GEF-8 PROJECT IDENTIFICATION FORM (PIF)

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General Project Information

Project Title	
Promoting cleantech innovation and entrepreneurship in Algeria	
Region	GEF Project ID
Africa	12359
Country(ies)	Type of Project
Algeria	MSP
GEF Agency(ies):	GEF Agency ID
UNIDO	240036
Executing Partner	Executing Partner Type
National Cleaner Production Centre	Government
GEF Focal Area (s)	Submission Date
Multi Focal Area	5/26/2026
Project Sector (CCM Only)	
Technology Transfer/Innovative Low-Carbon Technologies	
Taxonomy	
Focal Areas, Climate Change, United Nations Framework Convention on Climate Change, Nationally Determined Contribution, Enabling Activities, Climate Change Mitigation, Sustainable Urban Systems and Transport, Agriculture, Forestry, and Other Land Use, Energy Efficiency, Renewable Energy, Biodiversity, Mainstreaming, Fisheries, Extractive Industries, Infrastructure, Tourism, Gender Equality, Gender Mainstreaming, Gender-sensitive indicators, Sex-disaggregated indicators, Women groups, Gender results areas, Knowledge Generation and Exchange, Access to benefits and services, Participation and leadership, Capacity, Knowledge and Research, Innovation, Learning, Indicators to measure change, Theory of change, Knowledge Generation, Workshop, Training, Influencing models, Convene multi-stakeholder alliances, Transform policy and regulatory environments, Strengthen institutional capacity and decision-making, Demonstrate innovative approache, Stakeholders, Type of Engagement, Partnership, Participation, Consultation, Information Dissemination, Civil Society, Non-Governmental Organization, Academia, Community Based Organization, Local Communities, Indigenous Peoples, Private Sector	
Type of Trust Fund	Project Duration (Months)
GET	60
GEF Project Grant: (a)	GEF Project Non-Grant: (b)
2,549,767.00	0.00
Agency Fee(s) Grant: (c)	Agency Fee(s) Non-Grant (d)
242,228.00	0.00
Total GEF Financing: (a+b+c+d)	Total Co-financing
2,791,995.00	6,330,300.00

PPG Amount: (e)	PPG Agency Fee(s): (f)
100,000.00	9,500.00
PPG total amount: (e+f)	Total GEF Resources: (a+b+c+d+e+f)
109,500.00	2,901,495.00
Project Tags	
CBIT: No NGI: No SGP: No Innovation: No Competitive Window: No	

Project Summary

Provide a brief summary description of the project, including: (i) what is the problem and issues to be addressed? (ii) what are the project objectives, and if the project is intended to be transformative, how will this be achieved? iii), how will this be achieved (approach to deliver on objectives), and (iv) what are the GEBs and/or adaptation benefits, and other key expected results. The purpose of the summary is to provide a short, coherent summary for readers. The explanation and justification of the project should be in section B "project description".(max. 250 words, approximately 1/2 page)

The Cleantech Algeria project addresses the urgent and interlinked challenges of climate change, biodiversity loss, and limited commercialization of innovative cleantech solutions in Algeria. As part of the Mediterranean Basin biodiversity hotspot, Algeria hosts rich ecosystems that are increasingly under threat from land degradation, water scarcity, pollution, and unsustainable resource use. Over 3,600 species are at risk, and ecosystem pressures are intensifying due to climate change and economic activities. At the same time, early-stage cleantech enterprises face persistent barriers to commercialization, including limited access to finance, weak market linkages, and insufficient ecosystem support. These constraints limit the deployment of solutions capable of reducing key drivers of biodiversity loss, such as ecosystem degradation, pollution, and overexploitation of natural resources.

The project objective is to accelerate the development, commercialization, and scale-up of high impact cleantech innovations that contribute to climate change mitigation, just energy transition and biodiversity conservation. It focuses on strengthening Algeria's cleantech innovation and entrepreneurship ecosystem and enabling MSMEs and startups to deliver solutions that addresses the drivers of climate change and biodiversity loss, introduce measures to reduce ecosystem pressures while supporting sustainable economic development.

To achieve this, the project is structured around three components.

1. **Transforming early-stage cleantech solutions into commercial enterprises:** Supporting startups and MSMEs through innovation challenges, acceleration programmes, and tailored business and investment support to bring climate and biodiversity-positive technologies to market.

2. **Strengthening the cleantech innovation and entrepreneurship ecosystem connectivity:** Enhancing policy frameworks, institutional capacity, and stakeholder coordination to enable the development and adoption of cleantech solutions, including those that contribute primaily to climate change mitigation and biodiversity conservation with sustainable land management as co-benefits where relevant.

3. **Knowledge management, communications, and impact measurement:** Developing tools, platforms, and knowledge products to track, validate, and scale climate and biodiversity impacts, while promoting replication and policy uptake.

The project will promote cleantech solutions across priority areas including renewable energy, industrial and building energy efficiency, energy storage and management systems, electric mobility and charging infrastructure innovation, climate smart agriculture, water use efficient technologies, resource efficiency and and nature-based solutions. These interventions will directly target the main drivers of climate change and biodiversity loss in Algeria by primarily reducing carbon footprint and GHG emissions, reduce climate induced impacts, enhance ecosystem resilience, protect and conserve biodiversity ecosystem and offer additional co-benefits by reducing land degradation and improving water and soil management.

The project will generate significant global environmental benefits. The project is expected to mitigate 108,000 metric tons of CO_2e directly and 129,600 metric tons of CO_2e indirectly, improve the management of approximately 200,000 - 250,000 hectares of landscapes, while benefiting approximately 300 direct beneficiaries and generating wider socio-economic benefits including improved public health, reduced household energy costs, and strengthened sustainable livelihoods. Through its integrated approach, the project will strengthen private sector engagement in biodiversity conservation, catalyze investment in nature-positive solutions, and create enabling conditions for long-term, scalable environmental and socio-economic impacts.

Indicative Project Overview

Project Objective

Promote the acceleration of high-impact clean technology innovation for large-scale deployment to support climate change mitigation, reduce key biodiversity loss, and create green jobs.

Project Components

1. Transforming early-stage innovative cleantech solutions into commercial enterprises

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing ($)	Co-financing ($)
1,392,715.00	4,431,211.00

Outcome:

1.1 Climate and biodiversity positive cleantech solutions with high impact potential are supported to reach commercialization and deployment

1.2 Startups and MSMEs are supported through advanced business growth and investment facilitation services

Output:

1.1.1 Methodologies, tools, training systems, guidebooks for cleantech innovation and entrepreneurship accelerator are developed for Algeria, for national accelerator delivery

1.1.2 Pool of fifty cleantech experts (trainers, mentors, judges) are trained and certified to support the accelerator (with at least 40% women)

1.1.3 Relevant national stakeholders are convened and trained as challenge owners to design and conduct an innovation challenge (community-led/government-led/industry-led)

1.1.4 Three cycles of the annual cleantech accelerator are conducted, prioritizing climate mitigation and biodiversity-positive innovations, including solutions that generate complementary benefits(at least 60 enterprises - at least 40% women- and 30% youth-led)

1.1.5 Integrated climate and biodiversity impact measurement tools are developed with other relevant environmental co-benefits

1.2.1 Tailored business growth support services are provided to selected cleantech enterprises towards commercialization (at least 20 enterprises - least 40% women- and 30% youth-led)

1.2.2 Enterprises are connected to financing opportunities and provided with tipping-point investment facilitation support (at least 15 enterprises - 40% women- and 30% youth-led)

1.2.3 Impact validation services are provided for alum enterprises (at least 25 enterprises – 40% women- and 30% youth-led)

1.2.4 Mentoring and partnership support is provided to cleantech enterprises for global market expansion (at least 8 enterprises - 40 % women- and 30% youth-led)

1.2.5 National cleantech financing facility and investor matchmaking platform established to support early-stage, high-impact enterprises

1. Transforming early-stage innovative cleantech solutions into commercial enterprises

Component Type	Trust Fund
Investment	GET
GEF Project Financing ($)	**Co-financing ($)**
120,000.00	791,288.00

Outcome:

1.1 Cleantech solutions for just energy transitions, climate change mitigation, and biodiversity conservation with high-impact potential are supported to reach commercialization

Output:

1.1.4 Three cycles of the annual cleantech accelerator are conducted, prioritizing climate mitigation and biodiversity-positive innovations, including solutions that generate complementary benefits- (at least 60 enterprises - at least 40% women- and 30% youth-led)

2. Strengthening the cleantech innovation and entrepreneurship ecosystem (CIEE) and its inter-connectivity

Component Type	Trust Fund
Technical Assistance	GET

GEF Project Financing ($)	Co-financing ($)
400,000.00	316,515.00

Outcome:

2.1 CIEE is strengthened to support commercialization and scaling of climate- and biodiversity-positive innovations

Output:

2.1.1 CIEE analysis and stakeholder dialogues conducted, and policy recommendations developed to strengthen commercialization of innovative climate- and biodiversity-positive cleantech solutions

2.1.2 National cleantech innovation opportunities mapped and regional innovation ecosystems strengthened, with emphasis on climate mitigation technologies and biodiversity-positive value chains

2.1.3 Capacity strengthened to finance and scale climate- and biodiversity-positive cleantech solutions

3. Knowledge management, communications, impact measurement

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing ($)	Co-financing ($)
400,000.00	316,515.00

Outcome:

3.1 Outcomes are enhanced through knowledge management, communications, and advocacy

Output:

3.1.1 Knowledge management, communications, and advocacy strategies are developed and adapted by the PMU

3.1.2 National web platform (including impact tools) is developed and operated

3.1.3 Cleantech Ecosystem Mapping and Impact Indicators

M&E

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing ($)	Co-financing ($)
115,635.00	158,256.00

Outcome:

4.1 Monitoring Outcome: Progress monitoring conducted

4.2 Evaluation Outcome: Evaluation conducted

Output:

Monitoring Outputs: Progress monitoring and reporting are conducted as per UNIDO and GEF guidelines.

Evaluation Outputs: Mid-term review and independent terminal evaluation are conducted.

Component Balances

Project Components	GEF Project Financing ($)	Co-financing ($)
1. Transforming early-stage innovative cleantech solutions into commercial enterprises	1,392,715.00	4,431,211.00
1. Transforming early-stage innovative cleantech solutions into commercial enterprises	120,000.00	791,288.00
2. Strengthening the cleantech innovation and entrepreneurship ecosystem (CIEE) and its inter-connectivity	400,000.00	316,515.00
3. Knowledge management, communications, impact measurement	400,000.00	316,515.00
M&E	115,635.00	158,256.00
Subtotal	**2,428,350.00**	**6,013,785.00**
Project Management Cost	121,417.00	316,515.00
Total Project Cost ($)	**2,549,767.00**	**6,330,300.00**

Please provide justification

PROJECT OUTLINE

A. PROJECT RATIONALE

Briefly describe the current situation: the global environmental problems and/or climate vulnerabilities that the project will address, the key elements of the system, and underlying drivers of environmental change in the project context, such as population growth, economic development, climate change, sociocultural and political factors, including conflicts, or technological changes. Describe the objective of the project, and the justification for it. (Approximately 3-5 pages) see guidance here

Country context

Algeria is located in northwestern Africa and is one of the largest countries on the continent with an estimated population of 43 million. Over the last two decades, the country has undergone significant positive transformations, characterized, in part, by an increase of life expectancy at birth by 9.9 years, mean years of education increased by 4.4 years, and expected years of schooling increased by 5.0 years.[1][1] The Human Development Index was 0.748 in 2022, positioning it at 91 out of 189 countries, placing it in the high human development category.[2][2] Between 1990 and 2022, Algeria's HDI value rose from 0.572 to 0.748, an increase of 30%. Algeria's Gross National Income per capita increased by about 30% between 1990 and 2022. When discounted for inequality, the HDI falls to 0.596, a loss of 20.3% largely due to inequality in education.

Faced with particular geological and climatic conditions, Algeria is considered today as a "land at risk". Of the fourteen major risks identified by the UN, ten are found in Algeria, namely: earthquakes and geological risks, floods, climatic risks, radiological risks, forest fires, industrial and energy risks, risks relating to human health, risks relating to biodiversity and ecosystem services, atmospheric, land-based, marine or water pollution, and disasters due to large human groups. Algeria has a legislative framework capable of preventing the country from the consequences of major risks but has not yet developed reliable prevention and intervention instruments to properly manage and implement plans capable of reducing risks.

Baseline scenario

Biodiversity

Algerian biodiversity (natural and agricultural) is immensely rich, with approximately 16,000 known species overall and many more of which are still unknown.[3][3] The discovered marine environment alone includes 3,183 identified species including 720 genera and 655 families. Within the marine flora, 713 species are estimated, and when included in littoral and island vegetation, along with marine and littoral ornithological fauna, the count rises to 4,150 species. Moreover, Algeria's Sahara region includes various ecosystems, many of which remain undiscovered. Beyond the coastal and Sahara areas, mountainous regions also contribute significantly to biodiversity.[4][4]

Yet, Algeria's biodiversity and ecosystem is highly endangered. 121 species are listed on the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) with 75 species classified as endangered. Among these endangered species, 23 are fish, 14 are mammals, and 11 are birds. According to the Algerian Centre for the Development of Biological Resources, over 3,606 animal and plant species in Algeria are currently at risk of extinction and

floral biodiversity is threatened with extinction and nearly 51% of floral biodiversity is threatened with extinction. This underscores the urgent need for conservation efforts. The country's biodiversity situation is particularly alarming within the Mediterranean region.

Human activities are posing significant threats to biodiversity, as highlighted by the Convention on Biodiversity (CBD). These threats primarily stem from the destruction and overexploitation of biological resources. The escalating pressure on biodiversity is further exacerbated and compounded by climate change's impacts, particularly in desertification and the narrowness of the areas exploited.

Algeria has been a party to the Convention on CBD.[5] Algeria's Stratégie et Plan d'actions nationaux pour la biodiversité (2016-2030)[6](further referred to as NBSAP) submitted under the CBD underscored biodiversity's pivotal role in sustainable socioeconomic development and climate change mitigation. The plan outlines four strategic objectives: adapting institutional, strategic, and legislative frameworks; enhancing knowledge dissemination and awareness; promoting conservation and restoration efforts; and developing key biodiversity sectors to bolster green growth. Each objective and national target is intricately mapped to Aichi Biodiversity Targets and Sustainable Development Goals. With 113 actionable items identified, the plan anticipates an initial investment exceeding USD 100 million. Objective 12 introduced measurable indicators for ecosystem restoration: Increase in protection and conservation status of terrestrial (target: 50%) and marine (target: 5%) areas by 2030, restoration of more than 5 million hectares by 2030. The NBSAP also emphasized that the role of the private sector and the need for innovation to address the drivers of biodiversity loss.

Biodiversity is an important resource for Algeria. Various strategic economic sectors, including agriculture, fisheries, trade, health and tourism, exploit this wealth at a regular rate of 30% of GDP.[7] In order to deal with the various disruptions threatening Algeria's biodiversity, the adoption and transition towards cleantech solutions is of crucial importance both for the preservation of Algeria's biodiversity and the fight against climate change. In particular, Algeria has abundant solar potential and promoting the use of renewable energy not only reduces GHG emissions but also decreases the impact of human activities on ecosystems.

Algeria's NBSAP identifies habitat degradation, overexploitation of natural resources, pollution, water scarcity, unsustainable production systems and climate change as key drivers of biodiversity loss. The project aims to address these underlying drivers by accelerating the commercialization and deployment of biodiversity-positive cleantech solutions. Such solutions address the driver of biodiversity loss, reduce pressures on ecosystems through improved resource efficiency, reduced pollution, sustainable production and consumption practices, and reduced dependence on fossil-fuel-based systems. By supporting MSMEs and startups that develop and deploy these solutions, the project contributes to the implementation of NBSAP priorities and KMGBF Targets 10 and 15, while generating complementary benefits for ecosystem restoration and land management where relevant.

Climate change mitigation & a need for a just energy transition

Algeria has made a commitment through the Intended Nationally Determined Contribution (INDC) to reduce its GHG emissions between 2021 and 2030 by 7% with domestic resources and by 22% with the contribution from international donors. It also pledged to reduce its consumption of electrical energy by 9%, to increase the share of renewable energies in

electricity production to 27% by 2030, to convert one million light-duty vehicles to liquefied petroleum gas (LPG) and more than 20,000 buses to compressed natural gas (CNG), and to establish an energy-efficient housing programme. The time elapsed between Algeria's international commitments, the development of national strategies, in particular the legal arsenal and concrete actions, remains too long and Algeria has not yet been able to meet its targets. In addition, energy subsidies lead to a growth in national energy consumption of around 6% per year.

The economic growth of Algeria has for decades been intrinsically linked to the hydrocarbon sector performance which makes up 96% of total exports and is a source of almost one third of government revenues. The drop in global oil prices since 2014 has led to large twin deficits in the fiscal and current accounts, and Algeria's budget deficit rose to 15.7% of GDP in 2015. Therefore, the recent increases in the share of non-hydrocarbon sectors of the economy are explained more by the fall in revenues from hydrocarbons than the increase in revenues from other sectors of the economy. Overreliance on extraction and production of hydrocarbons, and dependence on oil export revenues result in currency appreciation and decreases in competitiveness of other sectors due to high import prices. This prohibits diversification of industry in Algeria.

The non-hydrocarbon sectors remain unproductive and uncompetitive in the international market. The low level of productivity of the Algerian industry is mostly due to the investment climate which has not sufficiently encouraged private initiative, an essential vector of growth. Representing only 6% of GDP in 2019, industry is a low added value sector characterized by: a) reduced importance of heavy and processing industries (the most active being food industries), b) geographical concentration around large cities: Algiers, Oran, Sétif, Annaba, and c) technical, technological, and financial dependence on foreign sources.

Algeria's energy and electricity infrastructure is fossil fuel intensive, making Algeria the third largest GHG emitter in Africa. Economic growth also remains energy intensive, with each dollar of GDP produced using 4.5 mega joules of energy. In 2018, Algeria reached near universal access to energy with 99% of the population connected to electricity, which meant that production of electric energy doubled between 2000 and 2018. 90% of electricity is produced from natural gas, representing 70% of national energy consumption in 2018. Therefore, the next big challenge for Algeria is a transition from its current energy production and consumption patterns to a more sustainable, economical, and cleaner energy path. For the clean energy transition, Algeria will need to secure the right mix of human capital with diverse range of expertise and capacities, as well as the technological and financial resources to develop an industry allowing the integration of global value chains in the production, installation, and maintenance of renewable energy equipment, especially for solar and wind power plants.

A just energy transition in Algeria will contribute to advancing climate mitigation and renewable energy objectives while safeguarding affordability, and creating inclusive economic opportunities beyond the hydrocarbon sector. This is critical given Algeria's high export dependence on hydrocarbons, its electricity access achieved through gas-dominated power, and the need to manage transition impacts on jobs and MSMEs. In practice, this implies enabling a gradual shift toward renewables and energy efficiency without compromising energy access and reliability. In practice, this means fostering economic diversification to reduce exposure to fossil fuel volatility; creating decent green jobs across renewable energy, energy efficiency, resource- and material efficiency, sustainable mobility, and ecosystem restoration value chains; and enabling MSMEs and local suppliers, most of which are microenterprises to participate in emerging markets. It further

requires investing in skills development, reskilling and upskilling for youth and workers transitioning from legacy sectors; addressing regional disparities and ensuring participation of communities highly dependent on hydrocarbons; and embedding gender equality and social inclusion so that women, youth, and vulnerable groups are not left behind.

