

# Guidance Notes to the Standard on Biodiversity Offsets





Forest Trends and the Wildlife Conservation Society provided the Secretariat for BBOP during the second phase of BBOP (2009-2012)

### **Publication Data**

Business and Biodiversity Offsets Programme (BBOP). 2012. Guidance Notes to the Standard on Biodiversity Offsets.

BBOP, Washington, D.C.

Available from [http://bbop.forest-trends.org/guidelines/Standard\\_Guidance\\_Notes.pdf](http://bbop.forest-trends.org/guidelines/Standard_Guidance_Notes.pdf)

© Forest Trends 2012.

ISBN (paperback) 978-1-932928-46-1; ISBN (pdf) 978-1-932928-47-1.

Reproduction of this publication for educational or other non-commercial purposes is authorised without prior written permission from the copyright holder provided the source is fully acknowledged.

Reproduction of this publication for resale or other commercial purposes is prohibited without prior written permission of the copyright holder.

Cover and graphic design by Rima Design and Forest Trends.

Published 20 March 2012

# Guidance Notes to the Standard on Biodiversity Offsets: A tool to assess adherence to the BBOP Principles on Biodiversity Offset Design and Implementation

These Guidance Notes to the Standard on Biodiversity Offsets ('the Standard') have been prepared by the Business and Biodiversity Offsets Programme (BBOP) to help auditors, developers, conservation groups, communities, governments and financial institutions that wish to assess biodiversity offsets against the Standard on Biodiversity Offsets. As Figure 1 shows, the Guidance Notes accompany the Standard and should be read in conjunction with the introductory text (Part 1) of the Standard, whose contents are summarised here:

## Contents of the Standard on Biodiversity Offsets

*(Available at: <http://bbop.forest-trends.org/guidelines/Standard.pdf>)*

### Part 1: Introduction

About the Principles, Criteria and Indicators

Related Documents, Including Guidance Notes and Glossary, Audience and Users

The assessment process and sequence of addressing the Principles, Criteria and Indicators

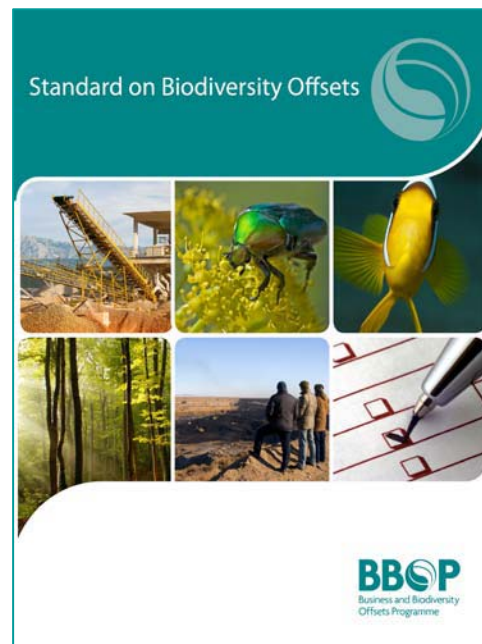
Key documents

Assessing conformance

Offset or compensation? What if my project does not satisfy all the PCIs?

Relationship with Ecosystem Services

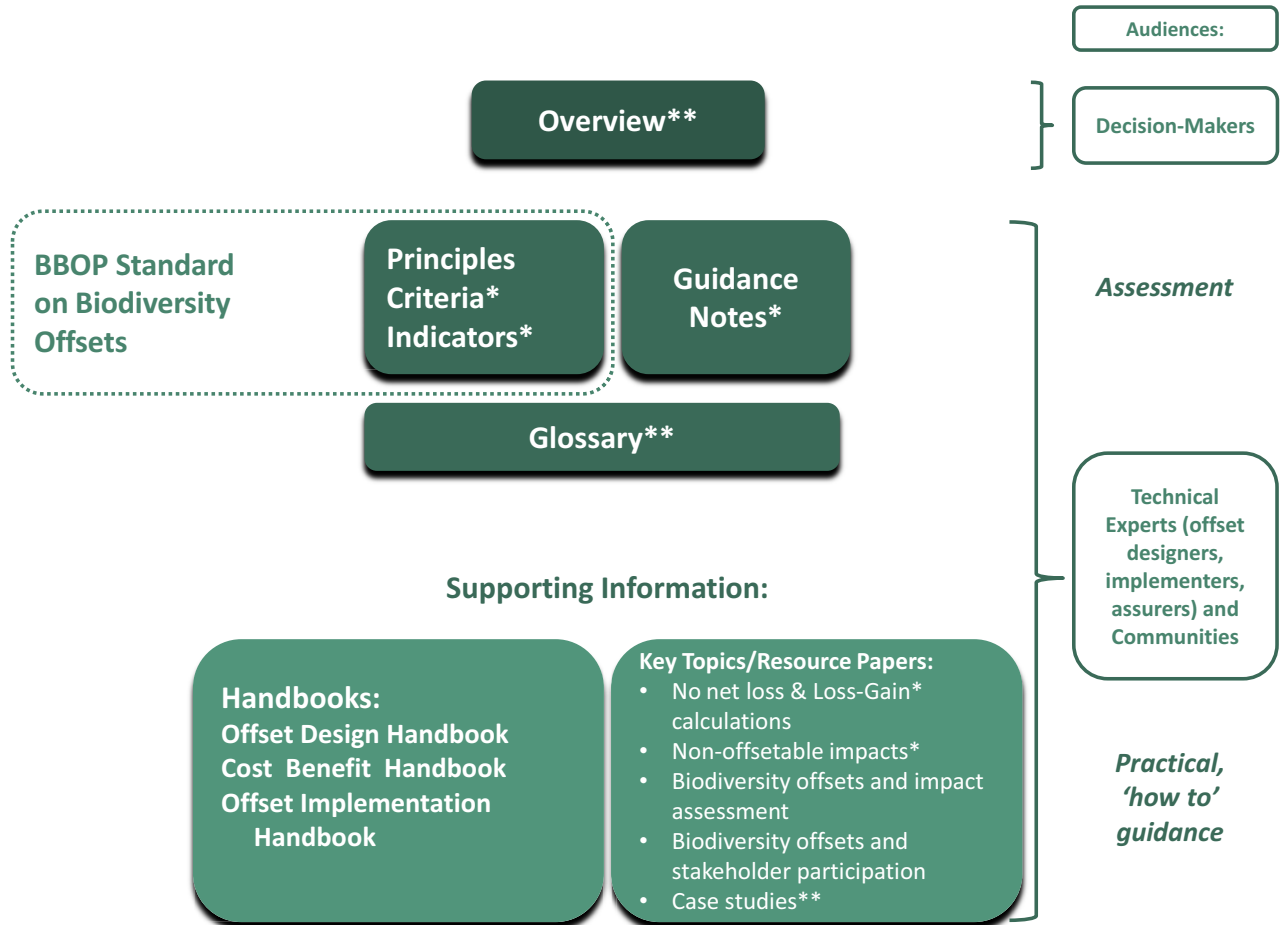
History, Trialling and Next Steps



### Part 2: Principles with Criteria and Indicators

**Figure 1: BBOP Standard on Biodiversity Offsets and Associated Material**

Note: Documents published in 2009, unless marked as follows: \* First prepared in 2012; \*\* Updated 2012



