ALIGN

Columbia Center on Sustainable Investment
A JOINT CENTER OF COLUMBIA LAW SCHOOL AND COLUMBIA CLIMATE SCHOOL

INCORPORATING CLIMATE CONSIDERATIONS INTO INVESTMENT ASSESSMENT PROCESSES

GUIDANCE FOR NATIONAL AND LOCAL GOVERNMENTS

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LIST OF ACRONYMS AND ABBREVIATIONS

AFOLU	Agriculture, forestry and other land use sectors
CARD	Climate Adaptation in Rural Development
CLEER	Clean Energy Emission Reduction Tool
CSAIP	Climate Smart Agriculture Investment Plan
EIA	Environmental impact assessment
ESIA	Environmental and social impact assessment
ESMP	Environmental and social management plan
GDP	Gross domestic product
GHG	Greenhouse gas
IAP	Investment assessment process
ICMM	International Council on Mining and Metals
IPCC	Intergovernmental Panel on Climate Change
LDN	Land degradation neutrality
NDC	Nationally Determined Contribution
NEMA	National Environmental Management Authority
SDG	Sustainable Development Goal

EXECUTIVE SUMMARY

Global climate change impacts pose complex, dynamic challenges to the success of land-based investments—such as agriculture, forestry, and wind and solar energy—which can further exacerbate detrimental climate change impacts if they are not sustainably implemented. Countries outline in their Nationally Determined Contributions (NDCs) their goals and plans to reduce GHG emissions and adapt to climate change impacts. To ensure their success, governments must fully integrate their NDCs into national climate strategies, plans, and policies that drive government action and decisions. Improved land-based investment decision-making through the incorporation of climate considerations in investment assessment processes (IAPs) can help prioritize and encourage projects that contribute to these national plans.

The IAP is part of the broader investment life cycle. It comprises the full range of legal frameworks and associated processes that establish the requirements investors must meet to be allowed to operate their proposed project in the host country, starting from an initial expression of interest through to a granting of approval to operate the project.

This guide provides recommendations to national and local governments on how to incorporate climate considerations into the IAP and, to a lesser degree, prior and subsequent stages of the investment lifecycle.

Before the IAP: The enabling environment for climate-aligned investment

It is crucial to establish a coordinated, transparent, and adaptable system of institutions, policies, processes, and incentives that create an enabling environment for potential projects. Legal, policy, and institutional frameworks which support investments that incorporate climate considerations are necessary to achieve effective, climate-aligned IAPs.

The IAP

Screening: Government screening of proposed investments for approval, conditional approval, or rejection should assess both the likelihood of negative climate change impacts on a proposed investment alongside the potential impacts the investment could have on the environment and national mitigation and adaptation. Project developers and governments can use models and tools to estimate the project's lifecycle greenhouse gas emissions and its climate adaptation scenarios to minimize its negative impacts and support its longevity.

Consultation: Governments are required under international law to respect Indigenous Peoples' right to free, prior, and informed consent (FPIC); and individuals' right to self-determination, to culture, and to a clean, healthy, and sustainable environment. It is also emerging practice to apply the principle of FPIC to other vulnerable and marginalized project-affected communities whose tenure or human rights are at risk from investment projects. Consulting with Peoples and communities early in the IAP can help government and company stakeholders develop a more complete understanding of the social and physical environment and potential climate change risks while bolstering land use management decisions and climate policy coherence.

Feasibility study: In-depth studies by governments to assess a project's technical feasibility, legal feasibility, economic viability, and environmental and social sustainability should address how climate change might affect the planned project or its results. It is important to gather as much information as

possible and prioritize climate considerations during these studies because significant changes to the project design can be made at this stage.

Environmental and social impact assessment (ESIA): Climate-aligned ESIAs should provide a holistic evaluation of a project's overlapping social, human rights, climate, and other environmental impacts in local and global contexts. They should account for impacts in the short- and long-term and should be periodically updated to reflect evolving climate data and risks. ESIAs should result in government-approved environmental and social management plans (ESMPs) that provide strategies and measures to mitigate and effectively address the risks identified in the ESIA.

Negotiations and contracting: Investor–government, Investor–community, or tri-party lease or concession agreements should set out the rights and obligations of all stakeholders in the relevant national, local, and project context. At a minimum, contracts should require all project decision-making to account for climate risks and to comply with climate-related laws, policies, regulations, and plans.

After the IAP: The remainder of the investment lifecycle

Implementation, monitoring, and compliance: Climate-aligned investment monitoring and evaluation requires the periodic collection of project and climate data for the government to assess investor compliance with climate obligations.

Project closure: Based on inputs from the previous stages of the investment lifecycle, at project closure the government should require the investor to address any impacts of climate change on complex land and social dynamics and to rehabilitate and return the land to the host People or community.

Allocating time and resources toward designing and implementing a climate-aligned IAP helps governments prevent severe local and global climate risks with grave social, economic, and environmental costs. The climate alignment of land-based investments contributes to the overall success of investments by protecting them against various risks. Governments are more likely to experience developmental, financial, resource, and reputational benefits from enabling such investments. Implementing the recommendations in this guide may be challenging for time- and resource-constrained governments, but these efforts are likely to pay off in the long term.

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1. INTRODUCTION: RATIONALE FOR INTEGRATING CLIMATE CHANGE INTO INVESTMENT ASSESSMENT PROCESSES

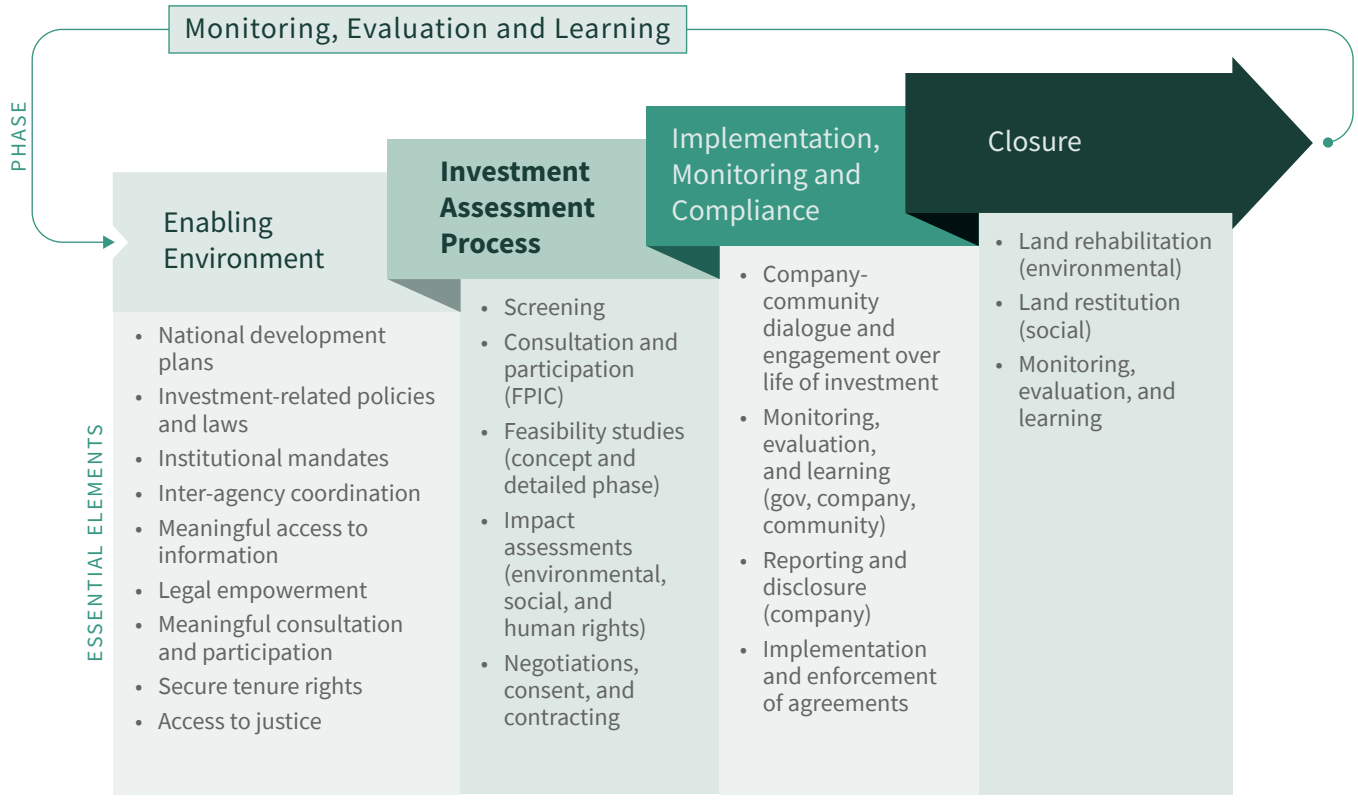
Climate change poses an existential threat to ecosystems, with potentially far-reaching impacts on land-based investment. Land-based investment refers to activities or investments in agriculture, forestry, mining, and renewable energy. Climate change will directly impact ecosystems, biodiversity, food security, and countries' prospects for meeting their social and economic development objectives. Both gradual changes to our climate and climate shocks like extreme weather events threaten the success of sustainable investments by changing the physical environment, often in difficult-to-predict ways. Successfully addressing these challenges will require strategic, thoughtful processes to improve climate resilience,[1] adopt effective mitigation strategies, and foster low-emission sustainable development.[2]