Algeria's energy transition is implemented through a centralized institutional framework under strong state leadership. Energy policy, planning, and sector oversight are led by the Ministry of Energy and Renewable Energies (MEER), which defines national renewable energy priorities and coordinates with state-owned utilities, notably Sonelgaz, to ensure grid stability and infrastructure readiness Technical execution is supported by specialized public institutions: the National Agency for the Promotion and Rationalization of Energy Use (APRUE) leads energy efficiency program (industry, buildings, transport), runs audits/capacity building, and manages incentive schemes, while the Renewable Energy Development Center (CDER) serves as the primary hub for public-sector research, testing, and certification platform to support bankability and localization. Strategic evaluation and advisory support are provided by the Commission for Renewable Energy and Energy Efficiency (CEREFE), which operates at central government level and evaluates policy implementation, produces annual assessments, and develops technical guidance (e.g., solar lighting), and has published the national hydrogen development strategy (2024).

Sonelgaz Group is the national electricity and gas utility; its subsidiary GRTE acts as the transmission system operator (TSO) and is modernizing the grid to integrate largescale solar and wind. Sonatrach is the national oil & gas company and plays a growing role in onsite renewables and green gases. A joint venture between Sonelgaz and Sonatrach—SHAEMS—serves as the project company and onestop shop for IPPscale solar, including land allocation, SPV participation, and longterm PPAs within the Solar 1 GW and subsequent tenders.

The operationalization of national climate policies is led by the Ministry of Environment, supported by the National Agency for Climate Change (ANCC) for technical monitoring, with inter-ministerial coordination facilitated through the National Climate Committee (CNC). To foster private-sector engagement, the Algerian Investment Promotion Agency (AAPI) acts as the administrative one-stop shop for investment facilitation, while SHAEMS operates as a public project company responsible for structuring utility-scale solar projects and interfacing with Independent Power Producers (IPPs). The above landscape clarifies where a cleantech innovation and entrepreneurship (CIEE) project anchors: (i) policy aligned innovation challenges (RE integration, EE in industry/buildings, digital grid, storage, sustainable mobility), (ii) collaboration with APRUE/CDER/CEREFE for standards, testing, and tech transfer, (iii) IPP ready business models leveraging SHAEMS/CREG frameworks, and (iv) MSME participation in local supply chains linked to Sonelgaz/Sonatrach programs.

Economic growth and innovation

Low productivity results in, and in part caused by, the fact that the private sector provides poor employment conditions. Purchasing power has fallen due to currency depreciation and inflation while wages have not been revised since 2012, except for the basic minimum wage. The low wages, and the size of the informal sector, which is estimated at 45% of the economy, leave a

large part of the Algerians without formal work and social protection.[8] In summary, Algeria's economic growth remains too weak to provide decent and sustainable living conditions and purchasing power of citizens, marking the country particularly vulnerable to external shocks.

Public investments in research and development have experienced a net increase equivalent to 80% in ten years but remain insufficient for the needs of a transition to a competitive and efficient economy. Moreover, the lack of coordination and collaboration between the vast network of universities in the country, hundreds of research laboratories, the rich fabric of private sector companies, and the public sector explain the low commercialization rate of research and lack of direction and synergies needed to achieve a diversified economy led by digitalization and innovation.

MSMEs in Algeria represent 99% of companies (1.2 million in 2019), and 97% of MSMEs are micro-enterprises that employ less than 10 employees. The number of registered firms of medium size is approximately 3000, defined as between 50 and 249 employees, account for only about 0.3% of all MSMEs. This “missing middle” phenomenon is shared with many other emerging markets, as is the issue of having a large informal economy. Over 51% of MSMEs operate in the services sector, and many companies engage in handicrafts and construction industries, at 23% and 15% respectively.[9] The main challenges experienced by the MSME sector include difficult and costly access to finance, complex access to land, high taxation, bureaucracy and restrictive customs regulations, unfair competition of the informal sector, and scarcity of skilled labor. In addition, Algeria’s current legal framework does not encourage the creation of newer business models that are characteristic of impact-driven enterprises, such as social and environmental enterprises and MSMEs. The lack of a formal framework or support can result in fiscal and operational disadvantages, as policies and government agencies do not understand the specificities of impact-driven enterprises, leading to inappropriate tax demands and difficulties in accessing conventional finance.[10]

Algeria ranks in 115th place among the 133 economies featured in the Global Innovation Index of 2024 and is placed in the at the bottom of the ranking of countries assessed on their innovation performance within the region of Northern Africa and Western Asia.[5][11] Relative to GDP, Algeria is performing below expectations for its level of economic development, and Algeria produces less innovation outputs relative to its level of innovation investments. According to StartupBlink’s Global Startup Ecosystem Index 2023, Algeria is considered a contender ecosystem with a very high potential to enter the top 100 global startup ecosystems, provided that the government offers support and resources to foster the ecosystem growth.[6][12] As the most developed and high performing economies in the world depend on innovation performance, it is of utmost importance to boost the country’s innovation inputs and outputs through a strengthened CIEE.

According to the Bloomberg Innovation Index 2020, Algeria is part of the top 60 most innovative economies worldwide. Algeria ranked 48th place, considering the country’s investment in research, manufacturing added value, productivity, the dynamism of the tertiary sector, the number of companies in the hi-tech product sector, the number of patents applied for and the number of researchers in relation to the population. Algeria scored above average within five

indicators, namely patents filed, productivity, number of companies in the hi-tech sector, number of researchers in relation to the population and investment in research.[7][13]

Entrepreneurship

In 2017, Law No. 17-02 on the development of SMEs was adopted to encourage the establishment of new ventures, and to improve both their competitiveness and export capacity. The law tasks the National Agency for the Development of SMEs with the growth and modernization of the MSME/startups sector and the execution of the country's accompanying development strategy. The law also provides for the creation of a coordination council, which brings together specialists and representative organizations relevant to Algerian MSMEs/startups. The law also foresees the establishment of two funds to support the development of MSMEs, including the Algerian Credit Guarantee Fund and a seed capital fund. The latter is expected to help finance costs related to the development of product prototypes, such as business plans, research, and development. It is envisaged that these funds would ease one of the most binding constraints on small businesses in Algeria.

While accessing finance has always been an obstacle for Algerian MSMEs/startups, the decline of liquidity in the banking sector has made it more challenging and costly. The MSME compartment of the local stock market has been open since 2012 but has yet to see its first listing. This could become a viable alternative source of financing for some larger, high-potential MSMEs, thereby contributing to the development of the country's capital markets and economy at large. It is hoped that when the governance and financing framework envisaged under Law No. 17-02 is fully operational, the limited access to finance and other challenges faced by MSMEs/startups can be tackled more effectively.

The country is also seeing a rise in new initiatives to boost entrepreneurship. Some examples include the two new initiatives launched by the Ministry Delegate to the Prime Minister in charge of Knowledge Economy and Startups:

Algeria Startup Fund (ASF)[8][14]: The ASF is an investment fund of 1.2 billion Algerian dinars (10.4mil EUR) established in October 2020, to finance innovative companies. The Fund will be managed by the National Agency for the Promotion and Development of Technology Parks and is a collaboration of the Ministry and six public banks. The ASF is part of the ambitious startup act to support innovative companies, and is a public venture capital company, which will provide finance to innovative ventures, with equity and quasi-equity contributions.

Algeria Venture (A-venture)[9][15]: Algeria Venture is a state-owned startup accelerator and open innovation center established in March 2021. The accelerator is a 6-to-12-month programme with the capacity to accommodate up to 30 enterprises and is intended to operate as part of a nation-wide network of other similar initiatives and projects.

While Algeria's cleantech sector is still emerging, several areas are demonstrating strong growth potential and offer opportunities for value chain development. The most advanced segment is

renewable energy (particularly, solar), supported by Algeria's world-leading solar irradiance and national targets to deploy 15 GW of solar power by 2035.[10][16] Wind energy is also gaining traction, especially along the coast.[11][17] Although upstream equipment is largely imported, local capacity in engineering, installation, and O&M is expanding through international partnerships.

Other promising sectors include green hydrogen (supported by EU partnerships),[12][18] industrial energy efficiency, waste-to-value (including recycling and bio-based products), agri-tech, sustainable aquaculture, and biodiversity-based eco-tourism. Across these sectors, the local manufacturing base remains limited, but there is significant potential to strengthen domestic supply chains through technology transfer, MSME development, and skills training. Mapping and supporting these opportunities will be central to the cleantech Algeria's approach in identifying innovation challenge themes and tailoring acceleration services.

However, there are still a number of challenges remaining that limit Algerian businesses in commercializing cleantech solutions, including the lack of cleantech-specific accelerators, access to finance and huge infrastructure deficits in the critical areas of energy supply, water and transport, which in turn are stunting the development of productive industrial and agricultural sectors.

In summary, Algeria's cleantech sector is at an emerging stage. There remains a need for further support in the field of advanced commercialization support, further incubation, access to early-stage financing, national networking within the complex ecosystem, commercialization with market, finance linkages, and widening and increasing the geographical reach and support to national partners. These interventions are required to address the challenges associated with climate change and biodiversity loss, and subsequently to enable economic opportunities, job creation, and a shift towards a sustainable development of the country.

Landscape of investments

While climate- and biodiversity-focused finance for enterprises remains scarce, the project complements Algeria's existing renewable energy, climate change, and biodiversity GEF projects and programmes. This project specifically fills a gap by focusing on early-stage cleantech entrepreneurship. The current landscape of the climate change and biodiversity investments in Algeria is outlined in the table 1 below, including key GEF, EU and GIZ funded projects.

Funding partner & Agency	Initiative/project name	Amount of investment/funding provided	Focal Areas	Project interventions
GEF Food and Agriculture	Reshaping Algeria's Cities for a	GEF Grant: 2,958,103 USD	Climate Change	1. Promoting integrated and inclusive urban

Organization (FAO)	Clean and Healthy Environment Today and Tomorrow (REACT) (GEF ID 11345)	Co-financing: 32,815,576 USD		planning, the creation of ecological corridors, green belts, and circular systems for water and waste management, and the regeneration of green revenues. 2. Integration of ecosystem-based solutions, adapted to local contexts, such as the rational use of water and the choice of plant species compatible with local conditions.
GEF UNIDO	Child Project of the Global Clean Hydrogen Programme of Algeria (GEF ID 11438)	GEF Grant: 634,932 USD Co-financing: 2,152,500 USD	Biodiversity, Climate Change, Land Degradation	1. Strengthening national policy frameworks, regulatory standards, and financial mechanisms to support the uptake of clean hydrogen technologies 2. Enhancing technological readiness to reduce carbon emissions 3. Addressing local knowledge and capacity gaps at institutional and technical levels in coordination with the Global Child Project, fostering synergies and avoiding

				duplication of efforts
GEF United Nations Development Programme (UNDP)	Restoration and sustainable forest management of the Algerian Aleppo pine forest, ecosystem (GEF ID 11179)	GEF Grant: 3,502,968 USD Co-financing: 24,000,000 USD	Biodiversity, Climate Change, Land Degradation	Strengthening forest regulatory and management frameworks, improving knowledge management and capacity-building, and piloting innovative financing solutions to attract private investment.
GEF FAO	Rehabilitation and Integrated Sustainable Development of Algerian Cork Oak Forest Production Landscapes (GEF ID 9806)	GEF Grant: 3,411,644 USD Co-financing: 24,473,571 USD	Biodiversity, Land Degradation	1. Piloting of sustainable management, conservation and sustainable harvesting of Algeria's cork oak forest 2. Sustainably creating value from cork oak ecosystem products, goods and services and providing income to MSMEs 3. Replication and upscaling of successful approaches
GEF UNDP	AIM-WELL: Algeria Integrated Management of Waste Energy at the Local Level (GEF ID 10080)	GEF Grant: 4,416,210 Co-financing: 20,250,000	Climate Change	1. Promoting an integrated and comprehensive solid waste management by fostering technology deployment, dissemination, and transfer in collaboration with private sector 2. Establishing a waste transformation

				plant, converting organic waste into fertilizer and renewable energy 3. Supporting policy development, covering integrated waste management
GCF, UNDP	Advancing the National Adaption Plan process in Algeria to address short- and medium-term adaption needs and lay the ground for long-term adaption	USD 2,852,000	Climate governanc e, adaptation planning	1. Adaptation planning governance and institutional coordination strengthened 2. Evidence basis produced to design adaptation solutions for maximum impact 3. Sector engagement in adaptation catalyzed 4. Adaptation finance increased
EU GIZ	TaqatHy+	EUR 28,000,000	Just Energy Transition	(1) Deployment of renewable energies (2) Development of green hydrogen (3) Integration of innovative energy efficiency solutions

Table 1: List of landscape of investments

The baseline interventions largely focus on policy frameworks, institutional capacity strengthening, climate governance, and large-scale infrastructure deployment, rather they do not extend to the ecosystem elements required for early stage cleantech entrepreneurship and MSME

commercialization. . At the national level, Algeria has strengthened the entrepreneurship enabling environment through legal frameworks and policies, including the Startup Act, alongside broader MSME legislation and related regulatory measures. In parallel, Algeria has established dedicated public instruments to support entrepreneurship, notably the Algeria Startup Fund and the state-owned accelerator Algeria Venture. However, these frameworks and instruments remain largely horizontal and sector-agnostic and do not adequately reflect the specific characteristics of cleantech entrepreneurship, including higher capital intensity, technology validation needs, longer development and commercialization cycles. These sector-specific barriers fall outside the mandate and operational capacity of the existing instruments.

This leaves early-stage cleantech ventures with a structural support gap where the baseline provides generic entrepreneurial support but does not supply the technical, financial, or ecosystem services needed to translate climate related innovations into commercially deployable solutions that generate measurable climate and other socioeconomic benefits.

Lessons learned

1. This project builds on the ongoing GEF-7 program titled “Global Cleantech Innovation Programme (GCIP) to Accelerate the Uptake and Investments in Innovative Cleantech Solutions” (Programme Framework Document, GEF ID 10408), and its associated child projects. The GCIP Framework consists of ten country child projects in Cambodia, Indonesia, Kazakhstan, Republic of Moldova, Morocco, Nigeria, South Africa, Türkiye, Ukraine, and Uruguay. All GCIP child projects are connected to the three driving pillars: a) Pillar 1. Transforming early-stage innovative cleantech solutions into commercial enterprises; b) Pillar 2. Cleantech innovation and entrepreneurship ecosystems strengthening and connectivity; c) Pillar 3. Programme coordination and coherence.

2. The GCIP Framework builds upon the achievements and key lessons learned from the implementation of the GCIP projects from 2011. Originally developed under earlier GCIP phases, the framework was further refined and updated during the GEF-7 cycle to reflect evolving programme experiences, best practices, and emerging priorities in cleantech innovation and entrepreneurship. It benefits from the collective feedback by various stakeholders including national counterparts, institutions, entrepreneurs, and strategic partners, having successfully participated in GCIP at the global level. While this project is a stand-alone project, and not a GCIP child project, it will be implemented in close coordination and coherence with the GCIP Framework. The project will benefit from ecosystem frameworks, guidelines, and tools developed by GCIP Global, which will be reviewed and adapted by the Algerian Project Management Unit (PMU) in consultation with national stakeholders and experts. These synergies with GCIP Global will not only provide tested models and tools but also position cleantech Algeria to contribute knowledge and innovation back into the global network.

Barriers and key challenges for cleantech innovation and entrepreneurship

To promote cleantech innovation and entrepreneurship in Algeria context presents several interlinked barriers which are as follows:

- **Barrier 1: Diverging stakeholder perspectives on cleantech deployment**

The approach and priorities for cleantech innovation and entrepreneurship and promoting nature-based solutions and biodiversity conservation among government institutions are often not synchronized. Frequently, the level of ambition and target set by the Ministry of Energy, MSMEs, environment ministries may differ from those established by finance ministry. For example public actors responsible for energy planning in Algeria prioritise system reliability, cost control, and large-scale infrastructure investments - such as expanding natural gas based power generation to meet short term electricity demand, grid reinforcement and SCADA modernization , while the environment ministry promotes decentralized solar solutions and industrial energy efficiency as lower-carbon alternatives. Similarly, MSMEs often seek low-cost, easily deployable technologies, whereas financial institutions may require higher compliance standards and risk assessments before financing cleantech projects. This divergence limits opportunities for startups to pilot and deploy solutions within existing energy systems.

- **Barrier 2: Limited policy coherence between energy, climate, and innovation support frameworks**

Coordination mechanisms and inclusive governance structures may not be widely in place. This can lead to policy incoherence, with different policies not complementing and even undermining one another. Biodiversity and land use governance are fragmented across multiple agencies and levels of government, leading to challenges for consistent policies. Existing arrangements do not always allow for adequate participation from the private sector, indigenous peoples, local communities and civil society, which is crucial for a coherent, comprehensive, contextualized and socially accepted just economic transition. Insufficient collaboration between the government, academic institutions, industry and financial institutions can hinder developing and disseminating innovative cleantech solutions. For example while Algeria has clear renewable energy and energy efficiency objectives, policy instruments related to innovation support, market access, and deployment are not always aligned. For instance, climate and energy targets are not consistently translated into mechanisms that facilitate research and testing, procurement, or piloting early deployment of new cleantech solutions, constraining market entry for startups.

- **Barrier 3: Gaps in business development and commercialization capacity of startups**

While Algeria has established a robust foundation for startup support through the Ministry of Knowledge Economy and the Algerian Startup Fund (ASF), specialized support for the cleantech vertical remains nascent. Existing incubators are largely optimized for digital business models, leaving a gap in access to the industrial prototyping facilities and sector-specific technical mentorship required for energy hardware. Consequently, technically strong MSMEs often fail to cross the 'commercialization bridge,' as they lack the specialized expertise needed to participate in major public tenders or secure large-scale industrial pilots.'

- **Barrier 4: Misaligned incentives, policy frameworks, and institutional capacity weaken demand for cleantech solution**

In Algeria, the transition to cleantech is constrained by administered energy prices and long-standing subsidies for electricity and natural gas, which weaken price signals and reduce the financial attractiveness of renewable energy and energy efficiency investments. While the Public Procurement Law and the 2026 Finance Act establish a basic legal framework for green procurement and MSME participation, the limited use of technical and performance-based criteria in tendering processes continues to disadvantage cleantech MSMEs relative to conventional fossil-fuel-based solutions. This is further compounded by weak institutional capacity to screen, measure, and verify biodiversity benefits, which prevents environmental performance from being meaningfully integrated into procurement and investment decision-making.

- **Barrier 5: Ineffective financing mechanisms for bankable projects**

Cleantech startups and MSMEs in Algeria face significant challenges in accessing finance due to their high perceived risk, limited collateral, and long payback periods associated with clean energy and energy efficiency investments. These constraints are compounded by the absence of dedicated financial incentives or risk-sharing mechanisms tailored to cleantech, such as targeted guarantees, concessional finance, or fiscal incentives, which limits the ability of early-stage enterprises to secure debt or equity financing. Furthermore, biodiversity-sensitive areas frequently conflict with the locations where cleantech market opportunities and investments are most concentrated.

- **Barrier 6: Limited capacity of financial institutions to develop and assess cleantech investment pipelines**

There is limited access to finance for Algerian cleantech startups, primarily driven by the Algerian Startup Fund (ASF). While the ASF has launched specialized verticals for Renewable Energy and Green Tech, entrepreneurs still face a significant 'valley of death' due to the high capital intensity of hardware-based innovations. Private venture capital and local 'Business Angel' networks remain underdeveloped. This results in a heavy reliance on public equity, underscoring a critical need for blended finance mechanisms and international de-risking to bridge the gap between initial prototyping and deployment.

- **Barrier 7: Infrastructure constraints limit commercialization and deployment of cleantech solutions**

Infrastructure deficits, in particular in the electricity system, constrains the commercialization of cleantech solutions in Algeria. The national electricity grid lacks sufficient distributed capacity and smart-grid functionality to enable startups to pilot decentralized renewable and energy-efficient solutions, preventing technically viable innovations from being integrated into industrial and agricultural value chains.

