CSBI TIMELINE TOOL

A TOOL FOR ALIGNING TIMELINES FOR PROJECT EXECUTION, BIODIVERSITY MANAGEMENT AND FINANCING

CROSS-SECTOR BIODIVERSITY INITIATIVE

DECEMBER 2013

The Cross Sector Biodiversity Initiative (CSBI) is a partnership between the International Council on Mining and Metals (ICMM), IPIECA, the global oil and gas industry association for environmental and social issues, and the Equator Principles Association.

The initiative aims to develop and share good practices for the effective application of the new International Finance Corporation (IFC) Performance Standard 6 on Biodiversity Conservation and the Sustainable Management of Living Natural Resources. The aim of the CSBI is to bring together industry in order to share experiences as part of a culture of learning and continuous improvement.

1. ABOUT THIS TOOL

This indicative timeline tool has been designed to assist staff involved in extractive project planning to better align project development, biodiversity impact management, and financial timelines and milestones. Its purpose is to provide a roadmap that helps identify key milestones and interdependencies between project development and financing timelines and the actions required to apply the mitigation hierarchy. It is not intended to be prescriptive, but rather to raise awareness of the operational challenges associated with biodiversity impact mitigation.

The timeline tool may also be used as an internal capacity building resource or communications tool as it aims to support the work of a variety of people involved in project planning and execution.

The intended target audience is staff involved in project planning (project managers, HSE advisors, environmental consultants, financial advisors, lenders).

The tool was developed as a product of the Cross Sector Biodiversity Initiative. Other products in development include a catalogue of biodiversity mitigation options and guidance for biodiversity baseline surveys.

2. BACKGROUND AND INTRODUCTION

The practices for managing potential biodiversity impacts from project development have evolved over the years with ever increasing focus on achieving positive conservation outcomes. The updated IFC Performance Standard 6 (PS6, 2012) provides a new benchmark.

In PS6 the Mitigation Hierarchy is a central concept. It explains that actions should be taken to anticipate and avoid, or where avoidance is not possible, minimize and restore, and, where residual impacts remain, offset for risks and impacts to biodiversity.

PS6 differentiates between Modified versus Natural habitats and distinguishes areas with high biodiversity value as Critical Habitat. PS6 provides end-goals for projects in Natural Habitat (aim to achieve No Net Loss) and Critical Habitat (must achieve Net Positive Impact). Net Positive Impact can be defined as a target for project outcomes in which the potential impacts on biodiversity from the project are outweighed by the actions taken, in accordance with the mitigation hierarchy, to achieve net gains for biodiversity. Appendix 1 provides more background on the definition of Critical Habitat.

An issue where guidance is lacking is when actions to manage potential biodiversity impacts should occur relative to the overall project schedule. A key challenge in managing these is the alignment between (internal) project development timelines, and with (external) financing timelines. The exact timing of impact management actions and alignment with project and financing timelines may vary from project to project and often do not align perfectly, but this timeline tool provides an illustration as to how the timelines could be aligned in order to effectively manage risk and uncertainty. It consists of a graphic with the three timelines and major activities and milestones, along with a table and glossary with more detail on some of these activities and terms.

3. VARIABILITY IN ALIGNMENT OF TIMELINES

PROJECT & MITIGATION TIMELINES

During the various stages of extractive project development, decisions are made about project site selection, design concepts, facility locations, technology choices and impact mitigation measures. These decisions aim to minimize project risks and uncertainties and require input from both the project design perspective as well as the environmental management (biodiversity) perspective. At the beginning of the project there will be uncertainty on both the project design and the environment (see Appendix 2). This uncertainty is reduced through efforts to increase knowledge of the environment which then informs project related location and design decisions. However, the elimination of all risk and uncertainty before construction begins is generally not possible.