All the documents listed in the diagram above (from 2009 and from 2012) will be available at: <http://bbop.forest-trends.org/guidelines/>

All those involved in the development of the Standard and these Guidance Notes are grateful to the companies who volunteered pilot projects in BBOP's first and second phases of our work and for the support of the donors listed overleaf, who have enabled the Secretariat and Advisory Group to prepare these documents.

BBOP is embarking on the next phase of its work, during which we hope to collaborate with more individuals and organisations around the world, continually to refine the Standard and Guidance Notes based on experience and practice, and to learn from a wide range of experiences with biodiversity offsets in a variety of industry sectors and geographical areas. BBOP has already benefited from drawing on the experience and approaches of a wide range of organisations, members and non-members alike, who are developing tools and mechanisms to apply the mitigation hierarchy, including delivery of biodiversity offsets. We hope their approaches and experiences will continue to inform and ultimately comply with the Standard as it is revised over time. BBOP is a collaborative programme, and we welcome your participation and feedback. To learn more about the programme and how to get involved please:

See: <http://bbop.forest-trends.org>

Contact: [bbop@forest-trends.org](mailto:bbop@forest-trends.org)

In addition to our fee paying membership, we thank those organisations that have provided financial support for BBOP's work<sup>1</sup> in its second phase:



---

<sup>1</sup> Endorsement of some or all of the BBOP documents is not implied by financial support for BBOP's work.



# Table of Contents

<b>Preambular Text to BBOP Principles .....</b>	<b>1</b>
<b>Guidance Notes to the Principles, Criteria and Indicators ...</b>	<b>1</b>
PRINCIPLE 1 .....	1
PRINCIPLE 2 .....	10
PRINCIPLE 3 .....	18
PRINCIPLE 4 .....	26
PRINCIPLE 5 .....	61
PRINCIPLE 6 .....	69
PRINCIPLE 7 .....	79
PRINCIPLE 8 .....	85
PRINCIPLE 9 .....	96
PRINCIPLE 10 .....	102
RELATIONSHIPS BETWEEN INDICATORS .....	109





# Preambular Text to BBOP Principles

Biodiversity offsets are measurable conservation outcomes resulting from actions designed to compensate for significant residual adverse biodiversity impacts arising from project development<sup>2</sup> after appropriate prevention and mitigation measures have been taken. The goal of biodiversity offsets is to achieve no net loss and preferably a net gain of biodiversity on the ground with respect to species composition, habitat structure, ecosystem function and people’s use and cultural values associated with biodiversity.

These principles establish a framework for designing and implementing biodiversity offsets and verifying their success. Biodiversity offsets should be designed to comply with all relevant national and international law, and planned and implemented in accordance with the Convention on Biological Diversity and its ecosystem approach, as articulated in National Biodiversity Strategies and Action Plans.

## Guidance Notes to the Principles, Criteria and Indicators

<b>PRINCIPLE 1<sup>3</sup></b>	<b><i>Adherence to the mitigation hierarchy: A biodiversity offset is a commitment to compensate for significant residual adverse impacts on biodiversity identified after appropriate avoidance, minimisation and on-site rehabilitation measures have been taken according to the mitigation hierarchy.</i></b>
<b>CRITERION 1-1</b>	<b>The developer shall identify, implement and document appropriate measures to avoid and minimise the direct, indirect and cumulative negative impacts of the development project and to undertake on-site rehabilitation/restoration.</b>
<b>INDICATOR 1-1-1</b>	An assessment of the development project’s impacts on biodiversity (including direct, indirect and cumulative impacts, as appropriate) is conducted with stakeholder participation.

### GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 1-1-1

#### Interpretation of Indicator:

*(Please see also the interpretation of indicator 1-1-2, which discusses the mitigation hierarchy).*

- Impact assessment processes can take a number of forms. The formal process in most countries is the Environmental Impact Assessment (EIA), Environmental and Social Impact Assessment (ESIA) or Social and Environmental Impact Assessment (SEIA). The EIA (or ESIA or SEIA) is a tool primarily for examining the environmental (and social) effects of an activity through the systematic identification, prediction and evaluation, mitigation and management of impacts from a proposed development and its reasonable alternatives prior to a decision being made, or resources being committed to that activity. A second objective of EIA is to inform and influence the proposal itself through the identification and mitigation of likely significant impacts. Depending on the regulatory context, certain projects do not require a formal impact assessment to be undertaken. In addition,

<sup>2</sup> While biodiversity offsets are defined here in terms of specific development projects (such as a road or a mine), they could also be used to compensate for the broader effects of programmes and plans.