- **Barrier 8: Fragmented biodiversity integration across cleantech innovation and commercialization pathways**

Despite Algeria’s strong policy commitments to biodiversity conservation, the national innovation ecosystem lacks the structural elements required to translate these commitments into biodiversity positive cleantech development. There are no biodiversity-oriented innovation challenges or support mechanisms that signal market demand for solutions addressing ecosystem pressures. Public

entrepreneurship and innovation funding mechanism do not apply biodiversity screening criteria, limiting the identification, selection, and scaling of technologies capable of delivering measurable biodiversity benefits. At the same time, private sector biodiversity commitments remain limited and insufficiently aligned with cleantech investment and commercialization pathways, resulting in weak market incentives for enterprises to integrate biodiversity outcomes into their business models. Furthermore, the MSMEs and startups also lack access to tools and methodologies to assess and articulate biodiversity benefits as they predominately focus on climate mitigation and productivity gains, creating a systemic information gap restricting to participate in nature positive value chains.

Socio-economic drivers and climate risks

Algeria's development trajectory will be shaped by a demographic momentum, climate pressures, and exposure to multiple risks. The country, with a population of 47.4 million (2025), has an annual doubling time estimated at 54 years indicating continued demographic pressure on employment creation, energy demand, and public services [[1]]. Climate risk screening indicates that Algeria is warming at an average rate of 0.49°C per decade, exceeding the global average of 0.37°C, contributing to more frequent and intense heatwaves and rising electricity demand for cooling, and growing stress on an energy system heavily reliant on on gas-fired power generation during peak periods. The temperatures are furthermore expected to rise, reaching up to 5.6 °C above pre-industrial levels in a high-emissions scenario by the end of the century [[2]]. At the same time, renewable internal freshwater resources per capita have declined toward critical scarcity levels, increasing reliance on desalination and long distance water transfers both of which are energy-intensive solutions and amplifying pressure on the water-energy nexus [[3]]. Key climate risks of relevance to the cleantech and productive sectors include: (i) increased frequency of heatwaves disrupting industrial operations and reducing equipment efficiency; (ii) heightened variability and decline in precipitation affecting water-intensive industries and agro-processing; (iii) greater stress on electricity transmission and distribution infrastructure under extreme heat; and (iv) increased coastal risks, including salinization and storm surge impacts, threatening coastal industrial zones and desalination assets.

Together, these converging socio-economic and climate drivers are expected to intensify, reinforcing the urgency for deploying scalable cleantech solutions in decentralized renewables, energy efficiency, and water-efficient and climate-resilient production systems.

Stakeholder engagement

Project stakeholders and their contributions and roles will be assessed and confirmed during the PPG phase between January 2026 and July 2026. The project will develop a Stakeholder Engagement Plan (aligned to the GEF's Stakeholder Engagement Policy) and will use an inclusive approach to stakeholder engagement and consultations through project development and implementation. The stakeholder groups below will be convened and consulted to design innovation challenges (output 1.1.3) during the PPG stage. At a minimum, the project will engage with the following indicative stakeholders:

- Government institutions: Ministry of Environment and Quality of Life, National Cleaner Production Centre
- Private sector: MSMEs, large corporations, entrepreneurs.
- Financial institutions: Arab Fund for Economic and Social Development, Algeria Startup Fund
- Indigenous and peoples and local communities.
- Academic institutions.

The private sector will play a central role as both co-owners and co-designers of innovation challenges, helping define market-driven problem statements and providing testbeds for piloting solutions. In addition, private sector partners are anticipated to serve as investors, buyers, scale-up partners, and technical mentors for participating cleantech startups, thereby contributing to market validation, investment facilitation, and commercialization of innovations emerging from the accelerator.

Additionality of the project

Without this project, Algeria's cleantech ecosystem would grow slowly, with limited capacity and finance for entrepreneurs to scale solutions and biodiversity benefits remaining largely unrealized, delaying progress toward NDC and NBSAP targets and increasing the cost of achieving Global Environmental Benefits (CO_2e mitigation and biodiversity conservation). By mobilizing targeted GEF resources, the project delivers incremental climate and biodiversity gains at lower abatement costs that would not occur under BAU.

In a BAU scenario, the baseline investment landscape would continue to deliver important progress through sectoral, system and ecosystem interventions, including existing GEF climate and biodiversity projects that focus on urban resilience/circularity, clean hydrogen enabling conditions, forest and landscape restoration, and waste-energy management. In parallel, Algeria's entrepreneurship ecosystem would continue to advance under the national legal and policy frameworks, including the Startup Act, and startup support mechanisms such as the Algeria Startup Fund (ASF) and the state-owned accelerator Algeria Venture.

These measures are expected to support broad-based innovation and sustain incremental progress in the general startup ecosystem. However, despite this progress, the baseline interventions remain largely horizontal and sector-agnostic, and does not provide the specialized support needed for early-stage cleantech ventures. Existing accelerators (e.g., Algeria Venture), public funding mechanisms such as the Algeria Startup Fund (ASF), and the country's broader MSME and innovation frameworks are technology-neutral and are not designed to address the commercialization barriers associated with climate mitigation technologies. Existing support mechanisms do not provide specialized technical validation, regulatory support, market demonstration, climate impact measurement, biodiversity integration, investment readiness services or market linkage mechanisms required by early-stage cleantech enterprises. As a result, promising climate mitigation innovations face persistent barriers in progressing from proof-of-concept to commercial deployment.

As a result, under BAU, entrepreneurs with promising cleantech solutions would face continued constraints in moving from proof-of-concept and pilot demonstrations to commercial deployment. This would slow the adoption of clean energy and low-carbon production solutions in priority sectors, delay progress toward Algeria's NDC targets, and limit the country's ability to generate

climate and biodiversity benefits at scale. In particular, the absence of a cleantech-specific commercialization pathway would reduce private-sector leverage, restrict innovation spillovers, and increase the overall cost and time required to achieve Global Environmental Benefits (GEBs).

GEF financing provides the incremental support to transform the baseline by establishing a cleantech-specific commercialization and deployment pathway that complements existing instruments but fills their structural gaps. The project will include (i) de-risking early-stage cleantech firms by providing catalytic finance and technical assistance; (ii) building entrepreneurial capacity through incubators, accelerators, and mentorship programs focused on cleantech innovations for technology readiness and regulatory compliance; (iii) strengthening linkages between research institutions, entrepreneurs, and investors; and (iv) operationalize innovation driven deployment mechanisms within priority sector. These interventions address market failures that are not covered by existing public entrepreneurship programmes or ongoing climate and biodiversity projects, thereby reducing investment risks and accelerating private sector deployment of eligible climate mitigation technologies. Without GEF support, existing entrepreneurship programmes would continue to evaluate ventures primarily on their commercial potential, with limited consideration of their contribution to reducing the drivers of biodiversity loss. GEF financing introduces biodiversity-sensitive eligibility criteria, screening methodologies and performance indicators that incentivize enterprises to develop technologies delivering both climate mitigation and biodiversity-positive outcomes.

This intervention was selected over alternative designs due to the lack of cleantech-specific mechanisms that translate early-stage innovation into validated, investment-ready solutions and enable uptake in regulated markets.

The timing is also strategic: Algeria is now operationalizing key components of its startup support architecture, creating a window of opportunity to embed cleantech-specific commercialization capacities that would otherwise remain absent. Alternative approaches—such as purely grant-based research support, general innovation programming, or sectoral infrastructure investments—would not address the systemic market, regulatory, and financing barriers that prevent cleantech solutions from reaching scale.

Consequently, GEF financing generates global environmental benefits that would not be achieved under the business-as-usual scenario by accelerating the commercialization and deployment of climate mitigation technologies capable of reducing GHG emissions while simultaneously reducing the drivers of biodiversity loss and biodiversity outcomes are achieved as benefits of investments, while contributions to land degradation neutrality arise as complementary/co-benefit where relevant. By reducing commercialization risks and mobilizing private investment, the project enables these environmental benefits to be realized earlier, at greater scale, and with stronger market sustainability than would otherwise be possible.

The project objective and rationale for approach - Promoting the acceleration of high-impact clean technology innovation for large-scale deployment for climate change mitigation, adress the drivers of biodiversity loss, and create green jobs. The integrated approach was selected over alternatives e.g., general innovation programming, purely research-oriented grants, or stand-alone sectoral

infrastructure investments) because it directly addresses the cleantech-specific commercialization gap that horizontal startup policies and instruments do not cover. By coupling catalytic de-risking finance with tailored incubation/acceleration, regulatory and performance validation, and structured market-entry pathways in priority sectors, the project creates the conditions for investment-ready, scalable deployment. This is the most effective route to unlock private capital, accelerate adoption, and deliver measurable climate and other socio-economic benefits at lower cost and higher speed than BAU, while aligning with Algeria's NDC (target of achieving a 7% reduction in GHG by 2030 (or 22% conditional on international support) and , the National Strategy for Renewable Energy and Energy Efficiency 2030 (which calls for diversifying energy sources and scaling up local cleantech industries).

The project is designed to catalyse systemic transformation rather than support isolated enterprises. By embedding climate mitigation criteria, biodiversity-sensitive investment practices, specialized commercialization services, and investor networks within Algeria's national entrepreneurship ecosystem, the project will strengthen permanent institutional capacities that continue supporting cleantech innovation beyond the project lifetime. This institutionalization reduces dependence on project financing and enables sustained market-driven deployment of climate mitigation technologies.

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B. PROJECT DESCRIPTION

Project description

This section asks for a theory of change as part of a joined-up description of the project as a whole. The project description is expected to cover the key elements of good project design in an integrated way. It is also expected to meet the GEF's policy requirements on gender, stakeholders, private sector, and knowledge management and learning (see section D). This section should be a narrative that reads like a joined-up story and not independent elements that answer the guiding questions contained in the PIF guidance document. (Approximately 3-5 pages) see guidance here

Designed in full alignment with the national development, climate, and biodiversity priorities and strategies of Algeria, and in accordance with the GEF-8 programming directions, the proposed Cleantech Algeria project will focus on promoting innovative cleantech solutions in the following priority areas, i.e. climate change mitigation, just energy transitions, biodiversity conservation.

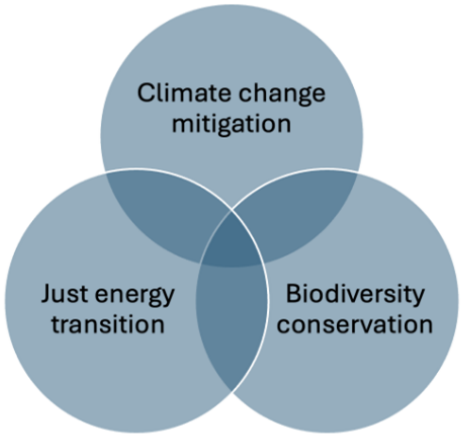

Figure 1: Project priority areas

All three priority areas are interconnected. The Cleantech Algeria project will seek entrepreneurial solutions that have the highest possible impact, preferably (but not necessarily) at the intersections between these areas.

The project is structured into three components that are described below:

a) **Transforming early-stage innovative cleantech solutions into commercial enterprises:**
This component will support the identification, selection, and acceleration of high-potential cleantech startups that address national climate, energy, and biodiversity priorities. Through demand-led innovation challenges and a tailored accelerator program, entrepreneurs will be supported to develop commercially viable and environmentally impactful solutions, including those that contribute to climate change mitigation efforts, address the drivers of biodiversity loss and reduce the ecosystem pressure.

b) **Strengthening the cleantech innovation and entrepreneurship ecosystem connectivity:**
This component will enhance the enabling environment for cleantech development through policy support, capacity building, gender-responsive and biodiversity-inclusive ecosystem mapping, and investment facilitation. By fostering collaboration across government, private sector, financial institutions, and academia, the project will strengthen national capacity to mainstream biodiversity and climate considerations into entrepreneurship and innovation systems.

c) **Knowledge management, communications, impact measurement:**
This component will ensure that results, lessons, and success stories, particularly those demonstrating benefits across climate mitigation, just energy transition, and biodiversity are captured, communicated, and scaled. It will support the development of climate- and biodiversity-sensitive impact measurement tools and foster cross-country knowledge exchange to inform evidence-based policymaking and investment in nature-positive cleantech innovation.

The figure 2 below shows the Theory of Change (ToC), describing how three components contribute to the overall objective and create long-term impact. The ToC incorporates Knowledge & Learning resources, emphasizing the capture, development, sharing, and dissemination of best practices to enhance project impact and sustainability. It also incorporates three key aspects - People, Process, and Systems:

- People: Prioritizes human development and capacity building, supporting people as drivers and beneficiaries of cleantech innovations.
- Process: Enhances institutional efficiency and effectiveness, fostering a supportive environment for cleantech innovations through a strengthened CIEE.
- Systems: Anchors long-term impact through sustainable systems development and continuous improvement, ensuring high impact and scalability through national project ownership.

The project's transformational pathway is based on long-term changes in institutions investment behavior, market incentives and innovation systems rather than one-off support to individual enterprises.


IMPACT
Accelerated transition to a low-carbon and nature-positive economy in Algeria where cleantech innovation reduces GHG emissions and key drivers of biodiversity loss. Inclusive green growth and a just energy transition are achieved through sustainable enterprises, improved livelihoods, and resilient ecosystems.
OBJECTIVE
Promote the acceleration of high-impact clean technology innovation for large-scale deployment to support climate change mitigation, reduce key biodiversity loss, and create green jobs
Componetns
Component 1: Transforming early-stage innovative cleantech solutions into commercial enterprises
Component 2: Strengthening the cleantech innovation and entrepreneurship ecosystem (CIEE) and its inter-connectivity
Component 3: Knowledge management, communications, impact measurement
Monitoring and Evaluation
Outcomes
Outcome 1.1: Climate and biodiversity positive cleantech solutions with high impact potential are supported to reach commercialization and deployment
Outcome 1.2: Startups and MSMEs are supported through advanced business growth and investment facilitation services
Outcome 2.1: CIEE is strengthened to support commercialization and scaling of climate- and biodiversity-positive innovations
Outcome 3.1: Outcomes are enhanced through knowledge management, communications, and advocacy
Outcome 4.1: Progress monitoring is conducted
Outcome 4.2: Evaluation is conducted
Assumptions & Enablers
Market and investment facilitation mechanism translate business support into cleantech commercialization and scaling
Institutional frameworks and ecosystem support enable cleantech uptake and inclusive deployment
Data systems, green skills, and knowledge platforms support credible impact tracking and informed decision-making
Accessibility and availability of knowledge and dedicated resources for decision-makers
Outputs
1.1.1 Methodologies, tools, training systems, guidebooks for cleantech innovation and entrepreneurship accelerator are developed for Algeria
1.1.2 Pool of fifty cleantech experts are trained and certified to support the accelerator
1.1.3 Relevant national stakeholders are convened and trained as challenge owners to design and conduct an innovation challenge
1.1.4 Three cycles of the annual cleantech accelerator are conducted, prioritizing climate mitigation and biodiversity-positive innovations, including solutions that generate complementary benefits
1.1.5 Integrated climate and biodiversity impact measurement tools are developed with other relevant environmental co-benefits
1.2.1 Tailored 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 Impact validation services are provided for alum enterprises
1.2.4 Mentoring and partnership support is provided to cleantech enterprises for global market expansion
1.2.5 National cleantech financing facility and investor matchmaking platform established to support early-stage, high-impact enterprises
2.1.1 CIEE analysis and stakeholder dialogues conducted, and policy recommendations developed to strengthen commercialization of innovative climate- and biodiversity-positive cleantech solutions
2.1.2 National cleantech innovation opportunities mapped and regional innovation ecosystems strengthened, with emphasis on climate mitigation technologies and biodiversity-positive value chains
2.1.3 Capacity strengthened to finance and scale climate- and biodiversity-positive cleantech solutions
3.1.1 Knowledge management, communications, and advocacy strategies are developed and adapted by the PMU
3.1.2 National web platform is developed and operated
3.1.3 Cleantech Ecosystem Mapping and Impact Indicators
4.1.1 Monitoring Output:
Progress monitoring and reporting are conducted as per UNIDO and GEF guidelines.
4.2.1 Evaluation Output:
Mid-term review and independent terminal evaluation are conducted.
Inputs
GEF Financing, political commitment, co-financing, knowledge & expertise
Risks & Barriers
1.Diverging stakeholder perspectives on cleantech deployment
2. Limited policy coherence between energy, climate, and innovation frameworks
3. Gaps in business development and commercialization capacity of startups
4. Misaligned incentives, policy frameworks, and institutional capacity weaken demand for cleantech solutions
5.Ineffective financing mechanisms for bankable projects
6. Limited capacity of financial institutions to develop and assess cleantech investment pipelines
7. Infrastructure constraints limit commercialization and deployment of cleantech solutions
8. Fragmented biodiversity integration across cleantech innovation and commercialization pathways

Figure 2: Theory of Change

The project's results chain is based on the premise that cleantech innovation contributes to climate change mitigation and directly addresses specific drivers of biodiversity loss through targeted, sector-specific solutions deployed in clearly defined landscapes. The Theory of Change addresses the key market, regulatory, technical, and financial barriers identified in the rationale that currently constrain Algerian cleantech MSMEs from reaching commercial scale, with particular emphasis on bridging the structural "missing middle" between early-stage innovation support and commercialization, improving investor confidence, strengthening sector specific enabling conditions and ensuring cleantech solutions can progress from prototype to deployment in regulated markets. These outputs were selected because each one targets a specific point of failure in the current system - capacity gaps, investment risks, institutional fragmentation, and lack of scale-up pathways, making them the most appropriate mechanisms for achieving the project objective of accelerating high-impact cleantech innovation for climate change mitigation, address drivers of biodiversity loss, and create green jobs in Algeria.

First, strengthening national delivery capacity for cleantech commercialization through standardized methodologies, tools, and a certified pool of experts (Outcome 1.1) directly addresses the the limitations of largely sector-specific entrepreneurship support services in the current ecosystem. Algeria's existing entrepreneurship structures remain largely horizontal and do not provide the technical, regulatory, or market-preparation expertise required for deep-tech, hardware-based climate solutions. This output fills a foundational systemic gap by equipping institutions and intermediaries with the specialized capabilities needed to guide MSMEs toward market readiness, including the capacity to screen, assess, and verify biodiversity benefits against KMGBF-aligned criteria.

Second, the project will de-risk investment towards MSMEs through advanced business growth services, impact assessments, and structured investment facilitation, including access to a national cleantech financing facility and investor matchmaking (Outcome 1.2) is essential because limited access to risk-tolerant capital is the single largest barrier to cleantech commercialization identified in the rationale. Cleantech ventures face longer development cycles, higher prototyping costs, and more stringent validation requirements, all of which discourage traditional investors. These outputs therefore create the critical bridge between early innovation and investable enterprises, improving investor confidence and catalyzing private finance that would not flow under a BAU scenario, including from financial institutions increasingly recognizing biodiversity risk and opportunity in cleantech investment.

Third, strengthening enabling conditions for market uptake (Outcome 2.1) through ecosystem diagnostics, targeted capacity building for climate and biodiversity finance and certification, and actionable, evidence-based policy recommendations aligned with national NDC and NBSAP priorities. By improving coordination, setting clearer market signals, and reinforcing regulatory pathways, these outputs reduce transaction costs for MSMEs and increase the likelihood that cleantech solutions will be adopted in priority sectors, including in biodiversity-sensitive areas where market opportunities and investor interest have historically been limited.

Finally, Cleantech Algeria's achievements will be captured and disseminated through robust knowledge management, communications and advocacy, and impact tracking and reporting using

customized tools aligned with national priorities and global climate and biodiversity frameworks, including dissemination of methodologies, lessons learned, and validated success stories (Outcome 3.1). These outputs ensure that evidence and lessons learned feed back into policymaking, investor decisions, and the practices of accelerators and enterprises supporting replication, continuous adaptation, and ecosystem-wide strengthening.

