

GUIDELINES FOR ENVIRONMENTAL
AND SOCIAL PERFORMANCE

STANDARD 6:
BIODIVERSITY
CONSERVATION
AND SUSTAINABLE
MANAGEMENT OF
LIVING NATURAL
RESOURCES



6

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INTRODUCTION

The following Guidelines correspond to Environmental and Social Performance Standard 6 which, together with the other nine Environmental and Social Performance Standards (ESPS) and the Policy Statement, make up the IDB's *Environmental and Social Policy Framework* (ESPF). The ESPSs are:



Assessment and Management of Environment and Social Risks and Impacts



Community Health, Safety, and Security



Land Acquisition and Involuntary Resettlement



Indigenous People



Biodiversity Conservation and Sustainable Management of Living Natural Resources



Stakeholder Engagement and Information Disclosure



Labor and Working Conditions



Resource Efficiency and Pollution Prevention



Cultural Heritage



Gender Equality

These Guidelines provide guidance to Borrowers on the requirements of Environmental and Social Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources, with the overall purpose of improving project performance and environmental and social outcomes. The relevance of each ESPS and its Guideline depends on the nature, scale, and complexity of an operation and is proportionate to its level of environmental and social risks and impacts. It is important to note that ESPS 1 and 10 are likely to be relevant to all projects.

To facilitate reading:

1. All text belonging to the ESPF is formatted with a light blue background. The ESPF's text, including its footnotes, has kept its original paragraph and footnote numbering.
2. All Guideline paragraphs begin with the acronym "GL."
3. All footnotes are ESPF footnotes.

The Guidelines and other reference material will be publicly available on a dedicated website (<https://www.iadb.org/en/mpas/guidelines>). The IDB will periodically update the material on the website to reflect best practices and evolving needs.

DISCLAIMER

Guidelines are not policy, nor are they mandatory. The information presented in the Guidelines is for informational purposes only. Guidelines do not substitute the need to exercise sound judgment in making project decisions that are consistent with the ESPSs. In case of any inconsistency or conflict between the Guidelines and the ESPSs, the provisions of the ESPSs will prevail. In case of any inconsistency or conflict between the Guidelines and the Policy Statement in the ESPF, the provisions of the Policy Statement will prevail. Guidelines are approved by IDB Management and not by the IDB's Board.



INTRODUCTION

1. Environmental and Social Performance Standard (ESPS) 6 recognizes that protecting and conserving biodiversity, maintaining ecosystem services, and sustainably managing living natural resources are fundamental to sustainable development. The requirements set out in this ESPS have been guided by the Convention on Biological Diversity, which defines biodiversity as “the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species, and of ecosystems.”
2. Ecosystem services are the benefits that people, including businesses, derive from ecosystems. Ecosystem services are organized into four types: (i) provisioning services, which are the products people obtain from ecosystems; (ii) regulating services, which are the benefits people obtain from the regulation of ecosystem processes; (iii) cultural services, which are the nonmaterial benefits people obtain from ecosystems; and (iv) supporting services, which are the natural processes that maintain the other services.¹³⁷
3. Ecosystem services valued by humans are often underpinned by biodiversity. Impacts on biodiversity can therefore often adversely affect the delivery of ecosystem services. This Environmental and Social Performance Standard addresses how Borrowers can sustainably manage and mitigate impacts on biodiversity and ecosystem services throughout the project’s lifecycle.

GL1. The Convention on Biological Diversity (CBD) entered into force in December 1993. The main objectives of the CBD are:

- the conservation of biological diversity;
- the sustainable use of the components of biological diversity; and
- the fair and equitable sharing of the benefits arising out of the utilization of genetic resources.

¹³⁷ Examples are as follows: (i) provisioning services may include food, freshwater, timber, fibers, and medicinal plants; (ii) regulating services may include surface water purification, carbon storage and sequestration, climate regulation, and protection from natural hazards; (iii) cultural services may include natural areas that are sacred sites and areas of importance for recreation and aesthetic enjoyment; and (iv) supporting services may include soil formation, nutrient cycling, and primary production.

GL2. Signatories of the CBD are required to develop national strategies, plans or programs for the conservation and sustainable use of biological diversity or adapt for this purpose existing strategies, plans or programs which should reflect the measures set out in CDB relevant to the country. Most countries meet this requirement through the preparation of national biodiversity strategies and action plans (NBSAPs). Signatories are also required, as far as possible and as appropriate, to integrate the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programs, and policies.

GL3. The definition of “biodiversity” used in Environmental and Social Performance Standard (ESPS) 6 follows that of the CBD and uses several terms that are further defined below in the context of this Guideline:

- Ecosystems – defined by the CBD as “a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit.” The spatial scale of an ecosystem is typically larger than a habitat and smaller than a broader unit such as an ecoregion. Ecosystems therefore provide a meaningful context for the assessment of project impacts on biodiversity and ecosystem services.
- Species – a species is a distinct type of living organism (e.g., microbe, plant, animal, etc.) that can be identified and named by taxonomists. A species includes a certain level of variability within it which reflects the genetic variations between individuals and populations of a species. Species have names, descriptions, and ranges (i.e., geographic distributions) that can be mapped. The IUCN Red List of Threatened Species includes only species that have been assessed against the Red List criteria but covers nearly all species of mammals, birds, and amphibians. The Global Biodiversity Information Facility (GBIF) includes taxonomic information and occurrence data on nearly all described species of organisms, as well as a species matching tool that can be used to validate lists of species names from biodiversity baselines.
- Diversity – the range of variation within and among entities (e.g., species, habitats, and ecosystems). However, it is important to understand that for the purposes of this ESPS, the level of diversity of a site, habitat, ecosystem, or region is not in itself a criterion for the applicability of the ESPS. For example, a given 100-hectares of Mesoamerican humid tropical rainforest will have much higher number of species (e.g., species richness) than 100 hectares of Atacama desert but this does not mean that one is more important or has higher “value” than the other.

GL4. Ecosystem services are benefits provided by nature to people and may be generated by either natural or modified habitats and are often sensitive to impacts from human activities. They are of value to both urban and rural populations but are often critically important to people living in rural areas, especially traditional rural communities and indigenous communities who depend to a significant degree on hunting, fishing, agriculture, harvesting of wild plant resources, natural water supplies, and protection from natural disasters provided by intact vegetative cover and barriers. Ecosystem services can be important for many types of public sector investments such as water, health, rural development, and tourism, etc., all of which are underpinned by biodiversity.

OBJECTIVES

- To protect and conserve terrestrial, freshwater, coastal, and marine biodiversity.
- To maintain the ecosystem functions to ensure the benefits from ecosystem services.
- To promote the sustainable management of living natural resources through the adoption of practices that integrate conservation needs and development priorities.

SCOPE OF APPLICATION

4. The applicability of this ESPS is established during the environmental and social risks and impacts identification process. The implementation of the actions necessary to meet the requirements of this ESPS is managed through the Borrower's Environmental and Social Management System (ESMS), the elements of which are outlined in ESPS 1. Requirements related to stakeholder engagement and information disclosure are provided in ESPS 10.

GL5. ESPS 6 applies to projects that present potential direct, indirect, and/or cumulative impacts to biodiversity and/or priority ecosystem services (see GL6), that involve the management of living natural resources, or that depend on living natural resources as part of the supply chain.

GL6. The potential for adverse impacts to biodiversity and ecosystem services should be considered for any project. When there are no potential impacts, this should be documented by the Borrower in the environmental and social risks and impacts identification process. The application of this standard is not limited to greenfield projects (i.e., new developments or works in unbuilt areas). For example, the land use change in agricultural landscapes can lead to impacts on native flora and fauna that utilize modified habitats and new construction in existing urbanized areas can affect aquatic biodiversity downstream if contaminated runoff is not mitigated properly.

GL7. The Borrower's environmental and social management system (ESMS) (see paragraph 5 of ESPS 1) must include a management program with specific measures and corresponding actions that are designed to achieve the objectives of ESPS 6 (see paragraphs 15–18 of ESPS 1) when applicable. In accordance with paragraph 18 of ESPS 1, projects requiring management of potential adverse impacts on biodiversity and ecosystems services should retain personnel with the necessary knowledge, skills, and experience to implement the specific measures and actions in a competent and efficient manner.

GL8. The Borrower's environmental and social risks and impacts assessment should include all phases of the project life cycle and include associated facilities, temporary worker camps and influx during construction, and longer-term foreseeable development, as well as cumulative impacts with other developments and trends in the project area of influence that can reasonably be documented and assessed at the time of the assessment process.

GL9. Consideration of biodiversity, ecosystems services, and sustainable management of living natural resources will help identify opportunities for avoiding and minimizing risks and impacts on natural and critical habitats, including addressing the threats of climate change and pollution, and potentially building better resiliency against the effects of climate change and pollution (see ESPS 3 and ESPS 4). Climate change exacerbates risks to biodiversity and natural and managed habitats; at the same time, natural and managed ecosystems and their biodiversity play a key role in the fluxes of greenhouse gases, as well as in supporting climate adaptation. To manage effective mitigation strategies and comprehensively assess potential impacts of projects, Borrowers need to recognize and account for the connections between climate change and biodiversity. Biodiversity should be considered during the planning and pre-investment stages of a project, prior to the final design process. One of the primary goals of risk and impact assessment is to inform the design and location of projects. Once siting and significant design decisions have been made, the opportunities to meaningfully apply measures to avoid and minimize risks and impacts to biodiversity and ecosystem services are often severely limited.

GL10. The Borrower should document its consideration of biodiversity and ecosystem services during the project development phase. This consideration should include current and ancestral users and beneficiaries of ecosystem services, particularly indigenous peoples, tribal peoples and the sub-populations whose livelihoods are most linked to living natural resources, most commonly women. The Borrower should, as such, implement this standard in tandem with ESPS 7, ESPS 8 and ESPS 9. The environmental and social risks and impacts identification process should include scoping of potential issues relating to biodiversity and ecosystem services. Scoping may take the form of an initial desktop analysis and literature review, including a review of regional studies and assessments, and the use of global or regional screening tools. Early field reconnaissance and consultation with specialists can also be useful. Scoping for ecosystem services may also take place through consultation with communities as part of stakeholder engagement requirements of ESPS 10. The Borrower should seek to understand, as early as possible, whether a project has the potential to result in any risks and impacts to native species and their habitats. Projects with footprints exclusively in urbanized areas might still have potential for such impacts. For example, a project with impacts on urban parks or green spaces could be considered to have impacts on ecosystem services or even impacts on native species of flora and fauna that may utilize these modified habitats. Another example is any type of project that alters hydrology or quality of waters discharged to aquatic habitats. Consideration of biodiversity, ecosystems services, and sustainable management of living natural resources may enhance the sustainability outcomes of national, regional, and sectoral planning processes.

5. Based on the risks and impacts identification process, the requirements of this ESPS are applied to projects (i) located in modified, natural, and critical habitats; (ii) that potentially impact on or are dependent on ecosystem services over which the Borrower has direct management control or significant influence; or (iii) that include the production of living natural resources (e.g., agriculture, animal husbandry, fisheries, and forestry).