Climate action involves two key aspects: mitigation and adaptation. Mitigation aims to reduce emissions and enhance greenhouse gas (GHG) sinks. Adaptation aims to reduce the vulnerability of people and ecosystems to actual or expected climate-related impacts. Both approaches are needed because, even if GHG emissions are drastically reduced, the accumulated GHG emissions of the last 250 years will continue to cause climate change and related impacts.[3] As a result, many of the effects of climate change are unavoidable, and adaptation to these anticipated changes is necessary.[4] Strong mitigation efforts are needed to prevent the intensification of climate change impacts and minimize the need for adaptation measures. While mitigation and adaptation are often discussed separately, sectoral policies and activities should address both, and many can help achieve both.[5]

Large-scale land-based investments in the agriculture, forestry, and other land use (AFOLU) sectors are vulnerable to climate change and climate shocks. Yet, many of these investments are also a source of GHG emissions. For example, activities in the AFOLU sectors were responsible for 23% of total anthropogenic GHG emissions from 2007 to 2016, and emissions from those sectors are expected to increase.[6] If AFOLU sector investments are climate-aligned, they could support climate adaptation and mitigation. Governments should encourage and facilitate land-based investments that are in line with a science-based pathway[7] to achieving net-zero GHG emissions by 2050, which is necessary to achieve the Paris Agreement goal of limiting global temperature increase to 1.5 degrees Celsius above pre-industrial levels (such investments are hereafter referred to as 'climate-aligned investments').[8] To ensure climate-aligned land-based investments, governments must undertake comprehensive investment governance reforms.[9]

One approach to achieve this is by incorporating climate considerations into the investment assessment process (IAP). IAPs include the full range of legal frameworks and associated processes that establish the requirements investors must meet to be allowed to operate their proposed project, spanning from investor registration with the relevant government agency to investor preparation of contracts and agreements for project approval.[10] The IAP is part of the investment lifecycle, encompassing the full spectrum of conditions, processes, and actions that shape an investment (see Figure 1). As the IAP is the initial step for governments to consider a proposed investment, it serves as a crucial entry point for influencing land-based investments that align with climate goals. This Guide discusses the investment lifecycle in four components: creating an enabling environment; the IAP; project implementation, monitoring, and compliance; and project closure.

Figure 1: A flow diagram of the investment life cycle



Source: FAO and Columbia Center on Sustainable Investment (2024); Landesa.[11]

To effectively integrate climate considerations into an IAP, it is important to assess, at a minimum, the following factors:

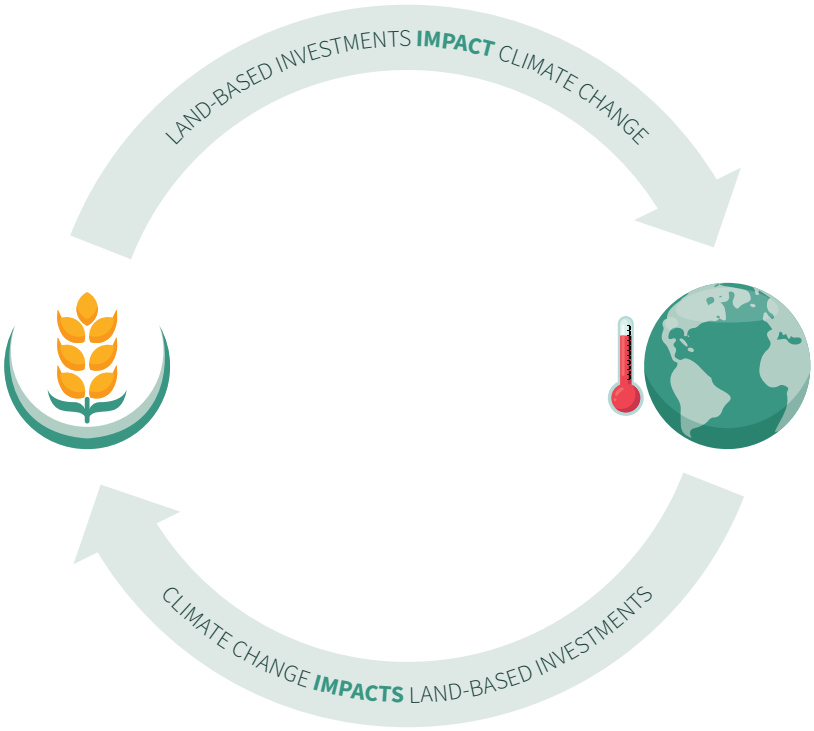
- The extent to which an investment contributes to climate change (i.e., through direct and indirect GHG emissions, including from land use and market impact);
- Whether and how the investment affects the exposure, sensitivity, and adaptive capacity of potentially affected people of all genders and social groups to climate-related events;
- Whether and how an investment contributes to mitigation and adaptation; and
- Whether the investment makes prudent use of finite resources, considering the increasing demand for land, water, and other resources amidst climate change threats.

Under the Paris Agreement, countries outline in their Nationally Determined Contributions (NDCs) their goals and plans to reduce GHG emissions and adapt to climate change impacts.[12] To ensure their success, governments must fully integrate their NDCs into national climate strategies, plans, and policies that drive government action and decisions. Improved land-based investment decision-making through the incorporation of climate considerations in IAPs can help prioritize and encourage projects that contribute to these national plans (see Box 1).

BOX 1. HOW CAN GOVERNMENTS ENCOURAGE CLIMATE-ALIGNED LAND-BASED INVESTMENTS?

By adopting the following principles and practices in land-based investments, governments can help deliver positive climate change mitigation and adaptation impacts.

- Encourage wider adoption of forestry practices that increase carbon sequestration.[13]
- Encourage investments that deploy and continuously upgrade climate-resilient technologies.[14]
- Incentivize land use alternatives that do not require land conversion.[15]
- Minimize land transfer from Indigenous Peoples and local communities who effectively conserve and sustainably manage land and forests.[16]
- Strengthen the land rights and participation of Indigenous Peoples and local communities in land use decisions.[17]
- Adopt a climate justice lens to help identify and address current and future climate change impacts that disproportionately affect socially disadvantaged groups.[18]
- Encourage agroecology[19] and regenerative agriculture practices that improve soil health and support carbon sequestration (sometimes referred to as climate-smart agriculture).[20]
- Prioritize investments in practices that support adaptation,[21] considering the principles for locally led adaptation (see Table 3 in the appendix).[22]
- Prioritize investments that encourage continuous improvement in production practices in ways that produce equal benefits for Indigenous Peoples and local communities.[23]
- Provide incentives to reduce fossil fuels and promote renewable energy.[24]



BOX 2. WHICH PEOPLES AND COMMUNITIES?

This guide repeatedly emphasizes the importance of governments respecting the human and tenure rights of two collectives: Indigenous Peoples and local communities (sometimes referred to as "Peoples and communities"). This is not meant to conflate the specific rights and characteristics of these two distinct collectives, but rather emphasizes that governments protect the different human and tenure rights of project-affected Peoples and communities.

The UN and Indigenous representatives define Indigenous Peoples as uniquely disadvantaged, vulnerable groups of peoples who practice "unique cultures and ways of relating to people and the environment," and who have "sought recognition of their identities, way of life and their right to traditional lands, territories and natural resources for years,"[25] despite facing continued rights-violations. The term "local communities" is used variably, yet in this guide refers to vulnerable and marginalized local communities (e.g., peasant or subsistence farming communities) whose human and tenure rights are at risk of being affected by investment projects.[26]

Indigenous Peoples have a unique right to free, prior, and informed consent (FPIC), as well as other rights enumerated in the UN Declaration on the Rights of Indigenous Peoples, among other instruments and judgments.[27] In Section 3.2 on consultations, we discuss how project-affected Indigenous Peoples have a special right to FPIC in international, and sometimes national, law, though FPIC can be used as best practice for engaging with project-affected local communities.

TARGET AUDIENCE, SCOPE, AND OBJECTIVE OF THIS GUIDE

This guide is intended for national and local government agencies responsible for overseeing investment in the agriculture, forestry, and energy sectors and areas impacted by investments, including the environment, climate change, the economy, and land and natural resources. It may also be useful for a wide range of investment stakeholders, including policymakers, investors, project developers, financial institutions, and civil society organizations.

The guide provides recommendations on how government agencies involved in the investment assessment process can effectively integrate climate change considerations into IAPs to:

- Inform decisions about investments that contribute to and do not undermine the Sustainable Development Goals (SDGs), including climate action and the realization of human rights;
- Support governments in meeting their climate change commitments and complying with international law;
- Avoid and mitigate various types of risks, such as food security, environmental, political, social, and financial risks; and
- Support a policy environment that enables climate-aligned land-based investments.

2. CREATING AN ENABLING ENVIRONMENT

To attract climate-aligned investment, it is crucial to establish a coordinated, transparent, and adaptable system of institutions, policies, processes, and incentives that create an enabling environment for potential projects.[28] Climate-aligned investment decision-making linked to national-level land use planning and prioritization requires a strong enabling environment that provides clear rules, processes, and mandates to guide investors and government decision-makers alike. However, in many countries, IAPs have yet to realize their potential due to several challenges (see Box 3). Legal, policy, and institutional frameworks that effectively enable sustainable investment are needed to support investment that contributes to climate action, SDGs, and human rights. This section discusses how legal and policy frameworks, inter-agency coordination, and access to data can support climate-aligned land-based investments.