These causal pathways are based on the following key assumptions and enablers:

1) Market and investment facilitation mechanisms translate business support into cleantech commercialization and scaling - Dedicated cleantech accelerators and incubators support enterprise commercialization, enabling MSMEs to translate business support into market-ready products and services. Capital providers participate in transactions enabled by investment facilitation, while technology transfer and partnerships enable scaling and commercialization. Financial institutions increasingly recognise biodiversity risk and opportunity in cleantech investment, expanding the availability of nature-aligned capital for enterprises delivering measurable environmental outcomes;

2) Institutional frameworks and ecosystem support enable cleantech uptake and inclusive deployment - Institutions have sufficient decision-space to implement procedural and regulatory adjustments, while startup incubators, accelerators, and national innovation programs help develop cleantech ventures. National plans and strategies are translated into actionable mechanisms enabling uptake and deployment. Widening geographical reach and support to national partners further strengthens ecosystem inclusivity across diverse localities;

3) Data systems, green skills, and knowledge platforms support credible impact tracking and informed decision-making - MSMEs provide sufficient data for credible aggregation, including biodiversity impact data, while Algeria's national biodiversity monitoring systems provide a credible baseline against which enterprise-level contributions can be measured and reported. Training programs in green skills are treated as a priority for a just energy transition. The national platform and knowledge products are actively used by target users to support informed decision-making; and

4) Accessibility and availability of knowledge and dedicated resources for decision-makers - Improved access to consolidated knowledge and dedicated resources significantly strengthens decision-making across planning, policymaking, and financing. In the Algerian context, enhanced awareness among government officials and cleantech solution providers can improve technical decision-making and the deployment of cleantech solutions that reduce negative environmental and social impacts. Combining knowledge access with targeted capacity building, stakeholder engagement, and coordination mechanisms strengthens project outcomes and investment readiness, acting as a key enabler for scaling cleantech solutions.

While more than 90% of Algeria's electricity is currently generated from natural gas, a gradual transition toward cleantech solutions and supports Algeria's climate and biodiversity priorities through four pathways (pathways 1,3, and 4 related to climate mitigation focus and pathway 4 linked to biodiversity): 1) decarbonized energy and resource efficiency systems through cleantech innovations that reduce GHG emissions and improve efficiency in energy and material use across industrial, commercial, and service sectors. The interventions may include distributed renewable energy systems (solar PV, hybrid systems for

MSMEs), energy efficiency technologies in industry and buildings, energy efficient irrigation systems reducing diesel and energy demand, resource-efficient industrial processes (energy and material optimization) and green building innovations and performance monitoring tools. This is expected to result in reduced fossil fuel consumption, reduced industrial air and water pollution and lower carbon intensity. Given Algeria's heavy reliance on natural gas, this cluster targets demand-side transformation, where MSME-level innovation can deliver cost-effective mitigation without requiring large-scale infrastructure investments. 2) Second, water –land-agri systems that addresses the most critical biodiversity pressures in Algeria: water scarcity and unsustainable agricultural practices. The interventions may climate-smart and biodiversity-positive technologies and innovation approaches applied across agricultural and systems to improve soil health and ecosystem resilience while reducing environmental pressures. It may include solutions such as improved soil health monitoring, improved soil carbon, energy efficient irrigation systems reducing diesel and energy demand through reduced energy use and diesel replacement, reduced post harvest loss, and improved bio-based agricultural inputs. Water use efficiency improvements are treated as complementary co-benefits and are not the primary objective. This shall result in improved soil organic carbon and structure contributing to KMGBF target 2 and 10. 3) Third, resource efficiency and low-carbon production technologies, including material efficiency interventions limited to industrial and building sectors focusing on clearly defined value chains such as cement, steel, construction materials, and manufacturing processes. Supported technologies will include process optimization, energy and material efficiency improvements, and product design solutions that reduce raw material consumption and deliver GHG emission reductions. Technologies related to waste management, waste-to-energy, waste recovery systems, water management, water reuse infrastructure, and fossil fuel technologies shall not be eligible for support. Fourth, sustainable mobility that supports electric mobility solutions for logistics and fleets, charging infrastructure innovations and digital tools for transport efficiency and modal shift, vehicle to grid connectivity. The support shall be to promote the technological solution and business model innovation including but not limited to awareness raising interventions. This will result in reduced fossil fuel consumption in transport.

All the interventions shall be delivered through a single, standardized implementation mechanism consisting of innovation challenges (demand driven), cleantech accelerator cycles that provides business and technical support, investment facilitation and market linkage and impact measurement and validation tools.

Algeria's NBSAP (2016-2030) identifies the private sector as a critical actor for reversing these trends, emphasizing that cleantech adoption, particularly renewable energy and sustainable land management, can simultaneously reduce GHG emissions and relieve pressures on ecosystems. This project leverages that linkage: by accelerating the commercialization of biodiversity-positive cleantech solutions among MSMEs and startups. The biodiversity positive cleantech refers to technologies and processes that reduce direct pressure on ecosystems such as pollution, habitat degradation, and resource over extraction while contributing to sustainable production and consumption patterns. These solutions do not operate as conservation actions per se, but reduce the anthropogenic drivers of biodiversity loss and strengthen the ecosystem resilience. For example, solar and hybrid energy replacing diesel generators, precision irrigation reducing freshwater consumption, waste reducing industrial process optimization, low-chemical

agri-inputs and organic pest control etc. Overall, it shall generate the global environmental benefits that contribute to Algeria's NBSAP and primarily to 10 (sustainable agriculture and fisheries), 15 (business engagement with biodiversity) and additional co-benefits to KMGBF Targets 2 (ecosystem restoration), with significance well beyond national borders given Algeria's status as a Mediterranean hotspot country.

Consequently, even in a natural-gas-dominated power sector, targeted cleantech interventions can deliver measurable CO_2 reductions and biodiversity benefits that complement Algeria's NBSAP objectives for habitat restoration and species conservation. More broadly, these innovation categories address the primary drivers of biodiversity loss in Algeria, habitat destruction, overexploitation, and pollution, and associated co-benefits, including reduced local air pollution from fossil-fuel combustion, improved public health outcomes, strengthened local livelihoods and job creation in renewable energy value chains.

Eligible technologies and criteria

Eligible technologies and practices will be screened and supported only where they correspond to the GEF-8 climate mitigation categories of (1.1) accelerating the efficient use of energy and materials, (1.2) enabling the transition to decarbonized power systems, (1.3) sustainable mobility and (1.4) promoting Nature-Based Solutions (NBS) with high mitigation potential. For the purpose of this project, NBS refer to interventions that protect, sustainably manage, and restore natural or modified ecosystems, while delivering measurable biodiversity, land restoration, and climate adaptation benefits. Similarly, resource-efficiency and material-efficiency innovations, where relevant, will be limited to technologies and business models that reduce resource consumption, improve production efficiency, and deliver verifiable greenhouse gas emission reductions, while avoiding adverse impacts on biodiversity.

Eligible technologies under the project shall be limited to the following categories: 1) energy including renewable energy generation (solar PV, solar thermal, wind and other renewable sources), solar powered productive use technologies, energy storage including battery energy storage integrated with renewable energy systems, industrial and building energy efficiency technologies, digital monitoring and optimization tools for energy efficiency, electrification technologies for productive sectors, and smart energy management systems; 2) water and agriculture related technologies will be eligible only where they directly contribute to GHG emissions reduction (reduced diesel sue, reduced energy use etc) and/or demonstrably address drivers of biodiversity loss or reduce pressure on ecosystems, including soil degradation nutrient runoff or habitat degradation in biodiversity-sensitive landscapes. Water use efficiency outcomes are treated as secondary co-benefits and are not considered primary eligibility criteria; 3) Material and production efficiency within industrial and manufacturing systems. These include technologies that optimize input use, reduce raw material demand, and improve production efficiency in sectors with defined supply chains (cement, steel, concrete etc); 4) agriculture (precision agriculture, digital agricultural monitoring, climate-smart agriculture technologies, sustainable soil management technologies); and 5) nature-positive technologies for environmental monitoring systems, biodiversity monitoring technologies, restoration support technologies, nature-based digital solutions. Technologies outside these categories will not be eligible for financial support under the project in particular fossil fuel extraction, fossil fuel power generation, coal, oil or gas based technologies, waste management technologies including waste to energy, waste treatment, recycling systems, and water supply infrastructure. Eligible technologies will be required to demonstrate measurable climate change mitigation potential through reductions in GHG emissions, improvements in energy efficiency, and increased renewable energy capacity outcomes consistent with the GEF climate change mitigation focal area objectives.

Beyond this threshold criteria for eligible technology, the selection process will apply a biodiversity and land degradation lens informed by Algeria's national context, specifically the country's National Biodiversity Strategy and Action Plan, and the ecological pressures facing Algeria's steppe, pre-Saharan, and Mediterranean coastal ecosystems, and UNCCD Land Degradation Neutrality commitments. Solutions will be prioritised where they additionally satisfy one or more of the following criteria:

1) Demonstrable reduction of the principal driver of biodiversity loss within the target landscape or measurable improvement in biodiversity conditions

Eligible technologies shall demonstrably contribute to reducing one or more of the principal direct drivers of biodiversity loss identified within the selected landscape (such as unsustainable water abstraction, habitat degradation, pollution affecting sensitive ecosystems, unsustainable agricultural practices, or land conversion), or demonstrate measurable improvements in ecosystem integrity, habitat condition, or biodiversity status. Supported interventions must articulate how it addresses the identified biodiversity pressures. Improved habitat condition, increased area of natural habitat under improved management in addition improved vegetation cover and soil stability that may also be monitored as complementatry benefits where relevant.

Expected measurable outcomes may include: % reduction in unsustainable water abstraction affecting freshwater ecosystems, improved habitat condition and ecological integrity within targeted ecosystem (hectares), soil erosion rates, increase in vegetation cover (%), improvement in soil organic carbon (t/ha), or recovery of degraded land area (hectares).

2) Geographic linkage to landscapes supporting biodiversity of global significance

Technologies shall be deployed within, or demonstrate direct ecological connectivity to, landscapes containing biodiversity of global significance, , including Key Biodiversity Areas (KBAs), protected areas, Ramsar wetlands steppe and pre-Saharan rangelands, forest ecosystems in the Tell Atlas and Aurès ranges, freshwater catchments facing overextraction or pollution, or coastal wetlands and Posidonia habitats within the Mediterranean Basin Biodiversity Hotspot or other nationally recognized priority conservation landscapes identified during the Project Preparation Grant (PPG) phase. Eligible technologies shall demonstrate measurable contributions to maintaining or improving habitat quality, ecological integrity, or the conservation status of biodiversity within these landscapes. Interventions operating in or supplying these landscapes shall also demonstrate measurable co-benefits such as reduced pressure on ecosystem and Land Degradation Neutrality (LDN) and regulating ecosystem services such as water regulation, soil formation, and carbon sequestration.

Quantifiable outcomes should include, where relevant: habitat under improved management (hectares), restored or sustainably managed land area (ha), enhanced habitat condition indices within the targeted landscape, improved water availability or infiltration rates and, increased carbon stocks (tCO_2e).

3. Quantifiable biodiversity and Land Degradation Neutrality (LDN) contributions

Technologies shall demonstrate measurable biodiversity outcomes through appropriate biodiversity indicators while, where applicable, also contributing to Land Degradation Neutrality objectives as co-benefits. Biodiversity outcomes will be assessed independently and will not be substituted solely by improvements in ecosystem service delivery or land productivity. The solution must contribute to at least one target of the Kunming-Montreal Global Biodiversity Framework (Targets 2, 7, 10, 15, or 16), aligned with Algeria’s National Biodiversity Strategy and Action Plan (NBSAP), while delivering measurable ecosystem restoration and biodiversity outcomes. This includes generating quantifiable improvements in land condition and biodiversity at landscape scale, such as increased area under

sustainable land management (aligned with GEF-8 Indicator 4), measurable gains in improved habitat quality and ecological integrity within targeted intervention landscape, demonstrable reduction in biodiversity pressure attributable to supported technologies. As complementary land degradation neutrality co-benefits may include land productivity improvements (including via remote sensing), increased soil organic carbon and climate-smart agriculture approaches that enhance habitat connectivity and vegetation cover. Solutions should explicitly define baseline and target values and demonstrate co-benefit contributions to LDN outcomes, including improved ecosystem service delivery, enhanced landscape resilience, and alignment with Algeria's NDC and NBSAP commitments.

The project will monitor biodiversity outcomes through indicators that measure changes in habitat condition, ecological integrity, ecosystem condition and biodiversity status within the targeted landscapes. Indicators related to soil health, water availability, land productivity and other ecosystem services will be monitored as complementary co-benefits and will not substitute for biodiversity indicators when assessing project performance under the Biodiversity Focal Area.

During the PPG phase, a comprehensive landscape assessments will identify priority intervention areas, their biodiversity values, and the key drivers of biodiversity loss. These assessments will inform the refinement of technology-selection criteria to ensure that a significant share of proposed cleantech solutions directly address the identified drivers. Illustrative examples of technologies with demonstrable biodiversity benefits will be included in the CEO endorsement request, together with justification of their relevance to the assessed threats. Candidate technologies will be evaluated to establish a clear causal pathway between deployment, reduction of biodiversity pressures, and measurable improvements in biodiversity condition. A detailed results framework, including robust biodiversity indicators, will be developed to underpin the surface area reported under Core Indicator 4. Biodiversity experts will be engaged throughout project development to support the analysis of drivers, threat assessment, and the definition of impact indicators.

Within this project, cleantech entrepreneurship is positioned as a practical engine of a just energy transition translating mitigation priorities into local enterprise growth, green job creation, and resilient livelihoods, while strengthening national capabilities for technology deployment, market access, and equitable participation in the transition. In particular, the project contributes to just energy transition objectives under Component 1 by broadening equitable access to commercialization support to cleantech MSMEs in renewable energy, energy efficiency, and sustainable mobility through targeted outreach, tailored business support, and investment readiness. This converts transition priorities into jobs creation, local enterprise development, and local value addition. By de-risking early-stage ventures and enabling market-ready products, the component expands the quantity and quality of green jobs, catalyzes private investment, and supports skills formation within growing cleantech value chains.

Under Component 2, the Project will strengthen renewable energy, energy storage, energy efficiency, resource-efficiency and material-efficiency technologies, and sustainable mobility value chains, while supporting policy and regulatory gap analyses with implementable reforms (innovation policy, climate/biodiversity finance, MSME support), to improve fair and predictable market conditions for MSMEs to enter and scale. This encourages economic diversification beyond hydrocarbons, reduces barriers to participation for smaller firms, and fosters regional inclusion by enabling uptake of solutions in provinces with different starting points. Capacity building on standards, certification, and performance validation increases investor and buyer confidence, improving access to opportunity for new entrants and under-represented groups.

The Component 3 will embed just transition principles and practices emerging from Components 1-2 (e.g., inclusive pipeline development, targeted enterprise support models, reskilling needs). Through

knowledge products, guidance notes, and stakeholder dialogues, these lessons will be mainstreamed into national strategies and plans, including the NDC implementation agenda, National Climate Plan, Renewable Energy and Energy Efficiency plan, and future green jobs/skills frameworks—thereby institutionalizing just energy transition approaches and enabling scale beyond the project.

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

Component 1 focuses on identifying and supporting innovative early-stage cleantech MSMEs/startups, to enhance their capacity and competitiveness for business growth. This will increase private sector's potential and contribution to climate action and biodiversity as cleantech solution providers by leveraging market opportunities. Outcome 1.1 focuses on demand-driven early-stage innovative cleantech solutions and provides business acceleration support related to entrepreneurship and business skills training. Outcome 1.2 provides targeted technical assistance through advanced business growth and investment facilitation services. Furthermore, cleantech MSMEs/startups in the demonstration/deployment/scale-up/expansion stages will receive tailored investment facilitation and mentoring services for financing and commercialization. All enterprise selection, acceleration, mentoring, and capacity-building activities under Component 1 will be implemented in a gender-responsive manner, including targeted outreach to women-led enterprises, gender-responsive training delivery, and monitoring of women's participation across accelerator cycles. Environmental and social risks related to enterprise support activities will be screened and managed in accordance with applicable GEF and UNIDO environmental and social safeguard requirements.

The accelerator is designed not only to support individual enterprises but also to establish replicable commercialization pathways for climate mitigation technologies. By connecting enterprises with investors, corporate partners, financial institutions and public procurement opportunities, successful technologies are expected to expand beyond initial pilot deployments through private investment, market replication and integration into national value chains.

Component 1 directly contributes to biodiversity of global significance. Agri-tech solutions reducing water overuse contribute to KMGBF Target 10 (sustainable agriculture and fisheries). Nature-based solution startups supported under GEF-8 category 1.4 contribute to KMGBF Target 2 (ecosystem restoration). Geographical targeting of solutions will be done toward Key Biodiversity Areas, protected areas, and Mediterranean Basin hotspot zones.

Outcome 1.1: Climate- and biodiversity-positive cleantech solutions with high-impact potential are supported to reach commercialization and deployment

Early-stage cleantech innovations with high impact potential for climate change mitigation, just energy transitions, and biodiversity benefits, will receive business acceleration support for increased market and investment readiness. The detailed selection criteria for innovations to receive support will be determined in alignment with the national priorities outlined in the NDC targets, and other key policies and strategic documents in consultation with key stakeholders, as well as potential contribution for GHG emission reductions and reduce drivers of biodiversity loss. The innovative solutions will be selected through demand-driven innovation challenges, targeting specific national priorities.

In addition to environmental and economic metrics, selection criteria will incorporate human-centered quality-of-life indicators, including the potential to improve community health, enhance local employment opportunities, and provide tangible benefits to women, youth, and marginalized groups.

This project will pilot a mission oriented approach (i.e., innovation challenge approach). The mission oriented approach aims to create demand for solutions to address specific problems, so that in the next step the innovations with the highest impact potential can be selected.

This project will benefit from the tools, approach and methodologies on how to promote cleantech innovation and entrepreneurship in developing and emerging economy countries as developed under the GEF-7 GCIP Global Framework. This support includes guidebooks and practical tools for operation and management of the accelerator at a national level and complimentary activities, which will provide the reference framework for the accelerator in Algeria within this project.

The figure 3 below shows the types of assistance required by cleantech MSMEs/startups at different stages of growth.

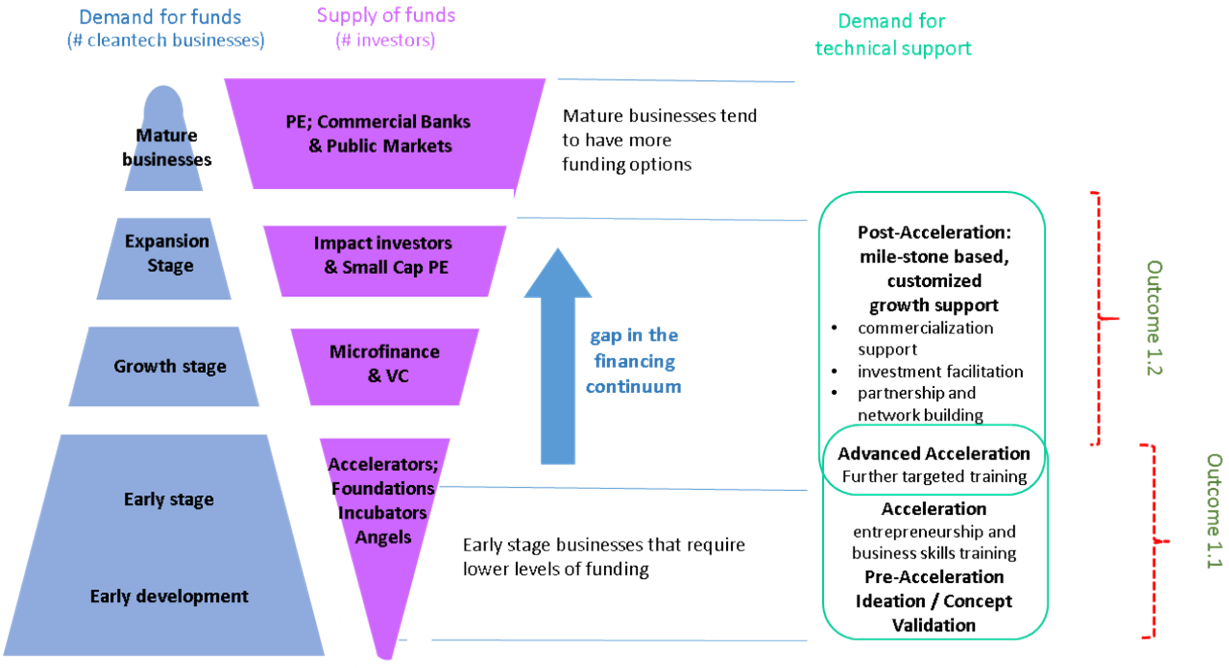

Figure 3: Demand for funds and technical support per development stage

This outcome contributes directly to Kunming-Montreal Global Biodiversity Framework (KMGBF) Targets 2 (by supporting nature-based solutions and agri-tech innovations that restore and maintain ecosystem function), 10 (by enhancing biodiversity in agriculture, aquaculture, fisheries, and forestry). Output 1.1.5 (impact measurement tools) further supports Target 15 by strengthening national capacity to assess, monitor, and account for biodiversity outcomes and dependencies at the enterprise level. Startups will be supported in identifying both positive biodiversity contributions and risks, helping to reduce business-related impacts on biodiversity and ecosystems.