KEY MESSAGES

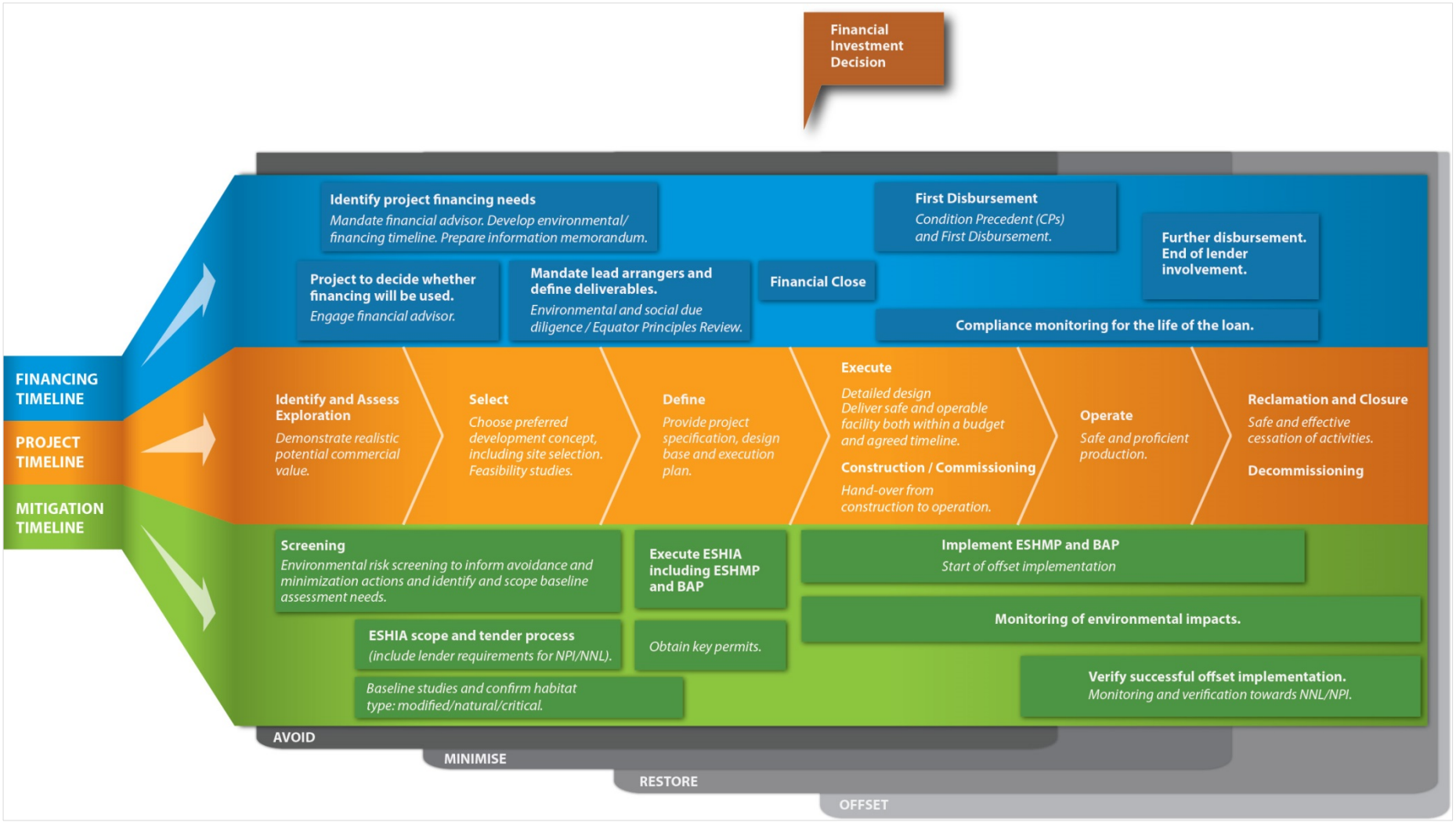
- This tool is not prescriptive but intended to illustrate the link between project development, biodiversity mitigation planning, and financing timelines
- The appropriate timing of risk management actions and alignment with project and financing timelines must be made on a case-by-case basis.
- Biodiversity mitigation efforts should be front-loaded based on risk and uncertainty.
- Risk and uncertainty should be reduced to the extent possible before construction occurs, as well as before financing is sought or secured.

