Environmental and Social Management Framework

GCF Funding Proposal

CATALI.5°T Initiative:

Concerted Action To Accelerate Local I.5° Technologies

Climate Venture Pre-Accelerator and Accelerator Programmes in West Africa & Latin America:

CATALI.5°T Afrique de l'Ouest & CATALI.5°T América Latina

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Deutsche Gesellschaft für Internationale Zusammenarbeit – GIZ GmbH

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Acronyms

AE	Accredited Entity
AFOLU	Agriculture, forestry and other land use
B2B	Business-to-business
B2C	Business-to-customer
BAU	Business as usual
BMU	Federal Ministry for the Environment, Nature Conservation and Nuclear Safety
BMZ	German Federal Ministry for Economic Cooperation and Development
CIF	Climate Impact Forecast (online LCA software tool used to calculate GHG impact)
CO_2eq	Carbon dioxide equivalent (referring to GHG emissions)
CSO	Civil Society Organization
E&S	Environmental and Social
ESIA	Environmental and Social Impact Assessment
ESDD	Environmental and Social Due Diligence
ESG	Environmental, Social, Governance (see glossary)
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System
ESS	Environmental and Social Safeguard(s)
ESOs	Entrepreneur Support Organizations
EU	European Union
EUR	Euro
GAP	Gender Action Plan
GCF	Green Climate Fund
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
GNI	Gross National Income
GRM	Grievance Redress Mechanism
GWP	Global warming potential
HDI	Human Development Index
IFC	International Finance Corporation (World Bank Group)
ILO	International Labour Organization
IPCC	Intergovernmental Panel on Climate Change
ISO	International Organization for Standardization
IWGIA	International Work (sic) Group for Indigenous Affairs
IT	Information technology
LCA	Life cycle analysis
LCC	Life cycle cost
MORSE	Model for Regional climate Startup Ecosystem impacts

MVP	Minimum Viable Product
MRV	Monitoring, Reporting and Verification
MSME	Micro, small and medium enteprise
NDA	National Designated Authority (for the GCF)
NDC	Nationally Determined Contribution (to the Paris Agreement of the UNFCCC)
OHS	Occupational Health & Safety
PMU	Project management unit
PPE	Personal Protective Equipment
PPP	Purchasing Power Parity
PS	Performance Standard
PV	Photovoltaic
R&D	Research and Development
REDD+	Reducing Emissions from Deforestation and forest Degradation in developing countries
SEAH	Sexual exploitation, abuse and harassment
SEP	Stakeholder engagement plan
TA	Technical assistance
ToR	Terms of reference
GEF	Global Environment Facility
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
USD	US Dollar
VC	Venture Capital (firm)
WEEE	Waste from Electrical and Electronic Equipment

Glossary of finance sector terms

Acceleration	See “business funding stages” below.
Climate Finance	Climate finance is the provision of funding to companies whose activities are aimed at mitigating climate change, or at contributing to the adaptation of humans to climate change.
Climate Venture	Micro or small enterprises that offer, or plan to offer, products or services that have a climate change mitigation benefit: the reduction or avoidance of GHG emissions, or the sequestration of carbon.
Ecosystem	In the present document, “ecosystem” generally refers to the system of stakeholders involved in support to climate ventures (government, accelerators, public and private investors, academia and others).
Impact Investing	In the investment sector, “impact investment” generally stands for investment expected to have a positive impact on one or several of the dimensions of sustainable development (such as the Sustainable Development Goals). For instance, IFC has originated the 9 Operating Principles for managing Impact Investment, under the motto that “*Impact Investing is investing into companies and organizations with the intent to contribute to measurable positive social or environmental impact alongside financial returns*”.
Minimum Viable Product (MVP)	The initial customer version of a product that, while not finished, is useable and can be utilised to gather early customer feedback
Venture	Used in this document for “Climate Venture”.
Venture Capital	Venture capital is a form of private equity and a type of financing that investors provide to start-up companies and small businesses that are believed to have long-term growth potential. Venture capital generally comes from well-off investors, investment banks, and other financial institutions. It is willing to bear high risk but is normally an expensive funding option for the founders of a start-up. Venture capital is typically raised in ‘rounds’ described below, that are labelled ‘Pre-seed’, ‘Seed’, ‘A’, ‘B’ and ‘C’, with the A-round typically being the earliest public round.
***Business funding stages*[1]**	
Pre-seed, pre-acceleration, or incubation	This earliest stage of funding a new company comes so early in the process that it is not normally considered a round of funding. Funds raised in this phase typically cover initial start-up costs, such as establishing the business, and maybe prototyping a technical solution, allowing founders to first get their operations off the ground. At this stage, the new product or service is demonstrated to be technically viable and is offered in the market to test the initial users’ (market) response. Once confirmed that the product or service is viable, it needs to progress through the following stages – adoption and scaling-up – in order to be successfully recognized by the market, achieve scale and impact. The most common "pre-seed" funders are the founders themselves, as well as close friends, supporters and family. Funding typically ranges from USD 20,000 to 50,000. This funding stage can happen very quickly or may take a long time.
Seed stage or acceleration	Seed funding is typically the first official equity funding stage, representing the first external funds that a business venture raises against its business expectations, often from friends, family or incubators. Funding raised in this phase typically covers development of a product to Minimum Viable Product level, office rent and hiring staff for product development, early market testing, customer lead generation etc. Many companies never extend beyond seed funding.
Series A or Stage A	The stage normally comes when the potential of the product is recognised in the market and requires investment to grow. This stage will normally require substantial investment, beyond the scope of what founders can easily provide. It is at this stage that the new product or service will enter the market, e.g., by passing regulatory tests or by undertaking large-scale field trials showing suitability and market acceptance. Investment is also needed at this stage to develop marketing and sales capacity and campaigns, advertising, and opening retail channels. When a business has developed a track record

[1] Source : project Concept Note, September 2021.

	that can lead them into this stage – e.g., an established user base, consistent revenue figures, or other key performance indicators – the owners normally approach VC funders for Series/Stage A funding to further optimize the user base and product and/or to scale the product across different markets. This requires the start-up to have a plan for developing a business model that will generate long-term profit.
Series B or Stage B	The Series/Stage B funding rounds build on the success of a Stage A round and aim to take businesses past the development stage towards expanding market reach. At this stage, the product or service is established in the market and requires further investment to scale up and reach maturity. This investment will now aim to broaden the geographical reach, potentially entering other markets outside the initial one, and deepening of the marketing and sales campaigns. This is the phase where initial flotations are considered. Companies that have gone through seed and Series A funding rounds have already developed substantial user bases and have proven to investors that they are prepared for success on a larger scale. Series B funding allows a company to meet these levels of demand.
Series C or Stage C	Businesses entering Series C are already quite successful and usually look for additional funding in order to help them develop new products, expand into new markets, or acquire other companies.

Executive summary

This document presents the E&S management approach developed for the 'CATALI.5°T Initiative', hereafter named 'the project', proposed by the Accredited Entity (AE), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ).

The project supports small enterprises with strong climate mitigation potential, called 'climate ventures'. To this end, the project offers regional support programmes for businesses at pre-acceleration stage and at acceleration stage, in two regions: Latin America and West Africa, where barriers to technical assistance and early finance are high for starting businesses.

Five executing entities (EEs) will implement the project:

- Investisseurs & Partenaires Entrepreneurs et Development (IPED), and i-Hub Abidjan in West Africa
- Tecnológico de Monterrey in Latin America
- GIZ and Climate-KIC for the global component

iHub Abidjan, based in Côte d'Ivoire, will coordinate a regional pre-acceleration programme for West Africa and will implement in-country technical assistance interventions in Côte d'Ivoire. IPED, based in Senegal, will run a regional acceleration programme for West Africa. Tecnológico de Monterrey, based in Mexico, will run a regional pre-acceleration programme and a regional acceleration programme for Latin America. They will attract and select promising climate ventures and offer them technical and financial assistance.

Climate-KIC will support beneficiaries in the climate change impact assessment of their solutions, and provide capacity building to the executing entities, as well as to a wider network of interested Entrepreneur Support Organizations (ESOs) including regional investors.

GIZ will oversee the project, implement in-country pre-acceleration technical assistance interventions via local implementation partners in West Africa, and will provide capacity building to the executing entities and local implementation partners running the pre- and acceleration programmes.

The project will build a portfolio of micro and small enterprises, offering solutions to reduce GHG emissions in the following areas:

- Energy access & power generation
- Low-emission transport
- Buildings, cities, industries and appliances
- Forestry & land use

An analysis of a range of scenarios, combining different types of ventures likely to exist in West Africa and Latin America, shows that such portfolios have a potential for reduction of greenhouse gas (GHG) emissions of over 3.8 $MtCO_2eq$.

The successful ventures are also likely to generate significant co-benefits in the fields of climate change adaptation, employment, health and safety, environment and biodiversity. Additionally, the capacity-building activities directed at ventures (even those that do not succeed in growing) and at investors will improve the climate impact and the sustainability of their future activities.

The potential negative environmental and social impacts of the project during its implementation phase are limited, because the activities that could generate physical impacts – such as research and development, small-scale production, or testing of agricultural solutions on land plots, carried out by the ventures – will be small in scale. The environmental and social footprint of the ventures' activities will be limited to employment, small-scale land

use, moderate generation of pollution and waste, and use of moderate quantities of input materials, water and energy. Their negative impacts and risks will be limited, site-specific and can be reduced to acceptable levels with appropriate E&S management.

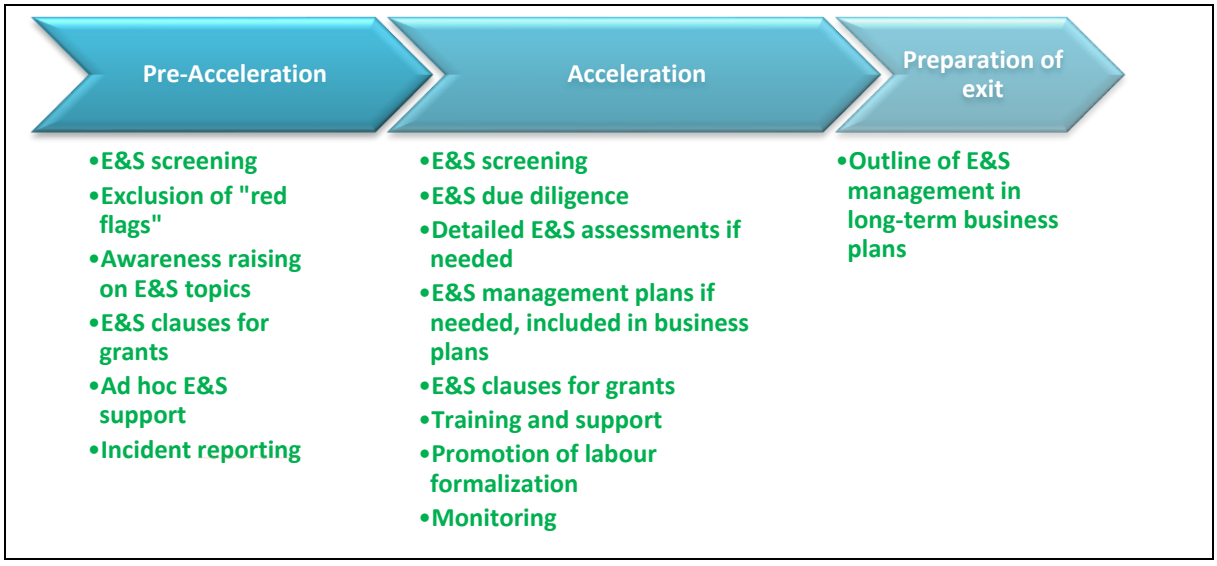
GIZ and the Executing Entities have agreed to the present Environmental and Social Management Framework (ESMF) to address any environmental and social risks and impacts that could occur during project implementation, in a situation where the exact activities of the funded ventures are not yet fully known. The ESMF describes the policies, staffing and procedures included in the project to ensure that climate ventures operate resource-efficiently, do not generate environmental pollution, manage their labour force appropriately, and more generally comply with GCF environmental and social safeguards (ESS) standards.

To this end, the regional Executing Entities will oversee E&S management of the supported ventures, in conjunction with the venture management teams. The ventures will be screened for potential E&S impacts and will receive awareness raising, training and ad hoc support on E&S matters. At the beginning of the acceleration programme, they will be subject to an Environmental and Social Due Diligence (ESDD) following which, if necessary, they will receive support in developing more detailed environmental and social management plans. They will then be coached in implementing and monitoring these plans. The plans will include actions to enhance potential positive benefits of the ventures' activities. As part of enhancing these positive benefits, the regional Executing Entities will encourage the ventures to progress towards formalization of workers' employment and provision of adequate insurance.

The project will also maximize the sustainability of its interventions in the long run, beyond the funding period. It will ensure that climate ventures that graduate from the project, as well as partnering pre-accelerators and accelerators, will possess sufficient E&S management capacity to ensure compliance of their future activities with international industry practice, even beyond the implementation duration of the project.

The figure below shows the E&S management steps that are included in the project activities to guarantee the successful implementation of the ESMF.

Figure 1 Main elements of E&S management of the ventures



Introduction to the Environmental and Social Management Framework

This document presents the E&S management approach developed for the 'CATALI.5°T Initiative', hereafter named "the project", proposed by the Accredited Entity (AE), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ).

The GIZ and the Executing Entities have agreed to the present Environmental and Social Management Framework (ESMF), to manage any environmental and social risks and impacts that could occur during project implementation, in a situation where the selected ventures and their activities are not yet known. The ESMF describes the policies, staffing and procedures included in the project to ensure that climate ventures operate resource-efficiently, do not generate environmental pollution, manage their labour force appropriately, and more generally comply with GCF environmental and social safeguards (ESS) standards. This approach is designed to achieve project compliance with GCF's Environmental and Social Policy dated September 2021, with GIZ's Safeguards and Gender (S+G) management system, and generally with good international industry practice. The approach developed in the ESMF is also designed to maximize sustainability of the project interventions in the long run, beyond the funding period.

The ESMF uses:

- An understanding of the detailed project design and implementation arrangements (Chapter 0).
- The E&S compliance frameworks of the GCF, GIZ and other applicable standards, as well as applicable national legislation in the countries of implementation (Chapter 0).
- An understanding of potential E&S impacts of the project activities (Chapter 0).
- The result of extensive stakeholder consultations with existing incubators/pre-accelerators and accelerators, with start-up founders, with VC funds, and with businesses that have already succeeded in growing from the start-up stage. A summary of these consultations is presented in Annex 2.
- Permanent consultations with the EEs during project design, to obtain a complete integration of the E&S management procedures in the project design.

Chapter 0 presents the impact assessment and an outline of the mitigation strategy. Chapter 0 presents how the mitigation strategy is operationalized.

The ESMF refers to, but does not analyse, the following elements:

- The assessment of the project's climate mitigation and adaptation impacts;
- Gender impacts, gender mainstreaming and gender-based violence.

Assessment of climate mitigation impacts - The project has an overarching positive environmental target of climate impact mitigation. This topic is normally part of the ESS, but, for GCF projects, it is assessed in detail in the project design documents, and only briefly summarized in the ESMF.

Gender impacts, gender mainstreaming and gender-based violence - Gender impacts and mainstreaming for the project and GBV are considered in a separate Gender Assessment (GA) and a Gender Action Plan (GAP). However, gender mainstreaming measures are included whenever relevant in E&S management, especially in gender-sensitive assessment of social impacts and risks, definition of mitigation measures, and stakeholder engagement. Sexual exploitation, abuse and harassment (SEAH) are however considered in the ESMF.

Project description

The project will support small enterprises with strong climate mitigation potential, called 'climate ventures'. To this end, the project offers regional support programmes in two regions: Latin America and West Africa. In each region, the project includes a pre-acceleration programme and an acceleration programme.

Climate ventures

For the purpose of the project, the term 'climate ventures' includes early-stage businesses, such as start-ups, that:

Satisfy the definition of a micro or small enterprise according to the table below, and

Offer or plan to offer products or services with climate change mitigation benefits, such as the reduction or avoidance of GHG emissions, or the sequestration of carbon.

Table 1. Micro and small enterprises should qualify for at least two out of three criteria[2]

Criterion	Micro enterprise	Small enterprise
Employees	<10	10-49
Total assets	<US$ 100,000	US$ 100,000-3 million
Annual sales	<US$ 100,000	US$ 100,000-3 million

Regional pre-acceleration and acceleration programmes

The project builds on existing business pre-acceleration and acceleration infrastructure to set up and operationalise regional climate innovation programmes, one in Latin America (coordinated from Mexico) and one in West Africa (coordinated from Côte d'Ivoire and Senegal).

Each regional climate innovation programme combines technical assistance and financial assistance, and builds a portfolio of early-stage climate ventures, offering high-impact climate products, services or business model solutions and strong market growth potential.

Ventures with a high potential for environmental and social co-benefits are prioritized for support, and gender mainstreaming is included in the programmes.

The project intervenes at 2 stages:

- The pre-acceleration stage supports pre-seed climate ventures to enable them to develop minimum viable climate products (MVPs) or services. This support will take the form of Technical Assistance (capacity building, mentoring, networking, etc.) and Financial Assistance (in the form of a grant to each climate venture to cover pre-agreed costs). The project will also run annual online climate business idea contests in each region.
- The acceleration stage focuses on providing acceleration support to seed-stage ventures to enable them to further develop or validate their products or services (e.g. through market surveys, product testing or product enhancement). This support will take the form

2 https://www.ifc.org/wps/wcm/connect/industry_ext_content/ifc_external_corporate_site/financial+institutions/priorities/ifcs+definitions+of+targeted+sectors

of Technical Assistance and Financial Assistance (in the form of a repayable grant to each climate venture to cover pre-agreed costs).

In addition, focused capacity building of the regional pre-accelerators / accelerators, as well as local implementation partners and important ESOs, including VC firms, will enable them to develop climate expertise to augment their current business and finance skill-sets – allowing them, for example, to assess likely climate impacts (emission reduction potential and climate adaptation co-benefits), and to understand and apply emerging Environmental, Social and Governance (ESG) frameworks in their venture screening and day-to-day venture support operations.

Executing Entities

The project will have 5 Executing Entities (EEs).

The regional EE for the Latin America programme is the Entrepreneurship Institute « Eugenio Garza Lagüera », department "Zona EI", of the Technical University of Monterrey (also referred to as "Tec de Monterrey") in Mexico. Tec de Monterrey will implement the pre-acceleration and acceleration programmes in Latin America from its Monterrey Campus in Mexico.

The regional EEs for the West Africa programme are:

- Impact-Hub Abidjan, a company incorporated in Côte d'Ivoire, and a member of the global Impact Hub Association. Impact-Hub Abidjan will serve as the conceptual partner for the pre-acceleration programme in West Africa and will implement pre-acceleration technical assistance in Côte d'Ivoire (with other West African countries' technical assistance being implemented by local implementation partners managed by GIZ).
- I&P Entrepreneurs et Development (IPED), a French non-profit organization with offices throughout West Africa. IPED is affiliated to impact investor, Investisseurs & Partenaires (I&P). IPED will implement the acceleration component of the regional programme in West Africa and will manage the financial assistance of the pre-acceleration programme.

The EU-funded Climate Knowledge and Innovation Community International Foundation (Climate-KIC), an independent non-profit organization based in the Netherlands with public benefit status, will participate in the project's sourcing of beneficiaries in Latin America and West Africa, and will be responsible for providing climate advisory support to participants in the pre-acceleration and acceleration programmes, as well as targeted capacity building for the Executing Entities and other project partners. Climate-KIC will additionally provide gender climate entrepreneurship toolkits for ESOs and for climate ventures.

Deutsche Gesellschaft fûr Internationale Zusammenarbeit (GIZ) GmbH, a German enterprise with public benefit status owned by the German federal government is the Accredited Entity (AE) as well as an Executing Entity. GIZ, as an EE, will be responsible for the project's cross-regional component that will provide technical support and coordination services and will facilitate knowledge exchange across the regional partners. GIZ will also be responsible for managing local implementation partners to implement the technical assistance elements of the West African pre-acceleration programme outside Côte d'Ivoire.

Project duration

The total project duration is 6 years:

- In Latin America, the pre-acceleration and acceleration programmes will run in parallel during years 1-3. During years 4-6, reflows from repayable grants are expected and will be used to implement additional community-building and ideation activities.
- In West Africa, the pre-acceleration programme will run during years 1-3 and acceleration during years 1-6.

The duration of venture support will be as follows:

- Latin America (annual cohorts):
    - Pre-acceleration – 6 months;
    - Acceleration – 6 months.
- In West Africa:
    - Pre-acceleration (annual cohorts):
        - Phase 1 – 6 months;
        - Phase 2 – 4 months.
    - Acceleration (on a rolling basis, no cohorts):
        - Phase 1– 12 months (technical assistance for the Value Creation Plan: business coaching, climate advisory support, gender support, ESS support);
        - Phase 2 – 24 months (technical assistance: light touch mentoring, updated in-depth climate impact assessment).

Regions and countries of implementation

The project will support climate ventures from Spanish-speaking countries of Latin America and from francophone countries of West Africa that provide a non-objection letter for the project.

Potential countries of intervention from West Africa are the following:

- Benin
- Burkina Faso
- Cote d'Ivoire
- Guinea
- Mali
- Mauritania
- Niger
- Senegal
- Togo

Potential countries of intervention from Latin America are the following:

- Argentina
- Bolivia
- Brazil (Spanish-speaking companies only)
- Colombia
- Costa Rica
- Dominican Republic
- Ecuador
- El Salvador
- Guatemala
- Honduras
- Mexico
- Nicaragua
- Paraguay
- Peru

Funding arrangements

The project will be financed by the Green Climate Fund (GCF) and by BMZ, the German Federal Ministry for Economic Cooperation and Development. A GCF grant will support the

pre-acceleration and acceleration programmes (grants disbursed to participating ventures, as well as some of the programmes' operating expenses) and cross-regional technical assistance.

Tec de Monterrey will receive a grant from GIZ to implement the pre-acceleration and acceleration programmes in Latin America from its Monterrey Campus in Mexico and will channel grants to the ventures in the pre-acceleration and acceleration programmes.

