed CIEE	While there are a number of organizations supporting entrepreneurs in Kazakhstan, there is a lack of established coordination mechanisms between them, which limits the effectiveness of their interventions. In addition, the allocation of responsibilities between different stakeholders is not always straightforward. Therefore, there is a need to create a platform for the CIEE stakeholders to communicate and work with each other in a coordinated manner. In particular, there is an insufficient dialogue and co-operation between public universities/research institutes on the one hand and the private sector on the other hand, which results in a limited uptake of innovative solutions.
Suboptimal enabling policy and regulatory framework	In general, the institutional and private sector capacities, including enabling conditions and ecosystems for supporting and driving cleantech innovation, are underdeveloped. Although there are several entrepreneurship development programmes in Kazakhstan, certain areas would benefit from strengthening, such as entrepreneurship training, management skills development, innovation, internationalization and support for women and youth, business development needs diagnosis, financial literacy development, non-bank financing instruments, and training. The policies should in particular focus on SME productivity growth and high-growth potential enterprises. There is also lack of a comprehensive framework of long-term reforms in taxation, land usage, urbanization, subsidies, public procurement, green banking and cleantech standards. What is more, the allocation of public resources to scientific research and development (only 0.2% of annual GDP) is suboptimal. In addition, high subsidies for production and consumption of energy from traditional fossil fuels, which when combined with very limited availability of long-term financing and patient investors, drastically weaken the business case for cleantech.
Limited public awareness	While there is no doubt that climate change is already affecting the country?s economy and population, there is still limited public awareness regarding the fact that cleantech innovation presents not only an economic opportunity, but also helps to reduce GHG emissions. With a traditionally resource-based industry and business mindset and an extremely high energy intensity of the economy, the awareness raising is crucial to enhance the understanding of the industry and society of the benefits associated with the use of innovative cleantech products and services.
Limited number of trained experts	There is a shortage of trained experts that could provide mentoring and coaching to cleantech entrepreneurs, including guidance on technology options, best practices, and benchmarks.

17. Ultimately, the above-mentioned barriers constrain innovators to transform their cleantech ideas into viable enterprises that can attract investment at local and global levels, which in turn would allow them to scale and to deliver transformational economic, social and environmental impacts. Therefore, this project will contribute, through continual engagements with the national government, universities, the private sector and other relevant stakeholders, to mitigating the above-mentioned barriers in a holistic manner.

18. In order to alleviate the above-mentioned problems, root causes and barriers, the GCIP Kazakhstan focuses on the following lines of intervention (outputs): 1) adaptation of GCIP Kazakhstan 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 Kazakhstan 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 Kazakhstan 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.

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

2) The baseline scenario and any associated baseline projects

20. From 2018 to 2019 the Kazakhstan?s industrial production grew by 6.4%, with the most significant contribution of the pharmaceutical, automotive and accessories, electric equipment, textile, furniture, oil and gas, and mining and metallurgy sectors. At the same time, according to the Global Carbon Atlas, the total CO_2 emissions in 2018 from fuel consumption amounted to 322 megatons (Mt). During the same year, the country?s total energy consumption (measured by total primary energy supply) was 76 million tons of oil equivalent (toe). Kazakhstan ranks 21 among the countries with highest CO_2 emissions in the world.

21. In 2018, the total number of SMEs in the Republic of Kazakhstan was 183.6 thousand, which were employing in total around 2.1 million people. In 2018, the total value brought by the SMEs into the economy of Kazakhstan amounted 50,921 million USD, which accounted for almost 28.4% of GDP of the country. The total value addition of SMEs has been steadily growing since the beginning of 2000s, with an annual growth rate of 10%. The dominant SME sectors are trade, agriculture, food production, and retail. In terms of innovation, according to the Global Innovation Index 2018 report, Kazakhstan has fallen to 79th position (from 73rd in 2018).

22. As mentioned earlier, the government of Kazakhstan has in recent years undertaken a number of activities to promote and accelerate cleantech innovation in all economy sectors. The 2017 Astana Expo ? The Energy of the Future clearly demonstrated the very strong commitment of Kazakhstan?s government and leadership towards a new development path hinged on the deployment of energy and resource efficient technologies, digitalization in all sectors, waste recycling and circular economy. Among the government programs and initiatives that are either ongoing or under development, the following ones are those that the proposed project will build on and synergize with:

23. The Concept on the transition to a green economy lays the foundation for a deep system transformation towards the ?green economy? by improving the welfare and quality of life. As a result, Kazakhstan should be enabled to become one of the top 30 most developed countries in the world while it should also be ensured that the burden on environment is minimized and the degradation of

natural resources prevented. The concept sets an objective to raise the share of RES in the total energy balance of the country to 50% by 2050. The main sectors of focus are water resources, agriculture, energy efficiency, power engineering, air pollution, and waste recycling.

24. The Kazakhstan 2050 Strategy is one of the key plans for widespread economic, social and political reforms to position Kazakhstan among the top 30 global economies by 2050. The first president of Kazakhstan, N. Nazarbayev said: ?Kazakhstan of 2030 must be a clean and green country with clear air and pure waters. Industrial waste and radiation would no longer enter its homes and gardens. Our children and children of our children would live a full value life in healthy conditions.? This objective is underlined in the Fifth Challenge of the 2050 Strategy (Global Energy Security) which stipulates that by 2050 the use of alternative and green energy technologies will allow generating up to 50% of all consumed energy.

25. The Green Bridge Partnership Programme (GBPP) was proposed by President Nazarbayev at the 66th Session of the UN General Assembly in 2011. This initiative was included into the final declaration of the UN Summit in 2012. The GBPP was also supported at the sub-regional conferences by Economic and Social Commission for Asia and the Pacific (ESCAP); United Nations Economic Commission for Europe (UNECE); Islamic Educational, Scientific and Cultural Organization (ISESCO); and by more than 120 states in Europe, Asia and the Pacific. The GBPP forms an attempt to create linkages between the Asia-Pacific and European regions on a joint transition to a green economy. It involves the integration of environmental and economic policies for sustainable development, as well as finding common solutions to global environmental problems.

26. The Concept on the transition to the Best Available Technologies (BATs) was prepared by the *Non-Commercial JSC International Green Technologies and Investment Projects Center* (further referred to as IGTIC) in 2018 with the purpose to lay a foundation for a systematic promotion of the adoption and use of BATs in accordance with best practices of the OECD, the EU, Russia and other countries, and also to make recommendations for updating the Environmental Code, the Concept on the transition to a green economy, and other regulatory documents. For many decades, Kazakhstan has developed a natural resource management system characterized by a low level of technological innovation, which led to serious anthropogenic environmental pressures on the air, soil and water, especially in the coal, oil and gas, chemical and mining and metallurgical industries. The use of BATs will ensure favorable conditions for life and health of the population, while protecting the environment and preserving biodiversity. The main objectives of the Concept are: 1) description of the institutional foundations and stages of the transition of Kazakhstan to the principles of BAT; 2) development of proposals for the introduction of amendments and additions to the legislation on the issues of transition of industrial enterprises to the principles of BAT, with focus on Environmental Code, Tax Code, and Business Code, and regulations on standardization; 3) development of economic incentives for enterprises to transition towards an increased adoption and use of BATs. According to the *Strategic Environmental Assessment of the Concept for the development of the fuel and energy complex of the Republic of Kazakhstan until 2030*, the contribution of enterprises to air pollution is as follows: 45.9% - manufacturing enterprises, 29.1% - enterprises producing and distributing energy, gas and water, 14.8% - mining enterprises, 10,2% - other enterprises.

27. The Nurly Zhol program for infrastructure development aims at modernizing the existing residential building stocks and other utilities. The key objectives of the program are: the creation of an effective transport and logistics infrastructure; the development of industrial and tourism infrastructure; the strengthening of energy infrastructure in the framework of the Unified Electric Power System; the modernization (reconstruction and construction) of housing and communal services infrastructure, as well as heat, water and wastewater systems; the increase of the availability of housing for citizens; the development of educational infrastructure; the increase of competitiveness of business entities as well as agrarian and industrial complexes; the support for domestic engineering and export; the provision of

infrastructure for the projects endorsed in the Business Roadmap 2025 and 2025; the assurance of product safety and quality through the development of appropriate laboratory facilities, etc.

28. The Digital Kazakhstan program (2018-2022) aims at accelerating the pace of economic development and improving the quality of life of the population through the use of digital technologies in the medium term, as well as creating conditions for the transition of Kazakhstan?s economy to a fundamentally new development trajectory ensuring the creation of a digital economy of the future in the long term. The main program objectives are the digitalization of industry, energy systems, transport and logistics, agriculture; as well as the development of electronic commerce, financial technology and non-cash payments, ?smart? cities; and the expansion of the coverage of communication networks and ICT infrastructure.

29. The Business Roadmap 2025 provides a framework for the credit support to SMEs with the objective to increase their competitiveness, especially in export-oriented sectors, and to create jobs. The credit support is subject to a number of criteria, one of which is to do business in the country priority fields for innovation and industrial development.

30. Kazakhstan is committed to achieving the declared INDC to reduce GHG emissions by 15-25% until 2030. In order to facilitate this, a Non-Commercial JSC International Green Technologies and Investment Projects Center (further referred to as IGTIC) was created as part of a broader initiative announced in September 2015 during the 70th UN General Assembly, on the basis of infrastructure and heritage of the exhibition "Astana-EXPO 2017". IGTIC is a state-owned body (50% + 1 share owned by the Association of Environmental Organizations of Kazakhstan; and the rest of shares owned by the Ministry of Ecology, Geology and Natural Resources) with a mission to facilitate sustainable development by promoting the transition to green economy. IGTIC serves as the main platform for international cooperation, as well as a center of excellence and investment in the field of green technologies with a focus on energy saving and energy efficiency, sustainable use of water resources, electric power industry development, ecosystem conservation and management, sustainable and high-performance agriculture, and air pollution reduction.

31. The mission of the Astana Hub is to develop a startup culture and to support high-tech projects for strengthening of national economy. The Astana Hub aims at becoming the engine of development of an ecosystem of innovations in Kazakhstan, and receiving international recognition. It is planning to invest 67 billion tenge in domestic startups by 2022.

32. A Special Economic Zone (SEZ) "Astana-Technopolis", covering an area of 631,92 hectares and including 3 sites (one of which is located on the territory of Nazarbayev University), was created in 2017. Its main objectives are 1) innovative development of Astana by attracting investments, using existing and new advanced technologies and know-how, as well as creating modern infrastructure; 2) creating high-tech and competitive manufacturing sites; 3) accelerating development of new technologies, as well as further improving organizational, economic and social conditions for conducting research, and developing & commercializing new technologies.

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33. The Almaty TechGarden is located in the foothills of the Transili Alatau. Its Innovation Cluster provides a professional environment for the development of innovations demanded by business based on mutually beneficial interaction between businesses, start-ups, investors, educational and research institutions. The purpose of the Innovation Cluster is to consolidate orders, intellectual resources, the best foreign technologies, targeted state support measures and stimulate the attraction of private investments, with the ultimate goal to promote Kazakhstan?s innovative technologies internationally, and also to create a conducive ecosystem for venture financing. The Autonomous Cluster Fund, being an integral part of the Innovation Cluster, provides financial support for the activities of its members.

34. PFAN (Private Financing Advisory Network) is an initiative hosted jointly by UNIDO and the Renewable Energy and Energy Efficiency Partnership (REEEP) and it 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 fi nancing to reduce GHG emissions and build climate resilience ? contributing to the ParisAgreement and SDGs, i.e. SDGs 7 (Energy), 9 (Industry), 13 (Climate Action), and 17 (Partnership). A network of 99 in-country private sector experts in 39countries is supported by 45 investment partners globally to provide investment advisory services, investment facilitation and financing. To date, PFAN hassupported at least 127 climate and clean energy businesses to mobilize more than USD 1.7 billion of investment. Furthermore, PFAN currently has a pipelineof hundreds of projects across the globe that are being supported. Further results demonstrate that through this investment, 3.3 million tonnes of CO2 havebeen mitigated annually and an additional 975 MW of clean power was installed. This year already, PFAN
has facilitated at least 69 investment-ready projects.

35. An overview of technical assistance projects and other international initiatives, with which the GCIP Kazakhstan will establish synergies and on whose lessons learnt it will build, is provided in the table below. In particular, these projects and initiatives are relevant, as they will enable GCIP Kazakhstan to: 1) benefit from and further expand on the key stakeholder capacity and awareness that was built through them; 2) take advantage of and provide further support for building the momentum for the policies and regulations that have been developed and adopted thanks to them; 3) benefit from the improved investment climate and subsequently crowd in private finance (i.e. GCIP Kazakhstan will leverage on the advanced investment ecosystem); 4) take advantage of the infrastructure delivered through them. These four leveraging factors (capacity and awareness, policies and regulations, advanced investment ecosystem, and infrastructure) have been included in the table below where appropriate.

Table 4: Overview of recent technical assistance projects and other international initiatives in Kazakhstan.

Project title	Funding source	Agency	Budget (USD)	Project description	GCIP Kazakhstan relevance	Implementation timeline
Energy Efficient Standards, Certification, and Labeling for Appliances and Equipment	GEF	UNDP	31.800.286,00	The objective of this project was to promote the use of energy efficient appliances and equipment, thereby reducing electricity consumption and avoiding GHG emissions.	capacity and awareness	2015 - 2017

De-risking Renewable Energy Investment	GEF	UNDP	55.520.000,00	The objective of this project is to provide assistance to the government in the promotion of the renewable energy and to improve the investment climate to encourage the renewable energy transition nationwide.	capacity and awareness, advanced, policies and regulations, investment ecosystem	2018 - 2022
Reducing GHG Emissions through a Resource Efficiency Transformation Programme (ResET) for Industries in Kazakhstan	GEF	EBRD	52.086.000,00	The project reflects government priorities to promote sustainable development as well as to realize its commitments against the UNFCCC to mitigate the GHG emissions.	capacity and awareness	2010 - 2012
Enabling innovative ecological education towards the country?s sustainable development	Government of Kazakhstan	UNDP	4.400.000,00	The project seeks to promote a culture of continuous environmental education for sustainable development through the formation of behavioural norms and provision of specialized knowledge on environmental protection, nature management and environmental and economic safety.	capacity and awareness	2020 - 2022

Improving the Energy Efficiency of Municipal Heating and Hot Water Supply	GEF	UNDP	3.290.000,00	The project?s objective was to develop the local opportunities, to strengthen the legal, regulatory and institutional frameworks, to create incentives for the implementation of new institutional and financing mechanisms with the target to leverage new sources of financing for the energy efficiency in municipal heat and hot water supply.	capacity and awareness, policies and regulations, investment ecosystem	2007 - 2013
Energy-Efficient Design and Construction of Residential Buildings	GEF	UNDP	32.463.840,00	The main goal of the project was to decrease GHG emissions within residential sector of Kazakhstan.	capacity and awareness	2010 - 2015

City Almaty Sustainable Transport	UNDP, Almaty City Administration, EBRD,EFC, GEF	UNDP	81.412.000,00	The objective of the project was to reduce the growth of the transport-related GHG emissions in the City of Almaty by 1) improving the management of public transportation; 2) building capacity to holistically plan and implement improvements in the efficiency and quality of public transport; 3) building capacity to holistically plan and implement integrated traffic management measures; and 4) implementing a demonstration project that raises awareness and increases knowledge of sustainable transport.	capacity and awareness	2011 - 2015

Supporting Kazakhstan?s Transition to a Green Economy Model	EU, UNDP, UNECE	UNDP	7.100.000,00	The objective of the project was to contribute to the long-term environmentally sustainable and inclusive economic development of Kazakhstan through introduction of a modern environmental governance system, state-of-the-art water management policies and practices, enhanced environmental impact assessment procedures and economic incentives for sustainable use of water resources.	capacity and awareness, policies and regulations	2015 - 2018
Kazakhstan Energy Efficiency Project	World Bank	Energy Efficiency Development Institute (EEDI)	23.060.000,00	The project seeks to improve energy efficiency in public and social facilities and the enabling environment for sustainable energy financing. The project consists of two components, investment and technical assistance.	capacity and awareness, investment ecosystem	2013 - 2021

Power Central Asia	USAID	TetraTech	32.463.840,00	USAID Power Central Asia is assisting five Central Asian countries (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan) to meet their national and regional priorities in energy security and unlock the economic benefits of regional energy trade.	capacity and awareness	2020 - 2025

Power the Future	USAID	TetraTech	32.463.840,00	Power the Future is working closely with the governments of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan, along with donors and other key stakeholders, to address the policy, technical, and financial barriers to clean energy development and regional electricity trade. Power the Future is a results-oriented activity, focusing on empowering partner countries so they can control their own economic and social development.	capacity and awareness, policies and regulations, investment ecosystem	tbd

Pilot GEFF Kazakhstan - MFO KMF GEFF loan	EBRD	KMF	5.000.000,00	The project objective is to provide a senior loan of up to USD 5 million to a microfinance organisation KMF - a limited liability company under the Pilot Green Economy Financing Facility ("GEFF") Framework. The loan will allow KMF to support local currency lending to the MSMEs and residential sectors in Kazakhstan for energy efficiency, renewable energy, and resource efficiency purposes.	investment ecosystem	2019 - ongoing

Green Investments Finance Project	ADB	Damu Entrepreneurship Development Fund	80.000.000,00	The ADB proposes to provide a financial intermediation loan of USD 80 million to the Damu Entrepreneurship Development Fund. It will support the development of a financing mechanism to facilitate the adoption of green investments by the MSMEs and contribute to the faster recovery of Kazakhstan economy in a post-COVID world by strengthening of the long-term sustainability of MSME sector.	investment ecosystem	proposed in 2020

Semey Solid Waste Management	EBRD	City of Semey	9.390.000,00	The project objective is to provide a senior loan of up to USD 9.39 million for the modernisation of the solid waste management (SWM) system in the City of Semey. It will include: (i) the construction of an EU standards compliant sanitary landfill and (ii) the construction of a modern integrated mechanical and biological solid waste treatment facility (MBT) at the new sanitary landfill site.	infrastructure	2020 - ongoing
Supporting Renewable Technology-Inclusive Heat Supply Legislation	ADB	Government of Kazakhstan	1.500.000,00	The objective of this project is to support the development of the renewable technology-inclusive heat supply legislation for Kazakhstan. It was requested by the Ministry of Energy of Kazakhstan and is in line with the goals of the country partnership strategy 2017 - 2021.	policies and regulations	2020 - ongoing

Promoting Digital Technologies for Sustainable Development	ADB	Government of Kazakhstan	500.000,00	This project seeks to complement the country's efforts to improve peoples' quality of life and promote sustainable economic development through the improved use of digital technologies. In particular, the project will focus on: (i) mapping of existing constraints and opportunities to adopting digital technologies; (ii) developing the capacity of local stakeholders; and (iii) conducting feasibility studies for possible future investment projects.	capacity and awareness	2020 - ongoing

Fostering Productive Innovation	World Bank, IBRD	●Ministry of Digital Development, Innovations and Aerospace Industry	110.000.000	The objective of the Fostering Productive Innovation project is to promote high-quality, nationally relevant research and commercialization of technologies. The project consists of 5 components: promoting R&D and human capital; promoting innovation consortia; consolidation of technology commercialization; strengthening coordination of the national innovation ecosystem; support for project implementation.	capacity and awareness, investment ecosystem	2015 - ongoing

36. An overview of other initiatives undertaken by major international agencies in promoting cleantech innovation in Kazakhstan, with which GCIP Kazakhstan will synergize (while also being unique in its approach that combines innovative celantech acceleration and ecosystem strengthening), is provided below: **i)** The UNDP implements a series of projects to promote innovation in cleantech, with a focus on areas such as education and knowledge sharing and the strengthening of intellectual property, being a crucial driver to increase the innovation potential at the universities of Kazakhstan. Further projects focus on energy efficiency, water management and low-carbon urban developments; **ii)** IRENA supports the accelerated uptake of renewables in Central Asia, directly benefiting Kazakhstan through 1) Renewable energy statistics and data collection, 2) Policies and regulations for renewable energy deployment, 3) Integration of variable renewable energy in power grids, 4) Resource assessments, 5) Project facilitation and 6) Awareness raising; **iii)** OECD implemented a project ?Promoting Clean Urban Public Transportation in Kazakhstan, Kyrgyzstan and Moldova? with the aim of strengthening public capacity for investments. The project helped Kazakhstan on the sustainable path of development by reducing the energy and carbon intensity of its economy; **iv)** USAID provided training and technical assistance to enable Kazakhstan to modernize its energy sector while safeguarding the environment. The focus was laid on energy efficiency, renewable energy, and

supporting more private investment in the energy sector as well as technical assistance to the Ministry of Energy, Electricity Grid Operating Company, the Financial Settlement Center, and others. More recently, USAID?s assistance has been focused on improving the investment climate for renewable energy and enhancing the efficiency of the heating and power plants; **v)** GIZ supports the country in developing a green economy. Numerous projects are actively working towards the promotion of sustainable land use as well as sustainable consumption and production. Low-carbon and climate-friendly economic development are top priorities, as is climate change adaptation in the high mountain regions. Until 2024 GIZ will be running a project called ?Green Central Asia: tackling the impacts of climate change through regional cooperation? organizing a regional policy dialogue. Working together with 6 countries, the project will identify the priorities of each state on climate and security. It also makes scientific research from the PIK, GFZ and DKU available to policy-makers. As a result, knowledge about the impact of climate change should improve and the countries will become more resilient.

37. The above-described baseline scenario was derived during the project design stage mainly through key project stakeholder consultations (please see the evidence in Annex M) and through literature review by identifying barriers to cleantech innovation and capturing the current legal context and related baseline projects as well as possible synergies between them and the proposed project. The consultations were a mixture of meetings in Kazakhstan, phone calls and emails. An overview of technical assistance projects and other international initiatives, with which the GCIP Kazakhstan will establish synergies and on whose lessons learnt it will build on was provided above.

38. Currently the barriers, as described in the previous section, continue to constrain the prospective GCIP innovators to transform their cleantech ideas into viable enterprises. This prohibits them from attracting investment at local and global levels, which in turn would allow them to scale and to deliver transformational economic, social and environmental impacts. In Kazakhstan, the cleantech innovation entrepreneurs lack key skills and know-how on developing business and financial models that would enable them to commercialize their innovations, which leads to high rates of failure. There is also insufficient dialogue and co-operation between public universities/research institutes on the one hand and the private sector on the other hand. In addition, the shortage of trained experts, that could provide mentoring and coaching support to cleantech entrepreneurs, including guidance on technology options, best practices, and benchmarks, further hinders the development of the cleantech markets.

39. The GCIP Kazakhstan approach relies on harnessing the market forces, in that in the framework of the call for applications to the GCIP Kazakhstan Accelerator, there is no preference expressed for any specific kind of cleantech, as long as it can deliver GEBs, including GHG emission reductions in a given country-specific setting. As such, GCIP is technology-neutral and therefore at the stage of project design it is not possible to foresee the exact split of cleantech between different categories that could be potentially supported, including for example solar, wind, hydro, biomass, energy efficiency, etc. As a result, and due to the different climate change mitigation potential of different categories of cleantech, it is not feasible to provide quantitative data on the baseline scenario. In short, at this stage it is not known what are the 75 enterprises to be selected to join the GCIP Kazakhstan Accelerator, and which cleantech they will feature. As part of the project selection criteria, that will be applied to assess the applications to the GCIP Kazakhstan Accelerator, it will be ensured that the admitted enterprises have the highest potential of delivering GEBs and other sustainability impacts - which will be based, among others, on the projections of the GHG emissions reduction potential of the cleantech, the projected demand development, replication potential and cost-effectiveness of potential GCIP support. The table below shows the saving calculations of four GCIP alumni from GEF 5, indicating the GHG saving potential that can be achieved with GEF support.