Outputs

1.1.1 Methodologies, tools, training systems, guidebooks for cleantech innovation and entrepreneurship accelerator are developed for Algeria for national accelerator delivery

Accelerator guidebooks will serve as step-by-step, practice-oriented manuals for implementing the cleantech accelerator in Algeria's national context, tailored to reflect domestic market conditions, policy frameworks, regulatory requirements and local examples. Four guidebooks will be produced, covering pre-acceleration, acceleration, advanced acceleration, and post-acceleration support. These documents are purpose-built to guide the day-to-day execution of the Algerian accelerator and to train local mentors, judges, and programme managers. They are not intended as global knowledge products or cross-country lessons learned, which are the focus of the KM component.

The methodologies and guidebooks will provide a complete operational framework for the national cleantech accelerator. They will include: (i) standardized acceleration curricula covering business modelling, technology validation, market entry, and investment preparation; (ii) entrepreneurship skills modules to strengthen leadership, commercialization capacity, and enterprise development; (iii) climate- and biodiversity-impact assessment guidance with simplified tools for estimating GHG mitigation and biodiversity co-benefits; (iv) screening tools enabling the project management unit and MSMEs to assess eligibility and categorize solutions based on climate- and biodiversity-impact potential; and (v) procedures ensuring gender-responsive and socially inclusive delivery of all accelerator activities. Biodiversity elements will be integrated throughout the guidebooks so that participating enterprises can systematically: (i) assess how their technologies address the drivers of biodiversity loss and reduce ecosystem pressures (e.g., pollution, water abstraction, biomass harvesting); (ii) identify biodiversity risks and avoid unintended negative impacts; and (iii) incorporate biodiversity-positive design principles into product development, deployment strategies, and business models.

National biodiversity priorities (e.g. NBSAP targets and key biodiversity areas) will be embedded, alongside safeguards to prevent harm to critical habitats. The guidebooks will also include case studies, biodiversity finance guidance, and linkages to impact measurement tools (Output 1.1.5), ensuring that high-impact solutions for climate, energy, and biodiversity are prioritized.

1.1.2 Pool of fifty cleantech experts (trainers, mentors, judges) are trained and certified to support the accelerator (with at least 40% women)

Developing a pool of cleantech experts to act as mentors, coaches and judges is critical to the effectiveness of the accelerators in providing the right support to the participating teams. The delivery of the accelerator curriculum and the effectiveness of facilitated connections and networks will depend on the capacity of trainers, mentors, and judges. The training modules will include climate and biodiversity-focused content, including principles of biodiversity-positive innovation, ecosystem restoration technologies, sustainable natural resource management and nature-based solutions. Experts will be equipped to assess, mentor, and

support startups whose innovations contribute to halting biodiversity loss and enhancing ecosystem services. Similar to the accelerator guidebooks, the training system will be reviewed by the PMU in consultation with key stakeholders and national experts and then developed in the national context, ensuring that the training materials accurately reflect market, business, policy and investment climate of Algeria. The community of trained and certified experts is expected to positively influence the cleantech innovation initiatives at national level and will contribute to the strengthening of Algeria's CIEE in general.

1.1.3 Relevant national stakeholders are convened and trained as challenge owners to design and conduct an innovation challenge (community-led/government-led/industry-led)

While three priority areas (climate change mitigation, just energy transitions, and biodiversity loss) are identified based on national policies and strategies and aligned with the GEF-8 Core Indicator Framework, the PPG phase will convene relevant national stakeholders (with at least 40% women) to identify three high-impact "sweet spots" for demand-led innovation challenges. These sweet spots, potentially located at the intersection of the three priority areas, will be selected for their long-term contribution to global environmental benefits (GEBs). Equal weightage shall be provided to climate change mitigation and biodiversity criteria, assess the approach to problem statement or challenges it aims to address, the solutions aims to address, potential to reduce pressure such as water over extraction, and promote new jobs and improve overall livelihood.

Given the early-stage nature of cleantech startups, the project will adopt a conservative, phased approach to indicator setting and tracking. During the PPG, methodologies will be developed to estimate and track projected contributions of cleantech innovations to the GEF-8 core indicators as listed below.

CI-4: Area of landscapes under improved management to benefit biodiversity (hectares). Measured as the area of landscapes (hectares) where project-supported NbS and cleantech interventions contribute to improved ecosystem condition, reduced land degradation, and/or ecological restoration. Eligible areas include those where climate-smart agriculture, water-efficient use systems, or other resource-efficiency practices are implemented and demonstrably lead to measurable improvements in vegetation cover, soil health, water regulation, or habitat quality. Measurement will be based on baseline and endline assessments, using a combination of geospatial data (e.g. remote sensing of land productivity and vegetation indices) and field-based indicators (e.g. soil organic carbon, erosion rates). Only areas showing a verifiable positive change in land condition or ecosystem service delivery will be counted. Reporting under this indicator will also be aligned with the three Land Degradation Neutrality (LDN) sub-objectives: (i) maintaining or improving ecosystem service delivery (including water regulation, soil formation, and carbon sequestration); (ii) increasing the resilience of land and dependent communities; and (iii) generating synergies with Algeria's NDC and National Biodiversity Strategy and Action Plan (NBSAP).

CI-6: Greenhouse gas emissions mitigated (for clean energy, energy efficiency, e-mobility, and agritech solutions supported through the accelerator).
CI-8: Number of direct beneficiaries disaggregated by gender. Direct beneficiaries are defined as individuals who directly participate in or receive services from project-supported activities during the project lifetime, including entrepreneurs, cleantech experts, and stakeholders participating in CIEE dialogues. A target of at least 40% women beneficiaries will be applied, consistent with Algeria's gender mainstreaming commitments.

A detailed methodology for calculating and monitoring GHG reduction potential will be developed during the PPG and applied at the application stage as a minimum threshold criterion, ensuring that only solutions with sufficient mitigation impact potential are admitted to the accelerator. Direct and indirect emission reductions will be estimated over a ten-year horizon, with indirect benefits — resulting from CIEE strengthening, reduced investor risk perception, and behavioural change across the ecosystem — estimated at a conservative multiplication factor.

Startups will be guided in using simplified estimation frameworks (e.g. GHG reduction calculators, biodiversity screening tools) to assess the mitigation potential of their innovations for CI-4 and CI-6. These estimates will be refined as enterprises advance through the accelerator. A monitoring protocol will be established under Output 1.1.5 to track direct project results of the other core indicators achieved during the project lifetime. Final targets for indicators other than CI-6 will reflect only direct, attributable results delivered during project implementation, in line with GEF guidance.

During the PPG phase, the above-mentioned areas will be consulted and verified with the relevant national stakeholders, including government officials, private sector, research and development institutions, and civil society actors. During the project implementation phase, relevant national stakeholders will be convened as challenge owners to design and conduct the three rounds of innovation challenges (community-led/government-led/industry-led) in the three identified sweet spot areas. The design process will ensure that biodiversity considerations are fully integrated into challenge design, evaluation criteria, and mentoring structures to stimulate market-based solutions that support Algeria's biodiversity and climate goals.

The innovation challenges could be community-led, government-led, or industry-led. The mission orientation approach will be clear on the expected outcome of the innovation challenges but allows for flexibility in terms of technologies and innovations that are supported. Priority will be given to innovations that demonstrate strong biodiversity benefits alongside climate mitigation and socioeconomic benefits.

1.1.4 Three cycles of the annual cleantech accelerator are conducted, prioritizing climate mitigation and biodiversity-positive innovations, including solutions that generate complementary benefits (at least 60 enterprises - at least 40% women- and 30% youth-led)

Three annual national competition-based cleantech innovation and entrepreneurship accelerators will be conducted based on the guidebooks and tools developed under output 1.1.1. Selection criteria for cleantech solution primarily with GHG emission mitigation potential adressing drivers of biodiversity loss and support ecosystem services shall be incorporated (output 1.1.5). In each annual accelerator, at least 20 enterprises (semi-finalists) will be invited to receive intensive business and entrepreneurship mentoring and coaching to enhance their business models and accelerate their growth as businesses. A typical annual cycle of accelerator lasts 6-8 months, with a curriculum of 20 modules. Biodiversity considerations will be mainstreamed into the curriculum, including modules focused on biodiversity finance, nature-positive business models, and integration of biodiversity safeguards into business operations. Modules will also address occupational health and safety, equitable workplace practices, and community impact assessment to ensure that cleantech adoption leads to direct livelihood improvements.

1.1.5 Integrated climate and biodiversity impact measurement tools are developed with other relevant environmental co-benefits.

The project will build existing GCIP's impact framework and expand its scope to include indicators to estimate, measure, and track impacts on climate change mitigation and biodiversity, in alignment with GEF-8 programming directions and Algeria's national priorities. This enhanced approach will be used to screen and select high-impact cleantech solutions within the Accelerator, limited to the eligible technologies under GEF-8 climate mitigation categories.

Biodiversity-related impacts will be measured through a single area-based core indicator, selected to reflect Algeria's ecological context and the nature of cleantech interventions supported. GEF-8 Core Indicator CI-4 will serve as the primary biodiversity measure, capturing the area of landscapes (hectares) where project-supported solutions introduce climate-smart agriculture, agroecological practices, or resource-efficiency measures that lead to measurable improvements in ecosystem condition, reduced land degradation, and/or enhanced biodiversity at landscape scale. Measurement will be based on baseline and endline assessments using geospatial and field-based indicators, ensuring that only areas demonstrating verifiable positive ecological change are counted.

Two user-friendly, web-based tools will be developed under the project to support the estimation, tracking, and validation of environmental, social, and economic impact. The first tool will be used at the application stage of the accelerator to guide applicants in estimating the potential environmental, social, and economic impacts of their cleantech solutions. Based on Life-Cycle Assessment (LCA) thinking and sustainability principles, the tool will primarily function as an awareness-raising and self-assessment instrument, supported by a self-guided tutorials to assist applicants in completing the exercise. Upon completion, applicants will receive automated, indicative feedback on their projected impacts. Targeted guidance will be provided to support applicants in estimating biodiversity benefits from established frameworks such as ENCORE (ecosystem dependency screening), TNFD (area and ecosystem condition metrics), the Natural Capital Protocol (ecosystem service valuation), and the UNCCD Land Degradation Neutrality framework (land productivity and soil carbon tracking) into a practical, proportionate approach tailored to early-stage cleantech ventures.

The second tool will support more detailed impact articulation and will be designed for semi-finalists of the cleantech accelerator to better articulate their impact potential. With additional training provided through the accelerator curriculum, participants will refine and quantify the environmental, social, and economic benefits of their innovations. This process will involve structured data input, supported by webinars or in-person workshops/impact clinics, and will draw on LCA and biodiversity-positive methodologies. Enterprises will be able to revisit and update their impact forecasts over time, supporting more robust and credible impact narratives and sustainability positioning as their solutions evolve.

Outcome 1.2: Startups and MSMEs are supported through advanced business growth and investment facilitation services

MSMEs and startups will be supported through advanced and gender-, biodiversity-, and climate-responsive business growth services and investment facilitation services. This outcome focuses on supporting selected businesses to further develop their innovations to reach commercial and sustainable success. Entrepreneurs will be supported in identifying the full added value of their products and services, specifically through training, access to networks, financial facilitation, and exposure to market and sustainability metrics. Targeted support will be

provided to biodiversity-positive startups, including access to specialized nature-positive investment networks, biodiversity offsets markets, and partnerships with conservation-focused investors.

This outcome contributes to KMGBF Target 19 by enhancing access to finance for biodiversity-positive innovation. Through investor matchmaking, training, and exposure to public and private financing instruments, the project will help mobilize increased financial resources to support biodiversity-aligned MSMEs and cleantech solutions.

Outputs

1.2.1 Tailored business growth support services are provided to selected cleantech enterprises towards commercialization (at least 20 enterprises - least 40% women- and 30% youth-led)

Advanced and post-acceleration support will be tailored to the specific needs of the alum enterprises for progressing into the next phase of business growth and in overcoming product related market barriers. This may include technology verification, prototyping and product development, piloting, legal and administrative support, IT services, tax registration, protection of intellectual property (IP), product LCA, environmental and social risks assessment, additional mentoring on specific topics (e.g., business strategies for biodiversity-positive innovation), biodiversity impact screening, and courses on cleantech entrepreneurship. Enterprises with demonstrable BD benefits will receive dedicated mentoring on business strategies for biodiversity-positive innovation, including how to identify, measure, and communicate biodiversity outcomes to investors and markets in a credible and standardised way. This support will build enterprise-level capacity to assess and account for biodiversity dependencies and impacts, contributing directly to KMGBF Target 15 and strengthening the investability of BD-positive solutions within Algeria's cleantech ecosystem.

Additional business model validation may also be necessary to reflect the developments in technology/product readiness, business, market and manufacturing readiness, and environmental performance of products, including biodiversity benefits. As each enterprise is different, extensive consultations will take place as part of the selection process to ensure that all their needs and expectations are fully understood and agreed on at entry into advanced and post acceleration support. A milestone-based approach will be employed to measure the progress of each enterprise.

1.2.2 Enterprises are connected to financing opportunities and provided with tipping-point investment facilitation support (at least 15 enterprises - 40% women- and 30% youth-led)

Mobilizing investment for cleantech products and services is a lengthy and iterative process. Therefore, selected enterprises with high replication and scaling up potential will benefit from tipping-point investment facilitation support. The project will support the establishment of a robust network of financial institutions, funds and investors that are increasingly prioritizing nature-aligned investments, such as those in sustainable agriculture, water resource management, and forest conservation technologies. This network will specifically include BD-focused finance mechanisms and impact investors with mandates aligned with KMGBF Target 15, ensuring that enterprises delivering measurable biodiversity outcomes alongside climate mitigation have access to dedicated capital pathways. Investment facilitation events and forums will be organized to promote direct matchmaking between supported enterprises and investors, with BD-positive enterprises given dedicated visibility to aligned investor audiences.

The project will raise awareness among investors about the economic and environmental benefits of cleantech innovations, including those delivering measurable biodiversity, climate, and ecosystem services outcomes. Efforts will be made to actively engage financing institutions and investors to increase investor confidence in cleantech innovations by creating dialogues and providing training sessions as well as short, interactive webinars. Examples of cleantech solutions from GEF-7 GCIP alum enterprises may be presented to demonstrate success stories, including possible returns on investments.

1.2.3 Impact measurement services are provided for alum enterprises (at least 25 enterprises – 40% women- and 30% youth-led)

For enterprises seeking to attract impact investors or blended finance, the project will provide third-party verified impact validation services. This includes biodiversity metrics where relevant (e.g., habitat restoration, reduced pressures on conserved areas). The impact projection reports (output 1.1.5) will be complemented by validation from LCA and biodiversity experts, enabling alums to credibly present their environmental and social performance to investors.

1.2.4 Mentoring and partnership support is provided to cleantech enterprises for global market expansion (at least 8 enterprises - 40 % women- and 30% youth-led)

Many cleantech innovations have potential for replication and scale-up in other developing countries, especially those offering technologies with cross-border climate and biodiversity benefits. Based on requests received from enterprises, international mentors will be identified by the PMU including assessing the GCIP network of mentors. As a result, the enterprises will be able to explore opportunities for technology collaboration, product co-development, joint venture for market expansion, among others, in a business-to-business context.

The project will foster partnerships and technology exchange across countries, with a focus on South-South collaboration around cleantech solutions with verifiable positive impacts on biodiversity and ecosystem conditions. This collaboration will be guided by internationally recognized frameworks already embedded in the project's impact approach, including the Kunming-Montreal Global Biodiversity Framework under the Convention on Biological Diversity, the Land Degradation Neutrality (LDN) framework of the United Nations Convention to Combat Desertification, and measurement and disclosure approaches from the Taskforce on Nature-related Financial Disclosures (TNFD). In addition, biodiversity impact screening and assessment will draw on simplified tools adapted from ENCORE and the Natural Capital Protocol, ensuring a practical and proportionate application for early-stage cleantech ventures. An advisory group composed of national PMUs and mentors will exchange regional best practices, explore collaborative financing opportunities (e.g., with IFC or GCF), and co-develop regional innovation programs that align cleantech growth with biodiversity conservation goals.

1.2.5 National cleantech financing facility and investor matchmaking platform established to support early-stage, high-impact enterprises

Baseline assessment of financial landscape in Algeria, assessing gaps, mechanisms and opportunities for Algeria to unlock potential cleantech financing for MSMEs, including specific

analysis of available financing instruments for BD-positive cleantech and nature-based solutions, and the extent to which existing financial institutions incorporate biodiversity risk and opportunity into their investment criteria. A national cleantech financing facility will be established based on the baseline in collaboration with financial institutions and relevant government bodies to support early-stage startups selected through the cleantech accelerator. The facility will provide catalytic financial instruments, including grants, blended finance tools, and risk-sharing mechanisms, to enable the growth of high-impact cleantech enterprises, particularly those contributing to climate change mitigation, addressing the driver of biodiversity loss, support conservation and reduce pressure on ecosystem restoration. In parallel, investor matchmaking platforms, forums, and outreach events will be developed to increase access to private capital, enhance visibility of supported enterprises, and strengthen the investment pipeline for cleantech innovation in Algeria.

Component 2: Strengthening the Cleantech innovation and entrepreneurship ecosystem (CIEE) and its inter-connectivity

National policy frameworks and institutional capacities are integral parts of the CIEE and are of strategic relevance in ensuring that the outputs and outcomes of the project are contributing meaningfully to the national priorities, including climate action, biodiversity conservation, and sustainable development, and are sustained after project closure. This component will aim to strengthen institutional capacity in key national ecosystem players, to enhance their inter-connectivity, and to engage in cleantech acceleration and commercialization in Algeria. In parallel, policymakers will be supported to strengthen policy coherence by undertaking technical diagnostics (including policy and regulatory gap analysis) and developing actionable recommendations to improve alignment of incentives and frameworks that affect cleantech innovation and commercialization and the development of nature-positive solutions.
The process will be iterative and participatory, incorporating technical analyses, policy dialogue, and the formulation of actionable recommendations. Environmental and Social Safeguards will be systematically mainstreamed throughout this component, this will include the integration of ESS considerations into all diagnostics, policy reviews, and institutional capacity-building activities. This includes incorporating environmental and social screening criteria into analytical tools and ensuring inclusive, gender-responsive, and participatory stakeholder engagement processes.

Inter-ministerial engagement and ownership will be institutionalized by engaging relevant technical focal points from the Ministry of Environment and Quality of Life, the Ministry of Energy and Renewable Energies, the Ministry of Knowledge Economy, Start-ups and Micro-enterprises, and the Ministry of Finance. These ministries, also represented in the PSC, will co-develop and validate strategies, plans, and policy outputs under this component.