BOX 3. CHALLENGES HINDERING A CLIMATE-ALIGNED IAP

- Lack of an enabling legal and policy framework.
- Lack of a dedicated government agency or department working at the intersection of climate and investment.
- Inadequate capacity, coordination, funding, and information gaps.
- Limited incentives by governments for strong investment scrutiny, participatory processes for project design and assessment, or implementation of stringent environmental and social protections.
- Lack of transparency and access to information about land deals and processes.[29]
- Limited or unreliable climate data to facilitate climate forecasting or projections.[30]
- Lack of meaningful input by affected Peoples and communities in the IAP.

2.1 Legal and policy frameworks

Governments can achieve climate-aligned land-based investment by developing and implementing legal and policy frameworks, regulations, and strategies that mandate climate change considerations including but not limited to IAPs. While there is not a one-size-fits-all approach, many countries have chosen to integrate climate change mitigation and adaptation considerations into existing government activities, regulatory frameworks, and sectoral policies, enabling each country to adapt its commitment to its unique context.[31] NDCs are more likely to be successful if governments ensure that policy-making processes include a wide variety of stakeholders, including climate-vulnerable populations, legitimate local authorities, and customary communities.[32] Aside from the important function of incorporating local knowledge into decision-making about the use of land and resources, consultations are important

for ensuring buy-in from citizens and creating sustained linkages between climate action and local development.[33]

Climate change framework legislation is a comprehensive, cross-sector regulatory instrument that establishes broad principles and outlines the institutional framework for implementing climate change policy.[34] Such frameworks establish mitigation and adaptation objectives and create the institutions and processes needed to meet those objectives. By establishing medium- and long-term targets and governance structures, national-level climate change framework laws can ensure integral continuity and oversight to enable cross-sectoral action, sectoral coordination on climate change issues, and local-level implementation even when specific mitigation and adaptation activities are mentioned in sector-specific or local laws and policies.

Climate change legislation, more broadly, refers to the set of laws and policies relevant to regulating activities to address climate change.[35] Both stand-alone climate change legislation and sector-specific laws and policies that mandate climate-aligned IAPs can facilitate sustainable investment. Non-sector-specific laws and policies, such as environmental laws and regulations, should be updated to align with climate goals. Legislation can achieve alignment with climate goals by identifying and managing risks, and establishing transparent evaluation processes to ensure that proposed investments align with a country's climate and sustainable development priorities. These laws can impose mandates and provide a vehicle for overseeing compliance and implementation. For example, several countries have introduced climate change legislation focused on adaptation,[36] and many of the laws establish new institutions, plans, and strategies to address climate change[37] (see Box 4 for some examples).

BOX 4. EXAMPLES OF CLIMATE CHANGE LEGISLATION

Kenya: The Climate Change Act (2016) recognizes subnational county governments as key actors and requires county governments to mainstream climate action through the development of county-level climate change legislation and county-level integrated development plans.[38] A number of counties have enacted climate change legislation and implementation plans setting out local-level climate change mitigation and adaptation measures.[39] For example, under the Lamu County Climate Change Act of 2022, the county government is responsible for addressing cross-sectoral mitigation and adaptation matters. Agencies responsible for different sectors and natural resources are responsible for creating adaptation standards by which investors must abide.[40] The county government may impose duties related to climate change on any investment in the county and can institute climate reporting requirements for investments.[41] The county's Director for Climate Change and the National Environment Management Authority (NEMA) can investigate and report on investor compliance with climate change duties.[42]

Kenya's climate change legislation is supported by and complementary to a number of laws, policies, and implementation plans that aim to deliver sustainable development, taking climate change into account. For example, Kenya's Green Economy Strategy and Implementation Plan 2016–2030 aims to secure national prosperity, resource efficiency, and low-carbon consumption.[43] The plan identifies sustainable natural resource management as a key thematic area and prioritizes the objective of promoting sustainable land management, aiming to advance the application of national-level strategic environmental assessment (SEA) processes and county-level integrated land use plans (LUP); and to "promote community participation in conservation and sustainable land management practices."[44] This plan, in concert with other enabling policies and implementation efforts, has the potential to support locally relevant climate action and decentralized implementation of the domestic law.

Canada: The Investment Canada Act of 1985, most recently amended in 2021, lays out investment screening processes for foreign investors. The country's Investment Review Division is required to perform a "net benefit" test to determine if a given investment is compatible with domestic policy.[45] This means the "net benefit" test determines if a given investment aligns with Canada's climate laws, including the country's Net Zero Emissions Accountability Act, which establishes governance measures to achieve net-zero emissions by 2050 in alignment with Canada's NDC under the Paris Agreement.[46] The Net Zero Emissions Accountability Act requires the national government to set an emissions reduction target for each milestone year, which must detail sectoral strategies for achieving the target.[47] For instance, the 2030 Emissions Reduction Plan lays out the government's plan to incentivize investments that adopt climate-smart farming practices, including regenerative agriculture, rotational grazing, agroforestry, and low-carbon agricultural technologies.[48] Under Canadian law, investments which practice climate-smart farming techniques should score higher on the "net benefit" test and be prioritized for government approval.

Peru: Peru's Framework Law on Climate Change of 2018 establishes an institutional framework for a coordinated response to climate change; defines the mandates of the Ministry of Environment, sectoral agencies, and regional and local authorities; establishes a High-Level Commission on Climate Change to propose policy measures; and creates the National Climate Change Commission to monitor implementation.[49] The law also recognizes the participation of Indigenous Peoples and other non-State actors in the design, formulation, implementation, and monitoring of policies, strategies, plans, program and projects that incorporate adaptation and mitigation measures.[50]

2.2 Interagency coordination

Investment promotion agencies set up in some countries have the primary mandate of promoting foreign investment. In some cases, sectoral ministries for agriculture, mining, and energy also play an important role in attracting and coordinating investments, even if the investment promotion agency plays a key, overarching role. However, investment promotion agencies may not be ideally suited to integrate climate change considerations into IAPs because they may lack the necessary technical expertise or government mandate. A survey of investment promotion agencies found that, on average, an agency has eight institutional mandates, and only 47% of agencies surveyed perform investment screening or approval functions.[51]

Investment promotion agencies may not be the best option given their primary mandate is often to promote foreign investment, which can conflict with investment screening responsibilities. Governments may consider several approaches to optimize the use of their human and financial resources and to improve coordination among institutions. Investment promotion agencies could collaborate with other ministries to promote climate-aligned investments. In addition, governments could establish independent national advisory bodies with climate science expertise[52] to oversee, monitor, and make decisions on climate planning and policy.[53] National-level institutions established to implement climate change commitments and oversee coordination among institutions may be better situated to ensure that climate change considerations are included in IAPs. These considerations would require effective coordination across institutions and sectors, building consensus for action among diverse interests that inform strategic planning.[54] For example, in the Philippines, the Climate Change Commission is responsible for coordinating, monitoring, and evaluating government programs, as well as ensuring that climate change is integrated into national,

local, and sectoral development plans.[55] Such institutions could also be responsible for ensuring that land-based investments in the country align with climate goals.

2.3 Access to information and data

Government preparedness is important to facilitate a climate-aligned IAP. To achieve this, governments need to understand national and subnational climate and environmental vulnerabilities, exposure, and risks. Unfortunately, many countries lack sufficient historical data on weather and climate making it challenging to forecast exposures and risks. Sometimes, data may be available but may not be digitized or publicly accessible due to domestic policies. As such, it is essential for governments to prioritize bridging data gaps and develop strategies to ensure that historical and future climate data is available and accessible to all.[56]

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SECTION SUMMARY: CREATING AN ENABLING ENVIRONMENT

- Legal and policy tools which mandate climate change considerations across the investment lifecycle are necessary to achieve effective climate-aligned investments. These country-specific tools might integrate national mitigation and adaption targets into existing government activities and policies. They are more likely to succeed if they include a wide variety of marginalized, land-dependent, and climate-vulnerable stakeholders.
- Overarching climate change framework legislation can provide a valuable institutional framework for implementing various pieces of climate change legislation and policy, including those related to the IAP. Climate change legislation typically establishes comprehensive, cross-sectoral mitigation and adaptation goals and delegates some responsibility to sub-national governments.
- Government decision-makers should carefully mandate well-suited government bodies to oversee the implementation of climate-aligned IAPs. Investment promotion agencies may not be well-suited for oversight roles given their primary mandate is often to promote foreign investment, which can conflict with investment regulation responsibilities. National-level institutions in charge of implementing and overseeing climate change policy or strategies may be better suited given their mandate and climate focus and expertise.

3. STRATEGIES TO INCORPORATE CLIMATE CONSIDERATIONS INTO THE INVESTMENT ASSESSMENT PROCESS

If well designed and implemented, IAPs can play an important role in fostering climate-aligned sustainable development. IAPs are not uniform across countries, however good practice indicates that they should (and commonly do) comprise at least the following essential elements, discussed in detail in the following subsections:

- Screening
- Consultation
- Feasibility study
- Environmental and social impact assessment
- Negotiations and contracting

3.1 Screening

Screening is an opportunity for governments at regional, national, and local levels to decline investments that are not climate-aligned, such as new investments in oil and gas exploration or extraction.[57] Screening gives governments the opportunity to decide whether or not they wish to allow a prospective investor and investment into the country.[58] Ideally, a project idea will be screened from the outset and periodically over the course of the IAP as the proposal is developed.[59]

> Screening is "the early or initial evaluation of a proposed investment on the basis of criteria enshrined in law and other sources, such as policy or international principles or standards."[60]

Screening affords governments the opportunity to select only high-quality investors. The process allows the government to evaluate, among other things, whether the investor has the technical experience and financial resources needed to implement an investment project.[61] It is also an opportunity to determine whether the proposed investment aligns with a country's development and climate goals.