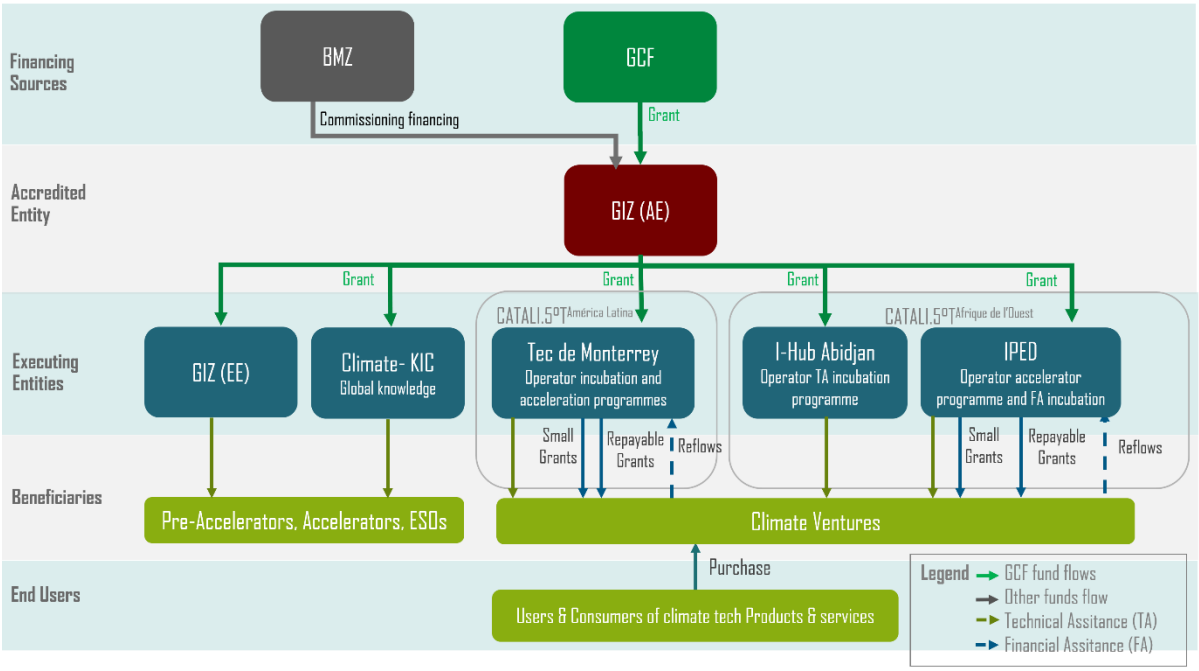
IPED will receive a grant from GIZ to implement the technical assistance elements of the acceleration programme in West Africa and will also channel financial assistance (grants and repayable grants) to the ventures in the pre-acceleration and acceleration programmes.

Impact Hub Abidjan will receive a grant from GIZ to coordinate the technical assistance elements of the pre-acceleration programme in West Africa and to implement the technical assistance in Côte d'Ivoire.

The Executing Entities will co-finance the programmes' operating expenses in-kind.

The Executing Entities will not receive an equity stake in the climate ventures supported, in recognition of the additional risks and barriers involved in investing in climate innovation and the paucity of VC capital targeting the sector in West Africa and Latin America.

Figure 2 Project flow of funds



Targeted activity sectors

The table below provides an overview of the climate mitigation activities, product and services, consistent with the GCF's result areas, that will be eligible for project support.

Table 2. Types of activities, products and services eligible for the project

Result Area	Archetype	Description
Energy access & power generation	Biomass energy	Clean technology solutions to produce energy from renewable biomass sourced sustainably (combustion, pyrolysis, gasification, anaerobic digestion, etc.).

Result Area	Archetype	Description
ventures	Energy storage	Energy storage solutions for consumers and businesses, particularly those that increase the usability of renewable energy solutions (e.g. home energy storage).
	Renewable energy systems	Scaling-up the deployment and rehabilitation of generation technologies such as wind, solar and run-of-river hydro.
	Small-scale solar	Easy-to-use and affordable solar systems for households and premises such as clinics and offices.
	Smart grids	Responsive grid infrastructure and associated software and tools capable of managing intermittent renewable energy supply and optimising customers' electricity consumption.
Low-emission transport ventures	E-mobility	Electric vehicles (cars, bikes, etc.) and associated business models and tools to change user behaviour to use electric alternatives to fossil-fuel solutions.
	Shared mobility	Business cases around shared mobility solutions (car-pooling, last-mile solutions, car/bike sharing, etc.).
	Smart mobility	Route planning; apps for minimising journey times and energy consumption.
Buildings, cities, industries and appliances ventures	Energy efficiency	Platforms, technologies and equipment that require less energy than baseline alternatives (e.g. energy efficient lighting, heating, household appliances and commercial applications).
	Alternative materials	Alternatives to traditional packaging and other materials that offer smaller carbon footprints (during production, transport, use or disposal) – e.g. bioplastics, multi-use plastics, recycled paper and cardboard, etc.
	Smart city solutions	Analytics for mobility in cities and regions; development of smart / combined transportation systems.
	Smart manufacturing	Manufacturing processes and equipment that use less raw material, produce less waste and consume less energy.
	Sustainable building materials	Materials – such as cement, wood and insulation foam – that have smaller carbon footprints (during production, transport, use or disposal) than baseline alternatives; materials may also be zero-emission (e.g. sustainably harvested wood) or negative-emission (e.g. CO_2 absorptive).
	Smart buildings	Systems and equipment that integrate discrete energy-saving or renewable energy technologies (e.g. smart lighting systems, smart cooling systems) or which incorporate low-emission features in their design (e.g. use of shading, orientation and natural ventilation).
	Urban planning	Solutions that address settlement-related emissions from a holistic perspective – e.g. integrated transport solutions, efficient zoning, provision of cycle routes, tree-planting schemes, etc.
	Sustainable consumption	Solutions that reduce the carbon footprint of consumer goods and services – e.g. reduced transport / logistics, multi-use or biodegradable packaging, reduced weight, alternative materials, improved power management, etc.
	Clean water / water availability	Technologies and processes – such as PV water pumping and solar disinfection – that lower the carbon footprint of the provision of clean water.
	Clean air	Solutions that reduce air pollution – where such solutions also reduce GHG emissions and/or black carbon emissions.[3]

[3] For example, this would not include vehicle catalytic converters – as they tend to increase carbon dioxide and nitrous oxide emissions (while also reducing non-GHG emissions, such as those of

Result Area	Archetype	Description
	Sanitation	Technologies and processes that reduce GHG emissions associated with sewage management – e.g. variable-speed pumps, energy-efficient stirring, methane avoidance or capture, etc.
	Waste management	Solutions that avoid waste generation (e.g. composting, recycling) or reduce the GHG emissions from stored waste (e.g. landfill management).
Forestry & land use ventures	AgroTech (land)	Solutions to increase efficiency and sustainability of land management – e.g. reduced till agriculture, agro-forestry, alternative crops, smart crop rotation, alternative wetting and drying (in paddy fields), etc.
	AgroTech (nutrients / production)	Reduced use of nitrogenous fertilizers; alternative cattle feed; low-water agriculture that requires less water pumping; improved irrigation efficiency, etc.
	Alternative proteins	Alternatives to industrial meat production – e.g. plant-based and lab-cultivated meat, aquaculture, etc.
	Food security	Agricultural solutions that reduce inputs (fertilizers, pesticides, water, etc.) and/or increase outputs (more efficient farming practices), in the process reducing GHG emissions.
	Food waste	Solutions to reduce spoiling / wastage: e.g. more efficient transport, improved cooling technologies, new crop varieties, monitoring devices, etc.
	Monitoring land use	Technology solutions and analytics for livestock, soil and nutrient management – e.g. satellite data services, drones, mobile apps, GIS, etc.
	Ecosystem conservation, restoration and monitoring	Business cases and solutions for reversing ecosystem loss through (e.g.) reforestation, wetland rehabilitation, payments for ecosystem services, data provision and analytics, etc.

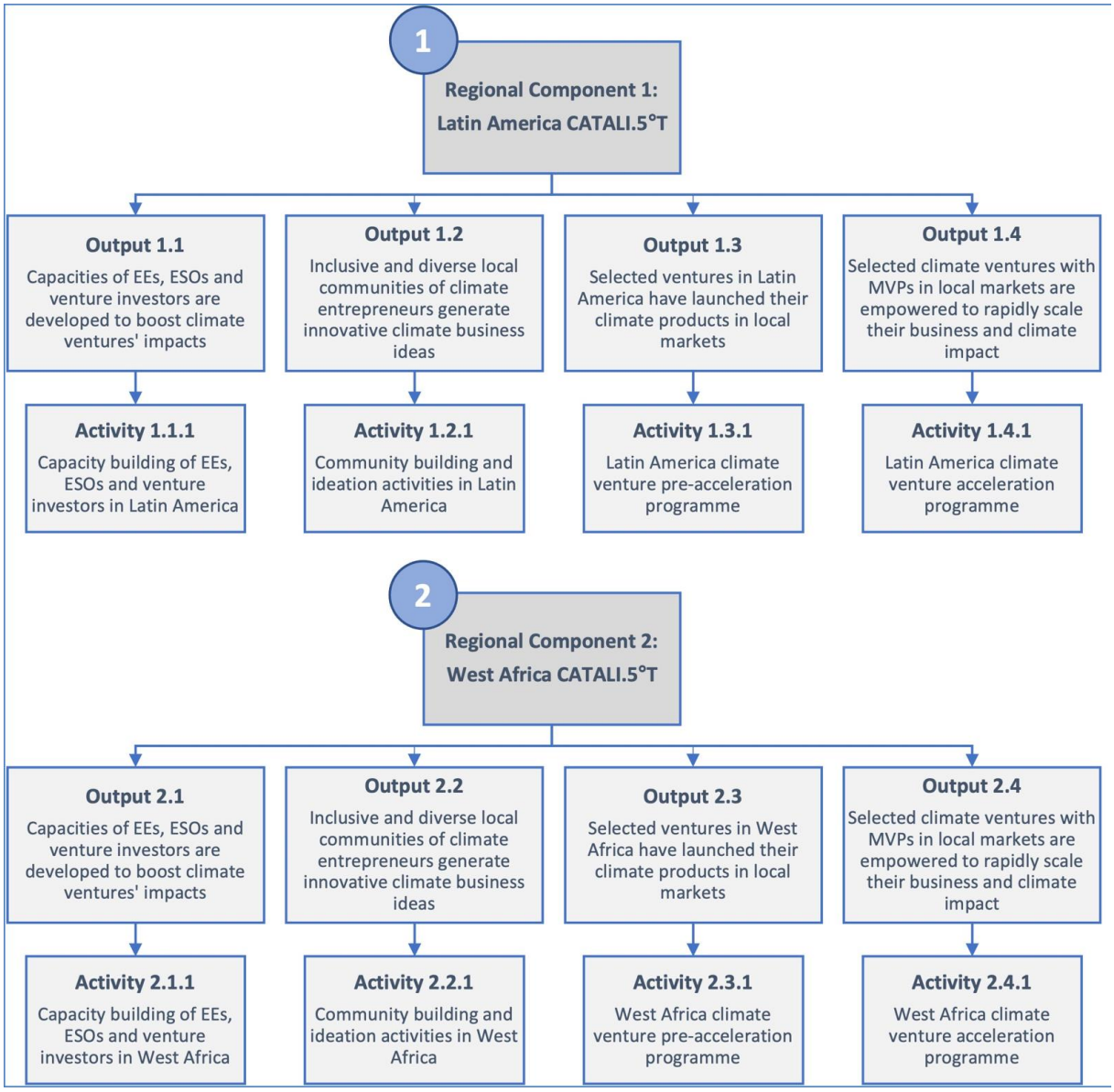
Expected output

The project will build a pipeline of strong climate ventures that will be solid from a commercial viability perspective, as well as inclusive of climate and sustainability principles, to enable them to be recipients of VC funding. Expected project outputs are that:

- About 60 climate ventures will graduate from each regional CATALI.5°T pre-acceleration programme, equipped with high-quality, climate-validated products or services that are ready for market entry.
- About 30 climate ventures will graduate from each regional CATALI.5°T acceleration programme, equipped with robust, market-tested, low-emission solutions that are primed for rapid market growth.

carbon monoxide and nitrogen oxides). However, improved cookstoves that use less firewood and produce less smoke would be eligible, for example.

Figure 3 Project output and structure



Applicable E&S policies, standards and legislation

The ESMF ensures that the project will comply with: (i) GIZ's Safeguards and Gender (S+G) management system and (ii) the GCF Revised Environmental and Social Policy (dated September 2021). The project will also comply with national legislation from countries which climate ventures accepted into the regional programmes might come from – for example, relevant national requirements relating to Environmental and Social Impact Assessments (ESIAs). This chapter provides an overview of applicable standards, policies and legislation. The end of the chapter includes a rapid presentation of environment, social and governance (ESG) frameworks.

GCF's environmental and social policy and standards

Policy objectives

Through the GCF's environmental and social policy, GCF requires that all GCF-supported activities commit to:

(a) Avoid, and where avoidance is impossible, mitigate adverse impacts to people and the environment;

(b) Avoid, and where avoidance is impossible, mitigate the risks of Sexual Exploitation, Sexual Abuse and Sexual Harassment (SEAH) to people impacted by GCF-financed activities;

(c) Enhance equitable access to development benefits; and

(d) Give due consideration to persons in vulnerable positions and situations and marginalised populations, groups, and individuals, including women and girls, local communities, indigenous peoples, and other marginalized groups of people and individuals that are affected or potentially affected by GCF-financed activities and are especially vulnerable to exploitation or other potentially harmful unintended project impacts.

Interim environmental and social safeguards (ESS)

In conformity with the GCF's environmental and social policy dated September 2021, the project should be compliant with the GCF's interim environmental and social safeguards, numbered ESS1 to ESS8. The GCF is using IFC's Performance Standards as interim ESS, and their detailed description, as well as guidance notes for their application, can be found on IFC's website[4]. They include:

- ESS1: Assessment and management of environmental and social risks and impacts
- ESS2: Labour and working conditions
- ESS3: Resource efficiency and pollution prevention
- ESS4: Community health, safety and security
- ESS5: Land acquisition and involuntary resettlement
- ESS6: Biodiversity conservation and sustainable management of living natural resources
- ESS7: Indigenous peoples
- ESS8: Cultural heritage

Standard ESS1 on 'Assessment and Management of Environmental and Social Risks and Impacts' establishes a requirement: (i) to identify the environmental and social impacts, risks,

[4] https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/policies-standards/performance-standards

and opportunities of the project; (ii) to ensure effective stakeholder engagement; and (iii) to manage environmental and social performance throughout the life of the project.

ESS1 lays out the overarching requirements for E&S management. ESS1 is mostly used as guidance for the definition of the E&S management approach. It also covers different cross-cutting topics, including stakeholder engagement, emergency preparedness and response, vulnerable persons and gender.

The table below provides the main objectives of ESS2 to ESS8, as stated by the GCF (2016). Note that ESS7 should be complemented by the GCF's indigenous people's policy, dated 2018.

Table 3. Overview of GCF interim Environmental and Social Safeguards (ESS)

ESS	Summary objectives
ESS2: Labour and working conditions	(a) Fair treatment, non-discrimination, equal opportunity; (b) Good worker–management relationship; (c) Comply with national employment and labour laws; (d) Protect workers, in particular those in vulnerable categories; (e) Promote safety and health; (f) Avoid use of forced labour or child labour.
ESS3. Resource efficiency and pollution prevention	(a) Avoid, minimize or reduce project-related pollution; (b) More sustainable use of resources, including energy and water; (c) Reduced project-related greenhouse gas emissions.
ESS4. Community health, safety and security	(a) To anticipate and avoid adverse impacts on the health and safety of the affected community; (b) To safeguard personnel and property in accordance with relevant human rights principles.
ESS5. Land acquisition and involuntary resettlement	(a) Avoid/minimize adverse social and economic impacts from land acquisition or restrictions on land use: (b) Improve or restore livelihoods and standards of living; (c) Improve living conditions among displaced persons.
ESS6. Biodiversity conservation and sustainable management of living natural resources	(a) Protection and conservation of biodiversity; (b) Maintenance of benefits from ecosystem services; (c) Promotion of sustainable management of living natural resources; (d) Integration of conservation needs and development priorities.
ESS7. Indigenous peoples, and GCF indigenous peoples policy	(a) Ensure full respect for indigenous peoples (i) Human rights, dignity, aspirations; (ii) Livelihoods; (iii) Culture, knowledge, practices; (b) Avoid/minimize adverse impacts; (c) Sustainable and culturally appropriate development benefits and opportunities; (d) Free, prior and informed consent in certain circumstances.
ESS8. Cultural heritage	(a) Protection and preservation of cultural heritage; (b) Promotion of equitable sharing of cultural heritage benefits.

GCF ESS revision: co-benefits, intermediation

The GCF's interim ESS are currently under revision[5]. The GCF wishes to strengthen some of its practices and standards, among which the following are particularly relevant for the project:

- the active promotion of positive, measurable social and environmental impacts (or co-benefits);
- standards on intermediation.

In line with these recommendations, the present ESMF reinforces the identification of co-benefits and uses IFC's guidance note on financial intermediaries as a reference.

Standard on intermediation

IFC's Interpretation Note on Financial Intermediaries (IFC, 2012) has been used as guidance on the environmental and social management systems of some of the Executing Entities.

GCF gender policy (2019)

GCF's gender policy is referred to in the separate Gender Assessment and Gender Action Plan for the project.

GIZ's Safeguards and Gender (S+G) management system

The project will be compliant with GIZ's Safeguards and Gender (S+G) management system, organized along the following themes:

- Environment and climate safeguard;
- Human rights safeguard;
- Context and conflicts sensitivity safeguard;
- Gender impacts and mainstreaming.

GIZ is an Accredited Entity for the GCF and, as part of the accreditation process, its Safeguards and Gender management system has been determined to be compliant with the GCF's environmental and social policy. GIZ's system has a few additional requirements, especially on gender mainstreaming and human rights, which are mentioned in the present document when relevant.

National E&S legislation

This section provides a high-level overview of relevant environmental and social legislation in the countries of implementation. A rapid gap analysis is included, as in many countries national legislation is not yet sufficiently enforced to provide an adequate framework for project

[5] The analysis undertaken by GCF's Independent Evaluation Unit (IEU), based on the benchmarking exercise of GCF ESMS and policies, other climate funds and international laws and principles on environment and human rights, led to the overarching conclusion that the GCF interim ESS "are not aligned with the GCF's mandate and ESP in that they do not focus on generating – and integrating – positive, measurable social and environmental impacts (or co-benefits) and instead focus on assessing, mitigating and managing environmental and social risks and impacts". The current do-no-harm approach is not considered to be in line with the specific principles and provisions set up in the UNFCCC and the Paris Agreement, or with GCF's overarching ESP, as it focuses on avoiding and minimizing negative effects, as opposed to a do-good approach aiming at the active promotion of positive externalities. In this regard, the IEU recommends that GCF's E&S framework (including the ESMS and ESS), should strengthen and implement guidance to identify co-benefits and ensure they are monitored and reported.

implementation. In cases when national legislation is less strict than the GCF ESS standards, and in cases when the legislation is not completely enforced, the GCF ESS standards prevail.

Labour legislation, health and social security

Principal labour legislation
The tables below provide an overview of the labour legislation in the project countries.

Table 4. Labour legislation in the project countries (Latin America)

Country	Labour code
Latin America	
Argentina	Régimen General de Contratación Laboral (Ley de Contrato de Trabajo 20.744 y concordantes)
Bolivia	Decreto Supremo de 24 de mayo de 1939, por el que se dicta la Ley General del Trabajo, elevado a ley el 8 de diciembre de 1942.
Brazil	Decreto-ley núm. 5452, de 1° de mayo de 1943, CODIGO DEL TRABAJO
Colombia	Código Sustantivo de Trabajo (Ley núm. 50 de 28 de diciembre de 1990)
Costa Rica	CODIGO DEL TRABAJO (Ley No. 2 de 26 de Agosto de 1943)
Dominican Republic	CODIGO DE TRABAJO DE LA REPUBLICA DOMINICANA (Ley 16-92 Promulgada el 29 de mayo de 1992)
Honduras	Decreto núm. 32-2003 de reforma del Código de Trabajo
Ecuador	CODIGO DEL TRABAJO Codificación 17, registro Oficial Suplemento 167 de 16-dic-2005, ultima modificación: 26-sep-2012
El Salvador	Codigo de trabajo (1972, ultima modificación 2005)
Guatemala	Código del trabajo y sus reformas, decreto 189-59, publicado el 15 de julio de 1959, gaceta no. 16,827.
Mexico	LEY FEDERAL DEL TRABAJO, Nueva Ley publicada en 1970, Última reforma publicada DOF 12-06-2015
Nicaragua	CODIGO DEL TRABAJO (LEY No. 185, Aprobada el 5 de Septiembre de 1996. Gaceta No. 205 del 30 de Octubre de 1996
Paraguay	CODIGO DEL TRABAJO (Ley n°213 publicada el 29-10-1993
Peru	No consolidated labour law available – legal services necessary.
West Africa	
Bénin	CODE DU TRAVAIL (Loi no 98-004 du 27 janvier 1998)
Burkina Faso	DECRET N° 2008-331/PRES promulguant la loi n° 028-2008/AN du 13 mai 2008 portant Code du travail au Burkina Faso.
Côte d'Ivoire	Loi n°2015-532 du 20-07-2015 portant Code du Travail
Guinea	Loi n°L/2014/072/CNT Du 10-01-2014
Mali	Loi n°92-020 portant CODE DU TRAVAIL, loi du 18-09-1992
Mauritania	Loi n° 2004-017 portant Code du travail. Loi de 2004
Niger	LOI N° 2012-45 du 25 septembre 2012 portant Code du Travail
Sénégal	Code du Travail, Loi n°97-17 du 1er décembre 1997
Togo	Loi n° 2006-010 du 13 décembre 2006 portant Code du travail

Source: national government websites.

The applicability, effective enforcement and, sometimes, clarity of this legislation varies from one country to another. An important characteristic of most project countries is the very high proportion of informal employment, estimated between 38% and 94%, not including the agricultural sector. Due to the high level of informality, the effective application of the labour legislation is limited to larger companies, generally those operating in the larger cities, where government institutions are present and means of control exist.

According to the International Labour Organization (ILO), the informal economic sector is defined as the group of production units comprised of unincorporated enterprises owned by households, including informal own-account enterprises and enterprises of informal employers (typically small and non-registered enterprises). Informal employment is defined as "all remunerative work (i.e. both self-employment and wage employment) that is not registered, regulated or protected by existing legal or regulatory frameworks, as well as non-remunerative work undertaken in an income-producing enterprise. Informal workers do not have secure employment contracts, workers' benefits, social protection or workers' representation."

Table 5. Principal labour statistics (Latin America)

	Employment in agriculture (%)	Employ-ment in services (%)	Un-employ-ment (%)	Child labour (% of children)[6]	Informal employ-ment (excluding agriculture) %
Argentina	0.1	78	10	..	49
Bolivia	31	50	3	..	73
Brazil	9	71	12	5	38
Colombia	17	63	10	4	57
Costa Rica	12	68	12	2	37
Dominican Republic	9	71	6	7	51
Ecuador	29	52	4	..	66
El Salvador	16	62	4	10	64
Guatemala	31	50	2	..	73
Honduras	30	50	5	..	76
Mexico	13	61	3	5	61
Nicaragua	31	53	7	..	75
Paraguay	20	62	5	18	63
Peru	27	57	3	15	60

Source: UNDP, 2021.