The project will benefit from strengthening of ecosystem frameworks, including recommendations for enhancing capacity of national institutions to support cleantech innovation and entrepreneurship, a framework for CIEE mapping and analysis, strategies for facilitating meaningful interaction and collaboration among ecosystem players, and relevant training material. Where applicable, guidance will integrate biodiversity-inclusive approaches, such as support for nature-based solutions and green infrastructure. Policy frameworks (including translatable policy recommendations and implementation strategies) will be informed by international best practices, especially from countries with similar socio-economic and ecological contexts, and will promote a balanced approach to innovation, economic growth, and biodiversity conservation.

Gender considerations will be integrated into ecosystem diagnostics, stakeholder engagement, and policy-related activities under Component 2, including analysis of barriers faced by women entrepreneurs and incorporation of gender-responsive measures in proposed financing and policy recommendations.

Component 2 contributes to biodiversity of global significance by embedding BD criteria into national cleantech policy frameworks, and cleantech value chain roadmaps. Cleantech biodiversity considerations will be integrated into Algeria's key policies, strategies and plans, including the NBSAP, ensuring that cleantech entrepreneurship frameworks are aligned with Algeria's international BD commitments. By building capacity among national institutions, investors, and entrepreneurs to identify, assess, and account for BD impacts and dependencies, the component advances KMGBF Target 15 (business engagement with biodiversity). These interventions are intended to institutionalize the CIEE by embedding technical expertise, investment facilitation mechanisms and cross-sector partnerships within national institutions, thereby ensuring long-term sustainability of project outcomes beyond the GEF implementation period.

Outcome 2.1: CIEE is strengthened to support commercialization and scaling of climate- and biodiversity-positive innovations.

Outcome 2.1 focuses on strengthening policy frameworks and ecosystems to promote innovative cleantech solutions, especially in the priority areas of climate change mitigation, just energy transitions, and address the drivers of biodiversity loss and support conservation. This includes better awareness of technology gaps and innovation opportunities in cleantech for climate, energy, and biodiversity protection and conservation. It will also focus on the development of policy instruments and recommendations for cleantech commercialization and increase in investment.

This outcome contributes to KMGBF Target 14 by integrating biodiversity values into national cleantech innovation strategies and ecosystem development processes. Through ecosystem mapping, stakeholder engagement, and policy coordination, biodiversity considerations will be embedded in the enabling environment for innovation. The outcome also supports Target 20 by strengthening technical capacity of policymakers for biodiversity-related action.

Outputs

2.1.1 CIEE analysis and stakeholder dialogues conducted, and policy recommendations developed to strengthen commercialization of innovative climate- and biodiversity-positive cleantech solutions

A holistic assessment of Algeria’s CIEE will be conducted to analyze its strengths and weaknesses in supporting the development and commercialization of cleantech solutions. The assessment will encompass a review of existing business practices, institutional processes, support mechanisms, cleantech actor density, certification schemes, market conditions, women and youth engagement in entrepreneurship and innovation, and policy environment for startups and MSMEs, identifying gaps that hinder market entry and scaling. Specifically, the project will analyze how existing business development processes, such as licensing, registration, regulatory approvals, and access to incubation and mentoring, affect startup and MSME growth in Algeria.

Certification mechanisms and quality assurance standards will also be reviewed to assess their accessibility, alignment with international green standards, and relevance to cleantech sectors.

The assessment will be informed by national strategies and targets related to climate change mitigation, just energy transitions, and biodiversity conservation, with a focus on renewable energy, energy efficiency, sustainable mobility, resource-efficiency, and other low-carbon technology opportunities that contribute to GHG reductions while supporting ecosystem preservation and the sustainable use of natural resources. Based on the findings, the project will propose standard approaches or templates for improving business development procedures and green certification models, with the aim of fostering a more transparent, efficient, and enabling environment for cleantech enterprises. The aim of the assessment exercise is to ensure that national ecosystem actors are supported to understand and contribute to their roles as actors of the ecosystem and will have the capacity to continue promoting national cleantech innovations and enterprises towards commercialization beyond the project.

Building on the assessment, the project will facilitate multi-stakeholder dialogues, involving policymakers, financial institutions, academia, private sector actors, and civil society to co-create policy solutions. These discussions will address key challenges in the regulatory, institutional, and financial environments, while exploring the integration of biodiversity considerations into cleantech policy and investment frameworks. The results of the assessment and dialogues will feed into the development of targeted policy recommendations, including proposals for improved institutional coordination, startup and MSME support frameworks, green certification schemes, and biodiversity-aligned incentives.

The project will assist relevant ministries and agencies in conducting a policy and regulatory gap analysis, reviewing existing frameworks, and validating proposed interventions through stakeholder consultations. This will include policy diagnostics to identify specific reforms needed in innovation, climate and biodiversity finance, and MSME support. Recommendations will also be developed to integrate cleantech entrepreneurship relevant policies, strategies and plans including: Algeria’s NDC, NBSAP, NAP strategies, National Climate Plan, and the Renewable Energy and Energy Efficiency Plan.
Policy recommendations will also integrate quality-of-life considerations, such as improved access to clean energy, reduced urban heat stress, and increased community resilience, ensuring that cleantech policies support healthier, more inclusive living environments. This process will ensure that Algeria’s cleantech ecosystem is better equipped to support innovative enterprises that deliver climate, biodiversity, and quality-of-life benefits.

2.1.2 National cleantech innovation opportunities mapped and regional innovation ecosystems strengthened, with emphasis on climate mitigation technologies and biodiversity-positive value chains.

A national mapping of cleantech innovation potential will be undertaken to identify comparative advantages, market gaps, and value-chain opportunities aligned with Algeria’s development priorities, including opportunities for cleantech solutions with demonstrable biodiversity benefits. Building on this analysis, a specialized assessment will prioritize renewable energy subsectors aligned with national energy and climate priorities and map key value-chain constraints. Based on the baseline, a targeted value-chain strengthening

roadmap will be developed to identify measures to upgrade MSME capabilities and market linkages, enhance inclusivity, and strengthen pathways for BD-positive cleantech to reach commercial deployment. In parallel, the project will engage incubators, accelerators, universities, and technology parks to expand decentralized delivery capacity, including their mobilization as delivery partners for the national accelerator and as sustaining enablers of cleantech innovation beyond the project lifecycle.

The project will also collaborate with government partners to develop a national green jobs strategy that identifies cleantech and nature-based employment opportunities, proposes pathways for job creation, and outlines skill development priorities, especially for women and youth.

2.1.3 Capacity strengthened to finance and scale climate- and biodiversity-positive cleantech solutions

Capacity-building activities will be delivered to strengthen national competencies in climate and biodiversity finance, including project preparation, green taxonomy understanding, and green business certification standards. These activities will specifically enhance the capacity of public institutions, financial intermediaries, and private sector actors to identify, assess, and finance cleantech solutions that contribute to climate mitigation and reduce key drivers of biodiversity loss. The trainings will include practical methodologies for integrating biodiversity considerations into investment decision-making, including nature-related risk and impact assessment, biodiversity screening criteria, and alignment with relevant national and global frameworks. This will support the development of a pipeline of bankable, biodiversity-positive cleantech solutions and facilitate increased investment and scaling of such solutions in priority sectors.

Component 3: Knowledge management, communications, impact measurement

The activities under component 3 are aimed at ensuring that the achievements of the Cleantech Algeria project are captured and communicated, both at national and international levels. This includes documenting and communicating the climate and biodiversity-related impacts, innovations, and lessons learned generated by the project. Knowledge products, investment cases, commercialization methodologies and impact assessment tools developed through the project will be disseminated. This approach extends project impacts beyond direct beneficiaries and supports the broader scaling of climate mitigation innovations.

Knowledge products, communication materials, and impact monitoring tools under Component 3 will apply a gender-responsive approach, including gender-disaggregated data collection, and visibility of women-led cleantech enterprises and role models.

Environmental and Social Safeguards (ESS) will be integrated into Component 3 in line with UNIDO's Environmental and Social Management Framework (ESMF). ESS principles will be embedded in knowledge management, communications, and impact measurement tools, including the application of environmental and social screening criteria, and gender-responsive and inclusive communication approaches.

Component 3 contributes to biodiversity of global significance by developing BD-sensitive impact

measurement tools and indicators that enable startups to track and report biodiversity outcomes alongside climate metrics, directly supporting KMGBF Target 15 on enterprise-level biodiversity accounting.

Outcome 3.1: Outcomes are enhanced through knowledge management, communications, and advocacy

Knowledge management and exchange are key strengths for a successful project design and implementation. UNIDO has been facilitating information and knowledge exchange among GCIP PMUs and GCIP supported entrepreneurs across borders since 2014 as part of GCIP Phase 1 and 2 programmes, and this dimension has proven to be of benefit to all stakeholders and key learning that will be applied for this project. The knowledge management of the project will also be contributing to the GEF Strategic Direction 2 of the Strategy for Knowledge Management & Learning by mainstreaming knowledge management across GEF projects and promoting South-South cooperation further. The Communication strategy of the project also aims to follow the GEF Communication and Visibility Policy, strengthening the brand identity of GEF. Biodiversity-positive innovations, technologies, and business models emerging from the Cleantech Algeria project will be actively included in cross-border knowledge exchanges, promoting international learning on biodiversity-inclusive cleantech entrepreneurship.

A key tool for knowledge management will be the online web platform, used to collect data associated with the accelerator. This will naturally create a community of participating enterprises, trainers, judges, and mentors. The web platform will also serve as a depository and dissemination tool for all knowledge products generated and collected through the project. All knowledge management material will be gender responsive. During the PPG phase, existing platforms related to cleantech and entrepreneurship will be reviewed and assessed. If an existing platform is identified, efforts will focus on strengthening its scope and coverage while bringing together all ecosystem stakeholders into a single, centralized hub. In cases where multiple platforms serve similar purposes, the project will prioritize revamping the central website, integrating relevant platforms, and ensuring it functions as a unified national portal. To ensure long-term sustainability, the platform will be maintained and operated by a designated national counterpart. For instance, gender responsive training and advocacy material will not perpetuate gender stereotypes through presenting women only in their traditional roles. Knowledge management materials will also be biodiversity responsive, showcasing case studies, best practices, and lessons learned from biodiversity-positive cleantech solutions supported by the accelerator.

The project will also benefit from and contribute to the knowledge management efforts at the global level. In particular, the following key elements of knowledge management are relevant:

a) overview of existing lessons and best practice that inform the project design and activities
b) plans to learn from relevant projects, programs, initiatives & evaluations
c) processes to capture, assess and document info, lessons, best practice & expertise generated during project execution/implementation
d) tools and methods for knowledge exchange, learning & collaboration, including knowledge platforms and websites
e) knowledge products to be published and shared with
f) how knowledge and learning will contribute to overall programme impact and sustainability thought leadership strategy for cleantech enterprise development and investing (publication of opinion pieces, policy briefs etc.);

g) content strategy for social media platforms to raise visibility of the project's impacts and knowledge projects.

Biodiversity-focused knowledge products (e.g. technical briefs, case studies, policy notes, webinars) will be systematically developed and shared to support biodiversity mainstreaming into cleantech innovation ecosystems.

Outputs

3.1.1 Knowledge management, communications, and advocacy strategies are adapted and applied by the PMU

Knowledge management, communications, and advocacy efforts have three aims: 1) promoting visibility of the project and GEF and dissemination of information on achieved impacts; 2) increasing awareness of the catalytic role of cleantech in addressing climate change mitigation, just energy transitions and tackling the drivers of biodiversity loss and support of conservation efforts; and 3) showcasing cleantech innovations from alum enterprises and enhancing their visibility and credibility. Specific communications campaigns will be developed to raise awareness on the role of cleantech solutions in halting biodiversity loss, restoring ecosystems, and supporting sustainable use of natural resources.

The communications strategy will emphasize the importance of awareness raising and marketing materials for different kinds of audiences, including entrepreneurs and government officials. Also, briefing sessions, press releases, social media activity, events, among others, will be foreseen in the communications strategy. Partnerships with biodiversity-focused organizations and media will be pursued to amplify biodiversity messages across communication channels.

3.1.2 National web platform for Cleantech Algeria (including impact tools) is developed and operated

A national web platform for Cleantech Algeria will be developed as a tool for four key functions:
1) facilitate internal management and operations, as for example guidelines, tools and other knowledge products will be disseminated through the web platform
2) tool for execution of annual accelerators to be used from the beginning of the accelerator cycle (call of applications and receipt of applications), and during the accelerator (webinars, submission of assignments etc.)
3) enable maintenance of the community at the national level. All alumni enterprises, certified mentors and coaches will be invited to join the online network.
4) profile the impact potential of each supported cleantech solution will be showcased on the web platform. Therefore, it will serve as a gateway for potential investors and customers to collect information on alumni enterprises.
The platform will include dedicated sections to showcase biodiversity-positive startups, biodiversity impact metrics, and case studies, thereby supporting knowledge dissemination and attracting biodiversity-focused investors.

3.1.3 Cleantech Ecosystem Mapping and Impact Indicators

Cleantech ecosystem mapping and impact data collection will be implemented to track the status, barriers, and evolution of Algeria's cleantech innovation and entrepreneurship

ecosystem. Ecosystem mapping will identify and periodically update key cleantech stakeholders (including investors and entrepreneurship support organizations), available cleantech funding, and enabling conditions for cleantech innovation and commercialization at the national level. Mapping will also identify stakeholders and organizations active in biodiversity conservation and nature-based solutions, ensuring that BD-relevant actors are connected to the cleantech ecosystem and that opportunities for BD-positive cleantech are visible to potential applicants.

Impact metrics will be captured for supported cleantech enterprises. Indicators will cover environmental outcomes (including GHG emissions avoided, renewable energy capacity installed, and biodiversity benefits delivered by solutions with demonstrable BD impact, measured against KMGBF-aligned indicators such as hectares of ecosystem under reduced pressure and reductions in pollution on biodiversity-sensitive areas), social outcomes (including job creation and the inclusion of youth and women), and economic outcomes (including financing mobilized and products commercialized).

Data will be disaggregated by gender where possible, and participation of youth will also be recorded. Environmental and social considerations, including gender equality and women's empowerment, will be integrated into project monitoring and learning activities to support evidence-based policy dialogue and private-sector engagement.

4. Monitoring and Evaluation

4.1 Progress monitoring conducted

The monitoring of project impacts and progress is essential for the adequate and timely delivery of results. This project component covers project monitoring and oversight by UNIDO in close coordination with other relevant stakeholders. Initial activities include the design of a detailed monitoring plan and methodology.

A detailed monitoring plan for tracking and reporting of project time-bound milestones will be prepared by UNIDO in collaboration with the PMU and project partners at the beginning of project implementation and periodically updated. The plan will also include monitoring and reporting on the materialisation of co-financing during relevant milestones; further details on the co-financing monitoring framework will be provided in the CEO Approval document.

Efforts will be made to ensure that voices of both women and men are considered when discussions are held. As necessary, gender-disaggregated focus group meetings will be organized so that both men and women can lead, shape, participate in, contribute to and benefit from the project through mutual knowledge sharing. The operationalization of the gender mainstreaming action plan will be monitored and evaluated according to relevant indicators. Monitoring activities will also incorporate community well-being assessments, collecting data on perceived improvements in health, skills and knowledge development, and local environmental conditions. Where possible, biodiversity stakeholder consultations will also be organized to ensure that indigenous knowledge, conservation priorities, and local biodiversity values are reflected in project implementation.

4.2 Evaluation

4.2.1 Mid-term review and independent terminal evaluation are conducted

The M&E procedure will consist of a project inception report, 6-monthly progress reporting, PIRs and a project final report. A detailed monitoring plan for tracking and reporting on project timebound milestones and accomplishments will be prepared by UNIDO in collaboration with the Algeria National Cleaner Production Centre and project partners at the beginning of project implementation and then periodically updated. Monitoring will include the regular monitoring of the Environmental and Social Management Plan, the Stakeholder Engagement Plan, the Gender Action Plan with measures to facilitate and support its implementation (eg. Budgtes, regular monitroing, adaptive management etc.) and the Risk Analysis. An external mid-term review and a terminal project evaluation will be carried out by independent evaluators. The evaluations will focus on assessing the achieved impact and sustainability of results, including project's contribution to capacity development, and GEBs. The mid-term review and terminal evaluation will include specific reporting on gender-specific results, including progress in implementing the Gender Action Plan, with reference to gender-specific indicators included in the results framework. Gender-specific results will also be reported in PIRs.

[1] The GCIP has developed an impact assessment framework focusing on estimating climate mitigation potential of cleantech innovations.

[2] 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); environmental/social management principles, gender mainstreaming and ESSPP principles to be applied in the course of project execution, etc.

Coordination and Cooperation with Ongoing Initiatives and Project.

Does the GEF Agency expect to play an execution role on this project?

No

If so, please describe that role here. Also, please add a short explanation to describe cooperation with ongoing initiatives and projects, including potential for co-location and/or sharing of expertise/staffing

UNIDO, as the GEF Implementing Agency, will be responsible for overall project oversight, ensuring compliance with GEF policies, fiduciary standards, and safeguard requirements. It will oversee monitoring and evaluation, review progress and reports, and ensure that the project is implemented in accordance with agreed standards and procedures. UNIDO will also support the national executing entity through technical guidance, quality assurance, and timely disbursement of GEF funds, without undertaking execution functions.

The execution of the project shall be undertaken by the proposed national executing entity, the Algeria National Cleaner Production Centre (NCPC). NCPC will be responsible for day-to-day implementation, coordination, and delivery of all project components. The NCPC is a national institution mandated to promote resource efficiency, cleaner production, and sustainable industrial development in Algeria, including supporting enterprises in improving environmental performance, adopting low-carbon technologies, and complying with national environmental regulations. Building on its experience working with industry, MSMEs, and public institutions, the NCPC's mandate is aligned with the Cleantech Algeria project, particularly in facilitating private sector engagement, delivering technical support to enterprises, and coordinating multi-stakeholder initiatives. During the PPG phase, extensive consultations, including an institutional assessment of the proposed national execution entity, will be conducted to determine the details of the execution modality. A simplified HACT assessment will be carried out by UNIDO to evaluate the readiness of NCPC to act as an executing entity and ensure it has sufficient level of

in-house technical and administrative capacity including regulations to receive and manage grant funds and execute the project.