<sup>3</sup> The Principles are identical in content to those agreed in 2009, but their sequence has been changed. The Principles that appear here as numbers 1, 2, 3, 4 and 5 were formerly numbered 3, 4, 5, 1 and 2.

a biodiversity offset may sometimes be planned following completion of the EIA (and sometimes even retrospectively once impacts have started). In these cases a separate impact assessment exercise will be needed. However, the preferred method for undertaking impact assessment for a biodiversity offset is as part of a best practice EIA. Useful guidance on best practice in impact assessment and biodiversity offsets can be found in BBOP's Resource Paper on The Relationship between Biodiversity Offsets and Impact Assessment. This includes reference to several sources of guidance for impact assessment with respect to biodiversity. The elements of a good assessment process are as follows:

1. The need and purpose for the proposed activity, and its context.
  2. A description of the nature, scale and location of the activity and feasible alternatives. This description should cover the project's main inputs and outputs, as well as any production processes.
  3. A description of the affected environment and its key characteristics and values. The description should include any trends that would influence impact significance.
  4. A description of the policy and planning framework, any legal requirements, environmental quality standards and/ or performance targets (e.g., conservation targets or priorities) that would have a bearing on the activity.
  5. A description of the stakeholder engagement process, and of the main issues and concerns associated with the proposed activity, as expressed by stakeholders, including its likely impacts on the intrinsic, socioeconomic and cultural values of biodiversity.
  6. An assessment of the potentially significant impacts and risks associated with the proposed activity and any feasible alternatives. The assessment should look at direct and indirect impacts and at cumulative impacts, as appropriate. It should also describe the parties who would be affected by these impacts, paying particular attention to vulnerable persons.
  7. Description of any changes to the location, design, siting and/ or phasing of the proposal in response to significant impacts and risks.
  8. A summary of the adequacy of information used in the EIA and implications for decision making of any gaps, uncertainties, unprecedented effects and assumptions.
  9. Sources of information, consultants/ specialists' qualifications.
- The extent of the assessment process should be commensurate with the size of the project and its biodiversity impact.
  - Direct impacts: This is an outcome directly attributable to a defined action or project activity (often also called primary impact).
  - Indirect impacts: Indirect impacts (sometimes called secondary impacts or induced impacts), are impacts triggered in response to the presence of the project, rather than being directly caused by the project's own operations. For instance, the presence of a project such as an oil and gas facility may lead to an increased local workforce and associated increases in demand for food. This may have knock-on effects on biodiversity, for example due to increased land conversion for farming or increased levels of hunting. Indirect impacts may reach outside project boundaries and may begin before or extend beyond a project's lifecycle.

- **Cumulative impacts:** These represent the total impact arising from the project (under the control of the developer), other activities (that may be under the control of others, including other developers, local communities, government) and other background pressures and trends that may be unregulated. The project's impact is therefore one part of the total cumulative impact on the environment. The analysis of a project's incremental impacts combined with the effects of other projects can often give a more accurate understanding of the likely results of the project's presence than just considering its impacts in isolation. More information on the extent to which it is reasonable and appropriate for a developer to take measures to address cumulative impacts is provided under the Guidance Notes for Indicator 1-1-2, below.
- **Stakeholder participation:** This is the subject of Principle 6, below. Ensuring stakeholders' views are taken into consideration in assessing a project's impacts is sufficiently important to merit specific reference within this indicator. However, more detailed consideration of stakeholder participation can be found under Principle 6.

**Factors to consider in assessing conformance:**

**Key Question:** Has an assessment process involving a review of the project's biodiversity impacts been undertaken?

**Conformance requires:**<sup>4</sup>

1. An impact assessment for the specific context of the project has been undertaken that contains elements similar to those listed above.
2. The assessment process has been fully documented in the EIA or an equivalent document.

---

<sup>4</sup> **Non-conformance** may be caused by, for example:

- No or inadequate stakeholder participation
- Critical element of impact assessment process omitted
- Major impact omitted or inadequately considered

<b>PRINCIPLE 1</b>	<b><i>Adherence to the mitigation hierarchy: A biodiversity offset is a commitment to compensate for significant residual adverse impacts on biodiversity identified after appropriate avoidance, minimisation and on-site rehabilitation measures have been taken according to the mitigation hierarchy.</i></b>
<b>CRITERION 1-1</b>	<b>The developer shall identify, implement and document appropriate measures to avoid and minimise the direct, indirect and cumulative negative impacts of the development project and to undertake on-site rehabilitation/restoration.</b>
<b>INDICATOR 1-1-2</b>	Measures to avoid and minimise biodiversity loss and to rehabilitate/restore biodiversity affected by the project are defined and documented, and these measures implemented, monitored and managed for the duration of the project's impacts.

## **GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 1-1-2**

### **Interpretation of Indicator:**

- The mitigation hierarchy is defined as:
  - a. Avoidance: measures taken to avoid creating impacts from the outset, such as careful spatial or temporal placement of elements of infrastructure, in order to completely avoid impacts on certain components of biodiversity.
  - b. Minimisation: measures taken to reduce the duration, intensity and / or extent of impacts (including direct, indirect and cumulative impacts, as appropriate) that cannot be completely avoided, as far as is practically feasible.
  - c. Rehabilitation/restoration: measures taken to rehabilitate degraded ecosystems or restore cleared ecosystems following exposure to impacts that cannot be completely avoided and / or minimised.
  - d. Offset: measures taken to compensate for any residual significant, adverse impacts that cannot be avoided, minimised and / or rehabilitated or restored, in order to achieve no net loss or a net gain of biodiversity. Offsets can take the form of positive management interventions such as restoration of degraded habitat, arrested degradation or averted risk, protecting areas where there is imminent or projected loss of biodiversity.
- The place of offsets at the end of the mitigation hierarchy serves to illustrate that they are essentially a measure of last resort, deployed if the project's impacts cannot be addressed through the preferable routes of avoidance and minimisation, and through effective on-site rehabilitation or restoration.
- It is worth noting that 'c. Rehabilitation/restoration' listed in the mitigation hierarchy above refers to measures taken *within* areas affected by the project. Rehabilitation/restoration measures can also be an important part of 'd. Offset', in which case they take place *outside* the area affected by the project's impacts.
- Mitigation activities take place before (avoidance), during (minimisation and rehabilitation/restoration) and after (rehabilitation/restoration) the project's impacts, and should continue as long as the project's impacts last.