[6] Child labour: Percentage of children ages 5–11 who, during the reference week, engaged in at least one hour of economic activity and/or involved in unpaid household services for more than 21 hours; children ages 12–14 who, during the reference week, engaged in at least 14 hours of economic activity and/or involved in unpaid household services for more than 21 hours; children ages 15–17 who, during the reference week, engaged in at least 43 hours of economic activity; or children ages 5–17 who, during the reference week, engaged in hazardous working conditions or any worst forms of child labour other than hazardous.

Table 6. Principal labour statistics (West Africa)

	Employment in agriculture (%)	Employment in services (%)	Un-employment (%)	Child labour (% of children)	Informal employment (excluding agriculture) %
Benin	39	42	2	25	95
Burkina Faso	25	41	6	42	94
Côte d'Ivoire	40	47	3	22	85
Guinea	62	32	4	24	94
Mali	63	30	7	13	89
Mauritania	51	36	10	14	89
Niger	75	18	0	34	73
Senegal	30	56	7	23	90
Togo	38	49	2	23	85

Source: UNDP, 2021, except Guinea[7]

Health insurance and social security

Universal health coverage is already relatively well implemented in Latin America, but still far from implemented in West Africa. Workers in formal employment typically benefit from social security and health insurance (including occupational injury benefits, paid sick leave, maternity and other social insurance), but informal employees do not benefit from health or injury insurance. This translates into low percentages of the population participating in social insurance programmes.

Table 7. Social security – Latin America

Country	Employment-related social security: old-age pension recipients[8]	Coverage of social insurance programmes, 2010-2019 average, % of total population[9]
Argentina	100	31
Bolivia	100	7
Brazil	100	29
Colombia	71	10
Costa Rica	47	15
Dominican Republic	..	5
Ecuador	52	10
El Salvador	29	5

[7] République de Guinée, Institut National de la Statistique, 2020.
[8] UNDP, 2021.
[9] Percentage of population participating in programs that provide old age contributory pensions (including survivors and disability) and social security and health insurance benefits (including occupational injury benefits, paid sick leave, maternity and other social insurance). Estimates include both direct and indirect beneficiaries. Source: http://data.worldbank.org/data-catalog/world-development-indicators, 2010-2019, compiled by OurWorldinData for 2002-2019, and rearranged.

Country	Employment-related social security: old-age pension recipients[8]	Coverage of social insurance programmes, 2010-2019 average, % of total population[9]
Guatemala	26	3
Honduras	57	2
Mexico	100	33
Nicaragua	..	13
Paraguay	22	6
Peru	49	11

Sources: cf footnotes.

Table 8. Social security – West Africa

Country	Employment-related social security: old-age pension recipients[10]	Coverage of social insurance programmes, 2010-2019 average, % of total population[11]
Benin	11	
Burkina Faso	3	2
Côte d'Ivoire	..	7
Guinea	..	2
Mali	3	
Mauritania	..	
Niger	6	1
Senegal	30	8
Togo	19	3

Sources: cf footnotes.

Environmental legislation

National climate policies

The project has been developed in line with, and will be executed in conformity with, each country's climate policy, especially with the countries' Nationally Determined Contributions (NDCs), the climate action plans designed as contributions to achieve the global targets set out in the Paris Agreement.

As described in the Funding Proposal, all the project countries have ratified the Paris Agreement, with some even committing to the ambitious objective of limiting temperature increase to 1.5ºC. All countries have developed national, legal and institutional frameworks for

[10] UNDP, 2021.

[11] Percentage of population participating in programs that provide old age contributory pensions (including survivors and disability) and social security and health insurance benefits (including occupational injury benefits, paid sick leave, maternity and other social insurance). Estimates include both direct and indirect beneficiaries. Source: http://data.worldbank.org/data-catalog/world-development-indicators, 2010-2019, compiled by OurWorldinData for 2002-2019, and rearranged.

addressing climate change and environmental deterioration, but, in many cases, their ability to ensure the effective implementation of those instruments is limited. Please refer to the Funding Proposal for a more detailed analysis.

Environmental assessment and permitting systems

All countries of Latin America and West Africa have established overarching environmental policies and legislation. An environmental permitting system, with a mandatory Environmental Impact Assessment (EIA) or Environmental and Social Impact Assessment (ESIA) for high-risk projects, exists in all the countries. In some countries, due to corruption, lack of capacity and/or lack of resources, a number of dysfunctions may exist in the application of the environmental permitting system.

The tables below list the principal environmental laws governing environmental protection in each country. These laws are generally complemented by decrees that set acceptable limits for air quality, noise, effluent quality, etc. In some countries, not all the decrees are available. In such cases, the World Bank Group Health, Environmental and Safety guidelines[12] should be used. When decrees do exist, the most stringent environmental quality limit should be used between national and World Bank Group guidelines.

Table 9. Principal environmental legislation – Latin America

Country	Overarching environment law
Argentina	Ley General del Ambiente (No. 25.675) publicada el 28-11-2002
Bolivia	Ley N° 1333, del 27 de abril de 1992, LEY DEL MEDIO AMBIENTE
Brazil	Ley sobre la Política Nacional de Medio Ambiente (Lei No. 6.938) Publicada : 31-08-1981 , Ultima reforma : 02-09-2013
Colombia	Ley General Ambiental (Ley 99 de diciembre 1993)
Costa Rica	Ley Orgánica del Ambiente, N° 7554 (publicada el 13-07-2010)
Dominican Republic	Ley General sobre Medio Ambiente (Ley 64-00) Promulgada en julio 2000 Ultima reforma : Noviembre 2002
Honduras	Ley General del Ambiente (Decreto No. 104-1993) Ultima reforma publicada 16-07-2000
Ecuador	LEY DE GESTION AMBIENTAL, codificación 19, Registro Oficial Suplemento 418 de 10-sep-2004
El Salvador	Ley del Medio Ambiente (Decreto No. 233) Promulagada el 04-05-1998, Ultima reforma 28-05-2015
Guatemala	Ley de protección y mejoramiento del medio ambiente (Decreto 68-1986)publicada el 16-04-1986
Mexico	LEY GENERAL DEL EQUILIBRIO ECOLÓGICO Y LA PROTECCIÓN AL AMBIENTE Nueva Ley publicada en el Diario Oficial de la Federación el 28 de enero de 1988, Última reforma publicada DOF 09-01-2015
Nicaragua	Ley General del Ambiente y los Recursos Naturales (Ley No. 217)Publicada el 27-03-1997, Ultima reforma : 03-04-2008
Paraguay	Ley Nº 716 / SANCIONA DELITOS CONTRA EL MEDIO AMBIENTE , Publicada el 02-05-1996
Peru	Ley N° 28611, Ley General del Ambiente. Decreto Supremo N° 008-2005-PCM, Reglamento de la Ley N°28245, Ley Marco del Sistema Nacional de Gestión Ambiental

Sources: FAO Lex and national websites.

[12] https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/policies-standards/ehs-guidelines.

Table 10. Principal environmental legislation – West Africa

Country	Overarching environment law
Bénin	LOI SUR L'ENVIRONNEMENT(Loi nº 98-030 de 1999)
Burkina Faso	LOI N°006-2013/AN PORTANT CODE DE L'ENVIRONNEMENT du 02-04-2013 (2013)
Côte d'Ivoire	Loi-cadre nº 96-766 portant Code de l'environnement (1996)
Guinea	Loi n°L/2019/034/AN du 4 juillet 2019 (2019)
Mali	Loi nº 91-47/AN-RM relative à la protection de l'environnement (1991)
Mauritania	Loi n° 2000-045 du 26 juillet 2000 portant Code de l'environnement (2000)
Niger	Loi-cadre No. 98-56 du 29 décembre 1998 relative à la gestion de l'environnement (1998)
Sénégal	Loi 2001-01 du 15 janvier 2001 portant Code de l'Environnement (2001)
Togo	Loi nº 2008-005 portant loi-cadre sur l'environnement (2008)

Sources: FAO Lex and national websites.

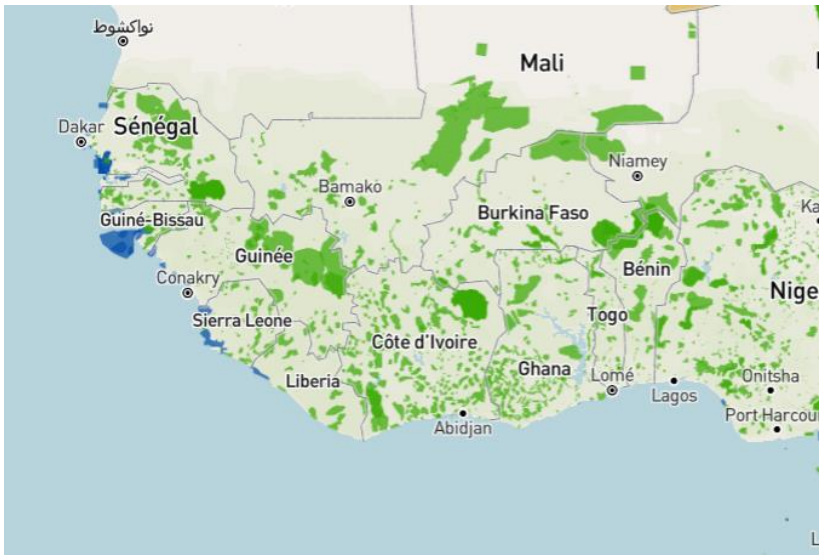
Biodiversity protection

Besides the overarching environmental laws listed in Table 9. , all the envisaged project countries have systems of legally protected nature areas. Depending on the countries, the legal protection of nature areas can be defined by national environmental law, by dedicated laws on protected areas, and/or by national laws on forestry or fauna. All the countries also have designated international protected areas. The maps below provide high-level overviews of these areas, that include all internationally designated protected areas, as well as the best available information on nationally protected areas. The quality and effective enforcement of the protected area systems is variable: designations may be outdated, management plans not defined, and/or protection not enforced.

Figure 4 Principal nature protected areas in Latin America

In green: terrestrial protected areas; In blue: marine protected areas
Source: World Database of Protected Areas[13]

Figure 5 Principal nature protected areas in West Africa



[13] UNEP-WCMC and IUCN (2022), Protected Planet: The World Database on Protected Areas (WDPA) and World Database on Other Effective Area-based Conservation Measures (WD-OECM) [Online], March 2022, Cambridge, UK: UNEP-WCMC and IUCN. Available at: www.protectedplanet.net.

In green: terrestrial protected areas; In blue: marine protected areas
Source: World Database of Protected Areas[14]

Waste management
A significant challenge in most countries of implementation is the lack of well-functioning waste management and sanitation infrastructure.

According to UNEP (2018a), in Latin America and the Caribbean progress has been made in adopting specific waste legislation, but due to lack of control or absence of treatment plants, a large fraction of waste is not properly managed (UNEP, 2018a).

According to UNEP (2018b), 80% of all waste produced in the West African countries relevant for the project is managed inadequately.

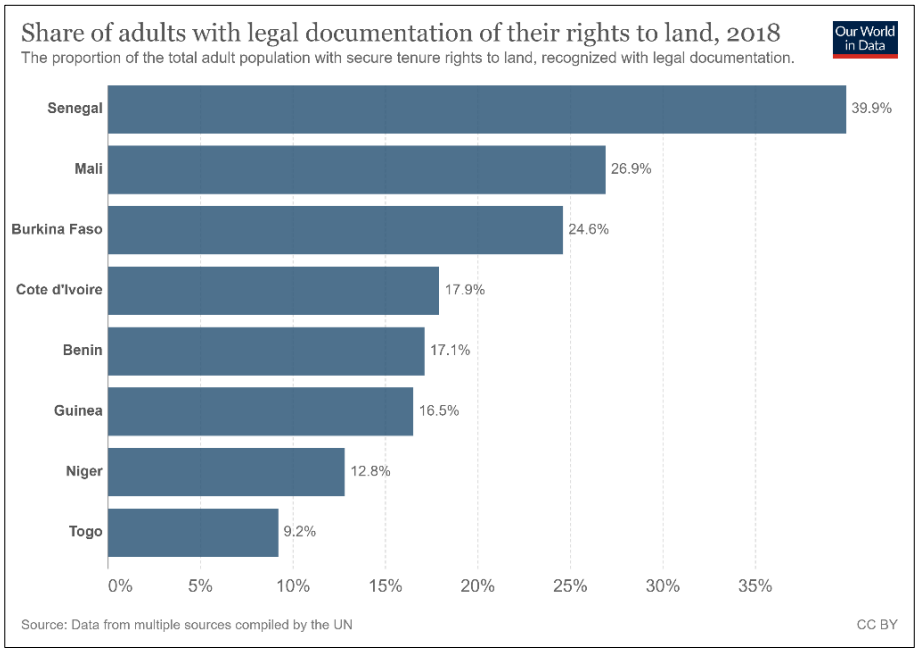
Land tenure

Land titling is not complete in Latin America and institutional frameworks for land tenure are still weak or not sufficiently enforced, especially in rural areas. The Interamerican Development Bank (IDB) estimates percentages of households with informal land and housing tenure as 28 and 21% respectively in Brazil and Ecuador in 2010[15]. In 2013, the report "The Outlook for Agriculture and Rural Development in the Americas 2013" noted that "the subdividing of farms in Mexico, Central America and the Andean nations, the concentration of land in the Southern Cone countries (…) are the general trends detected in the structure of land tenure in Latin America".

As an indicator for West Africa, the graph below shows the share of adults with legal documentation of their rights to land[16] in countries where this information is provided to measure progress against the Sustainable Development Goals; SDG indicator 1.4.2 is the share of adults with legal documentation of their rights to land.

[14] NEP-WCMC and IUCN (2022), Protected Planet: The World Database on Protected Areas (WDPA) and World Database on Other Effective Area-based Conservation Measures (WD-OECM) [Online], March 2022, Cambridge, UK: UNEP-WCMC and IUCN. Available at: www.protectedplanet.net.
[15] The Outlook for Agriculture and Rural Development in the Americas 2013: A Perspective on Latin America and the Caribbean, prepared by the Inter-American Institute for Cooperation on Agriculture (IICA), the Regional Office for Latin America and the Caribbean of the FAO, and ECLAC.
[16] This is SDG indicator n°1.1.4.

Table 11. Quality of institutional land tenure frameworks in selected West African countries



Source: UN data compiled by OurWorldInData[17]

Indigenous people

Most of the project countries include population groups who self-identify as indigenous, tribal or autochthonous, whose lives are strongly related to certain territories and who, as such, have specific rights in international law, for example under ILO's Convention No. 169 (Indigenous and Tribal Peoples Convention, 1989). The GCF and other international organizations aim to embody these rights in policies such as the GCF's Indigenous Peoples Policy (GCF, 2018). The Scope of Application of the GCF Indigenous Peoples Policy provides guidance on characteristics, criteria and alternative terminologies that may indicate the presence of indigenous peoples.

Indigenous people typically suffer from discrimination, racism and even exclusion; poverty rates are higher among indigenous people and they are often more vulnerable to climate change. They are often at risk of losing their cultural heritage and the access to ecosystems services provided by their territories.

Some project countries protect indigenous people or ethnic minorities in their national legislation. However, the national legislation, when it exists, is seldom compliant with international law, and is also rarely completely enforced. This is why, in all cases, in areas that can possibly be affected by project activities, it is always necessary to identify the existence of indigenous people independently of national legislation.

Such identification should start with the consultation of dedicated publications of international NGOs and be confirmed by stakeholder consultations at national level. In Latin America, the national ombudsman (Spanish *Defensoria del pueblo*) is a recommended stakeholder to consult. The tables below provide a first identification of the existence of indigenous people in the project countries, as quoted in "The Indigenous World", the publication by the International Work Group for Indigenous Affairs (IWGIA, 2020 and 2021) or, alternatively, by the NGO

[17] https://ourworldindata.org/grapher/legally-recognized-rights-to-land?country=~LSO

Minority Rights Group International[18]. The latter's website also provides a directory of indigenous organizations that can be consulted for a more advanced identification.

Latin America

The IWGIA identifies indigenous people as per the ILO definition in all Latin American countries, except in El Salvador and Honduras, where such groups are identified by Minority Rights Group International.

In several Spanish-speaking countries, the term "indigenous" has a discriminatory connotation and will preferably be replaced by other terms, such as *originario*. Some countries recognize the existence and the rights of these groups in their legislation while others do not; countries that do recognize the rights of indigenous people in their legislation may still not be fully compliant in practice with the ILO Convention or with the GCF's policies.

The GCF Indigenous Peoples Policy will also apply to interalia Afro-descendent communities of South America and the Caribbean, as well as to local communities that may meet relevant characteristics and criteria outlined in its Scope of Application.

Table 12. General situation of indigenous people – Latin America

Country	At least partial recogition by law	General situation of indigenous people
Argentina	X	Argentina's most recent national census (2010) gave a total of 955,032 people who self-identify as descended from or belonging to an Indigenous People. There are 35 different officially recognised Indigenous Peoples in the country. They legally hold specific constitutional rights at the federal level and in various provincial states.
Bolivia	X	There are 38 recognised peoples in Bolivia, the majority in the Andes are Quechua-speaking peoples (49.5%) and Aymara (40.6%), who self-identify as 16 nations. In the lowlands, the Chiquitano (3.6%), Guaraní (2.5%) and Moxeño (1.4%) peoples are in the majority and, together with the remaining 2.4%, make up 20 recognised Indigenous Peoples. According to the 2012 National Census, 41% of the Bolivian population over the age of 15 are of Indigenous origin, although the National Institute of Statistics' (INE) 2017 projections indicate that this percentage is likely to have increased to 48%.
Brazil	X	There are 896,917 Indigenous persons in Brazil, distributed among 305 ethnic groups. The principal indigenous ethnic group is the Tikúna, who comprise 6.8% of the total indigenous population. There are around 274 languages. Among Indigenous persons over the age of five, only 37.4% speak an Indigenous language, while 76.9% speak Portuguese. It is estimated that there are 115 peoples living in isolation, of which 28 are confirmed and the rest are in the process of being identified. 502,783 individuals out of the Indigenous population in Brazil live in rural zones and 315,180 in urban zones. A total of 505 Indigenous Lands have been identified, covering 12.5% of Brazilian territory (106.7 million hectares). The majority of these territories are in the Amazon basin.
Colombia	X	According to the 2018 Census, the Colombian Indigenous population numbers some 1,905,617 individuals who, in turn, belong to 115 different native peoples. Approximately 58.3% of this population lives in 717 collectively-owned resguardos (reserves). The same census counted 4,671,160 people (9.34% of the national total) who self-identify as black, Afro-Colombian, Raizal or Palenquero. Around 7.3% of this population lives in 178 collectively-owned territories, organised around Community Councils.

[18] https://minorityrights.org/minorities/indigenous-peoples-2/

Country	At least partial recogition by law	General situation of indigenous people
Costa Rica	X	Eight Indigenous Peoples live in Costa Rica: the Huetar, Maleku, Bribri, Cabécar, Brunka, Ngäbe, Bröran and Chorotega, constituting 2.4% of the total population. According to the 2010 National Census, a little over 100,000 people self-identify as Indigenous. Twenty-four (24) Indigenous territories cover some 6.7% of the national territory (3,344 km2) although this is only the formal area stated in the decrees establishing the territories as a large proportion has been invaded by non-indigenous settlers.
Ecuador	N/A	Ecuador's Indigenous population accounts for close to 1.1 million people out of a total population of more than 17,300,000. There are 14 Indigenous nationalities living in the country, grouped into different local, regional and national organisations. Some 24.1% of the Indigenous population live in the Amazon and belong to 10 nationalities; 7.3% of the Andean Kichwa live in the southern Sierra; and 8.3% live along the coast and in the Galapagos Islands. The remaining 60.3%, comprising Andean Kichwa, live in six provinces of the central-north Sierra; 78.5% of them still live in rural areas and 21.5% live in the towns and cities. The Shuar, a nationality of more than 100,000 people, have a strong presence in three provinces of the central south Amazon, where they represent between 8% and up to 79% of the total population. The rest are dispersed in small groups across the country. There are a number of nationalities with very low populations and which are thus in a highly vulnerable position.
El Salvador	N/A	According to the National Salvadoran Indigenous Coordination Council (CCNIS) and CONCULTURA (National Council for Art and Culture at the Ministry of Education), approximately 600,000 or 10 per cent of Salvadorian peoples are indigenous. The majority of the El Salvador indigenous population is Nahua-Pipil. Virtually all of El Salvador's indigenous speak Spanish as their only language. A few Pipil still speak the Nahuat language and follow traditional ways of life. The traditional groups live mainly in the south-western highlands near the Guatemalan border.
Guatemala	X	Guatemala has a population of 14.9 million people, of which 6.5 million (43.75%) belong to the 22 Mayan (Achi', Akatec, Awakatec, Chalchitec, Ch'ortí, Chuj, Itzá, Ixil, Jacaltec, Kaqchikel, K'iche, Mam, Mopan, Poqomam, Poqomchí, Q'anjob'al, Q'eqchí, Sakapultec, Sipakapense, Tektitek, Tz'utujil and Uspantek), one Garífuna, one Xinca and one Creole or Afro-descendant peoples.
Honduras	N/A	According to the 2013 Census, a total of 717,618 people, comprising nearly 9 per cent of the total population, self-identify as a member of either an indigenous or minority community. However, according to a 2007 census conducted by indigenous organizations, people who self-identified as indigenous or of African descent accounted for 20 per cent of the Honduran population. Main minorities and indigenous peoples: Lenca (453,672), Miskito (80,007), Garífuna (43,111), Maya Ch'ortí (33,256), Tolupán (19,033), Bay Creoles (12,337), Nahua (6,339), Pech (6,024), and Tawahka (2,690).
Mexico	X	Mexico is home to 68 Indigenous Peoples, each speaking their own native language and together accounting for 364 variants. There are 16,933,283 indigenous persons in Mexico, representing 15.1% of the total population. Mexico adopted the UN Declaration on the Rights of Indigenous Peoples in 2007, signed ILO Convention 169 in 1990 and became a pluricultural nation by amending Article VI of the Constitution in 1992.
Nicaragua	X	There are seven Indigenous Peoples of Nicaragua. They are known as "ethnic communities" in national legislation. Three of Nicaragua's seven Indigenous Peoples live in the Pacific, central and northern regions: the Chorotega (221,000), the Cacaopera or Matagalpa (97,500), the Ocanxiu or Sutiaba (49,000) and the Nahoa or Nahuatl (20,000).