Table 5: Sample baseline and savings calculations for four GCIP alumni from GEF 5

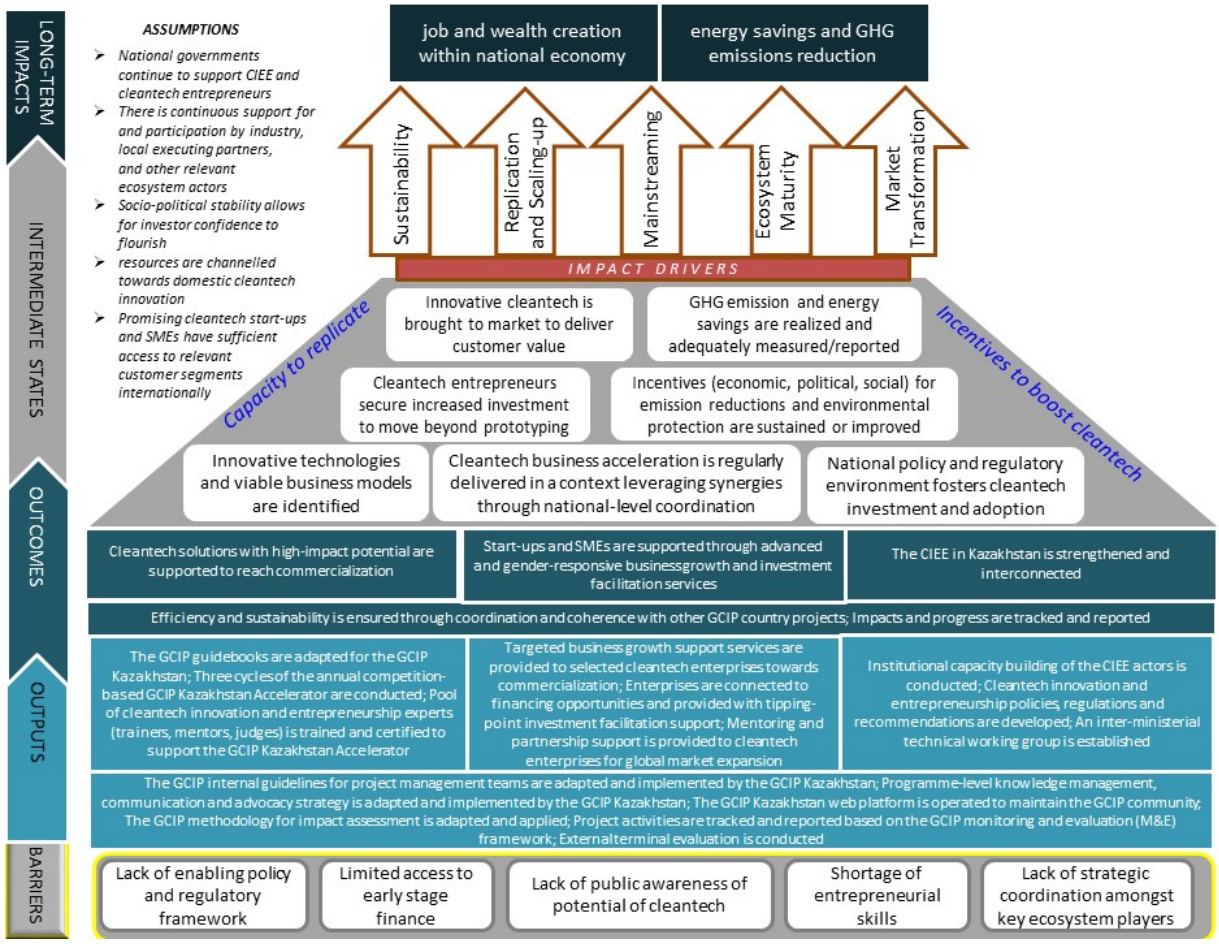
Company Name	Company product	A	B	C = A-B	D= C x Grid Emission Factor (0.9)	E	F = D x E
		Baseline Scenario (kWh or similar) *(per unit per year)*	**Company's Replacement Product (kWh or similar)** *(per unit per year)*	**Energy Savings per year (kWh or similar)** *(per unit per year)*	**CO2e savings** (per unit (kg) per year)	**No. of Units installed per year**	**Total CO2e savings per year (tonnes)**
GreenTower	Integrated solar water heating & solar PV	8,908	0	8,908	8,017	30	241
iNESS	Smart building systems	290,000	260,000	30,000	27,000	20	540
Atomberg	High efficiency ceiling fan	216	76	140	126	100,000	12,600
LiGE Qube	1000Kwh Compressed Air Storage and supply 250Kw output	2,190,000	136,000	2,054,000	1,848,600	10	18,486

40. Without GEF support, the barriers to cleantech innovation faced by the 75 enterprises will not be addressed effectively. In the BAU and with enterprise training and development as well as ecosystem strengthening, the environmental impacts i.e. contribution to the reduction of GHG emissions as well as impacts positive socio-economic (economic growth, green job creation, attraction of foreign and domestic investment, etc.) will not be enabled.

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

41. The proposed alternative scenario will be the implementation of the *Global Cleantech Innovation Programme in Kazakhstan - Promoting cleantech innovation and entrepreneurship in SMEs for green jobs in Kazakhstan* (further referred to as GCIP Kazakhstan) which forms a part of the GCIP Framework that aims to nurture cleantech entrepreneurs around the world. This project will help cleantech enterprises (SMEs and start-ups) in Kazakhstan to develop and scale up; and to increase market adoption of cleantech innovations, thus leading to a reduction in emissions and resource consumption. Furthermore, it will facilitate increased investment, job creation and market development This project is developed as a child project of the GCIP Framework. As such, it will link the cleantech innovation and entrepreneurship ecosystem (CIEE) of Kazakhstan to the global network of CIEEs in other GCIP partner countries, as well as it will receive support from the GCIP global coordination child project (GEF ID 10461) (hereinafter referred to as GCIP Global). More specifically, the IGTIC, which has been selected as the national project executing entity (national PEE), will be supported by two global project executing entities (global PEEs), including Network for Global Innovation (NGIN) and Cleantech Group (CTG).

42. The project has three components, in line with the GCIP Framework, which have been designed based on the current needs of developing countries and GCIP partner countries including Kazakhstan, as well as recommendations from the GEF?s independent evaluation of GCIP conducted in 2018, and with feedback from the previous GCIP country projects implemented since 2011. In particular, the project will 1) transform early-stage innovative cleantech solutions into scalable enterprises; 2) strengthen the capacities of CIEE stakeholders and connect them; and 3) engage with the GCIP Global to ensure programme coordination and coherence. The project?s Theory of Change (Annex I) is pictured in the figure below.



The entrepreneurs (start-ups and SMEs) in Kazakhstan 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.

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

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 Kazakhstan is strengthened and interconnected, and the efficiency and sustainability is ensured through coordination and coherence with other GCIP country projects, as well as impacts and progress are tracked and reported.

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

Figure 1: Theory of Change - graphical and descriptive presentation.

43. GCIP Kazakhstan will significantly contribute towards the GEF?s ?CCM-1 Objective 1: Promote innovation and technology transfer for sustainable energy breakthroughs?. The project envisages accelerating GHG emissions mitigation ideas with a high replicability potential. To achieve that, the project will adopt an inter-disciplinary holistic approach by engaging several stakeholders such as start-ups, SMEs, national ministries and institutions, academia and research centres, business associations, financing institutions, foundations, venture capitalists and utilities within and beyond Central Asia. The project will closely coordinate with the GCIP Global, as well as other similar national and international efforts, as it is critical to maximize synergies and share knowledge and best practices that can help in enhancing entrepreneurs? contributions towards climate change mitigation, while increasing productivity and generating growth and wealth. UNIDO?s extensive experience in implementing GCIP over the years ensures investors? confidence in the quality and chances of success of the cleantech enterprises supported. This is in light of almost 10 years of experience and proven track records, as well as a brand that is recognized and trusted internationally by investors. Moreover, the project will ensure an immediate integration of the Kazakhstan?s CIEE and the supported entrepreneurs in a global network of cleantech developers and investors.

44. In 2018, SMEs made up 96.7% of all businesses in Kazakhstan. The share of people employed by SMEs was 37.5% (2.1 million people) of the total employed population. SMEs contributed 28.9% to the country?s GDP that same year (according to preliminary data for 9 months of 2018). The total value addition of SMEs has been steadily growing since the beginning of 2000s, with an annual growth rate of 10%. The dominant SME sectors are trade, agriculture, food production, and retail. According to the Global Innovation Index 2018 report, Kazakhstan has fallen to 79 position (from 73 in 2018). The government of Kazakhstan has been working to ensure a favourable business climate and engage more entrepreneurs to start up. To expand SMEs? access to finance, a number of programmes are in place in the country to provide concessional lending and microfinance, subsidised interest rates, loan guarantees and grants to start a business. Although there is an effort to address entrepreneurial needs through, for example, incubators, the support is still scattered, small in size, and not sufficiently tailored to cleantech start-ups and SMEs, as well as it lacks links to wider markets and finance. With the gradually improved national policy and regulatory frameworks, a CIEE is emerging in Kazakhstan, bringing together several actors, such as government agencies, accelerators, incubators, research institutes, universities, private sector and social enterprises. Nevertheless, it is still disjointed and uncoordinated, as well as lacks a platform for dialogue.

45. GCIP Kazakhstan will help cleantech enterprises (SMEs and start-ups), being the main beneficiaries of this project, to develop and scale up, and to increase market adoption of cleantech innovations, thus leading to a reduction in GHG emissions and resource consumption. It will facilitate increased investment, job creation and market development. As part of the GCIP Framework, this project will link the cleantech innovation and entrepreneurship ecosystem (CIEE) of Kazakhstan to the global network of CIEEs in other GCIP partner countries as well as it will receive support from the GCIP Global. As already mentioned, GCIP Kazakhstan has three components, in line with the three pillars of the GCIP Framework. In particular, the project will 1) transform early-stage innovative cleantech solutions into scalable enterprises; 2) strengthen the capacities of CIEE stakeholders and connect them; and 3) engage with the GCIP Global to ensure programme coordination and coherence. This approach will accelerate innovations that have highest GHG emission reduction potential and have highest chances of going to the market through a number of scale-up phases and together with its partners like PFAN, as well as to continually de-risk the enterprise business models in order to increase the likelihood of investor interest. This is important to note since the sources of investment that the GCIP Kazakhstan start-ups/SMEs will be able to mobilize will depend on the alignment of the priorities of the institutions that have shown interest to invest.

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

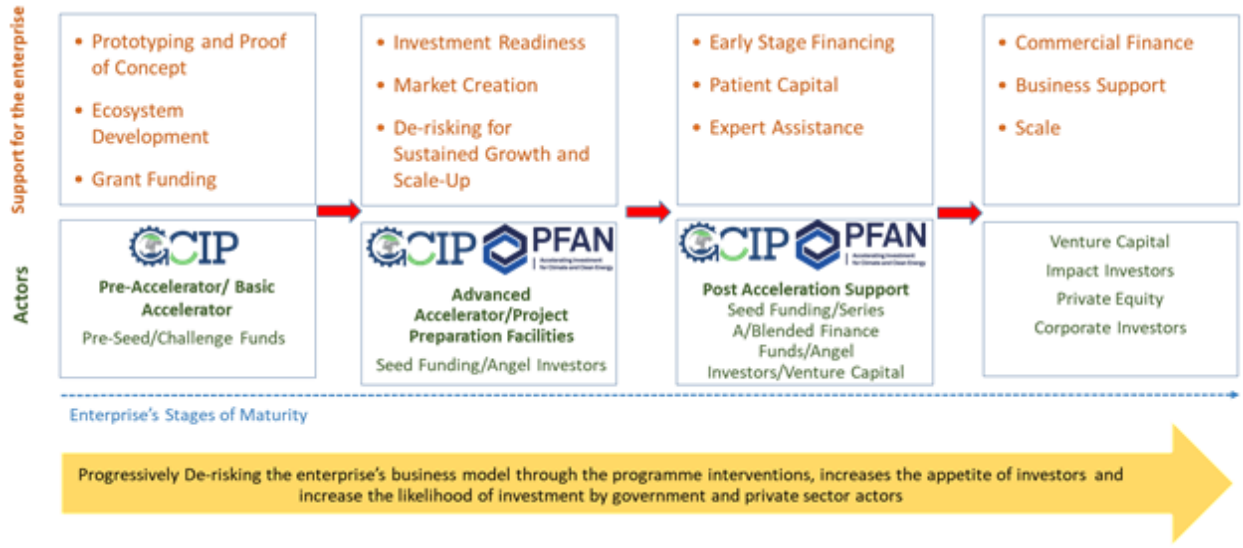


Figure 2: Start to Scale-up Journey, De-risking for Investment Readiness.

46. The objective underpinning the linkages established between GCIP and PFAN is to offer the ventures supported by the GCIP Kazakhstan 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 forhome-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. This will ensure that entrepreneurs with economically viable and transformativecleantech innovations are able to follow a continuum of support to commercialization and scale-up. The final investment decisions are made between the entrepreneur and the investor, once they find common value. A start-up/SME may have severalinvestors, which may result in blending of public and private fi nancing. The coordination between the country child projects (including GCIP Kazakhstan) and the GCIP Global enables investors at a global level to access start-ups/SMEs from different countries under the GCIP Framework, i.e. through activities likeInvestor Connect, National Forums and the Global Forums.

Project Description

Component 1: Transforming early-stage innovative cleantech solutions into commercial enterprises
(*incl. identification and acceleration of cleantech innovations and businesses*)

47. The Component 1 aims at providing direct support to early-stage enterprises to enhance their capacity and competitiveness, and to leverage market opportunities. More specifically, Outcome 1.1 focuses on entrepreneurial training and business acceleration support, and Outcome 1.2 on investment facilitation services for cleantech enterprises at a growth stage that demonstrate market traction and sales evidence, and can benefit from specialized support. The diagram below shows the types of assistance required by cleantech enterprises, depending on their stage of growth.

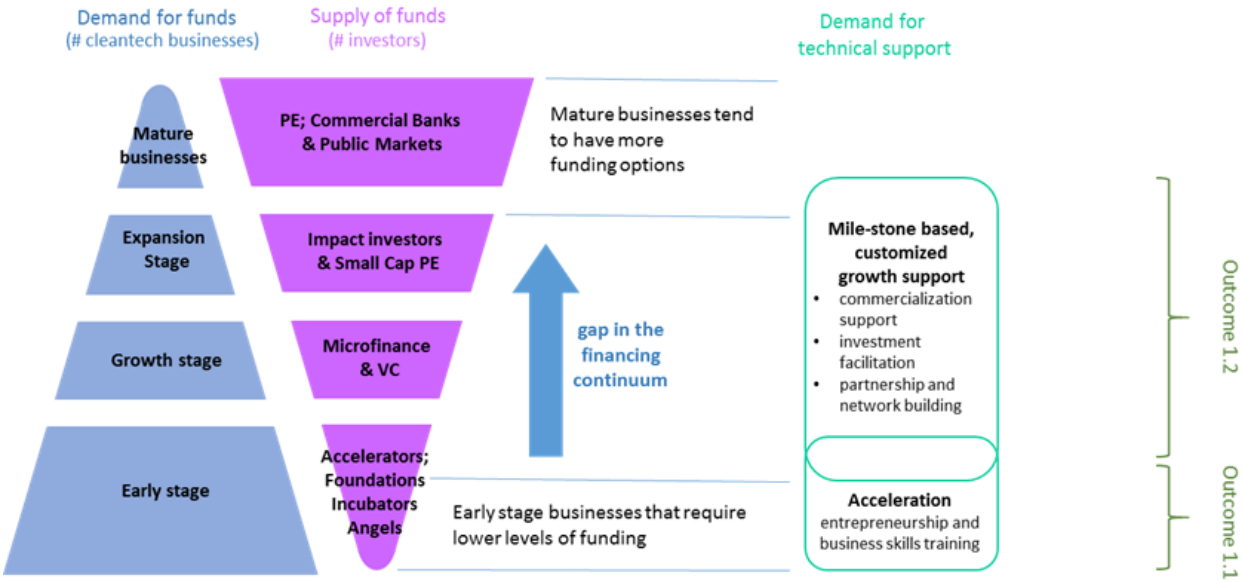


Figure 3: Demand for funds and technical support per development stage.

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

Table 6: Overview of the available GCIP business acceleration support.

The **Pre-Accelerator** consists of activities that enable formation of early-stage teams, as well as assist them to develop initial concepts and undergo their validation (i.e. proof of concept). This type of support encompasses workshops, hackathons, start-up camps, and mini-competitions. The Pre-Accelerator takes place before the launch of the main GCIP Accelerator, leading to an increased number of high-quality applications.
The **Accelerator** is a four to six-month curriculum designed specifically to support cleantech innovators to develop viable business models, and thus transform their ideas into fast-growing scalable and investable enterprises. Through the GCIP Accelerator, a cohort of cleantech innovators with a high-impact potential is identified and invited to receive intensive business and entrepreneurship training (as a group training in the framework of the GCIP National Academy), mentoring, and coaching based on the state-of-the-art international expertise, in particular with the aim to a) improve their business skills and investor pitch, b) connect them to potential business partners, financiers, and investors, c) maximize the expected net climate benefits of their solutions.
The **Advanced Accelerator** is a service offered to selected entrepreneurs participating in the Accelerator and it is focused on providing tailored and needs-based individual support rather than a group training, mentoring, and coaching. The Advanced Accelerator is time-bound and outcome-focused, i.e. there are concrete milestones that need to be achieved within a specific timeframe. The support is provided by one or several Executives in Residence (EIR) that are senior practitioners (executives or entrepreneurs) with hands-on experience in scaling up cleantech enterprises, and it is focused on problem-solving, i.e. tackling very specific operational, financial, and strategic issues.

The **Post-Accelerator** provides entrepreneurs with assistance in four related, but not necessarily linear dimensions: advanced business growth and commercialization, investment readiness, market readiness, and technology readiness. More specifically, a series of trainings (on corporate partnerships and government relationships, international market entry, mergers and acquisitions, exit strategy, challenges specific for selected industry sectors, etc.); needs-based activities; and technology verification, product development, and testing facility support are offered.

49. To ensure coherence and to achieve the highest impact potential of GCIP interventions along the start-up to scale-up journey of a cleantech enterprises, detailed eligibility criteria will be defined for the above-mentioned types of support in the framework of the GCIP Global. These will be related to the proof of concept requirements; level of technology readiness (TRL); business and market readiness levels (BRL/MRL); market potential; proof of evidence of business growth; environmental and social impact potential; and effectiveness of environmental and social risk mitigation measures, among others. The criteria will also include adequate definitions of start-ups and SMEs, as well as they will be in line with the GEF-7 Programming Directions and in particular with the entry points for the Climate Change Focal Area Strategy including: a) de-centralized renewable power with energy storage, b) electric drive technologies and e-mobility, c) accelerating energy efficiency adoption and d) cleantech innovation.

Outcome 1.1 Cleantech solutions with high-impact potential are supported to reach commercialization

Output 1.1.1 The GCIP guidebooks are adapted for the GCIP Kazakhstan
(*incl. analysis of the context of Kazakhstan?s CIEE, such as market conditions, policy environment, development priorities, technology focus, etc. based on mapping of cleantech solutions and prioritization in accordance with national strategies*)

50. The GCIP guidebooks (for Accelerator, Advanced Accelerator, and Post-Accelerator), that are to be developed under the GCIP Global, will be comprehensive documents that articulate the GCIP approach to promoting cleantech innovation and entrepreneurship in developing countries. As such, they will guide the operation and management of the GCIP Kazakhstan 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), and EIRs. The guidebooks will be shared with the IGTIC and appropriate training will be provided on their adaptation and use. The GCIP guidebooks will be reviewed and adapted for the IGTIC to reflect the context of Kazakhstan?s CIEE (i.e. the GCIP Kazakhstan guidebooks will be developed), including for example market conditions, policy environment, development priorities, technology focus, and local examples. In addition, the GCIP Kazakhstan Accelerator, Advanced Accelerator, and Post-Accelerator training curricula and delivery format will be customized to meet national needs, with the support from the GCIP Global. The GCIP Kazakhstan guidebooks will be finalized in consultation with the government, business and civil society organizations, and other relevant stakeholders in the CIEE. Moreover, the guidebooks will be translated into the local language. Suggestions for improvement of the GCIP Global guidebook will be shared by the IGTIC with the global PEEs. With due consideration of the framework conditions developed by the GCIP Global for each type of the available GCIP support, the GCIP Kazakhstan guidebooks will set the final selection criteria for the Accelerator, Advanced Accelerator, and Post-Accelerator.

51. What is more, in the first year of GCIP Kazakhstan, the the possibility of incorporating a National Innovation Challenge into the GCIP Kazakhstan Accelerator (as from 2022) will be investigated by the IGTIC by partnering with private sector corporations with the aim to design targeted and immediately deployable solutions to challenges faced by them.

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

52. Developing a pool of cleantech innovation and entrepreneurship experts to act as trainers, mentors (generalists and specialists), and judges is critical for ensuring the effectiveness of the GCIP Kazakhstan Pre-Accelerator, Accelerator, Advanced Accelerator, and Post-Accelerator. The experts are also key stakeholders in the Kazakhstan?s CIEE, as well as they are expected to positively influence the cleantech innovation and entrepreneurship initiatives at the global level. What is more, they will ensure the long-term sustainability of the GCIP Kazakhstan. The cleantech innovation and entrepreneurship expert training and certification system, which is to be developed by the GCIP Global, will be shared with the GCIP Kazakhstan. The system will include training curricula/materials, guidance on the training delivery methods, as well as certification requirements, all of which will be tailored to the needs of different expert groups (trainers, mentors, judges). Also, the system will encourage increased participation of the GCIP alumni as experts.

53. The cleantech innovation and entrepreneurship expert training and certification system will be reviewed by the IGTIC and, with support from the GCIP Global, it will be adapted for the GCIP Kazakhstan with the view to addressing specific national needs and ensuring synergies with other existing training and certification systems. Also, relevant documents will be translated in the local language.

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

Output 1.1.3 Three cycles of the annual competition-based GCIP Kazakhstan Accelerator are conducted (with up to 75 semi-finalists)

55. During the PPG phase, consultation was carried out with various stakeholders in Kazakhstan and it was agreed that the country would benefit from customized assistance in developing a pool of potential applications prior to the launch of the Accelerator. Therefore, a Pre-Accelerator support will be provided in the first year to at least 100 entrepreneurs that would normally not qualify for the Accelerator, so that a pipeline of suitable high-quality projects isgenerated. The Pre-Accelerator will be a ten-day (7 days virtual/3 day in-person) programme held each year 6-8 weeks prior to the GCIP Kazakhstan Accelerator application deadline.

56. Three annual cycles of the GCIP Kazakhstan Accelerator will be conducted, based on the GCIP Kazakhstan guidebooks developed under Output 1.1.1. The timing of the cycles will be guided by the GCIP Global to ensure appropriate coordination across different child projects. In general, the GCIP Global will support the IGTIC in establishing and conducting the first cycle of the GCIP Kazakhstan Pre-Accelerator, Accelerator, Advanced Accelerator, and Post-Accelerator. The assistance will be phased out in the second cycle, as it is expected that the relevant national institutions will be capacitated to be fully independent in the next years.