GL11. “Habitat” is defined in paragraph 9 of ESPS 6. For the purposes of ESPS 6, the term “habitat” applies to any area of land, water that supports assemblages or communities of native and/or naturalized plants or animals, regardless of the degree of modification by human activities. Habitats should also include the airspace aboveground that may be utilized by birds, bats, and insects as well as the water column and the seafloor, lakebeds, and riverbeds. Habitats also may include caves or springs below ground and airways above ground. This standard also applies to projects located in or affecting oceans and coastal areas.

GL12. “Modified habitat” is defined in paragraph 11 of ESPS 6 and addressed in GL43 – GL45. Agricultural and urbanized areas may be considered modified habitats subject to requirements of ESPS 6 when they support native species of concern such as threatened, migratory, or endemic species.

GL13. “Natural habitat” is defined in paragraph 13 of ESPS 6 and addressed in GL46 – GL59. A natural habitat can include essentially any area or space that supports native plants and animals but excludes croplands, plantations, artificial pastures, urbanized environments, and wholly artificial waterbodies or waterways.

GL14. “Critical habitat” is defined in paragraph 16 of ESPS 6 and is addressed in GL60 – GL85. A critical habitat can include areas of both modified and natural habitats that have high biodiversity values such as significant importance for near-threatened or threatened species, migratory species, or endemic species, as well as areas of highly threatened ecosystems or area providing key evolutionary processes.

GL15. “Direct management control or significant influence” includes management or influence by the Borrower, contractors, subcontractors, suppliers, or other third parties performing services required by the execution, site preparation, construction, operation, maintenance, or dismantling of a project or its components. In the context of ecosystem services, the Borrower is understood to have direct management control or significant influence over an ecosystem service whenever a project has the potential to have direct or indirect adverse impacts on the ecosystem service, regardless of the ownership or legal rights over the land, waters or features providing the ecosystem service. For example, the fact that a local community exercises management control

over or has legal rights to an ecosystem service does not mean that the Borrower is not subject to the requirements of the ESPS. It is important to recognize the requirements of this ESPS apply regardless of whether the beneficiaries have any formal legal rights to the ecosystem services or property rights over the areas providing these.

GL16. Operations that include activities supporting, leading to, or influencing the “management of living natural resources” are subject to the requirements of ESPS 6. Such management includes the production, extraction, or other use of domesticated or wild plant or animal resources. This includes farming, cultivating, propagating, ranching, hunting, fishing, collecting, harvesting of any type of terrestrial, freshwater, coastal, or marine plants or animals. Operations that indirectly promote or induce such activities are also subject to the requirements of this ESPS, for example projects intended to improve market conditions for agricultural producers that would result in changes in the production system or an increase in the area of land under production. This ESPS also applies to projects where the management of living natural resources is influenced by the project’s supply chain where such production may result in the conversion of natural or critical habitats in response to demand generated by the project.

REQUIREMENTS

General

- 6.** The risks and impacts identification process as set out in ESPS 1 should consider direct, indirect, and cumulative project-related impacts on biodiversity and ecosystem services and identify any significant residual impacts. This process will consider relevant threats to biodiversity and ecosystem services, especially focusing on habitat loss, degradation and fragmentation, invasive alien species, overexploitation, hydrological changes, nutrient loading, and pollution. It will also take into account the differing values attached to biodiversity and ecosystem services by project-affected people and, where appropriate, other stakeholders. Where paragraphs 13–19 are applicable, the Borrower should consider project-related impacts across the potentially affected landscape or seascape.
- 7.** As a matter of priority, the Borrower should seek to avoid impacts on biodiversity and ecosystem services. When avoidance of impacts is not possible, measures to minimize impacts and restore biodiversity and ecosystem services should be implemented. Given the complexity in predicting project impacts on biodiversity and ecosystem services over the long term, the Borrower should adopt a practice of adaptive management in which the implementation of mitigation and management measures are responsive to changing conditions and the results of monitoring throughout the project’s lifecycle.

8. Where paragraphs 13–15 are applicable, the Borrower will retain competent professionals to assist in conducting the risks and impacts identification process. Where paragraphs 16–19 are applicable, the Borrower should retain external experts with appropriate regional experience to assist in the development of a mitigation hierarchy that complies with this ESPS and to verify the implementation of those measures.

GL17. The Borrower's assessment of environmental and social risks and impacts should address biodiversity and ecosystem services in accordance with the general requirements of ESPS 1 and provide necessary information to determine the requirements of ESPS 6 relevant to the project in order to identify measures to achieve the objectives of ESPS 6. This assessment must include stakeholder consultations in accordance with ESPS 1 and ESPS 10 to take into account the values held by project-affected people and other stakeholders regarding biodiversity and ecosystem services and the risks and impacts identified.

GL18. ESPS 6 does not limit the scope of the Borrower's assessment of risks and impacts to those specifically addressed in the standard, but rather the assessment must broadly address all probable environmental and social risks and impacts, including risks and impacts to land (e.g., soils, topography, geologic resources), air (e.g., pollutants, dust, atmospheric conditions), and water (e.g., groundwater, surface waters, hydrology, drainage patterns, water quality, ecological flows) resources that biological systems depend upon and which are elements of ecosystem services (see ESPS 3).

GL19. The Borrower's assessment of environmental and social risks and impacts serves multiple purposes:

- Provides the Borrower with the information needed to obtain a project's environmental authorization to proceed from national or subnational regulatory agencies;
- Provides the Borrower with an understanding of sensitive biodiversity features and ecosystem services that require consideration during project design and execution;
- Allows for the development of a comprehensive and effective environmental and/or biodiversity management plan;
- Provides the Borrower with a baseline of the existing status of biodiversity features prior to start of project activities which allows for meaningful monitoring of impacts;
- Informs the Borrower of the differing values stakeholders attach to biodiversity and ecosystem services, and protects it against unfounded claims of impacts from project-affected people, other stakeholders and other third parties;
- Provides the Borrower with the information and plans necessary for lenders to assess the project's compliance with applicable lender biodiversity and ecosystem requirements;
- Provides the Borrower with information to disclose and consult during the stakeholder engagement process.

GL20. The Borrower's environmental and social risks and impacts identification process should include a sequence of tasks, generally along the following lines, but adapted to the specific circumstances of the project, its risk profile and location:

- i. Delimitation of area of influence and study area
- ii. Development of the biodiversity baseline
- iii. Identification of risks and impacts
- iv. Assessment of risks and impacts
- v. Identification of avoidance, minimization, and mitigation measures
- vi. Development of biodiversity management plan

GL21. Given that the changing dynamics of the environment and human systems often lead to considerable complexity in predicting project impacts on biodiversity and ecosystem services over the long term, paragraph 7 of ESPS 6 requires the Borrower to adopt a practice of adaptive management, which means that the monitoring of biodiversity values and the effectiveness of mitigation and management measures should inform the management of risks and impacts to biodiversity and ecosystem services throughout the lifetime of the project, including site preparation, construction, operation, and closure as applicable. Adaptive management implies that Borrowers take a proactive and flexible approach that includes periodic review and updating of management plans.

GL22. In accordance with good practice, the environmental and social risks and impacts identification process should identify and assess all reasonably foreseeable impacts to biodiversity and ecosystem services, including residual impacts remaining after the application of measures to avoid, minimize, and restore, in accordance with the mitigation hierarchy and which may require further compensatory measures to achieve acceptable outcomes.

GL23. Fragmentation of habitats and biological corridors (not just migratory corridors but any land, airspace, or water body that connects populations of species or units of habitat) is a major potential impact in many types of projects and often result from indirect impacts during the operation of roads or improperly closed temporary accesses opened during construction of facilities such as transmission lines. Impacts such as overexploitation, hydrological changes, changes in nutrient loads, and increased pollution (which may include emissions, effluents, soil contaminants, noise, vibrations, dust, etc.) can have adverse impacts on biodiversity while not resulting in conversion of natural habitats. Thus, paragraph 6 of ESPS 6 requires that the Borrower's assessment of risks and impacts be broadly inclusive of all types of potential risks and impacts to biodiversity and ecosystem services and should not be limited to conversion and degradation of natural habitats.

GL24. When the project is anticipated to affect natural habitats, critical habitats, legally protected areas, or internationally recognized areas of high biodiversity value, the environmental and social risks and impacts identification process should consider the direct, indirect, and cumulative impacts across the relevant landscape or seascape. This means that the Borrower must not limit consideration of impacts to those of the project footprint or those attributable only to the project; rather, the broader context of the project in relation to other threats to project-affected biodiversity features should be considered.

GL25. One of the first and most important steps of the risks and impacts identification process is to properly identify the project's area of influence regarding biodiversity and ecosystem services. The Borrower should refer to Paragraph 10 of ESPS 1 for the definition of the area of influence.

GL26. The area of influence includes both the areas of direct and indirect impacts. The extent of the area of influence depends upon the nature of the activities of the project. For projects affecting rivers or streams, both upstream and downstream areas of influence should be considered as appropriate. For example, the construction of a new road through areas with extensive natural habitats may have a large area of influence compared to the construction of suburban wastewater treatment plant. The area of influence may also include areas operated or managed by contractors associated with the project. This could include, for example, workers camps and work/industrial facilities located offsite but which are serving the project. Land cleared by contractors for these areas are to be included in the impact assessment and mitigation plans. The potential impacts of workers on biodiversity, such as hunting, fishing, capture, or harassing of animals, or the collection of plants must be considered. These risks are typically managed by training workers on the biodiversity requirements of the project and the implementation of a mandatory code of conduct for all project employees and contractors that includes prohibitions of activities relating to flora, fauna, and habitats.

GL27. Some projects such as land titling programs, forest investment programs, rural development programs, or highway corridor improvements may have very diffuse and extensive areas of influence. Such projects may require assessments and monitoring approaches that take advantage of geographic information systems (GIS) and other modern techniques such as remote sensing technologies.

GL28. While a project's area of impact is sometimes thought of solely as the project's footprint, there are often indirect impacts on organisms and habitats, such as edge effects on forests exposed to light and wind along the border of cleared areas or areas subject to upstream and downstream impacts of hydropower and other projects affecting water uses and flows.

GL29. After determining the appropriate area of influence, the Borrower's environmental and social risks and impacts identification process should include a biodiversity baseline assessment of the project's area of influence that specifically addresses each of the six categories of critical habitat biodiversity values enumerated in paragraph 16 of ESPS 6. For this purpose, the baseline assessment should apply the criteria described in GL66 – GL85 below.

GL30. Baselines should not just be “snapshots” of the current situation but rather should describe past and anticipated future trends in biodiversity and ecosystem services under a “no project alternative”. For additional guidance on biodiversity baselines, Borrowers are encouraged to consult the IDB’s *Guidance for Assessing and Managing Biodiversity Impacts and Risks in Inter-American Development Bank Supported Operations and Good Practices for the Collection of Biodiversity Baseline Data* which can be found at <https://www.iadb.org/en/mpas/guidelines>.

GL31. Paragraphs 7 and 8 of ESPS 6 require Borrowers to develop and implement mitigation and management measures in accordance with the mitigation hierarchy which includes the following sequential types of measures:

- Avoidance – actions taken to modify the spatial or temporal design of a project to protect biodiversity features from impacts; for example, steps taken to locate projects outside of and away from sensitive areas or receptors, and/or to schedule activities at times when they will not affect sensitive receptors;
- Minimization – measures adopted to reduce the duration, intensity, or extent of impacts that cannot be completely avoided; for example, the reduction of the size of the project footprint, the duration and/or frequency of activities that may lead to adverse impacts, and/or the quantities, volumes, concentrations or levels of hazardous materials, contaminants, or residues used and/or generated by the project;
- Restoration – measures taken to replace or reverse degradation of ecosystems impacted by the project, including measures to remediate, restore, reinstate, reclaim, revegetate, or otherwise ameliorate project impacts that cannot be avoided or further minimized; and
- Compensation – a set of actions that lead to measurable conservation outcomes, designed to compensate for residual biodiversity impacts that arise from the activities of an existing or new project and that remain after appropriate avoidance, minimization, and restoration measures have been implemented. Biodiversity offsets are a subset of compensation measures.