Country	At least partial recogition by law	General situation of indigenous people
Paraguay	X	Five linguistic families and 19 Indigenous Peoples self-identify in Paraguay: Guaraní (Aché, Avá Guaraní, Mbya, Pai Tavytera, Guaraní Ñandeva, Guaraní Occidental), Maskoy (Toba Maskoy, Enlhet North, Enxet South, Sanapaná, Angaité, Guaná), Mataco Mataguayo (Nivaclé, Maká, Manjui), Zamuco (Ayoreo, Yvytoso, Tomáraho) and Guaicurú (Qom). According to 2017 statistics, the country's Indigenous population numbers 122,461 individuals.
Peru	X	The Indigenous or Native Peoples Database (BDPI) reports the existence of 55 Indigenous peoples in the country speaking 47 Indigenous languages. According to the 2007 Census, there are more than 4 million Indigenous people in Peru: 83.11% are Quechua, 10.92% Aymara, 1.67% Asháninka and 4.31% belong to other Amazonian Indigenous peoples.

Sources: IWGIA, 2020 and 2021, except for El Salvador and Honduras: Minority Rights Group International, 2022.

West Africa

Many West African countries are characterised by the presence of several large ethnic groups (such as Wolof, Fulani, Mandé, Akan – generally with sub-groups), who cohabit and intermarry to some degree. There may be smaller, vulnerable groups oppressed by the larger groups. The World Bank's 2016 environmental and social framework uses the generic term "Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities" for ESS7, instead of "Indigenous People".

The identification of these groups as people to whom ESS7 and GCF policy on indigenous people may apply should be performed for each situation separately. The situation of nomadic people also needs to be assessed separately for each situation. In several West African countries, conflicts around land use or water use are reported among nomadic pastoralists (including the Fulani) and settler populations.

Some West African countries have voted for the UN Declaration on the Rights of Indigenous Peoples and many countries have legislation on the recognition and rights of different ethnicities, but not necessarily on indigenous people as per the ILO definition (see, for instance, Burkina Faso in the table below).

The IWGIA (2020 and 2021), a mainstream source of information, identifies indigenous people in Burkina Faso, Mali and Niger. The NGO Minority Rights Group International (2022) provides more detailed information on other countries; it identifies potential risk situations related to disadvantaged ethnic groups especially in Mauritania and, to some extent, also in Guinea (although no country should be considered without risk). The information from these sources is summarized in the table below.

The GCF Indigenous Peoples Policy will also apply to interalia sub-Saharan African historically underserved traditional local communities, pastoralists, hunter-gatherers, nomadic groups forest dwellers as well as to local communities that may meet relevant characteristics and criteria outlined in its Scope of Application.

Table 13. Preliminary identification of indigenous people and disadvantaged groups in West Africa[19]

Country	General situation of indigenous people
Benin	Minority Rights International (2022) identifies several smaller ethnic groups, but does identify any of them as "indigenous". Fon are the largest and dominant ethnic group, constituting together with related groups 38.4 per cent of the total population, predominantly in the south. Other southern ethnic groups include Adja, Ewe, Aizo and Yoruba. In the north the principal ethnic groups are Bariba, Fulani (traditionally nomadic herders) and Ottammari.
Burkina Faso	Burkina Faso comprises 66 different ethnic groups. The M'bororo Fulani and the Tuareg are two of the peoples considered indigenous. They live spread throughout the country but are particularly concentrated in the north, Seno, Soum, Yagha and Oudalan regions; they are often geographically isolated, living in dry areas, economically marginalised and the victims of human rights violations. Burkina Faso's Constitution does not recognise the existence of Indigenous Peoples, but it does guarantee education and health care for all. A lack of resources and appropriate infrastructure, however, means that, in practice, nomadic peoples enjoy only limited access to these rights. Burkina Faso voted for the UN Declaration on the Rights of Indigenous Peoples.
Côte d'Ivoire	The country has over sixty ethnic groups, whose linguistic and cultural identities and interrelationships are diverse and complex. Minority Rights International (2022) does not identify some groups as indigenous, but each situation should be assessed independently as there are many smaller groups who may be vulnerable. Influx of herders after the 1970 Sahel droughts is reported as a source of conflict.
Guinea	Fulani / Peuhl (33.9 per cent), Malinké (31.1 per cent), Soussou (19.1 per cent), Guerze (6 per cent), Kissi (4.7 per cent) and Toma (2.6 per cent). Guinea's four major geographical regions largely correspond to four major ethno-linguistic groups. There is some tension between Peuhl and smaller groups historically oppressed by them, including Conagui, Bassari, Badiaranké, and Diakhanké. The forest highlands of the south-east are home to numerous smaller groups who initially fled here to escape domination by the Malinké. These groups include the Kissi, Kpelle (Guerze), Loma, Kono, Manon and Conagui.
Mali	The Tuareg (Tamazight speakers), the Moors (Arabic speakers) and, in riverine areas, the Songhay and Peuls (Fulani) are the main communities that inhabit the vast northern space that accounts for two-thirds of Mali. Their political alliances and their conflicts have shaped the history of a region in which there has been an interdependence between nomadic and settled populations, who have participated in vast economic, cultural and social exchange networks across the Sahara.
Mauritania	Four-fifths of Mauritania's small population live in the Sahel and the fertile lands along the Senegal River in the south-west. Many of Mauritania's approximately 3 million citizens are traditionally nomadic, but have been migrating into towns as drought and desertification destroy their traditional livelihoods. The population is divided into a dominant group, Beydan, and their former slaves, Haratine. The Beydan control the instruments of state and foreign trade. Although slavery was abolished in 1981 and criminalized in 2007, legislation has never been enforced and measures to provide for the ex-slaves' economic integration have never been enacted. Beydan and Haratine still retain a form of master-slave relationship in rural areas.
Niger	Niger's Indigenous Peoples are the Tuareg, Fulani and Toubou, all of them transhumant pastoralists. Niger's total population was estimated at 14,693,110 in 2009. Of the population, 8.5%, or 1,248,914, were Fulani, 8.3%, or 1,219,528, were Tuareg, and 1.5%, or 220,397, were Toubou.
Sénégal	Minority Rights International (2022) describes several larger ethnic groups, and does identify any group as "indigenous".

[19] For Africa, insufficient information was available to provide a high-level overview of legal recognition.

Country	General situation of indigenous people
Togo	There are between 20 and 40 different ethnic groups in Togo, depending on differing classifications. No group has a numerical majority. Minority Rights International (2022) does not identify some groups as indigenous.

Sources: IWGIA, 2020 and 2021 (Burkina Faso, Mali and Niger); Minority Rights Group International, 2022 (other countries).

International environment, social and governance (ESG) frameworks

The investment industry is strongly engaged in the development of ESG strategies or frameworks. The acronym ESG covers a variety of approaches used in the investment sector to incorporate environmental, social and governance considerations in business activities. There is a wide array of approaches to ESG and the level of depth and detail is very variable. At the highest end, approaches include proactive environmental and social management aimed at increasing a company's performance overall; at the bottom end, some approaches are limited to self-reporting along a set of criteria without performance improvement[20].

There is no universal set of ESG standards, but some standardized ESG frameworks are being adopted. Examples include:

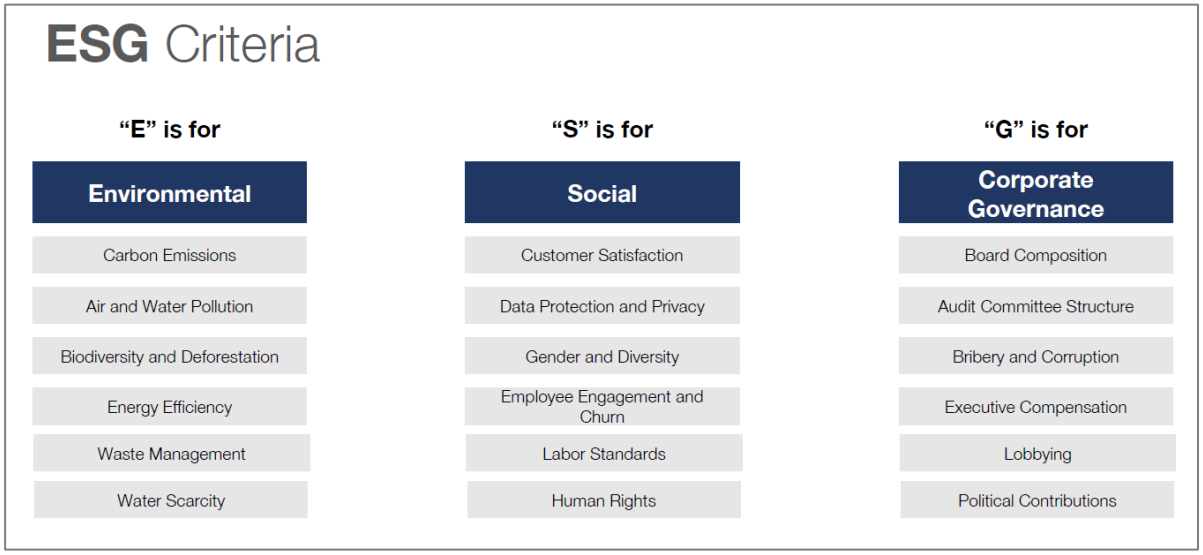
- the SASB Materiality Map;
- the Global Reporting Initiative ("GRI");
- "B Corp", a third-party certification administered by the non-profit "B Lab".

These ESG frameworks are not detailed and prescriptive enough to guarantee compliance with typical international E&S policies and safeguards, but they establish a useful focus on the realization of positive results along many dimensions of sustainable development.

Some ESG frameworks consist of full E&S safeguards systems, compliant with GCF or IFC policies, to which governance safeguards are added for the "G" dimension. An example is the IFC, which has a Sustainability Framework (for E&S) to which a Corporate Governance methodology is added.

[20] See, for instance, Whelan et al., 2020: "Signatories to the UN Principles for Responsible Investment agreed to implement ESG policies, but the focus is on disclosure versus performance and Kim and Yoon (2020) found that the signatories on average improved neither the ESG nor the financial performance of their portfolios".

Figure 6 Example of ESG dimensions. Source: Dalus Capital, 2021.



Potential environmental and social impacts, and guidance for mitigation

This chapter:

- identifies potential E&S impacts from the proposed project activities
- assesses the magnitude of these impacts, on a scale consisting of negligible – low – minor – moderate
- identifies the ESS standards that are triggered
- outlines mitigation measures

The mitigation measures are further developed and operationalized in Chapter 0.

Please also refer to the compliance summary in Chapter 0.

The chapter is organized per sections, that cover all the relevant applicable themes of the GCF E&S policy and of GIZ's safeguards + gender system. Gender is covered separately in the Gender Assessment document.

Table 14. Structure of the chapter: Assessment of potential environmental and social impacts, and guidance for mitigation

E&S topics	Corresponding ESS or policy
Climate change mitigation	GCF E&S policy + ESS3
Climate change adaptation	GCF E&S policy
Labour and working conditions (including OHS)	ESS2
Resource efficiency and pollution prevention	ESS3
Community health, safety and security	ESS4
Land acquisition and involuntary resettlement	ESS5
Biodiversity conservation and sustainable management of living natural resources	ESS6
Indigenous peoples policy	ESS7 + GCF indigenous peoples policy
Cultural heritage	ESS8
Non-discrimination and inclusion of vulnerable persons	ESS1
Emergency preparedness and response	ESS1
Human rights	GCF E&S policy
Risks of conflicts, fragility and violence	GIZ S+G system
SEAH	GCF E&S policy
Data privacy and cyber security	GIZ S+G system

Activities likely to generate E&S impacts and risks

Negative environmental and social impacts may occur when the project involves 'specifically identified physical elements, aspects and facilities that are likely to generate environmental and social impacts' (as per the terminology employed in ESS1).

During project implementation, such impacts are mostly related to the activities of the ventures. Impacts and risks would occur if ventures perform activities such as construction of small buildings, prototyping, research, production, small-scale agriculture, etc. The pre-acceleration and acceleration grants can, in principle, be used by climate ventures to buy equipment, services and hire personnel, as required.

Note that, as a general rule, the pre-acceleration stage will encompass early-stage start-ups with fewer than (approximately) 5 workers; the acceleration stage will encompass more developed climate ventures that already have minimum viable products, some pre-existing market presence and up to a maximum of 49 workers (though probably far fewer).

The travel associated with the project's technical assistance activities will generate moderate greenhouse gas emissions.

After the project implementation period, successful ventures are expected to substantially scale up their activities. The bulk of the project's positive climate change mitigation impact is realized at this stage. This is also the period when the ventures may realize significant co-benefits, as well as unintended negative impacts or risks, due to the larger scale of their activities. The ventures exit the direct responsibility of the project, but the project has the possibility to prepare them for appropriate E&S management, and hence mitigate future risks.

Potential E&S impacts during project implementation

Greenhouse gas emissions and climate change mitigation

Greenhouse gas emissions due to the activities of the supported ventures, such as transport, use of energy and generation of waste, are assumed be negligible to moderate. These impacts will be monitored and mitigated in compliance with ESS3 on pollution prevention – currently the relevant ESS on greenhouse gas emissions.

Reductions in greenhouse gas emissions of the climate ventures relative to the no-project baseline (climate change mitigation benefit) are expected to be:

- negligible to minor at the pre-acceleration stage, due to the limited scale of activities:
- minor to moderate during the acceleration stage.

The bulk of the project's emission-reduction impact is expected during the post-project influence period.

The project management and technical assistance activities will have a moderate GHG emissions impact, related mainly to travel, and should satisfy GIZ's requirements for project-related GHG emissions during project implementation. GIZ uses a methodology for GHG emissions accounting in its activities. This tool has been used to estimate project GHG emissions ex ante and is explained in Annex 4. This Annex provides estimates of the number of flights that could be required during project implementation. Best available estimates are of approximately 53 trips per year for Latin America and 45 for Africa, representing flights for project staff to countries of the region for training and monitoring purposes (including E&S). Several scenarios are used. Under such assumptions, the annual travel carbon footprint for the project could amount to approximately 150 tonnes CO_2eq per year. If events are organized whereby beneficiary ventures travel to EE host countries, emissions could increase to approximately 210 tonnes CO_2eq per year. These impacts are mitigated in accordance with GIZ's policy, as explained in Annex 4. For instance, the project will make use of online/digital

technologies where possible (e.g. for “climathon” competitions) in order to reduce costs and the project’s carbon footprint.

Table 15. Estimated GHG emissions related to air travel (tonnes CO_2eq per year). See methodology in Annex 4.

	Low estimate	High estimate
Assumption of flight carbon intensity (g/km/passenger)[21]	100	150
Scenario 1 : 53 trips for LatAm, 45 for West Africa	68	101
Scenario 2 : all trips for West Africa are from Paris	102	153
Additional trip of 30 beneficiaries to anchor country	40	60

Climate change adaptation impact

The adaptation impacts during project implementation are considered negligible to minor. Climate ventures that offer adaptation co-benefits (in addition to their primary mitigation benefits) will be favoured for inclusion in the project’s pre-acceleration and acceleration programmes. As with the ventures’ mitigation impact, the bulk of the project’s positive climate change adaptation impact will realize during the post-project influence period.

Estimates of direct and indirect employment impact

During project implementation, the employment impact of the project will include:

- creation or continuation of employment in the climate ventures, directly or indirectly financed by the grants;
- employment created among external suppliers, to support production activities of moderate scale;
- a few skilled positions created in each region for project management.

The skills level in the beneficiary companies may vary, from founders and engineering/IT specialists with higher education, to unskilled workers in the agricultural sector or materials production.

The direct employment impact remains limited, due to the limited size of the financial assistance. In many countries, the annual cost of an unskilled, informal worker is in the order of magnitude of EUR 5,000; the annual cost of a highly skilled formal worker is in the order of EUR 50,000. Hence the grants could, in principle, finance, for example, direct employment of 2 unskilled workers and 2 skilled workers per venture, over 6 months.

Standard ESS2 on Labour and Working conditions fully applies to workers directly funded by the project, and partially applies to other workers.

Labour and working conditions in the supported ventures

Working conditions

Labour law exists in all the potential participating countries, but it is not always sufficiently enforced. Depending on the activity sector, enforcement may vary from zero to complete. Enforcement is expected to be weakest in the agricultural sector, where high risks of poor

[21] https://ourworldindata.org/travel-carbon-footprint

working conditions exist, and where some workers can be vulnerable. In sectors with higher-skilled personal, national labour regulations are expected to be better applied, and skilled workers are generally not vulnerable. Working conditions are generally expected to be poorer in small businesses than in large companies. In general, small businesses will not have workers' representation or workers' grievance mechanisms.

Informal labour

From the consultations held with different stakeholders, it appears that there is a high risk of informal labour occurring among the funded ventures. Informal labour is not prohibited as such by international E&S standards, but informality increases the risk of non-compliance with relevant standards on health and safety, non-discrimination, inclusion of vulnerable people and workers' representation.

Occupational health and safety risks

According to the stakeholder consultations carried out with venture founders, health and safety risks can exist at early-stage business development, mainly in research and development activities involving chemicals, in prototyping/small-scale production activities, construction activities, and agricultural activities. These risks will typically be minor during pre-acceleration, but can, in some cases, become significant during acceleration. The table below provides an overview of occupational health and safety risks that could be related to the activities of the ventures.

Table 16. Example of occupational health and safety risks (during project implementation)

Type of work	Examples of risks
Development and testing of new products and industrial processes	Risks related to experimentation with chemicals (R&D) Accidents and injuries related to the use of (unfamiliar) tools and machinery, carrying of loads, transport Electrical risk, fire risk Risks in the material supply chain (with high rates of informal labour and risk of child labour)
Information technology, programming	Health impacts due to sedentarity and full-time computer use
Demo-plots and small-scale activities in the agricultural and forestry sectors (including biomass production)	Accidents and injuries related to use of tools, excavations, carrying of heavy loads, transport Exposure to pesticides Exposure to animals, insects, pathogens High rates of informal labour and risk of child labour
Demonstration and small-scale activities in the waste, sanitation and bioenergy sectors	Accidents and injuries related to use of tools, excavations, carrying of heavy loads, transport Exposure to illnesses Exposure to harmful gases Risk of fire
Activities involving small-scale construction	Accidents and injuries related to use of tools, excavations, work from height, carrying of loads, transport

Opportunities for co-benefits

Encouraging the creation of skilled jobs is a very significant co-benefit for developing countries. The project provides significant opportunities for increasing the quality of employment.

Impact rating
The magnitude of impacts and risks will depend on the sector and on the growth stage of the venture but is expected to vary from negligible to low in the pre-acceleration stage, and from negligible to moderate in the acceleration stage.

Mitigation
All beneficiaries of the pre-acceleration and acceleration programmes will receive minimum awareness-raising and training on labour, working conditions, occupational health and safety. More detailed risks and impacts of the activities of each venture, relative to ESS2, will be assessed at intake into both the pre-acceleration and the acceleration stages.

If necessary, the regional EE will define actions, provide training and set targets so that the ventures improve their management of human resources and occupational health and safety. For pre-acceleration, these measures will mostly be in the form of awareness raising and ad hoc support, but for acceleration, more prescriptive requirements will be captured in management plans (depending on each venture's risks).

The following minimum measures are applied to all ventures:

- Awareness-raising and training on occupational health and safety (OHS) as soon as pre-acceleration.
- Identification of significant risks, and requirement for immediate solution for ventures receiving grants.
- Awareness-raising, including on risks of worst forms of labour and safety risks among sub-contracted workers and workers in the supply chain and in their sourcing of materials, in compliance with ESS2 requirements for third-party workers.
- Training on avoidance of discrimination in employment.
- Access to a workers' grievance mechanism.
- Incident reporting.

Enhancement of co-benefits
The project will harness the existing experience of the Executing Entity IPED in improving the quality of employment created among the ventures, by promoting formalization and labour quality enhancement at both pre-acceleration and acceleration stages.

Water, energy, materials, waste and pollution (resource efficiency and pollution prevention)

Potential risks and impacts
The table below provides some examples of potential risks and impacts of the beneficiary ventures' activities in terms of use of resources such as waste and energy, and generation of waste and pollution.

At pre-acceleration stage, prototyping activities could use water and energy and generate solid waste and effluents, but on a very minor scale.

At acceleration stage, small-scale production activities are likely to use water, energy and materials, and to generate solid waste and effluents. In the agroforestry sector, and if some activities involve small-scale construction, besides use of water/energy and generation of waste, other types of impact sources – such as pest management, erosion and invasive species – may exist. In the manufacturing and IT sectors, the use of energy and the impacts of the use of equipment should be considered.

Table 17. Example of potentially significant impacts related to resource efficiency and pollution prevention (during project implementation)

Type of activity	Most significant uses of resources (energy, water and materials)	Most significant waste, effluents and pollution
Development and testing of new products and industrial processes	Process water Raw materials, minerals Energy for cooling, heating Energy for machinery Energy for transportation	Effluents Solid waste Hazardous materials (used oils etc.) Waste from Electrical and Electronic Equipment (WEEE), including batteries Noise, fumes
Information technology, programming	Energy for servers Energy and materials for the production of computers and phones	Waste from Electrical and Electronic Equipment (WEEE)
Demo-plots and small-scale activities in the agricultural and forestry sectors (including biomass production)	Use of water for irrigation Use of energy for transportation Use of fertilizers	Pesticides Liquid effluents Dust
Demonstration and small-scale activities in the waste, sanitation and bioenergy sectors	Water Energy	Leachate, effluents Incineration residuals
Activities involving small-scale construction	Concrete, sand, water Energy in the supply chain Fuels for transportation	Waste from construction materials Dust, fumes, sediments, noise

Impact rating

The impact level will depend on the sector and on the growth stage of the ventures, nonetheless it is expected to vary from negligible to low in the pre-acceleration stage, and from negligible to moderate in the acceleration stage.

Mitigation

All supported ventures will comply with national environmental laws.

Supported ventures with physical impacts, such as use of resources and generation of waste, will comply with national environmental legislation and with standard ESS3 on resource efficiency and pollution prevention. For countries where national environmental legislation is insufficient, or insufficiently implemented, IFC/World Bank health, safety and environmental guidelines can be used, as well as WHO recommendations.

Risks and impacts of the activities of each venture, relative to ESS3, will be assessed during intake into the pre-acceleration stage and the acceleration stage[22].

The ventures will perform assessments with the CIF tool, which is designed for climate assessment, but is also a powerful tool in understanding other impacts relevant to ESS3, such as use of energy, supply chain, use of water, use of materials, and generation of waste.

[22] See detailed processes and responsibilities in the next chapter.

Environmental management
For those ventures where potential impacts have been identified during the screening, the ventures, assisted by the EEs, will develop fit-for-purpose environmental management plans, including monitoring plans addressing relevant environmental parameters, and for monitoring environmental legal compliance if relevant.

Beneficiaries of the pre-acceleration and acceleration programmes will receive awareness raising and training on energy efficiency, GHG emissions, water conservation, pollution control and waste management at pre-acceleration and acceleration stages.

A significant challenge in most countries of implementation is the lack of well-functioning waste management and sanitation infrastructure. Lack of complete management solutions remain acceptable at pre-acceleration/acceleration levels, but ventures will be encouraged to develop alternative waste management solutions, to circumvent poor local infrastructure and services, in their final business plan.