57. It is expected that each GCIP Kazakhstan Accelerator cycle will receive around 50 to 100 applications, with higher numbers of entrants expected in the later cycles. From these entrants, around 20-25 semi-finalists and 5-8 finalists will be selected to receive support each year, and ultimately, winners and runners-up will be identified. The selection of winners, runners-up, finalists, and semi-finalists will be made by judge panels based on their evaluation of the business plans and/or pitches

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

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

59. In the first year, the GCIP Kazakhstan Accelerator will focus on geographic areas with the highest concentration of cleantech entrepreneurs, such as Astana and Almaty, and will cover a limited number of cleantech categories (possibly including renewable energy, energy efficiency, waste beneficiation, water efficiency, transportation, green buildings, advanced materials and chemicals). In the second and third year, the GCIP Kazakhstan Accelerator might be expanded geographically to other parts of the country and thematically to other cleantech categories. However, the potential benefit of the thematic extension of the GCIP Kazakhstan Accelerator will need to be counterbalanced with the need for standardization and benchmarking. What is more, in the first year of the GCIP Kazakhstan Accelerator different prize categories might be considered, e.g. for overall sustainability, circularity, or gender.

60. There will be an annual GCIP Kazakhstan Forum conducted with appropriate guidance provided by the GCIP Global on its successful execution and integration with the annual GCIP Global Forum, including themes and private sector participation. In addition, in the second and third year there will be regional brokerage events organized at which selected GCIP Kazakhstan enterprises will pitch to investors in different parts of the country. There will be grants disbursed to selected enterprises in the framework of the GCIP Kazakhstan Forum and the regional brokerage events. Moreover, the IGTIC will have access to a help-line established by the GCIP Global for queries on the GCIP Accelerator and troubleshooting. The help line will combine online tools (wiki, forums, knowledge base, FAQs, etc.) and live calls or chats with an experienced global PEE team member.

61. As specified under Component 3, The GCIP Kazakhstan enterprises will be expected to periodically provide relevant impact data to the IGTIC for validation and consolidation. The enterprise impact data will then be used to develop and publish a GCIP Kazakhstan 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 Kazakhstan enterprises by providing increased credibility and visibility. The impact data will also be shared with the GCIP Global for consolidation on the programme level. What is more, as mentioned in the section on Core Indicators, it is also foreseen that some entrepreneurs supported under the GCIP Kazakhstan will be selected to participate in a demonstration of their cleantech, in that their impact measurement (including the measurement of GHG emissions) will be in addition verified externally by selected government and other institutional and industry partners. Their role will be to independently ensure that the calculation of GHG emission

reductions, and other impacts, follows proven industry approaches and delivers viable results. In particular, under their supervision there will be stringent measurement and verification (M&V) conducted to validate the minimum GHG mitigation potential of the product/technology. More specifically, it is foreseen that in a controlled setting, the selected cleantech supported in the framework of the GCIP Kazakhstan Accelerator could undergo a trial run of a predefined period, where indicators such as for example energy consumption / production could be tracked and subsequently compared to their corresponding dynamic baseline metrics to showcase achieved GHG emission reductions and to possibly revise the GHG emission reduction targets.

62. Throughout its entire implementation period and across different Components GCIP Kazakhstan will provide business coaching, mentoring and investment facilitation services in the framework of the Accelerator, Advanced Accelerator, and Post-Accelerator, as described in the project document (paragraphs 40-100). In addition, cross- country networking and business growth opportunities will be offered through the GCIP Global. The achieved environmental, social and economic benefits on the micro-, meso-, and macro-level will be captured in regular impact reports. Specifically, during the main GCIP accelerator, the 75 enterprises will be trained and mentored to validate among others: Product and its value proposition; Technology, its competitive advantage and IP defensibility; Customer segmentation, beachhead segment & pilot customer(s); Competitors and the basis of competition; Revenue model, pricing, margin and initial revenues; Total Addressable Market (TAM) and sales model; Funding strategy; Team composition and skillset; and Sustainability (environmental and social impact). During the Advanced and Post Accelerator, support will be provided by one or several Executives in Residence (EIR) focused on problem-solving, i.e. needs-based support in accessing additional sources of finance, market entry, identifying networking opportunities, dealing with technical and administrative issues, accessing IT services, and tax registration. Also, a follow-on series of trainings will be organized that will cover topics such as: 1) corporate partnerships and government; 2) international market entry, mergers and acquisitions, and exit strategy 3) challenges specific for selected industry sectors.

63. As described in the ?Alternative Scenario?, enterprises are supported to commercialise and sell innovative cleantech products and services. By replacing existing products/services in the market, GEBs are accrued as shown by the example of the previously supported GCIP alumnus, Atomberg. Their product, an energy efficiency fan achieves 65% efficiency over the baseline 75W fan. This results in at least 117kg of CO_2 emission reductions per year per fan, and the company has sold at least 100, 000 fans per year over a 2-year period, the GHG emission reduction from the SMEs is 117,000 tonnes per year. Over a period of 10 years, the company will achieve 1,170,000 tonnes for the first 100,000 fans sold only.

Table 7: Outcome 1.1 Activities and responsibilities.

Activity	Detail	Responsibility	GCIP Kazakhstan Budget (USD)
Output 1.1.1			
1.1.1a	to review the GCIP guidebooks for Accelerator, Advanced Accelerator, and Post-Accelerator; to share suggestions (5-10) for improvement of the GCIP guidebooks with NGIN (feedback loop)	IGTIC	3,200

1.1.1b	to adapt the GCIP guidebooks (2: 1 for Accelerator, 1 for Advanced Accelerator) to reflect the context of Kazakhstan?s CIEE, including market conditions, policy environment, development priorities, technology focus, local examples, etc. (i.e. to develop the GCIP Kazakhstan guidebooks); to organize 2 information and consultation sessions with relevant CIEE stakeholders; to disseminate the GCIP Kazakhstan guidebooks among relevant CIEE stakeholders (1000-1200)	IGTIC with support from NGIN	19,525
1.1.1c	to investigate the possibility (with 3-7 corporate partners) of incorporating a National Innovation Challenge into the GCIP Kazakhstan Accelerator (as from 2022)	IGTIC	1,700
Activities to be carried out by the GCIP Global as a service to the GCIP Kazakhstan: 1) NGIN: to develop GCIP guidebooks for Accelerator, Advanced Accelerator, and Post-Accelerator, including e.g. proposed schedules; eligibility requirements and selection criteria for the participants; competition rules; training curricula and handbooks for applicants, experts (mentors, trainers, judges), and EIRs; 2) NGIN: to develop tools for a) assessment of needs of GCIP Kazakhstan entrepreneurs (applicants, participants, and alumni), b) planning and monitoring of key GCIP Kazakhstan events; 3) NGIN: to develop (including the identification of interested corporate partners) and pilot the Global Innovation Challenge as part of the GCIP Global Accelerator (as from 2022).			
Output 1.1.2			
1.1.2a	to get acquainted with the GCIP cleantech innovation and entrepreneurship expert training and certification system; to share suggestions (5-10) for its improvement with NGIN (feedback loop)	IGTIC	4,283
1.1.2b	to adapt the GCIP cleantech innovation and entrepreneurship expert training and certification system to national circumstances, including translation where relevant (i.e. to develop the GCIP Kazakhstan cleantech innovation and entrepreneurship expert training and certification system), and to operationalize the training and certification system	IGTIC with support from NGIN	10,796
1.1.2c	to provide training and certification for at least 30 experts (trainers, mentors, judges) with at least 35% being women (i.e. at least 3 trainings with minimum 10 experts), as well as to conduct the evaluation of experts (based on the NGIN assessment framework) and to support the accreditation of at least 15 experts	IGTIC	28,283
Output 1.1.3			
1.1.3a	to deliver the GCIP Kazakhstan Pre-Accelerator as a 10-day (7 days virtual/3 days in person) programme for at least 100 participants, around 6-8 weeks prior to the Accelerator application deadline	NGIN	8,817
1.1.3b	to deliver 3 annual cycles of the GCIP Kazakhstan Accelerator (each year for around 20-25 semi-finalists and 5-8 finalists selected from a pool of at least 50 applicants), including the 4-day GCIP National Academy	IGTIC with support from NGIN	175,953
1.1.3c	to organize the annual GCIP Kazakhstan Forum (3 in total) and regional brokerage events (7-9 in total)	IGTIC	353,995

1.1.3d	to establish 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	IGTIC with support from NGIN	22,783
Activities to be carried out by the GCIP Global as a service to the GCIP Kazakhstan: 1) NGIN: to develop the GCIP cleantech innovation and entrepreneurship expert training and certification system for the GCIP Kazakhstan experts (trainers, mentors, judges), including training curricula/materials, guidance on the training delivery methods, and certification requirements; 2) NGIN: to develop an assessment framework for evaluation of experts (trainers, mentors, judges), as well as to facilitate the expert accreditation at global institutions/initiatives; 3) NGIN: to capture recommendations from GCIP Kazakhstan 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

64. Experience from previous GCIP interventions has shown that start-ups and SMEs require further assistance ? beyond the Accelerator ? to be able to scale up. Therefore, building on activities conducted under the Output 1.1.2, additional support will be provided to selected enterprises under the Outcome 1.2. At the same time, the emphasis will be placed away from the competition aspect and efforts will focus on individual case-by-case assistance. Outputs and Activities under this Outcome will also have a myriad of synergy points with Outcome 2.1, as engagement of the investor community and customers is crucial for the ultimate success of the GCIP Kazakhstan.

Output 1.2.1 Targeted business growth support services are provided to selected cleantech enterprises (up to 15 through Advanced Accelerator, up to 45 through Post-Accelerator) towards commercialization

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

66. The GCIP Kazakhstan Accelerator alumni will be eligible for the GCIP Kazakhstan 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 Kazakhstan guidebook for the Post-Accelerator (Output 1.1.1). It is foreseen that after the second cycle of the GCIP Kazakhstan Accelerator, the Post-Accelerator support will be offered to a minimum of 10 enterprises. After the third cycle of the GCIP Kazakhstan Accelerator, the Post-Accelerator services will be provided to a minimum of 15 entrepreneurs. More specifically, a series of trainings (in form of webinars) will be organized that will cover topics such as: 1) corporate partnerships and government relationships (3-4 virtual training modules of 1-2 hours each); 2) international market entry, mergers and acquisitions, and exit strategy (3-4 virtual training modules of 1-2 hours each); 3) challenges specific for selected industry sectors (3-4 virtual training modules of 1-2 hours each). The trainings will be based on the state-of-the-art international knowledge and best practices.

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

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

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

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

70. Taking advantage of various investment and promotion opportunities in Kazakhstan, direct support for the GCIP Kazakhstan Accelerator alumni will be provided to connect them with potential investors, financiers, and tech scouts of large corporations. To this end, half-day Investor Connect events will be co-organized regularly (at least 2 events after each cycle) with partners including corporations and government agencies to highlight opportunities for investment, loans, grants, technology adoption and partnerships. The project will also explore targeted investment/financing vehicles, and connect them with selected GCIP Kazakhstan Accelerator alumni as appropriate.

71. In addition to support services designed to benefit enterprises, specific activities to engage the investment community (e.g. venture capital funds, angel investor networks, impact investors, etc.) will also be conducted. The IGTIC will establish a robust network with national financial institutions and funds to raise the awareness of financiers representing them, as well as to train them and sensitize on the opportunities and risks associated with cleantech products and market trends. For example, communication efforts tailored for investors will be made to promote the profitability and impact potential of the cleantech businesses, thereby influencing the investment landscape for the cleantech sector. The intention is to broaden the engagement of impact investors in the country, both in terms of number of investors, as well as scope of their interest. Therefore, awareness raising events and trainings will be provided to the local investor community by specialist financiers with in-depth experience in the cleantech sector (at least 1 event/training after each cycle).

72. There will be trainings (as half-day events) conducted for local financial experts. The goal of this activity is also to facilitate cross-fertilization between GCIP and the Private Financing Advisory Network (PFAN), in that current PFAN advisors might support the training of financial experts by GCIP on the one hand, and the financial experts trained by GCIP, after provided with project sourcing and investment facilitation skills and tools, may be invited to join PFAN as new advisors. Moreover, PFAN will collaborate with GCIP also under the GCIP Global, in that it will launch open calls for GCIP alumni applications.

73. What is more, in order to encourage the participation of seed funding providers from the national, regional and global stages in the GCIP Kazakhstan and to leverage on the experience and knowledge of other GCIP countries, a number of suitable regional and international events will be organized or attended by a representative of the GCIP Kazakhstan.

Output 1.2.3 Mentoring and partnership support is provided to cleantech enterprises (up to 10) for global market expansion
(*incl. cross-border investment facilitation and market expansion support, as well as support for participation in international events*)

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

75. On an ad-hoc basis, as opportunities arise, matchmaking services for the GCIP Kazakhstan 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 Kazakhstan alumni to build their global presence and extend their partnerships and networks. In addition, the IGTIC will nominate a few GCIP Kazakhstan alumni for the GCIP Global Accelerator, and support their participation. What is more, UNIDO will encourage application of GCIP Kazakhstan alumni for PFAN support.

76. Under the GCIP Global there will be an annual GCIP Global Forum organized as an integral part of efforts to ensure connectivity between CIEEs. The GCIP Global 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 Global 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 Global 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.

77. In addition, as part of the global GCIP Framework, Kazakhstan will receive membership in the Network for Global Innovation for the duration of the project. This will provide the IGTIC and other GCIP Kazakhstan stakeholders with access to international best practices and with opportunities to build cross-border connections with partners in additional countries.

78. What is more, the IGTIC will be supported by CTG to prepare a global engagement strategy (including engagement with international corporates). Also, CTG will organize workshops with relevant stakeholders in the GCIP Kazakhstan?s CIEE to provide briefings on global investment trends, engagement modes with international stakeholders (including corporates), and on assessing the comparative attractiveness of different international CIEEs (with the use of benchmarks). Additionally, the GCIP Kazakhstan entrepreneurs will be included in the i3 database that is a CTG market

intelligence platform connecting different stakeholders internationally, such as corporates, start-ups/SMEs, investors, economic development agencies, universities, etc.

Table 8: Outcome 1.2 Activities and responsibilities.

Activity	Detail	Responsibility	GCIP KazakhstanBudget (USD)
Output 1.2.1			
1.2.1a	to identify Accelerator participants (9-15) that would benefit from the Advanced Accelerator support from an EIR to tackle specific operational, financial, and strategic issues; and to facilitate this support	IGTIC	750
1.2.1b	to conduct 3 cycles of the GCIP Kazakhstan Post-Accelerator focused on advanced business growth and commercialization support, investment readiness, market readiness, and technology readiness (based on the GCIP Kazakhstan guidebooks developed under Output 1.1.1) to benefit 10-15 GCIP Accelerator graduates annually	IGTIC with support from NGIN	34,840
1.2.1c	to provide needs-based support to the GCIP Kazakhstan Post-Accelerator enterprises (15-25 in total) in accessing additional sources of finance, market entry, identifying networking opportunities, dealing with technical and administrative issues, accessing IT services, and tax registration, etc.	IGTIC	31,750
1.2.1d	to provide technology verification, product development and testing facility support to enterprises with high impact potential (15-25 in total)	IGTIC	19,750
Activities to be carried out by the GCIP Global as a service to the GCIP Kazakhstan: NGIN to deliver a series of trainings/webinars (in the framework of the GCIP Kazakhstan Post-Accelerator) on 1) corporate partnerships and government relationships (3-4 virtual training modules of 1-2 hours each); 2) international market entry, mergers and acquisitions, and exit strategy (3-4 virtual training modules of 1-2 hours each); 3) challenges specific for selected industry sectors (3-4 virtual training modules of 1-2 hours each); as well as to provide a report on best practices for acceleration based on state-of-the art international knowledge.			
Output 1.2.2			
1.2.2a	to organize national investment facilitation events (Investor Connect) for the GCIP Kazakhstan alumni (at least 2 events after each cycle)	IGTIC	157,000
1.2.2b	to establish a robust network with 20-25 national financial institutions and funds, and to manage related communication and outreach activities, including awareness raising events for the local investor community to increase investor confidence and ensure accurate risk perception with regard to cleantech solutions (at least 1 event after each cycle)	IGTIC	17,000

1.2.2c	to provide 3-5 trainings for local financial experts	IGTIC	20,100
1.2.2d	to organize or attend 3-5 suitable events in order to encourage the participation of seed funding providers from the national, regional and global stages in the GCIP Kazakhstan and to leverage on the experience and knowledge of other GCIP countries	IGTIC	9,000
Output 1.2.3			
1.2.3a	to nominate 5-10 GCIP Kazakhstan alumni for the GCIP Global Accelerator and to support their participation	IGTIC	10,500
1.2.3b	to prepare a global engagement strategy, to provide related workshops for relevant stakeholders, and to include 90-105 GCIP Kazakhstan entrepreneurs in the i3 database	IGTIC with support from CTG	80,000
Activities to be carried out by the GCIP Global as a service to the GCIP Kazakhstan: 1) NGIN: to identify and facilitate cross-border networking and matchmaking opportunities and for stat-ups/SMEs supported by the GCIP Kazakhstan with internationally recognized mentors, GCIP alumni enterprises, corporations, investors, and governments; 2) NGIN: to enable the GCIP Kazakhstan enterprises to showcase their cleantech innovations at high-level national and international events (including GCIP Global Forum and other major international events); 3) NGIN: to organize the Global Forum; 4) NGIN: to facilitate Kazakhstan?s membership in the Network for Global Innovation for the duration of the project; 5) UNIDO: to encourage applications of the GCIP Kazakhstan alumni for PFAN support; 6) NGIN: to provide application assistance to the GCIP Kazakhstan alumni nominated by the IGTIC for support by the GCIP Global Accelerator.			

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

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

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

Outcome 2.1 The CIEE in Kazakhstan is strengthened and interconnected
(*incl. strengthening of policy and regulatory frameworks and financial mechanisms*)

Output 2.1.1 Institutional capacity building of the CIEE actors is conducted (up to 3 capacity building events conducted with up to 90 participants in total)
(*preceded by an evidence-based systematic analysis of the strengths, weaknesses, opportunities, and*

threats of the GCIP Kazakhstan stakeholders conducted during the PPG phase; incl. networking and knowledge sharing with the aim to enable national institutions to provide systematic and holistic support to cleantech enterprises, as well as to conduct the GCIP Kazakhstan Accelerator)

81. Based on the 1) report on stakeholder (e.g. potential GCIP Kazakhstan applicants, financial institutions, academia and R&D institutions, ministries and other government institutions, etc.) landscape, including an analysis of the stakeholders? strengths, weaknesses, opportunities, and threats (SWOT) with regard to their participation in GCIP Kazakhstan, and 2) report on the existing policy mix relevant for promotion of cleantech, innovation, and entrepreneurship - that are currently being developed by IGTIC ? there will be a CIEE assessment completed. The CIEE assessment will be instrumental in identifying the capacity building needs (with as special attention to the needs of women) and policy gaps, as well as deciding on the optimal set of interventions. A kick-off workshop will be held with relevant CIEE stakeholders to discuss drivers and challenges of cleantech innovation in Kazakhstan, as well as to present selected findings of evaluations of CIEEs globally.

82. In addition, a national stakeholder engagement strategy and a cleantech innovation cluster strategy will be drafted, and they will also both encompass an action plan and a progress measurement framework. Subsequently, two engagement workshops (kick-off and a follow-up) will be organized to train up to10 national facilitators (>35% women) to act as agents of change and support the implementation of both strategies.

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

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

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

Output 2.1.2 Cleantech innovation and entrepreneurship policies, regulations and recommendations (up to 50) are developed

86. On the basis of the report containing an appraisal of the existing policy mix relevant for promotion of cleantech, innovation, and entrepreneurship ? that is being currently developed by IGTIC ? there will be policy recommendations proposed. The policy recommendations will then be presented to relevant stakeholders during a dedicated workshop and revised according to feedback received. In the next step, there will be a roadmap prepared to guide a long-term implementation of the policy recommendations, also beyond the GCIP Kazakhstan timeline.

Output 2.1.3 An inter-ministerial technical working group is established
(*with the aim to advise and provide support to start-ups/SMEs on compliance issues associated with their cleantech innovations*)

87. Market and regulatory compliance are an essential requirement for any cleantech start-up and SMEs seeking customers and investors. The project will work with the Ministry of Ecology, Geology and Natural Resources and other relevant ministries to develop a mechanism in form of an inter-ministerial technical working group that will facilitate the identification of possible compliance barriers for cleantech innovations and streamline the development of remedial solutions

Table 9: Outcome 2.1 Activities and responsibilities.

Activity	Detail	Responsibility	GCIP KazakhstanBudget (USD)
Output 2.1.1			
2.1.1a	to conduct analysis of Kazakhstan?s CIEE, including policy framework (encompassing consultations with relevant CIEE stakeholders)	IGTIC with support from CTG	31,250
2.1.1b	to develop relevant tools for CIEE strengthening and connectivity, including a stakeholder engagement strategy and a cleantech innovation cluster strategy (in consultation with relevant CIEE stakeholders); as well as to conduct 2 engagement workshops (kick-off and follow-up) to train up to 10 national facilitators	IGTIC	72,250
2.1.1c	to conduct 1-3 capacity building events (based on the cleantech innovation capacity building framework developed by CTG) for selected CIEE stakeholders (30-90 in total), including national institutions, industry associations, and business platforms on how to support cleantech innovations	IGTIC	45,376
2.1.1d	to deliver at least 2 cycles of the Entrepreneurship Train-the-Trainer Programme	IGTIC	61,250
Activities to be carried out by the GCIP Global as a service to the GCIP Kazakhstan: 1) CTG: to organize a workshop on cleantech innovation policy and strategy for a cohort of all national PEE representatives (including IGTIC); 2) CTG: to develop the Global Cleantech Innovation Ecosystem Benchmark which will enable comparisons of the Kazakhstan?s CIEE with other countries? CIEEs; 3) CTG: to develop a cleantech innovation capacity building framework.			
Output 2.1.2			

2.1.2a	to develop 40-50 recommendations for the cleantech innovation and entrepreneurship policy; and to conduct 2 stakeholder engagement workshops to discuss and validate the policy recommendations; to prepare and consult (with GCIP alumni and relevant national CIEE stakeholders) a roadmap guiding a long-term implementation of the policy recommendations	IGTIC with support from CTG	86,400
Output 2.1.3			
2.1.3a	to establish an inter-ministerial technical working group that will facilitate the identification of possible compliance barriers for cleantech innovations and streamline the development of remedial solutions	IGTIC	39,250

Component 3: Programme coordination and coherence

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

Outcome 3.1 Efficiency and sustainability of the GCIP Kazakhstan is ensured through programme coordination and coherence with other GCIP country projects
(*incl. CIEE players are better connected to regional and international cleantech ecosystems and benefit from synergies and knowledge exchange*)

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

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

90. The development of the GCIP Kazakhstan sustainability & exit strategy will encompass preparation of a business plan for the Greentech Hub. The IGTIC together with the Ministry of Digital Development, Innovation and Aerospace Industry (MDDIAI) conceptualized a Greentech Roadmap

(that was approved by the government in 2020) that foresees establishment of the Greentech Hub based on the GCIP Kazakhstan achievements. The preparation of the business plan for the Greentech Hub in the framework of the GCIP Kazakhstan will ensure effective and efficient transfer of project ownership and achievements, as well as its fully independent continuation.

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

91. The experience so far has shown that an exchange of learnings among national PEEs and PMUs is key for their successful operation. To facilitate this exchange, a knowledge management, communication, and advocacy strategy framework will be developed by UNIDO with a particular focus on: 1) Promoting visibility of GCIP and communicating its impacts achieved at national and global levels; 2) Increasing awareness of the catalytic role of cleantech in addressing climate change and environmental issues; 3) Showcasing cleantech innovations from the GCIP alumni and enhancing their visibility and credibility.

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

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

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

94. 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 IGTIC 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).

95. The GCIP Kazakhstan will be assigned a section of the global GCIP web platform (i.e. a GCIP Kazakhstan web platform). The GCIP Kazakhstan web platform will be used from the beginning of the GCIP Kazakhstan Accelerator cycle (call for applications and receipt of applications), during the GCIP Kazakhstan 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).

