

SD VISta Nature framework Project Description Template

This template is used for designing projects using Verra’s Sustainable Development Verified Impact Standard (SD VISta) Program and the *Nature Framework* methodology (*SDVM002*).

Instructions for Completing the Project Description

The digital version of the *Nature Framework* project description template, and the interpretation of the same, shall take precedence over any hard copy version. The digital version is optimized for digital preparation and submission. This version of the template is intended primarily for use in developing content for digital submission.

**TITLE PAGE:** Complete all items in the box on the title page using Arial or Century Gothic 10.5 point, black, regular (non-italic) font. The box must appear on the title page of the final document. Project descriptions may also feature the project title and preparers’ name, logo, and contact information more prominently on the title page using the following format: Arial or Century Gothic 24 point and Arial or Century Gothic 12 point, black, regular font.

**PROJECT DESCRIPTION:** Instructions for completing the project description template are found under the section headings in this template. Adhere to all instructions, supported by those set out in the SD VISta Program Guide. Instructions relate back to the rules and requirements set out in the Sustainable Development Verified Impact Standard, accompanying SD VISta Program documents, and the Nature Framework methodology. The preparer will need to refer to these documents in order to complete the template.

Delete all instructions, including this introductory text, from the final document. Unless deviations are merited, complete all sections using Arial 10 point or Century Gothic 10.5 point, black, regular (non-italic) font. Where a section is not applicable, explain why the section is not applicable (i.e., do not delete the section from the template or write only “not applicable” unless instructed to do so).

The project description should be submitted to Verra digitally in the Project Hub or, if digital submission is not possible, as a non-editable PDF.



Project TITLE

Logo (optional)

Document Prepared by (individual or entity)

Contact Information (optional)

|  |  |
| --- | --- |
| Project Title | *Name of project* |
| Version | *Version number of this document* |
| Date of Issue | *DD-Month-YYYY this version of the document issued* |
| Project Location | *Country, sub-national jurisdiction(s)* |
| Project Proponent(s) | *Organization and contact name with email address and phone number. This should be the primary contact for the project.* |
| Assessor Contact | *Contact name with email address and phone number and organization name, if any* |
| Project Lifetime | *Indicate the time period over which project activities are to be implemented*  *DD Month YYYY – DD Month YYYY; X-year lifetime* |
| Other Certification Programs | *List other certification programs currently in use by the project (e.g., Verified Carbon Standard, Climate, Community & Biodiversity Standards); include project identification number in those programs, if possible* |
| Expected Future Assessment Schedule | *Where known, provide the expected schedule for initial verification* |

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# PROJECT DETAILS

## Summary Description of the Project

Provide a summary description of the project (no more than one page in length) to enable an understanding of the project's nature and its implementation, including the following:

* A summary description of the project activities to be implemented
* The project's sustainable development objectives (clearly identifying which relate to biodiversity)
* The project's geographic location
* An explanation of how the project is expected to generate biodiversity outcomes
* A brief description of the scenario existing prior to project implementation (i.e., the without-project scenario for biodiversity and the existing socioeconomic and environmental conditions defining the sustainable development context)
* An estimate of net biodiversity outcomes (both average annual and in total)

## Project Type and Eligibility

Describe and justify how the project is eligible to participate as an SD VISta Nature Framework project, including:

* Specific activity type(s) in the project, with justification for their inclusion per Section 4.1.1
* Demonstration that the project is not excluded per Section 4.3.1

Select the project activity type:

* Ecosystem restoration, including reforestation and revegetation
* Avoided ecosystem conversion and degradation
* Both restoration and avoided conversion and degradation

Indicate whether the project activity type(s) involve productive activities (i.e., agroforestry, sustainable grasslands management, or silviculture), and if so, which productive activities are involved.

## Project Proponent(s)

Provide contact information for the project proponent(s). A primary project proponent must be identified if there are multiple project proponents; this primary project proponent shall match the project proponent listed on the title page of this template. Copy and paste the table as needed.

|  |  |
| --- | --- |
| Organization Name (Primary) |  |
| Role in the Project |  |
| Contact Person |  |
| Title |  |
| Address |  |
| Telephone |  |
| Email |  |

## Other Entities Involved in the Project

Provide contact information and indicate the roles/responsibilities for any other entities involved in the development of the project. Copy and paste the table as needed.

|  |  |
| --- | --- |
| Organization Name (Other) |  |
| Role in the Project |  |
| Contact Person |  |
| Title |  |
| Address |  |
| Telephone |  |
| Email |  |

## Ownership

Provide evidence of project ownership, in accordance with Nature Framework requirements on Nature Credit rights and ownership.

## Project Start Date

Provide the project start date in DD-Month-YYYY format. Provide justification for the project start date.

## Project Crediting Period

Indicate the project crediting period:

* Twenty years, renewable up to four times
* Other

If ‘Other’, state the project crediting period in years and justify how it conforms with the Nature Framework requirements (e.g., The project crediting period is from DD-Month-YYYY to DD-Month-YYY with a total length of XX years).

## Estimated Biodiversity Outcomes

Indicate the estimated annual amount of biodiversity outcomes generated by the project activity(ies) for the project crediting period. For projects stratified by land use type (e.g., productive landscapes), provide a table in which estimations are stratified accordingly. For grouped projects, provide a table in which outcomes are presented for each instance.

## Description of the Project Activity

Describe the project activity(ies) and how it/they will generate biodiversity outcomes and sustainable development benefits. Include a description of the measures, methods, and technologies to be employed and provide justification for the ecosystem-appropriateness of the project activity(ies).

Implementation Schedule

Identify key dates and milestones in the project’s development and implementation, including start and end dates for each project activity (the earliest of which is the project start date), project activity milestones, changes in project implementation, and monitoring milestones. Include planned (i.e., future) dates and milestones, as relevant. Add rows to the table below as necessary.

|  |  |
| --- | --- |
| Date | Milestone(s) in the Project’s Development and Implementation |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

## Project Design

*Indicate the project design:*

* *Single location of project activity*
* *Multiple locations of project activity (but not a grouped project)*
* *Grouped project (multiple grouped instances)*

## Project Location

*Using the table below, indicate the project's geographic location (i.e., country, state/province, city/region).*

|  |  |
| --- | --- |
| **Project Design** | *(i.e., Single, Multiple (not grouped), or Grouped)* |
| **Country Name** |  |
| **State/Province Name** |  |
| **City/Region** |  |
| **Hectares** |  |

Project Activity Locations

*Define the spatial delimitations of all project activity location(s) (i.e., the polygon(s) in which project activities take place and outcomes are monitored). Provide a table containing at least four geodetic points for delimiting each discrete project activity location or, in the case of grouped projects, the activity location(s) of the instance being added.*

Project Boundary

*Provide at least four geodetic points to delimit the project boundary in which all project activity locations or instances (if applicable) are contained.*

*Provide a map of the project boundary containing and identifying all project activity locations and instances (if applicable).*

## Additional Information Relevant to the Project

Transparency and Traceability

*Describe how all records of project activities, including mitigation measures and their costs, are maintained and made publicly available. Identify and justify any commercially sensitive information withheld and provide the affected stakeholders' agreement of the same, where relevant.*

Further Information

*Provide further information about the project, as needed.*

## Double Counting, Double Claiming, and Participation under Other Biodiversity or Nature Programs

*Indicate whether this Nature Framework project is seeking credits for the same biodiversity outcomes under any other certification program or methodology. Provide justification for the response given*.

*Note: Projects seeking credits for the same biodiversity outcomes under any other certification program or methodology are ineligible.*

# Stakeholder engagement

## Stakeholder Engagement

### Stakeholder Identification

Describe how the project proponent worked with local communities, NGOs, or other organizations to identify stakeholders. If this requirement does not apply, justify why that is so.

Describe stakeholder identification methods (including their local appropriateness) and the process undertaken.