Support for environmental management will be provided on a case-by-case manner at the acceleration stage: e.g. advice on solutions for effluent, materials and waste management, site visits, support for environmental permitting, etc.

Community health, safety and security

Potential risks and impacts
At pre-acceleration stage, impacts of the ventures' activities on communities are very unlikely.

At acceleration stage, the ventures will start some scale of production, and may therefore generate minor to moderate risks and impacts for the public and communities living near production sites.

The table below shows examples of potential risks and impacts that could be relevant during pre-acceleration and acceleration.

Table 18. Example of health and safety risks for the public, for end-users/customers, and for communities (during project implementation)

Type of activity	Examples of risks
Training activities and events	Risks related to building safety (fire, earthquakes and other emergencies) Transmission of Covid-19 and other diseases
Research and development	Risks related to testing product on potential users (electric safety, chemical products etc.)
Industrial production processes	Risks and impacts on nearby residents (noise, dust, hazardous chemicals) Impacts from improper waste disposal
Information technology	Data safety risks
Demo or small-scale activities in the nature, forestry and agricultural sectors	Accidents and injuries to the public Exposure of the public to pesticides Exposure of the public to animals, insects, pathogens
Transport sector	Road safety risks related to experimentation of vehicles
Small-scale construction	Accidents and injuries to the public Emissions of dust, noise etc.

Impact rating
Impacts and risks will depend on the sector and on the growth stage of the ventures, but they are expected to be low in the pre-acceleration stage, and to vary between low and moderate in the acceleration stage.

Mitigation
ESS4 applies to the project as follows:

- The funded ventures' activities should not generate negative risks and impacts for the public;
- All end-products should be safe and healthy for end-customers.

Supported ventures whose activity can potentially generate the types of risks and impacts identified will have to comply with national laws and with ESS4 on community health, safety and security.

Risk mitigation is required in cases when technical assistance activities lead to gathering of people in buildings, for instance in relation to: 1) transmission of diseases and 2) building safety.

Impacts and risks will be identified during the screenings. Supported ventures will receive awareness-raising, training, and will be required to comply with ESS4.

A special warning should be issued for all testing programmes involving customers. Such testing will not be allowed at the pre-acceleration stage. If it occurs at acceleration stage, a specific support programme will need to be developed.

Use of land, risks of involuntary resettlement and restrictions of access to land

Potential risks and impacts
Some of the beneficiary ventures may require the use of land during their early development stages:

- Urban land for construction of buildings or offices.
- Land for testing of infrastructure solutions.
- Land for demonstration or research purposes in the nature, forestry and agricultural sectors.

Use of land, or restrictions of access to land, may result in negative impacts on livelihoods, biodiversity, sacred sites, buried archaeological remains etc. Such impacts may be difficult to manage in countries where the institutional frameworks for land tenure, for protection of human rights, for stakeholder engagement and for protection of cultural heritage are still weak or not sufficiently enforced.

Due to the scale of the activities, the project will not cause any significant involuntary resettlement. There are, however, very minor remaining risks that ventures would want to use land where:

- Previous owners have evicted dwellers in view of selling the land to the ventures;
- Small-scale informal economic activities, such as street vending, take place, provide a major fraction of the vendor's revenues, and cannot be easily relocated;
- The land is used for collection of flora and fauna, the activity is significant for the affected persons, and the activity cannot easily take place elsewhere.

Such cases of economic/physical displacement can be difficult to identify, and hence are more difficult to avoid.

Impact rating
The risk of occurrence of such impacts is extremely low, as it would concern only a very small number of ventures. Impact magnitude (even without mitigation) would vary from very low to moderate.

Compliance requirements and mitigation
The approach of the project regarding ESS5 is:

- Complete avoidance of involuntary economic or physical displacement, and restrictions of access to land, during pre-acceleration and acceleration; to this end, risks are identified on a continuous basis;
- Preparation of some ventures, when relevant, on appropriate management against ESS5, and other safeguards applicable in case of land use restrictions, in the future.

To this end, the project will implement the following procedures:

- In case of any new land use: screening by the E&S specialist to verify that ESS5 does not apply or that ESS5 has been appropriately applied before the land is used by the venture (see ESS5 screening tool in Annex 1.)
- Awareness-raising of beneficiary ventures on risks and impacts of land use and land acquisition (when relevant for their activity sector);
- Training on ESS5 (when relevant), with a view to developing appropriate E&S management capacity for ventures that “graduate” from the programme.
- Where potential temporary or partial impacts can be anticipated at the screening / due diligence stage, the project will, in consultation with the relevant venture, stipulate prescriptive avoidance / remedial measures that are explicitly included in the venture’s management plan.

Biodiversity conservation and sustainable management of living natural resources

Potential risks and impacts
At the pre-acceleration and acceleration stages, activities of the climate ventures are expected to have minimal adverse impacts on biodiversity, because of their limited scale. Minor impacts could be related to the use of land, to disturbance from construction activities, to noise or pollution, etc. A potentially significant impact is the risk of introduction of invasive species, because this impact could be irreversible even if starting at a small scale. Some activities could have biodiversity impacts in their supply chain, but, at this stage, these would be limited in magnitude.

Interventions in biological corridors and rivers, even at a relatively small scale, require precautions, because they can disrupt ecological continuity. Any significant reduction of river flows, and impacts on rivers bottoms, can be irreversible if not properly managed, and should be avoided.

Impact rating
The likelihood of occurrence of such impacts is low, and their magnitude would generally vary from low to moderate. However, some impacts can potentially be irreversible (invasive species, aquatic habitat destruction).

Mitigation
Risks and impacts on biodiversity of the activities of each venture will be screened at pre-acceleration stage and assessed in a more detailed way at acceleration stage. Supported companies with physical activities that could impact biodiversity will comply with standard ESS6 on biodiversity conservation and sustainable management of living natural resources. Biodiversity risk assessment and management will be included in capacity building

programmes for the sectors concerned. If relevant, programme beneficiaries will receive training on ESS6 and on applicable standards such as REDD+[23] or organic/sustainable forestry certification programmes.

Biodiversity screening and avoidance measures
The implementation of ESS6 is challenging for impacts in natural and critical habitats[24]; therefore, activities that would take place in habitats that are potentially natural and critical habitats, among which are nature protected areas[25], will not be eligible for support. They would require an in-depth biodiversity assessment, which is not feasible in the project time-frame. The concerned ventures can receive training to prepare for such assessments in their future business stages.

Activities that are also excluded from the project are:

- Clear cutting of forest (as per the FAO[26] definition of forests);
- Disturbance of sea bottom or river beds;
- Damming and/or diversion of rivers and streams.

Biodiversity assessment and management
In case of impacts in other types of habitats, the biodiversity screening will determine if a further biodiversity assessment is still necessary, and if a biodiversity management plan should be prepared.

Indigenous people

Project's policy relative to indigenous people
The project's policy, relative to indigenous people, is as follows:

- The project guarantees that indigenous people (and sub-Saharan African historically underserved traditional local communities[27]) have equitable access to the project's benefits and co-benefits.
- The project ensures that potential negative impacts on indigenous people and other similar groups are avoided altogether during the funding period.
- The project increases the ventures' capacity to comply with GCF's indigenous peoples policy in the long run.

Access of indigenous people to the project's benefits
The project encourages individuals or groups from ethnic minorities (including those qualifying as indigenous communities, as per the GCF's policy) with a business idea to apply for pre-acceleration or acceleration support. To this end, the EEs will communicate by means and languages that are culturally adapted to indigenous people and identify what kind of specific

[23] REDD+ (actions for Reducing Emissions from Deforestation and Forest Degradation) is a framework created by the UNFCCC Conference of the Parties (COP) to guide activities in the forest sector that reduce emissions from deforestation and forest degradation, as well as the sustainable management of forests and the conservation and enhancement of forest carbon stocks in developing countries. The United Nations Framework Convention on Climate Change (UNFCCC) defined the safeguards to be observed in the implementation of REDD+. These are also known as Cancun safeguards and aim to ensure that REDD+ initiatives adequately address sensitive issues such as the rights of indigenous peoples and traditional communities, social participation, preservation of natural ecosystems, the permanence of achieved REDD+ results and the risk of displacement of the pressure from deforestation and forest degradation to other areas.
[24] As per the definition of IFC PS6 and the guidance note dated June 2019.
[25] Except when it can be justified that the classification is not relevant anymore.
[26] https://www.fao.org/forest-resources-assessment/en/
[27] As per World Bank environmental and social safeguards standards.

support is needed by indigenous-led ventures, so that they can fully benefit from the programme.

Such business ideas will still be screened on full compliance with ESS7 and the GCF's indigenous people policy (as per the paragraphs below).

Compliance requirement and mitigation (avoidance)
The EEs will screen all ventures on applicability of ESS7 and the GCF's indigenous people's policy.

The project's policy is to avoid, during the pre-acceleration and acceleration stages, the funding of activities that could negatively impact indigenous people (including in the supply chains). However, the project may in some cases accept into the programme ventures that are planning higher impact activities in the longer term, provided their climate benefits, seem to outweigh such impacts, and provided any negative impacts can be mitigated in compliance with GCF's indigenous people's policy. The project will build the capacity of the ventures so that they are equipped to reach compliance with GCF's indigenous people's policy in the future.

Some ventures may suggest business ideas that are not expected to negatively impact indigenous people, but still trigger the need to ensure equitable benefit sharing with indigenous people. Even in such cases, the GCF's policy requires at minima careful and participative impact assessment of the proposed activities, as well as meaningful long-term stakeholder engagement and, in some cases, consent of the indigenous people. Indigenous People's Plans (IPP) should be developed to define and ensure such meaningful participation, full impact mitigation, as well as benefit sharing.

The project will be cautious with regard to use of traditional knowledge of indigenous people for commercial purposes. The project will avoid funding such activities during the pre-acceleration and acceleration stages, unless the ventures can clearly prove that free, prior and informed consent has already been obtained from the affected indigenous people in compliance with Article 63 of GCF's indigenous people's policy, and that all relevant international conventions and national legislation[28] are respected. If not, the project will not fund the activities. However, the project may accept ventures that are planning such activities in the longer term. The project will build the capacity of the ventures so that they are better equipped to reach compliance with GCF's indigenous people's policy in the future, as well as with relevant international conventions and national legislations.

The EEs will identify risks of negatively affecting indigenous people when ventures apply to the pre-acceleration and acceleration programmes, as follows:

- by means of the E&S checklist provided in Annex 1;
- by means of the due diligence at acceleration stage. Environmental and Social experts, with Indigenous people's knowledge will be involved in the due diligences.

These risks are more frequent in some sectors, such as the agroforestry sector, and more generally all sectors using land and water in rural areas. The project will build the capacity of the ventures (when relevant: agroforestry sector, for instance) to identify any potential risks and impacts and to manage these risks and impacts according to GCF's policy. This will include training on the preparation of Indigenous People Plans (IPPs).

[28] For example, the Peruvian "Law introducing a protection regime for indigenous peoples' collective knowledge associated with biological resources", called Law 27811,

Cultural heritage

Potential impacts
Potential impacts of the project on cultural heritage are mainly related to the use of land and the risk of affecting burial places, archaeological remains, sacred sites or other types of tangible and intangible cultural heritage.

Impact rating
As for the other land-related impacts, the risk of occurrence of such impacts is extremely low as it would concern only a very small number of ventures. Impact magnitude without mitigation would vary from very low to moderate.

Compliance requirement and mitigation (avoidance)
The risks will be identified at an early stage in compliance with ESS8, and impacts either avoided or fully mitigated. Use of cultural heritage in a commercial way will not be allowed. Significant risks will be eliminated during the intake screening, and the general project's mitigation hierarchy will be applied on this topic.

Chance finds procedures
The use of new land by ventures is expected to be extremely limited. In case of construction during the acceleration stage, the ventures will be required to develop a dedicated construction environmental and social management plan, which will include a chance finds procedure.

Non-discrimination and inclusion of vulnerable people

ESS1 establishes a requirement to include identification of vulnerable individuals or groups and assess potential impacts of project activities on these persons. In the case of the project:

- Vulnerable persons among venture founders or staff with specific needs of support will be identified by the E&S specialist at screening stage and will receive specific mentoring/coaching.
- Vulnerable individuals could exist among informal workers. Mitigation to this end is included under ESS2.
- For relevant sectors and activity-types (for instance: climate solutions in public transportation), where identification of vulnerable persons is important among end-customers, ventures will receive capacity building on these subjects at the acceleration stage.

Emergency preparedness and response

During project implementation, emergency preparedness and response standards apply to premises receiving members of the public during trainings, capacity building or co-working spaces. The EEs have affirmed that they comply with building safety regulations and will be required to reaffirm compliance every year.

It is unlikely that any of the ventures will need to develop emergency preparedness and response procedures, but capacity building will be provided if relevant. This topic is included in the E&S screening and E&S assessment checklists.

Human rights

GCF's E&S policy, as well as GIZ's safeguards management system, put a significant emphasis on avoiding infringement of the human rights of others and address adverse human rights impacts that ventures may cause or contribute to. Each of the ESSs has elements related to human rights dimensions that a project may face in the course of its operations. For the present project, human rights risks and impacts are essentially related to employment (including in the supply chain and extraction of primary materials) and are assessed under this

topic. The continuous impact screening and assessment process of the project will enable potential human rights issues to be addressed under the different ESS categories.

Risks of conflict, fragility and violence

As the EE for the pre-acceleration and acceleration programmes for Latin America is based in Mexico and based on assessments of the German Institute for Global and Area Studies (GIGA), as well as the German Federal Government, Mexico presents risks on conflict and violence. Therefore, an integrated context and human rights analysis (iPCA) has been performed under GIZ's safeguards management system. Its results show that the project will not exacerbate situations of conflict, violence and/or fragility. The project itself is also unlikely to be affected by such situations, because it can exclude sectors and locations that are subject to risks.

SEAH

Potential risks and impacts
For the present project, risks of sexual abuse, exploitation and harassment (SEAH) exist in the context of venture work relations, and when there are contacts between venture employees and the public. In Guinea for example, women report that they are asked for sexual services in exchange for jobs (Artelia, 2022). The project does not exacerbate such risks, but it is necessary to include mechanisms to avoid SEAH, to monitor occurrence, and to implement a zero-tolerance policy.

Mitigation
The following minimum measures relative to SEAH risks are applied to all ventures:

- All beneficiaries of the pre-acceleration and acceleration programmes will receive minimum awareness-raising and training on SEAH, as part of the ESS awareness-raising and training 'workstream' that is built into the programmes. Awareness-raising will include the topics of contracted workers and workers in the supply chain.
- The EEs will assess the risks and impacts of the activities of each venture relative to SEAH, at intake into the pre-acceleration programme (screening) and the acceleration programme (screening + due diligence).
- Ventures receiving grants will be required to apply a zero-tolerance policy with regards to SEAH.
- All workers and customers will have access to the SEAH grievance mechanism.
- All ventures will report on SEAH occurrence as part of the E&S incident reporting.

In the pre-acceleration phase:

- Ventures that are screened by the EEs as having higher risks will receive additional training on handling complaints and enforcement of zero tolerance. Workers of these ventures (limited in numbers at this stage) will receive individual information on SEAH and each worker will be surveyed once individually during the programme.

In the acceleration phase:

- As part of the environmental and social due diligence (ESDD), the EEs will ensure that higher-risk ventures are sensitive to the zero-tolerance policy for any kind of SEAH, and sufficiently equipped to address this policy. To this end, they will use IPED's existing SEAH checklist for West Africa, and develop an adapted version for Latin America.
- Actions will be integrated in each venture's action plan (for example: implementation/formalization of a Zero Tolerance policy for SEAH, raising awareness for the staff, implementation of mechanisms to respond, assess and improve).

Grievance Redress Mechanism (GRM) and monitoring
A survivor-centred and gender-responsive GRM for SEAH-specific complaints/incidents, as well as dedicated monitoring, are included in the project (see section 0.

Data privacy and cybersecurity

This topic is not included in the GCF's ESS but is included in advanced ESG frameworks and also in GIZ's standard on digitalisation, presented in Annex 5. It is relevant for ventures with solutions related to monitoring of home energy usage, customer transport, etc. It is included in the ESMF in the same way as other topics (risk identification, awareness raising, training and management plans if required, monitoring).

Potential E&S impacts after project implementation

Climate change mitigation impact

Expected benefits
The project is designed to have a positive climate change mitigation impact over its lifespan. The climate impact of the project (at portfolio level) combines:

(i) mitigation achieved by each venture that grows to full realization of its business purpose, and
(ii) mitigation achieved more indirectly through the introduction of innovations into the overall business ecosystem, by the general capacity improvement of the business ecosystem, and by the capacity-building received by persons who have participated in the project's programmes.

The project components include measures for monitoring and verification of the climate impact. Climate-KIC will be the main responsible body for supporting beneficiaries in their climate impact assessments and for implementation of overall climate impact assessment at project level.

Approach for assessing the project's climate change mitigation impact
The project's climate assessment tool is the Climate Impact Forecast (CIF) tool developed by Climate-KIC. The latter, as an EE, will be the main responsible body for implementation.

The Climate Impact Forecast (CIF) tool provides a life-cycle assessment of GHG emissions of products and services. It includes a comprehensive database of emissions. It is an advanced exploration, decision-support and capacity building tool. It builds on assumptions provided by the ventures themselves and, therefore, includes a certain level of subjectivity – but assumptions and parameter values used will be subject to independent expert validation. Using the tool has an awareness-raising and capacity-building effect, because it leads ventures to question the impact of many choices in the lifecycle of their activities. The ventures will be supported in their use of the tool. During the project, the CIF will be applied in an iterative way (at different stages of the venture's lifetime). CIF trainers will play an important role in the application of the tool and in providing independent validation of ventures' GHG impact forecasts.

Climate-KIC and GIZ have developed the MORSE model (Model for Regional climate Startup Ecosystem impacts) to predict project impacts at portfolio level. MORSE is based on CIF results for venture archetypes. These results are scaled up to the level of economic sectors and countries. MORSE uses assumptions on future market sizes for products and services and on venture development pathways (from attrition to success) in different sectors and countries to estimate GHG emission reduction potentials over the project lifespan.

Conclusion
The potential climate mitigation impact of the project is estimated over 3.8 $MtCO_2eq$.. The methodology for obtaining this estimate seems sound overall. The ESMF does not further assess the risk of not attaining this target; this aspect is covered directly in the principal project design and is explained in the funding proposal.

Other E&S impacts generated by the "graduating" ventures

Since the project targets a diversity of sectors, potential risks and impacts are very diverse and cannot be fully assessed at this stage.

The table below provides typical examples, that could vary per sector/venture.

Table 19. Impact assessment of ventures' activities if they scale up after the project

E&S topics	Potential unintended negative impacts and risks	Potential positive impacts (co-benefits)
Climate change adaptation	Impact difficult to assess.	Through nature-based solutions, water savings, improved agricultural practices.
Labour and working conditions	Health and safety impacts and risks	Co-benefits expected in terms of number and quality of jobs.
Resource efficiency and pollution prevention	Most production activities are likely to use water, energy and (potentially hazardous) materials, and to generate solid waste and effluents. In the agroforestry sector, besides use of water/energy and generation of waste, other types of impact sources such as pest management, erosion, invasive species exist. Energy and material use are important impacts of IT activities.	Reduction of energy consumption (through energy efficiency) Increased use of renewable energy Reduction of waste Reduction of pollution due to fossil fuels
Community health, safety and security	Production activities may generate risks and impacts for the public and communities living near production sites and transport routes.	Reduction of pollution from fossil fuels Safer solutions for transport Safer and healthier products
Land acquisition and involuntary resettlement	Risks and impacts from expanded land use by the ventures	Improvement of soil quality could make more land available in the future
Biodiversity	Potentially significant impacts exist, especially for activities requiring land in rural areas, and for activities impacting aquatic bodies.	Many of the proposed solutions have positive biodiversity and sustainability outcomes (pollution reduction, nature conservation, improved soil management practices, etc.)
Indigenous peoples	Impacts possible, especially for interventions in rural areas.	Potentials for participation and benefits from some solutions
Vulnerable persons	May exist among workers, nearby communities, and customers	Some businesses improve living conditions and opportunities for vulnerable persons (adapted transport, adapted work opportunities, for instance).
Cultural heritage	Potential impacts in case of projects using land (archaeological remains, sacred sites etc.)	Improved conservation of some cultural heritage sites
SEAH	Risks among workers or in relation to the general public.	Awareness raising outside the ventures.

Enhancement and monitoring measures for project co-benefits
Significant expected co-benefits are expected from the project in the long run. The consultations carried out for the E&S assessment have shown that most climate venture entrepreneurs have a strong willingness to achieve positive impacts, in addition to their climate impacts, especially social impacts. Most consulted entrepreneurs even aim at having a positive overall E&S impact first, and their climate impact is only one dimension of their overall positive impact[29]. For the GCF project, supporting these entrepreneurs and companies will therefore also enable the generation of other E&S benefits in addition to climate.

In the field of employment, the project's co-benefit lies especially in the fact that the jobs created (skilled and unskilled) will be of higher quality than jobs "without project": higher skills, better health and safety provisions, higher degree of formalization, improved gender equality, lower discrimination and higher attention to vulnerable employees.

The project will reinforce co-benefits through its awareness-raising and training activities. The project also envisages the development of an approach for monitoring co-benefits under Output 3.1.

Mitigation strategy for negative unintended impacts
In the long run, negative impacts and risks are relatively similar to those that will occur during the implementation period but will have a higher magnitude. The project only has limited control of what happens after the funding period. However, the project can mitigate future negative impacts and risks through actions that take place during the project implementation period, in particular:

- Avoidance of business solutions with identifiable unmanageable risks or impacts at project intake ("red flags");
- Early E&S assessment
- Continuous awareness-raising and capacity building of the venture staff (especially managers) during pre-acceleration and acceleration;
- Preparation of a long-term E&S action plan: for example, inclusion of E&S management in the venture's business plan.

As a result of these actions, ventures should graduate from the acceleration stage with:

- sufficient capacity;
- their own action plan to mitigate future E&S impacts and risks.

Besides, the project will improve the "ecosystem" capacity for E&S management. Capacity building of incubators/pre-accelerators, accelerators, ESOs, including VC firms in the Latin American and West African innovation ecosystems will enable them to assess and manage E&S impacts and to advise their venture clients on E&S issues.

Ongoing relationships (e.g. between accelerators and ventures, even after ventures have graduated) and the tight-knit nature of the innovation ecosystems in both regions should serve to facilitate information and lessons-learned dissemination, as well as to disincentivize "bad behaviour" because of potential reputational damage and impaired access to future finance.

[29] Comment: consulted entrepreneurs had a good understanding of climate impact as one of the dimensions of environmental impact. This awareness is not as good in the finance ecosystem, where some stakeholders tend to equate environment with climate. Some of the consulted entrepreneurs were even weary of the emphasis placed by investors on climate and felt that assessing their climate impact was a bureaucratic step necessary to obtain funding.