Climate screening and assessments

Climate change considerations are an essential component of effective screening. Climate screening is the process of assessing the likelihood of climate hazards and their potential impacts on a proposed investment as well as the feasibility and quality of an investor's adaptation plans to account for these risks.[62] Climate screening can vary on a project-by-project basis. Governments who are involved in IAPs can use different approaches to identify potential risks and evaluate the sensitivity of the proposed investment to risks that may affect ecosystems and Peoples and communities.[63] Governments can also learn more about an investor's climate commitment through related documents like climate-related company policies, procedures and plans.[64] If a project is considered to have a high climate risk after screening, it should undergo a thorough climate change risk assessment. Given financial and capacity constraints during investor screening, governments may choose to conduct this assessment during the ESIA, when they are more confident that a given investment will take place (see Section 3.4). However, conducting a climate change risk assessment early on, during

the screening phase, can enable governments to most effectively identify and mitigate potential risks or vulnerabilities associated with climate change.

A climate change risk assessment is a comprehensive assessment that should evaluate (1) the climate-related risks posed by a project from GHG emissions, land use and conversion, and other forms of project-associated pollution or environmental degradation; and (2) the vulnerability of a project to climate change impacts.[65] These assessments should also evaluate the effectiveness and technical and economic feasibility of an investor's adaptation plans.[66] Investors have used climate risk assessments, for example: to determine risk factors for orchard fruit farms related to water access and potential resource conflicts with Peoples and communities;[67] to identify risks posed by floods, landslides, and increasing temperatures and precipitation caused by climate change on a hydroelectric project; and to develop adaptation options for climate-proofing a project.[68]

Climate change will cause diverse impacts on different regions. Therefore, understanding potential impacts on the environment and Peoples and communities by undertaking climate change risk assessments can help governments and investors understand relevant climate hazards, risk exposure, sensitivity to climate change impacts, and the adaptive capacity when climate-related events arise (see Box 5).

BOX 5. WHAT ARE THE POTENTIAL CLIMATE CHANGE IMPACTS ON AN INVESTMENT?

- Changes in average temperature.
- Changes in average precipitation.
- Shifting and unpredictable seasonality.
- Changes in the frequency and severity of extreme events, such as floods and droughts.
- Transition risks, which include changing markets, changing energy use and availability, and economic shocks.

Source: Beddow (2023).[69]

Climate change adaptation and mitigation tools

Estimating the future outcomes of a land-based investment is challenging due to the wide range of climate and market-related risk factors that can influence the success of an investment and the potential impacts the investment is likely to have on human and natural systems.[70] Interactive tools and climate models can be used to assess and identify risks posed by an investment, and to estimate the potential for an investment to help mitigate climate change.

Adaptation and mitigation tools help investors and governments determine and implement measures needed to support the success of an investment project. Adaptation tools help developers and government determine and implement interventions needed to support the longevity of an investment project while protecting project-affected Peoples and communities. Mitigation tools typically assess the net carbon balance resulting from GHG emissions and carbon sequestration in order to provide a better understanding of the project's impact on the environment. Several tools have

been developed by development partners and international organizations (see Tables 3 and 4 in the appendix).

Government agencies might use these tools throughout the investment life cycle, for example, while conducting climate change screening or risk assessments during the screening phase or environmental and social assessment phase of the project. Tools can contribute important inputs on a range of impacts and potential responses, and, if supported by well-functioning planning and consultation processes, can lead to better-informed decision-making in the face of dynamic and system-wide change.

Countries should also establish clear criteria for screening and assessing the climate impact of investments within the framework of their laws, policies, and processes[71] (see Box 6 on Australia's Safeguard Mechanism (Crediting) Amendment Act).

BOX 6. AUSTRALIA'S SAFEGUARD MECHANISM (CREDITING) AMENDMENT ACT 2023[72]

Under this law adopted in 2023, Australia's climate change authority can test a proposed investment project's impact on the national net carbon budget with the power to reject an investment for its emissions.[73] Designated large facilities (those that emit more than 100,000 metric tons of CO_2-equivalent per financial year)[74] will be required to reduce emission intensity by 4.9% a year with an overall cap of 1,233 metric tons of CO_2 release by 2030.[75]

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SECTION SUMMARY: SCREENING

- Governments screen proposed investments to determine if the investor has the technical experience and financial resources to implement the project. Screening results in investment approval, conditional approval, or rejection. Screening should assess both the likelihood of negative climate change impacts on a proposed investment alongside the potential impacts the investment could have on the environment and national mitigation and adaptation aims. Climate data and climate-specific development priorities should inform screening processes.
- Prospective projects should undergo a climate risk assessment during investor screening or the ESIA to identify the project's specific climate risks to Peoples and communities and natural systems, how vulnerable the project is to climate change, and whether investor adaptation plans are feasible.
- Project developers and governments can use interactive mitigation and adaptation tools and models to, respectively, estimate the net carbon balance from the entire lifecycle of a proposed project and determine interventions needed to protect project-affected Peoples and communities and support project success and longevity.
- Tools and models should be used with full awareness of their limitations in predicting future climate-related transformations or events. They should be used alongside robust planning and policymaking processes to support better-informed decision-making amid rapid and dynamic change.

3.2 Consultation

Governments are required under international law to respect Indigenous Peoples' human right to FPIC;[76] all individuals' right to self-determination,[77] to culture,[78] and to a clean, healthy, and sustainable environment;[79] and all other human rights recognized under international law. FPIC refers to the unique and exclusive right of Indigenous and tribal peoples to collectively decide on matters that may affect their lands, resources, culture, and livelihoods.[80] While all people have human rights to information and participation in decision-making, it is emerging practice to apply the principle of FPIC to other vulnerable and marginalized project-affected communities whose tenure or human rights are at risk from investment projects[81] (see Box 2 for further information on the distinct characteristics and rights of Indigenous Peoples compared to local communities). Several domestic[82] and regional[83] legal frameworks require FPIC for Indigenous Peoples, and in some cases local communities,[84] along with other less stringent consultation and participation requirements (see Table 5 in the appendix, which includes a selection of countries with some of the clearest formal protections for Indigenous Peoples and local communities to accept or reject investments and to be involved in decision-making regarding investments that affect their lands or resources). As soon as governments learn of an intended investment project that may affect the rights, resources, culture, or livelihoods of one or multiple Indigenous Peoples or local communities, governments should inform all those who are likely to be affected by the proposed investment. (See Table 1 below, which outlines when consultation processes should occur to support climate-aligned investment decision-making.)

Regardless of whether FPIC rights apply,[85] public consultation should begin early in the process, as this will allow Peoples and communities ample time to provide their feedback and influence the project design, assessment, and decision-making processes.[86] Peoples and communities should be consulted during all elements of the IAP and throughout the life cycle of the investment for an investment to

abide by international best practice.[87] For consultations to be meaningful, they should be free from intimidation, bribery, or coercion, and the outcome of consultation negotiations should be accepted by all parties involved.[88]

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Successful land-based investment requires a high level of trust between an investor and affected Peoples and communities, and securing FPIC is arguably the best and most durable way to build this trust. Consulting with Peoples and communities early in the IAP is of particular value from a human rights, climate change, and environmental management perspective. Local land and resource users can provide crucial information about ecologically sensitive areas and land use patterns to mitigate community-investor conflict and investor risk. Further, Indigenous and local land stewardship is one of the most effective strategies to halt nature loss,[89] which is critical to achieve many national and global climate and biodiversity goals. Consultations can thus help government and company stakeholders develop a more complete understanding of the social and physical environment and potential climate change risks while bolstering land use management decisions and climate policy coherence.

Where Peoples and communities have formal or otherwise legitimate rights to land, an investor may acquire rights to land through direct negotiations with the relevant group, or by application to the government for land. Investors and governments, when seeking to acquire rights to land, should recognize and respect all legitimate tenure right holders and their rights, even if they are not formally documented,[90] and should carry out the land rights acquisition process with such Peoples and communities as they would with those possessing formal land rights.

IAPs that require potential investors to obtain and maintain the FPIC of Peoples and communities will support meaningful participation by land rights holders, likely resulting in more successful, durable, and sustainable investments,[91] while helping governments to fulfill their legal obligations. In the instance that an investor leases or purchases land directly from the land-holding People or community, investors should engage with all project-affected members of the collective by

following, at a minimum, the consultation practices outlined in Table 1 below along with any applicable FPIC requirements (see Table 6 in the appendix for resources on FPIC requirements and guidelines). Governments should mandate investors follow these consultation practices and FPIC requirements. Governments should prohibit investors from purchasing land from Peoples and communities, and Investors should instead enter into a leasehold agreement to ensure land remains under ownership by the collective and is returned to them at the end of the investment project.[92]

Regarding the timing of the various consultation processes, there should be a dedicated period for investors and government actors to carry out consultations early in the investment lifecycle. Consultations should occur during all other elements of the IAP to facilitate climate-aligned decision-making and to ensure investment projects respect domestic law and international human rights. However, the timing of consultation is not always linear and can vary significantly depending on the specific country or local context.