List any identified barriers to stakeholder engagement and how they were, and if relevant, how they will continue to be addressed.

Using the table below, provide the required information for each identified stakeholder. If the stakeholder has rights to resources or land, specify the legal or customary tenure or access rights to territories, the location of specified land or resources, and, where relevant, the location of impacted rights holders. Add rows to the table as necessary.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Stakeholder Name | Anticipated Impact category | Stakeholder Group | Description of Relevance to Project | Marginalized or Vulnerable | Rights to Resources or Land |
|  | (i.e., impacted, critical, influential, or interested) |  |  |  |  |

### Stakeholder Consultation and Participation

Describe the overall stakeholder consultation process. Include the methods used for information sharing and seeking input, the timing and location of consultations, who participated, and how the participants were engaged. Provide details regarding the consultation content.

Describe and provide evidence of how and when information about the project's costs, benefits, and risks was shared with each stakeholder group in the consultation process.

Describe how consultations were and will be documented, and provide evidence of the same.

Describe how stakeholder input informed and influenced project design, including details of decision-making processes, and how stakeholder input will be sought and integrated on an ongoing basis.

Describe how project information is shared with stakeholders with reference to timeliness, cultural appropriateness, comprehensibility, transparency, and language accessibility.

Describe how the consultation process was respectful of local values and institutions, provided vulnerable stakeholders the opportunity to self-identify, and was gender- and inter-generationally sensitive.

### Continued Consultation

Describe how continued communication with stakeholders will occur throughout the project life cycle.

### Grievance Redress Procedure and Accessibility

Describe the mechanism and three-stage procedure for stakeholders or others to raise disputes or complaints during project planning or implementation. Include how the grievance mechanism is accessed, how it is transparent, how it is documented, and how it is made available to all stakeholders.

Confirm that the grievance redress procedure meets the specific requirements detailed in Section 5.5.17 of the methodology by ticking the box next to each requirement following the statement below.

The grievance redress procedure and/or mechanism

* is accessible to all stakeholders and enables the resolution of disputes promptly and transparently
* includes culturally appropriate and/or traditional conflict resolution methods, where applicable
* includes processes for receiving, hearing, responding to, and attempting to resolve grievances within a reasonable time period and incorporates a right to appeal
* allows grievances to be submitted in various channels (e.g., email, letters, verbal, phone)
* includes a written record for the number of complaints received, how they were addressed, how many have been resolved to complainants' satisfaction, which remain unresolved and require mediation, and whether any decisions have been appealed
* is publicly available, including documentation of disputes resolved, even without request

### Stakeholder Access to Project Documentation

Describe how the project description, and after validation, the monitoring reports, were and will be made available to stakeholders.

### Information to Stakeholders on Validation and Verification Process

Describe how and when impacted stakeholders will be advised in advance of Validation and Verification Body (VVB) site visits. Describe how communication will occur between stakeholders and VVBs during site visits.

## Public Comments

List the public comments received during the public comment period. Demonstrate how due account was taken of all comments received and include details on any updates to project design or demonstrate the insignificance or irrelevance of comments. Include the dates of the public comment period.

## Benefit Sharing

Describe the mechanism for benefit sharing with the impacted, critical, and influential stakeholders identified and provide evidence that it was agreed upon during consultation(s).

Describe how and which financial information was transparently shared with the impacted, critical, and influential stakeholders before project start to enable agreement on the benefit-sharing mechanism. Describe how such information will be shared in the future to evaluate the mechanism's appropriateness on an ongoing basis.

Describe how the benefit-sharing mechanism was, and will be, made publicly available to all stakeholders in terms of the form, manner, and language

Demonstrate and justify that the benefit-sharing agreement and mechanism:

* was co-created prior to project start
* includes the names of relevant signatories and the allocation of net revenue per stakeholder group
* is culturally appropriate, gender, and inter-generationally inclusive
* complies with applicable rules, regulations, laws and standards and consistent with customary rights
* is transparent to the extent possible, except where affected stakeholders wish to keep elements of the mechanism confidential, in which case the project proponent must provide justification agreed by the affected stakeholders and provide the full arrangement as a commercially sensitive document

# BASELINE SCENARIO AND CAUSAL CHAIN

## Baseline Scenario

Engaging Stakeholders

Describe how stakeholders were engaged throughout the baseline scenario assessment.

Sustainable Development Context and Without-Project Scenario

For each of the required categories, describe the sustainable development context within the project boundary at project start (including significant changes in the past), then describe the scenario without the project for that category. Additional categories may be included, as the project proponent deems relevant.

|  |  |  |
| --- | --- | --- |
| **Category** | **Sustainable Development Context** | **Without-Project Scenario** |
| *1) Resource rights and tenure*  *Detail property rights in the project boundary and project Extent, including the length of tenure, access to resources for livelihoods, resource governance or ownership, uses and exploitation of natural resources, and any land conflicts.* |  |  |
| *2) Governance*  *List the critical national, regional, and local regulations, and statutory and regional frameworks, and describe why they are relevant to the project. Describe any identified criminal activities or corruption and any non-land-related conflicts.* |  |  |
| *3) Human rights*  *Describe impacted stakeholders' conditions regarding the International Bill of Human Rights and other applicable universal human rights instruments.* |  |  |
| *4) Socioeconomic status*  *Describe impacted stakeholders' age, gender, occupation, income, education, cultural background, means of subsistence, economic and cultural diversity, both within and between impacted stakeholder groups.* |  |  |
| *5) Equality*  *Describe the conditions related to impacted stakeholders' gender, marginalized groups, and other power dynamics.* |  |  |
| *6) Cultural rights*  *Describe any culturally significant sites, local customs and traditions, and cultural heritage.* |  |  |
| *7) Habitats and ecosystem services*  *Describe the climate change vulnerabilities to which the project is exposed and how that could impact biodiversity (including natural and anthropogenic impacts), ecosystem services, fauna and flora species (including alien, native, rare, threatened, and invasive), existing habitats, and ecosystem conversion.* |  |  |
| *8) Land use and drivers of biodiversity loss*  *Describe the relevant biodiversity loss rates (e.g., deforestation, coral bleaching, habitat loss from land use change) and the main pressures or threats to biodiversity (e.g., hunting, logging, agricultural expansion).* |  |  |
| *9) Pollution*  *Describe the status of air, water, or other natural resource pollution.* |  |  |
| *Optional*  *Other categories relevant to the sustainable development context in the project boundary* |  |  |

## Causal Chain

### Engaging Stakeholders

Describe how stakeholders were engaged throughout the causal chain assessment.

### Sustainable Development Needs

Describe the sustainable development needs identified in the baseline scenario assessment, including those specifically related to the expected biodiversity outcomes.

### Sustainable Development Objectives

|  |  |
| --- | --- |
| **Sustainable Development Objective(s)** | **UN SDG(s)** |
|  |  |

Using the table below, define the sustainable development objectives the project will address, linking each objective to at least one of the United Nations' Sustainable Development Goals (UN SDGs). Add rows to the table as necessary.

### Project Activities

Using the table below, describe the project's planned activities (including the technologies deployed and resources required) and the expected effects, outcomes, and impacts expected as a result of those activities. Add rows to the table as necessary.

|  |  |  |  |
| --- | --- | --- | --- |
| **Project Activity** | **Expected Effect(s)** | **Expected Outcome(s)** | **Expected Impact(s)** |
|  |  |  |  |

### Implementation Barriers

Describe any identified barriers to activity implementation (e.g., financial, technical, conflict-related) and any identified threats to the anticipated sustainable development benefits.

### Causal Chain Mapping

Provide a graphical depiction of the project's causal chain (uploaded as a PDF). Clearly identify the project activities' cause-and-effect relationships (i.e., positive, negative, direct, indirect, intended, and unintended consequences). The causal chain must illustrate the project's intended effects, outcomes, and impacts addressing the sustainable development context, including biodiversity.