GL32. Avoidance of impacts is sometimes the only means to prevent irreplaceable loss of biodiversity and associated ecosystem services. Paragraph 7 of ESPS 6 emphasizes the importance of seeking to avoid critical habitats entirely as the first means of demonstrating compliance with the mitigation hierarchy. This is required for any proposed project in critical habitat regardless of the size of its footprint. The borrower should provide evidence of avoidance in a thorough analysis of project alternatives. Where there are no feasible alternatives for siting a project or activity outside of critical habitat, the Borrower will still be required to demonstrate no measurable adverse impact as required by paragraph 18 of ESPS 6. This may be achievable by siting facilities or activities in areas of little or no importance for the biodiversity value for which the critical habitat was identified, existing modified habitats or brownfield sites.

GL33. For additional guidance on impact assessment and the application of the mitigation hierarchy in the context of biodiversity and ecosystem services, Borrowers are encouraged to consult the *Guidance for Assessing and Managing Biodiversity Impacts and Risks in Inter-American Development Bank Supported Operations*, *Good Practices for Biodiversity Inclusive Impact Assessment and Management Planning* and *A Cross-sector Guide for Implementing the Mitigation Hierarchy* prepared by the Cross-Sector Biodiversity Initiative, all of which can be found at <https://www.iadb.org/en/mpas/guidelines>.

Protection and Conservation of Biodiversity

9. Habitat is defined as a terrestrial, freshwater, coastal, or marine geographical unit or airway that supports assemblages of living organisms and their interactions with the non-living environment. For the purposes of implementation of this ESPS, habitats are divided into modified, natural, and critical. Critical habitats are a subset of modified or natural habitats.

GL34. For the purposes of ESPS 6, habitats can be considered discrete and delineable areas or three-dimensional spaces that include an assemblage of living organisms, and the substrates, water, and airspaces these occupy and depend upon. For practical purposes, terrestrial habitats can be thought of as units of a certain land cover or vegetation type that can be mapped out at the scale of a project site or area of influence, including both natural and modified areas. Coastal



and marine habitats may be very extensive and include the interfaces of air, land, and submarine substrates as well as the water column. Particular attention should be paid to mangroves, seagrass beds, coral reefs, spawning, breeding, and nursery areas, including beach habitats. Critical habitats may include areas of both modified and natural habitats and are generally larger spatial units that often extend beyond the project site and even beyond the project's area of influence.

GL35. There is an important conceptual difference between modified and natural habitat and critical habitat as applied in ESPS 6. A critical habitat is an *area* determined to contain high biodiversity values, such as habitats of significant importance to threatened, endemic or migratory species, highly threatened ecosystems, or key evolutionary processes. In contrast, modified and natural habitats are specific terrestrial, freshwater, coastal, or marine areas generally identified and mapped at site-specific scales (i.e., they are equivalent to the concept of ecotopes, the smallest ecologically distinct units of the landscape). A critical habitat, as applied in the context of ESPS 6, is a broader and more generalized area, analogous to a “range map” polygon, which is a delineated area that includes areas actually or potentially occupied by a species but also many areas that are in fact not suitable habitats. An area of critical habitat will typically include a number of different types of modified and natural habitats and these habitats will likely not all be of equal importance for the biodiversity value for which the critical habitat is identified. This difference between critical habitats and natural or modified habitats is important for understanding the requirements and applicability of ESPS 6, as explained in GL60 below.

- 10.** For the protection and conservation of biodiversity, the mitigation hierarchy includes biodiversity offsets, which may be considered only after appropriate avoidance, minimization, and restoration measures have been applied.¹³⁸ A biodiversity offset should be designed and implemented to achieve measurable conservation outcomes¹³⁹ that can reasonably be expected to result in no net loss¹⁴⁰ and preferably a net gain of biodiversity¹⁴¹. Biodiversity offsets are not an acceptable mitigation measure in instances of critical habitat. The design of a biodiversity offset must adhere to the

¹³⁸ Biodiversity offsets are measurable conservation outcomes resulting from actions designed to compensate for significant residual adverse biodiversity impacts arising from project development and persisting after appropriate avoidance, minimization and restoration measures have been taken.

¹³⁹ Measurable conservation outcomes for biodiversity must be demonstrated in situ (on-the-ground) and on an appropriate geographic scale (e.g., local, landscape-level, national, regional).

¹⁴⁰ No net loss is the point at which project-related impacts on biodiversity are balanced by measures taken to avoid and minimize the project's impacts, to undertake on-site restoration and finally to offset significant residual impacts, if any, on an appropriate geographic scale (e.g., local, landscape-level, national, regional).

¹⁴¹ Net gains are additional conservation outcomes that can be achieved for the biodiversity values for which the critical habitat was designated. In areas of critical habitat, the Borrower should achieve net gains through the implementation of programs that could be implemented in situ (on the-ground) to enhance habitat, and protect and conserve biodiversity. Biodiversity offsets are not an acceptable measure to achieve net gains in instances of critical habitat.

“like-for-like or better” principle¹⁴² and must be carried out in alignment with best available information and current practices. When a Borrower is considering the development of an offset as part of the mitigation strategy, external experts with knowledge in offset design and implementation must be involved.

GL36. Biodiversity offsetting is an approach to counter the impacts of projects by the implementation of actions that are designed to result in gains for biodiversity values such that over a reasonable period of time (e.g., to be achieved within the lifetime of the project and with demonstrable progress during the period of the Bank’s supervision of the project) the project can demonstrate no net loss or preferably net gains for those biodiversity values. There are two general types of biodiversity offsetting actions: those that involve restoration or enhancement of biodiversity values and those that reduce future losses (i.e., averted loss). Due to the inherent uncertainty and complexity of this approach, biodiversity offsets are only acceptable when all other avenues to avoid and minimize impacts have been exhausted; furthermore, they are not acceptable as measures to mitigate impacts to biodiversity values for which critical habitats are designated. Likewise, proposals to remedy impacts in areas of critical habitat also present inherent uncertainty and complexity and will only be acceptable after the Borrower has demonstrated proper application of measures to avoid and minimize impacts and only for those impacts that do not result in measurable adverse impacts to the biodiversity values for which the critical habitat has been designated or the ecological processes supporting those values. For example, restoration of vegetative cover within an existing road right of way passing through critical habitat could be considered acceptable if the existing road right of way were demonstrated not to be of importance to any critical habitat-qualifying biodiversity values.

GL37. There is a growing volume of guidance related to the implementation of biodiversity offsets and Borrowers should consider recent developments in designing a biodiversity offset. Good international practice for biodiversity offsetting include the following which are available at:

- IUCN Policy on Biodiversity Offsets
- BBOP Principles on Biodiversity Offsets
- World Bank’s Biodiversity Offsets: A User Guide

¹⁴² The principle of “like-for-like or better” indicates that biodiversity offsets must be designed to conserve the same biodiversity values that are being impacted by the project (an “in-kind” offset). In certain situations, however, areas of biodiversity to be impacted by the project may be neither a national nor a local priority, and there may be other areas of biodiversity with like values that are a higher priority for conservation and sustainable use and under imminent threat or need of protection or effective management. In these situations, it may be appropriate to consider an “out-of-kind” offset that involves “trading up” (i.e., where the offset targets biodiversity of higher priority than that affected by the project) that will, for critical habitats, meet the requirements of paragraph 17 of this ESPS.

GL38. Borrowers are strongly encouraged to develop biodiversity offsetting strategies in consultation and collaboration with their respective national ministries responsible for biodiversity matters and to develop outcome-based biodiversity targets that help achieve goals of the country's National Biodiversity Strategy and Action Plan and other national or sub-national biodiversity targets.

GL39. The global experience with implementation of biodiversity offsets has shown that there are many technical, social, financial, and political risks and uncertainties that can affect the achievement of net gains in biodiversity or even no net loss.

GL40. Due to the inherent uncertainties and risks of failure, biodiversity offsetting will often require significantly more than a 1:1 ratio in order to guarantee success and achieve no net loss goals. This means that biodiversity offset or set aside areas required to achieve no net loss may need to be much larger than the areas impacted by the project. For example, some countries have legislated specific minimum biodiversity offsetting ratios for different types of ecosystems in consideration of factors such as their degrees of vulnerability and irreplaceability, the probability of success, the type of conservation goal desired, and the time required to achieve results.

GL41. The setting of biodiversity targets and the identification, delineation, and future management of areas for biodiversity offsets requires extensive stakeholder engagement and must meet requirements of all relevant ESPS, in particular ESPSs 1, 4, 5, 7, 9, and 10.

GL42. In all cases, biodiversity offsetting proposals will be designed with the support of qualified and experienced experts or staff.

Modified Habitat

- 11.** Modified habitats are areas that may contain a large proportion of plant and/or animal species of non-native origin, and/or where human activity has substantially modified an area's primary ecological functions and species composition.¹⁴³ Modified habitats may include areas managed for agriculture, forest plantations, reclaimed¹⁴⁴ coastal zones, and reclaimed wetlands.
- 12.** This Environmental and Social Performance Standard applies to those areas of modified habitat that include significant biodiversity value, as determined by the risks and impacts identification process required in ESPS 1. The Borrower should minimize impacts on such biodiversity and implement mitigation measures as appropriate.

¹⁴³ This excludes habitat that has been converted in anticipation of the project.

¹⁴⁴ Reclamation as used in this context is the process of creating new land from sea or other aquatic areas for productive use.

GL43. Areas converted, modified, or managed by indigenous peoples should be considered natural habitats when these areas remain dominated by species native to the Americas or the Caribbean. For example, the archaeological raised field landscapes in seasonally flooded savannas, areas of forest developed upon abandoned Amazonian *terra preta* sites, abandoned agricultural terraces, and high Andean *bofedal* wetlands managed as grazing lands, are considered natural habitats. Such cultural landscapes may qualify as both natural habitats and cultural heritage sites under ESPS 8 – *Cultural Heritage*. Also, habitats dominated by naturalized plant species introduced post-1492 may be considered natural habitats where these habitats support native species of fauna or populations of native plant species. Examples of such habitats will be found in the Mediterranean scrub and grasslands of Chile or the Pampas grasslands. While considered exotic species by some, eucalyptus and pines have become important elements in some landscapes and while they result in significant modifications of local habitats, and may be considered invasive in some contexts, they can support native species in some cases (e.g., hummingbirds and eucalyptus) and they very often provide ecosystem services to local communities. Species of non-native origin may be locally or regionally naturalized species that have become part of the local species assemblage over time or they may be more recent introductions or arrivals with potential to compete with and displace native species. Habitats dominated by naturalized species may still be of significant biodiversity value and may qualify as critical habitats.