Table 1. When should consultation processes occur to support climate-aligned investment decision-making?

Process	Consultation practices
Initial land identification	• Provide accessible information to the People or community about known or likely impacts and proposed risk mitigation measures through multiple public avenues including anonymous options (e.g., radio broadcasts).[93] • Solicit information from Peoples and communities about climate change impacts, land uses,[94] and preferred adaptation strategies.
Ongoing land information sessions	• Provide opportunity for dialogue regarding investment models, adaptation options, and other relevant issues.[95]
Grievance mechanisms (available throughout the project lifecycle)	• Establish effective grievance mechanisms with meaningful participation from members of the collective.[96] • Ensure project-affected Peoples and communities have easy access to the grievance mechanisms.[97] • Address legal, practical, informational, and other relevant barriers that could deny Peoples and communities access to remedy.[98] • Implement grievance mechanisms to serve as a means for impacted people to seek and access remedy.[99]
Initial ESIA and climate risk assessment, and recurring assessment updates	• Collaboratively design and conduct the ESIA and climate risk assessment.[100] • Ensure impact assessments and risk analysis supports decision-making by the collective.

Initial formal public consultations	• Share findings of ESIA and climate risk assessments with project-affected Peoples and communities.[101] • Provide all findings or information to Peoples and communities in their native language, and couple the sharing of information with technical and legal support, so they can understand the information as it relates to their rights.[102] Ensure information sharing is meaningful, effective, and transparent.[103] • Incorporate ESIA results presented in the environmental and social management plan (ESMP). • Where FPIC applies, ensure any preliminary consent (including conditional consent) given or withheld is not achieved through intimidation or coercion and following good faith negotiations.[104]
Contract negotiation	• Establish working arrangements with the People or community to avoid negative impacts on human rights.[105] For instance, develop community-investor contracts or agreements that outline rights and obligations for the investor, the grantor, and the legitimate tenure right holder.[106] • Secure benefits for the collective through benefit-sharing arrangements or community development agreements that are explicitly referenced in the signed contract.[107] • Disclose public documents like ESIA reports and ESMPs on easily accessible local and national government websites to ensure members of the public are well informed. • Manage stakeholder expectations, build consensus, and prevent delays in project development.
Ongoing implementation	• Ensure ongoing, two-sided dialogue between the company and People or community throughout the project through sharing and making easily accessible any project development updates and updates on the implementation of company commitments, and periodically assess the community-company relationship.[108]
Recurring monitoring and enforcement	• Ensure regular engagement and institute participatory monitoring with project-affected Peoples and communities[109] for climate change impacts. • Align reporting with local customs.

Governments should include all members of an affected collective in consultations, including women, youth, ethnic minorities, people with disabilities, and other marginalized groups. Targeted efforts may be necessary to ensure that marginalized members can actively participate in consultations.[110] Consultation with women, in particular, can provide valuable insights on land use and natural resources which can bolster investment success while meeting international and regional laws and standards on state and investor responsibilities regarding the inclusion and participation of women.[111]

Engagement with affected Peoples and communities about climate should occur at the earliest possible stage of the proposed investment.[112] Members of the collective should have access to relevant project information, and governments should ensure it is presented through multiple public avenues in languages and forms that are

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easily understandable and accessible to all affected members of the collective.[113] The consultations should be conducted in good faith, using the most culturally appropriate means and adhering to local traditions.[114] Peoples and communities may require independent experts and other financed technical support to adequately evaluate the potential investment.[115] It is also important for governments to support Peoples and communities in understanding their rights by financing legal advisors or other relevant professionals, so they have adequate support to meaningfully participate in consultations.[116]

SECTION SUMMARY: CONSULTATION

- Under international law, and often regional and domestic law, host governments are required to respect Indigenous Peoples' right to FPIC; all individuals' right to self-determination, to culture, and to a clean, healthy, and sustainable environment; and all other established human rights. Governments *must* uphold these rights for investment-affected Peoples and communities.
- Public, meaningful consultation without intimidation or coercion and following good-faith principles should begin at the earliest point possible in investment design and should continue throughout the IAP and the investment life cycle. There should be genuine opportunities for engagement and empowered participation by all members of affected Peoples or communities, including marginalized groups.
- All relevant investment information—for instance, on likely investment impacts, on proposed risk mitigation measures, and on ESIA and climate risk assessment results—should be made publicly accessible in a language understood by all members of the collective. This will enable informed and effective dialogues on investment decision-making amongst investors, governments, and project-affected Peoples and communities.
- By ensuring meaningful participation from project-affected Peoples and communities throughout the investment lifecycle, investors and governments not only meet legal requirements and normative expectations, they also build trust and support investment success.

3.3 Feasibility study

Once an investor has passed initial screening, host country government agencies will typically conduct more in-depth studies to assess the project's technical feasibility, legal feasibility, economic viability, and environmental and social sustainability. These studies vet the prospective investor and the proposed project against established standards and priorities.[117]

A feasibility study for a proposed investment should assess:

- Technical feasibility (evaluating whether a proposed project can be successfully implemented);
- Social and environmental feasibility, including land rights and environmental risk assessments (which include climate risk assessments, as discussed in detail in section 2);
- Organizational feasibility (evaluating the track record, financial capacity, and reputation of the proposed investor); and
- The market demand for the product of the investment.[118]

Each of these assessments should incorporate considerations of how climate change might affect the planned project and assess impacts that the project could have on the climate and resilience of human and natural systems. During the feasibility study phase, it is crucial to gather as much information as possible and prioritize climate considerations because significant changes to the project design can be made at this stage. After completing the ESIA (discussed in Section 3.4), investors may be less willing to make changes to the project design since ESIAs are intended to flag any issues that can then be mitigated through changes to the project design.[119]

SECTION SUMMARY: **FEASIBILITY STUDY**

- In-depth studies should assess the project's technical, social, environmental, and organizational feasibility, and the market demand for the resource to be produced by the investment.
- These assessments should gather as much climate and project information as possible while prioritizing assessing the impacts the project could have on the climate and the resilience of human and natural systems. Relevant host government agencies should conduct these assessments at the earliest point possible to increase the likelihood of investors making substantial changes to project design.

3.4 Environmental and social impact assessment (ESIA)

ESIA Overview

ESIAs are an important step in a government's due diligence process and provide a natural entry point for integrating climate change considerations. While ESIAs are typically conducted after investor screening, governments should consider an investor's competency to hire expert ESIA consultants to conduct a thorough and comprehensive ESIA during the investment screening phase. EIA and ESIAs should be conducted by expert, well-resourced, independent practitioners and overseen by the government.[120] ESIAs combine the components of environmental impact assessments (EIAs) and social impact assessments (SIAs) to produce a holistic evaluation of the overlapping social and environmental impacts of a given project.[121] While ESIAs are the most rigorous and comprehensive method of identifying and mitigating environmental and social risks at the project level,[122] domestic and international law often only require EIAs of projects. However, EIA best practice includes many social impact considerations, particularly those pertaining to the rights of Indigenous Peoples and local communities, even if still classified as an EIA.[123] Increasingly, EIAs account for social or human rights impacts, even if that is not apparent in their title[124] (see the example of Cambodia's EIA requirements in the appendix, Table 7). Governments should ensure ESIA and EIA processes align with international guidelines and best practice.

Specific requirements of ESIAs are established in domestic law, though several international law instruments require states to conduct ESIAs for projects and to regulate assessment composition and implementation.[125] For instance, a 2014 European Union directive requires EIAs to consider climate-related project impacts from both a mitigation and adaptation perspective.[126] Table 7 in the appendix describes two national-level ESIA processes that include explicit climate considerations.

A handful of national ESIA laws and regulations already include specific references to climate change, and courts in the United States and South Africa have found that broad "environmental impacts"

include climate factors,[127] thus setting an important precedent for contexts where climate factors are not explicitly referenced in ESIA regulations, which is often the case. A review of ESIA legislation and related frameworks for the mining sector from 55 jurisdictions revealed that EIAs and Environmental Management Plans (EMPs) rarely require climate mitigation and adaptation considerations.[128]

Climate-aligned improvements to the typical ESIA

When an investor submits a project proposal to the agency responsible for overseeing the ESIA—typically the environmental protection or management agency—the agency will determine based on the applicable legal framework whether or not a project requires an ESIA and how rigorous the ESIA should be.[129] The responsible agency then oversees a layered ESIA process that begins with a scoping phase to determine specific requirements tailored to the project and its context, and to gather baseline data for the project area, key stakeholder input, and public reactions to the project. Then, the investor typically hires an expert consultant to conduct a thorough assessment indicating adverse and beneficial project impacts and the investor's plans and commitment to avoid and mitigate negative impacts. Investment alternatives may be required at the scoping or assessment stage. The assessment should be based in science and informed by key stakeholders, particularly those negatively affected by the project.[130] The responsible agency then approves or rejects the project or asks for further project-related environmental information on, for instance, land and water pollution, ecological changes, cultural changes, and possible social conflict linked to project activities. Typically, the responsible agency is required to publicize parts of the assessment for public review. After this review period, the agency approves or rejects the proposal or provides conditions for investment approval.[131]

The typical ESIA process could incorporate climate considerations by requiring the investor's initial proposal to indicate anticipated climate change impacts – both localized impacts, such as the displacement of land-holding Peoples and communities, and global impacts, such as the destruction of carbon sinks.[132] The formal assessment should then include detailed plans to avoid and mitigate such impacts in both the short– and long—term. These impacts would include mitigation factors (e.g., GHG emissions throughout the project life cycle) and adaptation factors (e.g., project-related deforestation exacerbating flood risks). Climate change impacts should include overlapping social impacts such as the displacement of project-affected Peoples and communities, who serve as local land stewards by halting nature loss.[133] Peoples and communities in the project area and, as relevant, beyond should be consulted throughout the stakeholder input and public participation phases of the ESIA process. Climate, ecological, and weather data—which should be contextualized with baseline data on the biophysical, economic, and social conditions in the project area[134]—should be available and accessible to identify whether the proposed investment may worsen climate risks for project-affected Peoples and communities.