### Project Management Plan

Provide a project management plan that outlines and describes how the project proponent will manage and implement project activities over the crediting period and maintain and enhance net positive project impacts after activities finish (including the mitigation measures for the identified threats to sustainable development benefits).

## Additionality

Demonstrate regulatory surplus. Demonstrate that project activities depend on Nature Credit revenue or that barriers exist to accessing other sources of finance for project activities.

Where supplementary existing or prospective funding is in place or available, provide evidence of the same and demonstrate that:

1. Implementation barriers exist to long-term activities and intended outcomes (note: such barriers must be linked to the implementation barriers identified in the baseline scenario and causal chain), and
2. Nature Credit finance will expand or increase project scope, scale, speed of implementation, and/or sustainability.

Provide a statement attesting that the same biodiversity outcomes are not credited elsewhere by another biodiversity or nature crediting program.

## Durability

If the project is seeking certification under both the SD VISta Nature Framework and Verra's Verified Carbon Standard, confirm that the project proponent will monitor biodiversity outcomes, and account for and report reversals, for a minimum 40-year project longevity.

If the project is only seeking certification under the SD VISta Nature Framework, confirm that the project proponent will monitor biodiversity outcomes, and account for and report reversals, for a minimum 20-year project longevity.

# SOCIAL AND ENVIRONMENTAL SAFEGUARDS

## Resource Rights and Tenure

Respect and Recognition of Land Tenure

After conducting stakeholder consultation to establish the sustainable development context, was it identified that the project encroaches on private, stakeholder, community, or government property?

If so, provide proof of consent and proof of compliance. Demonstrate legal authorization and/or customary consent and disclose any ownership or agreements related to resource use and project activities' impacts on those resources. Provide proof of agreement with stakeholders on appropriate use of communal or public resources impacted by project activities. Demonstrate that tenure and use of land and resources were obtained in an ethical and lawful manner.

If not, justify that land tenure is not encroached upon (and if necessary, provide evidence).

Displacement and Resettlement

Could project activities lead to the involuntary removal or relocation of property rights holders or force relocation of cultural or livelihood activities?

If so, demonstrate that an agreement (including provision(s) for compensation) was made with the FPIC of those concerned.

If not, demonstrate that this topic was covered during stakeholder consultation and that stakeholders agreed with the response.

Conflicts over Rights

Has the project proponent identified any conflicts or disputes over rights to lands, territories, or resources (whether ongoing and unresolved or resolved) during the prior 20 years where such records exist, or at least during the last 10 years?

If so, describe such conflicts or disputes in detail, including the root cause(s), actors involved, and how they could affect (either positively or negatively) the project. Describe and justify the appropriateness of measures taken to resolve the identified conflicts. If the project proponent has undertaken any activity that could affect the outcome of an unresolved dispute or conflict in the project boundary, describe the activity(ies) and how they could affect such disputes or conflicts.

If not, justify that no conflicts over rights were identified (and if necessary, provide evidence).

Access to Resources

Could project activities, effects, outcomes, or impacts impose any restrictions on communities' access to natural resources for maintaining traditional livelihoods or access to food?

If so, describe and provide evidence for how negative impacts on resources or access to food were mitigated. Provide evidence demonstrating that such access restrictions were agreed upon through community consultations (see Sections 5.5.6 to 5.5.12 of the methodology)

If not, justify that no negative impacts to resource access were identified (and if necessary, provide evidence).

Describe the project's use of key resources (i.e., water, energy, other raw material inputs) and the measures taken to improve efficient resource use, to avoid or reduce the use of such resources, and to ensure that project activities do not negatively impact other users' energy supply (i.e., those users identified in the sustainable development context).

Do project activities exacerbate water stress in the project Extent?

If so, describe the measures taken to reduce water consumption and exacerbation of water stress, or to compensate for the same when unavoidable.

If not, justify that no exacerbation of water stress was identified (and if necessary, provide evidence).

No Net Degradation of Natural Resources

Could project activities lead to net degradation of natural resources?

If so, describe the measures taken to ensure that degradation caused by the project is reduced or compensated to ensure no net degradation (i.e., degradation, erosion, and/or depletion of natural resources identified in the baseline scenario).

If not, justify that no net degradation of natural resources was identified (and if necessary, provide evidence).

## Governance

Legal Compliance

Based on the analysis of the sustainable development context, demonstrate compliance with the identified local, regional, and national laws, statutes, and regulatory frameworks deemed relevant to the project.

Illegal Activities

Has the project proponent co-identified with stakeholders any risks of illegal activities taking place in the project boundary that could affect the project's net positive impacts or harm stakeholders, particularly those vulnerable and/or marginalized?

If so, describe the illegal activities identified and the measures needed and taken to reduce these activities so that project benefits are not derived from or inadvertently enable illegal activities.

If not, justify that no illegal activities were identified (and if necessary, provide evidence).

Anti-Corruption

Provide evidence of policies and procedures in place to prevent, detect, and remediate corruption. Demonstrate that all project staff and stakeholders have been informed of those policies and procedures and have confirmed their adherence to them.

Anti-Money Laundering

Provide evidence of policies and procedures in place to prevent, detect, and monitor financial transactions for money laundering and any other unethical financial practices.

Watchlists and Blocked and Sanctioned Parties

Demonstrate through risk assessment(s) that parties and entities with a material interest in, or substantial control over, the project are neither watchlisted nor blocked or sanctioned by the United Nations, the European Union, or the United States.

Search for all relevant parties identified (note: they may be either individuals or entities) in the following publicly accessible lists:

* The US Dept. of Treasury OFAC Specially Designated Nationals and Blocked Persons list: <https://sanctionssearch.ofac.treas.gov>
* The EU Sanctions Tracker: <https://data.europa.eu/apps/eusanctionstracker/>
* The UN Security Council Consolidated List: <https://scsanctions.un.org/6bu2ben-all.html> (note: use the HTML formatted consolidated list and control-F search function)

Operational Expertise

Does the project have adequate human and financial resources for implementing project activities?

If so, describe and provide evidence of adequate human (e.g., CVs, publications) and financial (e.g., bank statements, funding sources, income streams) resources available.

If not, demonstrate that partnerships, training, and/or recruiting strategies are in place to fill the project's human resources gap(s).

Emergency Preparedness and Response

Provide an emergency preparedness plan (including procedures and systems) to anticipate, prevent, respond to, and recover from potential crises that could impact the project, its personnel, and/or its stakeholders.

## Human Rights

Describe and demonstrate how the project proponent ensures that no entity involved in project design or implementation is involved in any form of discrimination, bullying, intimidation, or harassment (sexual or otherwise), with special attention to vulnerable and marginalized people, women, and children.

Describe and demonstrate how marginalized and vulnerable groups, including disabled people, are included in project design planning and implementation, as well as how resources, opportunities, communication, and project sites are made accessible to them.

Describe and demonstrate how equal opportunities are provided to all genders and how gender-based discrimination and violence are avoided.

Human Rights Risk Assessment

Are there any identified risks to upholding and respecting human rights as defined in the International Bill of Human Rights and any other relevant universal human rights instruments?

If so, describe the identified risks to human rights.

If not, justify that no risks to human rights were identified (and if necessary, provide evidence).

## Labor Rights and Work Conditions

Compliance with Laws, Fair Wages and Employment Conditions, and Equal Opportunities

Based on the analysis of the sustainable development context, describe the following:

* How the project meets or exceeds all applicable labor rights laws and regulations and how workers were and are informed about those rights
* How wages paid are considered fair living wages in the local context with confirmation that legal working hours are recognized
* How equal opportunities and pay are provided, including how local community members are provided employment opportunities for positions for which they can be trained

Prohibition of Forced and Child Labor and Human Trafficking

Demonstrate how child labor and human trafficking practices are prohibited by the project and how staff and contract workers employed by third parties are protected.