Impacts summary and E&S categorization

Venture activities: impacts summary and categorization
During the project implementation period, the E&S impacts of the ventures' activities will be limited by their size. Activities of the ventures (such as labour, production, use of space, interaction with customers etc.) are only likely to generate impacts of limited magnitude. On a scale consisting of negligible / low / moderate / high, impacts are expected to be generally negligible to low, with only some potential occurrences of moderate impacts. Activities with potentially significant impacts are excluded.

All individual activities will be categorized as C, sometimes as B. Negative risks and impacts are expected to be limited, site-specific and can be reduced to acceptable levels thanks to appropriate E&S management. The project will not fund activities in the higher risk Category A.

The EEs are responsible for verifying this categorization when they perform the E&S screening of each venture, during the intake procedures for pre-acceleration and acceleration (see description of these procedures in section 0).

Overall project E&S categorization
Since some project activities could be categorized as B, the overall project is categorized as having medium E&S risks. Since funds are channelled to the ventures through financial intermediaries, the project is categorized as I2 (medium-risk projects carried out through financial intermediation).

Summary of co-benefits (including climate change adaptation)
Direct material co-benefits of the project activities at pre-acceleration and acceleration stages are expected to the limited to the employment and activity creation impacts. An increase in labour quality, formalization of businesses, improvement in occupational health and safety practices, and improvement in E&S management practices overall is also expected. Relatively significant capacity building co-benefits will be obtained in all fields pertaining to E&S and, in particular, in climate change mitigation and adaptation, due to the focus on training adopted by the project on these matters.

ESS compliance summary
Please refer to Chapter 0.

Implementation of E&S management for CATALI.5°T

General approach

To ensure that the project reaches its overall climate mitigation target, in compliance with the principles of ESS1, the EEs will adopt the following principles for E&S management:

- the project's climate change mitigation impacts will be maximized, while ensuring that potential negative E&S risks and impacts are appropriately mitigated ("do-no-harm" approach);
- the project does not support ventures with activities in the IFC exclusion list;
- the project does not fund activities, carried out by the ventures, that would have unmanageable E&S risks, considering the short time duration of project support;
- potential negative E&S risks and impacts of the ventures' activities are managed in compliance with the mitigation hierarchy;
- potential positive environmental and social impacts of the ventures' current and future activities (other than their climate change mitigation impacts) are identified and enhanced.

The project will offer support to the ventures with the highest potential climate mitigation impact. Among ventures with similar mitigation impacts, it will prioritise ventures that: (a) offer climate adaptation co-benefits, and (b) are women-led.

The project will not necessarily select ventures with the lowest negative environmental and social risks and impacts (as much as they can be assessed at early business stages). This is because such practices may: (1) result in over-representation of certain types of ventures, such as those in the information technology sector, compared to other sectors, such as those in the agriculture, forestry and other land use sector (AFOLU), that are in important need of financial assistance; and (2) prevent ventures with strong climate change mitigation potential, but greater E&S management challenges, to benefit from the opportunity offered by the project to improve their capacity for E&S management and their overall performance.

The project may further develop methodologies for capturing E&S co-benefits as one of its Outputs.

Following the principles of ESS1:

- ventures that receive funding should comply with the GCF ESS for their complete activities, not only for the funded activities; but
- E&S assessment management will be adapted to the level of risks and impacts, and to the level of control that can reasonably be exerted.

E&S implementation arrangements

E&S staffing and responsibilities

The staffing and implementation arrangements for E&S management are integrated in the overall project management structure.

A project management unit (PMU) in each region, as well as a cross-regional management unit, will be set up to oversee project management and implementation. The regional EEs are the main responsible entities for organizing and implementing the regional technical assistance activities. The regional EEs will manage the application process and the selection of ventures, with advice from GIZ. The regional EEs, in conjunction (in West Africa) with local implementation partners, will also be the main entities responsible for providing training and support to the climate ventures.

To align with this general structure, E&S staffing will be as follows:

At project management level (PMU)

- one part-time E&S manager will oversee implementation of the ESMF and will be responsible for overall E&S monitoring at project management level. This person will be a staff member of GIZ.
- the E&S manager will oversee implementation of the stakeholder engagement plan and grievance mechanism.

At regional level

In West Africa, IPED is responsible for the assessment of E&S risks and impacts of the activities of the supported ventures, for engaging them into appropriate E&S management, for reporting, and for compliance with the ESS.

- IPED will provide a regional E&S specialist for West Africa to oversee and carry out E&S management for the acceleration programme;
- Impact-Hub will carry out day-to-day E&S management for the pre-acceleration programme in conjunction with local implementation partners – such as filling out checklists and tools developed by IPED.

In Latin America, GIZ is responsible for assessment of E&S risks and impacts of the activities of the supported ventures, for engaging them into appropriate E&S management, for reporting, and for compliance with the ESS. GIZ will provide a regional E&S specialist for Latin America, responsible for E&S management of the pre-acceleration and acceleration programmes.

The E&S manager and the regional E&S specialists assist local partners (such as i-Hub) in implementation as required.

In some limited cases, the regional E&S specialists can contract external consultants for specialized trainings, detailed E&S assessments, and development of management plans. The necessary budget is included in the project.

Updating of the ESMF

The E&S project manager of the PMU will be responsible for conducting periodic updates of the ESMF, as required, in coordination with the regional E&S specialists.

Capacity building of the EEs and local implementation partners

The project includes capacity building of the EEs and local implementation partners. Specific needs for capacity building will be defined by the project E&S manager and will include capacity building of local staff on E&S management, as well as capacity building of GIZ staff.

The E&S manager and the regional E&S specialists provide ad hoc capacity building to local partners (such as Impact-Hub) as required.

Monitoring, reporting and verification

The E&S monitoring, reporting and verification (MRV) approach is integrated into the general project MRV approach.

Project monitoring arrangements
Monitoring arrangements will follow the standard GIZ and GCF policies and procedures:

- EEs act as the first line of consolidation of reporting;
- PMU act as the second line of consolidation across regions and ensure distribution of results to donors.
- GIZ as the AE ensures supervision and accuracy/timeliness of reporting.

Climate-KIC is responsible for leading the reporting of the project mitigation impact by climate ventures and, at the portfolio level, by the regional EEs.

E&S monitoring, verification and reporting
The project's E&S reporting is aligned with the general reporting, as follows:

- Pre-acceleration: ventures carry out simplified incident reporting;
- Acceleration: ventures carry out E&S reporting, following templates that will be defined for each venture at programme entry;
- The regional EEs consolidate ventures' E&S reporting, adding:
    - reporting on the number of E&S trainings carried out and on the number of beneficiaries;
    - reporting on stakeholder engagement activities;
    - reporting on the grievance mechanism and on the SEAH grievance mechanism.

The timing and frequency of reporting are aligned with the business and financial reporting.

Monitoring and reporting of SEAH includes:

- Reporting on known occurrences (by the ventures);
- In high risks countries/sectors (as assessed at entry of a venture into the programme), a periodic specialized survey.

E&S indicators
E&S indicators relevant for the project are:

- persons having received specific support for languages, computer literacy, computer equipment and other types of support to improve access to the programme;
- number of E&S incidents reported;
- number of E&S trainings carried out and number of training beneficiaries;
- number of ventures removed from the programme because of SEAH cases;
- number of ventures with 80% or more of formal workforce at the end of the acceleration stage;
- workforce employed by the ventures that is covered by health insurance at the end of the acceleration stage;
- fatal injuries or injuries leading to permanent incapacity occurring within the ventures during the period of receiving support.

Procedures for E&S impact assessment and management of the ventures

Chapter 0 shows that some of the ventures' activities, during the project period, could potentially generate low or moderate E&S impacts that would require the implementation of mitigation measures. The project also offers opportunities for implementing E&S benefit enhancement measures. The project will apply these measures in compliance with ESS1. This section describes how the mitigation measures will be implemented in detail. The mitigation strategy mainly includes:

- Identification of potential E&S risks and impacts.
- Assessment of the E&S management capacity of the ventures.
- Awareness raising, training and ad hoc support in E&S management.
- Monitoring of the application of the E&S management results, and enforcement via the grant agreements.
- Management of a grievance redress mechanism and the SEAH grievance mechanism.

These principles are applied, in a way scaled to the E&S risks:

- during the pre-acceleration programme (early business stages – small grants);
- during the acceleration programme (more advanced business stages – larger grants).

Pre-acceleration programme

E&S screening for pre-acceleration
The regional EEs will carry out an E&S screening of the ventures that apply to the pre-acceleration programmes. This screening will serve to:

- apply the exclusion criteria;
- identify potential E&S 'red flags', that is, negative risks and impacts that would not be manageable during the project period or afterwards;
- verify if the ventures are sufficiently aware of national environmental legislation and permitting requirements that apply to their activities;
- verify E&S categorization of the ventures' activities (C or B);
- identify topics where the ventures could require dedicated support if the ventures enter the programme. For instance, some ventures or activities could require specific E&S coaching, because they engage in physical activities as soon as the pre-acceleration stage. These could be, for instance, small-scale construction activities, use of land plots for testing agricultural solutions, manufacturing of pilot products etc. These ventures can be accepted in the programme and will receive specific support to manage their E&S impacts. Support can also be provided in management environmental permitting.

The screening will include a media check for potential infringements of human rights or discrimination.

Annex 1. of the ESMF provides screening checklists. These can be updated during the project inception phase or during the project, upon agreement between the EEs.

E&S exclusion list
The list of excluded ventures, and the list of excluded activities, is provided in Annex 1. The exclusions pertain mostly to compliance with ESS5 (land use), ESS6 (biodiversity) and ESS7 (indigenous people). It is important to remember that some higher-risk activities are excluded during project support, but that the ventures can still participate in the programme with other activities, and will be trained in managing future "higher-risk" activities. The list can be updated in the project inception phase or during the project, upon agreement between the EEs. Detailed screening checklists allowing to identify exclusions related to ESS5 (land use) and ESS6 (biodiversity) are also included in Annex 1. For compliance with ESS7, please refer to Section 0.

E&S selection for pre-acceleration
The selection process consists of a climate impact self-assessment, and interviews assessing the team's capabilities. The selection criteria do not include standardized E&S criteria, but, following the E&S screening, ventures with 'red flags' can be excluded from the programme.

Pre-acceleration programme – E&S training and mentoring
The following E&S aspects are included in the pre-acceleration training and mentoring programmes:

- Climate advisory services.
- Compliance with safeguards on labour and working conditions, including health and safety.
- Other E&S topics as relevant, depending on the characteristics of each cohort – e.g. advice on effluents and waste management, ESG frameworks used by VC funds, etc.

- Mechanisms for identifying and reducing sexual exploitation, abuse and harassment (SEAH).
- Gender and non-discrimination.

Ventures identified as those with specific E&S risks will receive mentoring in E&S management from the regional E&S specialist on relevant topics, such as performing an E&S self-assessment, implementing waste management, improving occupational safety management etc.

Pre-acceleration programme – E&S clauses for grants
Some of the ventures will be selected for additional support, including:

- An in-depth climate mitigation assessment.
- One-to-one coaching.
- A small grant payment.

Before grant payment, the E&S specialist will confirm the E&S screening and define specific needs for further coaching accordingly. Ventures will be informed about the E&S obligations included in the grant agreements:

- Adherence to E&S requirements on excluded activities.
- Provision of reasonable conditions of employment, protection of the workforce, provision of a safe and healthy work environment.
- Non-infringements of human rights.
- Zero tolerance of gender-based violence (GBV), and of sexual exploitation, abuse and harassment (SEAH).

A venture will not be accepted into Phase 2 of the pre-acceleration programme unless it has fully satisfied all national permitting requirements.

E&S monitoring and reporting
All business reports will include E&S reporting. For pre-acceleration, this will be limited to mention of significant E&S incidents, as per detailed procedures in Annex 1.

Pre-acceleration grievance redress mechanism (including for workers) and SEAH GRM
See 0.

Acceleration programme

E&S screening and exclusion for acceleration
The E&S screening for acceleration and the exclusion list are identical to the E&S screening and exclusion for pre-acceleration. Additionally,

- the venture is a formally registered business (or undertakes to become formally registered prior to admittance into the acceleration programme).
- the management team should demonstrate, in an interview, an understanding of the main E&S impacts and risks of their product/service (e.g. energy and materials sourcing, waste and effluent generation, etc.).

E&S due diligence
Ventures that pass the screening process will be subject to a comprehensive due diligence, that will include an environmental and social due diligence (ESDD). This ESDD will define:

- areas where more detailed assessment is necessary;
- areas where the ventures' staff require further capacity building;

- compliance requirements with national environmental permitting requirements; if E&S management plans should be developed for some specific topics.

The ESDD covers all GCF safeguards areas, among others (but not limited to) biodiversity, environment, energy and material use, health and safety, labour and working conditions, supply chain, indigenous people, vulnerable persons, SEAH, human rights etc.

See Annex 1. for a more detailed description.

E&S selection for acceleration
The venture due diligence results will be presented to the Selection Committee, which will decline or approve the venture's entry into the acceleration programme. As with pre-acceleration, ventures can be excluded from the programme in case of "red flags" in the field of E&S standards.

E&S management plans
Ventures will receive support in preparing business plans (in West Africa, these are termed 'Value Creation Plans') that will cover the duration of the programme. The average timeframe of the plans can vary, but is expected to be 2 years on average.

E&S management will be included in these plans. The ESDD will provide the necessary guidance to identify what type of management plans are necessary.

In some cases, detailed assessments are required to inform the preparation of the plans.

The regional E&S specialists are responsible for:

- determining what assessments/management plans are necessary, in compliance with GCF ESS;
- guiding the ventures in establishing these assessments and management plans;
- contracting external specialists when required for the detailed assessments and the establishment of management plans;
- monitoring the application of the management plans;
- offering technical assistance for implementation (see item 0 below).

The cost of implementing the plans is included in the operational costs of the ventures.

The programme is not designed to provide support for activities of such scale and/or risk level that they would require an ESIA or detailed E&S studies. During screening and/or due diligence, the E&S specialist (assisted if needed by external thematic specialists) will assess the ventures' compliance with national environmental permitting requirements. The programme will provide coaching and support to the ventures in complying with these requirements as they grow. This could include, in theory, the preparation of an ESIA, although the case seems impossible in practice (the grants amount to 200,000 EUR). However, should the case occur, the ESIA can in theory be prepared under the E&S management plans.

Acceleration programme – E&S clauses for grants
Selected ventures will benefit from a repayable grant. The use of repayable grants will be disciplined by a grant agreement signed by each climate venture and the EE. The grant agreement will include clauses that aim to minimise the possibility of grant misuse. E&S clauses included are:

- Adherence to E&S requirements on excluded activities.

- Provision of reasonable conditions of employment, protection of the workforce, provision of a safe and healthy work environment.
- Non-infringements of human rights.
- Zero tolerance of gender-based violence (GBV), and of sexual exploitation, abuse and harassment (SEAH).
- Adherence to additional E&S conditions included in the E&S management plans.

Acceleration programme – technical assistance
Complementary to the provision of repayable grant funding, the acceleration programme will offer targeted business coaching, climate advisory support, E&S support, gender support and mentoring to climate ventures.

E&S monitoring and reporting
All business reports will include E&S reporting. For acceleration, E&S reporting requirements are defined in the business plans.

Labour formalisation support and labour quality enhancement
Beneficiaries of the acceleration programme will receive awareness-raising and ad hoc support to increase labour formalization and, while on the path to formalization, to improve labour conditions, especially for unskilled workers, manual workers, and/or vulnerable workers. Procedures to this end are developed in Annex 1.

Preparation for graduation to Series A funding
As a preparation for the "exit" from the acceleration programme, supported ventures will be assisted in the preparation of long-term E&S management plans.

E&S management pertaining to activities that are not carried out by the ventures

In addition to E&S management of the ventures, at overall project level, E&S mitigation needs are limited, and include:

- Compliance with building safety rules on training premises: responsibility of IPED and Tec de Monterrey;
- Mitigation of project travel-related emissions (as per GIZ requirements): responsibility of GIZ's PMU E&S manager.

Stakeholder engagement, information disclosure and grievance mechanism

Stakeholder Engagement Plan for project implementation

The stakeholder engagement plan during project implementation has four dimensions:

- At global level, GIZ and Climate-KIC will regularly engage with the ESOs. At least annually, a programme evaluation workshop will be held (or possibly, two regional workshops to account for language differences), including financiers and interested ventures and other companies.
- At regional level, the regional EEs and local implementation partners will continuously engage with the beneficiary ventures during their participation in the pre-acceleration and/or acceleration programmes. Annually, the beneficiaries will be asked to assess the programme quality.
- For each venture participating in the acceleration programme, the E&S specialist will recommend inclusion of fit-for-purpose stakeholder engagement activities in the ventures' business plan. The ventures will carry out stakeholder engagement as needed. This could include engagement with prospective customers, with people potentially affected

(negatively or positively) by the ventures' impacts, with people living near the ventures' premises, etc.
- The regional E&S specialists may, in some cases, decide to consult specifically with specific groups of persons, either related to the activity of one specific venture, to verify that the programme successfully applies principles of inclusion and non-discrimination, and/or to verify application of the Gender Action Plan.

Information disclosure

The project will meet the requirements of the GCF Information Disclosure Policy and Section 7.1 of the GCF's E&S policy.

External communication and grievance redress mechanism (GRM) (including workers) and GRM for SEAH

Requirement summary
ESS1 establishes the requirement for an external communication and grievance redress mechanism (GRM) for the project, to ensure that grievances from potentially affected communities and external communications from other stakeholders are responded to and managed appropriately.

According to the GCF's E&S policy, the purpose of the GRM is to receive and facilitate the resolution of concerns and grievances about the environmental and social performance of GCF-financed activities.

Needs assessment for the GRM
The impact assessment shows that:

- risks that the project will negatively affect the public, and communities, are probably limited but still unknown;
- a grievance redress mechanism (GRM) is required for workers engaged by the ventures, especially in the context of high informality.

Operation of the GRM
In view of the limited number of persons potentially concerned by the GRM, one mechanism can be used for all. The GRM will be implemented at global level and at regional level, as well as at country level for Africa:

- Use of the existing internet mechanisms of GIZ[30], IPED[31] and Tec de Monterrey[32];
- Collection of grievances by phone or in person by the regional E&S specialists and, for Africa, by the local hubs.
- Grievances will be reported by the regional E&S specialists to the E&S manager; there will be a centralized grievance register

The regional Executing Entities and, ultimately, the GIZ E&S manager, are responsible for resolving the grievances, and for reporting on grievance resolution. Where the GIZ E&S manager is unable to resolve a grievance to the satisfaction of all involved stakeholders (the complainant, the venture, the EE, etc.), an ad hoc evaluation committee shall be constituted on a case-by-case basis to review the decision and, where necessary, amend the decision. The committee shall seek to make decisions on the basis of consensus but will, where necessary, make decisions by majority vote. Composition of the committee will vary from case

[30] https://www.giz.de/en/aboutgiz/39089.html
[31] https://www.ietp.com/fr/node/1861/#plainte
[32].https://letica.mx/ethos?locale=es. For gender: escuchandote@itesm.mx

to case, as this will determine what E&S, legal and sectoral skills are required. The committee members will be appointed by GIZ (as the AE) and will include 1 representative of GIZ (as the AE), 1 representative of the relevant Management Unit (Latin America, West Africa or Trans-Regional) and 3 independent representatives (e.g. academics, professionals (legal, consultants, etc.), NGO staff, etc.) who are selected for their relevant technical or geographical backgrounds.

In the event that the evaluation committee is unable to resolve a complaint to stakeholders' satisfaction, the grievance shall be communicated to the GCF's Independent Redress Mechanism.

Specific GRM for SEAH
GCF's revised E&S policy requires the implementation of a survivor-centred and gender-responsive GRM for SEAH-specific complaints/incidents. For the present project, besides the generic project and worker's GRMs:

- Potential female victims will have the possibility to lodge a complaint with a female person identified in each region;
- Ventures with more than 30 workers will be required to set up their own mechanism, guaranteeing confidentiality and safety for survivors;
- Contact details of persons/organizations able to receive SEAH-related complaints will be disclosed in each country to the venture staff and workers, and when relevant (such as agricultural ventures) displayed on signs.

Disclosure of information about the GRM
In all cases, the supported ventures are required to disclose information on the existence of the GRM to their customers, to the public and to their workers. This is especially relevant, for instance, for agricultural or construction activities, where ventures could display the accessible phone number on a local sign or panel. This will be the case, in particular, for the specific SEAH GRM.

Complementarity with the GCF's Independent Redress Mechanism
At GCF-level, the independent Redress Mechanism will address the grievances and complaints filed by people and communities who may be, or have been, affected by adverse impacts in connection with the potential failures of the GCF-financed activities to implement measures pursuant to the operational policies and procedures of GCF, including its ESS standards. In the event of a complaint being filed with the Independent Redress Mechanism, GIZ, as the Accredited Entity, will cooperate with the Independent Redress Mechanism and the GCF.

ESMF costs

The table below provides estimates of ESMF implementation costs. These are included in the overall project budget.

Table 20. Costs for implementation of the ESMF

Component of E&S management	Entity	Cost (EUR)
E&S manager in PMU	GIZ	Included in PMU costs
Pre-acceleration: Latin America	GIZ (E&S specialist + external thematic specialists on IP, biodiversity etc.)	65 200
Pre-acceleration: West Africa	IPED and iHub	62 200
Acceleration: Latin America	GIZ	143 600
Acceleration: West Africa	IPED	172 100
EE capacity building	IPEd, GIZ and Tec	11 200
ESMF management	GIZ	Included in PMU costs
Workers grievance mechanism	IPEd, iHub, GIZ and Tec	Included
Stakeholder engagement plan	IPEd, iHub, GIZ and Tec	Included

Compliance summary

The table below shows how the project will achieve compliance with the GCF's and GIZ's environmental and social policies.

Table 21. Assessment of potential negative unintended impacts and risks, and mitigation[33]

E&S topics	Potential risks and impacts	Rating before mitigation*	Mitigation strategy	Rating after mitigation*
ESS1: Assessment and management of environmental and social risks and impacts				
Potential negative impacts and risks of ventures' activities	Ventures' activities may generate negliglble to moderate risks and impacts, and due to their small scale, may not be able to manage them.	Negligible to moderate	As part of the support programmes, the regional EEs will screen applicant ventures according to (inter alia) ESS considerations, train the accepted ventures in E&S management, help ventures to identify potential risks and impacts, and provide ad hoc support on specific E&S topics, as required.	Negligible
Emergency preparedness and response	Generally very limited – minor fire and seismic risks in buildings related to trainings.	Low to moderate	Compliance requested for training premises. Identification of risks and impacts, and adapted management, for each venture. Awareness raising, training.	Low
Vulnerable persons	May exist among workers, nearby communities and customers	Negligible to low	Assessment for each venture, and adapted management. Awareness raising, training.	Negligible to low
ESS2: Labour and working conditions				
Labour and working conditions	The project will generate some employment and economic activity (venture+supply chain), skilled and unskilled jobs. Opportunities exist for enhancement of labour quality and formalization.	Low to moderate	Awareness raising and training on ESS2 as soon as pre-acceleration. Improvement in formalization of workers and in quality of employment by ad hoc coaching and support. Inclusion of ESS2 requirements (as fit for each venture) in the management plans at acceleration stage. Direct EE staff: already compliant with ESS2.	Low

[33] Impact rating scale: negligible, low, moderate, high. Rating will vary per venture and will depend on scale of venture activities.