FINANCING & MITIGATION TIMELINES

A similar alignment challenge exists between the financiers need for information and the project and biodiversity impact management timelines. Ideally, all risks should be identified and mitigated (or planned to be mitigated) before financing contracts are signed, but that is often not possible. Front-end loading can reduce risks earlier, but comes at a financial cost and cannot pre-empt certain project decisions. If there is high risk and/or uncertainty related to potential environmental impacts, additional mitigation actions may need to be front-end loaded prior to commencement of construction and financial close.

Financial institutions engage with project sponsors at different times in the project development process and have different roles with different leverage (see Appendix 3 for financing process). The financial institutions with the greatest leverage are called Mandated Lead Arrangers (MLAs) and provide capital for the project in the form of debt. MLAs are typically not involved with a project until much later in the process after many crucial decisions are made about biodiversity mitigation, including confirmation of habitat type (modified/natural/critical), biodiversity baseline identification, and application of the mitigation hierarchy. Once MLAs are involved, they may identify potentially time-consuming gaps to be filled before financial close. At a minimum, they will expect project sponsors to demonstrate technical and political feasibility of biodiversity impact mitigation, particularly if offsets are required (see Appendix 2 for explanation of feasibility stages). As a result, it is key that project sponsors initiate work related to the management of biodiversity impacts as early as possible in the project development process. In that respect, the Financial Advisor can play an important role. Front-end loading detailed and time-intensive biodiversity studies and assessments can greatly help in reducing the risks of project delays at the MLA selection stage, or of having financial institutions declining to participate in a transaction because of biodiversity-related concerns.

4. ILLUSTRATIVE ALIGNMENT OF TIMELINES



Year	PROJECT TIMELINE	BIODIVERSITY MITIGATION TIMELINE	FINANCING TIMELINE
0 -4	**Opportunity Identification / Exploration** This phase can take long and includes Exploration, which may include separate biodiversity mitigation and permitting. In many cases Exploration may not lead to full project development. Acquire claims/leases/ exploration concession (right to explore and/or develop) Demonstrate that the opportunity realistically has potential to realize commercial value. Assess realistic range of development concepts and demonstrate feasibility. Establish key risk factors. Prepare pre-feasibility and/or company specific deliverables.	**Screen environmental risks** Identify environmentally sensitive areas and potential project cost implications Conduct screening to inform avoidance and minimization actions and identify baseline assessment needs. Develop environmental profile (e.g. critical habitat, protected areas, current threats, legislation, environmental constraints, etc.). Assess habitat type: Modified/ Natural/Critical (e.g. screen using IBAT)	**Engage financial advisor** Determine whether external financing will be utilized, this could include project financing or corporate loans for a project.
	AVOID / MINIMISE		
0-2	**Select** Complete advanced exploration. Evaluate options/Choose preferred development concept, including site selection. Complete scoping, pre-feasibility and feasibility studies.	**Start baseline studies** Confirm habitat type: Modified/ Natural/Critical. Prepare ESHIA scope and tender process (include lender requirements for No Net Loss (NNL)/Net Positive Impact (NPI)). Conduct risk assessment to determine if biodiversity impacts can be mitigated towards NNL/NPI of biodiversity values. Initiate impact assessment at the end of this phase.	**Identify financing strategy** Mandate financial advisor. Develop environmental/financing timeline (including targets for closure on deliverables). Prepare information memorandum.