Health and Safety

Describe the measures taken to identify, mitigate risks to, and protect the health and safety of, workers and local communities, including how those involved in project activities are informed of such risks and how to mitigate them. Indicate what health and safety equipment is provided, where applicable.

Training and Capacity Building

Describe the orientation, training, and capacity building programs in place for workers and stakeholders carrying out project activities, including how special attention is given to marginalized and vulnerable groups and how local participation is prioritized. Provide evidence of such programs, including training for use of special equipment in project implementation and how local capacity is maintained in staff turnover.

Armed Personnel

Do project activities involve armed personnel?

If so, describe in detail the specific duties and limitations of armed personnel, the defined rules of engagement within the project boundary, training programs in place, procedures for vetting and qualifying personnel, and weapons equipment compliance with local laws and regulations.

If not, provide a statement to that effect.

Just Transition

Do project activities impact employment (i.e., formal and informal) by changing from one sector to another?

If so, describe and provide a transition plan for affected employees (including training and support measures) and/or a compensation plan for affected external dependents, as applicable.

If not, provide justification.

Labor Rights and Work Conditions Risk Assessment

Are there any identified risks to labor rights, gender equality, work conditions, health and safety, or stakeholders' socioeconomic status (i.e., age, gender, occupation, income, education, cultural background, means of subsistence, diversity)?

If so, describe the identified risks to labor rights and work conditions.

If not, justify that no risks to labor rights or work conditions were identified (and if necessary, provide evidence).

## Indigenous Peoples and Cultural Heritage

Are Indigenous Peoples (IPs) identified as stakeholders to the project?

If so, describe how, in project design and implementation, project activities recognize, respect, and promote Indigenous Peoples' rights (including rights to self-determination, lands, resources, territories, traditional livelihoods, and cultural heritage). Describe any impacts to IPs' cultural heritage. Describe how IPs' meaningful participation, traditional knowledge, and/or cultural heritage were included in project design and implementation. If traditional knowledge was included, demonstrate their full consent to use such knowledge in the project and provide the framework established to address their intellectual property rights.

If not, provide justification. Project proponents whose projects do not identify IPs as stakeholders are not required to complete the rest of Section 4.5 of this template.

Free, Prior and Informed Consent (FPIC)

Demonstrate with documented consultations and agreements the process by which FPIC was obtained before the project start from IPs whose rights are affected by the project.

Indigenous Peoples and Cultural Heritage Risk Assessment

Are there any identified risks to IPs' rights, including cultural rights (i.e., significant sites, customs and traditions, cultural heritage)?

If so, describe the identified risks to IPs' rights.

If not, justify that no risks to IPs were identified (and if necessary, provide evidence).

## Ecosystem Conversion and Restoration

Are project activities taking place in an area demonstrated to have been degraded for at least 10 years prior to the project start date?

If so, demonstrate that the area has been degraded for at least 10 years prior to the project start date.

If not, if the degradation occurred within less than 10 years, demonstrate that a natural disturbance caused the degradation and that the natural disturbance was not caused by the project proponent or a related person or entity.

For projects engaged in ecosystem restoration activities, is the project restoring the native ecosystem represented in the same ecoregion?

If so, justify why and how the restoration activities represent the native ecosystem.

If not, justify why and how the restoration activities represent a non-native ecosystem for the sake of adaptation and/or resiliency.

## Animal Welfare

Do project activities involve housing or managing animals (whether domestic or wild)?

If so, provide detail of activities involving animals and how they comply with the Nature Framework’s requirements per Section 6.7.1 of the methodology.

If not, provide justification.

## Pollution

Do project activities, effects, outcomes, or impacts involve the release of pollutants, agrochemicals, waste, and/or hazardous waste?

If so, describe in detail the pollutants, agrochemicals, waste, and/or hazardous waste that may be released.

If not justify that project activities, outputs, outcomes, or impacts do not involve, at least, waste (and if necessary, provide evidence).

# risk assessment

## Risk Assessment and Mitigation Plan

Based on the risks identified in the project proponent's social and environmental safeguards responses, complete the table below for each safeguard category and subcategory reflected in Sections 4.1 – 4.8 of this template to extend the risk assessment and provide mitigation measures for all identified risks.

|  |  |
| --- | --- |
| Safeguard Category | *e.g., Resource Rights and Tenure* |
| Safeguard Sub-category | *e.g., Respect and recognition of land tenure* |
| Description of Identified Risk |  |
| Self-Assessed Degree of Risk | *i.e., None, Low, Low-Medium, Medium, Medium-High, High* |
| Justification for No Risk or Quantitative Assessment for High Risk | *If no risk was identified for this category and/or sub-category, justify why this is so. If a high degree of risk was identified, provide a quantitative assessment and a qualitative justification for the risk.* |
| Risk Classification | *i.e., direct, indirect, intended, and/or unintended* |
| Physical Location of Risk | *i.e., within project Extent, within project boundary, and/or adjacent to project boundary* |
| Level of Mitigation Hierarchy Applied | *i.e., avoid, minimize, or mitigate* |
| Description of Mitigation Actions Planned |  |

# application of methodology

## Quantification of Biodiversity Outcomes

Step 1. Ecosystem type and Extent

Define all ecosystem types in the project Extent (or the instance being added, in the case of grouped projects) using the IUCN GET Level 3 (i.e., functional group) classifications and the tool accessed via this link: <https://global-ecosystems.org/analyse>. Where applicable, stratify land uses within each ecosystem type defined. Indicate the Extent (in hectares) for each ecosystem type defined and in total.

|  |  |  |  |
| --- | --- | --- | --- |
| Realm | Biome | Ecosystem | Extent (in ha) |
|  |  |  |  |
|  |  |  | **Total Extent:** |

Step 2. Condition indicators

Provide, at a minimum, 3 composition indicators and 2 structure indicators per ecosystem type (and per land use, if applicable) in the project Extent. Use one table per indicator, adding as many tables as necessary.

|  |  |
| --- | --- |
| Ecosystem Type(s) | *Identify the ecosystem(s) within the project Extent for which the indicator will be used* |
| Condition Component | *i.e., Composition, Structure, Function, or Pressures* |
| Indicator Name | *Provide a brief name for the indicator* |
| Indicator Description | *Provide a description of the indicator* |
| Metric and Unit | Provide the metric and unit of measure for the indicator |
| Data Source | Indicate if the indicator’s measurement data will be collected by the project proponent or if it will be sourced externally (i.e., remotely sensed by a third party); if sourced externally, provide the data source |
| Method of Data Collection | Provide the method by which the indicator is to be measured |
| Justification | *Justify the indicator’s appropriateness for the ecosystem and the project activity(ies)* |

Step 3. Define reference values for Condition indicators

Describe the process, methods, and provide detail of sources included in the comprehensive inventory of available information and data for setting reference values. Provide evidence of the documented inventory.

Provide a reference value for each of the project’s Condition indicators selected in Step 2. Where a given Condition indicator decreases with improvement, that indicator’s threshold value should also be provided per Section 7.4.7(2) of the methdology. Complete the table below for each reference value set, adding additional tables as necessary.

|  |  |
| --- | --- |
| Ecosystem Type(s) | *Identify the ecosystem(s) within the project Extent for which the indicator will be used* |
| Condition Component | *i.e., Composition, Structure, Function, or Pressures* |
| Indicator Name | *Provide the indicator name* |
| Reference Value | *Provide the reference value set for the indicator* |
| Threshold Value | *If relevant, provide the threshold value set for the indicator* |
| Justification | *Provide justification for the reference value set, including any references* |
| Data Source | *If sourced externally, provide the verifiable data source* |
| Approach Used | *i.e., reference site, statistical, historical reference state, other* |
| Justification for Approach Used | *Describe the actual approach used to set the reference value and justify its appropriateness* |

Step 4. Measure Condition indicators at project start

For projects setting historical start dates, did the project proponent use the alternative approach (Section 8.2.9 of the methodology) to measuring Condition at project start?