E&S topics	Potential risks and impacts	Rating before mitigation*	Mitigation strategy	Rating after mitigation*
Occupational health and safety	Some minor health and safety risks are likely to exist, and will be exacerbated by informality.	Low to moderate	Awareness raising and training on OHS as soon as pre-acceleration. Identification of significant risks in the E&S screening, and requirement for immediate solution for ventures receiving grants. Inclusion of ESS2 requirements (as fit for each venture) in the management plans at acceleration stage. Direct EE staff: already compliant with ESS2.	Low
ESS3: Resource efficiency and pollution prevention				
Activities with physicial elements, such as construction and manufacturing	Small-scale production activities are likely to use water, energy and materials, and to generate solid waste and effluents.	Negligible to moderate	Assessment for each venture, and adapted management. Awareness raising, training.	Negligible to low
Activities in the AFOLU sector	In the agriculture and forestry sector, besides use of water/energy and generation of waste, other types of impact sources such as pest management, erosion, invasive species may exist.	Negligible to moderate	Assessment for each venture, and adapted management. Awareness raising, training.	Negligible to low
Information technology and offices	Use of computers, phones, office equipment, air conditioning	Negligible to moderate	Assessment for each venture, and adapted management. Awareness raising, training.	Negligible to moderate
ESS4: Community health, safety and security				
Community safety	Production activities may generate risks and impacts for the public and communities living near production sites.	Low to moderate	Assessment for each venture, and adapted management. Awareness raising, training.	Negligible to low
Customer safety	Products should be safe and healthy for customers.	Low to moderate	Assessment for each venture, and adapted management. No testing of safety properties on customers.	Negligible to low

E&S topics	Potential risks and impacts	Rating before mitigation*	Mitigation strategy	Rating after mitigation*
ESS5: Land acquisition and involuntary resettlement				
Risks of involuntry resettlement or restrictions of access to land	Activities may in some cases require greenfield land. Risks of forced evictions/restriction of access cannot be completely excluded in the project countries.	Negligible to moderate	Early risk identification. Avoidance of involuntary resettlement (economic or physical) and of restrictions of access to land. In case of displacement of small-scale activities (vendors, use of flora nd fauna for subsistence), definition of adequate compensations. Awareness raising, training.	Negligibe to low
ESS6: Biodiversity conservation and sustainable management of living natural resources				
Impacts on biodiversity	Minor impacts possible in case where the project uses land located in/near natural habitats, or develops products in water bodies, or generates pollution.	Negligible to moderate	Screening of impacts, exclusion of potentially irreversible impacts, and appropriate management accoridng to ESS6. Awareness raising, training. Clear cutting of forest (as per the FAO definition of forests) is not allowed.	Negliglible to low
Impacts on critical biodiversity	Could occur in case of land use in rural/nature areas, or activities in water bodies, but very unlikely due to small scale / absence of physical production.	Negligible to moderate	Activities in habitats that are potentially natural and/or critical habitats, among which nature protected areas, will not be eligible for the programme. Awareness raising, training.	Negliglible to low
Impacts on aquatic habitats	The disturbance of sea bottoms or river bottoms can cause irreversible impacts to aquatic habitats.	Negligible to moderate	Activities that are excluded from the project are: • disturbance of sea bottom or river bed; • damming and/or diversion of rivers and streams.	Negliglible to low
ESS7 + GCF indigenous peoples policy				
Indigenous people and traditionnally underserved communities	Risk that indigenous people with a business idea may not equally benefit from the project	Moderate	The EEs and local implementation partners will use culturally sensitive means of communication and identify specific needs for support (for instance, communication and logistics in remote areas)	Negligible
	Risks of negatively impacting indigenous peoples' livelihoods or cultural heritage	Negligible to moderate	Activities risking to trigger ESS7 are excluded during the support period. Risks assessed at entry and on a continuous basis. Training of ventures in some sectors, on risk identification.	Negligible

E&S topics	Potential risks and impacts	Rating before mitigation*	Mitigation strategy	Rating after mitigation*
ESS8: Cultural heritage				
Intangible and tangible cultural heritage	Potential impacts on cultural heritage in case of use of land.	Negligible to moderate	No commercial use of cultural heritage. No new construction allowed at pre-acceleration. Chance finds procedure for constructions. Awareness raising, training.	Negligible
SEAH				
SEAH	SEAH risks related to working relations and relations with the public	Depends on countries/sectors	Risk identifications, awareness raising, monitoring, dedicated GRM	Depends on countries/sectors

Summary of actions and responsibilities

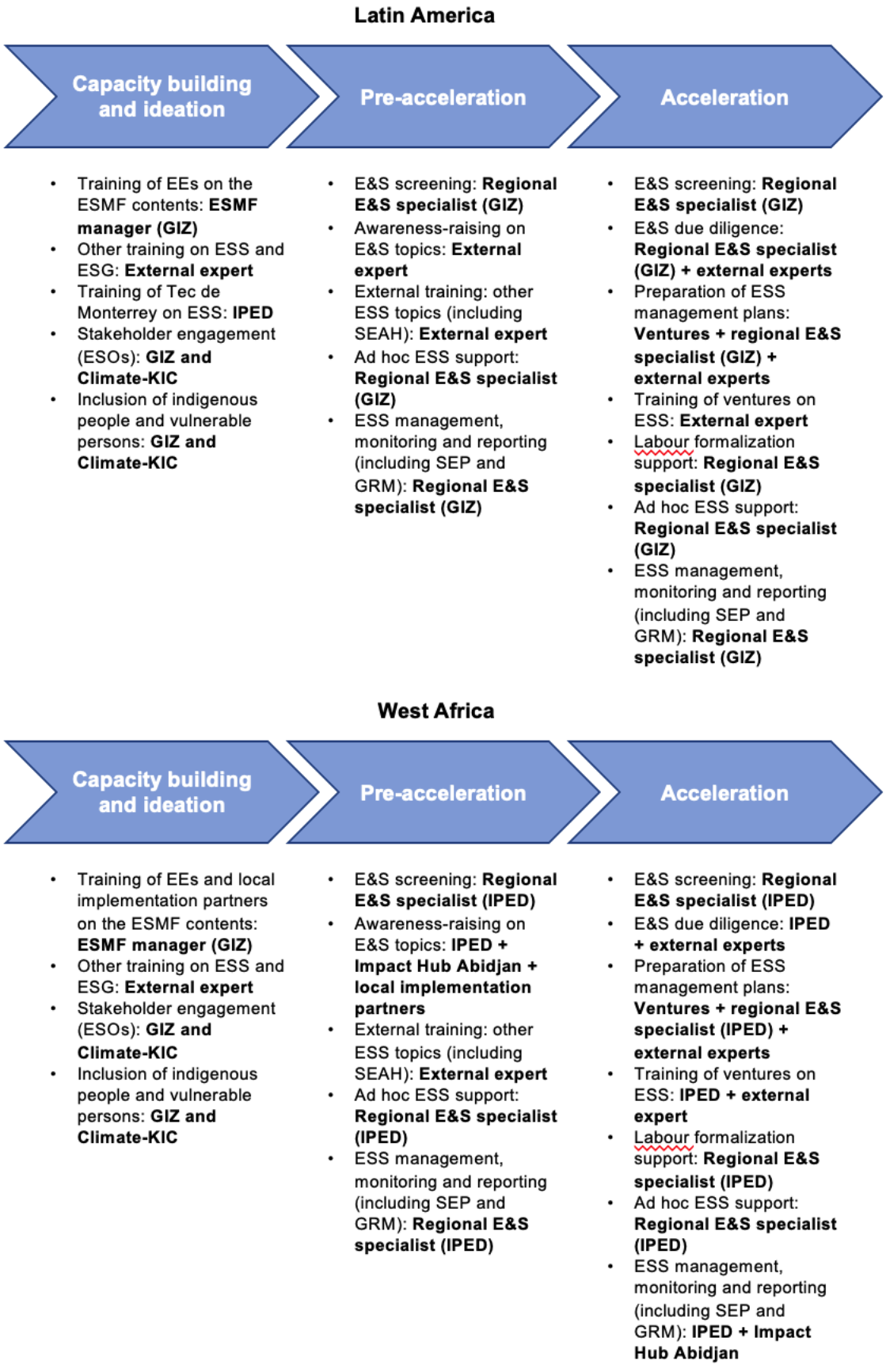
Table 22. Summary of ESS actions – integrated in the project's log-frame

Activities	E&S sub-activities	Responsibility	Indicators
Latin America			
Output 1.1: Capacities of Executing Entities, ESOs and venture investors in Latin America are developed to boost climate ventures' impacts			
Activity 1.1.1: Capacity-building of Executing Entities, ESOs and venture investors in Latin America	Training of EEs on the ESMF contents	ESMF manager (GIZ)	Persons trained
	Other trainings on ESS and ESG	External expert	Persons trained
	Training of TEC de Monterrey on ESS	IPED	Sessions held and persons trained
	Stakeholder engagement (ESOs)	GIZ and C-KIC	Organisations reached
Output 1.2: Inclusive and diverse local communities of climate entrepreneurs in Latin America generate innovative climate business ideas			
Activity 1.2.1: Community-building and ideation activities in Latin America	Inclusion of indigenous people and vulnerable persons	Climate KIC, GIZ	Number of people having received specific support for languages, computer literacy, computer equipment and other types of support to participate in ideation activities and digital network
Output 1.3: Selected ventures in Latin America have launched their climate products in local markets			
Activity 1.3.1: Latin America climate venture pre-acceleration programme	E&S screening / review for red flags	Regional E&S specialist (GIZ)	Ventures screened
	Awareness raising of beneficiaries on ESS2	External expert	Sessions held
	External training – other ESS topics (including SEAH)	External expert	Sessions held
	Ad hoc ESS support	Regional E&S specialist (GIZ)	Request for support by ventures / satisfaction survey for ventures
	ESS management, monitoring and reporting – including SEP and GRM	Regional E&S specialist (GIZ)	ESS reports Grievances received and treated, with delay for solution SEAH grievances received and treated
Output 1.4: Selected climate ventures in Latin America with MVPs in local markets are empowered to rapidly scale their business and climate impact			
Activity 1.4.1: Latin America climate venture acceleration programme	E&S screening	Regional E&S specialist (GIZ)	Ventures screened
	E&S due diligence	Regional E&S specialist (GIZ) + external experts	Number of ESDD
	Preparation of ESS management plans	Ventures + regional E&S specialist (GIZ) + external experts	Number of plans
	Training of ventures on ESS	External expert	Sessions held
	Labour formalization support	Regional E&S specialist (GIZ)	% of formal workforce and % of workforce with health insurance

	Ad hoc ESS support	Regional E&S specialist (GIZ)	Request for support by ventures / satisfaction survey for ventures
	ESS management, monitoring and reporting – including SEP and GRM	Regional E&S specialist (GIZ)	ESS reports Grievances received and treated, with delay for solution SEAH grievances received and treated
West Africa			
Output 2.1: Capacities of Executing Entities, ESOs and venture investors in West Africa are developed to boost climate ventures' impacts			
Activity 2.1.1: Capacity-building of Executing Entities, ESOs and venture investors in West Africa	Training of EEs and local implementation partners on the ESMF contents	ESMF manager (GIZ)	Persons trained
	Other trainings on ESS and ESG	External expert	Persons trained
	Stakeholder engagement (ESOs)	GIZ and C-KIC	Organisations reached
Output 2.2: Inclusive and diverse local communities of climate entrepreneurs in West Africa generate innovative climate business ideas			
Activity 2.2.1: Community-building and ideation activities in West Africa	Inclusion of indigenous people and vulnerable persons	Climate KIC, GIZ	Number of people having received specific support for languages, computer literacy, computer equipment and other types of support to participate in ideation activities and digital network
Output 2.3: Selected ventures in West Africa have launched their climate products in local markets			
Activity 2.3.1: West Africa climate venture pre-acceleration programme	E&S screening / review for red flags	Regional E&S specialist (IPED)	Ventures screened
	Awareness raising of beneficiaries on ESS2	IPED + Impact Hub Abidjan + local implementation partners	Sessions held
	External training - other topics (including SEAH)	Expert	Sessions held
	Ad hoc ESS support	Regional E&S specialist (IPED)	Request for support by ventures / satisfaction survey for ventures
	ESS management, monitoring and reporting – including SEP and GRM	Regional E&S specialist (IPED)	ESS reports Grievances received and treated, with delay for solution SEAH grievances received and treated
Output 2.4: Selected climate ventures in West Africa with MVPs in local markets are empowered to rapidly scale their business and climate impact			
Activity 2.4.1: West Africa climate venture acceleration programme	E&S screening	Regional E&S specialist (IPED)	Ventures screened
	E&S due diligence	IPED + external experts	Number of ESDD
	Preparation of ESS management plans	Ventures + IPED + external experts	Number of plans
	Training of ventures on ESS	IPED + external expert	Sessions held
	Labour formalization support	IPED	% of formal workforce and % of workforce with health insurance

	Ad hoc ESS support	IPED	Request for support by ventures / satisfaction survey for ventures
	ESS management, monitoring and reporting – including SEP and GRM	IPED and Impact Hub Abidjan	ESS reports Grievances received and treated, with delay for solution SEAH grievances received and treated
Trans-regional			
Output 3.1: CATALI.5°T Trans-Regional Advisory, Capacity & Knowledge Support (TRACKS)			
ESMF operations manual	Development of ESMF operations manual for each region	ESMF manager (GIZ), regional E&S specialists, IPED, Impact Hub Abidjan, TEC de Monterrey	Operation manuals developed
ESMF updates	Periodic review of ESMF and ESS procedures	ESMF manager (GIZ), regional E&S specialists, IPED, Impact Hub Abdidjan, TEC de Monterrey	ESMF updates
Knowledge sharing	Knowledge sharing on labour formalization	IPED + TEC de Monterrey	Sessions held
	Knowledge sharing on other ESS topics	ESMF manager (GIZ), regional E&S specialists, IPED, Impact Hub Abidjan, TEC de Monterrey	Sessions held

Figure 7: ESS Roles and Responsibilities in the Project



Annex 1. Indicative ESMF procedures and checklists

Purpose of the annex

This annex proposes indicative outlines for the ESMF's procedures. The procedures can be improved and updated over the project duration by the E&S manager and the E&S regional specialists.

E&S exclusion list

The E&S exclusion below list is the result of an agreement between the EEs.

Excluded ventures

- ventures whose activities fall under the IFC exclusion list (reproduced in Annex 3.);
- ;
- ventures whose activities require testing of chemicals or product safety aspects (e.g. electrical insulation properties) on customers.

Excluded activities during the funding period (ventures can still participate in the programme but cannot exert these activities when they receive funding: i.e. the concerned venture is eligible for support only if it does not pursue the ineligible activity during the programme support period)

- activities requiring involuntary resettlement and/or involuntary restrictions of access to land;
- activities negatively impacting indigenous people, as per ESS7 and GCF's indigenous people policy;
- activities potentially impacting natural or critical habitats, as per the definition of IFC PS6 and its Guidance Note dated June 2019;
- clear cutting of forest (as per the FAO[34] definition of forests);
- disturbance of sea bottom or river bed;
- damming and/or diversion of rivers and streams.

To identify these exclusions, use the Generic E&S checklist and, if necessary, use the Land use screening checklist and the Biodiversity screening checklist.

[34] https://www.fao.org/forest-resources-assessment/en/

Example of a generic E&S screening checklist

The proposed checklist covers all the GCF ESS standards and includes additional room for ESG topics not yet included in the ESS. High-risk items (that could lead to exclusion of the venture, or exclusion of some of its activities) are indicated in bold. Other checklists can be used if they allow to identify the same risks and impacts.

Table 23. Model for an E&S screening checklist (updatable)

Area/topic	Answer	Detailed assess-ment needed	Potential risk or compliance gap	Oppor-tunities for impro-vement	Suggested awareness raising/ training
Date					
Stage (selection, pre-acceleration, acceleration)					
Venture name					
Filled by:					
Checked by: E&S specialist name					
ESS1: Assessment and management of environmental and social risks and impacts					
Is the venture likely to undertake activities that are part of the IFC exclusion list?					
Does the business have physical activities (e.g. testing, production, growing)?					
Does the business activity require office space? How much? (now and in the future)					
Does the business activity require production space? How much (now and in the future)					
Does the business activity require agricultural/forest land? How much (now and in the future)					
Can the company be described as an IT company (including app developers) or does it have a substantive IT aspect to its business model?					
Who is responsible for environmental management?					
Who are the customers of the future business activity?					
Is the business aware of national environmental legislation? Is it aware that it will need environmental permits, or does it already own such permits?					
Do the activities involve interactions with the general public?					
Does a media check reveal potential infringement of human rights or discrimination?					
ESS2: Labour and working conditions (including OHS)					
Number of founders					

Area/topic	Answer	Detailed assess-ment needed	Potential risk or compliance gap	Oppor-tunities for impro-vement	Suggested awareness raising/ training
Number of employees					
Number of “independent” or sub-contracted workers (cleaners, courriers, security guards etc.)					
Total number of informal workers					
If more than 4 employees: who is responsible for human resources management?					
Is the business aware of national legislations on labour and OHS?					
Who is responsible for occupational health and safety?					
Did accidents or injuries occur in the business in the past?					
Are there any specific known risks of accidents or injuries in the activity?					
What is the primary supply chain of the business (now and in the future?)					
Is the business aware of working conditions in the supply chain?					
Is there a likelihood that the business will employ forced labour, child labour or migrant workers? Or that such labour will occur in the supply chain?					
ESS3: Resource efficiency and pollution prevention					
Is the business aware of resources (water, energy, materials) they will need?					
List main resources used by the proposed business					
Is the business aware of the type of waste they will generate, and do they already know how to dispose it?					
List main types of waste and effluents generated by the proposed business					
ESS4: Community health, safety and security					
Is the business (intending to) develop end-products for customers?					
Are activities likely to take place in remote rural areas?					
Are activities likely to take place in areas of conflict?					
Does the venture plan testing of chemicals or product safety aspects (e.g. electrical insulation properties) on customers?					

Area/topic	Answer	Detailed assess-ment needed	Potential risk or compliance gap	Oppor-tunities for impro-vement	Suggested awareness raising/ training
ESS5: Land acquisition and involuntary resettlement					
If the venture is planning any construction or use of new land, use the specific land screening process.					
ESS6: Biodiversity conservation and sustainable management of living natural resources					
If the venture is planning any construction or use of new land, use the specific biodiveristy screening processes.					
If the business activity taking is place/proposing to take place in a waterbody or rural/forest area, use the specific biodiversity screening process.					
Is the business likely to engage in: - clear cutting of trees; - disturbance of seabottom or riverbed; - disturbance to waterflow or sea currents.					
ESS7: Indigenous peoples					
Use international publications such as the latest report from IWGA “the Indigenous World” (https://iwgia.org/en/) to identify the potential presence of indigenous people.					
Is the venture engaged in activities taking place on territories where these people live, where they obtain their livelihoods from, or on land that they consider as their ancestral land? Or is the project impacting such territories, including in its supply chain?					
Does the venture plan to make commercial use of indigenous knowledge?					
Has the venture already performed meaningful engagement with the considered communities, and obtained free, prior and informed consent?					
ESS8: Cultural heritage					
Verify that the venture does not intend to make commercial use of cultural heritage.					
Non-discrimination and inclusion of vulnerable people					

Area/topic	Answer	Detailed assess-ment needed	Potential risk or compliance gap	Oppor-tunities for impro-vement	Suggested awareness raising/ training
Among the (future) workforce or (future) customers, identify if vulnerable groups of individuals could be present who should receive specific attention. Examples are: migrants, people suffering from higher poverty levels, households headed by women and/or elderly, people with disabilities, people suffering from discrimination.					
SEAH risks					
Countries combining very high female unemployment, very high work informality and low gender index					
Ventures working in the agricultural sector, primary materials or garments sectors					
Any other ESG area not included in the ESS (e.g. data protection, governance)					
Please speficy.					

Example of land use screening (ESS5)

Purpose

- Verify that the acquisition of the considered land has not required involuntary physical or economic displacement and has not resulted in restrictions of access, or involuntary physical or economic displacement and potential restrictions of access have been managed in compliance with the applicable safeguards (usually ESS1, ESS5, ESS6, ESS7 and ESS8).
- Awareness-raising of the ventures' staff on ESS5;
- In case of minor impacts only, provision of compensation to affected persons.

Screening

In case of use of new land, visit the land plot, consult the relevant local authority, and people living near the premise.

In case of land already acquired:

- verify if the land has been acquired regularly or is being rented regularly from a reputable organization (documentary proof available);
- try to identify if previous owners have evicted dwellers in view of selling the land to the ventures.

In case of land to be acquired:

- try to identify if small-scale informal economic activities, such as street vending, take place, provide a major fraction of the vendor's revenues, and cannot be easily relocated;
- try to identify if the land is used for collection of flora and fauna, the activity is significant for the affected persons, and the activity cannot easily take place elsewhere.

Output

Use discretion to identify if significant risks exist. If so, the venture cannot be selected for the programme. If only minor impacts are identified, support the venture in compensating minor impacts in an ad hoc manner.

Example of biodiversity screening (ESS6)

Purpose

Identify activities that, unmanaged, could have significant impacts on biodiversity, and hence will not be allowed at pre-acceleration stage (the ventures can participate in the programme but cannot exert the activity).

Potential natural/critical habitats

Identify if the venture is planning to use land, or water body area, that could qualify as “natural” or “critical” habitat as per IFC PS6 and its guidance note dated June 2019. Consult the databases identified in the table below and consult the local environmental authorities (Ministry, Region, and Municipality or equivalent) and visit the proposed area.

Status of land/waterbody	Restrictions
Area identified as an internationally protected area in https://www.protectedplanet.net/en	Cannot be used
Important Bird Area https://www.birdlife.org/projects/ibas-mapping-most-important-places/	Requires consultation with local bird NGOs – will depend on impacts (e.g. windpower not allowed)
Area identified as protected by consulted regional environmental authorities, but for which the authorities can provide a permit	Can be used without more detailed assessment if there are no trees, and either the vegetation has recently been burnt or the area is already used for agriculture
	In all other cases, requires a detailed assessment.
Area not identified as protected	Can be used without detailed biodiversity assessment if there are no trees (except eucalyptus) and either the vegetation has recently been burnt, or the area is already used for agriculture.
	In all other cases, requires a detailed biodiversity assessment.