- Good practice on the application of the mitigation hierarchy is, in the first instance, to place the greatest emphasis on the avoidance (rather than minimisation, restoration/rehabilitation and offset) of impacts on highly irreplaceable and/ or vulnerable biodiversity (please also refer to Principle 2, Indicators 2-1-1 and 2-1-2). The appropriate emphasis to be placed on each step in the mitigation hierarchy is also discussed in BBOP's Offset Design Handbook (available at [www.forest-trends.org/biodiversityoffsetprogram/guidelines/odh.pdf](http://www.forest-trends.org/biodiversityoffsetprogram/guidelines/odh.pdf)) and in BBOP's 2011 Resource Paper on limits to what can be offset.
- Expert ecological opinion is generally needed to determine how far each step in the mitigation hierarchy should be pursued. There is no single right answer as to when is appropriate to move from one step in the mitigation hierarchy to the next (for example, how much effort and investment should be made with rehabilitation/restoration on-site compared and when to transfer attention to offset activities). Consequently, the auditor will need to look for evidence of a thorough impact assessment and a clear, defensible description of the mitigation measures that provide a rationale for level of effort taken for each step and that offer evidence that genuine efforts have been taken to follow the mitigation hierarchy rigorously.
- The mitigation hierarchy should be applied to direct and indirect impacts, as defined in the Guidance Notes to Indicator 1-1-1, above. It is likely to be beyond the ability and responsibility of an individual developer fully to mitigate and offset impacts caused by others, including all cumulative impacts (as defined in 1-1-1). Well conceived and executed cumulative impact analyses are still comparatively rare in EIAs, particularly in developing countries, and methods for assessing cumulative impacts are being improved. However, good practice in impact assessment is for each developer to consider (1) whether their project will contribute to cumulative impacts such that irreversible effects on biodiversity will occur or tipping points will be reached which would mean the project's impacts cannot be offset; and (2) to the extent possible, to assess the relative contribution made by their project and include this in loss-gain calculations and offset design. For instance, imagine a scenario where introduction of a new access road for drilling or production for oil and gas creates access to a lake historically used by local communities for subsistence fishing. Fish populations in the lake are already over-fished. Introduction of the new road opens access to a market which was previously inaccessible, increasing levels of fishing to beyond a tipping point and driving stocks towards extinction. In such a case, these cumulative impacts should be identified and appropriate measures identified through the application of the mitigation hierarchy, including offsets. For instance, no-fishing zones in fish breeding areas of the lake could help offset a share of the cumulative impacts.
- Developers typically adopt some form of management plan (often called a Biodiversity Action Plan) to address the mitigation measures set out in the EIA and then developed as part of the environmental management plan to ensure their implementation. Biodiversity may be integrated throughout the environmental management plan, or may form a discrete component. Such documents may also incorporate biodiversity offsets, but they are generally more focussed on project sites (and managing impacts on-site) rather than on offset areas and activities. The BBOP PCI are flexible as to what form and name it takes, but require one or more plans that address the full set of issues involved in design and implementation of mitigation measures, including the biodiversity offset. Offset activities may be physically separate from companies' on-site biodiversity management, broader in scope and involve more detailed and longer-term roles, responsibilities and legal, institutional and financial arrangements. This presents the developer with a number of possibilities:

- The developer may choose to prepare a Biodiversity Offset Management Plan that includes the Biodiversity Action Plan addressing mitigation measures (avoid, minimise and rehabilitate/restore) for the project site, as well as offset activities.
- Alternatively, the developer may expand the Biodiversity Action Plan for the project to include not only biodiversity management activities on-site and covering avoidance, minimisation and rehabilitation/restoration measures, but also the biodiversity offset activities, including those away from the project site. The Biodiversity Action Plan may thus include the detail required throughout the PCI for the Biodiversity Offset Management Plan.
- A third alternative is that the Biodiversity Action Plan may tackle the ‘avoidance, minimisation and rehabilitation/restoration’ part of the mitigation hierarchy (focusing on the project site and areas affected by the project), while a separate Biodiversity Offset Management Plan could cover the biodiversity offset activities.
- Whichever option is pursued, the documents should be closely coordinated.
- Elements of a good plan setting out measures taken to avoid and minimise impacts on biodiversity and to rehabilitate/restore biodiversity components affected by project impacts are as follows:
  - Identify the project impacts on specific components of biodiversity, and to include consideration of impacts on the intrinsic, socioeconomic and cultural values of these biodiversity components (see Indicator 4-2-1).
  - Identify the measures for avoidance (including those taken to avoid impacts and risks to highly irreplaceable and/or vulnerable biodiversity that has been identified; see Indicator 2-1-1 and Indicator 2-1-2).
  - Identify the measures for minimisation.
  - Identify the measures for rehabilitation and restoration.
  - Provisions for managing and monitoring the measures defined for avoiding and minimising the development project’s impacts on biodiversity.
  - Provisions for managing and monitoring the measures defined for rehabilitation and restoration.
  - Provisions for reporting on the implementation of the measures defined in the plan.
  - Identify the resources required to implement the defined measures.
- Assessment of this Indicator depends on the regular reporting on the implementation, management and monitoring of the measures in the Biodiversity Offset Management Plan.
- Performance reports on the measures defined in the mitigation plan should be produced and reviewed on a regular (e.g., annual) basis and should be in a form that enables ready comparison of the objectives of the measures and the actual results achieved over time.

### **Factors to consider in assessing conformance:**

**Key Question:** Is there a plan that is being implemented, managed and monitored which thoroughly documents the application of the mitigation hierarchy? Does this plan include the measures that have and continue to be taken to avoid and minimise impacts, and to undertake rehabilitation/restoration measures?

#### **Conformance requires:<sup>5</sup>**

1. A plan which documents the application of the mitigation hierarchy, containing elements similar to those listed above.
2. This plan sets out the measures that have and continue to be taken to avoid and minimise impacts, and to rehabilitate/restore biodiversity.
3. This plan either forms part of the Biodiversity Offset Management Plan, or, if it is a separate document, it is referenced in and appended to the Biodiversity Offset Management Plan.
4. Regular (preferably annual) performance reports on the implementation, management and monitoring of measures in the plan.
5. Performance reports to be made available to stakeholders.

---

<sup>5</sup> **Non-conformance** may be caused by, for example:

- Significant project impacts omitted
- Management provisions omitted
- Important avoidance, minimisation or restoration/rehabilitation measures not included in the plan
- Inadequate resources identified in the plan to implement the mitigation hierarchy
- The Biodiversity Offset Management Plan does not contain the mitigation plan or make reference to it and append it.
- Implementation reports not available
- No evidence that defined measures have been implemented

<b>PRINCIPLE 1</b>	<b><i>Adherence to the mitigation hierarchy: A biodiversity offset is a commitment to compensate for significant residual adverse impacts on biodiversity identified after appropriate avoidance, minimisation and on-site rehabilitation measures have been taken according to the mitigation hierarchy.</i></b>
<b>CRITERION 1-2</b>	<b>The biodiversity offset shall only address the residual impacts of the development project, namely those impacts left after all the appropriate avoidance, minimisation and rehabilitation/restoration actions have been identified.</b>
<b>INDICATOR 1-2-1</b>	Any residual losses of biodiversity that may exist following avoidance, minimisation and rehabilitation/restoration are identified and described in the Biodiversity Offset Management Plan.

## GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 1-2-1

### Interpretation of Indicator:

- The residual losses are the remaining adverse impacts on biodiversity after appropriate avoidance, minimisation and rehabilitation measures have been taken according to the mitigation hierarchy.
- The potentially significant biodiversity impacts and risks should be evaluated in the project’s assessment process under 1-1-1, and measures defined to avoid and minimise biodiversity loss and to rehabilitate/restore affected biodiversity, as described in 1-1-2. The place of offsets at the end of the mitigation hierarchy serves to illustrate that they are truly intended to tackle ‘residual’ impacts alone. Offsets are essentially a measure of last resort, deployed if the project’s impacts cannot be addressed through the preferable routes of avoidance and minimisation, and through effective on-site rehabilitation or restoration.
- The residual losses are initially anticipated through the impact assessment process, and can later be verified once the impacts have actually taken place.
- In assessing the residual impacts, it is good practice to evaluate and take into account the risks that the minimisation and restoration activities may not succeed, and thus that the residual impacts for which an offset is needed are greater than those originally planned for. Monitoring the success of the mitigation measures set out in the Biodiversity Offset Management Plan, and adaptive management, can help tackle this.
- The measures for avoidance, minimisation, rehabilitation and restoration should be identified and documented in a management plan. So should the measures taken to offset the residual impacts. Please see the discussion of this subject under the interpretation of Indicator 1-1-2.
- The definition of biodiversity offsets contained in the preambular text to the Principles is as follows: ‘Biodiversity offsets are measurable conservation outcomes resulting from actions designed to compensate for significant residual adverse biodiversity impacts arising from project development<sup>6</sup> after appropriate prevention and mitigation measures have been taken.’ This suggests that the object of biodiversity offsets is only those residual impacts which are ‘significant’. ‘Significant’ in this context is not defined in the Standard, just as it is not defined in other guidance, such as IFC

<sup>6</sup> While biodiversity offsets are defined here in terms of specific development projects (such as a road or a mine), they could also be used to compensate for the broader effects of programmes and plans.



Performance Standard 6. Consequently, it is up to the developer to satisfy the assessor that the offset tackles at least the significant residual impacts, as the conformance requirements below clarify. Indicator 1-2-1 does not limit the identification and description of residual impacts only to 'significant' ones. This is because it is important to have a grasp of the full set of residual impacts in order to determine and describe which ones are considered 'significant'. In addition, developers may choose voluntarily to offset all residual impacts, rather than distinguishing between those residual impacts they consider 'significant' and others.

**Factors to consider in assessing conformance:**

**Key Question:** Have the residual losses been identified and described?

**Conformance requires:<sup>7</sup>**

1. The residual impacts have been identified taking into account the measures for avoidance, minimisation, rehabilitation and restoration.
2. The residual losses (including at a minimum significant residual losses) have been quantified by properly applying the methods for determining losses to the residual impacts. (See also Indicator 4-2-2.

---

<sup>7</sup> **Non-conformance** may be caused by, for example:

- Residual losses not identified
- Residual losses not quantified
- Residual losses not identified for all key biodiversity components
- Metrics not applied to losses

<b>PRINCIPLE 2</b>	<i>Limits to what can be offset: There are situations where residual impacts cannot be fully compensated for by a biodiversity offset because of the irreplaceability or vulnerability of the biodiversity affected.</i>
<b>CRITERION 2-1</b>	The risk that the project’s residual impacts on biodiversity may not be capable of being offset (‘non-offsetable’) shall be assessed and measures taken to minimise this risk.
<b>INDICATOR 2-1-1</b>	A risk assessment is undertaken to predict the level of risk that the project’s residual impacts on biodiversity will be not be capable of being offset, with special attention afforded to any highly irreplaceable and vulnerable biodiversity components.

## GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 2-1-1

### Interpretation of Indicator:

- Biodiversity offsets are not appropriate for all development impacts on biodiversity as some impacts cannot be offset. Where the residual impacts of a proposed project are so great as to cause irreplaceable biodiversity loss (such as the global extinction of a species), no biodiversity offset would be able to compensate for this loss. In such a case, a ‘no net loss’ or net gain outcome would be impossible to achieve. ‘Non-offsetable impacts’ thus refer to a level of severity beyond which impacts on biodiversity by a development project are no longer capable of being offset
- Please note: A Resource Paper on ‘Limits to what can be offset’ ([http://bbop.forest-trends.org/guidelines/Resource\\_Paper\\_Limits.pdf](http://bbop.forest-trends.org/guidelines/Resource_Paper_Limits.pdf)) is available, providing further technical information to assist with the interpretation of Principle 2. The paper suggests broad categories for determining the risk of impacts that are not capable of being offset in a given situation, as well as measures and commitments that can be taken to address risks and uncertainties in high, medium and low risk situations.
- It is important to recognise that the indicators and activities listed under Principle 2 inevitably relate very closely to those listed under Principle 1 (Adherence to the Mitigation Hierarchy).
- The irreplaceability and vulnerability of biodiversity components to be affected by the project, the degree of uncertainty with respect to severity of impacts, and the probability of success of a biodiversity offset, are all likely to be material factors in determining whether impacts on biodiversity can be offset.
- Irreplaceability is a term used to reflect the extent to which the loss of an area and its biodiversity will compromise regional conservation targets. It is a measure of the alternative spatial options available for meeting a conservation target or goal. Low irreplaceability means there are many options for achieving conservation targets for specific biodiversity components. High irreplaceability means options for meeting conservation targets are very limited, thus indicating a high risk that impacts will be non-offsetable and should, in the first instance, be avoided and minimised in accordance with the mitigation hierarchy (please see Principle 1, particularly Indicator 1-1-2, and BBOP’s 2011 Resource Paper on ‘Limits’). An area is considered 100% irreplaceable if conservation goals cannot be achieved without it. Measures of irreplaceability must be clearly referenced to a geographic scale of analysis (e.g., globally, nationally, or regionally).