If so, provide justification for using the alternative approach and describe in detail the proxy sites selected and how the approach was applied. Demonstrate proxy sites' compliance with the requirements in Sections 8.2.9 to 8.2.11 of the methodology.

If the project is not setting a historical start date, indicate Not Applicable.

Report the measured value of each Condition indicator at project start (i.e., year 0) and provide an assessment of the value’s statistical uncertainty. Stratify by ecosystem type, if applicable. Use the table below and add rows as necessary.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Ecosystem | Condition Component | Indicator Name | Value at Project Start | Statistical Uncertainty |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Step 5. Standardize Condition indicators

Using the reference values set in Step 3, standardize each Condition indicator's measured value at project start (i.e., year 0) using its respective reference value (and its threshold value, where applicable), as per the formula in the methodology. Report values in the table below, showing all calculations and adding rows as necessary.

|  |  |  |  |
| --- | --- | --- | --- |
| Ecosystem | Condition Component | Indicator Name | Standardized Value (year 0) |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Step 6. Calculate Condition at project start (year 0)

Calculate the arithmetic mean for each set of combined standardized composition and structure indicators (stratified per ecosystem type, where applicable), then calculate their aggregated mean. Report the values in the table below, showing all calculations, and adding rows as necessary.

|  |  |  |  |
| --- | --- | --- | --- |
| Ecosystem | Composition Indicators | Structure Indicators | Condition (year 0) |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Step 7. Calculate area-adjusted Condition at project start (year 0)

Note: In grouped project scenarios, the area-adjusted Condition must be independently calculated for each instance and then summed.

Multiply the total ecosystem Extent (in hectares) by the Condition at project start calculated in the previous step. Report the value, showing the calculation.

Step 8. Calculate the crediting baseline

Indicate which method was used for calculating the crediting baseline:

* Matched control method
* Habitat conversion risk method
* Ecoregional rate of change method

Note: The complete crediting baseline requirements for each method are presented for completion in Section 7 of this template.

Using the table below, indicate the project's realm (i.e., terrestrial or marine) and identify the geographically associated reference region using Dinerstein et al. (2017) via <https://ecoregions.appspot.com/> (for terrestrial projects) or Spalding et al. (2007) via <https://www.worldwildlife.org/publications/marine-ecoregions-of-the-world-a-bioregionalization-of-coastal-and-shelf-areas> (for marine projects).

|  |  |  |
| --- | --- | --- |
| Realm | Biome | Ecoregion |
|  |  |  |

Digitally map the project Extent and the national jurisdictional boundary within the relevant reference region. Provide a separate GeoJSON (.geojson) or KML (.kml) file for each mapped boundary (i.e., the project Extent, the national boundary, and the reference region).

Describe the process, search methods and criteria, and provide detail of sources included in the comprehensive inventory of available data for the project's Condition indicators and other relevant indicators reflecting identified threats to biodiversity within the reference region that could be used for estimating the crediting baseline. Provide evidence of the documented inventory.

Where the inventory identified gaps in available data for the crediting baseline, demonstrate that a reasonable attempt was made to collect or acquire the data needed.

Using the table below, provide detail of the indicator(s) used to calculate the crediting baseline, adding tables as necessary.

|  |  |
| --- | --- |
| Crediting Baseline Indicator | *Identify the ecosystem(s) within the project Extent for which the indicator will be used* |
| Indicator Name | *Provide the indicator name* |
| Indicator Description | *Provide a description of the indicator* |
| Metric and Unit | Provide the metric and unit of measure for the indicator |
| Data Source | Indicate the source of the crediting baseline indicator (i.e., measurement data will be collected by the project proponent or sourced externally from a third party); if sourced externally, provide the data source and justify its credibility |
| Method of Data Collection | Provide the method by which the indicator is to be measured |
| Historical Coverage | *Provide the indicator’s years of historical coverage prior to the project start (YYYY to YYYY)* |
| Number of Data Points | *Provide the total number of data points available in the indicator’s dataset* |
| Coverage | *Provide justification that the indicator’s data has coverage across the relevant reference region* |
| Resolution | *Provide the indicator’s spatial resolution (e.g., 300m by 300m)* |
| Planned Update Year | *Indicate the year (YYYY) of the indicator’s next planned update* |
| Proxy Indicator | *Indicate if the indicator is used as a proxy substitute for a target Condition indicator monitored in the project Extent* |
| Justification | *Justify the indicator’s use as a suitable proxy in compliance with the requirements in Section 7.5.3 of the methodology* |

Provide the calculated crediting baseline parameter value B (i.e., estimated value at validation) per the selected crediting baseline method’s requirements.

Step 9. Monitor project impacts

Note: Only projects seeking verification are required to complete this section of the project description. The section is not required to be completed at validation unless the project proponent is seeking joint validation and verification.

Repeat Steps 4 to 7 as instructed to calculate project impacts for the monitoring period.

#### Repeat Step 4. Measure Condition indicators at year *t*

For each complete panel of Condition indicator data collected during the monitoring period, report the measured value of each Condition indicator and provide an assessment of the value’s statistical uncertainty, using the table below and adding rows as necessary. Stratify by ecosystem type, if applicable. Use a new table for each distinct panel of monitoring data. Clearly label each complete table with the applicable panel year t (e.g., if that panel’s measurements were collected in project year 2, label the table Panel Year 2).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Ecosystem | Condition Component | Indicator Name | Value at Year *t* | Statistical Uncertainty |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

**Table: Panel Year t**

#### Repeat Step 5. Standardize Condition indicators

Using the reference values set in Step 3, standardize each Condition indicator's measured value at year t using its respective reference value (and its threshold value, where applicable). Report values in the table below, showing all calculations and adding rows as necessary. Stratify by ecosystem type, if applicable. Use a new table for each distinct panel of monitoring data. Clearly label each complete table with the applicable panel year t (e.g., if that panel’s measurements were collected in project year 2, label the table Panel Year 2).

**Table: Panel Year t**

|  |  |  |  |
| --- | --- | --- | --- |
| Ecosystem | Condition Component | Indicator Name | Standardized Value (year *t*) |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

#### Repeat Step 6. Calculate Condition at year *t*

Calculate the arithmetic mean for each panel’s set of combined standardized composition and structure indicators (stratified per ecosystem type, where applicable), then calculate their aggregated mean. Report the values in the table below, showing all calculations, and adding rows as necessary. Clearly label each complete table with the applicable panel year t (e.g., if that panel’s measurements were collected in project year 2, label the table Panel Year 2). Finally, calculate and report the overall mean Condition value across all panels, showing the stepwise calculation.

**Table: Panel Year t**

|  |  |  |  |
| --- | --- | --- | --- |
| Ecosystem | Composition Indicators | Structure Indicators | Condition (year *t*) |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

#### Repeat Step 7. Calculate area-adjusted Condition at year *t*

Note: In grouped project scenarios, the area-adjusted Condition must be independently calculated for each instance and then summed.

Multiply the total ecosystem Extent (in hectares) by the mean Condition at year t (i.e., the end of the monitoring period) calculated at the end of the previous step. Report the value, showing the calculation.

Step 10. Determine leakage

Using the Nature Framework leakage tool, provide the value determined for unmitigated negative impacts on biodiversity that project activities are expected to cause outside the project Extent. If the value is unknown at the time of submission because the tool is not available, enter 0.

Step 11. Calculate net biodiversity outcomes

Note: In grouped project scenarios, net biodiversity outcomes must be independently calculated for each instance and then aggregated.

Calculate the net biodiversity outcomes at the end of the monitoring period for each ecosystem type in the project Extent using the formula in the methodology. Report the value, showing all calculations.

Step 12. Calculate Nature Credits resulting from project activities

Calculate Nature Credits by multiplying the net biodiversity outcomes by a scaling factor of 100 per the formula in the methodology. Report the value, showing the calculation.