GL44. In the context of paragraph 11 of ESPS 6, “habitat that has been converted in anticipation of the project” refers to the situation where any person or agency has intentionally engaged in activities that result in the conversion of habitats in the knowledge of the plans for the proposed project. For example, land cleared by a local government for a landfill site during project preparation prior to onsite biodiversity surveys should be treated by the Borrower as natural habitat. Another example is where squatters occupy and clear land where it is rumored that the government will build a facility, in the hopes of receiving compensation for resettlement. The biodiversity values lost by such conversions will be considered impacts of the project and will be accounted for in the determination of no net loss requirements for natural habitats and in the assessment of measurable adverse impacts to biodiversity values for which critical habitats are designated. In cases where such activities have resulted in measurable adverse impacts to critical habitat, the project may be ineligible for IDB financing.

GL45. Modified habitats cannot be assumed to have no biodiversity value or not be of importance in terms of ecosystem services. The baseline assessment of the project’s area of influence should quantify the extent of modified habitats and describe their biodiversity values and ecosystem services such that an appropriate determination can be made as to whether any mitigation measures are required. Examples of modified habitats that often provide or support significant biodiversity values include wetland rice fields, coffee and cacao shaded plantations, artificial pastures, and artificial water bodies.

Natural Habitat

13. Natural habitats are areas composed of viable assemblages of plant and/or animal species of largely native origin, and/or where human activity has not essentially modified an area's primary ecological functions and species composition.
14. The Borrower will not significantly convert or degrade¹⁴⁵ natural habitats, unless all of the following are demonstrated:
 - No other viable alternatives within the region exist for development of the project on modified habitat.
 - Consultation has established the views of stakeholders, including the project-affected people, with respect to the extent of conversion and degradation¹⁴⁶ and
 - Any conversion or degradation is mitigated according to the mitigation hierarchy.
15. In areas of natural habitat, mitigation measures will be designed to achieve no net loss — and where feasible a net gain — of biodiversity. Appropriate actions include:
 - Avoiding impacts on biodiversity through the identification and protection of set-asides;¹⁴⁷
 - Implementing measures to minimize habitat fragmentation, such as biological corridors;
 - Restoring habitats during operations and/or after operations; and
 - Implementing biodiversity offsets.

GL46. For the purposes of ESPS 6, natural habitats include essentially any area that is not urbanized, cultivated, or cleared and converted by recent human activities. Natural habitats include areas without visible vegetation (such as coastal desert and barren high Andean habitats), coastal habitats, open marine environments, and airspaces utilized by birds, bats, and insects, not just naturally vegetated land areas or freshwater bodies.

¹⁴⁵ Significant conversion or degradation is (i) the elimination or severe diminution of the integrity of a habitat caused by a major and/or long-term change in land or water use; or (ii) a modification that substantially minimizes the habitat's ability to maintain viable populations of its native species.

¹⁴⁶ Conducted as part of the stakeholder engagement and consultation process, as described in ESPS 1.

¹⁴⁷ Set-asides are land areas within the project site, or areas over which the client has management control, that are excluded from development and are targeted for the implementation of conservation enhancement measures. Set-asides will likely contain significant biodiversity values and/or provide ecosystem services of significance at the local, national and/or regional level. Set-asides should be defined using internationally recognized approaches or methodologies (e.g., High Conservation Value, systematic conservation planning).

GL47. The determination of whether an area qualifies as natural habitat should be based on up-to-date site-specific data, which may include site surveys by qualified professionals or remote sensing imagery. The data should be reviewed by a qualified specialist familiar with the native species and ecosystems of the area of interest and able to interpret remote sensing imagery to determine, for example, whether forested areas are natural or plantations or whether areas of herbaceous vegetation are natural habitats, cultivated fields, or pastures.

GL48. As discussed in GL43 above, evidence of ongoing or past land and natural resource use by humans does not mean a habitat is modified. For example, many rangelands (i.e., naturally occurring grasslands, savannas, steppes, and other lands used for grazing or browsing of livestock) qualify as natural habitats even if dominated by exotic grasses and domesticated livestock. Lands that are grazed and/or burned but maintain communities of native species are typically natural habitats. “Secondary” vegetation is generally considered to be natural habitat, unless it is managed in a way that has eliminated the native species typical of the ecosystem. For example, a secondary forest resulting from recovery of slash and burn agriculture may be considered a natural habitat, while a pasture on formerly forested land may be considered modified. However, an overgrazed rangeland in a grassland ecosystem is still considered a natural habitat.

GL49. Habitats converted or degraded in anticipation of the project, either by the Borrower or third parties, must be included in the assessment of natural habitats and included in the no net loss calculations (see GL44 above). If there is clear evidence that the conversion or degradation was done intentionally to avoid the requirements of this ESPS, the habitat will be considered natural or critical as applicable according to its previous condition, which in many cases can be assessed from nearby unmodified sites.

GL50. For the purposes of evaluating “significant conversion” under ESPS 6, “a habitat” refers to the global extent of the habitat type, not the extent within the project’s area of influence. While a project may eliminate the natural habitats within its footprint, such a conversion is unlikely to be significant when measured against the total area of the specific habitat types. For example, while the construction of a rural school may require clearing of forested land, resulting in 100% elimination of forest cover within the school property boundaries, this impact would not be considered a significant conversion unless the forest was of a unique type geographically restricted to a very small area. However, the analysis of significant conversion and degradation must consider the total of the areas affected by the project. While impacts may not be significant at the scale of a single parcel of land or facility site, the impact of the project must include consideration of all parcels or sites. For example, a land titling program may not result in significant conversion on a parcel-by-parcel basis, the cumulative impact of thousands of small parcels may be significant on geographically-restricted habitat types.

GL51. Regarding the assessment of significant conversion, the analysis of the integrity of a habitat should take into consideration landscape ecological criteria such as connectivity and minimum viable patch size. The absolute number of hectares (i.e., area) of a habitat is not as relevant an indicator of its integrity as are the degree of connectivity and patch sizes (i.e., the areas of remaining

contiguous habitat blocks or units). While there may be many hectares of a habitat, the habitat's future is likely grim if these hectares are largely dispersed in isolated fragments. Impacts resulting in holes in extensive habitats tend to have fewer and less severe impacts than those that break the connectivity between habitats. The scale of analysis depends on many factors, including:

- Global extent of the habitat
- National, subnational, or local extent and importance of the habitat
- Extent of the probable impacts of the project

GL52. Given that the ecological significance of conversion depends upon the extent of the habitats in question and the spatial distribution of the converted areas, it is not possible to establish standard numerical thresholds for significant conversion. For example, the conversion of 10,000 hectares of land distributed in multiple sites across a vast but relatively uniform landscape may not result in significant conversion while the loss of 50 hectares of a geographically restricted habitat with several species known only for that habitat may be highly significant.

GL53. Degradation is an impact that is often more difficult to quantify than conversion given that a degraded habitat may still contain its primary structural attributes (i.e., a degraded forest may still be a forest, while a converted forest is generally no longer a forest). Degradation of grasslands and steppe habitats is globally widespread due to poor fire and grazing management. Degraded aquatic and wetland habitats are also widespread due to sedimentation, nutrient loading, altered hydrologic regimes, and other impacts of urban and agricultural land and water uses. For the purposes of ESPS 6, a project may be considered likely to degrade a natural habitat when it leads to conditions that will no longer support key native species and ecological processes present in the pre-project baseline conditions.

GL54. Impacts to natural habitats not qualifying as significant conversion or degradation as described in footnote 9 of ESPS 6 still require mitigation in accordance with the mitigation hierarchy, including the achievement of no net loss in all cases, and net gains where feasible. The intent of ESPS 6 is to avoid and minimize conversion or degradation of natural habitats through the application of the mitigation hierarchy; so, most projects are not expected to require the application of the requirements of paragraph 14 of ESPS 6 given that significant conversion or degradation is not likely if the mitigation hierarchy is properly applied. The requirements of paragraph 15 of ESPS 6 apply to all types of natural habitats, including but not limited to deserts, grasslands, scrublands, freshwater, and marine habitats, not just forested habitats.

GL55. As noted above, no net loss and net gains are in reference to the pre-project baseline condition to be established by the Borrower's assessment of environmental and social risks and impacts, not in reference to some notion of pristine or natural condition.

GL56. The Borrower's mitigation plan must clearly indicate how no net loss will be achieved in any project affecting natural habitat. No net loss as defined by this ESPS is in reference to "project-related impacts on biodiversity", not just impacts on habitats. While habitat is important, it is not the only expression of biodiversity. Thus, the metrics of no net loss may be other than areas of habitats restored or protected, depending on the nature of the impacts and the affected biodiversity values. As defined above, not net loss may be achieved in many cases without biodiversity offsetting and Borrowers should demonstrate that they have considered all other mitigation measures before proposing biodiversity offsetting.

GL57. Experience has shown that biodiversity offsetting is a complex undertaking and that its success is subject to many ecological, technical, political, and social uncertainties and conditions. While avoidance of natural habitats and minimization of the project footprint are actions that are completed as soon as proper strategies are implemented, biodiversity offsetting requires a long-term commitment of resources and activities. While avoidance and minimization measures may result in increased costs early in the project, these are generally significantly less than the costs of restoration, compensation, or biodiversity offsetting measures.

GL58. The Borrower should present documented evidence of stakeholder consultation on proposals involving significant conversion or degradation of natural habitats, along with a summary of stakeholder concerns and needs and evidence of how these were taken into consideration and reflected in the project design and the environmental and social assessment and management plans. When the proposed significant conversion or degradation will affect lands, water, or other resources traditionally used by indigenous peoples, the Borrower will apply the requirements of ESPS 7 – *Indigenous Peoples*.

GL59. ESPS 6 encourages Borrowers to seek net gains for natural habitats whenever possible. Net gains mean that the project is enhancing biodiversity values through some combination of improved production or management activities, community outreach and education, restoration, biodiversity offsetting, or other actions that will reduce threats to biodiversity or revert past losses.

Critical Habitat

- 16.** Critical habitats are areas with high biodiversity value, including (i) habitat of significant importance of critically endangered, endangered, vulnerable or near threatened¹⁴⁸ species; (ii) habitat of significant importance to endemic and/or restricted-range species; (iii) habitat supporting globally significant concentrations of migratory species and/or congregatory species; (iv) highly threatened and/or unique ecosystems; (v) areas associated with key evolutionary processes; and/or (vi) legally protected areas or internationally recognized areas of high biodiversity value.¹⁴⁹

GL60. Paragraph 16 of the ESPS 6 states that critical habitats are *areas* with high biodiversity values. The term “area” refers to a delineated two-dimensional mapping unit, similar to the concept of a Key Biodiversity Area (KBA) or a legally defined protected area in this sense, as these are broadly-inclusive cartographic entities and management areas, not specific patches of habitats. While the definitions of modified and natural habitats refer to “areas”, for the purposes of ESPS 6, these areas are generally smaller units of land or water that can be mapped at the scale of a project site plan. A critical habitat is identified and delineated at scales that are ecologically relevant to the biodiversity values and processes for which they are designated, typically, but not always, at landscape, seascape, or ecosystem scales rather than site-specific scales. Also, many species and ecological processes are not restricted to some narrowly defined habitat type. Thus, most critical habitats will comprise several different habitat types and units, generally including areas of both modified and natural habitats.