96. On the global GCIP web platform there will be affinity/interest fora created to spur interactions, such as for example self-directed introductions, in specialized groups and to facilitate collaboration, for example between various enterprises from different GCIP Kazakhstan cohorts, between alumni and the

currently supported entrepreneurs, or between entrepreneurs and investors. Also, there will be a GCIP Kazakhstan alumni network created, gathering GCIP Kazakhstan Accelerator entrants, and assigned a special section on the GCIP Kazakhstan web platform.

Table 10: Outcome 3.1 Activities and responsibilities.

Activity	Detail	Responsibility	GCIP Kazakhstan Budget (USD)
Output 3.1.1			
3.1.1a	to review and adopt GCIP internal guidelines for project management teams, and to participate in the annual meetings for national PEE	IGTIC	5,725
3.1.1b	to develop the GCIP Kazakhstan sustainability and exit strategy, incl. Greentech Hub business plan	IGTIC	86,125
Activities to be carried out by the GCIP Global as a service to the GCIP Kazakhstan: UNIDO to organize annual meetings for national PEE representatives (including IGTIC) to provide a platform for training and exchange of experiences/insights.			
Output 3.1.2			
3.1.2a	to review and adapt the knowledge management, communication, and advocacy strategy framework, i.e. to develop a GCIP Kazakhstan knowledge management, communication, and advocacy strategy	IGTIC	750
3.1.2b	to capture knowledge gathered by the GCIP Kazakhstan through 200-300 policy briefs, impact reports, brochures, webinars, and other types of promotional materials, and to disseminate this knowledge through briefing sessions, press releases, social media presence and advertising, etc. (in line with the GCIP Kazakhstan knowledge management, communication, and advocacy strategy)	IGTIC	54,634
3.1.2c	to seek 20-30 partnerships that would support implementation of the GCIP Kazakhstan knowledge management, communication, and advocacy strategy (e.g. with local entrepreneurs, celebrities, GCIP alumni, relevant service providers, university departments and societies, organizations that are in frequent contact with cleantech entrepreneurs, investors, etc.)	IGTIC	750
Activities to be carried out by the GCIP Global as a service to the GCIP Kazakhstan: 1) NGIN: to provide training to the IGTIC employees, with focus on the operational and managerial efficiency and effectiveness required to successfully execute the GCIP Kazakhstan; 2) UNIDO to develop a knowledge management, communication, and advocacy strategy framework.			
Output 3.1.3			
3.1.3a	to create and maintain a section for the GCIP Kazakhstan on the global GCIP web platform	IGTIC	10,999
3.1.3b	to launch the GCIP Kazakhstan alumni network (incl. 90-105 participants) and create a special section on the GCIP Kazakhstan web platform to maintain it	IGTIC	1,000
Activities to be carried out by the GCIP Global as a service to the GCIP Kazakhstan: UNIDO to launch the global GCIP web platform and to deliver training on its use to the GCIP Kazakhstan.			

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

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

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

98. The IGTIC will receive an online training on the GCIP methodology for impact assessment from UNIDO, and subsequently the IGTIC will train (online or in person) all GCIP Kazakhstan Accelerator semi-finalists. The IGTIC may request further support to provide a training on the GCIP methodology for impact assessment also to other enterprises supported by the GCIP Kazakhstan. The GCIP Kazakhstan enterprises will be expected to periodically provide relevant impact data to the IGTIC for validation and consolidation. The enterprise impact data will then be used to develop and publish a GCIP Kazakhstan 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 Kazakhstan enterprises by providing increased credibility and visibility. The impact data will also be shared with the GCIP Global for consolidation on the programme level.

99. For the entrepreneurs participating in demonstration, the GCIP methodology for impact assessment will include additional elements, as to ensure that they can appropriately prove the feasibility and environmental benefits of their cleantech to external parties based on specific and advanced M&V approaches. The selection of cleantech to be demonstrated and of the demonstration venues will be undertaken in due course in close coordination with relevant stakeholders. The impact of GCIP-supported cleantech will be measured over a ten-year period, as to closely follow the development and potential of ? among others ? GHG emission reductions. This reflects an attempt to ensure that GHG emission reductions are quantified over a period of time long enough to enable viable assessment of the project?s impacts. The data and impact will be tracked and kept on record, which is in line with the recommendations provided in the framework of the GEF?s independent evaluation of GCIP that was conducted in 2018.

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

100. There will be a GCIP monitoring and evaluation (M&E) framework provided by the GCIP Global, based on which the IGTIC will prepare a GCIP Kazakhstan M&E plan, including time-bound milestones and deliverables. The IGTIC will also draft progress review reports every six months. There will be an external mid-term review of the project conducted half way through project implementation. The ESSPP considerations, as well as gender dimensions and baseline for gender related targets (in line with the Gender Analysis Report, Gender Mainstreaming Action Plan, Stakeholder Engagement Plan, and Environmental and Social Management Plan) will be appropriately captured in the GCIP Kazakhstan M&E plan, in the progress review reports, project implementation reports (PIRs), as well as in the collection and assessment of relevant data.

Output 3.2.3 Independent terminal evaluation is conducted

101. 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.

Table 11: Outcome 3.2 Activities and responsibilities.

Activity	Detail	Responsibility	GCIP Kazakhstan Budget (USD)
Output 3.2.1			
3.2.1a	to review the GCIP methodology for impact assessment (including the accompanying tools) and to participate in the training on its use provided by UNIDO	IGTIC	3,950
3.2.1b	to provide 3 trainings on the GCIP methodology for impact assessment to the GCIP Kazakhstan Accelerator semi-finalists	IGTIC	7,950
3.2.1c	to validate and consolidate the GCIP Kazakhstan enterprise impact data, and to develop and publish 4-5 GCIP Kazakhstan impact reports	IGTIC	5,950
Activities to be carried out by the GCIP Global as a service to the GCIP Kazakhstan: UNIDO to develop the GCIP methodology for impact assessment and appropriate tools for its operationalization.			
Output 3.2.2			
3.2.2a	to prepare the GCIP Kazakhstan M&E plan and regular (every six months) progress reports (6), as well as to conduct an external mid-term review	IGTIC	40,000 (M&E)
Activities to be carried out by the GCIP Global as a service to the GCIP Kazakhstan: UNIDO to provide the GCIP M&E framework.			
Output 3.2.3			
3.2.3a	to conduct the independent terminal evaluation	UNIDO/ IGTIC	50,000 (M&E)

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

102. 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 catalyse innovation and technology transfer for mitigation and enhance private sector investment?.

103. GCIP Kazakhstan prioritizes cleantech innovations in the domains that are fully aligned with GEF 7 priorities i.e. electric drive technologies and electric mobility, accelerating energy efficiency,

decentralized renewable energy power with energy storage, and cleantech innovations related sustainable cities and sustainable food systems. In particular, the project supports cleantech innovation and entrepreneurship by providing catalytic support to early-stage cleantech innovation SMEs so that they commercialize and scale-up their operations thereby delivering climate and sustainable energy solutions that reduce GHG emissions. This project seeks to foster private sector engagement in accelerating the uptake and investments in innovative cleantech solutions at scale. More specifically, this project will help cleantech enterprises (SMEs and start-ups) in Kazakhstan to develop and scale up; and to increase market adoption of cleantech innovations, thus leading to a reduction in emissions and fossil fuel consumption. Furthermore, it will facilitate increased investment, job creation and market development. This is in line with the guidance from the UNFCCC COP23 which encouraged the GEF to further enhance engagement with the private sector and invited the GEF to support countries in piloting priority technology projects to foster innovation and investment.

104. The GCIP Kazakhstan is designed in a way to address several still exisiting barriers, as described above, which prevent or slow down the transition towards a low-carbon sustainable economy in Kazakhstan. In particular, the GCIP Kazakhstan will adopt an interdisciplinary holistic approach by engaging several stakeholders such as start-ups, SMEs, ministries and government institutions, academia and research centres, business associations, financing institutions, foundations, venture capitalists, etc. The GCIP Kazakhstan will closely coordinate with the GCIP Framework, as well as other similar national and international efforts, as it is critical to maximize synergies and share knowledge and best practices that can help in enhancing entrepreneurs? contributions towards climate change mitigation. The proposed project will promote innovation in cleantech to build conducive CIEE for SMEs and start-ups. This will not only have lasting positive effects on the development of a dynamic and vibrant local market for cleantech, but also on the global environment. 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/start-ups, so that they commercialize and scale-up globally and, as a result enable the creation of new industries and green jobs. Also, GCIP Kazakhstan promotes synergies with other GEF Programmes to leverage more impacts. In particular, it seeks to establish operational, investment and/or knowledge management links with other GEF flagship initiatives such as the prospective Africa Minigrids Programme, Sustainable Cities IP, GreenChem and FOLUR.

105. UNIDO has been supporting cleantech companies in their development via GCIP since 2011. By doing so, UNIDO has uniquely fostered 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. By the end of 2017, GCIP accelerated over 865 start-ups/SMEs in 8 countries.

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

106. The GEF support for implementation of GCIP Kazakhstan will enable promotion of innovative cleantech enterprises as well as provision of essential tools and processes for efficient mobilisation of finance and commercialisation of environmentally sound technologies. The GCIP Kazakhstan will play

a critical and vital role in attracting innovative financing and accelerating the adoption of cleantech in Kazakhstan. In absence of the requested GEF support, the development of a low-carbon economy in Kazakhstan will be impeded by the presence of the barriers outlined above, particularly those related to insufficient investments in cleantech. The finance, without innovative market mechanisms necessary for investment in low-carbon development would not be tapped into efficiently within a reasonable timeframe. In particular, the access to green financing by SMEs and start-ups will remain hampered by the lack of capacities and suitable green financial instruments catering for the needs of cleantech project developers.

107. The private sector is key to the creation and expansion of the market for cleantech products and services, achieving GEBs, generating jobs, and supporting economic growth. In Kazakhstan, a clear government prioritization is given to promote innovations and start-ups/SMEs and to put the necessary policies and strategies in place. However, significant barriers still exist for cleantech enterprises, leading to their very low success rate. In essence, the CIEE in Kazakhstan is weak, and if the GEF funding is not provided, it is very likely that cleantech innovations will not be adequately developed in Kazakhstan in the near future. This will result in many unrealized opportunities in reducing GHG emissions, in strengthening partnerships with the private sector keen on investing in cleantech, in commercialization of cleantech enterprises, and ultimately in missed momentum for green economic growth and jobs.

108. The proposed project will strengthen local capacities in low-carbon economy, thus stimulating low-carbon development growth. Innovations will be facilitated through targeted policy dialogue, dedicated technical assistance and training programme, backed by information outreach and knowledge exchange to improve investor confidence and reduce perceived risks associated with low-carbon projects. The GCIP Kazakhstan will also provide grant funding to selected entrepreneurs. The ultimate result will be an accelerated transition towards a low-carbon economy in Kazakhstan, and contribution to the economic and social development, national energy transformation, and climate change mitigation efforts.

109. Kazakhstan is requesting GEF funding to help address the barriers to cleantech innovation, which will lead to positive socio-economic (economic growth, green job creation, attraction of foreign and domestic investment, etc.) and environmental (contribution to the reduction of GHG emissions and to global environmental sustainability, etc.) impacts. What is more, these impacts will be amplified through opportunities for coordination and connectivity with other GCIP partner countries, and thus for global cleantech innovation scale-up. In total, at least 135,000 (directly) and 675,000 (indirectly) tCO2e of GHG emissions should be mitigated thanks to the GCIP Kazakhstan, which is expected to translate into cost effectiveness of 5 to 10 USD/tCO2e.

110. As discussed in section 1a) the baseline includes start-ups/SMEs with breakthrough cleantech innovations that have huge GHG emission reduction potential in developing markets having a very low success rate due to, among others, lack of key skills and capacities to transform their innovations into viable, scalable and fast-growing enterprises. Furthermore, the CIEE in Kazakhstan is not conducive, as the initiatives to support these start-ups/SMEs remain disjointed and uncoordinated. This project has been designed to learn from GCIP implemented under GEF 5 & 6, to create opportunities for greater impact through providing stronger commercialisation support and investment facilitation services to expand opportunities for market expansion. This project is designed to provide catalytic and effective interventions that galvanise private sector interest and investments in the cleantech innovation and entrepreneurship space and also strengthen the national CIEE and connect it at a global level. These interventions create a critical mass of interest in the cleantech sector, drive the transformation of cleantech markets and result in more cleantech start-ups/SMEs contributing to climate change mitigation and low-emission development. Building on the baseline, including GCIP under GEF 5 & 6, the project will in particular:

? Adapt and institutionalise methodologies, guidelines, tools and training systems for Accelerator, Advanced Accelerator and Post-Accelerator support and for mentors, judges, trainers to be trained and certified in Kazakhstan. This will ensure that the country will continue to run the GCIP acceleration long after the GEF project has ended.
? Provide Post-Accelerator support and investment facilitation services so that cleantech innovators will be able to commercialise their innovation and mobilise funding for scaling-up.
? Increase focus on developing policy and regulations on cleantech innovations at national level.
? Participate in global events around the Global Accelerator such as dialogues, investors networks to promote networking and learning.
? Create bigger market opportunities for cleantech innovators to expand their businesses and hence increase their success rates and reduction of more GHG emissions.

111. One of the many incremental services that the GCIP Kazakhstan provides (through its programmatic linkages) is access to global investors. As an estimate, evidence from GCIP under GEF 5 & 6 shows that some GCIP alumni were able to mobilise global funding and expand their operations. For example, Episome Biotech (2017 semi-finalist) from Turkey raised USD 1.7million in investment through 3 rounds from Diffusion Capital Partners based in the Netherlands. Seyisco raised USD 100,000 and B-Preg and Solter Vision also raised foreign capital. Actual figures are not yet available as to the level of increased GHG emission reductions achieved as a result of the international funding, but the global funding allowed B-Preg (bio-composite parcel shelves) to expand internationally. Now, the company estimates annual GHG emission reductions of 4180 tCO2e. Similarly, Solter Vision (remote PV plant analysis) now estimates annual emission reductions of 15,300 tCO2 and Seyisco (efficient pot hole filling) already estimates 826k tCO2e per year saved. Episome (biotech) has the potential to reduce GHG emissions by 40 million tonnes/year once expanded globally. The start-ups/SMEs with innovative cleantech solutions can rapidly expand their businesses by accessing international financing opportunities thanks to GCIP, and as a result contribute to the achievement of GEBs.
The differential is further enhanced through the inclusion of diverse opportunities for networking and investments, support to expand cleantech business in other countries, development of policies and regulation to support cleantech innovators, and building and strengthening of the CIEE. For example:

? The project ensures that GCIP alumni are able to truly mature and be able to harness local and global market opportunities brought about by dedicated support and CIEE connectivity provided by this project.
? GCIP alumni will have higher chances of commercializing their innovations and of getting connected to investors and the private sector through the national project and global innovations challenges, international mentoring for global expansions and linkages to other sources of financing that include impact investors and crowdfunding platforms.

Since these interventions ensure sustainability of the project, they result in more GHG emission reductions beyond the baseline. Without GEF funds there will be lost opportunities to nurture entrepreneurs to scale, to further reduce emissions and to strengthen private sector partnerships.

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

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

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

113. 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.

114. 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. 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). Secondly, the Independent Evaluation Office (IEO) report of eight GCIP projects included a sample of alumni in its annex with projected avoided emissions between 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 fora 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. 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 by2030. 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 milliontCO2e/year.

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

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

117. 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.

118. This target-based approach for the estimation of GHG emission reductions will be applied across all child projects under the GCIP Framework. A GCIP methodology for the calculation and monitoring of GHG reduction potential will be developed by the GCIP Global 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 Kazakhstan (GEF ID 10458)

119. As described in detail in paragraphs 111-117 above, the estimation of avoided direct and indirect GHG emissions in GCIP Kazakhstan is based on a review of GHG reductions that were achieved by GCIP alumni under GEF 5 & 6 as captured in the GEF Independent Evaluation Office (IEO) report. These reductions are based on three pillars of information i) a survey of 14 GCIP alumni, ii) a sample of alumni?s projected avoided emissions found by the IEO, iii) the assessment of GHG reduction by GCIP alumni through the Mission Innovation Framework for Assessing Avoided Emissions. The design of GCIP in GEF 5 & 6 assumed unit abatement costs (for GEF funding) in the range of between 0.68 USD/tonne CO2e in Turkey to 29.77 USD/tonne CO2e in Armenia. The proposed benchmarks 5 to 10 USD/tCO2e in reduction are within the same range and quite realistic and conservative. The range of mitigation potential will allow the project to support a mix of technologies with different CO2 emission reduction potentials as long as this minimum average across the programme is achieved. As a key focus of GCIP is to identify and support cleantech innovations with high impact potential, this benchmark will guide the Accelerator to take into account the GEB potential as a key criterion in accepting applications. Through the initial selection process and the early training on impact calculation, each entrepreneur will determine its baseline scenario for its technology. By delivering the training and mentoring in the Accelerator, Advanced Accelerator and Post-Accelerator, as described in the ?Alternative Scenario?, entrepreneurs will be supported to commercialise and sell their innovative cleantech products/services.

120. The three cycles of GCIP Kazakhstan Accelerator are expected to support up to 75 enterprises (semi-finalists), as a result of which the avoided direct GHG emissions over a ten-year horizon are estimated at between 135,000 and 270,000 tCO2e of direct GHG emission savings and 675,000 and 1,350,000 tCO2e of indirect GHG emission saving (based on an estimated factor of 5). The lower range has been used as input to the GEF corporate core GHG indicator target (indicator 6) as a conservative estimation. To facilitate the achievement of GEBs, there will be awareness raising and promotional activities during the call for applications to the GCIP Kazakhstan 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. 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) Innovativeness, sustainability and potential for scaling up

Innovativeness

121. The GCIP Kazakhstan is unique in its multi-tiered and multi-stakeholder approach to fostering the expansion of start-ups and SMEs into innovative cleantech markets. In comparison with other incubator or accelerator programmes, the GCIP Kazakhstan does not only focus on enterprises, but also on strengthening the entire CIEE by building capacity in national institutions, creating strong linkages between the most relevant ecosystem players, and by raising awareness of the society at large. Importantly, the GCIP Kazakhstan supports entrepreneurs across the whole innovation value chain to develop demand-driven and investment-ready cleantech solutions that will have an extensive positive impact in the global markets. What is more, GCIP Kazakhstan enables achievement of not only environmental, but also socio-economic benefits, in that it for example promotes gender equality and women?s empowerment.

Sustainability

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

123. A GCIP Kazakhstan sustainability and exit strategy will be developed based on a framework delivered by the GCIP Global, and it will among others include specific considerations related to a formal project closure process (based on targets achieved by the GCIP Kazakhstan) and long-term sustainability of the achieved results. Also, the preparation of a business plan for the Greentech Hub (to

be established based on the GCIP Kazakhstan achievements) will ensure effective and efficient transfer of project ownership, as well as its fully independent continuation.

Potential for scaling up

124. The GCIP Kazakhstan bears a considerable potential for local and regional expansion in terms of cooperation and networking, as well as sectoral expansion through inclusion of additional cleantech categories. For example, through close relationship with other GCIP partner countries, the GCIP Kazakhstan stakeholders are enabled to form international partnerships and to enter foreign markets. What is more, through ongoing extension of GCIP into additional countries, these opportunities are continuously augmenting.

125. What is more, a close cooperation and coordination with other programmes and initiatives, including the Climate Technology Centre and Network (CTCN) and PFAN, will be sought to strengthen the potential for scale-up. CTCN is the operational arm of the UNFCCC Technology Mechanism co-hosted by UNIDO and UNEP. CTCN aims to promote accelerated transfer of environmentally sound technologies for low-carbon and climate resilient development at the request of developing countries This is fully in line with and complementary to the GCIP Kazakhstan objectives. PFAN, a programme co-hosted by UNIDO and the Renewable Energy and Energy Efficiency Partnership (REEEP), provides investment facilitation services for scaling-up of climate and sustainable energy technologies for positive environmental impact. It supports cleantech projects until they reach financial closure.

126. Noteworthy, GCIP has had a successful track record since 2011 when it was launched for the first time in South Africa. Subsequently, its implementation started simultaneously in Armenia, India, Malaysia, Pakistan, Turkey and South Africa in 2014. 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. 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 GCIP entrepreneurs 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.

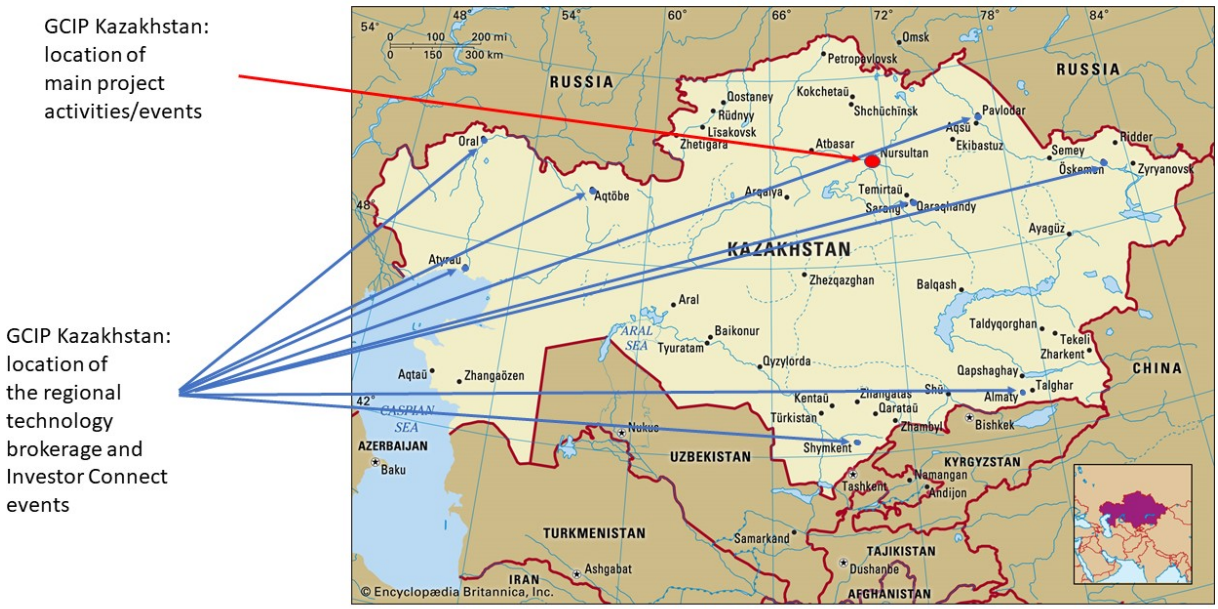
127. As already mentioned, in 2015 Thailand joined GCIP and about 10 countries, including Vietnam, Brazil, Ukraine, Nigeria, Indonesia and Kazakhstan had expressed interest in becoming part of it thereafter. In the period from 2014 to 2016, GCIP received almost 3,000 applications in the eight countries 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. This confirms the strong potential for scale-up of the GCIP approach.

1b. Project Map and Coordinates

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

128. While the project is targeted at beneficiaries (entrepreneurs and all relevant CIEE stakeholders, such as universities, policy makers, financiers, and R&D institutions, etc.) from all over the country, the main project activities will be conducted in the capital city of Kazakhstan (Nursultan). This is due to benefits resulting from a relatively dense concentration of relevant stakeholders there, and well-developed infrastructure. In addition, there will be regional technology brokerage and Investor Connect events organized in eight cities (Oral, Atyrau, Aqtobe, Pavlodar, Oskemen, Qaraghandy, Almaty, Shymkent), as pictured on the map below. The project boundary will not overlap any other country?s territory.

129. Please see a map of the country below and in Annex D.



1c. Child Project?

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

130. This project is a child project under the GCIP Framework. The following figure shows how the GCIP Framework and the GCIP Kazakhstan are interlinked.