Step 13. Calculate project-specific buffer pool contribution

Determine the buffer pool contribution by multiplying the total Nature Credits by 20%. Report the value, showing the calculation.

Step 14. Calculate net Nature Credits issuance

Calculate the net Nature Credits issuance by subtracting the buffer pool contribution from the total Nature Credits. Report the value, showing the calculation.

# crediting baseline

Referring to the crediting baseline method selected in Step 8 of the Application of Methodology section, apply the stepwise requirements for using the selected method to calculate the crediting baseline. Delete the requirements for the other two methods that are not applied.

Matched Control Method

#### Step M1. Map project sample sites

Digitally map the spatial boundaries of the sample sites (i.e., those defined for monitoring in Section 8.3 of this template) within the project Extent. Provide a GeoJSON (.geojson) or KML (.kml) file for the project's sample sites. Provide a tabular list of the project's sample sites, including their unique identifiers and respective sizes (in hectares), in .csv file format.

#### Step M2. Compile a dataset for matching

Using the table below, identify at least two of the project's Condition indicators (i.e., at least one composition indicator and one structure indicator) to be used for the crediting baseline. Indicate whether each indicator used is based on direct observation or a proxy for the target indicator. Provide the credible source for each indicator's data and justify its compliance with the temporal and spatial data requirements in Sections 7.5.4(1) - 7.5.4(2) of the methodology. If a proxy, identify the specific indicator that will be used, provide its credible source, and justify its use. Add rows to the table as necessary.

|  |  |  |
| --- | --- | --- |
| **Condition Indicator** | **Direct or Proxy** | **Credible Source & Justification** |
|  |  |  |
|  |  |  |

Using the table below and adding rows as necessary, provide a list of identified covariates that potentially influence biodiversity in the project Extent and ecoregion. Justify each covariate's inclusion with reference to its relationship to the driver(s) of biodiversity loss identified in the baseline scenario and/or to other key factor(s) characterizing ecosystem Condition across the project Extent and the reference region.

|  |  |
| --- | --- |
| **Covariate** | **Credible Source & Justification** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

Provide a dataset (in .xls or .xlsx file format) containing:

* The two (or more) selected indicators' available observations
* Sample-level estimates for the selected indicators (for the sample sites in the project Extent and for the potential control sites) encompassing a period of t years prior to project start, with t defined as the number of years covered in the available historical data
* The scale at which the estimates were sampled
* The set of N covariates' available observations

#### Step M3. Use systematic sampling to identify potential sample sites

Identify the set of potential sample sites in the project Extent for matching. Referring to the digitally mapped sample sites provided in Step M1, provide a GeoJSON (.geojson) or KML (.kml) file for the potential sample sites identified. Using the tabular list of all project sample sites provided in Step M1, clearly identify the potential sample sites in an updated .csv file.

Provide justification that the set of potential sample sites:

* Represents at least 10% of the total project Extent when aggregated
* Is representatively distributed across the project Extent in terms of ecosystem type(s), land use(s), and variation in Condition indicators and covariates
* Contains sites sufficiently and equally distant from one another to form a grid in the project Extent
* Excludes sites missing values for the Condition indicator(s) and covariates used in the crediting baseline

#### Step M4. Use random sampling to identify potential control sites

Identify and digitally map the set of potential control sites (i.e., donor pool) in the reference region for matching. Provide a GeoJSON (.geojson) or KML (.kml) file for the set of potential control sites. Provide a tabular list of the potential control sites, including their unique identifiers and respective sizes (in hectares), in .csv file format.

Provide justification that the set of potential control sites:

* Contains sites at least as far from one another as the minimum distance between the project's monitored sample sites
* Excludes sites missing values for the Condition indicator(s) and covariates used in the crediting baseline
* Excludes sites using the defined exclusion criteria in Section 7.5.7 of the methdology
* Is at least 25% larger than the set of potential sample sites identified in Step M3

If additional exclusion criteria were applied, or if any exclusion criteria defined in Section 7.5.7 of the methodology were removed, identify such criteria and provide justification for their addition or removal.

#### Step M5. Calculate mean Condition indicators and covariates

Using the dataset of Condition indicator(s) and covariates from Step M2, provide the mean values calculated across all available time-steps in the historical period for each indicator and covariate.

For the sets of potential control and potential sample sites, provide the mean values calculated across all available time-steps in the historical period, for each indicator and each covariate, for each potential control and potential sample site.

#### Step M6. Match sample sites to control sites

Match potential sample sites to control sites. Referring to the digitally mapped potential sample sites and potential control sites provided in Steps M3 and M4, respectively, provide a GeoJSON (.geojson) or KML (.kml) file for the matched pairs.

Using the tabular lists of potential sample sites and potential control sites provided in Steps M3 and M4, respectively, provide a consolidated tabular list (in .csv file format) of the matched pairs, including the absolute standardized mean difference (SMD) and distance measure.

Identify the matching method used and provide justification that:

* At least 80% of the potential sample sites are paired with a control site
* The absolute standardized mean difference (SMD) between sample sites and matched control sites is ≤0.25 across all covariates

#### Step M7. Standardize Condition indicators

Using the dataset of Condition indicator(s) and covariates, provide each Condition indicator's standardized mean value (calculated using the reference value set for that indicator and the formula in Step M7 of Section A1.1 of the methodology) across all available time-steps in the historical period for each control site and each sample site.

#### Step M8. Generate a composite Condition indicator

Using the dataset of Condition indicator(s) and covariates from Step M5, provide a composite Condition indicator value across all available time-steps in the historical period for each control site and each sample site. This must be calculated using the formula in Step M8 of Section A1.1 of the methodology.

#### Step M9. Calculate area-adjusted composite Condition value for control sites

Using the dataset of Condition indicator(s) and covariates from Step M8, provide the area-adjusted composite Condition indicator value across all available time-steps in the historical period for each control site. This must be calculated using the individual site's Extent in hectares and using the formula in Step M9 of Section A1.1 of the methodology.

#### Step M10. Calculate estimated crediting baseline

Using the dataset from Step M9, provide the estimated crediting baseline parameter, which must be calculated using ordinary least squares regression per the formula in Step M10 of Section A1.1 of the methodology.

#### Step M11. Calculate dynamic crediting baseline at verification

Note: Only projects seeking verification are required to complete this section. The section is not required to be completed at validation unless the project proponent is seeking joint validation and verification.

Provide the dynamic crediting baseline parameter, which must be calculated by repeating Steps M7 to M10 using the observed monitoring data in the project's respective sample and control sites across the monitoring period.

Habitat Conversion Risk Method

#### Step H1. Map buffer zone around project Extent

Digitally map the spatial boundaries of a 10km buffer zone around the project Extent and provide a GeoJSON (.geojson) or KML (.kml) file.

#### Step H2. Choose structure indicator for modeling

Using the table below, identify one of the project's structure indicators to be used for the crediting baseline. Indicate whether the chosen proxy indicator is a proxy for a target structure indicator. Provide the credible source for the indicator's data and justify its use based on:

* The indicator's relationship with (i.e., sensitivity to) habitat conversion
* Its compliance with the data requirements in Section 7.5.4 of the methodology
* If a proxy, identify the specific indicator that will be used, provide its credible source, and justify its use. Specify a reference value for the proxy indicator, indicating which approach was used to set the reference value, and justify its compliance with the relevant requirements in Sections 7.3.9 - 7.3.24 of the methodology.

|  |  |  |
| --- | --- | --- |
| **Condition Indicator** | **Target or Proxy** | **Credible Source & Justification** |
|  |  |  |

#### Step H3. Create or source a raster of the structure indicator

Using the table below and adding rows as necessary, provide a list of covariates that potentially influence biodiversity in the project Extent and ecoregion. Justify each covariate's inclusion with reference to its relationship to the driver(s) of biodiversity loss identified in the baseline scenario and/or to other key factor(s) characterizing ecosystem Condition across the project Extent and the reference region.

|  |  |
| --- | --- |
| **Covariate** | **Credible Source & Justification** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

Provide a dataset containing:

* The structure indicator's available observations
* The set of N covariates' available observations

Submit the dataset as an .xls or .xlsx file, including the raw data and any formulas for data processing.