GL61. Critical habitats include areas already identified and mapped by international conventions and agreements including, but not limited to, the Bonn Convention, Ramsar Convention, World Heritage Convention and Convention on Biological Diversity, or other international bodies such as UNESCO (Biosphere Reserves, UNESCO Global Geo-parks, etc.) or Food and Agricultural Organization (vulnerable marine ecosystems), International Maritime Organization (particularly sensitive areas), IUCN Designated Areas (Categories IA – VI), Ramsar sites, Important Bird Areas, Alliance for Zero Extinction sites, and other KBAs included in the World Database of

¹⁴⁸ As listed on the International Union for the Conservation of Nature (IUCN) Red List of Threatened Species. The determination of critical habitat based on other listings is as follows: (i) If the species is listed nationally / regionally as critically endangered or endangered, in countries that have adhered to IUCN guidance, the critical habitat determination will be made on a project by project basis in consultation with competent professionals; and (ii) in instances where nationally or regionally listed species' categorizations do not correspond well to those of the IUCN (e.g., some countries more generally list species as “protected” or “restricted”), an assessment will be conducted to determine the rationale and purpose of the listing. In this case, the critical habitat determination will be based on such an assessment.

¹⁴⁹ Which may include reserves that meet the criteria of the IUCN Protected Area Management Categories I through VI; World Heritage Sites designated for natural or mixed criteria; areas protected under the Ramsar Convention on Wetlands; core areas of World Biosphere Reserves; areas in the UN List of National Parks and Protected Areas; sites listed in the World Database of Key Biodiversity Areas; or other sites meeting the criteria of the IUCN 2016 Global Standard for the Identification of Key Biodiversity Areas.

KBAs. However, most potential critical habitats have not been identified and mapped. The use of online screening tools is not a substitute for a more thorough assessment of the presence of critical habitats in a projects area of influence. Online GIS-based approaches to identify biodiversity values for which critical habitats may be determined do not provide complete information on all categories of these values. For example, very few highly threatened or unique ecosystems are mapped and many Ramsar sites are not mapped in comprehensive geographic database. Borrowers should seek the support of qualified biologists to perform project-specific assessments to identify and delineate critical habitats.

GL62. Critical habitats are highly variable in their spatial scale and the appropriate scale must be determined by the biological, ecological, and biogeographic characteristics of the biodiversity features in question. At one extreme, species or ecosystems restricted to a single, small area such as unique rock outcrop, mountain top, cave, or spring harboring a species found nowhere else, would be critical habitat of a very small area. At the other extreme, extensive marine habitats critical for the survival of a wide-ranging endangered whale species could be designated as a critical habitat.



GL63. The identification and delimitation of critical habitat is independent of the assessment of impacts of a project, with the exceptions discussed below for Near Threatened and Vulnerable species. That is, a critical habitat is not critical because it is threatened by potential impacts of a project but rather because it is of great importance for some biodiversity features of concern and in many cases is already under threat by historic events and processes. The delimitation of the critical habitat must be based on the distribution of the biodiversity features in question, not based on the footprint or area of influence of the project.

GL64. It is important to recognize that for the purposes of ESPS 6, critical habitats are not limited to legally protected areas, sites listed in the World Database of KBAs, or areas within the mapped ranges of IUCN Red List threatened species. In addition to delineated and non-delineated terrestrial areas, free-flowing rivers, defined as bodies of water whose flow and connectivity remain largely unaffected by human activities, and at-risk marine or coastal ecosystems, including mangrove forests, wetlands, and reef systems may also qualify as critical habitats.

GL65. KBAs are defined by the *IUCN 2016 Global Standard for the Identification of Key Biodiversity Areas* as sites contributing significantly to the global persistence of biodiversity, where “site” is defined as a geographical area on land and/or in water with defined ecological, physical, administrative or management boundaries that is actually or potentially manageable as a single unit (e.g., a protected area or other managed conservation unit). For this reason, large-scale biogeographic regions such as ecoregions, Endemic Bird Areas, and Biodiversity Hotspots, and land-/seascapes containing multiple management units, are not considered to be sites. In the context of KBAs, “site” and “area” are used interchangeably. KBAs will generally qualify as critical habitats, even if they are large areas such as sites qualifying as wholly intact ecological communities with supporting large-scale ecological processes or sites qualifying as threatened ecosystems types.

Criteria and thresholds for Critical Habitats

GL66. The determination of whether an area qualifies as critical habitat is to be made by an assessment against the criteria and thresholds described below. Borrowers may refer to the IUCN’s Guidelines for using A global standard for the identification of Key Biodiversity Areas for additional guidance.

Habitat of significant importance to Critically Endangered, Endangered, Vulnerable or Near Threatened species

GL67. For the purposes of ESPS 6, “significant importance” for Endangered (EN) or Critically Endangered (CR) species is understood to be an area meeting *any* of the following criteria:

Areas that regularly hold one or more of the following:

- $\geq 0.5\%$ of the global population size AND ≥ 5 reproductive units of a CR or EN species;
- $\geq 0.1\%$ of the global population size AND ≥ 5 reproductive units of a species assessed as CR or EN due only to population size reduction in the past or present; or
- Effectively the entire global population size of a CR or EN species.

Proportion of the global population size can be observed or inferred through any of the following:

- number of mature individuals,
- area of occupancy (AOO), as defined by the IUCN,
- extent of suitable habitat,
- range,
- number of localities, or
- distinct genetic diversity.

GL68. The most readily available information for most species will be the area of range from IUCN maps. However, only polygons coded as “extant” or “probably extant” in the “Presence” column of the attributes table should be used to estimate range. For very poorly known species, the only available information is often the number of localities where it has been collected or observed.

GL69. For species listed as Vulnerable (VU), an area will qualify as critical habitat if it supports a globally important concentration of a VU species and the conversion or degradation of the habitat is likely to change its conservation status from VU to EN or higher. For purposes of ESPS 6, any of the following outcomes should be assumed to elevate a VU species to EN:

- Extent of Occurrence (EOO) is reduced to less than 5,000 km²;
- AOO is reduced to less than 500 km²;
- Population is reduced by 50% or more;
- Population is reduced to less than 2,500 mature individuals; or
- Probability of extinction in the wild be 20% or greater in the longer of 20 years or five generations.

GL70. For the purposes of ESPS 6, range may be used in lieu of EOO to assess effects on VU species. Critical habitat for a VU species is unlikely to be identified except for projects with potentially widespread impacts on land use when considered at the scale of the global range of the species.

GL71. For species listed as Near Threatened (NT), an area will qualify as critical habitat if its conversion or degradation will lead to a change in the species' conservation status to VU or higher. Conversely, the area will qualify as critical habitat if its conservation is required to prevent the species from qualifying for a threatened category. Near Threatened species do not yet qualify as CR, EN, or VU but are too close to qualify for or are likely to qualify for a threatened category in the near future if ongoing conservation actions cease. For purposes of ESPS 6, any of the following outcomes should be assumed to elevate a NT species to VU:

- EOO is reduced to less than 20,000 km²;
- AOO is reduced to less than 2,000 km²;
- Population is reduced by 30% or more over the longer of 10 years or three generations;
- Population is reduced to less than 10,000 mature individuals; or
- Probability of extinction in the wild be 10% or greater in 100 years.

GL72. For the purposes of ESPS 6, range may be used in lieu of EOO to assess effects on NT species. Critical habitat for a NT species is unlikely to be identified except for project with potentially widespread impacts on land use when considered at the scale of the global range of the species.

Habitat of significant importance to endemic and/or restricted-range species

GL73. ESPS 6 recognizes endemic or restricted-range species as those species meeting the 2016 IUCN KBA standard definition of restricted range species:

- Species having a global range size less than or equal to the 25th percentile of range-size distribution in a taxonomic group within which all species have been mapped globally, up to a maximum of 50,000 km².
- If all species in a taxonomic group have not been mapped globally, or if the 25th percentile of range-size distribution for a taxonomic group falls below 10,000 km², restricted range should be defined as having a global range size less than or equal to 10,000 km².
- For coastal, riverine and other species with linear distributions that do not exceed 200 km width at any point, restricted range is defined as having a global range less than or equal to 500 km linear geographic span (i.e. the distance between occupied locations furthest apart).
- Species known only from their type locality should not automatically be assumed to have a restricted range, since this may be indicative of under-sampling.

GL74. The following taxonomic groups which have been more comprehensively assessed by the IUCN Red List and their applicable 25th percentile range sizes are provided as determined by the KBA Partnership (as of August 2021):

- Mammals (Mammalia) = 18,413 km²
- Birds (Aves) = 50,000 km²
- Reptiles (Reptilia) = 10,000 km²
- Amphibians (Amphibia) = 10,000 km²
- Ray-finned fish (Actinopterygii) = 19,657 km²
- Sharks and rays (Chondrichthyes) = 50,000 km²
- Lobe-finned fishes (Sarcopterygii) = 50,000 km²
- Lampreys (Cephalaspidomorphi) = 20,783 km²
- Hagfishes (Myxini) = 10,000 km²
- Ceratophyllales (an order of aquatic plants) = 50,000 km²

GL75. However, if a Borrower wishes to adopt a more protective approach to identifying critical habitats for endemic or restrict range species based on national or regional data, they may do so.

GL76. For all other taxonomic groups, such as reptiles, molluscs, crustaceans, insects, etc., 10,000 km² should be used until specific values have been provided by the KBA Partnership or the IUCN.

GL77. For the purposes of ESPS 6, a habitat of significant importance to endemic and/or restricted-range species means:

- An area or site that regularly holds ≥10% of the global population size and ≥10 reproductive units of a restricted range species where the proportion of the global population size can be observed or inferred through any of the following:
 - number of mature individuals,
 - area of occupancy (AOO),
 - extent of suitable habitat,
 - range,
 - number of localities, or
 - distinct genetic diversity.

Habitat supporting globally significant concentrations of migratory species and/or congregatory species

GL78. ESPS 6 recognizes habitats supporting globally significant concentrations of migratory species and/or congregatory species as critical habitat. Migratory species include species of whales, birds, turtles, fish, crustaceans (e.g., freshwater shrimp), butterflies, and other organisms of which a significant proportion of its members cyclically and predictably move from one geographic area to another, including within the same ecosystem. Congregatory species are “species whose individuals gather in large groups on a cyclical or otherwise regular and/or predictable basis”. Examples include the following:

- Species that form colonies;
- Species that form colonies for breeding purposes and/or where large numbers of individuals of a species gather at the same time for non-breeding purposes (e.g., foraging and roosting);
- Species that utilize a bottleneck site where significant numbers of individuals of a species occur in a concentrated period of time (e.g., for migration);
- Species with large but clumped distributions where a large number of individuals may be concentrated in a single or a few sites while the rest of the species is largely dispersed; or
- Source populations where certain sites hold populations of species that make an inordinate contribution to recruitment of the species elsewhere, which is especially important for marine species.

GL79. For the purposes of this ESPS, habitats supporting globally significant concentrations of migratory species and/or congregatory species include any of the following:

- Areas known to sustain, on a cyclical or otherwise regular basis, ≥ 1 percent of the global population of a migratory or congregatory species at any point of the species' lifecycle;
- Areas that predictably support ≥ 10 percent of the global population of a species during periods of environmental stress; or
- Areas that predictably support a number of mature individuals that ranks the site among the largest 10 aggregations known for the species; or
- Areas that predictably produce propagules, larvae, or juveniles that maintain $\geq 10\%$ of the global population size of a species.