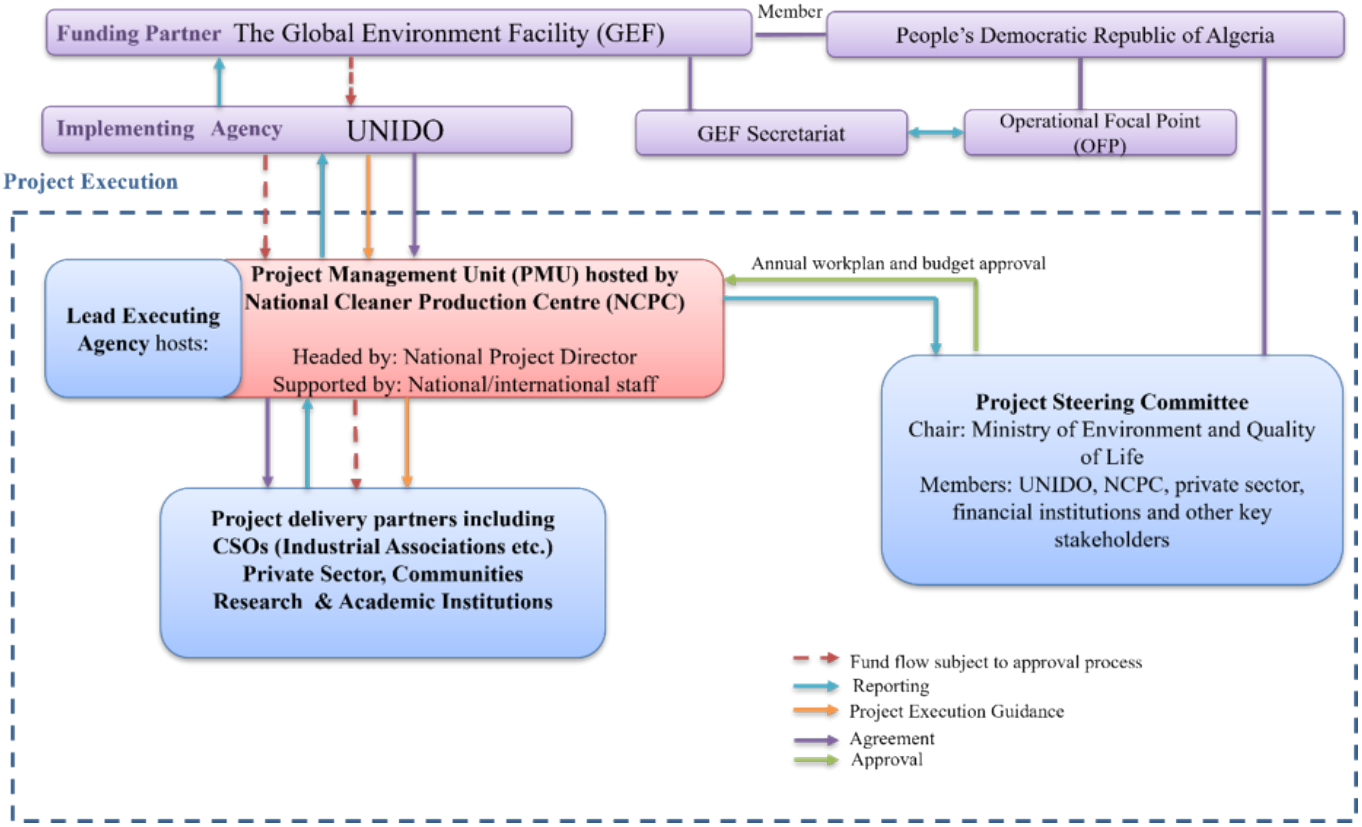

Figure 4: Institutional arrangement of the project

UNIDO will support NCPC in establishing the Project Steering Committee (PSC), a high-level cross-sectoral committee composed of representative from related government agencies, lead policy makers, UNIDO, co-financing agencies, and partner organizations. The key objective of the PSC is to provide strategic guidance and oversight of the project's progress. It will include representatives from key ministries, including the Ministry of Environment and Quality of Life (lead national counterpart), Ministry of Energy and Renewable Energies, Ministry of Knowledge Economy, Start-ups and Micro-enterprises, and Ministry of Finance, along with other relevant stakeholders identified during the PPG phase. The PSC will review and approve annual workplans and budgets, provide strategic direction, and ensure alignment with national priorities while facilitating inter-ministerial coordination. The NCPC will chair the PSC. UNIDO will participate in the PSC as a non-voting member, in line with GEF guidance.

A Project Management Unit (PMU) will be established within the executing entity to support implementation. The PMU will be responsible for day-to-day project management, including planning, procurement coordination, financial and technical reporting, monitoring of results and indicators, stakeholder engagement, and risk management. It will maintain the project management plan, oversee implementation progress, and facilitate evaluations and reviews. The PMU will work closely with UNIDO to ensure technical quality, compliance with GEF requirements, and effective knowledge transfer.

The division of roles between UNIDO and the NCPC is designed to ensure strong national ownership, efficient implementation, and long-term sustainability, while leveraging UNIDO's global expertise and experience to support quality delivery and knowledge exchange. 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 MSMEs and startups 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 2025, GCIP accelerated over 1700+ startups/MSMEs in over 15 countries.

To support whole-of-economy coordination and ensure alignment with national climate and biodiversity priorities, inter-ministerial coordination will be facilitated throughout project design and implementation. Relevant ministries, including the Ministry of Environment, Ministry of Energy, Ministry of Knowledge Economy, Startups and Micro-enterprises, and Ministry of Agriculture, will be engaged to provide policy guidance, ensure coherence across sectors, and create enabling conditions for cleantech adoption. Existing national advisory bodies on innovation, climate action, biodiversity conservation, and economic development will be consulted regularly to provide strategic input on innovation challenge design, investment promotion, and sector prioritization. This governance structure will help ensure that climate and biodiversity objectives are fully mainstreamed into national development and innovation agendas.

The Government of the People's Democratic Republic of Algeria 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 20 July 1977.

Core Indicators

Indicator 4 Area of landscapes under improved practices (hectares; excluding protected areas)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
200000	0	0	0

Indicator 4.1 Area of landscapes under improved management to benefit biodiversity (hectares, qualitative assessment, non-certified)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
200,000.00			

Indicator 4.2 Area of landscapes under third-party certification incorporating biodiversity considerations

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Type/Name of Third Party Certification

Indicator 4.3 Area of landscapes under sustainable land management in production systems

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 4.4 Area of High Conservation Value or other forest loss avoided

Disaggregation Type	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 4.5 Terrestrial OECMs supported

Name of the OECMs	WDPA-ID	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)

Documents (Document(s) that justifies the HCVF)

Title

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_2e (direct)	108000	0	0	0
Expected metric tons of CO_2e (indirect)	129600	0	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_2e (direct)	108,000			
Expected metric tons of CO_2e (indirect)	129,600			
Anticipated start year of accounting	2027			
Duration of accounting	5			

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_2e (direct)				
Expected metric tons of CO_2e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

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 People benefiting from GEF-financed investments

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	105			
Male	195			
Total	**300**	**0**	0	**0**

Explain the methodological approach and underlying logic to justify target levels for Core and Sub-Indicators (max. 250 words, approximately 1/2 page)

The figures presented under the core indicators are indicative and will be refined during the PPG phase. The estimation of project impacts follows a bottom-up, activity-based methodology consistent with GEF guidance and IPCC good practice. The approach relies on clearly defined intervention types, measurable activity data, and technology-specific emission factors, ensuring transparency, traceability, and conservative attribution of results. While evidence from previous GCIP cycles and alumni enterprises was reviewed to validate the plausibility of assumptions, these empirical observations are not used to calculate project impacts and serve only as a reasonableness check. All estimates are derived from forward-looking activity data coupled with established emission factors.

For Core Indicator 4, the project targets between 200,000 and 250,000 hectares of landscapes under improved management practices. This estimate reflects the expected scale of deployment of cleantech-enabled solutions addressing key drivers of land degradation and biodiversity loss in Algeria's dryland ecosystems. Improvements are expected to result from improved soil organic carbon, reduce nutrient runoff, and support sustainable land management in biodiversity-sensitive landscapes. The estimation is based on a differentiated scaling model, whereby 10 to 12 enterprises are expected to implement solutions at field level covering approximately 3,000 to 5,000 hectares each, while 5 to 8 enterprises are expected to deploy service-based or digital solutions reaching between 10,000 and 25,000 hectares each. Only areas demonstrating measurable improvements attributable to project-supported interventions will be included, based on enterprise-level reporting combined with geospatial verification methods, including remote sensing and land productivity indicators. Conservative adoption rates ranging from 10 to 30 percent are applied to areas reached indirectly through service models to avoid overestimation. Only direct impacts are reported under this indicator. For AFOLU interventions, emission reductions are estimated using a per-hectare emission factor applied to the area under improved management (CI 4) and project duration. The emission factor reflects a combination of reduced energy use, reduced fertilizer inputs, and improved soil carbon management, consistent with IPCC and EX-ACT methodologies.

For Core Indicator 6, the project applies a bottom-up greenhouse gas accounting methodology based on the expected deployment of climate mitigation technologies supported through the accelerator. Emission reductions are estimated as the product of activity data and corresponding emission factors, following standard IPCC approaches. Activity data include renewable electricity generation, energy savings, fossil fuel displacement, and efficiency improvements, while baseline scenarios reflect prevailing conditions, including grid electricity consumption, internal combustion engine vehicle use, and conventional agricultural practices.

The project is expected to support approximately 30 to 40 enterprises with direct mitigation potential across four main categories: renewable energy solutions (approximately 30 percent), energy efficiency interventions (approximately 25 percent), electric mobility solutions (approximately 15 percent), and agritech and water-related technologies (approximately 30 percent). For renewable energy, emission reductions are calculated based on electricity generated from solar photovoltaic systems or solar-powered pumping displacing grid electricity or diesel-based generation. A conservative grid emission factor of 0.7 tCO2/MWh has been applied, to be confirmed during the PPG phase using nationally validated or internationally recognized data sources. Typical activity levels are estimated at 1,500 to 3,000 MWh generated per enterprise over the project lifetime, corresponding to approximately 1,050 to 2,100 tCO_2e of avoided emissions.

For energy efficiency, emission reductions are derived from reductions in electricity consumption relative to pre-intervention baselines. Interventions include the deployment of high-efficiency motors, heating and cooling system optimization, building retrofits, and industrial process improvements. Energy savings are estimated at 1,000 to 2,000 MWh per enterprise, resulting in approximately 700 to 1,400 tCO_2e of avoided emissions using the same grid emission factor.

For electric mobility, emission reductions are calculated based on the displacement of fossil fuel use by electric transport solutions, including fleet electrification and electric vehicle deployment. Baseline emissions are derived from internal combustion engine vehicles, while project emissions account for electricity consumption. Typical emission reductions are estimated at 300 to 600 tCO_2e per enterprise.

For agritech interventions, the methodology reflects practices aligned with established approaches such as EX-ACT and similar tools. These interventions include energy use in irrigation systems, optimized fertilizer application, and improved soil carbon management.Baselines correspond to conventional agricultural practices, and emission reductions are conservatively estimated at 200 to 800 tCO_2e per enterprise, capturing reductions in energy use and input intensity.

Based on the distribution of enterprises across technology categories and the corresponding activity assumptions, the weighted average mitigation impact is estimated at approximately 3,000 to 5,500 tCO_2e per enterprise. For the total portfolio of supported enterprises, this results in aggregate direct emission reductions estimated in the range of 108,000 to 216,000 tCO_2e over the project lifetime. These reductions are directly attributable to project-supported activities under the enterprise acceleration and enabling environment components.

Indirect emission reductions are expected to arise from replication and scaling effects, including follow-on investments, market uptake of demonstrated technologies, and improvements in the policy and regulatory environment. A replication factor of six is applied to the direct emission reduction estimates. In line with GEF guidance, a conservative attribution factor of 20 percent is used to account for the project's contribution to broader market transformation. On this basis, indirect emission reductions are estimated at 129,600 to 259,200 tCO_2e.

For Core Indicator 8, the project targets 300 direct beneficiaries, with a minimum of 40 percent women. This includes approximately 120 entrepreneurs associated with supported enterprises, 50 cleantech experts trained as mentors, evaluators, and coaches, and 130 stakeholders engaged in policy dialogue and ecosystem strengthening processes. These beneficiaries will directly participate in project-supported activities, including enterprise acceleration, technical capacity building, and policy development processes, ensuring sustained impact beyond the project lifetime.

During the PPG phase, all assumptions will be validated and refined using nationally appropriate emission factors, technology benchmarks, and detailed activity data, and the full calculation model will be further developed and documented in line with GEF requirements.

The project sets a target of 300 direct beneficiaries (CI-8) with a minimum of 40% female participants across all beneficiary categories, consistent with Algeria's national commitments to gender mainstreaming in green economy transitions. Direct beneficiaries are disaggregated across three groups:

Entrepreneurs (120 beneficiaries — two per supported enterprise). The project anticipates supporting 60 enterprises across the accelerator cycles, with two core team members per enterprise counted as direct beneficiaries. Entrepreneurs will receive the full suite of accelerator services, including business model development, GHG and biodiversity impact assessment training through the project's two web-based tools, investor access, and post-accelerator commercialization support.

Cleantech experts (50 beneficiaries — judges, mentors, and coaches). The project will train and qualify 50 cleantech experts drawn from Algeria's academic institutions, industry associations, financial sector and environmental agencies. Building a qualified national expert pool serves a sustainability function beyond the project lifetime, ensuring that acceleration services and impact assessment capacity remain embedded in Algeria's CIEE after project closure.

Stakeholders engaged in policy development (130 beneficiaries).

The project will engage 130 stakeholders — spanning relevant national ministries, regional authorities, civil society, financial institutions, and private sector associations in the development and refinement of cleantech-relevant policies, plans, and strategies. Engagement will take place through policy dialogue workshops, CIEE ecosystem roundtables, and consultation processes feeding into Algeria's NDC implementation, LDN reporting under the UNCCD, and NBSAP alignment. This component is expected to generate systemic change beyond the accelerator itself, contributing to an enabling environment in which cleantech innovation and sustainable land management practices can continue to scale after project closure.

Key Risks

	Rating	Explanation of risk and mitigation measures
CONTEXT		
Climate	Moderate	Risk: Algeria is experiencing increasing climate variability, including prolonged droughts, declining groundwater availability, extreme heat, and increasing water stress, particularly in the northern agricultural zones and the High Plateaus. These conditions may affect the testing, demonstration and commercial uptake of climate mitigation technologies, particularly agritech and renewable energy solutions. Climate variability may also influence market demand and the operational performance of supported enterprises. Mitigation: The project will prioritize technologies that simultaneously contribute to climate change mitigation and strengthen resource efficiency and resilience, including renewable energy, energy efficiency, precision irrigation, digital agriculture and industrial resource-efficiency solutions. Climate risk screening will be integrated into enterprise selection and business acceleration processes to assess technology suitability under Algeria's climatic conditions. The project will also promote adaptive business models and facilitate technical mentoring to enable enterprises to respond to evolving climate risks.
Environmental and Social	Low	Risk: Some supported technologies may face environmental or social acceptance challenges during commercialization if they do not adequately consider local resource constraints, user needs, gender inclusion, or potential trade-offs related to land, water or resource use. In addition, early-stage enterprises often have limited capacity to identify and manage environmental and social risks during product development and market expansion. Mitigation: The project will apply UNIDO and GEF environmental and social safeguard requirements through an Environmental and Social Management Plan (ESMP), including environmental and social screening of supported enterprises. Targeted technical assistance will be provided to strengthen enterprise capacity to integrate environmental sustainability, gender equality, occupational health and safety, and stakeholder engagement into technology design and commercialization. Environmental and social performance will be monitored throughout project implementation.

Political and Governance	Moderate	Risk: Successful commercialization of climate mitigation technologies depends on effective coordination among multiple institutions responsible for innovation, startups, industry, energy, environment, agriculture and finance. Fragmented institutional mandates and evolving regulatory frameworks may delay implementation of reforms, reduce coordination across the CIEE and limit access of startups to finance and markets. Mitigation: The project will establish a multi-stakeholder governance mechanism, including a Project Steering Committee and strengthen coordination among relevant ministries, financial institutions, research organizations, incubators and private sector stakeholders. Regular policy dialogue, ecosystem coordination meetings and evidence generated through the project will support policy coherence, facilitate removal of regulatory bottlenecks and strengthen the enabling environment for climate mitigation entrepreneurship.
INNOVATION		
Institutional and Policy	Moderate	Risk: The project requires coordination among multiple stakeholders, including the Ministry of Environment and Quality of Life, innovation support institutions, financial actors, private sector partners, academia, and startup ecosystem actors. Differences in institutional priorities or delays in coordination may affect implementation efficiency. Mitigation: Establish a Project Steering Committee with clear roles and responsibilities; develop formal coordination mechanisms and annual workplans; and conduct regular stakeholder consultations and progress reviews.
Technological	Moderate	Cleantech Innovation and Biodiversity Risk (Moderate): Algeria's biodiversity-positive innovation ecosystem remains at an early stage of development. While innovation support mechanisms and entrepreneurship programmes exist, linkages between biodiversity objectives, cleantech innovation, investors, research institutions and private sector actors remain limited. This may affect the identification, development and scaling of biodiversity-positive enterprises and solutions. Mitigation: The project will strengthen collaboration among government institutions, incubators, accelerators, investors, academia and private sector actors. Ecosystem mapping, stakeholder engagement and capacity-building activities will help establish stronger linkages and create an enabling environment for biodiversity-positive innovation. Startup Pipeline risk (Low): The number of startups and SMEs with sufficiently mature biodiversity-positive or cleantech solutions may be lower than anticipated, limiting participation in acceleration and investment activities. Mitigation: Conduct extensive outreach through national innovation networks, universities, incubators and entrepreneurship support organizations; allow participation from early-stage innovators with strong potential; provide pre-acceleration support where needed. Biodiversity impact(Low): Some supported enterprises may generate positive climate or economic outcomes but have limited capacity to demonstrate measurable biodiversity benefits or integrate biodiversity considerations into business operations. Mitigation: Develop biodiversity screening criteria and biodiversity impact assessment methodologies; integrate

		biodiversity indicators into enterprise selection and monitoring processes; provide targeted technical assistance to participating enterprises
Financial and Business Model	Low	Risk: Limited availability of early-stage financing and risk capital may constrain the growth and scaling of supported startups and SMEs. Investors may perceive biodiversity-positive innovations as high-risk investments Mitigation: Provide investment readiness support; facilitate matchmaking between enterprises and investors; engage banks, impact investors, venture capital funds and public financing institutions throughout implementation
EXECUTION		
Capacity	Moderate	Risk: National institutions and ecosystem partners may have varying levels of experience in managing cleantech and biodiversity-positive innovation programmes and measuring biodiversity impacts. Mitigation: During the PPG phase, extensive consultations, including an institutional assessment, will be conducted to determine the most appropriate execution modality and to identify the type and level of support needed to enable effective national execution
Fiduciary	Moderate	Risk: Weak capacity of national executing entity for financial management and procurement. Mitigation: UNIDO will conduct an institutional assessment of the proposed national executing entity to confirm its financial management, procurement, and human resources recruitment capacities during the PPG phase. Based on the institutional assessment results, the project execution modality will be further refined to maximize efficiency of project implementation and execution, while ensuring capacity building of the national executing entity.
Stakeholder	Moderate	Risk : Limited coordination and sustained engagement among key ecosystem stakeholders including ministries, public agencies, incubators, universities, financial institutions, industry associations, and private sector actors could reduce the effectiveness of the CIEE and slow the commercialization and scaling of supported cleantech innovations. Mitigation: The project will facilitate regular coordination, joint planning and decision-making. Stakeholder engagement will be supported regular ecosystem dialogue platforms, innovation challenges, and continuous communication to foster ownership, collaboration and alignment with national priorities.
Other	Moderate	Risk: Women and youth inclusion. Women represent only ~14%–16.8% of the labor force in Algeria. Additionally, youth unemployment remains high at 29.7% (World Bank, 2024). Structural barriers and cultural norms often restrict female entrepreneurs to home-based or informal micro-ventures. Mitigation: The project will establish closely collaborate with universities, in particularly targeting women, to ensure students and alums are informed of the support offered by the project. The Accelerator and ecosystem engagement activities have at least a 35% female participation target. A gender mainstreaming action plan will be developed to address structural challenges. 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. The gender-responsive communication strategy will be used to showcase successful female role models in cleantech, specifically addressing social norms that marginalize women in cleantech sectors. The project will mitigate risks to Indigenous Peoples and vulnerable populations by ensuring that cleantech solutions developed by MSMEs consider the climate-resilience needs of these groups. Under the Accelerator, entrepreneurs will be guided to consider local and cultural contexts into product design and deployment. Key communication will be sensitized to ensure accessibility.

Overall Risk Rating	Moderate	The project operates in a favorable institutional environment with strong government commitment to biodiversity, climate action and entrepreneurship development. The principal risks relate to innovation maturity, access to finance, ecosystem coordination and commercialization challenges. Mitigation: Risks are considered manageable through the project's acceleration model, ecosystem strengthening activities, investment facilitation mechanisms, biodiversity impact management framework and strong stakeholder engagment

C. ALIGNMENT WITH GEF-8 PROGRAMMING STRATEGIES AND COUNTRY/REGIONAL PRIORITIES

Describe how the proposed interventions are aligned with GEF- 8 programming strategies and country and regional priorities, including how these country strategies and plans relate to the multilateral environmental agreements.

Confirm if any country policies that might contradict with intended outcomes of the project have been identified, and how the project will address this.