- Precise definitions for ‘vulnerability’ vary, and so do the criteria for determining the vulnerability of biodiversity components or of specific sites.<sup>8</sup> In essence, though, vulnerability indicates the likelihood or imminence of biodiversity loss (e.g., of a particular species or ecosystem, or of a specific site) due to current or impending threats. These threats can be direct, indirect or cumulative, and may include habitat loss, habitat degradation, or fragmentation, over-harvesting or hunting, etc. Vulnerability is often used together with irreplaceability to direct limited resources towards sites or biodiversity components that should receive conservation action most urgently (i.e., they are highly irreplaceable and threatened). However, vulnerability is often also used to determine the conservation significance of biodiversity (be it a species, community or ecological process). High vulnerability (e.g., critically endangered or endangered status of species on the IUCN Red List) means higher risk that impacts on this biodiversity may be non-offsetable and that impacts should, in the first instance, be avoided and minimised in accordance with the mitigation hierarchy (see Principle 1). But vulnerability can also indicate opportunity for adding conservation value through an appropriate, successful offset, where this is demonstrated as feasible (please refer to the BBOP 2011 Resource Paper on ‘Limits’).
- In general, whether a specific set of impacts on biodiversity can and should be offset is context dependent and needs to be established on a case by case basis, through a risk assessment.
- In some cases, projects must apply specific thresholds or defined limits to comply with banks’ lending conditions or government policies: The International Finance Corporation suggests indicative numerical thresholds for determining non-offsetable impacts on species-triggered Critical Habitat in its revised Performance Standard 6 (IFC, 2010/2011), as do some national or sub-national policies and guidelines (e.g., in South Africa, Australia). Even where they are not mandatory, such thresholds can provide a useful reference point for assessing the risk that a project’s impacts may not be possible to offset (please see BBOP’s 2011 Resource Paper on ‘Limits’).
- Similar to Indicator 1-2-1, while the definition of biodiversity offsets focuses on ‘significant residual adverse biodiversity impacts’, Indicator 2-1-1 does not specify that the assessment of risk that the residual impacts can be offset must be limited to ‘significant’ residual impacts only. This is left to the developer to determine. The assessment can by all means focus on those residual impacts which are significant, and indeed any residual impact that is not capable of being offset (particularly on highly irreplaceable and vulnerable biodiversity components) would almost certainly be ‘significant’.
- A good risk assessment should:
  - Be undertaken at the earliest possible stage in the development planning process, at a project’s pre-feasibility stage, or as part of an Environmental Impact Assessment (EIA) or similar process (see Guidance Notes for Indicator 1-1-1.);
  - Be guided by the advice of suitably qualified specialists and local expertise;
  - Assess ecological factors (particularly the irreplaceability and vulnerability of affected biodiversity) and other factors (e.g., legal, socio-economic and financial) that may affect the feasibility of delivering an offset;

---

<sup>8</sup> See for example Wilson et al. 2005. *Measuring and Incorporating Vulnerability into Conservation Planning*. *Environmental Management* 35: 527–543. And Nicholson et al. 2009. *Assessing the threat status of ecological communities*. *Conservation Biology* 23: 259-274.

- Consider all affected biodiversity components and ecological processes that may support other vulnerable or irreplaceable biodiversity components (see also Indicator 4-2-1);
- Be conducted at a scale that is detailed and extensive enough to enable decision-making relevant to the development project and affected biodiversity. Usually, it is necessary to consider information extending beyond the immediate project site (for example to assess the significance of affected biodiversity from a regional/national/global perspective) (see also Indicator 3-1-1);
- Clearly document the steps that were taken to assess and categorise the risk of the project having non-offsetable impacts on biodiversity, highlighting where affected biodiversity may be highly irreplaceable, vulnerable, and/or otherwise of high conservation significance; and
- Specify where ecologically-based thresholds may apply (on a compliance or voluntary basis), how they have been used to distinguish between risk categories (e.g., high, medium, low risk of non-offsetable impacts), and where there is a risk that these thresholds will be crossed.

**Factors to consider in assessing conformance:**

**Key Questions:**

1. Has an assessment involving qualified expert(s) been undertaken to determine the risk that the project will have non-offsetable impacts on biodiversity?
2. Has the assessment applied relevant thresholds, to determine the risk of non-offsetable impacts?

**Key Question 1:** Has an assessment involving qualified expert(s) been undertaken to determine the risk that the project will have non-offsetable impacts on biodiversity?

**Conformance requires:<sup>9</sup>**

1. An assessment, with characteristics similar to those listed above, has been undertaken to determine the risk of non-offsetable project impacts on biodiversity.
2. The assessment is guided by advice from qualified specialists and by local expertise, particularly concerning the identification of ecological factors (irreplaceability and vulnerability of affected biodiversity components) and other factors that influence the feasibility of delivering a successful offset.
3. The assessment has been fully documented, whether in an Environmental Impact Assessment, or in the Biodiversity Offset Management Plan, or in both.

---

<sup>9</sup> **Non-conformance** may be caused by, for example:

- Vulnerability and irreplaceability of affected biodiversity components not identified
- No or unclear documentation of the risk assessment, and/or of the factors included in the assessment.
- Specialist recommendations and local expertise not included, or inadequately included in the assessment.

**Key Question 2:** Has the risk assessment applied relevant thresholds, to determine the risk of non-offsetable impacts?

**Conformance requires:**<sup>10</sup>

1. Regional, national and international thresholds that are applicable to the area affected by the project have been identified,<sup>11</sup>
2. The relevance of the thresholds selected to the project concerned is justified, taking into account the project's particular ecological context and its specific biodiversity impacts.
3. Thresholds identified in #1 (above) have been used in the assessment to determine the project's risk of having impacts that are not capable of being offset.
4. The identification and use of thresholds has been undertaken in consultation with qualified biodiversity specialists and local experts<sup>12</sup>, and the process is documented in the Biodiversity Offset Management Plan.

---

<sup>10</sup> **Non-conformance** may be caused by, for example:

- Applicable thresholds not identified
- Impacts not analysed with regard to thresholds

<sup>11</sup> These thresholds (indicating non-offsetable impacts) could be: (1) any thresholds that are requirements (either for legal compliance, or as a condition of project finance. For instance, see the IFC's Performance Standard 6 and associated Guidance Notes; or (2) where there are no specific thresholds whose application is required, suitable thresholds selected, adapted and applied by the offset planners. More guidance on this can be found in BBOP's 2011 Resource Paper on 'Limits to what can be offset'.

<sup>12</sup> This could include recognised specialists with expertise in biodiversity and ecosystem assessment, in biodiversity offsets, in the relevant species or taxonomic groups, with excellent knowledge of the local natural environment, ecology and conservation biology, etc. These specialists may be recommended by specialist peer groups or organisations (academic, governmental, non-governmental).