GL80. Such areas in Latin America include lakes, lagoons, and wetlands where migratory birds congregate during the breeding season or wintering areas. Many such areas are already identified as Ramsar sites. Areas that will often qualify include:

- Ramsar sites qualifying under Ramsar criterion 4 for supporting plant and/or animal species at a critical stage in their life cycles, or provides refuge during adverse conditions;
- Ramsar sites qualifying under Ramsar criterion 6 for regularly supporting 1% of the individuals in a population of one species or subspecies of waterbird;

- Ramsar sites qualifying under Ramsar criterion 8 as an important source of food for fishes, spawning ground, nursery and/or migration path on which fish stocks, either within the wetland or elsewhere, depend.
- Migratory bird migration corridors, feeding areas, or breeding areas
- Sea turtle nesting beaches
- Areas or corridors of importance to migratory fish

GL81. Any wetland meeting any of the above criteria will be considered critical habitat, regardless of its Ramsar status.

Highly threatened and/or unique ecosystems

GL82. ESPS 6 recognizes highly threatened and/or unique ecosystems as critical habitats. For the purpose of ESPS 6, critical habitats designated for highly threatened and/or unique ecosystems include any of the following:

- An area holding $\geq 5\%$ of the global extent of a globally CR or EN ecosystem type;
- An area holding $\geq 10\%$ of the global extent of a globally VU ecosystem type;
- An area holding $\geq 20\%$ of the global extent of an ecosystem type, regardless of whether the ecosystem type is globally threatened;
- One of ≤ 2 areas per ecoregion characterized by wholly intact ecological communities, comprising the composition and abundance of native species and their interactions;
- An area qualifying under Ramsar Criterion 1 as a representative, rare, or unique example of a natural or near-natural wetland type found within the appropriate biogeographic region.

GL83. The global threat category should be based on the application of the categories and criteria of the IUCN Red List of Ecosystems.

Areas associated with key evolutionary processes

GL84. For the purposes of ESPS 6, key evolutionary processes include but are not limited to:

- Natural isolation of evolutionary lineages (e.g., species) such as mountaintops, deep valleys, and islands;
- Gene flow between populations;
- Adaptation and altitudinal or latitudinal shifting of ranges in response to climate change and other environmental change.

GL85. Under these criteria, sites or areas that will often qualify as critical habitats include:

- Ramsar sites qualifying under Ramsar criterion 3 for supporting populations of plant and/or animal species important for maintaining the biological diversity of a particular biogeographic region.
- Key gene flow pathways for terrestrial and aquatic organisms, both plants and animals, including biological corridors and “stepping-stone” habitat archipelagos
- Isolated mountain ranges, plateaus, tepuis, volcanoes, deep valleys, or islands with endemic species
- Isolated springs, lakes or other waterbodies with endemic species or which serve as biologically important sites for fauna
- Areas of current or future importance for allowing species to adapt to climate change

Legally protected areas or internationally recognized areas of high biodiversity value

GL86. ESPS 6 recognizes as critical habitat all of the following: legally protected areas or internationally recognized areas of high biodiversity value areas that meet the criteria of the IUCN Protected Area Management Categories I through VI; World Heritage Sites designated for natural or mixed criteria, areas protected under the RAMSAR Convention on Wetlands; core areas of World Biosphere Reserves; areas in the UN List of National Parks and Protected Areas; sites listed in the World Database of Key Biodiversity Areas; or other sites meeting the criteria of the IUCN 2016 Global Standard for the Identification of Key Biodiversity Areas.

17. In areas of critical habitat, the Borrower will not implement any project activities unless the following requirements are met:

- No other viable alternatives within the region exist for development of the project on modified or natural habitats that are not critical.
- The project does not lead to measurable adverse impacts on those biodiversity values for which the critical habitat was designated or on the ecological processes supporting those biodiversity values.¹⁵⁰

¹⁵⁰ Biodiversity values and their supporting ecological processes will be determined on an ecologically relevant scale.

- The project does not lead to a net reduction in the global and/or national/ regional population¹⁵¹ of any Critically Endangered or Endangered species over a reasonable period of time;¹⁵²
- A robust, appropriately designed, and long-term biodiversity monitoring and evaluation program is integrated into the Borrower's management program;
- The project has complied with all due process required under national or international law for obtaining project approval in, or adjacent to, areas of critical habitat.

GL87. Paragraph 17 of ESPS 6 requires Borrowers to demonstrate that efforts to avoid impacts to critical habitats by locating projects or facilities in areas outside of critical habitats have been exhausted. At a finer scale, however, Borrowers should also seek to site activities in specific habitats or sites within mapped areas of critical habitat that are of lower or no value for the biodiversity values for the critical habitat was designated. This is generally possible because critical habitat delineations typically include areas of existing converted or degraded habitats as well as natural habitats not suitable for the species for which the critical habitat was identified.

GL88. As required by paragraph 8 of ESPS 6, whenever a Borrower has identified the presence of critical habitat within a project's area of influence, external experts with appropriate regional experience should be retained to assist in the application of the mitigation hierarchy to determine whether the proposed project activities meet the requirements of paragraph 17 of ESPS 6. Biodiversity offsets are not acceptable as measures to mitigate impacts to biodiversity values for which critical habitats are designated.

GL89. Measurable adverse impacts are impacts on biodiversity values – organisms, populations, species, ecological and evolutionary processes, or the physical environment – for which a critical habitat is designated or on the ecological processes supporting those biodiversity values – not on critical habitat itself. When critical natural habitat is present within a project's area of influence, the Borrower must demonstrate that the project will not lead to measurable adverse impacts to the biodiversity values for which the critical habitat was identified or designated and on the ecological processes supporting those biodiversity values. This means that Borrowers may need to retain external experts to undertake a quantitative analysis of the residual impacts likely to

¹⁵¹ Net reduction is a singular or cumulative loss of individuals that impacts on the species' ability to persist at the global and/or regional/national scales for many generations or over a long period of time. The scale (i.e., global and/or regional/national) of the potential net reduction is determined based on the species' listing on either the (global) IUCN Red List and/or on regional/national lists. For species listed on both the (global) IUCN Red List and the national/regional lists, the net reduction will be based on the national/regional population.

¹⁵² The timeframe in which Borrowers must demonstrate "no net reduction" of Critically Endangered and Endangered species will be determined on a case-by-case basis in consultation with external experts.

remain after the application of the avoidance, minimization, and restoration steps of mitigation hierarchy. Consistent with paragraph 10 of ESPS 6, the Borrower must demonstrate that the project will not result in measurable adverse impacts with the application of the proposed mitigation approach, without the need for biodiversity offsets.

GL90. For the purposes of ESPS 6, a measurable adverse impact in the context of Vulnerable or Near Threatened species is considered to be an impact that is likely to lead to an up-listing of its IUCN Red List category (i.e., from NT to VU, EN, or CR or from VU to EN or CR).

GL91. The requirement relating to measurable adverse impacts does not mean no impacts, no activities, or no development in areas of critical habitat. For example, improving existing facilities within a national park or construction of a public health clinic in a town located within a KBA would not be considered to have any measurable adverse impacts. This requirement does, however, mean that there should be no significant residual adverse biodiversity impacts at an ecologically relevant scale arising from project development and persisting after appropriate avoidance, minimization and restoration measures have been taken. Some loss of habitat that has no measurable adverse impact on the viability of the valued biodiversity features it supports may be acceptable. Furthermore, areas of modified natural habitats that do not support significant biodiversity values within areas mapped as critical habitat may be highly suitable for productive or other economic or cultural uses.

GL92. Impacts to migratory or congregatory species for which critical habitat is designated may be considered transboundary impacts when critical areas for different portions of the species life cycle are in different countries. For example, breeding populations may be in one country while overwintering sites may be in another. Affection of habitats or individuals in one country will affect the number of individuals returning to another country. Thus, interested parties, if not project-affected peoples, could be in locations distant from the locations where the activities causing the impacts occur. This may require international consultation and disclosure processes.

GL93. When critical habitats for IUCN Red List Endangered or Critically Endangered species are identified within a project's area of influence, the Borrower must provide an assessment (such as a population viability analysis) prepared by a qualified species specialist that demonstrates that the project will not lead to (including by indirect contribution) the long-term reduction of the global or regional population, as relevant, of the species in question. Again, this analysis must not include any mitigation by biodiversity offsetting. The timeframe of the analysis must not extend beyond the expected lifetime of the project to be financed unless the Borrower presents an acceptable mechanism to assure the sustainability of any conditions or programs required to ensure recovery of the population in question. Populations must be in situ, not in captivity or nurseries, but short-term ex situ measures (e.g., temporary relocation and release) may be considered on a case-by-case basis.

GL94. While ESPS 6 only mentions biodiversity monitoring and evaluation in the context of projects with activities in critical habitats, in accordance with paragraph 22 of ESPS 1 Borrowers are required to establish procedures to monitor and measure the effectiveness of the environmental and social management programs, as well as compliance with any related legal and/or contractual obligations and regulatory requirements. Borrowers with projects with potential adverse impacts on biodiversity and ecosystem services are thus required to monitor and evaluate relevant indicators.

GL95. Borrowers with projects in critical habitats are required to implement a robust biodiversity monitoring and evaluation program (BMEP). While the BMEP should focus on those biodiversity values for which critical habitat are identified, it should also include indicators as applicable to impacts on other affected natural habitats.

GL96. Borrowers are strongly encouraged to monitor and evaluate the implementation of the mitigation hierarchy for biodiversity, with specific indicators relating to demonstrating the application and effectiveness of measures from each step of the hierarchy: avoidance, minimization, restoration, and when applicable, compensation.

GL97. When proposing activities either in or adjacent to an area recognized as critical habitat, Borrowers should consult early on with relevant national and subnational environmental, protected areas, forestry, and biodiversity agencies, as well as international bodies, as relevant, to obtain any approvals required. For example, when a UNESCO World Heritage Site is identified in a project's area of influence, the national UNESCO commission should be consulted and the Borrower should prepare an assessment of impacts to the site's outstanding unique values. Areas identified as critical for IUCN Red List species or for restricted range endemics may require borrowers to determine any legal requirements for activities affecting nationally or subnationally protected species. For projects in Ramsar sites, Borrowers should consult the National Ramsar Committee.

18. In such cases where a Borrower is able to meet the requirements defined in paragraph 17 above, the project's mitigation strategy will be described in a Biodiversity Action Plan and will be designed to achieve net gains of those biodiversity values for which the critical habitat was designated.

GL98. The Biodiversity Action Plan ("BAP") should include a summary of the project description, analysis of alternatives, biodiversity baseline, critical habitat assessment, biodiversity impact assessment and the rationale for selection of the proposed mitigation. Furthermore, it must clearly demonstrate the calculation of net gains. Most importantly, the BAP must provide implementable time-bound actions with appropriate budget allocations for the lifetime of the BAP.

GL99. In areas of critical habitat, the Borrower may not propose biodiversity offsets as a means to meet the requirements of Paragraphs 17 and 18 of ESPS 6 but rather must achieve net gains by first avoiding measurable adverse impacts and then designing and implementing additional actions that may include the reduction of existing threats, enhancement of habitat quality, or other actions that lead to more effective protection and conservation of the biodiversity values for the critical habitats was designated.