Year	PROJECT TIMELINE	BIODIVERSITY MITIGATION TIMELINE	FINANCING TIMELINE
		AVOID / MINIMISE	
1-3	**Define** Provide project specification, design base and execution plan to deliver sufficient value versus risk for investment decision. Include output from EHSIA process, e.g. mitigation options Front-end load Engineering and Design.	**Start ESHIA process** Finalize detailed baseline studies. Assess potential impacts and design mitigation options as per mitigation hierarchy (avoid/minimize/restore/ offset) Quantify potential residual impacts to determine the need for offsets. Identify and assess potential offset options. Develop ESHMP and BAP, including mitigation actions, offset and compensation design, agreed with project team and stakeholders.	**Mandate lead arrangers and define deliverables** Finalization of legal loan documentation between lenders and project, including establishment of Force Majeure clauses and penalty clauses.
	ESHMP included in Project Design and Execution Plan.	**Complete ESHIA, including ESHMP and BAP** Develop offset governance and management mechanisms, including funding. Offsets should be at least technically feasible and covenanted including fallback options. Obtain societal acceptance/" license to operate".	**Environmental and Social Due Diligence/ Equator Principles Review** Determine technical and political feasibility of offset. Develop formal offset agreements and fallback position.
	Obtain permits.	**Obtain permits**	**Finalize terms & conditions within loan documentation** **Financial close**
		AVOID / MINIMISE	
		Final investment Decision	

Year	PROJECT TIMELINE	BIODIVERSITY MITIGATION TIMELINE	FINANCING TIMELINE
2-5	**Execute / Construction** Complete detailed design and construction. Deliver a safe and operable facility that is both within budget and the agreed timeline.	**Implement ESHMP and BAP** Begin monitoring of environmental impacts Start offset implementation	**First Disbursement** Initiate in parallel with offset milestones. Check Environmental and Social Condition Precedents to First Disbursement.
	Commissioning Hand-over from construction to operations. Commencement of operations/ ramp-up to full production.	**Ongoing impacts monitoring and offset implementation**	**Compliance monitoring**
AVOID / MINIMISE / RESTORE / OFFSET			
5-40	**Operate** Safe and proficient production. Start of progressive closure in some cases	**Monitor progress towards NNL/NPI** Consider additional mitigation actions if mitigation goals are not being met	**Compliance monitoring** Until end of lender involvement.
AVOID / MINIMISE / RESTORE / OFFSET			
End	**Abandonment/Reclamation and Closure** Conduct safe and effective cessation of activities. Planning and management of long-term liabilities.	**Achieve NNL/NPI** Ensure gains last as long as impacts and preferably in perpetuity	**Compliance monitoring** Until end of lender involvement.
AVOID / MINIMISE / RESTORE / OFFSET			

APPENDIX 1. CRITICAL HABITAT

The concept of Critical Habitat is used by the IFC to define those ecosystems which are most valuable for Biodiversity.

Critical habitats are areas with high biodiversity value, including (i) habitat of significant importance to Critically Endangered and/or Endangered 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; and/or (v) areas associated with key evolutionary processes[1].

This critical habitat definition is in line with criteria captured from a wide range of definitions of priority habitat for biodiversity conservation in use by the conservation community and incorporated in related governmental legislation and regulations. Critical habitats are areas of high biodiversity value that may include at least one or more of the five values above and/or other recognized high biodiversity values.

Critical habitat is identified irrespective of the type or scale of the development or impact. This means that its definition is based on biodiversity of the area, not the impacts from a project. Critical habitat is an inherent property of an area.

Guidance Note 6 of IFC provides more detailed guidance on the definition and the process to determine whether an area qualifies as Critical Habitat.

Access IFC Guidance Note 6: www.ifc.org/performancestandards

[1] Source: IFC Performance Standard 6, 2012

APPENDIX 2. UNCERTAINTIES IN MANAGING BIODIVERSITY RISKS

The following are examples of uncertainties in managing biodiversity risks that may require additional or earlier timing of activities.