Provide a raster layer of the chosen structure indicator where the value in each pixel (i.e., grid cell) represents the predicted probability of decline in the indicator's absolute value, during the same number of years in the monitoring period, across the reference region, the project Extent, and the buffer zone. The raster layer must be uploaded as a single compressed float32 GeoTIFF (.tif or .tiff) file in the same projection as the digital map file(s) submitted in Step H1 (i.e., covering the entire reference region, project Extent, and buffer zone). Nodata values must be set to -1. Spatial resolution must be set to no more than 300m by 300m per the methodology's requirements.

If the raster layer was sourced externally, provide the credible source and justify its use based on the criteria in Step H3 of Section A1.2 and per the requirements in Section 7.5.5 of the methodology. Otherwise, indicate this is not applicable.

#### Step H4. Identify areas of high habitat conversion risk

Using the raster layer generated in Step H3 and the formula indicated in Step H4 of Section A1.2 of the methodology, provide a raster layer containing only those high-risk pixels with values of predicted probability greater than 0.3 across the reference region, the project Extent, and the buffer zone. The raster layer must be uploaded as a single compressed float32 GeoTIFF (.tif or .tiff) file in the same projection as the digital map file(s) submitted in Step H1 (i.e., covering the entire reference region, project Extent, and buffer zone). Nodata values must be set to -1. Spatial resolution must be set to no more than 300m by 300m per the methodology's requirements.

#### Step H5. Exclude high-risk pixels meeting exclusion criteria

Using the raster layer generated in Step H4, provide a high-risk exclusion criteria raster layer. The raster layer must be uploaded as a single compressed uint8 GeoTIFF (.tif or .tiff) file wherein 0=nonexcluded, 1=excluded. Spatial resolution must be set to no more than 300m by 300m per the methodology's requirements. Submit the layers used to develop the high-risk exclusion raster.

#### Step H6. Assess overlap of high-risk pixels with project Extent

Using the formula in Step H6 of Section A1.2 of the methodology, provide the proportion (expressed in decimal format, rounded to three decimal points) of overlap of high-risk pixels with the project Extent. Show the stepwise calculation.

#### Step H7. Project estimated ecosystem Condition to end of monitoring period

Using the raster layer generated in Step H5 and the formula in Step H7 of Section A1.2 of the methodology, provide a raster layer wherein each high-risk pixel in the project Extent contains the indicator's estimated value projected to the year at the end of the monitoring period. The raster layer must be uploaded as a single compressed float32 GeoTIFF (.tif or .tiff) file in the same projection as the digital map file(s) submitted in Step H1 (i.e., covering the entire reference region, project Extent, and buffer zone). Nodata values must be set to -1. Spatial resolution must be set to no more than 300m by 300m per the methodology's requirements.

#### Step H8. Calculate difference between predicted and observed values

Using the raster layer generated in Step H7 and the formula in Step H8 of Section A1.2 of the methodology, provide a raster layer wherein each high-risk pixel in the project Extent contains the difference between the indicator's predicted and observed values. The raster layer must be uploaded as a single compressed float32 GeoTIFF (.tif or .tiff) file in the same projection as the digital map file(s) submitted in Step H1 (i.e., covering the entire reference region, project Extent, and buffer zone). Nodata values must be set to -1. Spatial resolution must be set to no more than 300m by 300m per the methodology's requirements.

#### Step H9. Calculate average change in high-risk pixels

Using the formula in Step H9 of Section A1.2 of the methodology, provide the value of the indicator's average predicted change across all high-risk pixels in the project Extent at the end of the monitoring period. Include all calculations.

#### Step H10. Standardize the area-weighted average absolute change in structure indicator

Using the formula in Step H10 of Section A1.2 of the methodology, provide the standardized, area-weighted value of the indicator's average predicted change across all high-risk pixels in the project Extent at the end of the monitoring period. Include all calculations.

#### Step H11. Use annual predicted rate of change to estimate crediting baseline

Using the formula in Step H11 of Section A1.2 of the methodology, provide the estimated crediting baseline parameter (i.e., the indicator's annualized, standardized area-weighted average predicted rate of change). Include all calculations.

#### Step H12. Calculate dynamic crediting baseline at verification

Note: Only projects seeking verification are required to complete this section. The section is not required to be completed at validation unless the project proponent is seeking joint validation and verification.

#### Step H12(1a)

At the end of the monitoring period, obtain all of the structure indicator's most updated data available. Using the dataset submitted for Step H3, provide an updated dataset containing the structure indicator's new observations (i.e., including the updated observations since validation). Submit an Excel (.xls or .xlsx) file, including the raw data and any formulas for data processing.

#### Step H12(1b)

Using the high-risk exclusion criteria raster layer generated in Step H5, provide a raster layer wherein each high-risk pixel across the reference region, the project Extent, and the buffer zone contains the most recent observed value at year t (i.e., the end of the monitoring period). The raster layer must be uploaded as a single compressed float32 GeoTIFF (.tif or .tiff) file. Nodata values must be set to -1. Spatial resolution must be set to no more than 300m by 300m per the methodology's requirements.

#### Step H12(2)

Using the updated high-risk exclusion criteria raster layer and the formula in Step H12(2) of Section A1.2 of the methodology, provide a raster layer wherein each high-risk pixel outside of the project Extent and buffer zone contains the difference between the indicator's observed value at year t (i.e., the end of the monitoring period) and the observed value at year 0 (i.e., project start). The raster layer must be uploaded as a single compressed float32 GeoTIFF (.tif or .tiff) file in the same projection as the digital map file(s) submitted in Step H1 (i.e., covering the entire reference region, project Extent, and buffer zone). Nodata values must be set to -1. Spatial resolution must be set to no more than 300m by 300m per the methodology's requirements.

#### Step H12(3)

Using the formula in Step H12(3) of Section A1.2 of the methodology, provide the value of the indicator's average observed change across all high-risk pixels outside of the project Extent and buffer zone at the end of the monitoring period. Include all calculations.

#### Step H12(4)

Using the formula in Step H12(4) of Section A1.2 of the methodology, provide the standardized, area-weighted value of the indicator's average observed change across all high-risk pixels outside of the project Extent and buffer zone at the end of the monitoring period. Include all calculations.

#### Steps H12(5) and H12(6)

Using the formula in Step H12(4) of Section A1.2 of the methodology, provide the standardized, area-weighted value of the indicator's average observed change across all high-risk pixels outside of the project Extent and buffer zone at the end of the monitoring period. Include all calculations.

Ecoregional Rate of Change Method

#### Step E1. Identify relevant ecoregion

Digitally map the spatial boundaries of a 10km buffer zone around the project Extent and provide a GeoJSON (.geojson) or KML (.kml) file.

#### Step E2. Choose Condition indicator(s) to estimate ecoregional rate of change

Using the table below and adding rows as necessary, identify one or more of the project's Condition indicators to be used for the crediting baseline. Indicate whether the indicator is a proxy for a target indicator. Provide the credible source for the indicator's data and demonstrate its compliance with the data requirements in Section 7.5.4 of the methodology. If a proxy, identify the specific indicator that will be used, provide its credible source, and justify its use, including:

* Demonstration that a reasonable attempt was made to search for datasets for the project's Condition indicators and explanation for why the requirements in Section 7.5.2 of the methodology cannot be met
* The proxy's appropriateness for the target indicator
* Its compliance with the data requirements in Section 7.5.4 and the proxy requirements in Section 7.5.3 of the methodology

|  |  |  |  |
| --- | --- | --- | --- |
| **Condition Indicator** | **Target or Proxy** | **Credible Source & Justification** | **Reference Value** |
|  |  |  |  |
|  |  |  |  |

Specify a reference value for the proxy indicator, indicating which approach was used to set the reference value, and justify its compliance with the relevant requirements in Sections 7.3.9 - 7.3.24 of the methodology.