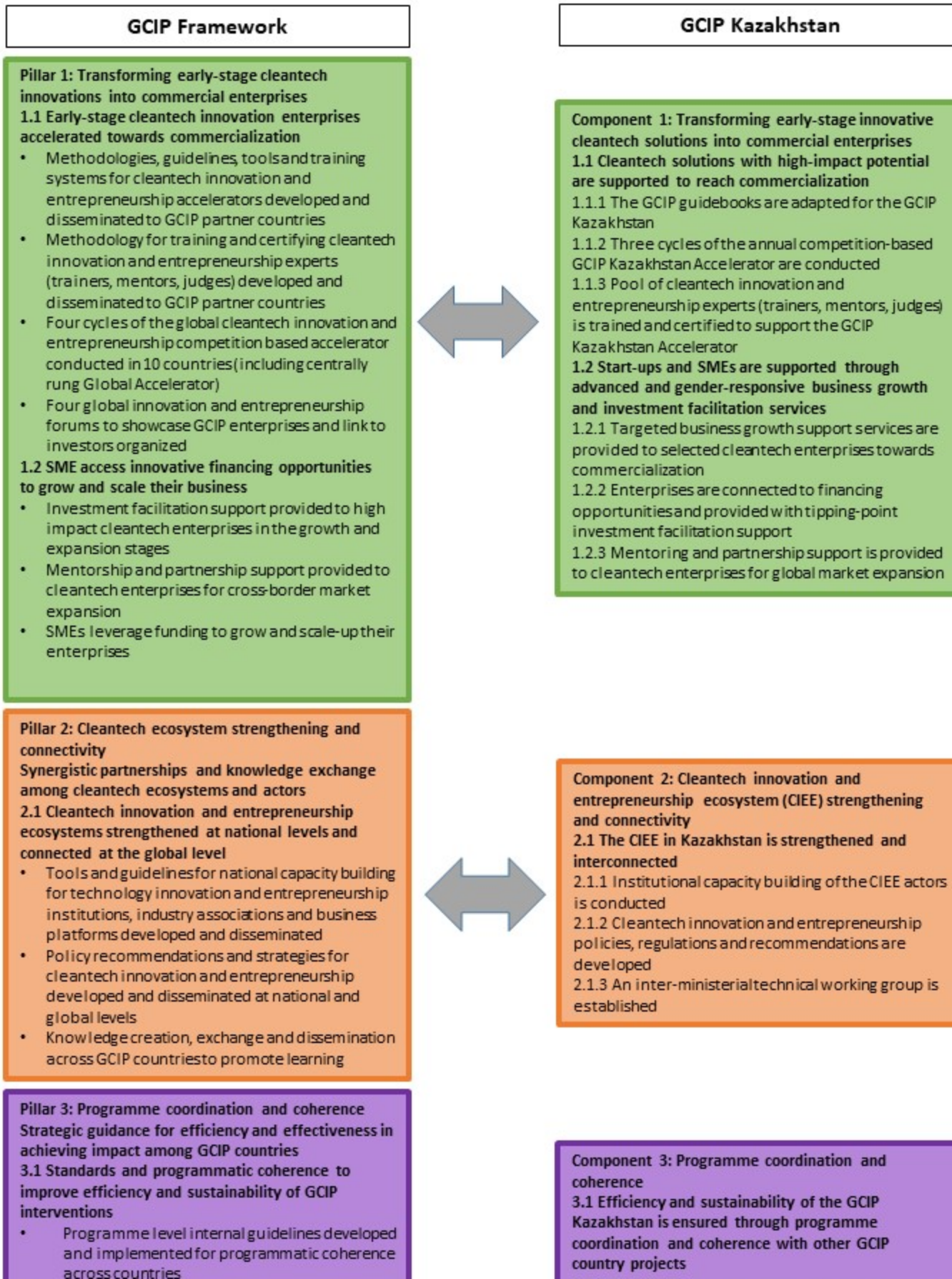

GCIP Framework
GCIP Kazakhstan
Pillar 1: Transforming early-stage cleantech innovations into commercial enterprises
1.1 Early-stage cleantech innovation enterprises accelerated towards commercialization
• Methodologies, guidelines, tools and training systems for cleantech innovation and entrepreneurship accelerators developed and disseminated to GCIP partner countries
• Methodology for training and certifying cleantech innovation and entrepreneurship experts (trainers, mentors, judges) developed and disseminated to GCIP partner countries
• Four cycles of the global cleantech innovation and entrepreneurship competition based accelerator conducted in 10 countries (including centrally rung Global Accelerator)
• Four global innovation and entrepreneurship forums to showcase GCIP enterprises and link to investors organized
1.2 SME access innovative financing opportunities to grow and scale their business
• Investment facilitation support provided to high impact cleantech enterprises in the growth and expansion stages
• Mentorship and partnership support provided to cleantech enterprises for cross-border market expansion
• SMEs leverage funding to grow and scale-up their enterprises
Component 1: Transforming early-stage innovative cleantech solutions into commercial enterprises
1.1 Cleantech solutions with high-impact potential are supported to reach commercialization
1.1.1 The GCIP guidebooks are adapted for the GCIP Kazakhstan
1.1.2 Three cycles of the annual competition-based GCIP Kazakhstan Accelerator are conducted
1.1.3 Pool of cleantech innovation and entrepreneurship experts (trainers, mentors, judges) is trained and certified to support the GCIP Kazakhstan Accelerator
1.2 Start-ups and SMEs are supported through advanced and gender-responsive business growth and investment facilitation services
1.2.1 Targeted business growth support services are provided to selected cleantech enterprises towards commercialization
1.2.2 Enterprises are connected to financing opportunities and provided with tipping-point investment facilitation support
1.2.3 Mentoring and partnership support is provided to cleantech enterprises for global market expansion
Pillar 2: Cleantech ecosystem strengthening and connectivity
Synergistic partnerships and knowledge exchange among cleantech ecosystems and actors
2.1 Cleantech innovation and entrepreneurship ecosystems strengthened at national levels and connected at the global level
• Tools and guidelines for national capacity building for technology innovation and entrepreneurship institutions, industry associations and business platforms developed and disseminated
• Policy recommendations and strategies for cleantech innovation and entrepreneurship developed and disseminated at national and global levels
• Knowledge creation, exchange and dissemination across GCIP countries to promote learning
Component 2: Cleantech innovation and entrepreneurship ecosystem (CIEE) strengthening and connectivity
2.1 The CIEE in Kazakhstan is strengthened and interconnected
2.1.1 Institutional capacity building of the CIEE actors is conducted
2.1.2 Cleantech innovation and entrepreneurship policies, regulations and recommendations are developed
2.1.3 An inter-ministerial technical working group is established
Pillar 3: Programme coordination and coherence
Strategic guidance for efficiency and effectiveness in achieving impact among GCIP countries
3.1 Standards and programmatic coherence to improve efficiency and sustainability of GCIP interventions
• Programme level internal guidelines developed and implemented for programmatic coherence across countries
Component 3: Programme coordination and coherence
3.1 Efficiency and sustainability of the GCIP Kazakhstan is ensured through programme coordination and coherence with other GCIP country projects

Figure 4: Interrelation between the GCIP Framework and GCIP Kazakhstan.

131. The GCIP Kazakhstan will engage with the GCIP Framework to ensure synergies, knowledge sharing, learning, consistence, efficiency as well as additional support to enable national start-ups/SMEs to scale globally. The Activities, Outputs, and Outcomes of the GCIP Kazakhstan will contribute to the overall GCIP Framework impact through a number of cleantech innovations and entrepreneurs supported, finance mobilized and the resulting accelerated green growth, jobs created, and GHG emission reductions. This will be facilitated through the cooperation and coordination of the national PEEs (Greencubator, NRFU) with the global PEEs (CTG, NGIN, PFAN).

132. The engagement with the GCIP Framework is integrated into all GCIP Kazakhstan Components and will affect all stakeholders. It covers following aspects: 1) **Methodologies, guidelines, tools for acceleration, and training systems:** These will be developed and harmonized by the GCIP Global and the GCIP Kazakhstan will focus on adapting them to the national circumstances. Experiences in applying the methodologies, guidelines, tools, and systems across child project will be used to improve them by the GCIP Global. The Global Accelerators and Global Forums will help national enterprises to bring their innovations to the global stage and link with entrepreneurs from other countries to explore opportunities for joint co-innovation, joint ventures and mobilizing investments; 2) **Investment facilitation and cross border growth support:** Through the GCIP Global, national cleantech start-ups/SMEs will be supported to expand their businesses to other countries. In addition, the GCIP Global 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 GCIP Global will provide support to the GCIP Kazakhstan in establishing market enabling frameworks to promote investments in cleantech; 3) **Targeted training, innovation policy support, knowledge management, and peer-to-peer networking and learning:** The GCIP Global will provide methodologies for training of national institutions, and for development of policies on cleantech innovation and entrepreneurship. By linking policy makers, institutions, financiers and entrepreneurs across countries, the GCIP Global will facilitate knowledge exchange, documentation of best-practices, and peer-to-peer networking and learning; 4) **Program standards, communication and advocacy, and monitoring and evaluation:** To promote coherence and coordination across all GCIP countries, the GCIP Global will develop program guidelines that will be applied across the GCIP Framework. Through the global web platform, to be developed by the GCIP Global, communications and advocacy will be promoted across countries. In addition, the GCIP Global will develop methodologies for impact tracking and monitoring and evaluation that will then be applied across all countries under the GCIP Framework.

2. Stakeholders

Please provide the Stakeholder Engagement Plan or equivalent assessment.

133. The proposed project is designed in line with the GEF policy on Stakeholder Engagement that sets out the core principles and mandatory requirements for stakeholder interaction. UNIDO as the GEF Agency is the implementing entity of the project and as such it is accountable to GEF and other funding sources to be provided by the public and private sector. Inclusive stakeholder consultations, that took place during the project design period, paved the way for strong involvement and commitment from all relevant actors. This will continue throughout the project, as the facilitation of coordination between all CIEE stakeholders is a key objective of the GCIP Kazakhstan. A Stakeholder Engagement Plan (SEP) was developed (Annex N) to outline the strategy for engaging with stakeholders, including a range of activities and approaches, from information sharing and consultation, to participation, negotiation, and partnerships. The SEP also sets out resources and responsibilities as well as any related monitoring and reporting requirements. In addition, letters of support from relevant stakeholders (Annex L) were secured. They indicate, among others, that it might be expected that additional co-financing is mobilized from private sector and other entities during the project implementation.

134. Throughout the project design period, there were several events and consultations with relevant stakeholders organized, including a round-table discussion on commercialization of cleantech with participation of the representatives of the Ministry of Ecology, Geology and Natural Resources; Ministry of Digital Development, Innovation and Aerospace Industry; QazTech Ventures; Deutsche Energie-Agentur; JSC ?Science Fund?; National Institute of Intellectual Property; QA-UK Ltd; Green Building Council Russia, etc. In addition, there was a working group meeting organized at the premises of IGTIC, where all relevant stakeholders met in to discuss cleantech innovations. Also, a UNIDO representative introduced the GCIP Kazakhstan project on this occasion. The GCIP Kazakhstan approach was also presented in the framework of other events, mostly in 2019, including a webinar titled "Doing green business in Kazakhstan" (that was organized by IGTIC together with UNIDO and other stakeholders in 2019); the Startup Weekend (that was launched by IGTIC together with JSC ?Astana Innovations?); Astana Economic Forum on the theme ?Building Innovative Ecosystems for Green Growth: Science, Education and Technologies?. Also, several meetings and consultations occurred in 2020 with the Ministry of Digital Development as well as the Innovation and Aerospace Industry, which resulted in the adoption of a roadmap for the implementation of the ?Greentech? programme by the Ministry of Ecology, Geology and Natural Resources. The GCIP Kazakhstan project constitutes its important part. Also, there was a GCIP Kazakhstan validation workshop organized in 2020 in Vienna, the report from which is included in Annex M.

135. The GCIP Kazakhstan will seek synergies with other projects by actively engaging with their implementing agencies to strengthen the local CIEE through knowledge sharing, networking and mutually benefitting through offering complementing support services to innovative cleantech start-ups and SMEs. The following agencies are of special interest: i) EIT Climate-KIC ? it initiated the Climate Launchpad, which is the world?s largest green business ideas competition with a mission to unlock the world?s cleantech potential and address climate change. In Kazakhstan, the Climate Launchpad is led by the Science Fund. Local partners and sponsors also include the Nazarbayev University and QazInnovations, JSC; ii) GIZ ? it supports the country in developing a green economy. Numerous projects are actively working towards the promotion of sustainable land use as well as sustainable consumption and production. Low-carbon and climate-friendly economic development are top priorities, as is climate change adaptation in the high mountain regions. What is more, GIZ offers a ?Climate Expert? tool that will be relevant for assessment of GCIP Kazakhstan supported technologies against climate risks. In particular, the impact of cleantech will be reviewed as part of the support provided within the GCIP Kazakhstan Accelerator. Minimizing any negative environmental and social impacts will also be accounted for in the technology selection criteria for applications submitted to GCIP Kazakhstan.
An overview of other relevant stakeholders as well as their foreseen roles in the project is provided below.

Table 12: Overview of GCIP Kazakhstan stakeholders.

Stakeholder name	Current role in Kazakhstan	Envisaged role in GCIP Kazakhstan

Non-Commercial JSC International Green Technologies and Investment Projects Center (IGTIC)	IGTIC is a state-owned body (50% + 1 share owned by the Association of Environmental Organizations of Kazakhstan; and the rest of shares owned by the Ministry of Ecology, Geology and Natural Resources) with a mission to facilitate sustainable development by promoting the transition to green economy (through promotion of: renewable energy and alternative energy sources, reduction of human activity impact on the environment, energy saving and energy efficiency, conservation and sustainable ecosystem management, sustainable waste management, productive and sustainable agriculture, sustainable use of water resources).	IGTIC will be the national Project Executing Entity (national PEE) with responsibility to take lead in sustaining and expanding the cleantech acceleration after the completion of the GCIP Kazakhstan. ITIC will also be responsible for establishing the Project Steering Committee (PSC).
Ministry of Ecology, Geology and Natural Resources (MoEco)	MoEco has the leadership in the formation and implementation of state environmental policy. It is involved in: coordination of management processes in the fields of environmental protection; development of the "green economy"; waste management (excluding municipal, medical and radioactive waste); protection, control and supervision of the rational use of natural resources, including the mineral resource base; use and protection of the water; forest management, etc.	MoEco will be represented in the PSC and will also be involved in the policy development and in overseeing the use of co-financing. The Director of the Department of Climate Change at MoEco is the GEF Operational Focal Point (GEF OFP) in Kazakhstan.
Ministry of Energy (MoE)	MoE carries out the formation and implementation of state energy policy, including oil and gas supply, petrochemical industry, hydrocarbon transportation, uranium mining, petroleum products, electricity, nuclear energy, renewable energy, etc.	MoE will be represented in the PSC.
Ministry of Industry and Infrastructural Development (MIID)	MIID coordinates policy making and provides guidance in the areas of industrial as well as scientific and innovative development of the country.	MoE will be represented in the PSC as well as it will be involved in promotion of innovative green solutions among industrial companies in the country.

Ministry of Digital Development, Innovations and Aerospace Industry (MDDIAI)	MDDIAI is engaged in the formation and implementation of the state policy in the field of digital development, innovation, communications, public services, electronic industry, information security, aerospace industry, geodesy and cartography, as well as it coordinates the development of e-government.	MDDIAI will be represented in the PSC as well as it will be involved in promotion of innovative solutions and will provide governmental support for their development.
Ministry of National Economy (MNE)	MNE is involved in management of state investment projects, as well as investment protection and restriction of monopolistic activity. It also supports economic development, private enterprises, state statistical activity, and consumer protection.	MNE will provide support for promotion of entrepreneurship and for outreach activities conducted by the GCIP Kazakhstan.
National Chamber of Entrepreneurs "Atameken"	?Atameken? is a non-profit organization designed to enhance the negotiation power of business against the government and public authorities. It represents the interests of SMEs, covering all business areas, including internal and external trade.	?Atameken? will help start-ups supported by GCIP Kazakhstan to identify additional financing opportunities.
Kazakhstan Center of modernization and development of housing and communal services	This government institutions provides the legal framework for the implementation of state policy on housing and communal services.	The center will support the project through in-kind co-financing
JSC Science Fund	JSC Science Fund is an institution responsible for coordination and management of R&D activities. It facilitates the advancement of knowledge-based science and technology industries by encouraging innovation and entrepreneurship in order to stimulate economic growth. JSC Science Fund is also responsible for enabling commercialization of R&D products.	JSC Science Fund will provide grants for cleantech commercialization for entrepreneurs supported by the GCIP Kazakhstan.
QazAngels Business Angels Club	QazAngels helps start-ups to successfully overcome the challenges at the initial stage of enterprise development, including the lack of funding and specialized expertise. QazAngels can invest not only in mature projects, but also in projects in the early stages of formation.	GCIP Kazakhstan participants will have an opportunity to pitch to QazAngels and to receive investment in the amount of up to USD 100,000.

Tech Garden	Tech Garden provides guidance to the top innovators in the CIS region. It develops digital projects, including the world?s first VAT blockchain solution. Together with IBM, Rocketspace and local companies Tech Garden also develops technology solutions for the mining and energy industries, tests them locally and scales them worldwide. It also supports early stage companies in lean development, product market fit, packaging and scaling overseas. The infrastructure includes a flagship complex in Almaty and offices in California.	Tech Garden will provide early stage investments in the amount of up to USD 100,000 in the most promising GCIP Kazakhstan start-ups/SMEs.
Aldina Capital	Aldina Capital is a venture capital fund that invests in companies at their early and growth stages of development. Moreover, it provides assistance in: structuring of the annual development strategy; setting of priorities and KPIs; budget analysis and adjustment; search of appropriate sources of project financing; access to a wide base of multifaceted investors; analysis, development and correcting of the company?s business processes; etc.	Aldina Capital will invest up to USD 4 million in total in cleantech start-ups supported by the GCIP Kazakhstan (which reach certain technology readiness level and comply with the requirement of the fund).
QazTech Ventures	QazTech Ventures is a quasi-governmental organization responsible for development of tools for venture financing, dissemination of best practices, analysis of venture capital market, provision of technological expertise, development of incubators and accelerators.	QazTech Ventures will provide investment in the amount of up to USD 150,000 per start-up (max amount USD 1,5 million) to selected GCIP Kazakhstan participants.

Zerde National Infocommunication Holding	Zerde National Infocommunication Holding is the largest ICT company in Kazakhstan, "electronic government"? service integrator, and the main driver of digitalization. Its mission is to create an enabling environment for increasing the competitiveness and economic efficiency of the infocommunication industry; develop infocommunication resources and standards; stimulate investment and innovation activity in the field of infocommunications; promote the development of multilateral cooperation in the ICT field.	GCIP Kazakhstan participants will be provided with tools for accelerating business performance: mentoring from successful entrepreneurs, training, consultations, networking with the best teams, free offices space, PR promotion in the media.
Astana Hub International IT and Startup Hub	The hubs constitute an international technological venue for IT start-ups and the center of startup ecosystem of Kazakhstan. Their mission is to encourage innovation and facilitate establishment of high-tech businesses.	
JSC Center for Engineering and Technology Transfer (Qazinnovations)	Qazinnovations is a national institute that facilitates technological development and operates an innovation grant financing program.	Qazinnovations will support about 20 GCIP Kazakhstan participants within the framework of grant funding for technology commercialization for 3 years for a total amount of USD 7.3 million (max grant for 1 project is USD 365,000).
Nazarbayev University and NURIS (Nazarbayev University Research and Innovation System)	NURIS is a private institution (a subsidiary of the Nazarbayev University). The mission of NURIS is to support development of the national innovation system through creation of knowledge-based and high-tech companies and new technologies, as well as to facilitate the achievement of synergies between science, business and public sector to spur innovation.	NURIS will facilitate organization of GCIP Kazakhstan events at the premises of the Nazarbayev University, promote GCIP Kazakhstan events via its wide network of partners, as well as support the GCIP Kazakhstan Entrepreneurship Train-the -Trainer Programme.

EPR Operator LLP	EPR Operator LLP is a legal entity designated by the government to implement the extended producer responsibility (EPR) activities. It has the exclusive right to organise the collection, transportation, processing, decontamination, recycling and/or disposal of waste products and packaging.	EPR Operator LLP will be a potential client of the entrepreneurs supported by the GCIP Kazakhstan, as well as it will share expertise and knowledge on cleantech demand in the waste sector and circular economy.
ABC-I2BF Seed Fund	ABC-I2BF Seed Fund identifies promising innovative early stage start-ups with potential to grow into scalable businesses. It provides not only finance, but also mentorship and investment facilitation, as it introduces entrepreneurs to a wide network of venture and industry partners.	ABC-I2BF Seed Fund will consider start-ups supported by the GCIP Kazakhstan as potential investment opportunities (with up to USD 100,000 to be invested in selected start-ups).
JSC Astana Innovations	JSC Astana Innovations is a government institute with the mission to enable sustainable development of the Nur-Sultan city.	JSC Astana Innovations will provide access for selected GCIP Kazakhstan participants to the ?Seedspace Nur-Sultan? innovation centre, which will enable them to interact with participants of the international business accelerator (Seedstars).
Samruk Kazyna Invest LLP	Samruk Kazyna Invest LLP is an investment company with a current value of investments amounting to around 22 billion tenge. It invests in projects which are aimed at modernizing the economy of Kazakhstan and supporting the country transition towards green economy.	Samruk Kazyna Invest LLP will consider selected start-ups and SMEs supported by the GCIP Kazakhstan as potential investment opportunities (private equity financing).

Foundation of the First President of the Republic of Kazakhstan - Elbasy	It is the largest non-profit foundation in Kazakhstan, the activity of which is based on professional management principles and systematic approach to all projects. The Foundation was established in 2000 by the President Nursultan Nazarbayev. It carries out projects aimed at improving the competitiveness of human capital and creation of a new generation of Kazakhstanis. In particular, it seeks to support talented young people, the development of social projects and civil initiatives, and the development of a competitive expert-analytical center.	The Foundation is ready to consider supporting selected GCIP Kazakhstan start-ups through grants (in the amount of on average 1 million tenge). In addition, it is interested in promoting cleantech at its annual Renewable Energy Summit being the largest event of this kind in the Central Asia region (in September 2019, it was attended by over 300 delegates from 20 countries).
Organizations and initiatives promoting gender equality and empowerment of women: Association of Businesswomen of Kazakhstan, Council of Business Women, UN Women Kazakhstan, Women in Energy Club (WEC) of KAZENERGY, Business Association of Women Entrepreneurs ?Asia?, Green Women	*Please see the Gender Analysis Report (Annex O) for detailed description.*	The organizations and initiatives promoting gender equality and empowerment of women will support GCIP Kazakhstan in conducting gender mainstreaming activities, as described in details in the Gender Analysis Report and the Draft Gender Mainstreaming Action Plan (Annex O).
Global PEEs: Network for Global Innovation (NGIN) and Cleantech Group (CTG)	-	There will be significant interaction between the GCIP Kazakhstan and GCIP Global, in that the GCIP Global will provide the GCIP Kazakhstan with support in execution of several activities, and the GCIP Kazakhstan will feed back to the GCIP Global, as well as it will be involved in several events facilitated on the global level.

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.

Select what role civil society will play in the project:

Consulted only; Yes

Member of Advisory Body; Contractor;

Co-financier;

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

Executor or co-executor;

Other (Please explain)

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

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

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

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

139. Kazakhstan ranks 56th out of 188 countries with regard to its human development (which translate into the human development index of 0.794). Thanks to national efforts to reduce poverty and

improve the social and economic well-being of the population, from 1990 to 2015 the country increased its human development rating by 15%. Although in general both women and men benefit from higher human development, more data and analyses are needed to assess if and how different these benefits are for both groups.