For projects aiming to generate biodiversity benefits (regardless of what the source of the resources is - i.e., BD, CC or LD), please identify which of the 23 targets of the Kunming-Montreal Global Biodiversity Framework the project contributes to and explain how. (max. 500 words, approximately 1 page)

The proposed project is design in full alignment with the GEF-8 programming strategy that emphasizes private sector, women, and youth engagement in the biodiversity and climate change actions. The GEF recognizes that the transformational changes needed in the coming decade will not take place at the scale or the speed required without the full engagement of the private sector, youth and women, and places high priority on the need to effectively engage with these stakeholder groups. The project approach directly contributes to the engagement of the startups and MSMEs as market-based solution providers for environmental challenges, while highlighting the importance of the participation of youth and women as solution providers in the cleantech sector. The programmatic support to increase business competitiveness of the cleantech solutions also acts as risk mitigation for investors, therefore leading to an increase of private sector investment into cleantech and creating a pipeline of investment-ready solutions in Algeria. The project is also fully aligned with national priorities of Algeria for climate action, biodiversity, innovation and private sector development, as outlined in section A of this document.

The project operationalizes Algeria's NDC by accelerating the development and deployment of cleantech solutions in renewable energy, energy efficiency, and electric mobility, thereby contributing to the country's GHG reduction targets (7-22% by 2030), improved energy efficiency, and increased renewable energy share. This is achieved in practice through cleantech acceleration, investment facilitation, and commercialization support for MSMEs aligned with national energy

transition priorities and institutions (e.g. MEER, APRUE, CDER). The project is also aligned with Algeria's National 2016–2030, which emphasizes conservation, ecosystem restoration, and private sector engagement. Project activities promote biodiversity-positive cleantech solutions that reduce ecosystem pressures (e.g. water over-extraction, pollution, land degradation) and contribute directly to KMGBF targets (2, 10, 14, 15, and 19). Alignment is operationalized through biodiversity screening criteria in innovation challenges, geographic targeting of priority ecosystems, and impact measurement systems linked to national biodiversity objectives. The project further contributes to Algeria's commitments under the UNCCD land degradation neutrality framework by supporting climate-smart agriculture and soil restoration technologies, with measurable outcomes in improved land management and ecosystem condition. In addition, the project aligns with Algeria's Renewable Energy and Energy Efficiency Plan and broader energy transition agenda by strengthening local cleantech value chains, promoting distributed renewable energy and efficiency solutions, and enabling MSME participation in emerging low-carbon markets.

The intervention is also consistent with national innovation and private sector development strategies, including the Startup Act, SME Law (Law 17-02), and public financing initiatives (e.g. Algeria Startup Fund and Algeria Venture). While these frameworks provide horizontal support, the project fills a critical gap by delivering cleantech-specific acceleration, commercialization, and financing mechanisms tailored to high-impact environmental solutions.

The project also strengthens implementation of cross-cutting national strategies, including the National Climate Plan, National Adaptation Plan, and green jobs priorities, by promoting economic diversification, green job creation, and inclusive participation of women and youth in cleantech sectors. In practice, alignment with national priorities is ensured through: (i) demand-driven innovation challenges linked to policy priorities; (ii) inter-ministerial coordination and stakeholder engagement; (iii) policy diagnostics and recommendations integrated into national strategies; and (iv) monitoring and reporting systems aligned with NDC, NBSAP, and LDN frameworks.

Furthermore, the project directly addresses misaligned incentives and policy incoherence. Policymakers will be supported to strengthen policy coherence by undertaking technical diagnostics and developing actionable recommendations to improve alignment of incentives and frameworks that affect cleantech innovation and commercialization and the development of nature-positive solutions. Inter-ministerial engagement and ownership will be institutionalized by engaging relevant technical focal points from the Ministry of Environment and Quality of Life, the Ministry of Energy and Renewable Energies, the Ministry of Knowledge Economy, Start-ups and Micro-enterprises, and the Ministry of Finance. These ministries, also represented in the PSC, will co-develop and validate strategies, plans, and policy outputs. Recommendations will also be developed to integrate cleantech entrepreneurship relevant policies, strategies and plans including: Algeria's NDC, NBSAP, NAP strategies, National Climate Plan, and the Renewable Energy and Energy Efficiency Plan. No country policies are expected to contradict the project's intended outcomes. Rather than supporting implementation of these policies independently, the project promotes coherence across them by aligning entrepreneurship support, industrial innovation, climate mitigation objectives and biodiversity considerations within a common national cleantech commercialization framework.

The project's innovation lies not only in the technologies supported, but also in the commercialization model. By integrating innovation challenges, technical validation, climate and biodiversity impact assessment, investor readiness, commercialization support, and market linkage within a single acceleration pathway, the project establishes a replicable framework for accelerating climate mitigation technologies. The project is designed to catalyze systemic innovation rather than support individual enterprises in isolation, creating pathways for follow-on investment, market expansion and replication beyond the initial project portfolio.

The proposed project also aligns with GEF-8 Biodiversity focal area objective 1 (To improve conservation, sustainable use, and restoration of natural ecosystems) and indirectly benefits objective 3 (To increase mobilization of domestic resources for biodiversity). Objective 1 is supported by targeting biodiversity-focused cleantech solutions and enabling their growth and subsequent commercialization. Objective 3 is indirectly supported by attracting financial and non-financial resources into biodiversity-targeting cleantech enterprises, encouraging private sector investment into cleantech solutions with biodiversity benefits. The table 2 below summarizes how project activities contribute to the identified KMGBF targets in practice.

KMGBF Target	Relevant Project Activities	Contribution in Practice	Expected Outcome
Target 2 – Ecosystem Restoration	Innovation challenges; accelerator support for nature-based solutions; biodiversity-positive startups; ecosystem restoration technologies; impact measurement tools; geographical targeting toward biodiversity priority areas.	The project will identify, accelerate and support startups developing nature-based solutions, ecosystem restoration technologies, sustainable land management approaches, water conservation systems, and biodiversity-positive business models. Preference will be given to innovations that restore ecosystem functions, improve soil health, combat land degradation, and generate measurable biodiversity outcomes, particularly in biodiversity-sensitive landscapes.	Increased deployment of biodiversity-positive technologies that contribute to ecosystem restoration, improved soil health, enhanced ecosystem functions, and reduced land degradation pressures.
Target 10 – Sustainable Agriculture	Agritech innovation challenges; climate-smart agriculture solutions; biodiversity-positive value chains.	The project will support enterprises developing sustainable agriculture that reduce water over-extraction, improve soil health, enhance resource efficiency, and reduce pressure on ecosystems. Innovation challenges will specifically encourage solutions addressing biodiversity loss in productive landscapes.	Improved sustainability of agricultural production systems and reduced pressure on natural resources
Target 14 – Ensure the full integration of biodiversity and	Policy dialogue; ecosystem strengthening activities; biodiversity-sensitive innovation challenge design;	The project will integrate biodiversity considerations into the design and	Increased integration of biodiversity considerations into innovation ecosystem

its multiple values into policies, regulations, planning and development processes	biodiversity screening and impact measurement methodologies; recommendations for innovation ecosystem stakeholders	implementation of innovation support mechanisms, startup acceleration processes, investment readiness services, and ecosystem development activities. Through engagement with public institutions, investors and innovation support organizations, biodiversity considerations will be mainstreamed into decision-making processes related to entrepreneurship, innovation, and sustainable development.	policies, programmes, investment decisions and entrepreneurial support mechanisms, contributing to more biodiversity-responsive development planning.
Target 15 – Business Assessment and Disclosure of Biodiversity Risks and Impacts	Development of biodiversity-sensitive impact measurement tools; accelerator methodologies; biodiversity screening criteria; enterprise monitoring systems; investor engagement.	Biodiversity considerations will be integrated into enterprise selection, mentoring, acceleration and impact measurement processes. Startups will be supported to assess biodiversity impacts, identify biodiversity risks, measure biodiversity outcomes and incorporate biodiversity-positive business practices into their operations and reporting systems	Increased private sector consideration of biodiversity risks, impacts and opportunities
Target 19 – Increase financial resources for biodiversity from all sources	Cleantech financing facility; investor matchmaking; investment readiness support; engagement with financial institutions, venture capital funds and impact investors; biodiversity-positive enterprise pipeline development	The project will strengthen access to finance for startups developing biodiversity-positive and environmentally sustainable solutions. By improving investment readiness, connecting enterprises with investors and building the capacity of financial institutions to identify biodiversity-positive	Increased mobilization of public and private finance for biodiversity-positive innovation and entrepreneurship, improved access to finance for cleantech enterprises, and greater investor engagement in biodiversity-supporting business models.

		investment opportunities, the project will help mobilize private sector finance towards biodiversity-related outcomes.	
Target 20 – Capacity building, technology transfer and scientific and technical cooperation	National accelerator programme; training of mentors and experts; capacity building on climate and biodiversity finance; strengthening innovation ecosystem institutions; knowledge management and technology transfer.	The project will strengthen national capacities to develop, commercialize, and scale biodiversity-positive cleantech solutions. It will transfer methodologies, tools and knowledge through the established cleantech innovation platform, train experts and institutions, strengthen innovation support organizations and facilitate collaboration among government, private sector, academia and financial institutions.	Enhanced national innovation ecosystem capacity, strengthened institutional support structures, increased technology transfer, and improved capabilities to develop and scale biodiversity-positive solutions.

Table 2 : Summary of project activities contributing to KMGBF

The project contributes to the implementation of the KMGBF targets by addressing key drivers of biodiversity loss in Algeria, including land degradation, water stress and over-extraction, pollution, unsustainable production systems and climate change. Through the acceleration and commercialization of biodiversity-positive cleantech solutions, the project supports ecosystem restoration, pollution reduction, sustainable management of productive landscapes, integration of biodiversity considerations into business decision-making, sustainable consumption patterns, and strengthened national capacities for biodiversity innovation and technology transfer. These contributions are particularly significant given Algeria's location within the Mediterranean Basin biodiversity hotspot and the priorities identified in Algeria's National Biodiversity Strategy and Action Plan (2016-2030).

D. POLICY REQUIREMENTS

Gender Equality and Women's Empowerment:

We confirm that gender dimensions relevant to the project have been addressed as per GEF Policy and are clearly articulated in the Project Description (Section B).

Yes

Stakeholder Engagement

We confirm that key stakeholders were consulted during PIF development as required per GEF policy, their relevant roles to project outcomes and plan to develop a Stakeholder Engagement Plan before CEO endorsement has been clearly articulated in the Project Description (Section B).

Yes

Were the following stakeholders consulted during project identification phase:

Indigenous Peoples and Local Communities:

Civil Society Organizations:

Private Sector: Yes

Provide a brief summary and list of names and dates of consultations

As indicated in Section B, stakeholder consultations for PIF development focused on discussion with the government, financial institutions, and large corporates. The list of names and dates is presented below in Table 3:

Stakeholders	Date of discussion/consultation
Ministry of Environment and Renewable Energy	March 2023
Arab Fund for Economic and Social Development	September 2023/May 2024/June 2025
DHL	October 2023
Minister of Knowledge Economy, Startups, and Micro-enterprises	January 2024
Algeria Startup Fund	March-May 2024

Table 3: List of stakeholder consultation

Stakeholder consultations for PIF development focused on discussion with the government, in particular the Ministry of Environment and Quality of Life from March 2023 to confirm that the project design and approach fully corresponds to national priorities, strategies, and policies of Algeria. The Ministry of Environment has also proposed the Algeria National Cleaner Production Centre as the national executing entity for the project. In addition, in discussions that began in September 2023, the Arab Fund for Economic and Social Development indicated strong interest to co-finance outcome 1.1 of the project.

A meeting with the Minister of Knowledge Economy, Startups, and Micro-enterprises in January 2024 was also held to introduce the project approach. The Minister indicated strong interest in the project, confirmed its alignment with national priorities, and recommended further consultations with the Algeria Startup Fund.

Preliminary discussions were also conducted with DHL and Algeria Startup Fund to explore collaboration in designing an innovation challenge (output 1.1.3), where winning solutions will be linked to testbeds or an investment of up to 135,000 USD. These consultations will continue in the PPG phase to further define the challenge scope and benefits for the enterprises. Additional private sector partners will be engaged during the PPG phase to expand the pool of potential investors, corporate partners, and value chain collaborators.

The project design has not yet consulted directly with indigenous peoples, local communities, and civil society organizations. Stakeholder consultations will explicitly address priorities identified by communities, ensuring that project outcomes align with community needs and priorities, safety, and socio-economic well-being. Engagement with these stakeholders is planned for the PPG phase and will be reflected in the final project design. In addition, a stakeholder engagement plan will be developed during the PPG phase for submission at CEO endorsement stage.

(Please upload to the portal documents tab any stakeholder engagement plan or assessments that have been done during the PIF development phase.)

Private Sector

Will there be private sector engagement in the project?

Yes

And if so, has its role been described and justified in the section B project description?

Yes

Environmental and Social Safeguard (ESS) Risks

We confirm that we have provided indicative information regarding Environmental and Social risks associated with the proposed project or program and any measures to address such risks and impacts (this information should be presented in Annex D).

Yes

Overall Project/Program Risk Classification

PIF	CEO Endorsement/Approval	MTR	TE
Medium/Moderate			

E. OTHER REQUIREMENTS

Knowledge management

We confirm that an approach to Knowledge Management and Learning has been clearly described in the Project Description (Section B)

Yes

ANNEX A: FINANCING TABLES

GEF Financing Table

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

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non-Grant	GEF Project Grant($)	Agency Fee($)	Total GEF Financing ($)
UNIDO	GET	Algeria	Climate Change	CC STAR Allocation: CCM-1-1	Grant	477,290.00	45,343.00	522,633.00

UNIDO	GET	Algeria	Climate Change	CC STAR Allocation: CCM-1-2	Grant	900,000.00	85,500.00	985,500.00
UNIDO	GET	Algeria	Biodiversity	BD STAR Allocation: BD-1	Grant	1,172,477.00	111,385.00	1,283,862.00
Total GEF Resources ($)						**2,549,767.00**	**242,228.00**	**2,791,995.00**

Project Preparation Grant (PPG)

Is Project Preparation Grant requested?

true

PPG Amount ($)

100000

PPG Agency Fee ($)

9500

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non-Grant	PPG($)	Agency Fee($)	Total PPG Funding($)
UNIDO	GET	Algeria	Climate Change	CC STAR Allocation: CCM-1-1	Grant	50,000.00	4,750.00	54,750.00
UNIDO	GET	Algeria	Biodiversity	BD STAR Allocation: BD-1	Grant	50,000.00	4,750.00	54,750.00
Total PPG Amount ($)						**100,000.00**	**9,500.00**	**109,500.00**

Please provide justification

Sources of Funds for Country Star Allocation

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Sources of Funds	Total($)
UNIDO	GET	Algeria	Climate Change	CC STAR Allocation	154,998.77
UNIDO	GET	Algeria	Biodiversity	BD STAR Allocation	405,585.26
UNIDO	GET	Algeria	Land Degradation	LD STAR Allocation	2,340,910.97

Total GEF Resources	**2,901,495.00**

Indicative Focal Area Elements

Programming Directions	Trust Fund	GEF Project Financing($)	Co-financing($)
BD-1-3	GET	1,172,477.00	2910713
CCM-1-1	GET	477,290.00	1183879
CCM-1-2	GET	900,000.00	2235708
Total Project Cost		**2,549,767.00**	**6,330,300.00**

Indicative Co-financing

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
GEF Agency	UNIDO	Grant	Investment mobilized	80300
Recipient Country Government	Algeria Startup Fund	Public Investment	Investment mobilized	1000000
Private Sector	Ministry of Environment and Quality of Life	In-kind	Recurrent expenditures	500000
Private Sector	CNTPP	In-kind	Recurrent expenditures	1500000
Others	AfDB	Grant	Recurrent expenditures	1000000
Others	Arab Fund	Grant	Investment mobilized	750000
Others	Algeria Venture	Public Investment	Recurrent expenditures	1500000
Total Co-financing				**6,330,300.00**

Describe how any "Investment Mobilized" was identified

The current co-financing envisaged amount is USD 6,330,300. However, during PPG phase, discussions with relevant government agencies and private sector including relevant cleantech ventures, institutions, private and public banks shall be conducted to leverage co-financing investments. A significant amount of co-financing shall be mobilized during the project preparation grant phase reaching to USD 12,000,000. This co-financing shall be the result of extensive consultations with public and private partners before and during PPG to identify needs and shared priorities where the GEF grant could have the largest impact. There is

confidence that this co-financing and investment will materialize but given the large amount, the project will set a total of USD 6,330,300 as part of the PIF stage. Of the total, USD 2,000,000 as in-kind and USD 4,330,300 as cash contribution is envisaged at the PIF stage. Primarily, the contribution will be reasonably made available to the project respective outputs covering the operational and rental costs associated to project and portion of the staff salaries supporting technical and administrative management of relevant activities. The UNIDO cash co-financing is to supplement technical expertise under various components and also cover some of the related travel arrangements. The in-kind co-financing is intended for the entire project duration and encompasses equipment, knowledge products, and various support elements derived from other relevant UNIDO projects including existing office facilities, existing vehicles, contribution/use of the existing UNIDO platforms and tools.

ANNEX B: ENDORSEMENTS

GEF Agency(ies) Certification

GEF Agency Type	Name	Date	Project Contact Person	Phone	Email
GEF Agency Coordinator	Ganna Onysko				gef@unido.org
Project Coordinator	Manasa Suresh				m.suresh@unido.org

Record of Endorsement of GEF Operational Focal Point (s) on Behalf of the Government(s):

Name	Position	Ministry	Date (MM/DD/YYYY)
Karim Baba	GEF Operational Focal Point	Ministry of Environment and Quality of Life	8/11/2025
Karim Baba	GEF Operational Focal Point	Ministry of Environment and Quality of Life	6/11/2026

ANNEX C: PROJECT LOCATION

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

The project covers Algeria at the national level including all its regions. Latitude and longitude coordinates for Algiers (where the National Cleaner Production Center is located) are the following: 36.737232, 3.086472.

ANNEX D: ENVIRONMENTAL AND SOCIAL SAFEGUARDS SCREEN AND RATING

(PIF level) Attach agency safeguard screen form including rating of risk types and overall risk rating.

Title
_ESS Screening Template240036signed 1

ANNEX E: RIO MARKERS

Climate Change Mitigation	Climate Change Adaptation	Biodiversity	Land Degradation
Principal Objective 2	No Contribution 0	Principal Objective 2	Significant Objective 1

ANNEX F: TAXONOMY WORKSHEET

Level 1	Level 2	Level 3	Level 4
Influencing Models	Transform policy and regulatory environments Strengthen institutional capacity and decision-making Convene multi-stakeholder alliances Demonstrate innovative approaches		
Stakeholders	Private sector	Capital providers Large Corporations SMEs Individuals/Entrepreneurs	
	Beneficiaries Local communities	Community Based Organization	
	Civil society	Non-Governmental Organization Academia	
	Type of Engagement	Information Dissemination Partnership Consultation Participation Knowledge Management Innovation Capacity Development Learning	
	Knowledge and learning		

	Stakeholder Engagement		
Capacity, Knowledge and Research	Capacity Development Enabling Activities Knowledge Generation and Exchange Learning	Theory of Change Indicators to Measure Change	
Gender Equality	Gender mainstreaming Gender results areas	Beneficiaries Women groups Sex-disaggregated indicators Gender-sensitive indicators Participation and leadership Access to benefits and services Capacity development Awareness raising Knowledge generation	
Focal Area/Theme	Biodiversity	Protected areas and landscapes Mainstreaming	Community Based Natural Resource Management Extractive Industries (oil, gas, mining) Tourism Agriculture & agrobiodiversity Fisheries Infrastructure

	Climate Change	Species Climate Change Mitigation United Nations Framework on Climate Change	Agriculture, Forestry, and other Land Use Energy Efficiency Sustainable Urban Systems and Transport Renewable Energy Enabling Activities Nationally Determined Contribution