GL100. Examples of actions to achieve net gains include:

- Community education and extension programs to improve management of agriculture and livestock production systems that reduce adverse impacts of these ongoing activities through improved agrochemical use, or better grazing practices;
- Community education programs to reduce hunting, collection, fishing, or poaching of species of concern;
- Investment in improvement stormwater management and sewage treatment systems that improve critical aquatic habitats;
- Construction of fauna crossing structures to reduce roadkill and increase connectivity in landscapes impacted by road or rail corridors;
- Actions to support additional biodiversity conservation and protection activities, including legislation and institutional strengthening, that ensure the long-term protection and/or enhancement of habitats essential to the biodiversity values for which critical habitat has been designated.

GL101. Borrowers are strongly encouraged to incorporate “mitigations by design”, not add-ons to predetermined project designs. To comply with paragraph 17 of ESPS 6, Borrowers are encouraged to design approaches that achieve no measurable adverse impacts to biodiversity values for which critical habitats are designated or to the ecological processes supporting to such values by applying avoidance and minimization measures only. Restoration is not recommended, and biodiversity offsetting is not acceptable for achieving no measurable adverse impact due to the inherent risks and uncertainties in these measures.

GL102. It should not be assumed that absolute net gains for biodiversity values relative to the pre-project baseline will be possible for all projects, especially for species and ecosystems threatened by impacts and processes unrelated to the project. The potential for net gains in such cases may be most realistically assessed against a dynamic future baseline scenario, not against a static “status quo” baseline where it assumes that biodiversity values are stable over time. This approach compares the biodiversity outcomes with and without the project but does not assume that the no project scenario has neutral or positive trending indicators for biodiversity values. Net gains can be achieved by actions that reduce existing threats or improve the trajectory of the values in question, even though the future trend is still negative. Any net gains analyses should be performed by qualified specialists and based on credible scientific data and scenarios.

GL103. A BAP must be incorporated in the Borrower’s project-specific Environmental and Social Management System and management programs. While approval of a BAP by national or subnational authorities might not be required, the BAP is often a legally binding document through reference in the Loan Agreement between the Borrower and lenders.

GL104. In compliance with paragraph 6 of ESPS 1, the BAP should specify the applicable laws and regulations relating to biodiversity, including applicable international laws, such as the Convention on Biological Diversity, the Ramsar Convention, and the Convention on Migratory Species. The BAP should also make relevant linkages to the country’s National Biodiversity Strategy and Action Plan and other applicable national or subnational plans or policies. Furthermore, the Borrower should develop the BAP in coordination and information sharing with appropriate agencies.

Legally Protected and Internationally Recognized Areas

19. In circumstances where a proposed project is located within a legally protected area¹⁵³ or an internationally recognized area,¹⁵⁴ the Borrower will meet the requirements of paragraphs 13 through 18 of this ESPS, as applicable. In addition, the Borrower will:

- Demonstrate that the proposed development in such areas is legally permitted;
- Act in a manner consistent with any government recognized management plans for such areas;
- Consult protected area sponsors and managers, Affected Communities, Indigenous Peoples and other stakeholders on the proposed project, as appropriate; and
- Implement additional programs, as appropriate, to promote and enhance the conservation aims and effective management of the area.¹⁵⁵

GL105. While ESPS 6 recognizes legally protected areas as those areas meeting the IUCN definition, including areas proposed as such, the absence of clear legal boundaries or effective management does not disqualify an area as legally protected for the purposes of ESPS 6.

¹⁵³ This ESPS recognizes legally protected areas that meet the IUCN definition: “A clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.” For the purposes of this ESPS, this includes areas proposed by governments for such designation.

¹⁵⁴ Exclusively defined as UNESCO Natural World Heritage Sites, UNESCO Man and the Biosphere Reserves, Key Biodiversity Areas, and wetlands designated under the Convention on Wetlands of International Importance (the Ramsar Convention).

¹⁵⁵ Implementing additional programs may not be necessary for projects that do not create a new footprint.

GL106. Borrowers should utilize their government's official maps, databases, and geographic information systems to identify the presence and boundaries of legally protected areas. In addition, Borrowers are encouraged to use publicly available international online databases to identify internationally recognized areas of high biodiversity value.

GL107. Under paragraph 19 of ESPS 6, Borrowers should include areas managed by private owners, communities, and NGOs as nature or conservation areas, such as private natural heritage reserves, communal reserves, indigenous peoples-managed reserves, or reserves managed by international or national conservation organizations.

GL108. In alignment with ESPS7, the Borrower should recognize, respect and protect indigenous and community-managed territories and their biological values. Territories include reserves, traditionally or customarily held indigenous resources or lands, sacred sites and/or land with ancestral significance to local and indigenous communities. The Borrower is also encouraged to recognize other effective area-based conservation measures that are designed to achieve the effective in-situ conservation of biodiversity, ecosystems and ecosystem services outside of legally protected areas.

GL109. The risks and impacts identification process for legally protected and internationally recognized areas should consider:

- Changes in funding availability
- Changes in staffing and human resources (managers, technicians, rangers, wardens, etc.)
- Changes in zoning and legal status
- Changes in land tenure and land use, both legal and illegal
- Changes in visitor and tourist volumes
- Impacts to landscapes and aesthetic values
- Impacts to biodiversity targets of the area, as well as biodiversity values not recognized in existing decrees, management plans, or fact sheets
- Impacts to adjacent areas and buffer zones, whether legally recognized or not
- Impacts to connectivity with existing corridors and nodes
- Impacts on stakeholders and project affected people

GL110. The Borrower is required to consult with stakeholders of legally protected and internationally recognized areas for any project with direct or indirect impacts in such areas. Such consultation should be consistent with requirements of ESPS 10.

GL111. For legally protected areas, these stakeholders should include:

- The national or subnational protected area authorities
- The protected area director, technicians, and rangers
- NGOs involved in the management of the area

- Beneficiaries of ecosystem services provided by the protected area, including visitors, tour guides, and onsite and offsite providers of goods and services (restaurants, hotels, shops, gas stations, etc.)
- Local communities within or adjacent to the protected area
- Communities of indigenous peoples and traditional African descendant communities and their organizations.

GL112. For internationally recognized areas, whether they are protected or not, these stakeholders should include:

- The organization responsible for its designation or identification, for example:
 - BirdLife International and its national affiliate for IBAs
 - The national Ramsar committee for Ramsar sites
 - The Alliance for Zero Extinction for AZE Areas
 - The KBA Partnership and Regional KBA Coordinator
 - The UNESCO World Heritage Committee and the State Party
- Any national or subnational organization or committee involved with the management of the area
- Local communities within or adjacent to the internationally recognized area
- Communities of indigenous peoples and traditional African descendant communities and their organizations

GL113. Whenever there is a potential for any adverse impact to a legally protected area or internationally recognized area, the Borrower is required to design, fund, and implement programs to promote and enhance conservation aims and effective area management. Such programs commonly include:

- Updating of management plans and zoning maps
- Studies of specific topics relevant to the area to fill information gaps
- Training and capacity building for managers, park rangers, and volunteers
- Educational campaigns for visitors and local communities
- Funding for additional monitoring and surveillance during the lifetime of the project's impacts.

Invasive Alien Species

- 20.** Intentional or accidental introduction of alien, or non-native, species of flora and fauna into areas where they are not normally found can be a significant threat to biodiversity, since some alien species can become invasive, spreading rapidly and out-competing native species. The Borrower will avoid creating conditions that would facilitate the transmission of zoonotic diseases to workers, communities, and populated areas.
- 21.** The Borrower will not intentionally introduce any new alien species (not currently established in the country or region of the project) unless this is carried out in accordance with the existing regulatory framework for such introduction. Notwithstanding the above, the Borrower will not deliberately introduce any alien species with a high risk of invasive behavior regardless of whether such introductions are permitted under the existing regulatory framework. All introductions of alien species will be subject to a risk assessment (as part of the Borrower's environmental and social risks and impacts identification process) to determine the potential for invasive behavior. The Borrower will implement measures to avoid the potential for accidental or unintended introductions including the transportation of substrates and vectors (such as soil, ballast, and plant materials) that may harbor alien species.
- 22.** Where alien species are already established in the country or region of the proposed project, the Borrower will exercise diligence in not spreading them into areas in which they have not already been established. As practicable, the Borrower should take measures to eradicate such species from the natural habitats over which they have management control.

GL114. For the purposes of ESPS 6, “invasive alien species” are, in accordance with the CBD Secretariat, understood to be “plants, animals, pathogens and other organisms that are non-native to an ecosystem, and which may cause economic or environmental harm or adversely affect human health.” Furthermore, the CBD Secretariat notes that these species impact adversely upon biodiversity, including decline or elimination of native species - through competition, predation, or transmission of pathogens - and the disruption of local ecosystems and ecosystem functions.

GL115. Borrowers should consult relevant online databases and national experts when considering the use of specific plant or animal species in a project. Not all exotic or alien species have the biological potential to be invasive and many non-native species have become naturalized in Latin America and the Caribbean. In consultation with national or subnational authorities, Borrowers should evaluate the risks of introducing the species into parts of the country where they are not present or increasing their abundance in areas where already present. In any case, the use of native species should always be considered as the best practice, especially for revegetation works.

GL116. The Borrower's project-specific ESMS and management programs (see ESPS 1) should include measures to ensure that invasive alien species are not inadvertently introduced, for example by trucks and machinery that have not been washed prior to being transported to project sites or by ballast water discharges of marine vessels.

GL117. In projects where Borrowers exercise management control over lands or waters where alien species are already established, Borrowers should seek to design and implement measures to control and eradicate such species.

GL118. The risks and impacts assessment should consider the potential for zoonotic diseases in the area of influence and the potential for direct and indirect project activities to result in increased potential for human exposure to such diseases or spread of their vectors. Projects that lead to changes in land use that reduce the extent of natural habitats and that bring people into closer proximity with wildlife can increase the risk of transmission.

Management of Ecosystem Services

- 23.** Where a project is likely to adversely impact ecosystem services, as determined by the risks and impacts identification process, the Borrower will conduct a systematic review to identify priority ecosystem services. Priority ecosystem services are twofold: (i) those services on which project operations are most likely to have an impact and, therefore, which result in adverse impacts to project-affected people; and/or (ii) those services on which the project is directly dependent for its operations (e.g., water). When project-affected people are likely to be impacted, they should participate in the determination of priority ecosystem services in accordance with the stakeholder engagement process as defined in Environmental and Social Performance Standards 1 and 10.¹⁵⁶
- 24.** With respect to impacts on priority ecosystem services of relevance to the project-affected people and where the Borrower has direct management control or significant influence over such ecosystem services, adverse impacts should be avoided. If these impacts are unavoidable, the Borrower will minimize them and implement mitigation measures that aim to maintain the value and functionality of priority services. With respect to impacts on priority ecosystem services on which the project depends, Borrowers should minimize impacts on ecosystem services and implement measures that increase resource efficiency of their operations, as described in ESPS 3. Additional provisions for ecosystem services are included in ESPS 4, 5, 7, and 8.

¹⁵⁶ The Borrower must ensure the voices of women, people of diverse sexual orientations and gender identities, African descendants, and Indigenous and other traditional peoples are included in this process.



GL119. The ESPF defines ecosystem services as:

“...the benefits that people, including businesses, communities, and society at large, derive from ecosystems. Ecosystem services are organized into four types: (i) provisioning services, which are the products people obtain from ecosystems; (ii) regulating services, which are the benefits people obtain from the regulation of ecosystem processes; (iii) cultural services, which are the nonmaterial benefits people obtain from ecosystems; and (iv) supporting services, which are the natural processes that maintain the other services.”