<b>PRINCIPLE 2</b>	<i>Limits to what can be offset: There are situations where residual impacts cannot be fully compensated for by a biodiversity offset because of the irreplaceability or vulnerability of the biodiversity affected.</i>
<b>CRITERION 2-1</b>	The risk that the project's residual impacts on biodiversity may not be capable of being offset ('non-offsetable') shall be assessed and measures taken to minimise this risk.
<b>INDICATOR 2-1-2</b>	The risk assessment demonstrates how the project's residual impacts can and will be offset through specific measures and commitments, taking into account the level of risk and uncertainties regarding the delivery of the offset.

## GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 2-1-2

### Interpretation of Indicator:

- Please note: A Resource Paper on 'Limits to what can be offset', available at [http://bbop.forest-trends.org/guidelines/Resource\\_Paper\\_Limits.pdf](http://bbop.forest-trends.org/guidelines/Resource_Paper_Limits.pdf), provides further technical information to assist with the interpretation of Principle 2. This Resource Paper suggests broad categories for determining the risk of non-offsetable impacts in a given situation, as well as measures and commitments that can be taken to address risks and uncertainties in high, medium and low risk situations.
- The burden of proof to demonstrate that a reliable no net loss outcome can be achieved through specific measures and commitments rests with the project developer.
- Impacts on a species or community may not be satisfactorily offset for a number of reasons including natural rarity, high depletion and the temporary deficiency of essential habitat or processes. Temporal residual loss of biodiversity occurs where there is a time lag between the impact and the offset achieving its objectives. Time lags can result from delayed commencement of the conservation interventions at the offset site and from the time taken for natural systems to fully respond to interventions (such as improved management or rehabilitation).
- The measures and commitments required to demonstrate offset delivery will be defined as part of the risk assessment (see Indicator 2-1-1). They need to correspond to the level of risk identified, and should explicitly take into account uncertainties relating to the feasibility of a no net loss outcome for biodiversity. In high risk situations, strong evidence will be required to satisfy the auditor (and other stakeholders) that irreversible biodiversity loss can be avoided. Less evidence may be required in low risk situations.
- Risks and uncertainties, and the measures taken to address these, relate not only to ecological factors. Legal, socio-economic, financial and other factors also influence whether or not a proposed offset will be feasible (see Indicator 2-1-1 and BBOP's 2011 Resource Paper on 'Limits'). For example, situations can arise where suitable potential offset sites are identified but for legal or other reasons cannot be secured for offsetting. This may be because the landowner does not consent or the land is used or zoned for an incompatible use (e.g., intensive agriculture, urban expansion, or under existing mining rights).

- The assessment should define a set of measures that demonstrate how the offset will address risks and uncertainties pertaining to the ecological context of affected biodiversity and in the event of any temporal residual biodiversity losses.
- Situations that indicate high risk due to ecological factors include situations where affected biodiversity is highly irreplaceable, restricted in its distribution, highly threatened throughout its range, has very exacting ecological requirements, or is poorly understood, or where temporal resource shortages could lead to the permanent loss of a threatened species' population, (See BBOP's 2011 Resource Paper on 'Limits'). In such situations, the kinds of measures that would be applied include:
  - The project design is modified to avoid areas of highly irreplaceable habitat (see also Indicator 2-1-1 and 1-1-2);
  - A successful offset is delivered in advance of the impacts (e.g., through a habitat or conservation bank);
  - In addition, like-for-like provisions (Indicator 4-2-3) are closely adhered to and there is a high degree of similarity between the impact area and the offset site.
- Impacts on a species or community may not be satisfactorily offset for a number of reasons including natural rarity, high depletion and the temporary deficiency of essential habitat or processes. Temporal residual loss of biodiversity occurs where there is a time lag between the impact and the offset achieving its objectives. Time lags can result from delayed commencement of the conservation interventions at the offset site and from the time taken for natural systems to fully respond to interventions (such as improved management or rehabilitation).
- The offset design needs to demonstrate the reliability and proven success of the proposed offset techniques, and to include ways to overcome any impediments that may prevent access to suitable offset sites.
- The kinds of measures applied to address risk and uncertainty pertaining to these factors may include:
  - A range of techniques, and possibly sites, have been selected to deliver the offset so as to address numerous risks and uncertainties (e.g., limiting the consequences of one activity or site failing to deliver the anticipated outcomes, (see also BBOP's 2011 Resource Paper on No Net Loss). The offset techniques may be to restore, rehabilitate, and/or protect biodiversity, where these actions are shown to be additional (see also Indicator 5-1-1). For many biodiversity components there is limited experience with successful restoration. Measures aimed at avoiding future additional losses at the offset site can sometimes offer more reliable outcomes, provided there is good evidence that these losses would indeed occur without the presence of the project or offset, and can be averted through the offset activities.
  - Access to the land for providing the offset is assured through purchase or long term agreement with the landowner(s), where the agreement is of sufficient duration to ensure biodiversity values will be sustained.
  - A financial mechanism has been established to ensure that offset activities are fully funded and secured for long term use, e.g., through a trust fund (see Indicators under Principle 8-1).

- The support of affected stakeholders for the development project and the offset has been obtained through a transparent, rigorous and participatory process of stakeholder engagement (see Indicators under Principle 6-1).
- Where it is determined, as part of the risk assessment described under Indicator 2-1-1 and 2-1-2, that residual project impacts on biodiversity will not be capable of being offset, but where the project nevertheless proceeds, the fact that some impacts are not capable of being-offset should be acknowledged. This situation will arise, for example, where it is clear that an applicable threshold will be crossed (Indicator 2-1-1), or where measures and commitments by the developer to limit the risk of non-offsetable impacts do not avoid or adequately mitigate this risk (Indicator 2-1-2). In these circumstances, it may be possible to deliver compensation measures that may provide specific biodiversity benefits but will not achieve no net loss.

**Factors to consider in assessing conformance:**

**Key Question:** Does the assessment demonstrate that the residual impacts can and will be offset by means of the offset activities?