To account for localized negative project impacts, some national governments assign local governments to oversee ESIAs for particular projects. The example in Box 7 highlights the opportunities and challenges for localities conducting ESIAs.

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BOX 7. ESIA OPPORTUNITIES AND LIMITATIONS AT THE LOCAL LEVEL

Local governments can be nimble and adept at formulating and implementing ESIA requirements that best respond to local climate risks and realities, but they may face limitations over the scope of projects eligible for local—rather than national—review.

Lamu County, Kenya, strives to maintain a productive agriculture sector while transitioning to climate-aligned farming practices, as the sector is the county's main economic activity and largest contributor to GHG emissions.[135] The county's 2022 Climate Change Act includes requirements and incentives for investors (in all sectors) to contribute to "low carbon climate resilient development."[136] The county's 2022 Climate Change Policy includes explicit guidelines for governments to incorporate climate change considerations into EIAs through the application of climate change risk and vulnerability assessments.[137]

While county governments in Kenya have leeway to develop policies in tandem with the national constitution, they are limited to carrying out EIAs for low- and medium-risk projects; only the national government has the authority to coordinate and oversee assessments for high-risk projects.[138]

Though local governments may be well-suited to conducting ESIAs, their lack of authority to conduct assessments for projects with the most severe environmental risks limits their ability to minimize local environmental harms.

ESIA limitations

Though ESIAs are often the primary IAP mechanisms to account for climate risks, there is little opportunity to create systemic change through ESIA legal frameworks or project-specific ESIAs.[139] Many important project decisions are made prior to conducting the ESIA and, in practice, it can be challenging to change such decisions at this point. For instance, fossil fuel investment projects carry inherent climate risks, which cannot be fully accounted for or mitigated at the ESIA stage, unless the ESIA results in a rejection of the project, which is typically unlikely at this point.[140] That being said, if ESIA regulations are well implemented, they can overhaul project design or change the project location if the environmental risks are deemed too difficult to mitigate.[141] If projects that pose adverse social and environmental impacts advance and ESIAs are not well-enforced, governments face financial and reputational risks.[142]

Impact assessment report and management plans

The outcome of the detailed assessment is an ESIA report and an accompanying environmental and social management plan (ESMP). The report should include both (1) a site-specific evaluation of the project's overlapping social, environmental, and climate risks in the project area; and (2) an evaluation of global climate risks from project activities—in particular, project-related GHG emissions. The report and plan should be presented to the public for comment and submitted to the relevant regulatory authority for review and approval.

This review should assess whether the anticipated adverse impacts are acceptable, whether proposed adaptation and mitigation measures are adequate, whether there has been sufficient public participation in the process, and ultimately whether the proposed project should proceed.[143] To ensure

that no project is approved until a project design satisfies social and environmental concerns, the ESIA process should precede any formal allocation of land rights or permission to operate.[144] At a minimum, the investor should not be granted a license for the project until they have, based on the results of the ESIA, developed and obtained government approval of an ESMP. Further, during implementation, governments should require periodic, updated assessments, as climate risks and data are likely to change over the course of the project. These assessments should take place at regular intervals as well as when environmental conditions change, and this obligation should ideally be specified in the law, but at a minimum in the contract concluded by the investor with the government, the community, or both.[145]

SECTION SUMMARY: ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT (ESIA)

- ESIAs typically provide the most comprehensive method of identifying and mitigating environmental and social risks at the project level, though many EIAs also consider social impacts. The climate mitigation and adaptation impact of ESIAs and EIAs varies depending on (1) their overarching legal frameworks; (2) the strength of the requirements they enumerate for specific projects based on their findings; (3) the extent to which the requirements are implemented by investors under their ESMPs.
- ESIAs and ESMPs should be periodically updated as climate risks and data evolve over the course of the project.
- Assessments should account for a project's overlapping social, environmental, and economic impacts in local and global contexts, and in both the short— and long—term. Sub-national governments may be well-positioned to assess the localized climate change impacts of a project.
- ESIAs are often the primary mechanism to account for investments' climate risks, though many critical project decisions are made prior to the ESIA and cannot be reversed at this point, except in the unlikely scenario that the ESIA results in a rejection of the project.
- ESIA reports and ESMPs should include both a site-specific and global evaluation of the project's climate-related risks. A public review of the report and plan should precede any formal allocation of land rights or permission to operate to the investor.

3.5 Negotiations and contracting

If ESIAs are approved and project-affected Peoples and communities have given their preliminary consent to the project, the investor will have to obtain the permits or licenses required by law. The investor will typically engage in negotiations to secure a lease or concession agreement with the land-holding People or community,[146] the government, or both. During negotiations and contracting, FPIC principles and requirements as outlined in domestic law and regulations remain crucial. Domestic laws and regulations provide the framework within which contracts operate. Investment contracts concluded by the investor and the government, the community, or both can play an important role by providing for project-specific, enforceable rights and obligations of the parties involved. Many of the provisions outlined below should ideally be provided for under domestic laws and regulations. However, in instances where domestic laws and regulations are not adequate, contracts should fill any gaps.

Grounding contracts in international standards and best practices can help ensure that contracts are equitable, support distinct Indigenous Peoples' and local communities' rights, and account for

climate considerations. The UN Guiding Principles on Business and Human Rights,[147] supplemented by the Principles for Responsible Contracts,[148] outline the responsibilities of companies and the duties of states with regard to respecting and protecting the human rights of individuals affected by private sector activities. This includes determining whether projects pose any environmental risks. In addition, international organizations, non-profits, and research centers have developed sector-specific guidance documents for various sectors such as extractives,[149] food and agriculture,[150] water,[151] and land.[152]

Investment contracts can help governments, Peoples and communities, and investor stakeholders anticipate risks and clarify responsibilities and required actions to address project-related impacts in the context of a changing climate. The specific provisions and the form of contracting will vary depending on the nature, sector, and location of the project. Governments should consider their unique contexts and needs when drafting climate-aligned investment contracts. Contracts should:[153]

- Include language acknowledging that climate change is a relevant factor that must be considered and addressed in project design, planning, and implementation;
- Include language acknowledging the government's sovereign right to enact and enforce laws and regulations in relation to the production and distribution of carbon-based energy sources and measures to address climate change;
- Require companies to conduct a climate risk assessment that includes an evaluation of the affected Peoples' or community's vulnerability, based on applicable domestic laws and regulations;
- Require project compliance with national adaptation and mitigation plans, guidelines, and policies;
- Require companies to incorporate climate change adaptation strategies into community development agreements or community adaptation plans. Agreements or plans should, at a minimum, define rights and obligations, benefit-sharing arrangements,[154] contingency plans, and effective grievance mechanisms;
- Include provisions for regulating soil management, water rights and use, and wastewater management;
- Require companies to incorporate and upgrade to climate-resilient technologies[155] and implement continuous improvement in production methods for climate change adaptation and mitigation, pollution reduction, and protection of biodiversity;[156]
- Include clauses related to project closure, remediation, rehabilitation, or land restitution, which should also include language considering climate change, and set up financial guarantees for remediation and rehabilitation purposes;
- Require ESIAs to consider climate considerations in the assessment criteria;
- Require ESMPs to include all necessary measures over the lifecycle of the project to minimize carbon emissions and achieve carbon neutrality in line with the mitigation hierarchy and a science-based pathway to net zero by 2050;
- Require ESMPs be continuously reviewed in consultation with affected Peoples and communities considering any material alteration to the approved business plan that may introduce new or heightened environmental, social, or human rights risks or considering any new reports, predictions, or recommendations made by the Intergovernmental Panel on Climate Change (IPCC);[157]

- Require companies to account for direct, indirect, and induced impacts on forests at all project stages;
- Include climate-aligned risk allocation clauses, which could cover liability and indemnification or compensation for environmental, social, and climate-related risks, as well as insurance requirements, periodic review, and step-in rights based on climate considerations;[158]
- Provide for the return of land and other assets to the People or community at the end of the project;[159] and
- Lay out clear reporting requirements and indicators, enabling the government to track and assess the investor's compliance and performance.[160]

Table 2 below lists where some of the above contract provisions can be integrated into specific sections of investment contracts.