#### Step E3. Obtain historical values for Condition indicator(s)

Provide a dataset (as an Excel workbook in .xls or .xlsx file format) containing the Condition indicator(s) values for all available time-steps in the historical period to a maximum of 10 years prior to the project start date.

#### Step E4. Standardize historical ecoregional Condition indicator(s)

Using the dataset provided in Step E3, provide the standardized Condition indicator(s) values for each available time-step in the historical period using the formula in Step E4 of Section A1.3 of the methodology. Include all calculations.

#### Step E5. Calculate linear rate of change of Condition indicator(s) over time, and Step E6. Set estimated crediting baseline

Using the dataset provided in Step E4, use ordinary least squares linear regression and the formula in Step E5 of Section A1.3 of the methodology, to provide the estimated crediting baseline parameter B (i.e., the Condition indicator(s) linear rate of change over time). Include all calculations.

#### Step E7. Calculate dynamic crediting baseline at verification

Note: Only projects seeking verification are required to complete this section. The section is not required to be completed at validation unless the project proponent is seeking joint validation and verification.

At the end of the monitoring period, obtain all of the Condition indicator(s) most updated data available for all available time-steps in the monitoring period. Using the dataset submitted for Step H4, provide an updated dataset containing all available observations at the end of the monitoring period (i.e., the previously submitted observations and the new observations updated during the monitoring period). Using the updated dataset, repeat Step E4 to provide the standardized Condition indicator(s) values for each available time-step in the historical period. Using the updated dataset, repeat Steps E5 and E6 to provide the dynamic crediting baseline parameter (i.e., the Condition indicator(s) updated linear rate of change over time). Include all calculations for each repeated step.

# Monitoring

## Data and Parameters Available at Validation

The tables in this section must contain all data and parameters determined or available at validation and remain fixed throughout the project crediting period, in accordance with the methodology. The content in these tables should match the content captured in the Application of Methodology section where Condition indicators, reference values, and crediting baseline indicator(s) are defined. Copy the table as necessary for additional data/parameters.

|  |  |
| --- | --- |
| Data/Parameter | *Provide a brief name for the indicator* |
| Purpose of Data | *i.e., Condition indicator or crediting baseline indicator* |
| Indicator Type | *i.e., Composition, Structure, Function, or Pressure* |
| Metric and Unit | *Provide the metric and unit of measure for the indicator* |
| Description | *Provide a brief description of the data/parameter* |
| Source of Data | Indicate if the indicator’s measurement data will be collected by the project proponent or if it will be sourced externally (i.e., remotely sensed by a third party); if sourced externally, provide the data source |
| Method of Measurement | *Provide the method by which the indicator is to be measured* |
| Justification for Indicator | *Justify the indicator’s appropriateness* |
| Value at Validation | Provide the value measured at year 0 |
| Statistical Uncertainty | Provide an assessment of statistical uncertainty for the value measured at year 0 |
| Reference Value Set | Provide the reference value set for the indicator |
| Threshold Value | Provide the threshold value set for the indicator (if applicable) |
| Source of Reference Value Data | *If sourced externally, provide the verifiable data source* |
| Method of Measurement | Provide the method by which the reference value was measured |
| Justification for Reference Value | *Provide justification for the reference value set, including any references* |
| Approach Used | *i.e., reference site, statistical, historical reference state, other* |
| Justification for Approach | *Describe the actual approach used to set the reference value and justify its appropriateness* |
| For Crediting Baseline Indicators | *The fields below should only be completed for crediting baseline indicators. They are not relevant or required for Condition indicators.* |
| Years of Historical Coverage | *Provide the indicator’s years of historical coverage prior to the project start (YYYY to YYYY)* |
| Available Data Points | *Provide the total number of data points available in the indicator’s dataset* |
| Years Encompassed in Available Data Points | *Indicate the total number of years encompassed in the available data points* |
| Coverage | *Provide justification that the indicator’s data has coverage across the relevant reference region* |
| Resolution | *Provide the indicator’s spatial resolution (e.g., 300m by 300m)* |
| Planned Update Year | *Indicate the year (YYYY) of the indicator’s next planned update* |
| Proxy Indicator | *Indicate if the indicator is used as a proxy substitute for a target Condition indicator monitored in the project Extent; if so, justify the indicator’s use as a suitable proxy in compliance with the requirements in Section 7.5.3 of the methodology* |

## Monitored Data and Parameters

The tables in this section must contain all data and parameters that will be monitored throughout the project crediting period, including all relevant data and parameters available at validation that will be monitored, in accordance with the methodology. Using the table below, specify the data and parameters that will be monitored during the project crediting period. Copy the table as necessary for additional data/parameters.

|  |  |
| --- | --- |
| Data/Parameter | *Provide a brief name for the indicator* |
| Purpose of Data | *i.e., Condition indicator or crediting baseline indicator* |
| Indicator Type | *i.e., Composition, Structure, Function, or Pressure* |
| Metric and Unit | *Provide the metric and unit of measure for the indicator* |
| Description | *Provide a brief description of the data/parameter* |
| Source of Data | Indicate if the indicator’s measurement data will be collected by the project proponent or if it will be sourced externally (i.e., remotely sensed by a third party); if sourced externally, provide the data source |
| Method of Measurement | *Provide the method by which the indicator is to be measured* |
| Justification for Indicator | *Justify the indicator’s appropriateness* |
| Value at year *t* | Provide the value measured at year t |
| Statistical Uncertainty | Provide an assessment of statistical uncertainty for the value measured at year t |

## Monitoring Plan

Project proponents are required to monitor project activities' impacts on people, their prosperity, and the planet. The project's comprehensive monitoring plan should therefore be divided into two distinct sections: 1) safeguards risks and sustainable development benefits, and 2) biodiversity outcomes.

Each section must contain detail of:

* Monitoring activities and tasks (including methods and planned frequency/schedule)
* Roles and responsibilities of personnel carrying out monitoring activities and tasks
* Procedures for quality control, assurance, and management for all information and data monitored

### Safeguards risks and sustainable development benefits

Note: Reassessment of the project’s without-project baseline scenario for the sustainable development context must be conducted at least every ten years.

Describe the plan for monitoring and updating (i.e., reassessing) the project's:

* Stakeholder identification and categorization
* Safeguards risk assessment and risk mitigation plan
* Activities and assumptions linked to the causal chain analysis and elaborated in the project management plan

Include details on the following:

* The methods for evaluating the project elements specified above during, and at the end of, the monitoring period (i.e., at verification)
* The organizational structure, responsibilities, and competencies of the personnel carrying out monitoring activities for the elements above
* The procedures for record-keeping, internal auditing, and quality assurance/control
* The procedures for addressing any non-conformances with the validated monitoring plan

### Biodiversity outcomes

Describe the procedures, frequency (i.e., schedule), roles and responsibilities for obtaining, recording, compiling, and analyzing data for quantifying the project's biodiversity outcomes. Include details of, and justification for, the following:

* The sampling protocol for all Condition indicators monitored (i.e., the defined spatial scale and sampling area(s), the representative set of sample sites identified (including GPS coordinates and maps thereof), the sampling frequency and effort, and the data collection method(s) employed)
* The standard operating procedures to be followed for consistently monitoring biodiversity outcomes (i.e., data capture methods and formats, training procedures for staff collecting, capturing, and processing data, steps and code used in processing/analyzing data, quality management and quality control procedures for auditing and assuring the integrity of data collected)
* The procedures for handling non-conformances with the validated monitoring plan
* How the sampling protocol will be evaluated at the end of each monitoring period per the adaptive management requirements (see Section 5.11 of the methodology)

# Appendix

Use appendices for supporting information. Where no appendix is required, delete this appendix (i.e., both title and instructions).