- Data deficiencies related to assessing biodiversity value (e.g. insufficient or absent baseline data; lack of data on seasonality, species/habitat distribution, or population size; new-to-science species)
- Data deficiencies related to biodiversity trends and pressures (i.e. background rate of increase/decrease and causal factors)
- Data deficiencies related to identification of mitigation options, including availability of offset sites
- Technical uncertainties related to mitigation options (e.g. untested methodology or approach)
- Climate change effects and unforeseen natural disasters
- Political uncertainties, including legal mechanisms for securing offsets, land tenure, etc.
- Financial uncertainties, including costs of mitigation to achieve 'no net loss' of biodiversity
- Uncertainties can be determined using a mitigation feasibility analysis. Biodiversity mitigation options can be filtered in three ways: theoretical, technical, and political feasibility. The number of options for actions will decrease as they are assessed for theoretical, technical, and political feasibility. The level of uncertainty will also decrease as each type of feasibility is determined.

Adapted from The Biodiversity Consultancy, 2012

As indicated in the timeline illustration and the table, offset selection, design and implementation can take a long time and will usually not be completed before start of construction. The objective should be to minimize uncertainty about the offset outcomes by selecting options that are at least technically and politically feasible as agreed with relevant stakeholders and includes a fall-back option as appropriate. If that is not possible in the time-frame of the project, the associated uncertainty needs to be assessed.

APPENDIX 3. FINANCIAL PROCESS

ENGAGE FINANCIAL ADVISOR

The finance process often begins early with the hiring of a financial advisor to evaluate and structure optimal financing solutions for the project. The financial structure may include a combination of commercial bank debt, multilateral and bilateral institutional support, equity financing, and/or credit enhancement.

Many Equator Principles (EP) Financial Institutions now differentiate themselves as financial advisors with the capacity to ensure companies structure their projects so that they can successfully access the EP-covered financial market. Financial advisory services may include assistance with developing the Terms of Reference for a bankable ESHIA, hiring consultants with experience applying international standards, and advising on lender expectations related to biodiversity issues that may require long lead times to address before the project is bankable.

SELECT MANDATED LEAD ARRANGERS (MLAS)

Once the financial structure is decided, the financial advisor will assist the project sponsors in developing a Request for Proposal (RfP) for Mandated Lead Arrangers. MLAs lead the financing by committing to raise the complete commercial debt amount in the financial markets. MLAs will typically provide a portion of the debt themselves, and then pass along the rest of the debt, and hence the risk, to other lenders (called Participants). The process of selling the debt to other banks is called syndication.

MLAs enter the project cycle at a later stage than the financial advisor (typically after the ESHIA is prepared), and therefore, may not have the same opportunity to influence biodiversity planning early on. However, MLAs play a leading role in the financing process, and as part of their due diligence process, they may require project sponsors to address gaps in biodiversity assessment and planning prior to financial close. This can – and often does – lead to delays in financing if long lead times are required. In some extreme cases, financial institutions approached on a project (to participate either as MLA or as Participant) can decline the offer because of key risks and impacts (e.g. on biodiversity) not being appropriately taken into account, with no clear prospect for improvement. This can also be a financial risk for the project sponsors.

ENVIRONMENTAL AND SOCIAL DUE DILIGENCE/ EQUATOR PRINCIPLES REVIEW

Once MLAs are appointed, the environmental and social due diligence begins, including the EP review, if applicable. When there is a group of banks, one will coordinate the due diligence process on behalf of the whole lender group. This coordination role can be assumed by a bank already bearing a coordination role such as the arranger or the technical bank or agent. In some cases, where the environmental and social impacts are significant, a separate role will be created called the Environment bank or agent. From 2014 onwards the application of EP will prompt the appointment of an EP bank or agent where the scale of environmental and social impacts requires it and EP banks feel a need to discuss problematic issues. The agent or bank in charge of coordinating the process will prepare a scope of work for the due

diligence and manage the RfP process for selecting an independent engineer or Lenders' Independent Environmental and Social Consultant (IESC) sometimes with qualified biodiversity experts (if one has not already been appointed, by the financial advisor for example). In some cases, specialized biodiversity expertise, potentially with knowledge and experience on biodiversity offsets, may need to be contracted separately. It is therefore very important to identify the project's risks and potential impacts as early as possible, in order to plan accordingly.