Table 2. Entry points for integration of climate change into investment contracts

Section	Entry point
Implementation following climate risk assessments, ESIAs, and ESMPs	• Contracts should include the ESIA management plans as binding obligations for the company, making plans a condition for the contract to come into full force, considering the nature, sector, and location of the project. The provision should include timelines by which an investor's non-compliance entitles the state to terminate the contract. • Contracts should require periodic reporting on the implementation of the ESMP. They should also specify that these reports will be made public and accessible to affected Peoples and communities.[161]
Legal compliance	• Contracts should explicitly provide that the investor is bound to and will comply with all environmental laws and regulations in force at any time during the contract period. They should also provide for consequences if the investor fails to comply with the requirements under environmental and investment laws, license or permit terms, or with the terms contained in the ESMP.[162]
Periodic review clauses	• Contracts should contain periodic review clauses to allow contracting parties to renegotiate and amend a contract in light of changing economic, social, or environmental conditions that could affect their ability to comply with the provisions or requirements of the original contract.[163] For long-term projects, periodic reviews should enable parties to assess climate-related shifts in market and environmental conditions and evaluate how those changes are likely to affect project implementation and feasibility.
Force majeure and dealing with non-performance	• Climate change risks are largely foreseeable today, so significant steps should be required in the contract to mitigate and adapt to them. As such, contracts could provide that extreme climate change-related weather events identified as a potential risk in the ESIA are excluded from the definition of a force majeure event, to avoid exclusion or limitation of liability based on non-performance.[164]

SECTION SUMMARY: NEGOTIATIONS AND CONTRACTING

- Investor-government, investor-community, or tri-party lease or concession agreements should provide for detailed, project-specific rights and obligations of all parties involved. Contract provisions should respect domestic legal frameworks and international human rights instruments outlining responsibilities for states and investors.
- Contracts should include stakeholder risks and responsibilities in the particular national, local, sectoral, and project-specific context. At a minimum, contracts should require all project decision-making to account for climate risks, acknowledge the government's right and duty to enforce climate laws and regulations, and require projects to comply with national adaptation and mitigation plans.
- Contracts can include climate-aligned clauses at various points, including in sections on environmental and social management plans, periodic review clauses, and non-performance. These sections should establish relevant requirements and monitoring mechanisms to ensure all stakeholders, under the principle of transparency, promptly respond to short— and long—term biophysical climate shifts and related legal, social, or economic changes.

4. INTEGRATING CLIMATE CONSIDERATIONS THROUGHOUT THE REMAINDER OF THE INVESTMENT LIFECYCLE

4.1 Implementation, monitoring, and compliance

Monitoring and evaluating investor performance and compliance with legal, regulatory, and contractual obligations is essential throughout the lifecycle of the project.[165] Data collection during monitoring can help fill information and knowledge gaps. To ensure that the investor fulfills their obligations and commitments, the investment contract should require investors to develop robust monitoring and evaluation systems that establish clear reporting requirements and climate-aligned indicators. This will enable the government to track and assess the investor's compliance and performance.[166] A robust monitoring and evaluation (M&E) framework is essential to tracking the achievement of climate-aligned goals, objectives, and indicators throughout the project (see Box 8). By continually monitoring these indicators, it is possible to determine if a project is nearing its thresholds and whether adaptive measures need to be implemented.

Moreover, project monitoring should be linked to ongoing engagement and communication with the affected collective. Community monitoring of project impacts—funded by investors or the government—can support government oversight efforts, support business compliance, and help investors secure and maintain their social license to operate.

BOX 8. COMPONENTS OF AN M&E SYSTEM FOR CLIMATE-ALIGNED INVESTMENT

- Framework of indicators identifying risks, objectives, and context.
- Baseline surveys that allow for monitoring incremental changes and impacts of project activities.
- Geo-referenced management information systems (MIS) for data collection, storage, tracking, and analysis of project indicators.
- Participatory monitoring of project implementation progress and performance review.
- Development and implementation of an M&E framework shaped by consultations with Indigenous Peoples and local communities.
- Flexible and responsive adjustments to accommodate changing climatic and developmental conditions.
- Evaluation of results, outcomes, and impacts,[167] including a project's climate change mitigation and adaptation goals.

4.2 Project closure, rehabilitation, and restitution

Sustainable land-based investment in the context of a changing climate requires planning for every stage of the project lifecycle, including making provisions for what happens at the end of the project and beyond. Land-based investments can vary in duration, with many large-scale projects spanning over several decades. With climate change altering land and social dynamics, the effects on land availability, quality, and demand are likely to intensify in the coming years. As such, adequately planning for longer-term project impacts in this context means considering these future changes to foster national climate resilience. Governments should:

- Mandate companies to account for direct, indirect, cumulative, and induced climate change impacts of investments at every stage of project operations.
- Provide a right of first refusal or a presumption that land will revert to the People or community at the end of a project after it has been restored to a level acceptable to the People or community to help ensure better land use planning and evaluation of their needs. These provisions can also be clarified through the provisions for the return of assets under a land contract.[168]

SECTION SUMMARY: **INTEGRATING CLIMATE CONSIDERATIONS THROUGHOUT THE REMAINDER OF THE INVESTMENT LIFECYCLE**

- **Implementation, monitoring, and compliance:** An M&E framework should reflect reporting requirements and indicators established in the investment contract and should be used to track the implementation of climate adaptation and mitigation measures and other development objectives. Effective monitoring requires the collection and evaluation of project data, for which investors can fund community contributions or management.
- **Project closure, rehabilitation, and restitution:** Planning for what happens at the end of a project and for the long term requires taking into account complex land and social dynamics and how they will be altered by climate change (e.g., considering how land availability and quality will change due to climate-induced land degradation). Regulations should require that land will revert to the People or community at the end of a project after it has been restored to a level they deem acceptable.

5. CONCLUSION

Land-based investments (including agriculture, forestry, renewable energy, and other land-intensive investments) are critical to meeting global food and resource needs. The vulnerability of these investments to climate change and climate shocks is thus a major concern both globally and domestically. At the same time, these investments are currently exacerbating climate change and overlapping social and economic threats given their high GHG emissions output as well as their land and resource demands. As highlighted in this guide, these investments must instead be designed, implemented, and monitored to support, rather than undermine, human rights, long-term sustainable development, and local, national, and global climate change mitigation and adaptation goals. This can be achieved through integrating climate change considerations into IAPs.

This guide provides recommendations to governments on how to integrate climate considerations into each stage of the IAP and, to a lesser degree, prior and subsequent stages of the investment lifecycle. All recommendations share the three pivotal principles:

(1) All assessment tools should consider both the likelihood of negative climate change impacts on a proposed investment and the potential impacts the investment could have on the environment and national mitigation and adaptation plans.

(2) Governments must uphold the distinct human rights of project-affected Indigenous Peoples and local communities, importantly protecting Indigenous Peoples' right to FPIC, and all individuals' right to a clean, healthy, and sustainable environment, along with other protections.

(3) Project and climate data should be collected and leveraged at initial project stages and throughout project implementation to ensure that projects account for their local and global climate change impacts in the short—and long—term.

When the climate risks to and climate threats of land-based investments are mitigated, investors, governments, and Peoples and communities can experience the developmental, financial, resource, and reputational benefits of climate-aligned investments.

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6. APPENDIX

Table 3. Examples of climate change mitigation and adaptation tools

Sector	Tool	Description
Agriculture	Ex-Ante Carbon-balance Tool[169]	**Mitigation:** Developed by the FAO based on IPCC methodology, this tool can be used to estimate emission reductions in a wide range of projects and integrate climate change mitigation objectives into domestic policies and climate change commitments, such as NDCs, based on those GHG emission reductions estimates. It can be used to evaluate the potential climate change mitigation impacts (e.g., how much carbon the proposed project will sequester or emit) to inform project design and selection.
	Monte Carlo Method [170]	**Adaptation:** Zambia used this risk modeling approach to model potential extreme weather events to evaluate the risk sensitivity of various agricultural interventions under projected future rainfall patterns. This analysis supported the development of the country's climate-smart agricultural investment plan (CSAIP).
	Climate Adaptation in Rural Development (CARD) Assessment Tool[171]	**Adaptation:** This platform provides data for 17 major crops in Africa, Middle East, Eastern Europe, Asia, China, the Pacific, Central America, the Caribbean, and South America and simplifies estimates of climate change-induced yield variability based on GHG emission scenarios, along with global crop-climate models, to simulate the long-term effects of climate change.
Mining	International Council on Mining and Metals (ICMM) Mining Climate Assessment[172]	**Adaptation:** This tool provides future climate projection data sets from any global location to enable member companies to anticipate climate hazards and their project's respective vulnerability, thus enabling them to develop project adaptation plans. This information is critical in the green energy transition, as low-carbon technologies are increasing the demand for metals and minerals like lithium, cadmium, steel, copper, aluminum, and nickel.