140. The Global Gender Gap Index (GGGI) published by the World Economic Forum enables a cross-country comparison of gender equality. It measures gender-based gaps in resources and opportunities independently from a country?s level of development. The GGGI takes into consideration four basic categories: economic participation and opportunity, educational attainment, health and survival, and political empowerment. Compared to other countries in Central Asia, Kazakhstan is a positive example of progress in the region. In 2017, Kazakhstan received a score of 0.713, resulting in a ranking of 52nd out of 144 countries globally, and 11th out of 26 countries in Eastern Europe and Central Asia. However, while the results for educational attainment and for health and survival are high, low scores are evident for economic participation and opportunity, as well as political empowerment. In comparison to other countries in the region, Kazakhstan leads in addressing gender inequality, but it still needs to reduce gaps in key areas.

141. The SMEs are a key foundation of Kazakhstan?s business sector. In 2015, 42% of active SMEs were headed by women. Around 80% of women entrepreneurs are registered as individual entrepreneurs (rather than as legal corporations). The majority of SMEs are highly concentrated in a few sectors characterized by low risk and low start-up capital. The remaining SMEs are active in agriculture (23%), transport and communications (8%), and manufacturing (3%). Public opinion poll results also showed that 81% of respondents in Kazakhstan think that female business executives are as competent as male business executives.

142. However, the wage gap between women and men is a sign that gender inequalities persist despite women?s strong presence in the labour market. Women?s total average pay constitutes approximately 81% of men?s total average pay. Although pay differentials are likely to stem to a considerable extent from women?s underrepresentation in more senior ? and better paid ? leadership roles, even among non-management employees, women?s pay is on average significantly lower than men?s pay.

143. Adopted in 2009, the Law on State Guarantees of Equal Rights and Opportunities for Men and Women governs gender policy in Kazakhstan. The country?s Strategy for Gender Equality for 2006-2016 set practical targets to measure progress in attaining gender equality in policy, economy, education, family affairs, access to healthcare and the prevention of violence against women and children. In 2016, the Concept of Family and Gender Policy up to 2030 was approved. It seeks to ensure equal rights for all and prevent gender-based discrimination and gender imbalances.

144. Kazakhstan has ratified several major international treaties, including the UN Convention on Elimination of all Forms of Discrimination Against Women (CEDAW), the Beijing Declaration and Platform for Action, the Convention on the Political Rights of Women, the Convention on the Nationality of Married Women, six International Labour Organisation (ILO) conventions and the 2030 Agenda for Sustainable Development (SDGs). Nevertheless, persistent gender imbalances remain, particularly in wages and access to employment and career opportunities. The wage gaps are common, i.e. in 2016, women in Kazakhstan earned on average 31.4% less than men. In 2016, women made up 56% of government administrative staff but held only 10% of political civil service positions, 22% of seats in Parliament and 24% of executive banking jobs.

145. Cultural norms in Kazakhstan are generally positive toward the concept of equality between women and men. According to the EBRD Life in Transition survey, 83% of respondents in Kazakhstan believe that it is important for girls to achieve university education, which is a view that was shared

almost equally by male and female respondents. Public opinion poll results also showed that 81% of respondents in Kazakhstan think that female business executives are as competent as male business executives. Kazakhstan?s Gender Equality Strategy 2006?2016 acknowledged that stereotypes are critical obstacles to gender equality, noting that the distribution of responsibilities inside the family is traditional and discriminates women.

146. Especially relevant with the view to the target beneficiaries of this project, it can be noted that in 2015, 42% of active SMEs were headed by women. Around 80% of women entrepreneurs are registered as individual entrepreneurs (rather than as legal corporations). The Business Development Road Map 2020, Program on Effective Employment and Mass Entrepreneurship 2020, and the State Program of Industrial and Innovative Development (2015?2019) contained measures for SME support, with stated objectives to promote entrepreneurship among women, youth, and people with disabilities.

147. A guiding principle of the GCIP Kazakhstan 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 Kazakhstan 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. at all stages of the 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 35% women beneficiaries).

148. 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 O) will serve as a framework for the project implementation, as to ensure that both UNIDO and GEF requirements are fulfilled. In alignmnet with the guidelines, attention will be paid to: 1) Gender-sensitive recruitment at all levels where possible, especially in selection of project staff. Gender-responsive TORs will be used, and in cases where the project does not have direct influence, gender-sensitive recruitment will be encouraged. Furthermore, whenever possible existing staff will be trained and their awareness raised regarding gender issues; 2) Consideration of gender dimensions in all decision-making processes (e.g. efforts to achieve gender balance/representation in such processes), including PSC meetings; 3) Collection of sex-disaggregated data; 4) Consultations with and involvement of stakeholders focusing on gender equality and women?s empowerment issues, such as gender experts and organizations, CSOs and NGOs (e.g. for outreach purposes).

149. A Gender Analysis Report was prepared and a Draft Gender Mainstreaming Action Plan was developed (Annex O) 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 Kazakhstan can best contribute to the gender equality and empowerment of women.

150. A summary of some suggested approaches to gender mainstreaming is shown in the table below. A full list and further details are provided in the Gender Analysis Report (Annex O).

Table 13: Approaches to gender mainstreaming.

Stage/Activity	Gender equality measure

Project execution	Gender sensitization workshops will be conducted for all stakeholders involved in GCIP Kazakhstan; A gender training package (material for national capacity building on gender awareness) will be adapted for Kazakhstan from the training package developed by the GCIP Global; Gender focal point will be nominated within the IGTIC.
Training of GCIP Kazakhstan consultants and experts	Consultants/experts will be required to complete the ?I know gender? UN course; Mentors and judges will be provided with training on awareness raising and gender-bias; Consultants will be expected to provide evidence on how gender equality is addressed in the material they develop.
Development of GCIP Kazakhstan guidebooks	Guidebooks will highlight the need to make special effort to encourage women to apply for the GCIP acceleration support, including targeted outreach and gender specific communications material (e.g. videos, success stories) and explicit statements that GCIP encourages applications from women; Training materials for entrepreneurs will include topics on gender awareness; Gender equality will be addressed in the curricula and content of all training material developed for experts.
Application stage for GCIP Kazakhstan Accelerator	Sex-disaggregated data will be collected in application forms; There will be targeted and gender responsive outreach; It will be considered to organize events specifically targeted at connecting women technicians and engineers with business women; A target of at least 35% of women-led enterprise applications is set.
Selection of GCIP Kazakhstan semi-finalists and recruitment of experts	Stringent selection criteria will be defined that provide equal opportunities for both women and men; Women will be involved in the mentoring/training and judging processes so that more role models are created; Special mentoring/training programmes will be targeted at women, and women will be encouraged to act as mentors/trainers/judges; Efforts will also be made to ensure gender balance of mentors/trainers/judges; Special support will be provided to women to prepare for the competition, e.g. women could receive possibility to select their slot, so it does not overlap with their household responsibilities or could be offered safe transport to the competition venue; Evaluation methodology for selection of semi-finalists will consider the gender balance within entrepreneur?s management teams and beneficiaries, as well as gender-responsive policies within their firms.
Special Awards	Special consideration will be given to the creation of a gender related prize (e.g. a prize for the women?s entrepreneur of the year and/or a special award for the team with the product/service with the highest gender equality impact potential). Such a prize was offered in a number of previous GCIPs, which led to an increase in the number of women-led innovators applying for support (e.g. in South Africa, Pakistan, and Morocco the number of applications from women entrepreneurs was between 25% and 40%). In sum, the project design will acknowledge the differences between women and men considering distribution of economic activities and social roles.
Provision of support to entrepreneurs participating in the GCIP Kazakhstan Accelerator, Advanced Accelerator, and Post-Accelerator	Where considered necessary, GCIP will seek to remove barriers to ensure inclusion of women (e.g. segregated financial training might be offered); There is a specific training module foreseen as part of the GCIP Accelerator curriculum to address gender-related challenges and barriers; The training material will be gender-responsive (e.g. stereotypes will be avoided); Trainings will be organized at times suitable for both women and men, and recordings will be provided.

Forums/events	Women participants will be encouraged to attend the forums/events through focused outreach activities; It will be ensured that topics of interest to women entrepreneurs are included in the forum/event agendas; There will be a targeted event or panel to discuss women?s entrepreneurships; Participant data will be disaggregated.
Investment facilitation	Gender lens investing principles will be applied in all investment decision making processes; Specific training material and guidelines on gender lens investment will be developed for financiers.
Capacity building	Capacity building on gender equality will be mainstreamed throughout the project implementation and with regard to all stakeholders; A gender sensitization training for relevant stakeholders will be organized.
Policy support	Gender and youth empowerment policy framework will be developed.

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

151. In order to shift markets towards low-carbon economy there is a need for full engagement in mobilising the private sector to leverage innovation, knowledge transfer, investment and market access. The private sector is key to the creation and expansion of the market for cleantech products and services, achieving GEBs, generating jobs and supporting economic growth.In this context, it also needs to be noted that the widespread adoption and utilization of innovative cleantech has significant potential to address the serious environmental problems and risks faced globally. Cleantech innovations can fuel the next industrial revolution that will shape tomorrow?s global economy, environment, and job market. The private sector engagement is key for the success of this project, as confirmed in stakeholder consultations in the PPG phase. The GCIP Kazakhstan foresees several areas of interaction with the private sector, as described below.

152. There will be direct interactions with and support for entrepreneurs (SMEs and start-ups) offering innovative cleantech solutions. The entrepreneurs are considered as agents of change that bear the potential of instigating a market transformation. The SMEs and start-ups will be supported in the framework of GCIP Kazakhstan Pre-Accelerator, Accelerator, Advanced Accelerator, and Post-Accelerator, as described before. Under the GCIP Global there will be an annual GCIP Global Forum organized as an integral part of efforts to ensure connectivity between CIEEs. The GCIP Global Forum will bring selected participants of national GCIPs 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 Global 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 Global 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.

153. The SMEs/start-ups are supposed to play a vital role in catalysing breakthrough cleantech innovations.SMEs/start-ups are well positioned to participate in future cleantech markets. They are instrumental (but often underrecognized) in furthering growth, innovation, and development. Coupled with a growing cleantech sector, they can help build prosperity in low- and middle-income countries. It is estimated that SMEs make up over 90% of cleantech entrepreneurial endeavours 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 required of cleantech SMEs can be a challenge. Despite opportunities for SMEs in cleantech markets, many businesses still fail. While there are no definitive statistics on cleantech SMEs failure rates, they can be estimated as comparable to those in the ICT and biotech sectors (80-90% failure rates).

154. Next to working closely with start-ups/SMEs, there will be corporate partnerships formed to connect GCIP Kazakhstan participants with various companies with the aim to create joint venture opportunities across borders, to facilitate market expansion and product co-development. This has already been successfully piloted with the Korean Financing Technology Corporation (KOTEC) with collaborations established between Korean SMEs and GCIP alumni from Morocco, Pakistan, Thailand and Turkey. Similar partnerships are expected under this project. In addition, as part of the GCIP Framework, the national PEEs will receive membership in the Network for Global Innovation for the duration of the project. This will provide them and other GCIP Kazakhstan stakeholders with access to international best practices and with opportunities to build cross-border connections with partners in additional countries, including private sector stakeholders.

155. The GCIP Kazakhstan will partner with corporations that seek to identify and invest in innovative cleantech. More specifically, the National Innovation Challenge, to be integrated into the GCIP Kazakhstan Accelerator, will connect selected corporations ? looking for concrete demand-driven solutions ? with GCIP entrepreneurs. The GCIP Kazakhstan will also collaborate with international private sector companies through the Global Innovation Challenge.

156. Moreover, the GCIP Kazakhstan will work together with financing institutions, venture capitalists, and angel investors (such as Samruk Kazyna Invest LLP, ABC-I2BF Seed Fund, QazTech Ventures, Aldina Capital, etc.) that seek to invest in cleantech solutions. More specifically, the PMU will be tasked to organize Investor Connect events to connect potential financiers with entrepreneurs and to facilitate investments. What is more, the GCIP Kazakhstan will provide pre-seed and seed financing to selected SMEs and start-ups (in form of grants disbursed in the framework of the GCIP Kazakhstan Forum), which will have a leverage effect, i.e. additional private finance will be crowded in and de-risked.

157. The GCIP Kazakhstan will also cooperate with industry and business associations (such as the National Chamber of Entrepreneurs "Atameken", QazAngels Business Angels Club, etc.) to leverage their know-how, capital and interest in cleantech innovations, as well as to build their capacity. In addition, industry experts will be engaged as mentors, trainers, judges, and EIRs to support the GCIP Kazakhstan Accelerator, Advanced Accelerator, and Post-Accelerator.

5. Risks to Achieving Project Objectives

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

158. In the preparation and formulation phase of the proposed project, a list of potential risks and mitigation measures was identified. The overall risk rating for this project is low. An elaboration on the possible risks, especially in the field of sustainability, climate change and social issues is provided below.

159. In terms of sustainability of the proposed project, a risk was identified in the possibility of lack of ownership of project results and inability to source funding to continue the activities in the medium and long term, once the funding of the project by GEF has ended. Therefore, a GCIP Kazakhstan sustainability and exit strategy will be developed based on a framework delivered by the GCIP Global, and it will among others include specific considerations related to a formal project closure process (based on targets achieved by the GCIP Kazakhstan) and long-term sustainability of the achieved results. Consequently, the rating for the identified risk regarding the sustainability of this project was set as low.

160. Regarding the gender inclusiveness of the project, a full gender analysis was carried out in the project design phase. Due to the current status of gender roles and cultural norms amongst others, a risk related to gender inclusiveness in the project was identified and rated as low. The application of the UNIDO methodology for gender assessment and gender responsive communication will ensure the inclusiveness of all project activities showing the benefits of gender equality for both women and men. To mainstream women and youth entrepreneurship, an adequate and gender responsive communication strategy will be implemented and sensitization workshops will be organized.

161. A risk also exists that only well-educated and urban women, or women in higher social classes, will benefit from the project, and not women in lower social classes and rural areas that are often poorer and with fewer opportunities. This potential bias is inherent in many women?s empowerment and gender equality projects in countries with a disparity between urban and rural areas. To mitigate this risk, the GCIP Kazakhstan will seek to include competition categories that are targeted at rural regions (e.g. biomass-based technologies) and which feature technology areas that women are currently working in (e.g. energy solutions related to the service sector). In addition, the outreach for the project will be nationwide, covering both urban and rural areas.

162. Climate change is not expected to negatively impact this project, with an exception for cleantech innovation dependent on biomass or water supplies, due to recurring severe drought events in the region. To safeguard against these climate change risks, the screening of technologies to be supported by the GCIP Kazakhstan 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.

163. An environmental risk identified for this project is the possibility of technologies supported by the GCIP Kazakhstan to include the use of blockchain, and thus leading to major GHG emissions, unless powered entirely by renewable energy. Similarly, technologies related to energy storage can have harmful environmental impacts if not managed effectively. Therefore, any cleantech innovation supported by the GCIP Kazakhstan will need to meet strict environmental screening criteria. In addition, an Environmental and Social Management Plan (ESMP) was prepared (Annex P) to mitigate the environmental (and social) risks.

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

Table 14: General risk analysis.

Risk	Risk level	Risk mitigation measures

Institutional Risk ? Lack of absorptive capacity by the national counterpart	Low	Capacity building of the IGTIC will be an ongoing process throughout the project implementation period to ensure that staff are comprehensively trained and sustainability of the programme is ensured.
Institutional Risk ? Insufficient administrative and organizational capacity of the IGTIC for successful execution of the project	Low	An organizational assessment (a micro assessment under the Harmonized Approach to Cash Transfers framework) was conducted during the PPG phase to evaluate potential execution risks. The results showed the risks to be low in all areas under consideration.
Institutional Risk ? Insufficient technical capacity of the IGTIC for successful execution of the project	Low	The IGTIC was nominated by the GEF OFP in consultation with key stakeholders as the most appropriate national agency to execute the project, and therefore it is assumed that it has the pertinent mandate and technical capacity for successful achievement of the project objective and associated outputs and activities.
Institutional Risk ? Lack of effective coordination between various project partners	Low	Proper coordination will be ensured through the establishment of the Project Steering Committee (PSC) and ad-hoc working groups will be formed if necessary.
Operational Risk ? On-going global restrictions due to global shocks (eg. COVID-19)	Medium/ High	In case of travel and/or group meeting restrictions, the GCIP Kazakhstan trainings and meetings/events will be organized on-line.
Sustainability Risk ?Lack of ownership of project results and inability to source funding to continue the activities in the medium and long term	Low	A GCIP Kazakhstan sustainability and exit strategy will be developed based on a framework delivered by the GCIP Global, and it will among others include specific considerations related to a formal project closure process (based on targets achieved by the GCIP Kazakhstan) and long-term sustainability of theachieved results.

Political Risk ? Lack of political support to mainstream innovative cleantech	Low	The project is supported by the Government of Kazakhstan, and different ministries have been involved in the design of the project.
Market Risk ? Lack of interest by entrepreneurs and other stakeholders to participate in the GCIP Kazakhstan	Medium	Outreach and communications activities will be a key component of the GCIP Kazakhstan in the lead-up to the opening of application process and throughout the project to attract entrepreneurs, potential sponsors and partners, and mentors and judges. More specifically, the GCIP Kazakhstan knowledge management, communication, and advocacy strategy will be developed to guide these efforts.
Market Risk ? Failure of businesses supported by GCIP Kazakhstan	Medium	The GCIP guidebooks (for Accelerator, Advanced Accelerator, and Post-Accelerator) will be comprehensive documents that articulate the GCIP approach to promoting cleantech innovation and entrepreneurship in developing countries. As such, they will help ensure that the businesses supported have real market potential. In particular, the GCIP Kazakhstan guidebooks will define eligibility requirements and selection criteria for the participants.
Financing Risks ? Incentive and financial support system are insufficient	Low	The outreach and communications activities will be targeted at, among others, financing institutions, venture capitalists, and angel investors. Moreover, the strong GCIP brand, and the direct involvement of renowned global PEEs are expected to build confidence of national and international financiers. The PSC will include at least one representative of a financing institution or an investor.
Social and Gender Risks	Low	To ensure gender inclusiveness of all project activities, UNIDO methodology for gender assessment and gender responsive communication showing the benefits of gender equality for both women and men will be applied. To mainstream women and youth entrepreneurship, adequate and gender responsive communication strategy will be implemented and sensitization workshops will be organized. A full gender analysis was carried out and its recommendations were incorporated into the project design.
Climate Change Risks	Low	The climate change it is not likely to have severe impacts on this project, with an exception for cleantech innovation dependent on biomass or water supplies. To safeguard against climate change risks, the screening of technologies to be supported by the GCIP Kazakhstan will include an assessment of the climate risks with a time horizon of 30 years, and where a risk is identified it will be necessary for the entrepreneur to propose suitable adaptation or management measures. The GIZ?s Climate Expert Tool could be used as a tool available to entrepreneurs in that context.

Environmental Risks	Medium	It is recognized that some technologies that could potentially be supported by the GCIP Kazakhstan, such as the use of block chain, could lead to major GHG emissions, unless powered entirely by renewable energy. Similarly, technologies related to energy storage can have harmful environmental impacts if not managed effectively. Therefore, any cleantech innovation supported by the GCIP Kazakhstan will need to meet strict environmental screening criteria. In addition, an Environmental and Social Management Plan (ESMP) was prepared (Annex P) to mitigate the environmental (and social) risks.

Table 15: COVID-19 risk analysis.

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

Table 16: COVID-19 opportunity analysis.

Opportunity	Opportunity level	Opportunity optimization measures
New business opportunities created in response to COVID-19 related restrictions and measures	High	Response to COVID-19 restrictions, such as remote working arrangements and no-contact business modalities will require solutions that can be turned into new business models. These opportunities will be analyzed at the national level and shared with the GCIP Kazakhstan 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 Kazakhstan 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 Kazakhstan curriculum so that the entrepreneurs are fully informed of the market and policy trends.

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.

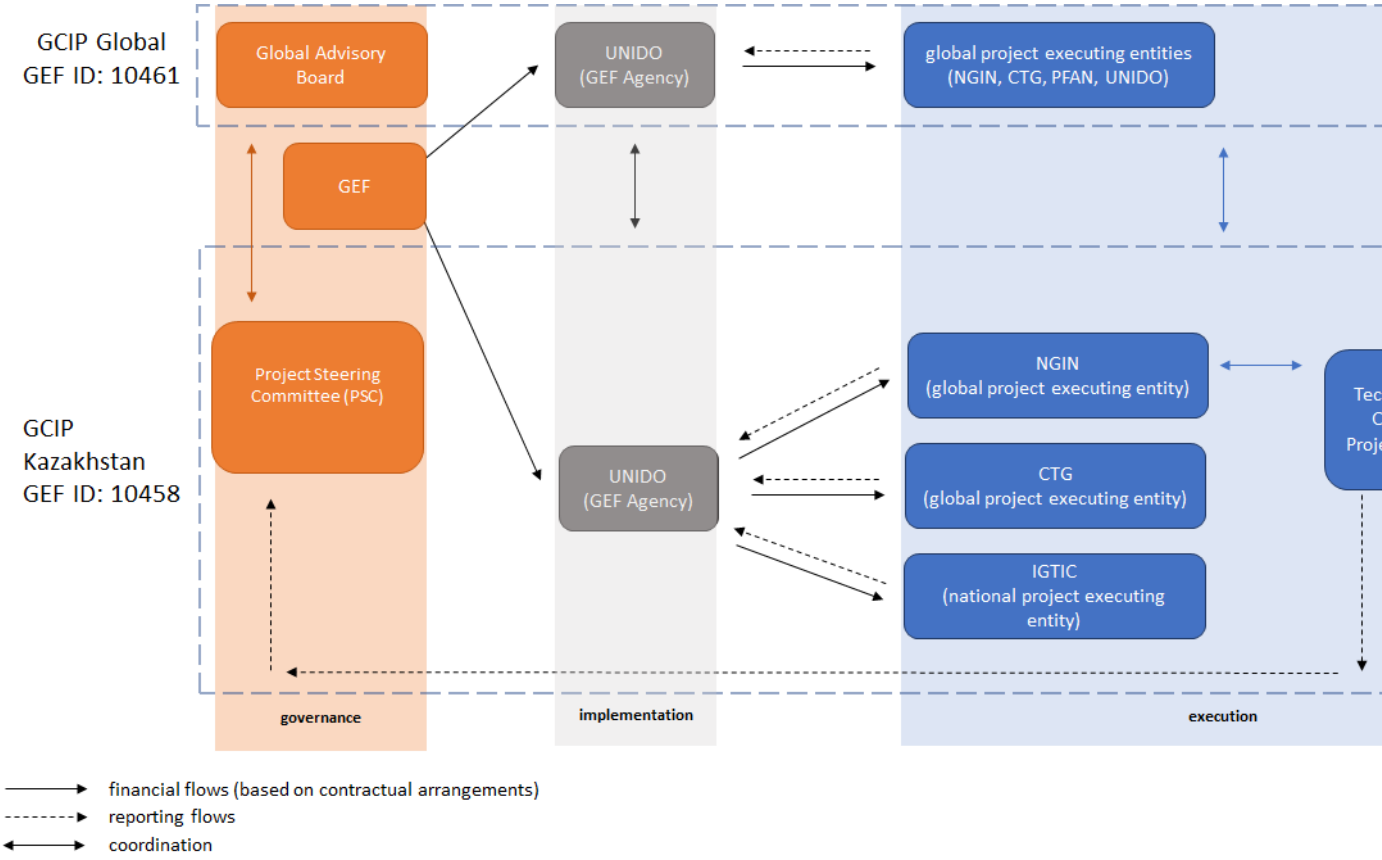


Figure 5: Relationships between project stakeholders under the framework of coordination.