GL120. Examples of ecosystem services are as follows:

Provisioning services may include food, freshwater, timber, fibers, and medicinal plants. Both modified and natural habitats support plants and animals (especially fish) that provide essential resources to humanity. Many traditional rural communities and indigenous peoples communities directly manage and depend upon native species that require healthy habitats.

Regulating services may include surface water purification, carbon storage and sequestration, climate regulation, and protection from natural hazards. Wetlands in general and mangroves in particular are excellent examples of biodiversity features that provide important regulating services that benefit coastal communities who depend upon them for protection from floods, waves, and tidal surges. Gallery forests along rivers and streams purify water and prevent

erosion. All types of vegetation provide carbon storage and sequestration in aboveground and belowground biomass, as well as in organic matter incorporated in the soil.

Cultural services may include natural areas that are sacred sites and areas of importance for recreation and aesthetic enjoyment. Biodiversity features, including modified and natural habitats, as well as geologic and topographic features that are valued for the scenic, aesthetic, and touristic value create cultural services that benefit communities who receive income from the tourism industry (for example, hotel, restaurant and shop owners, tourist guides, drivers, cooks, producers and vendors of handicrafts, protected area administrations, etc.) and these beneficiaries can be located quite distant from the areas visited by the tourists.

Supporting services may include soil formation, nutrient cycling, primary production. These are services that maintain other types of ecosystem services. Most of the world's food is produced on soils that are the result of thousands of years of soil formation processes. The natural flooding regimes in river basins result in the deposition of sediments and nutrients that support soil formation and the productivity of both natural and human-modified ecosystems. Primary production is the production of carbohydrates in plants, algae, and cyanobacteria through the process of photosynthesis in terrestrial, freshwater, and marine ecosystems.

GL121. For the purposes of ESPS 6, ecosystem services must have identifiable human beneficiaries. Beneficiaries are not limited to project-affected peoples in the sense of those directly affected within the project's area of influence. For example, when a project has the potential to affect a national park, people from urban areas distant from the project's area of influence may be affected by impacts to valued biodiversity and landscape features. Similarly, impacts to a UNESCO World Heritage site would, by definition, affect cultural services that benefit and are valued by people internationally.

GL122. The Borrower's environmental and social risks and impacts identification process should include consideration of ecosystem services, including the outcomes of consultation with stakeholders to identify priority ecosystem services. ESPS 6 defines priority ecosystem services as:

- i. those services on which project operations are most likely to have an impact and, therefore, which result in adverse impacts to project-affected people; and/or
- ii. those services on which the project is directly dependent for its operations (e.g., water).

GL123. Many types of projects will have potential impacts on ecosystem services, in particular, those that affect water resources or land use and that may result in significant conversion or degradation of natural habitats. However, other types of projects that affect the aesthetic values of landscapes, such as transmission lines or sanitary landfills can affect cultural services.

GL124. Examples of types of projects that depend upon ecosystem services include:

- Hydropower projects
- Irrigation projects
- Potable water supply projects
- Agriculture, livestock, fisheries, and forestry projects
- Carbon (REDD+) projects
- Tourism projects
- Bioeconomy projects
- Nature-based solutions for infrastructure resilience and climate change adaptation

GL125. In addition to the Borrower's responsibilities regarding priority ecosystem services, the Borrower's environmental and social risks and impacts identifications process should consider all potentially affected ecosystem services. All ecosystems should be protected from harm to the extent practicable but greater allocation of resources should be made to those that qualify as priority ecosystem services.

GL126. Modified habitats may be very important for ecosystem services to local communities, including drainage and irrigation canals and artificial lagoons that provide fish and other resources. Highly modified or degraded vegetation may still be important as sources of fuel, other plant resources, and as hunting grounds.

GL127. Additional requirements regarding ecosystem services are found in paragraph 8 of ESPS 4 – *Community Health, Safety and Security*; paragraphs 5 and 25–29 of ESPS 5 – *Land Acquisition and Involuntary Resettlement*; paragraphs 13–17 and 20 of ESPS 7; and paragraph 11 of ESPS 8.

Sustainable Management of Living Natural Resources

- 25.** Borrowers who are engaged in the primary production or harvesting of living natural resources, including natural and plantation forestry, agriculture, animal husbandry, aquaculture, and fisheries, will be subject to the requirements of paragraphs 25 through 29, in addition to the rest of this Environmental and Social Performance Standard. Where feasible, the Borrower will locate land-based agribusiness and forestry projects on unforested land or land already converted. Borrowers who are engaged in such activities will manage living natural resources in a sustainable manner, through the application of industry-specific good management practices and available technologies. Where such primary production practices are codified in globally, regionally, or nationally recognized standards, the Borrower will implement sustainable management practices to one or more relevant and credible standards as demonstrated by independent verification or certification.

- 26.** Credible globally, regionally, or nationally recognized standards for sustainable management of living natural resources are those which (i) are objective and achievable; (ii) are founded on a multi stakeholder consultative process; (iii) encourage step-wise and continual improvements; and (iv) provide for independent verification or certification through appropriate accredited bodies for such standards.¹⁵⁷
- 27.** Where relevant and credible standard(s) exist, but the Borrower has not yet obtained independent verification or certification to such standard(s), the Borrower will conduct a pre-assessment of its conformity to the applicable standard(s) and take actions to achieve such verification or certification over an appropriate period of time.
- 28.** In the absence of a relevant and credible global, regional, or national standard for the particular living natural resource in the country concerned, the Borrower will:
- Commit to applying good international industry operating principles, management practices, and technologies; and
 - Actively engage and support the development of a national standard, where relevant, including studies that contribute to the definition and demonstration of sustainable practices.

GL128. Paragraphs 25 to 29 of ESPS 6 apply to projects involving the production or management of living natural resources, which include agriculture, biofuels, plantations, forestry, non-timber forest resources, livestock, freshwater and marine fisheries and aquaculture, or any other form of utilization or production of plant- or animal-based resources, whether carried out by the Borrower or indirectly through the beneficiaries or primary suppliers of the project. These requirements also apply to rural development programs where beneficiaries are engaged in such activities.

GL129. Paragraph 25 of ESPS 6 requires Borrowers to locate land-based agribusiness and forestry projects on unforested land or land already converted, where feasible. To comply with this paragraph, when the proposed project would result in deforestation or other land conversion for agribusiness or forestry activities, the Borrower should provide a detailed analysis of alternatives that demonstrates that there are no feasible alternatives. Aquaculture and fisheries projects should similarly be sited to avoid and minimize impacts to natural habitats, especially mangroves, seagrass beds, and coral reefs.

¹⁵⁷ A credible certification system is one which is independent, cost-effective, based on objective and measurable standards, and developed through consultation with relevant stakeholders, such as local people and communities, Indigenous Peoples, and civil society organizations representing consumer, producer, and conservation interests. Such a system has fair, transparent, and independent decision-making procedures that avoid conflicts of interest.

GL130. Sustainability standards and certifications are intended to ensure that agricultural, livestock-based, forestry, fishery, and other living natural resource-based products are managed in ways that protect people and the environment. A useful standard should be based on credible, realistic, science-based principles and criteria, should be informed by consultation with relevant stakeholders, should allow producers to gradually implement the standard and improve performance, and should be subject to independent verification. They are relevant to the public sector in that they provide guidelines that promote environmentally and socially sustainable development and also enhance the export value of products, particularly in consideration of increasing international requirements for imports of sustainable sourced or produced products.

GL131. Projects involving livestock and other uses of animals should apply relevant animal welfare standards, whether national legal requirements or international voluntary standards.

GL132. Projects designed to benefit small-scale producers, traditional communities, and indigenous peoples should include actions to enhance the sustainability of their management of living natural resources, applying voluntary sustainability standards as applicable.

GL133. When Borrowers are obtaining loans to finance commercial or large-scale agriculture, irrigation, and other rural development projects that directly or indirectly support activities based on the use of living natural resources, the project should include actions to ensure that beneficiaries apply relevant sustainability standards, including close attention to traditional livelihoods (see ESPS 7).

GL134. When Borrowers are obtaining loans to finance marketing and/or transportation projects intended to stimulate production or exports of commodities based on living natural resources, the project should include actions to ensure that producers apply applicable sustainability standards, including close attention to displacement risks (see ESPS 5 and ESPS 7).

GL135. Projects designed to increase the competitiveness, productivity, production, or market access of agricultural, livestock, plantation, or similar products or commodities may have significant indirect impacts on habitats and ecosystem services. Similarly, the economic justification of transportation projects may be based on volumes of commodities to be transported from source areas to points of industrialization, commercialization, consumption, or exportation; such projects similarly may lead to indirect impacts if they lead to changes in land use or management practices upstream. In such cases, the project's environmental and social risks and impacts identification process should include these potential impacts and the project design should consider the inclusion of a component including measures to enhance adoption of relevant sustainability standards by local producers.

Primary Suppliers

- 29.** Where a Borrower is purchasing primary production (especially but not exclusively food and fiber commodities) that is known to be produced in regions where there is a risk of significant conversion of natural and/or critical habitats, systems and verification practice will be adopted as part of the Borrower's ESMS to evaluate its primary suppliers.¹⁵⁸ The systems and verification practices will (i) identify where the supply is coming from and the habitat type of this area; (ii) provide for an ongoing review of the Borrower's primary suppliers; (iii) limit procurement to those suppliers that can demonstrate that they are not contributing to significant conversion of natural and/or critical habitats (this may be demonstrated by delivery of certified product, or progress towards verification or certification under a credible scheme in certain commodities and/or locations); and (iv) where possible, require actions to shift the Borrower's primary suppliers over time to suppliers that can demonstrate that they are not significantly adversely impacting these areas. The ability of the Borrower to fully address these risks will depend upon the Borrower's level of management control or influence over its primary suppliers.

GL136. While a Borrower might not be involved in the production or management of agricultural products, timber, biofuels, or other products resulting from biological processes, including primary production from plants, a Borrower's project might depend upon a supply of such products. For example, a fuel substitution program requiring the cultivation of crops for the production of biofuels might be subject to the requirement of paragraph 29 of ESPS 6. Borrowers need to ensure that producers are not engaging in practices that adversely affect critical habitats or significantly convert any type of natural habitats.

GL137. "Living natural resources, goods, and materials" include, for example, fish, fish meal, poultry, eggs, meat, milk, leather, fur, bone, animal and plant-based fats and oils, scents, grains, nuts, fruits, vegetables, wood and wood-based products, pulp, fibers, plant-based dyes, biofuels, and other inputs or commodities sourced from living organisms, whether wild or domesticated. In the context of this ESPS, the impacts on natural and/or critical habitats associated with the production of these resources, goods, and materials purchased by the Borrower are generally considered indirect impacts of the project and the Borrower must adopt systems and verification practices to manage such impacts.

GL138. Publicly funded processing plants, mills, silos, refrigeration facilities, other storage and handling projects, etc. will need to consider the applicability of ESPS 6 to the extent that these facilities may incentivize the conversion of natural habitats by producers.

¹⁵⁸ Primary suppliers are those suppliers who, on an ongoing basis, provide the majority of living natural resources, goods, and materials essential for the core functions of the project.