The due diligence process concludes with a due diligence report prepared by the Independent Engineer or the IESC that assesses the project plans against the IFC Performance Standards, and outlines actions that need to be taken to ensure compliance is achieved over time. For projects impacting natural or critical habitat, the IFC Performance Standard 6 requires project sponsors to develop mitigation measures to achieve no net loss (where feasible) or net positive gain of biodiversity, respectively.

FINALIZE TERMS AND CONDITIONS WITHIN LOAN DOCUMENTATION

Under the Equator Principles, project loan agreements must include a covenant to comply with the Environmental, Social, and Health Management Plan (ESHMP) and the Equator Principles Action Plan (EPAP, where applicable). An EPAP is usually prepared when any gaps or non-compliances with the IFC Performance Standards have been identified. The EPAP outlines time-bound actions to achieve compliance with the IFC Performance Standards, and the deadlines for completing each action may be specified as a date or prior to financing milestones such as project completion or first disbursement. With the inclusion of a positive covenant in the loan agreement, the EPAP becomes a contractually binding document.

MONITORING AFTER FINANCIAL CLOSE

Lenders will usually require on-site monitoring and reporting of compliance with the environmental terms and conditions outlined in the loan agreement, and for sensitive projects subject to the Equator Principles such monitoring is systematically required. The monitoring frequency depends on the complexity of the project but is typically quarterly during the construction phase and annually during operations through the life of the loan. When restoration and/or offset implementation is required to achieve 'no net loss' or 'net positive gain' of biodiversity, compliance with the IFC Performance Standard 6 may take significantly more time than lender (or even project sponsor) involvement. In these cases, lenders and project sponsors should consider long-term funding mechanisms and governance structures for oversight and management of restoration and/or offset measures.

APPENDIX 4. GLOSSARY

Biodiversity Action Plan (BAP): A plan to manage potential risks to changes in biodiversity or ecosystems services arising from environmental aspects of assets and activities; it lists the actions to take to conserve or enhance biodiversity.

Covenant: the promises made by the Borrower to undertake certain actions (positive covenant) or to refrain from taking certain actions (negative covenant).

Condition precedents: a set of pre-conditions that must be satisfied before the borrower can request drawdown, or before other credit facilities can be made available under a loan agreement. Conditions Precedent can be used to require borrowers to make certain progress on environmental and social issues before disbursement.

Environmental, Social & Health Impact Assessment (ESHIA): A methodology to identify and assess the environmental, social and health impacts of a proposed project. It involves evaluating alternatives and identifying measures for mitigation, or enhancement, management and monitoring environmental (including biodiversity), social, socio-economic, public and community health impacts.

Environmental, Social & Health Management Plan (ESHMP): In the context of ESHIA a list of the commitments made by a project to mitigate, manage and monitor identified environmental, social and health issues for the project and the proposed means of achieving them.

Equator Principles Review: Process of due diligence review, whereby an independent consultant assesses a project's compliance with the Equator Principles and IFC Performance Standards on behalf of a group of lenders.

Front-end loading: Front-end loading includes robust planning and design early in a project's lifecycle (i.e., the front end of a project), at a time when the ability to influence changes in design is relatively high and the cost to make those changes is relatively low.

Mitigation Hierarchy: Actions to anticipate and avoid, or where avoidance is not possible, minimize, and, where residual impacts remain, compensate/offset for risks and impacts to the environment (IFC 2012)

No Net Loss (NNL): No net loss is defined as 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). (IFC 2012)

Net Positive Impact (NPI): NPI or net gains are additional conservation outcomes that can be achieved for the biodiversity values for which the critical habitat was designated. Net gains may be achieved through the development of a biodiversity offset and/or, in instances where the client could meet the requirements of this Performance Standard 6 without a biodiversity offset, the client 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. (IFC 2012)

Offset: 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.