Implementation

165. UNIDO as the GEF Agency will be responsible for the implementation of the GCIP Kazakhstan, 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

166. GCIP Kazakhstan will be executed by a national PEE with support from two global PEE. The *Non-Commercial JSC International Green Technologies and Investment Projects Center* (IGTIC) was nominated by the GEF OFP in Kazakhstan to be the national PEE, and subsequently the IGTIC successfully underwent a HACT assessment initiated by UNIDO. The IGTIC will designate internally, or recruit externally, project management personnel to form the project management unit (PMU). The PMU will consist of the Project Technical Expert and Coordinator and a Project Administration Assistant.

167. 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. The IGTIC 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. More details are included in the project execution agreement draft (Annex J).

168. The global PEEs, that will support the execution of GCIP Kazakhstan, are the Network for Global Innovation (NGIN) and the Cleantech Group (CTG). The global PEEs will perform several activities - some as a service to the GCIP Kazakhstan (i.e. covered from the GCIP Global budget) and some covered from the GCIP Kazakhstan budget - as specified in details in the Tables 6-10 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 the global PEEs (NGIN and CTG) detailing the expected outputs and deliverables.

169. With regard to GCIP Kazakhstan, NGIN 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 the IGTIC, as well as training and workshops provided to the IGTIC to strengthen its capacity to adopt and operationalize the tools and guidelines developed.

Project Steering Committee (PSC)

170. To ensure proper oversight and institutional ownership of the project, as well as to provide advisory inputs, a PSC will be established under the chairmanship of the GEF OFP. Representatives from institutions involved in the different project components will be members of the PSC. 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). The IGTIC forms the secretariat of and reports to the PSC, and it is not a voting member of the PSC.

Global Advisory Board

171. 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 relevant GEF-financed projects and other initiatives

172. This project will be conducted in coordination with ongoing GEF projects as well as other bilateral and multilateral initiatives in Kazakhstan, as to build upon lessons learned, increase synergies, and avoid any duplication of efforts. The ongoing GEF-financed and other projects, as listed in Table 4, will enable GCIP Kazakhstan to benefit from and further expand on the key stakeholder capacity and awareness that was built through them; take advantage of and provide further support for building the momentum for the policies and regulations that have been developed and adopted thanks to them; benefit from the improved investment climate and subsequent crowd in private finance (i.e. GCIP Kazakhstan will leverage on the advanced investment ecosystem); and take advantage of the infrastructure delivered through them.

Legal Context

173. ?The Government of the Republic of Kazakhstan agrees to apply to the present project, mutatis mutandis, the provisions of the Standard Basic Assistance Agreement between the United Nations Development Programme and the Government, signed and entered into force on 29 September 1994.?

Transfer of assets

174. 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.

177. The GCIP Kazakhstan is fully consistent with all relevant national strategies and policy documents outlined in the description of the baseline scenario and including: Concept on the transition to a green economy, Kazakhstan 2050 Strategy, Green Bridge Partnership Programme, Concept on the transition to the Best Available Technologies (BATs), Nurly Zhol program for infrastructure development, Digital Kazakhstan, Business Roadmap 2025, etc. The project also supports the government?s efforts to achieve the objectives of the Paris Agreement, as specified in the Kazakhstan?s INDC.

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

179. The policy framework and institutional capacity are integral parts of GCIP?s ?ecosystems approach?, and also of strategic relevance in ensuring that the Outputs and Outcomes of the project are contributing to the national priorities and are sustained after the project closure. A more detailed description of the national policy documents and strategies can be found below.

180. The Concept on the transition to a green economy lays the foundation for a deep system transformation towards the ?green economy? by improving the welfare and quality of life. As a result, Kazakhstan should be enabled to become one of the top 30 most developed countries in the world while it should also be ensured that the burden on environment is minimized and the degradation of natural

resources prevented. The concept sets an objective to raise the share of RES in the total energy balance of the country to 50% by 2050. The main sectors of focus are water resources, agriculture, energy efficiency, power engineering, air pollution, and waste recycling.

181. The Kazakhstan 2050 Strategy is one of the key plans to define new markets where Kazakhstan can form productive partnerships and create new sources of economic growth; to create a favorable investment climate; and to effectively develop and modernize the public and private sectors. These objectives are underlined in the Fifth Challenge of the 2050 Strategy (Global Energy Security) which stipulates that by 2050 the use of alternative and green energy technologies will allow generating up to 50% of all consumed energy.

182. The Green Bridge Partnership Programme (GBPP) was proposed to form an attempt to create linkages between the Asia-Pacific and European regions on a joint transition to a green economy. It involves the integration of environmental and economic policies for sustainable development, as well as finding common solutions to global environmental problems.

183. The Concept on the transition to the Best Available Technologies (BATs) was prepared by IGTIC, the national PEE of the proposed project, with the purpose to lay a foundation for a systematic promotion of the adoption and use of BATs in accordance with best practices of the OECD, the EU, Russia and other countries, and also to make recommendations for updating the Environmental Code, the Concept on the transition to a green economy, and other regulatory documents. For many decades, Kazakhstan has developed a natural resource management system characterized by a low level of technological innovation, which led to serious anthropogenic environmental pressures on the air, soil and water, especially in the coal, oil and gas, chemical and mining and metallurgical industries. The use of BATs will ensure favorable conditions for life and health of the population, while protecting the environment and preserving biodiversity.

184. The Nurly Zhol program for infrastructure development aims at modernizing the existing residential building stocks and other utilities. The key objectives of the program are 1) the creation of an effective transport and logistics infrastructure; 2) the development of industrial and tourism infrastructure; 3) the strengthening of energy infrastructure in the framework of the Unified Electric Power System; 4) the modernization (reconstruction and construction) of housing and communal services infrastructure, as well as heat, water and wastewater systems; 5) the increase of the availability of housing for citizens; 6) the development of educational infrastructure; 7) the increase of competitiveness of business entities as well as agrarian and industrial complexes; 8) the support for domestic engineering and export; 9) the provision of infrastructure for the projects endorsed in the Business Roadmap 2025 and 2025; and 10) the assurance of product safety and quality through the development of appropriate laboratory facilities.

185. The Digital Kazakhstan program (2018-2022) aims at accelerating the pace of economic development and improving the quality of life of the population through the use of digital technologies in the medium term, as well as creating conditions for the transition of Kazakhstan?s economy to a fundamentally new development trajectory ensuring the creation of a digital economy of the future in the long term. The main program objectives are the digitalization of industry, energy systems, transport and logistics, agriculture; as well as the development of electronic commerce, financial technology and non-cash payments, ?smart? cities; and the expansion of the coverage of communication networks and ICT infrastructure.

186. The project?s focus is also aligned to national priorities relating to innovation and the development of SMEs, as outlined in the Business Roadmap 2025 which provides a framework for the credit support to SMEs with the objective to increase their competitiveness, especially in export-oriented sectors, and to create jobs. The credit support is subject to a number of criteria, one of which is to do business in the country priority fields for innovation and industrial development.

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.

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

188. The GCIP Global has been specifically designed to support and integrate the national child projects under the GCIP Framework through its core activities building synergies, knowledge management and coherence, and in supporting GCIP alumni from the whole programme. The aim of GCIP Global is to scale up the outputs and outcomes from the national child projects through increased engagement. For example, the GCIP Global will enhance and contextualize the support that will be provided to start-ups/SMEs in respective countries, so that they get training and mentoring that is relevant to their national circumstances. This GCIP Global will also focus on knowledge management and development of tools that will ensure that all country counterparts are able to own the programmes and have the knowledge to run them on their own in a long term. Moreover, knowledge management will also focus on assessing the impact of the programme and generating knowledge to influence the discussions on policy and regulations to promote cleantech innovation and entrepreneurship. The GCIP Global will also engage in outreach to investors by developing models of partnerships with the private sector at a global level. In sum, the GCIP Global is designed to make GCIP a truly globally coordinated programme and harness synergies from connecting ecosystems across different GCIP countries, including GCIP Kazakhstan.

189. A key element in knowledge management in the framework of GCIP Kazakhstan will be the creation of a national pool of experts (trainers, mentors, judges), which will allow for best practices and business knowledge to be shared with participants and stakeholders in a structured manner. The national pool of experts will be created from representatives of universities with business development programs, national banks, investment companies and businesses. All of them will be trained to provide entrepreneurs with the skills needed to participate in the GCIP Kazakhstan, and ultimately to bring their innovations to the market.

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

191. The IGTIC and the PMU will be tasked with ensuring the national and international visibility of the GCIP Kazakhstan and accessibility of key findings through the GCIP Kazakhstan web platform. This will provide an opportunity to reach out to future entrepreneurs and investors, while raising public awareness on cleantech and climate change mitigation. All knowledge management activities will be gender responsive, e.g. gender dimensions will be integrated into publications and it will be assured that women, men, and the youth have equal access to and to the same extent benefit from the knowledge created.

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

193. 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. The knowledge management, communication, and advocacy strategy framework will be shared with the IGTIC for review and adaptation to the GCIP Kazakhstan needs, as specified under Output 3.1.2. The GCIP Kazakhstan knowledge management, communication, and advocacy strategy will specify the exact knowledge products to be delivered along with relevant timelines and milestones. The table below provides a general overview of deliverables relevant for knowledge management.

Table 17: Overview of deliverables relevant for knowledge management.

Deliverable	**Timeline**	**GCIP Kazakhstan Budget (USD)**
a pool of experts (trainers, mentors, judges) created (Output 1.1.2)	by the 6 month of project implementation/execution with regular revision/evaluation each year	28,283
the knowledge management, communication, and advocacy strategy framework reviewed and adapted to GCIP Kazakhstan (Output 3.1.2)	by the 6 month of project implementation/execution with regular updates each year	750
policy briefs, impact reports, brochures, webinars policy briefs, impact reports, brochures, webinars and other types of promotional materials distributed through briefing sessions, press releases, social media presence, advertising, etc. ? in line with the GCIP Kazakhstan knowledge management, communication, and advocacy strategy (Output 3.1.2)	from the 6 month of project implementation/execution and according to the timeline as to be specified in the GCIP Kazakhstan knowledge management, communication, and advocacy strategy	54,634
GCIP Kazakhstan web platform created and operationalized (Output 3.1.3), including a special section for the GCIP Kazakhstan alumni network	by the 6 month of project implementation/execution	10,999
GCIP Kazakhstan Forum and GCIP Global Forum, as well as Investor Connect and regional technology brokerage events organized (Output 1.1.3)	annually/twice a year	353,995

194. As already mentioned, since 2011 UNIDO has been supporting cleantech companies in their development via GCIP which 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. By the end of 2017, GCIP accelerated over 865 start-ups/SMEs in 8 countries.

195. The success of GCIP was confirmed through the GEF?s evaluation in 2018.In its framework it was also recommended that: a) 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; b) GCIP should actively support national-level coordination to dynamize the CIEE; c) There should be sufficient time allowed to customize and sharpen the focus on policy strengthening and regulatory frameworks to foster cleantech innovation and its adoption; d) The network of private sector partners

should be expanded to address GCIP participant needs for business expertise and early stage technology validation; e) Direct and indirect impacts of the GCIP should be measured by establishing adequate monitoring and evaluation systems and ensure that they are implemented using standardized and relevant indicators; f) Country engagement should be deepened during the project period, including a plan and resourcing to sustain activities and expand outcomes after project closure.

196. Based on the above-mentioned recommendations UNIDO designed the GCIP Framework in 2019. The GCIP Framework consists of ten country child projects, all of which are connected to the three driving pillars, including a) Pillar 1. Transforming early-stage innovative cleantech solutions into commercial enterprises; b) Pillar 2. Cleantech innovation and entrepreneurship ecosystems strengthening and connectivity; c) Pillar 3. Programme coordination and coherence. The coherence withing the GCIP Framework is ensured through the GCIP Global. The GCIP Framework builds upon the achievements and key lessons learned from the implementation of the GCIP projects so far. In particular, it benefits from the collective feedback by various stakeholders including national counterparts, institutions and SMEs successfully participating in GCIP as well as strategic partners at the global level. The table below provides an overview of the lessons learnt as well as enhancements proposed in the GCIP Framework in general, and in GCIP Kazakhtsan in particular.

Table 18: Enhancements of the GCIP Framework.

Lessons learned from GCIP in 2011-2018 and following recommendations	**Enhancements of the GCIP Framework**	**Specific GCIP Kazakhstan outputs which address corresponding recommendations**
a) More focus on investor outreach and connecting with investor networks; as well as outreach and marketing of the program and showcasing of GCIP supported innovations at global events	Pillar 1 will specifically address this need by organizing Investor Connect events that link GCIP alumni directly with potential investors, financiers and networks. Further, each country child project is expected to have activities dedicated to investor outreach and marketing at national and global levels. Pillar 3 includes global communications, advocacy and outreach activities which will also market the program and advocate innovators at local and global events.	1.1.3 Three cycles of the annual competition-based GCIP Kazakhstan Accelerator are conducted (with up to 75 semi-finalists) 1.2.1 Targeted business growth support services are provided to selected cleantech enterprises (up to 15 through Advanced Accelerator, up to 45 through Post-Accelerator) towards commercialization 1.2.2 Enterprises (up to 15) are connected to financing opportunities and provided with tipping-point investment facilitation support 3.1 2 Programme-level *knowledge management, communication and advocacy strategy* is adapted and implemented by the GCIP Kazakhstan 3.1.3 The GCIP Kazakhstan web platform is operated to maintain the GCIP community

Lessons learned from GCIP in 2011-2018 and following recommendations	Enhancements of the GCIP Framework	Specific GCIP Kazakhstan outputs which address corresponding recommendations
b) Improved cross-country coordination and system to ensure coherence and quality	Pillar 3 will include programmatic coherence and coordination activities in order to provide support to national child project project management units (PMUs), share guidelines and internal standards as well as promote interaction between PMUs.	3.1.1 The GCIP internal guidelines for project management teams are adapted and implemented by the GCIP Kazakhstan
c) Enhanced quality of support	Pillar 1 will develop and provide a GCIP Accelerator, Advanced Accelerator, and Post-Accelerator guidebooks which will equip country child projects with standard GCIP approach and methodology to promote cleantech innovation and entrepreneurship. The guidebooks will also include practical tools and guidelines for operations and management of the acceleration services. Specific effort will be focused on ensuring that the support will be adapted to the local context of the countries.	1.1.1 The GCIP guidebooks are adapted for the GCIP Kazakhstan
d) Advanced business-support for start-ups/SMEs after GCIP acceleration needed	Pillar 1 will provide standard approach for advanced investment and commercialization support to GCIP alumni. This will include further mentoring for advanced business growth, match-making services with interested corporations, investors, governments, and also offering opportunities for start-ups/SMEs to be showcased at high-level international events.	1.2.1 Targeted business growth support services are provided to selected cleantech enterprises (up to 15 through Advanced Accelerator, up to 45 through Post-Accelerator) towards commercialization 1.2.2 Enterprises (up to 15) are connected to financing opportunities and provided with tipping-point investment facilitation support

Lessons learned from GCIP in 2011-2018 and following recommendations	**Enhancements of the GCIP Framework**	**Specific GCIP Kazakhstan outputs which address corresponding recommendations**
e) Increased focus on policy strengthening and regulatory frameworks to foster cleantech innovation	Pillar 2 will cater for policy and regulatory aspects of developing a mature CIEE. The GCIP Framework will assist child projects in strengthening the policy and regulatory frameworks through the sharing best practices, policy dialogue and cross-country exchange of success stories.	2.1.2 Cleantech innovation and entrepreneurship policies, regulations and recommendations (up to 50) are developed
f) Global peer networking among entrepreneurs	Pillar 1 of the GCIP Framework will create and maintain a global community of GCIP stakeholders which will allow cross-border connectivity among GCIP partner countries, facilitate peer to peer networking among entrepreneurs as well as investor matching, sharing of best practices between countries, identifying suitable in-country partners and promoting export opportunities.	1.2.1 Targeted business growth support services are provided to selected cleantech enterprises towards commercialization 1.2.2 Enterprises (up to 15) are connected to financing opportunities and provided with tipping-point investment facilitation support 3.1 2 Programme-level *knowledge management, communication and advocacy strategy* is adapted and implemented by the GCIP Kazakhstan 3.1.3 The GCIP Kazakhstan web platform is operated to maintain the GCIP community
g) Knowledge exchange between national executing agencies and government counterparts	Pillar 2 includes a focus on knowledge management and exchange and is designed to maximize the impact of GCIP by identifying synergies between national CIEEs and ensuring that the successes and achievements of GCIP are captured in knowledge products. Networking will be facilitated between national PEEs and government counterparts.	3.1.1 The GCIP internal guidelines for project management teams are adapted and implemented by the GCIP Kazakhstan 3.1 2 Programme-level *knowledge management, communication and advocacy strategy* is adapted and implemented by the GCIP Kazakhstan 3.1.3 The GCIP Kazakhstan web platform is operated to maintain the GCIP community

Lessons learned from GCIP in 2011-2018 and following recommendations	Enhancements of the GCIP Framework	Specific GCIP Kazakhstan outputs which address corresponding recommendations
h) Improved monitoring and evaluation of impact	Pillar 3 has a specific activity dedicated to impact tracking, which will develop a common methodology for measuring outcomes and impacts to allow for extrapolation and comparisons. Each country child project will use the same methodology and feed their results into the global figures.	3.2.1 The GCIP methodology for impact assessment is adapted and applied
i) Widening the reach of GCIP	GCIP Global Accelerator will be organized under Pillar 1 of the GCIP Framework to support high impact cleantech innovations with commercialization potential beyond domestic markets. This will ensure that cleantech innovations with potential global impact receive specific mentoring and business support for entering global markets.	1.2.1 Targeted business growth support services are provided to selected cleantech enterprises towards commercialization 1.2.2 Enterprises (up to 15) are connected to financing opportunities and provided with tipping-point investment facilitation support 3.1 2 Programme-level *knowledge management, communication and advocacy strategy* is adapted and implemented by the GCIP Kazakhstan 3.1.3 The GCIP Kazakhstan web platform is operated to maintain the GCIP community

9. Monitoring and Evaluation

Describe the budgeted M and E plan

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

198. According to the M&E policy of the GEF and UNIDO, follow-up studies such as 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.

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

200. There will be a GCIP M&E framework provided by the GCIP Global, based on which the IGTIC will prepare a GCIP Kazakhstan M&E plan, including time-bound milestones and deliverables. The IGTIC will also draft progress review reports every six months and prepare annual PIRs. There will be an external mid-term review of the project conducted half way through project implementation. The ESSPP considerations, as well as gender dimensions and baseline for gender related targets (in line with the Gender Analysis Report, Gender Mainstreaming Action Plan, Stakeholder Engagement Plan, and Environmental and Social Management Plan) will be appropriately captured in the GCIP Kazakhstan M&E plan, in the progress review reports, as well as in the collection and assessment of relevant data.

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

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

Table 19: M&E activities.

M&E Activity	Timeframe	GEF Budget (USD)	UNIDO in-kind co-financing (USD)	IGTIC in-kind co-financing (USD)	Responsible Parties
M&E plan preparation	first 3 months after implementation start	2,000	20,000	20,000	IGTIC
Periodic progress reports	6-monthly	8,000	20,000	20,000	IGTIC
External mid-term review	at 1.5 years	30,000	20,000	40,000	External evaluator, submission to UNIDO
Independent terminal evaluation	started six months prior to the expected completion date of the project	50,000	20,000	40,000	External evaluator, submission to UNIDO
	Total	90,000	80,000	120,000	

10. Benefits

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

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

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

11. Environmental and Social Safeguard (ESS) Risks

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

Overall Project/Program Risk Classification*

PIF	CEO Endorsement/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.

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

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted

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).

Annex A: Project Results Framework
GCIP Kazakhstan

Project Strategy	KPIs/Indicator[1]	Base-line	Target (for the entire project duration)	Means of Verification	Assumptions
Objective To accelerate cleantech innovation and entrepreneurship by SMEs and start-ups and to strengthen the cleantech innovation and entrepreneurship ecosystem of Kazakhstan	USD mln investment leveraged	0	1,5-2	Project progress reports Project evaluation reports Project impact reports	Continuous support from the Government of Kazakhstan and national partner institutions Commitment by CIEE stakeholders Interest by cleantech entrepreneurs and investors
	number of enterprises with economic gains (sales, savings)	0	30-45 (at least 35% women-led)		
	number of additional jobs created or retained	0	40 (at least 35% women employed)		
	number of enterprises with an increase in exports	0	5-10 (at least 35% women-led)		
	number of SMEs with increased inclusion in value chains	0	10-15 (at least 35% women-led)		
	CO2eq emissions reduced (tons) directly and indirectly	0	at least 135,000 (directly) and at least 675,000 (indirectly)		
	MW added generation capacity	0	n/a[2]		
	cumulative improved energy efficiency	0			
	number of new technologies adopted	0	75		
Component 1 Transforming early-stage innovative cleantech solutions into commercial enterprises					
Outcome 1.1 Cleantech solutions with high-impact potential are supported to reach commercialization					
Output 1.1.1 The GCIP guidebooks are adapted for the GCIP Kazakhstan	number of suggestions for improvement of the GCIP guidebooks	0	5-10	Project progress reports Attendance records from consultation meetings Meeting minutes	Continuous support from the Government of Kazakhstan and national partner institutions Commitment by CIEE stakeholders Interest by cleantech entrepreneurs
	number of GCIP Kazakhstan gender-responsive guidebooks for Accelerator, Advanced Accelerator, and Post-Accelerator	0	2 (1 for Accelerator, 1 for Advanced Accelerator)		
	number of consultation sessions on GCIP Kazakhstan guidebooks with relevant CIEE stakeholders	0	2		
	number of stakeholders with whom the GCIP Kazakhstan guidebooks shared	0	1000-1200 (at least 35% women)		
	number of corporate partners with interest to participate in the National Innovation Challenge identified	0	3-7		

[1] Sex-disaggregated wherever possible.
[2] The targets will be set after the first cycle of the GCIP Kazakhstan Accelerator, based on the review of the number and quality of applications featuring renewable energy and energy efficiency technologies.