Pre-acceleration: E&S incidents reporting

Purpose

The E&S incidents reporting has mainly an awareness-raising role for the ventures. It also serves to:

- prepare the venture to more elaborate E&S management at later stages;
- improve knowledge (at project level) on potential E&S impacts and issues of climate ventures.

Procedure

- The ventures report significant injuries or pollution spills to the E&S specialist within a week of occurrence, per e-mail if possible.
- For each business report, the venture uses the generic E&S checklist to verify if any significant incident has occurred in any one of the dimensions. E.g.: a disruption of energy or water supply, an accident or injury of a worker, a pollution spill, an accumulation of waste that cannot be evacuated, a complaint raised against the business by a workers' or indigenous people organization.
- For SEAH incidents: see 4.2.15.

Output

- Venture founders and staff improve their awareness of E&S risks.
- Incident records is available.
- The project generates improved knowledge of E&S risks of climate ventures.

Acceleration: E&S due diligence (ESDD) of the ventures

Purpose

The purpose of this measure is to:

- verify the ventures' capacity for E&S management:
- define areas or topics where the ventures' staff require further capacity building;
- define if mitigation measures should be defined to reduce the impacts to levels acceptable following GCF and GIZ safeguards;
- define areas where more detailed assessment is necessary;
- define if E&S management should be developed for some specific topics;
- define how the application of these measures should be monitored.

In the long run:

- prepare the venture to pass future due diligence of Series A funding;
- prepare the venture to carry out appropriate E&S management during its entire lifetime.

Implementation

Depending on the sector of the climate ventures and the type of activities it is carrying out (agriculture, production, research and development etc.), this measure can be carried out by the project E&S specialists or by an external consultant, in cooperation with the venture.

The E&S specialist prepares the Terms of Reference for the due diligence, and contracts an external specialist if required.

Outputs

- E&S due diligence report, covering all the areas of the ESS.
- Table with identification of gaps against the ESS and actions required to fill the gaps. This should include (but not be limited to):
    - Identification of areas where a more detailed assessment is necessary, and methodologies for assessment. This can include an LCA if needed, or specific baseline assessments of some topics (for instance: a biodiversity survey).
    - Identification of areas where an E&S management plan is recommended (now and in the longer run).
    - Recommendations on E&S capacity and competency, identification of training requirements.
    - Identification of areas of improvement, during acceleration and in the longer run.
    - Monitoring requirements.

Acceleration: detailed assessment and development of management plans

Input

Results of the due diligence: recommendation on detailed assessment and management plans to be prepared and implemented.

Purpose

The purpose of this measure is to:

- Carry out the detailed assessments, recommended as an output of the due diligence.
- Prepare management plans required for appropriate E&S management of the venture's activities during acceleration.

Examples of detailed management plans that can be recommended

The table below provides examples of plans or procedures that may be useful for the ventures, and that could be developed (in a fit-for-purpose manner). Note that in some cases, the ESDD can recommend plans that could be useful in the future, but will not be required now (e.g. Resettlement Action Plan, Environmental flows study, Indigenous Peoples Plan). These plans will not be developed under the programme.

Table 24. Examples of plans (or procedures) that may be recommended during acceleration or in the longer run. Some plans are not applicable during the funding period, because the project does not finance ventures that would trigger them.

Area/topic	In the next 2 years	In the long run
ESS1: Assessment and management of environmental and social risks and impacts		
Stakeholder engagement plan		
Community development plan	Not applicable	
Setting up an environmental and social management system		
Permits management procedure		
ESS2: Labour and working conditions (including OHS)		
Human resources policy		
Non-discrimination policy		
Labour formalization		
Occupational health and safety plan		
Supply chain employment risk management		
Migrant workers accommodation plan		
ESS3: Resource efficiency and pollution prevention		
Energy management plan		
Water management plan		
GHG emissions reductions plan		
Hazardous materials management plan		
Pest management plan		
Waste management plan		
Circularity management plan		

Area/topic	In the next 2 years	In the long run
ESS4: Community health, safety and security		
Security managament plan		
Customer safety management plan		
ESS5: Land acquisition and involuntary resettlement		
Resettlement action plan	Not applicable	
Process Framework for management of restrictions of access to Protected Nature Areas	Not applicable	
ESS6: Biodiversity conservation and sustainable management of living natural resources		
Biodiversity management plan		
Environmental flows study	Not applicable	
ESS7: Indigenous peoples		
Indigenous people plans (IPP)	Not applicable	
ESS8: Cultural heritage		
Chance finds procedure		
Non-discrimination and inclusion of vulnerable people		
Specific actions targeting vulnerable groups		
SEAH		
Specific SEAH avoidance actions		
Any other ESG area not included above (e.g. data protection, governance)		
Specific actions		

Responsibility for developing the plans that are required in the short run

E&S specialist or, as required, external consultants, in cooperation with the climate venture.

Output

- Environmental and social management plans, covering the support period of the venture, targeting either the entire business, or only some of its activities.
- Recommendations for E&S management plans for the future.

Promotion of formalization and labour quality enhancement

Input

Results of screening and of the ESDD related to ESS2.

Purposes

- Compliance with ESS2 and other relevant plans (ESS1 for non-discrimination, inclusion and local content, Gender Action Plan).
- Generation of co-benefits on employment.

Implementation

- In West Africa: IPED, Impact Hub Abdidjan and local implementation partners, using experience gained in West Africa
- In Latin America: GIZ and Tec de Monterrey, with advice from IPED and after external training.

Contents

IPED has built a track-record and acknowledged expertise on formalization in West Africa, which the project will leverage.

At the pre-acceleration stage, ventures will receive awareness raising and training, per cohort of ventures with similar risks. The AFOLU sector will receive specific attention. Ventures will be encouraged to undertake the following:

- Identification of informal workers.
- Identification of occupational health and safety risks they are exposed to.
- Regular verification of working conditions for informal workers.
- Reporting of incidents.

At acceleration, minimum required actions will be identified for each venture during the due diligence process, and can include the same actions as above, in a more prescriptive way.

Example requirements to include in E&S management plans (and in the business plans) can be:

- to have a (written) agreement established between employer and employees, mentioning working hours, remuneration amount and frequency, and duration of employment;
- for the ventures to contract voluntary insurance for some/all of their employees for the duration of the support – even for informal workers.

These measures will be applied in a pragmatic way along the venture's growth path. Human resources reporting should preferably show that all workers are identified, and that formalization is underway. Cases of non-conformity should be mentioned to the EEs when possible. The EEs will endeavour to identify informal workers in person and regularly check their working conditions.

See also Section 0 on the minimum compliance requirements under ESS2 that are adopted for all ventures.

Outputs

- Improved formalization of some of the ventures.
- Increased number of workforce members with health insurance.

Annex 2. Stakeholder consultations

The project design and the assessment of potential negative environmental and social impacts have been informed by extensive stakeholder consultations, held by the Executing Entities between 2019 and 2022. Details of these consultations are reported in Annex 7 to the GCF Funding Proposal.

The consultations held specifically for the ESMF are reported in the table below. Consultations with (former) start-up founders were useful for imagining what activities could be financed by the small grants, and what could be potential E&S impacts of small enterprises at early development stages. Consulted start-up founders gave examples of potential E&S risks and impacts of their activities. Founders also explained their needs in terms of E&S management, and the challenges in implementing such management at early stages. Consultations held in West Africa were very useful in understanding the challenges of informal labour.

The consultations with accelerators, incubators and VC funds served to assess the implementation status of E&S management principles and practices among these ecosystem players, this status being extremely variable.

A series of consultations were held with IPED to understand the ESG framework currently used by IPED for their pre-acceleration and acceleration programmes, which has served as the initial model for the CATALI.5°T ESMF.

Finally, direct consultations were held with the EEs Climate-KIC, IPED and Tec de Monterrey to validate the ESMF.

Table 25. Summary of stakeholder consultations held

REGION	COUNTRY	STAKEHOLDER TYPE	NAME	CONTACT	Date
LATAM	Latam	EE / Accelerator and incubator	TEC de Monterrey	Rafael Lorenzo Piñón rafael.lorenzo@tec.mx, Director Yoshiko Alicia Sakai Camacho ysakai@tec.mxn, Coordinator	09-oct-2021 17:00
Global	All	EE	Climate -KIC	Chris Roe	12-oct-2021 10:00
Global	All	Researcher	University of Cambridge	Dr Johannes Lenhard | Centre Coordinator and Research Associate,	19-oct-2021 16:00
LATAM	Peru	Start-up founder	Southpole	Irene Hofmeijer	15-oct-2021
WA	Niger	Start-up/company	Hygiène Solution Niger - Residential and commercial cleaning service based in Niger	Mahamane Maharazou SANI ANGO - maharazousaniango@gmail.com – Seed Manager SINERGI Rabi Mahaouya Argis – owner and general director of Hygiène Solution Sandrine Pfister - s.pfister@ietp.com - Impact Studies Manager for the I&P Acceleration in the Sahel Program	21-oct-2021 11:00

REGION	COUNTRY	STAKEHOLDER TYPE	NAME	CONTACT	Date
WA	Senegal	Start-up/company	Nowelli – Food catering service based in Senegal	Mariama Baldé Diene – mariama.diene@nowelli.com – Co-founder and manager of Nowelli Catering Sandrine Pfister - s.pfister@ietp.com - Impact Studies Manager for the I&P Acceleration in the Sahel Program Fadyl Cissé – fadyl.cisse@terangacapatal.com - Seed Project Officer & Manager of the I&P Acceleration program in the Sahel at Teranga Capital.	22-oct-2021 14:00
LATAM	All	VC fund	Dalus Capital	Rogelio de los Santos <rogelio@daluscapital.com> Managing Partner / Co-Founder Andrea Luna <andrea@daluscapital.com> Investor Relations & Fundraising/ Gender issues Montserrat Calderon <montse@daluscapital.com> Investment Analyst /ESG	28-oct-2021 17:00
LATAM	Colombia	Innovation centre	Cleantech HUB	jop.blom@cleantechhub.net, Founder Gideon Blaauw	01-nov-2021 17:00
Global	France	Start-up/company	ImaGeau (start-up, groundwater quality monitoring solutions)	Denis Neyens, co-founder and head of research and development	04-oct-2021 13:00
WA	Senegal, Cote d'Ivoire and others	Accelerator	Reach for change	mayacine.diop@reachforchange.org Sylvio Contayon, Green Invest Africa Marc Daubrey, Green Invest Africa Maria Padron Hernandez, Reach for change, fundraising and partnership Marie Louise Harristo, Reach for change Sira Niang	02-nov-2021 13:00
WA	Cote d'Ivoire	Impact hub	Impact Hub Abidjan	astou.dia@impacthub.net, Astou Dia: Founding Partner, Strategy & Operations, Mobile: +225 07 87 80 51 54, Abidjan, Côte d'Ivoire nadine.zoro@impacthub.net	09-nov-2021 10:30
WA	Burkina Faso	Incubator	Sinergi Burkina	Ouoba Timothée touoba@sinergiburkina.com, Responsable Projets Amorçage	25-nov-2021 17:00

REGION	COUNTRY	STAKEHOLDER TYPE	NAME	CONTACT	Date
WA	8 countries	Impact investor	Investisseurs & Partenaires	Raphael Dumont <r.dumont@ietp.com> Sophie Ménager <s.menager@ietp.com>, Hugues Vincent-Genod <h.vincent-genod@ietp.com>	18-nov-2021 15:00
LATAM	Mexico and others	Incubation programme	Cleantech Challenge Mexico	Rafael Carmona rafael@greenmomentum.com	
LATAM	Colombia, Mexico and others	Incubation programme	ClimateLaunchpad	Jop Blom (Cleantech Hub) Fernando Flores (Green ID) Esteban Corzo (Mi cochinito.com) mexico@climatelaunchpad.org	
WA	Cote d'Ivoire	Incubator	Impact Hub Abidjan	Nadine Zoro epse N'Guettia (nadine.zoro@impacthub.net / (+225)0778454720)	10-nov-2021 15:00

Annex 3. IFC exclusion list (2007)

http://www.ifc.org/exclusionlist

IFC does not finance the following projects:

- Production or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements, or subject to international bans, such as pharmaceuticals, pesticides/herbicides, ozone depleting substances, PCBs, wildlife or products regulated under CITES.
- Production or trade in weapons and munitions.[1]
- Production or trade in alcoholic beverages (excluding beer and wine).[1]
- Production or trade in tobacco.[1]
- Gambling, casinos and equivalent enterprises.[1]
- Production or trade in radioactive materials. This does not apply to the purchase of medical equipment, quality control (measurement) equipment and any equipment where IFC considers the radioactive source to be trivial and/or adequately shielded.
- Production or trade in unbonded asbestos fibres. This does not apply to purchase and use of bonded asbestos cement sheeting where the asbestos content is less than 20%.
- Drift net fishing in the marine environment using nets in excess of 2.5 km in length.

A reasonableness test will be applied when the activities of the project company would have a significant development impact but circumstances of the country require adjustment to the Exclusion List.

All financial intermediaries (FIs), except those engaged in activities specified below*, must apply the following exclusions, in addition to IFC's Exclusion List:

- Production or activities involving harmful or exploitative forms of forced labour[2]/harmful child labour.[3]
- Commercial logging operations for use in primary tropical moist forest.
- Production or trade in wood or other forestry products other than from sustainably managed forests.

* When investing in microfinance activities, FIs will apply the following items in addition to the IFC Exclusion List:

- Production or activities involving harmful or exploitative forms of forced labour[2]/harmful child labour.[3]
- Production, trade, storage, or transport of significant volumes of hazardous chemicals, or commercial scale usage of hazardous chemicals. Hazardous chemicals include gasoline, kerosene and other petroleum products.
- Production or activities that impinge on the lands owned, or claimed under adjudication, by Indigenous Peoples, without full documented consent of such peoples.

* Trade finance projects: given the nature of the transactions, FIs will apply the following items in addition to the IFC Exclusion List:

- Production or activities involving harmful or exploitative forms of forced labour[2]/harmful child labour.[3]

Footnotes

[1] This does not apply to project sponsors who are not substantially involved in these activities. "Not substantially involved" means that the activity concerned is ancillary to a project sponsor's primary operations.

[2] Forced labour means all work or service, not voluntarily performed, that is extracted from an individual under threat of force or penalty.

[3] Harmful child labour means the employment of children that is economically exploitive, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health, or physical, mental, spiritual, moral, or social development.

Annex 4. Monitoring and mitigation of project travel carbon footprint

Estimates of CO_2 emissions from project-related travel (per year)

Estimates were calculated following GIZ guidance (see next page). Example calculations are shown below for the following assumptions:

Carbon intensity (average CO2 emission in gram per passenger km by Means of Transport) of 150 g (https://ourworldindata.org/travel-carbon-footprint)

Estimate of 98 roundtrips between countries per year for project management (including E&S field visits).

Table 26. Estimates of CO2 emissions from project-related travel (per year)

	Distance to EE host country	Number of roundtrips	Tonnes CO_2eq/year
Latin American Countries			
Mexico	0	0	0,0
Guatemala	1591	2	1,0
El Salvador	1763	2	1,1
Honduras	1870	2	1,1
Nicaragua	2100	2	1,3
Costa Rica	2443	6	4,4
D. Republic	3214	2	1,9
Colombia	3639	5	5,5
Ecuador	3706	5	5,6
Peru	4890	5	7,3
Bolivia	5835	5	8,8
Paraguay	7240	2	4,3
Chile	7278	5	10,9
Argentina	8024	5	12,0
W. Europe	9726	5	14,6
	TOTAL LATAM	**53**	**79,7**
West African Countries			
Cote d'Ivoire	0	0	0,0
Togo	583	6	1,0
Benin	709	6	1,3
Burkina Faso	828	6	1,5
Mali	918	0	0,0
Niger	1130	6	2,0
Guinea	1171	6	2,1
Senegal	1818	6	3,3
Mauritania	1930	4	2,3
W. Europe	5463	5	8,2
	TOTAL WEST AFRICA	**45**	**21,7**
	TOTAL PROJECT	**98**	**101,5**

GIZ – Carbon footprint of projects

Safeguards area Climate protection - Carbon footprint

Information on how to deal with significant greenhouse gas emissions through travel activities for workshops / trainings / conferences

Short Description:

Capacity building, networking and communication measures are key elements of TC projects. Within the context of GIZ projects, workshops and trainings are organized and hosted, and contributions are made to national or international conferences. If national or international travel of target group members, partner institutions or experts (non-GIZ personnel), takes place by car, bus or plane which is financed by the GIZ project, the generated GHG emissions are added to the carbon footprint. Travel by GIZ employees is recorded in the Corporate Sustainability Handprint as part of the company's climate management and is therefore not included in the carbon footprint.

Depending on the number of international travels that take place annually, projects are either allocated a pre-defined emission value (76 tons of CO_2/year) or a specific calculation is made.

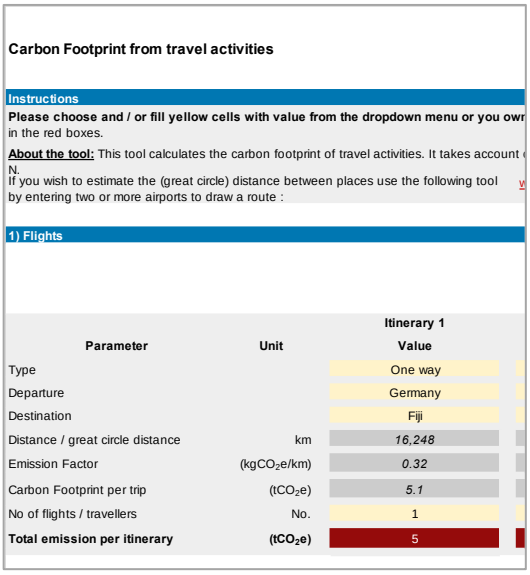
Criteria for estimating emissions from travel activities, e. g. for workshops / trainings / conferences:

- Use of a pre-defined emission value (default value of 76 tons CO2eq. per year) determined for all projects whose financed travel activities are below an identified limit. The default value was calculated from a representative survey of travel activities in 2019.
- In the case of above-average amounts of trainings / workshops with many participants, the emissions are specifically determined and taken into account (see tool).
- Only flights of the target group members, partner institutions or experts financed by the GIZ project are considered. Travel activities of GIZ-staff are already recorded via CSH (corporate climate management) and are not a component of the project carbon footprint.
- National and international travel by air or motorized transport (cars, public transport) is considered.
- For events, most emissions are caused by travel activities (flights). Emissions from catering, overnight accommodation, etc. are not taken into account, as the proportion is relatively small, but data collection is highly complex, and the results are very uncertain.

Travel kilometers are multiplied by corresponding emission factors. For air travel, parameters from *atmosfair* that take into account the so-called *radiative forcing index* (RFI) are used. For other means of travel (car, public transport), average consumption values and emission factors according to IPCC are applied.

Tool:

GIZ projects can calculate their emissions by means of input into an in-house CF tool. First of all, a distinction is made between air and land travel. In the case of air travel, the number of kilometers traveled is calculated on the basis of departure and destination places, and corresponding emission factors are generated (*atmosfair*). For land travel, the tool distinguishes between individual travel by car and public transport. Depending on the means of transport, different emission factors are considered.



Carbon Footprint from travel activities

Instructions

Please choose and / or fill yellow cells with value from the dropdown menu or you own in the red boxes.

About the tool: This tool calculates the carbon footprint of travel activities. It takes account
N.
If you wish to estimate the (great circle) distance between places use the following tool by entering two or more airports to draw a route :

1) Flights

Parameter	Unit	Itinerary 1 Value
Type		One way
Departure		Germany
Destination		Fiji
Distance / great circle distance	km	*16,248*
Emission Factor	($kgCO_2e$/km)	*0.32*
Carbon Footprint per trip	(tCO_2e)	*5.1*
No of flights / travellers	No.	1
Total emission per itinerary	**(tCO_2e)**	5

GIZ in-house tool for calculation of GHG emissions from travel activities, excerpt.

Measures to avoid and reduce GHG emissions from travel:

- Replace travel with digital formats (workshops, conferences, etc.)
- Combining appointments in the same country / region
- Choice of the lowest-emission booking class (Economy)
- Preferential use of trains instead of planes for short distances
- Use airlines with better CO_2 efficiency (depending on the type of aircraft used, average passenger load, seating - ratio of business to economy seats) (comparative values can be determined via atmosfair calculator at http://www.atmosfair.de.
- Use flight routes with better CO_2 efficiency (with or without stopovers and where they take place) (comparative values can be found via the atmosfair calculator at www.atmosfair.de)
- Use means of transport with better CO_2 efficiency (bus or train instead of plane, public transport instead of car, etc.)

The following **awareness-raising measures** are suggested for GIZ project staff to avoid and reduce project-related GHG emissions from travel activities:

- Provide guidance to project staff, experts, partner institutions, and target groups on how they can contribute to carbon footprint reduction and thus climate change mitigation (target group-specific information in conversations or e-mails; digital trainings and discussion round; social media campaigns, etc.).
- Official communication of GIZ's efforts to reduce the carbon footprint (e. g. through reduction of air travel and use of digital formats) to partners at the project start, information on compensation of air travel financed by project partners.
- Develop and communicate travel guidelines in the context of the project. Possible content: GIZ vision for carbon footprint reduction, preference for digital formats, etc.
- Develop and use a checklist to help decide whether a travel is necessary or other formats can be used (see GIZ Sustainability Office decision aid).

Annex 5. GIZ checklist on digitalisation and human rights

- Who exercises control over digital data? Who has access? Who are the data used by?
- Who has access to e-services? Who does not?
- To what extent is the target group digitally literate?
- To what extent are digital services offered by the state accessible with no or few barriers, particularly for persons with disabilities?
- How are social media used? To what extent are social media misused for polarisation and mobilisation purposes by whom and against whom?

What possible unintended negative impacts of the project may arise from the digitalisation aspects mentioned in iPCA 1?

- Is there a possibility of misuse or inadequate protection of data in the project context? If so, how, by whom and against whom?
- Does the project unintentionally contribute to (existing) discrimination against social groups in terms of their access to (state) services being created/exacerbated by digitalisation services (e.g. owing to a lack of digital literacy or basic education, a lack of financial resources for purchasing digital appliances, exclusion from internet access, a lack of alternatives, etc.)?
- Does the project contribute to existing exclusion of persons with disabilities from political and social life becoming entrenched if digital services are not designed to be accessible with no or few barriers?
- Might an attitude be promoted in which people are expected to own digital appliances, and does this exacerbate precarious income levels?
- Does the project unintentionally facilitate the use of digital services for mobilisation/polarisation practices, such as hate speech and the resulting increase in social tension and exclusion, further exacerbated by faster digital dissemination?
- Does the project create or exacerbate situations, in which children can be exposed to violence in cyberspace?

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