Renewable Energy	World Bank Climate Toolkit for Infrastructure Public–Private Partnerships (PPPs): Renewable Energy Toolkit[173]	**Mitigation and adaptation:** This toolkit provides practical tools to incorporate climate considerations into renewable energy PPPs. It provides guidance to developing economies on assessing climate change–induced risks to their projects, on enhancing project resilience, on the project's GHG emissions from its entire lifecycle, and on how integrating climate considerations into the project would affect its costs and benefits, financial and otherwise.
	USAID Clean Energy Emission Reduction Tool (CLEER)	**Mitigation:** CLEER helps countries create enabling environments for private investments in renewable energy. CLEER uses the most recent methodologies and emissions factors from the IPCC, the Greenhouse Gas Protocol, and other international standards on GHG accounting to allow users to project the GHG emissions reduced or avoided as well as the energy generation, energy savings, and cost savings estimates for a renewable energy project.[174] CLEER was designed for use by USAID operating units and their partners, though the materials are available for public use.[175]
Multiple Sectors	World Bank and International Monetary Fund Climate Policy Assessment Tools	**Mitigation and adaptation:** This tool assists policymakers in closing the knowledge gaps to advancing a just transition by enabling an assessment of the potential impacts and tradeoffs of different climate policy instruments.[176] The model, which can produce mitigation policy evaluations for over 200 countries,[177] estimates policy impacts on social, environmental, and economic factors, including poverty, welfare, GHG emissions, air pollution, Gross Domestic Product (GDP), and government revenues.[178] While this tool is used for screening climate policies, and not specific investments, it can be used to help (1) create an enabling environment for responsible land-based investment and (2) predict how a policy may impact land-based investment projects in the future. For instance, if a given policy improves farmer welfare, farmers employed by an agriculture cooperative might be able to purchase low-carbon or energy-efficient farming technologies.
	World Bank Climate and Disaster Risk Screening Tools[179]	**Mitigation and adaptation:** The World Bank's Climate Change Knowledge Portal provides climate screening tools to evaluate climate change risks to prospective project outcomes in a number of sectors in order to identify risks and build resilience in development projects, policies, and programs. The tool uses an Exposure–Impact–Adaptation framework to assign an overall risk rating to a project and provides a Rapid Screening Tool and an In-Depth Assessment Tool.

Table 4. Sample tools and strategies for integrating climate change considerations into an enabling policy environment

Strategy	Description
Develop sector-specific plans and policies	• The World Bank's Climate-Smart Agriculture Investment Plan (CSAIP) Development Guide helps countries develop agricultural investment strategies based on their specific climate change challenges.[180] The CSAIP development process analyzes the context and entry points for climate-aligned investments in agriculture and provides strategic plans for investing in agricultural development to achieve national food security, economic development, and climate targets.[181] The World Bank has supported the development of 30 country profiles and 12 CSAIPs identifying concrete actions to meet challenges in countries' agricultural sectors.[182] • National Agricultural Investment Plans (NAIP) developed under the Comprehensive African Agriculture Development Programme focus on agricultural investments that align with a country's national agricultural policies in partnership with private sector and civil society stakeholders. Plans can be useful for promoting climate-aligned agricultural investments within a specific period.[183] • The International Renewable Energy Agency's (IRENA) National Energy Transition Planning Dashboard is a global repository of energy planning documents and modeling tools for government planners to benchmark national planning practices and learn from global peers.[184] • The World Bank's Climate-Smart Mining Minerals for Climate Action Initiative helps resource-rich developing countries to benefit from the increasing demand for minerals while minimizing the environmental and climate impact of the mining sector.[185]
Conduct strategic environmental assessments (SEA)	• The Organization for Economic Co-operation and Development (OECD) Climate Lens is an analytical tool focused on adaptation to help decision-makers assess potential climate risks and options for a plan, policy, regulation, or project. The tool comprises four questions related to vulnerability, current adaptation, maladaptation, and climate proofing, which help determine the extent of climate change risks faced or posed by the plan, policy, regulation, or project.[186]
Support Peoples and communities to develop land and resource management plans	• The concept of Land Degradation Neutrality (LDN) aims to ensure no net loss of healthy and productive land.[187] It requires estimating the impacts of land use and management decisions and restoring degraded land within the same land type to counterbalance anticipated losses in land quality. LDN employs a landscape approach that considers trade-offs among competing land uses, interests, and policies and uses landscape-level decision-making to ensure coordinated management of land and natural resources. Effective land use planning is critical for successful LDN implementation. LDN initiatives at the global,[188] national, and regional levels are underway to support LDN integration into land use planning and land management. The LDN framework can be deployed to guide the design and assessment of sustainable, climate-aligned land-based investments.[189]

Table 5. Examples of countries with FPIC requirements in domestic legal frameworks

Country	Legislation
Liberia	The Act to Establish the Land Rights Law of 2018 entitles Indigenous Peoples or local community members, by a vote of two-thirds of the collective's membership, to approve or reject the sale, lease, or transfer of customary land to non-collective members.[190]
Panama	Under Act No. 72 of 2008, governments and private entities must obtain the FPIC of Indigenous Peoples prior to land acquisition.[191]
Peru	Law 29785 implements the International Labour Organization (ILO) Convention 169 requirement that the government must consult with Indigenous Peoples before passing laws and policies that impact them.[192] In practice, Peru's government formally consulted Indigenous Peoples in developing the country's Legal Framework for Climate Change in 2019.[193]
Philippines	The Philippine Mining Act of 1995 recognizes the right to FPIC for Indigenous cultural communities and Indigenous Peoples, who are entitled to give or withhold consent to land acquisition by government or private entities.[194] Republic Act No. 7942 on Mining also recognizes the rights of Indigenous cultural communities to their ancestral lands and forbids the government from opening these lands for mining operations without the prior consent of the host community.[195]
Sierra Leone	The Customary Land Rights Act 2022 requires FPIC to be secured from 60% of a fair representation of an Indigenous Peoples or a local community before investments are approved. Investors are required to provide extensive project information to the People or community prior to land acquisition negotiations.[196]

Table 6. Resources on FPIC requirements and guidelines

Resource	Description
FPIC Solutions Dialogue [197]	This guide provides a "shared roadmap" for investors and project-affected Peoples on FPIC decision-making. Strategies and suggestions are divided across the five stages of an investment project (pre-feasibility, pre-permitting, construction and operations, before major change, and closure). The guide was developed from ongoing dialogues between NGOs, Indigenous representatives, and companies with FPIC commitments.
Making Free, Prior, & Informed Consent a Reality: Indigenous Peoples and the Extractives Sector [198]	This research paper was the first initiative of an advocacy collaboration between UK academic institutions and Indigenous representatives aimed at making FPIC a global mining industry standard to safeguard Indigenous rights to culture, land, and self-governance. The paper covers (1) international human rights law on FPIC as of 2013; (2) Indigenous perspectives on FPIC implementation; and (3) corporate perspectives and mining industry FPIC policies.
Report of the Special Rapporteur on the Rights of Indigenous Peoples[199]	This report describes the international instruments which afford Indigenous Peoples' right to FPIC, and related rights to self-determination and culture, among others. It also describes how the principle of FPIC should be carried out and what is required for an investor to achieve consent.
Baleni and Others v Minister of Mineral Resources and Others [200]	This case helps define which collectives should receive the right to FPIC. Characteristics which afford collectives this right include (1) historic occupation on the land; (2) the presence of ancestral, sacred, and cultural sites on the land; (3) prior resistance to removal from their land; (4) membership to a traditional community or nation; (5) a long history of occupying and using the land; and (6) a reliance on the land for livelihood activities.
Case of the Kichwa Indigenous People of Sarayuku v. Ecuador[201]	This case establishes that FPIC processes must respect the consultation systems of Indigenous Peoples, who must be included in dialogues from the earliest project planning stages to meaningfully participate in and influence decision-making. States should determine if investors meet FPIC requirements based on their good faith, the accessibility and appropriateness of their consultations, and their environmental impact assessment. Under the case decision, states are obligated to ensure Indigenous and tribal peoples can all enjoy and exercise their right to their ancestral and historic lands.

Table 7. Examples of ESIA processes incorporating climate considerations

Country	Description
Kenya	Under Kenya's 2021 draft Environmental Management and Coordination bill, project proponents must submit an assessment report to the National Environmental Management Association (NEMA) that takes into account the environmental and social impacts of a proposed project, including cultural, health, and heritage impacts.[202] The bill requires NEMA to develop guidelines for integrating climate risk and vulnerability assessments as part of the environmental assessment process.[203] The bill distinguishes between low-, medium-, and high-risk projects. All projects must submit study reports to the Authority.[204] However, the bill does not detail project risk criteria with their respective assessment requirements and instead only gives examples of low-, medium-, and high-risk projects. The lack of project risk criteria allows investors to argue for lower risk classification than are otherwise warranted.[205]

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206. Transparency and access to information are essential to implementing and monitoring the obligations of the parties to a contract. Under international law, all people have the right of access to information, including information related to the environment. This means that governments are required to make environmental information available to the public. Transparency of land-based investment agreements can clarify the various obligations and responsibilities for governments, companies, and other actors. Establishing clear roles and expectations among stakeholders and promoting better communication and mutual understanding can minimize the risks of conflict, rights violations, and project delays. Transparency can also improve government coordination and knowledge sharing, which can in turn make it easier for government actors to do their jobs. Governments can promote transparency and guarantee access to information by implementing various mechanisms. One such mechanism is the development of user-friendly e-platforms which allow easy access to information by the public. Additionally, governments can establish independent monitoring bodies to oversee

the implementation and protection of citizens' rights. These monitoring bodies require access to information to function effectively. See "Rio Declaration on Environment and Development" (Rio de Janeiro, August 12, 1992), principle 10, *https://doi.org/10.4324/9780429310089-10*.; Sam Szoke-Burke, Tehtena Mebratu-Tsegaye, and William Sommer, "Transparency for Whom? Grounding Land Investment Transparency in the Needs of Local Actors" (Columbia Center on Sustainable Investment, March 2021), *https://ccsi.columbia.edu/sites/default/files/content/4020-CCSI-Land-Investment-Transparency-report-06-mr_0_1.pdf*.

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