Output 1.1.2 Pool of cleantech innovation and entrepreneurship experts (trainers, mentors, judges) is trained and certified to support the GCIP Kazakhstan Accelerator	number of suggestions for improvement of the GCIP cleantech innovation and entrepreneurship expert training and certification system	0	5-10	Project progress reports	
	number of GCIP Kazakhstan cleantech innovation and entrepreneurship expert training and certification systems	0	3 (1 for trainers, 1 for mentors, 1 for judges)		
	number of trainings provided to experts	0	3 (1 for trainers, 1 for mentors, 1 for judges)		
	number of participants per one expert training	0	10		
	share of women in expert training	0	at least 35%		
	number of experts evaluated	0	30 (at least 35% women)		
	number of experts accredited	0	15-30 (at least 35% women)		
Output 1.1.3 Three cycles of the annual competition-based GCIP Kazakhstan Accelerator are conducted	number of GCIP Kazakhstan Pre-Accelerator cycles conducted	0	1	Attendance records from trainings Project progress reports	
	number of GCIP Kazakhstan Pre-Accelerator participants	0	100-120		
	number of teams participating in the GCIP Kazakhstan Pre-Accelerator that apply for GCIP Kazakhstan Accelerator	0	30-40		
	number of GCIP Kazakhstan Accelerator cycles conducted	0	3		
	number of GCIP Kazakhstan Accelerator applicants	0	150-300 (at least 35% women)		
	number of GCIP Kazakhstan Accelerator semi-finalists	0	60-75		
	number of GCIP Kazakhstan Accelerator finalists		15-24		
	share of women among semi-finalists and finalists	0	at least 35%		
	number of GCIP National Academies conducted	0	3		
	number of GCIP Kazakhstan Forums and regional brokerage events conducted	0	10-12 (3 GCIP Kazakhstan Forums and 7-9 regional brokerage events)		
	number of help-lines for queries established	0	1		
	number of targeted gender-responsive outreach activities promoting the GCIP Kazakhstan Pre-Accelerator, Accelerator, GCIP National Academy, and GCIP Kazakhstan Forum	0	10-20		
	number of panels at GCIP National Academy and GCIP Kazakhstan Forum focusing on women entrepreneurship	0	8-10		

	number of partners involved that promote gender equality and women's empowerment	0	5-10		
Outcome 1.2 Start-ups and SMEs are supported through advanced and gender-responsive business growth and investment facilitation services					
Output 1.2.1 Targeted business growth support services are provided to selected cleantech enterprises towards commercialization	number of enterprises provided with Advanced Accelerator support	0	9-15	Project progress reports Meeting attendance records Meeting minutes	Continuous support from the Government of Kazakhstan and national partner institutions Commitment by CIEE stakeholders Interest by cleantech entrepreneurs and investors
	number of GCIP Kazakhstan Post-Accelerator cycles conducted	0	3		
	number of enterprises participating in the GCIP Kazakhstan Post-Accelerator	0	30-45		
	number of GCIP Kazakhstan Post-Accelerator enterprises provided with needs-based support	0	15-25		
	number of enterprises provided with technology verification, product development and testing facility support	0	15-25		
	share of women entrepreneurs participating in the GCIP Kazakhstan Post-Accelerator	0	at least 35% in the first year and at least 40% in the second and third year		
	number of targeted support activities for products/services that promote gender equality and women's empowerment	0	3-5		
	number of targeted support activities for women entrepreneurs	0	3-5		
Output 1.2.2 Enterprises are connected to financing opportunities and provided with tipping-point investment facilitation support	number of Investor Connect events organized	0	6-10		
	number of financial institutions and funds with which contacts established	0	20-25		
	number of gender-responsive awareness raising events for investor community	0	3-7		
	number of investors (representatives of commercial banks, investment funds, public/private companies, as well as individuals, etc.) participating in the awareness raising events	0	15-35		
	share of women investors participating in the awareness raising events	0	at least 35%		
	number of trainings for local financial experts	0	3-5		
	share of women financial experts participating in the trainings	0	at least 35%		

	number of events organized/attended to encourage seed funding providers to participate in the GCIP Kazakhstan	0	3-5		
	number of trainings on gender-lens investment or gender sensitization for investors	0	3-5		
	number of enterprises connected to financing opportunities and provided with tipping-point investment facilitation support	0	up to 15		
Output 1.2.3 Mentoring and partnership support is provided to cleantech enterprises for global market expansion	number of GCIP Kazakhstan alumni with access to the i3 database	0	90-105 (at least 35% women)		
	number of GCIP Kazakhstan alumni nominated for support by the GCIP Global Accelerator	0	5-10		
	share of women entrepreneurs nominated for support by the GCIP Global Accelerator	0	at least 35%		
	number of global engagement strategies	0	1		
	number of global engagement workshops	0	2		
	share of women among the workshop participants	0	at least 35%		
	number of targeted mentoring activities for women entrepreneurs	0	3-5		
Component 2 Cleantech innovation and entrepreneurship ecosystem (CIEE) strengthening and connectivity					
Outcome 2.1 The CIEE in Kazakhstan is strengthened and interconnected					
Output 2.1.1 Institutional capacity building of the CIEE actors is conducted	number of analyses of Kazakhstan's CIEE	0	1	Project progress reports Meeting attendance records Meeting minutes	Continuous support from the Government of Kazakhstan and national partner institutions Commitment by CIEE stakeholders Interest by cleantech entrepreneurs
	number of tools for CIEE strengthening and connectivity	0	2		
	number of gender-responsive stakeholder engagement strategies and cleantech innovation cluster strategies	0	2 (1 engagement strategy and 1 cleantech innovation cluster strategy)		
	number of engagement workshops organized	0	2		
	number of facilitators trained	0	10		
	share of women participants trained as facilitators	0	at least 35% in the first year and at least 40% in the second and third year		
	number of capacity building events for selected stakeholders	0	1-3		
	number of participants in the stakeholder capacity building events	0	30-90		

	share of women participants in the stakeholder capacity building events	0	at least 35%		
	number of stakeholders that completed the 'I-know-gender' training	0	500-700 (at least 35% women)		
	number of the gender-responsive Entrepreneurship Train-the-Trainer Programme cycles	0	2-4		
	number of university professors and teachers trained	0	15-20		
	number of women among the university professors and teachers trained	0	4-6		
Output 2.1.2 Cleantech innovation and entrepreneurship policies, regulations and recommendations are developed	number of gender-responsive recommendations for the cleantech, innovation, and entrepreneurship policy	0	40-50	Project progress reports Meeting attendance records Meeting minutes Project progress reports	
	number of stakeholder engagement workshops	0	2		
	number of participants in the stakeholder engagement workshops	0	500-700		
	share of women participants in the stakeholder engagement workshops	0	at least 35%		
	number of gender-responsive roadmaps guiding implementation of the policy recommendations	0	1		
	number of policy clauses relating to gender equality	0	5		
Output 2.1.3 An inter-ministerial technical working group is established	number of inter-ministerial technical working groups established to facilitate the identification of possible compliance barriers for cleantech innovations and streamline the development of remedial solutions	0	1		
	number of organizations invited to the inter-ministerial technical working group that promote gender equality and the empowerment of women	0	3-5		
Component 3 Programme coordination and coherence					
Outcome 3.1 Efficiency and sustainability of the GCIP Kazakhstan 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 Kazakhstan	number of gender-responsive tools/books (with operational guidelines for the PMU)	0	1	Project progress reports Meeting attendance records Meeting minutes	Continuous support from the Government of Kazakhstan and national partner institutions Commitment by CIEE stakeholders Interest by cleantech entrepreneurs
	number of sustainability and exit strategies	0	1		
Output 3.1.2 Programme-level *knowledge management, communication and advocacy strategy* is adapted and implemented by the GCIP Kazakhstan	number of GCIP Kazakhstan gender-responsive knowledge management, communication, and advocacy strategies	0	1		
	number briefing sessions, press releases, social media posts and adverts	0	200-300		
	number of memorandums of understanding (MoUs)/cooperation agreements	0	20-30		
	number of targeted communications to women		3-5		
Output 3.1.3 The GCIP Kazakhstan web platform is operated to maintain the GCIP community	number of GCIP Kazakhstan web platforms	0	1		
	number of GCIP Kazakhstan alumni networks and associated web platforms	0	1		
	number of members in the GCIP Kazakhstan alumni network	0	90-105		
	share of members of the GCIP Kazakhstan alumni network that are women	0	at least 35%		
	number of alumni network chapter for women entrepreneurs established	0	1		
Outcome 3.2 Impacts and progress of the GCIP Kazakhstan are tracked and reported					
Output 3.2.1 The GCIP methodology for impact assessment is adapted and applied	number of trainings on the GCIP methodology for impact assessment	0	3	Project progress reports Training attendance records	Continuous support from the Government of Kazakhstan and national partner institutions
	number of participants in trainings on the GCIP methodology for impact assessment	0	30-90		
	share of women participants in trainings on the GCIP methodology for impact assessment	0	at least 35%		
	number of GCIP Kazakhstan impact reports	0	4-5		

Annex A: Project Results Framework
GCIP Kazakhstan

Output 3.2.2 Project activities are tracked and reported based on the GCIP monitoring and evaluation (M&E) framework, as well as an external mid-term review is conducted	number of GCIP Kazakhstan monitoring and evaluation (M&E) plans	0	1		Commitment by CIEE stakeholders Interest by cleantech entrepreneurs
	number of project progress reports	0	6		
	number of external mid-term review reports	0	1		
	number of reviews of the Gender Mainstreaming Action Plan	0	3		
Output 3.2.3 Independent terminal evaluation is conducted	number of independent terminal evaluation reports	0	1		

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).

Annex B: Responses to Project Reviews
GCIP Kazakhstan

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 the GEF Council and the GEF Scientific and Technical Advisory Panel (STAP) were addressed across all the 11 child projects and, where feasible, country specific responses are provided.

Comments		UNIDO Responses
Germany		
1	Germany welcomes this innovative proposal that aims to foster clean tech start-ups and SMEs through capacity building, access to finance, policy and regulatory strengthening and learning and exchange, building on the lessons learnt from a previous project. The proposal is aligned with the relevant GEF focal strategy and comprehensive. Germany requests that the following requirements are taken into account during the design of the final project proposal:	n/a
2	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	Across all 11 child projects, the environmental risk section was reviewed and revised based on the comments, and the environmental risks of some technologies were acknowledged and mitigation measures proposed. More specifically, the project now includes environmental experts amongst the mentors, judges and trainers that will support the SMEs. This will ensure that all possible environmental risks for all innovations are systematically identified and mitigated. The technology selection criteria for applications submitted to GCIP will be devised to include assessment of mitigation measures for possible negative environmental and social impacts. Where required, specialized expertise will be sourced to help the entrepreneurs to minimize the negative impacts and, in the event that mitigation measures are not sufficiently addressed, then that technology will not be supported by GCIP.

	and risk mitigation measures, which are often not effectively enforced.	
3	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 impact of technologies will be assessed against local climate risks in the target markets, as part of the support provided within the GCIP Accelerator. Minimizing any negative environmental and social impacts will be accounted for in the technology selection criteria for applications submitted to GCIP. Adaptation strategies will also be prepared if necessary. UNIDO reviewed the "Climate Expert" tool in details and found it to be quite relevant. UNIDO will systematically recommend the "Climate Expert" as one of the tools available to entrepreneurs and GCIP mentors, judges and trainers across the 10 countries.
4	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 they are cleantech and in line with GEF 7 CCM focal area programming directions[1] (i.e. electric drive technologies and electric mobility, accelerating energy efficiency adoption, decentralized renewable power with energy storage, cleantech innovation, sustainable cities, and food systems, land use and restoration, etc.). As such, low-tech and lower-tech approaches to energy, resource efficiency, waste management, etc. will not be excluded from the GCIP scope of support. Their uptake will depend on the state of the markets in each of the countries. In the GCIP Global child project, an appropriate footnote was added to Output 1.1.1. For the 10 country child projects, the technology selection criteria for the GCIP Accelerators will be adapted at the national level and will take into account the local skills and technology base. The GCIP approach is designed to address other ecosystem weaknesses that may impact SME's ability to develop and scale-up beyond finance and skills. For example, Component 2 tackles some of these weaknesses by building capacity and supporting policy development that will strengthen the local ecosystem.
5	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.	All GCIP child projects will actively identify synergies with other programmes or initiatives in respective countries and, as outlined in the stakeholder engagement plans, they will engage and work with others, such as for example KfW and GIZ.
6	Germany further invites consideration of potential additional synergies with research	UNIDO has been in discussions with various other accelerators with a view to establishing strategic partnerships and synergies. Such accelerators include Cleantech Scandinavia, Impact Hub, and

[1] https://www.thegef.org/council-meeting-documents/gef-7-programming-directions.

	institutes (e.g. by leveraging the partners with Climate-KIC); such partnerships might be able to provide some of the IT technology needed or help to bring technologies to maturity and to foster market readiness	Climate-KIC. In the case of Climate-KIC, UNIDO recognized the need for a strategic partnership on GCIP and other programmes. Accordingly, UNIDO and Climate-KIC will sign a Memorandum of Understanding to promote partnership under GCIP so as to leverage opportunities for co-innovation and joint ventures between GCIP alumni and Climate-KIC alumni. Part of the collaboration is focused on creating linkages between the two programmes (Climate-KIC and GCIP) as well as on application of common methodologies and tools, and on organization of joint events that will give the opportunity for GCIP alumni to link with each other and with investors. Next to collaborating with other accelerators, GCIP also engages with R&D institutes. They are a key stakeholder in GCIP's ecosystem approach, which is reflected for example in the GCIP child project stakeholder engagement plans, and targeted activities, such as the train-the-trainer programme that is conducted in cooperation with national universities.
United States		
1	We are supportive of this project, through there were initial concerns that the program appears to be duplicative of other major UN programs and IERNA efforts. Reviewers noted that as long as UNIDO, IRENA, the World Bank, Clean Energy Ministerial, CSL F, IEA, OECD, USAID, the EU, GiZ, and other major donors who are active in this space coordinate and de-conflict their efforts, or receive funding for their efforts from the program, it seems fine to promote innovation in clean technologies	In a meeting the GEF Secretariat clarified that the GCIP uniquely combines an array of comprehensive and interlinked services to promote innovative cleantech solutions in developing countries and emerging economies. There are no known overlaps with any existing programmes or initiatives pursued by the UN, IRENA or other institutions. As specified in the descriptions of baseline scenario and any associated baseline projects in the respective RCEs, all child projects are designed with careful consideration of other ongoing projects/initiatives and with the objective to maximize synergies and avoid duplications with them.

2	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.	The independent evaluation by GEF IEO[2] of past GCIP projects unequivocally concluded that the programme was successfully implemented. These evaluation findings and feedback from participants have served as a basis to design the activities of the GCIP Global child project and cascaded to all the 10 countries. Furthermore, UNIDO has also been successfully implementing projects under other GEF programmes within the GEF 7 CCM focal area but with focus on topics other than cleantech, such as e-mobility and sustainable cities. In implementing GCIP, UNIDO will continuously review lessons from these and other successful programmes pursued by various institutions, so as to learn and apply best practices.
GEF Scientific and Technical Advisory Panel (STAP)		
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 GCIP 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 GCIP Global 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 stakeholder 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:	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 GCIP Global child project.

[2] https://www.thegef.org/sites/default/files/council-meeting-documents/EN_GEF.ME_C.55.inf_.03_GEF-UNIDO_Cleantech_program_evaluation_2018.pdf.

	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	
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. through common tools and methodologies. The co-financing is country-specific and will be captured through the regular monitoring and tracking activities, such as the PIRs.
STAP Comments – January 2020		
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	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.

	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	
4	There is considerable emphasis on scaling based on prior experiences. In this regard, the differential experience between the countries will need to be carefully monitored, particularly with regard to the effective implementation of co-financing arrangements.	Each country project is designed and developed with its unique context in mind while still ensuring that coherence exists in the programmatic approach i.e. common tools and methodologies. Co-financing is country-specific and will be monitored through the regular monitoring and tracking activities, such as the PIRs.

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

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 (IGTIC) 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.

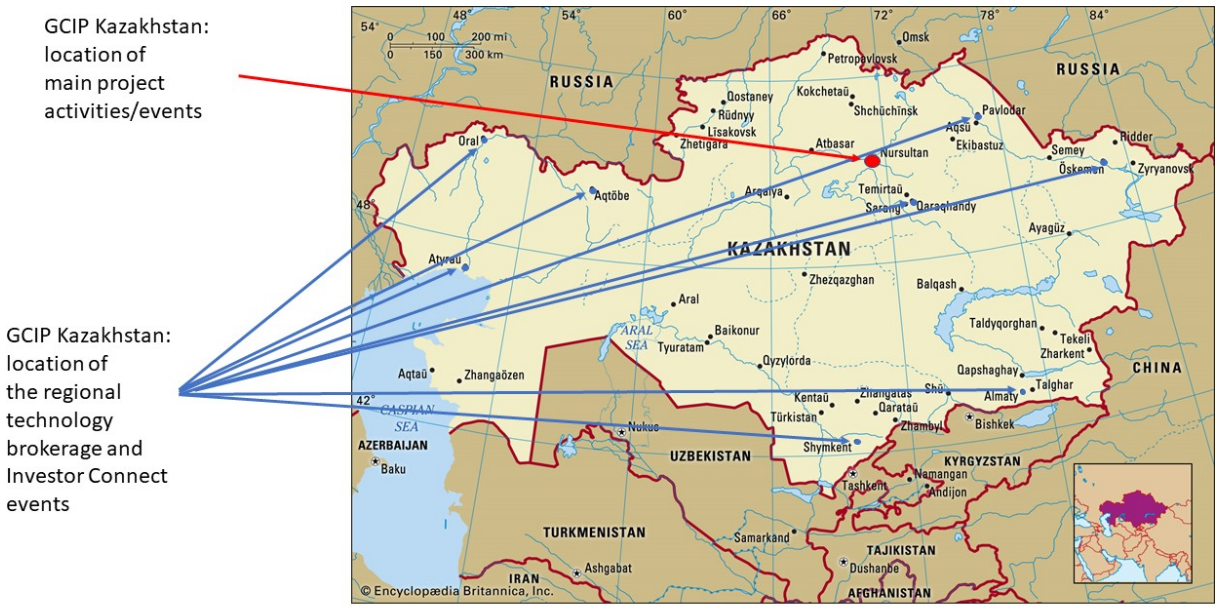
Project Preparation Activities Implemented	GETF/LDCF/SCFF Amount $		
	Budgeted Amount	Amount Spent to Date	Amount Committed
Validation workshop with key stakeholders	10,000	0	0

Description of the project implementation/execution modalities and agencies (incl. draft TOR for contractual arrangements)	5,000	5,000	0
Assessments of proposed executing agency capacity through HACT assessment	30,000	25,168.90	0
Finalization of project documents (including for example environmental and social management plan, gender analysis report, co-financing letters), as well as of internal review and approval processes	5,000	5,000	0
Activities aimed at 1) a detailed diagnosis of the cleantech entrepreneurship and innovation ecosystem: SWOT analysis of selected stakeholder groups, appraisal of the policy mix, identification of Pre-Accelerator participants, mapping of investor preferences; as well as at 2) the operationalization of selected project documents, i.e. preparation of: the Gender Mainstreaming Action Plan, monitoring plan for the implementation of the Stakeholder Engagement Plan, calendar of planned events for the entire project duration, a M&E plan for project execution, ToR draft and proposal for SC composition	n/a	4,647.48	10,183.62
Total	50,000	39,816.38	10,183.62

ANNEX D: Project Map(s) and Coordinates

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

While the project is targeted at beneficiaries (entrepreneurs and all relevant CIEE stakeholders, such as universities, policy makers, financiers, and R&D institutions, etc.) from all over the country, the main project activities will be conducted in the capital city of Kazakhstan (Nursultan). This is due to benefits resulting from a relatively dense concentration of relevant stakeholders there, and well-developed infrastructure. In addition, there will be regional technology brokerage and Investor Connect events organized in eight cities (Oral, Atyrau, Aqtobe, Pavlodar, Oskemen, Qaraghandy, Almaty, Shymkent), as pictured on the map below. The project boundary will not overlap any other country?s territory.



ANNEX E: Project Budget Table

Please attach a project budget table.

This is a summary of the budget table which can be found uploaded as Annex F.

Years 1-3												
Expenditure Category		Detailed Description (Activity)	Outcome 1.1	Outcome 1.2	Outcome 2.1	Outcome 3.1	Outcome 3.2	Sub-Total	M&E	PMC	Total (USDeq.)	Responsible Entity (*UNIDO's subcontract to executing entities)
Contractual services		1.1.1.a to review the GCIP guidebooks and to share suggestions for their improvement	1,500					1,500			1,500	IGTIC
		1.1.1.b to adapt, consult, and disseminate the GCIP guidebooks	5,525					5,525			5,525	NGIN
		1.1.2.b to adapt and operationalize the GCIP expert training and certification system	1,513					1,513			1,513	NGIN
		1.1.2.c to provide training and certification to experts, as well as to conduct their evaluation	20,000					20,000			20,000	IGTIC
		1.1.3.a to deliver the GCIP Kazakhstan Pre-Accelerator	8,817					8,817			8,817	NGIN
		1.1.3b to deliver the GCIP Kazakhstan Accelerator	76,020					76,020			76,020	NGIN
		1.1.3c to organize the annual GCIP Kazakhstan Forumand regional brokerage events	342,162					342,162			342,162	IGTIC
		1.1.3d to establish and maintain a helpline	13,950					13,950			13,950	NGIN
		1.2.1b to conduct the GCIP Kazakhstan Post-Accelerator		28,090				28,090			28,090	NGIN
		1.2.2a to organize the Investor Connect event		140,000				140,000			140,000	IGTIC
		1.2.3b to prepare a global engagement strategy and to include entrepreneurs in the i3 database		80,000				80,000			80,000	CTG
		2.1.1.a to conduct and consult an analysis of Kazakhstan's CIEE, including policy framework			30,000			30,000			30,000	CTG
		2.1.1b to develop tools for CIEE strengthening and connectivity, as well as to train facilitators			70,000			70,000			70,000	IGTIC
		2.1.1d to deliver the Entrepreneurship Train-the-Trainer			60,000			60,000			60,000	IGTIC
		2.1.2a to develop and consult policy recommendations,			62,400			62,400			62,400	CTG
		2.1.3a to establish an inter-ministerial technical working			30,000			30,000			30,000	IGTIC
		3.1.1a to review and adapt GCIP internal guidelines for				3,100		3,100			3,100	IGTIC
		3.1.1b to develop GCIP Kazakhstan sustainability & exit strategy, incl. Greentech Hub business plan				83,500		83,500			83,500	IGTIC
		3.1.2b to capture knowledge gathered by GCIP Kazakhstan				52,634		52,634			52,634	IGTIC
		3.1.3.a to create and maintain a section for the GCIP Kazakhstan on the global GCIP web platform				9,999		9,999			9,999	IGTIC
		3.2.2a to conduct the external mid-term review						-	30,000		30,000	IGTIC
		3.2.3a to conduct the independent terminal evaluation						-	50,000		50,000	UNIDO
		translation	18,000	16,000	4,000	2,000		40,000			40,000	IGTIC
		sub-total	487,487	264,090	256,400	151,233	-	1,159,210	80,000		1,239,210	GTIC, CTG, NGIN, UNIDO
International consultants		financial consultant(s) (Activities 1.1.3b, 1.2.2a, 1.2.2b, 1.2.2c)	30,000	30,000				60,000			60,000	IGTIC
		technical/business consultant(s) (Activities 1.1.3b, 1.2.1c, 1.2.1d)	30,000	30,000				60,000			60,000	IGTIC
		sub-total	547,487	324,090	256,400	151,233	-	1,279,210	80,000		1,359,210	GTIC, CTG, NGIN, UNIDO
National staff and consultants	Short-term consultants	technical/business/policy consultant(s) (Activities 1.1.1b, 1.1.2a, 1.1.2b, 1.1.2c, 1.1.3b, 1.2.1c, 1.2.1d, 2.1.1c)	19,000	8,000	19,000			46,000			46,000	IGTIC
		financial consultant(s) (Activities 1.1.3b, 1.2.1c, 1.2.2a, 1.2.2b, 1.2.2c, 2.1.1c)	12,000	15,000	24,126			51,126			51,126	IGTIC
		environmental and social consultant(s) (Activities 1.1.1b, 1.1.3b, 1.2.1c, 3.2.1c)	10,200	9,000			6,000	25,200			25,200	IGTIC
		gender consultant (Activities 1.1.1b, 1.1.3b, 1.2.2c)	6,200	3,100				9,300			9,300	IGTIC
		policy expert(s) (Activity 2.1.2b)			20,000			20,000			20,000	IGTIC
	PMU staff	Project Coordinator	28,950	16,000	15,000	8,500	11,850	80,300	6,000	18,399	104,699	IGTIC
		Project Assistant	5,500	5,500	1,250	250		12,500	4,000	44,820	61,320	IGTIC
		sub-total	629,337	380,690	335,776	159,983	17,850	1,523,636	90,000	63,219	1,676,855	GTIC, CTG, NGIN, UNIDO
Travel to meetings, project sites, workhops, etc.										83,145		IGTIC
Office (supplies, rent, equipment, etc.)										15,000		IGTIC

YEARS 1-3 TOTAL	Outcome 1.1	Outcome 1.2	Outcome 2.1	Outcome 3.1	Outcome 3.2	Sub-total	M&E	PMC	TOTAL
Outcomes	629,337	380,690	335,776	159,983	17,850				
Components		1,010,027	335,776		177,833	1,523,636	90,000	161,364	1,775,000

Entity	YEARS 1 - 3
IGTIC	1,433,685
NGIN	118,915
CTG	172,400
UNIDO	50,000
TOTAL	1,775,000

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.

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.

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).