**Conformance requires:**<sup>13</sup>

1. Specific measures and commitments to ensure that the residual impacts on biodiversity can be offset have been clearly defined and documented.
2. The measures correspond to the identified level of risk of non-offsetable impacts on biodiversity, and how they will ensure that residual impacts can and will be offset has been demonstrated.
3. Where there is a risk that the project's impacts may cross the threshold of impacts capable of being offset, evidence is provided of the measures and commitments taken to ensure that this threshold will not be crossed.
4. Offsets are not proposed for impacts on highly irreplaceable biodiversity which needs to be maintained in its original setting to ensure its representation and persistence. Instead, no net loss is assured through the following measures and commitments:
  - a) A set-aside to conserve this biodiversity has been implemented on the project site; and/or
  - b) An effective offset for this biodiversity has been provided in advance (for example, through a conservation bank).
5. Thorough evidence is provided to demonstrate that the impacts on highly irreplaceable biodiversity can and will be offset, given its specific ecological context and the ecological opportunities to substitute it elsewhere.
6. A high degree of equivalence has been demonstrated between the ecological context and the ecological processes at the impact site and the offset site.

---

<sup>13</sup> **Non-conformance** may be caused by, for example:

- Measures and commitments have not been identified or documented.
- Measures have not been linked to thresholds, where these apply.
- Measures and commitments do not correspond to the level of risk, and/or are inadequate to mitigate risks.
- Low equivalence between impact area and offset site
- Lack of evidence that proposed offset techniques will be successful
- Offset sites not secured or highly unlikely to be secured
- Lack of evidence that temporary resource deficiencies can be offset



7. The proposed offset techniques are reliable and proven for the biodiversity affected.
8. Offset sites are available and have been secured, or shown to have no impediment to being secured.
9. Evidence that any temporary deficiencies of essential habitat availability or processes at the offset site would not compromise the persistence and resilience of affected biodiversity and thus would not result in non-offsetable impacts.
10. The risk assessment is adequately documented in the Biodiversity Offset Management Plan, reflecting compliance with the requirements under Principle 4, and showing that the key questions in these guidance notes have been answered.

<b>PRINCIPLE 3</b>	<i>Landscape context: A biodiversity offset should be designed and implemented in a landscape context to achieve the expected measurable conservation outcomes taking into account available information on the full range of biological, social and cultural values of biodiversity and supporting an ecosystem approach.</i>
<b>CRITERION 3-1</b>	The biodiversity offset shall be designed and implemented to complement and contribute to biodiversity conservation priorities identified at the landscape, eco-regional and national levels.
<b>INDICATOR 3-1-1</b>	The identification of potential offset locations is undertaken in the context of a landscape level analysis, and the ecosystem approach is used to plan the offset.

## GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 3-1-1

### Interpretation of Indicator:

- Potential offset sites for a particular development project are generally identified ‘off-site’, i.e., they are not necessarily confined to the immediate project site.
- It is common for biodiversity offset activities to be undertaken not just in one location, but in two or more. This is sometimes referred to as a ‘composite offset’. This approach is taken to ensure all the biodiversity values affected are covered by the various offset activities and sites, and it also helps to spread risk (e.g., in case a particular site or activity does not perform as well as anticipated, see BBOP’s No Net Loss Resource Paper). Typically, some activities may be undertaken close to the development project to address impacts on local communities’ socioeconomic and cultural aspects of biodiversity, while other activities, such as restoring and protecting habitats of affected threatened species, may be undertaken in the wider landscape.
- Offset design in the landscape context should ensure that losses relating to the landscape value of affected biodiversity, for example where impacts sever the connectivity between two areas, are balanced by commensurate gains in landscape value, for example through the offset reconnecting these or equivalent areas elsewhere. (Please also refer to Principle 4, and associated Criteria, Indicators, and Guidance Notes).
- The selection of location/s for offset activities should be supported by information from a recent landscape level analysis that looks at biodiversity conservation priorities, as well as conservation opportunities and constraints (e.g., third party developments) in a regional context, i.e., beyond the boundaries of the area affected by the project. This is important as ecological patterns and processes and associated ecosystem services do not necessarily observe man-made boundaries, and since opportunities for delivering conservation outcomes on a like-for-like-or-better basis may be found in the broader landscape. A landscape analysis will make use of spatial tools and best available spatial and contextual information to help identify viable options (sites and activities) for offset delivery. A landscape level analysis should follow a systematic approach, documented in the biodiversity offset management plan, and it should consider the views and values of affected stakeholders.
- The ecosystem approach set out by the Convention for Biological Diversity (CBD, see <http://www.cbd.int/ecosystem/sourcebook>) is a framework for the integrated management of land, water and living resources. It is based on a set of principles that can be flexibly applied to a

particular regional context. Applying this approach assists with identifying viable, long-term offset solutions that can be aligned with other planning initiatives aimed at sustainable development in a region.

- There are many different tools and approaches for landscape-level planning and analysis. The majority of tools and approaches are GIS-based and make use of widely recognised systematic planning approaches (e.g., systematic conservation planning<sup>14</sup>) or other criteria. Some of these approaches are described in the BBOP Offset Design Handbook available at [www.forest-trends.org/biodiversityoffsetprogram/guidelines/odh.pdf](http://www.forest-trends.org/biodiversityoffsetprogram/guidelines/odh.pdf). Note that systematic conservation planning provides an excellent basis to plan for biodiversity offsets at a regional level<sup>15</sup>, and that it is used to assess the irreplaceability of biodiversity, which is an important measure in establishing limits to what can be offset (Please see Principle 2, and its associated indicators and Guidance Notes).
- The temporal and geographic scale of the analysis needs to be meaningful at the level of the development project, and with regards to the characteristics of the biodiversity and ecosystem services affected. This means that the information gathered needs to be useful for making ecologically and practically informed judgments for offset site selection (i.e., similar to the information used to make general land use decisions). The advice of a suitably qualified biodiversity planning/assessment specialist may be necessary to inform the choice of an appropriate scale.
- In some cases, data from other landscape and ecosystem analyses will be readily available, for example where such work has already been undertaken by an NGO or government, or as part of the project's EIA. In this case, the information needs to be interpreted and adapted for the purpose of the identification of one or more locations for the offset activities. However, in some cases, data layers such as remote sensing images, land cover, land use maps, and biotic/abiotic data will need to be compiled and analysed to various degrees, as appropriate for the given impacts. Large projects will have the capacity to conduct more detailed analysis, while for projects with small impacts working in areas where data are limited, the assessor should look for evidence that the offset planners have used the best available data and have undertaken some level of landscape-level analysis, for instance using GoogleEarth and other similar, widely accessible, web-based and no- or low-cost data sources and tools.

### **Factors to consider in assessing conformance:**

**Key Question:** Has a landscape level analysis been used to support the identification of potential offset sites?

#### **Conformance requires:**<sup>16</sup>

1. Recent spatial data and associated information, which includes all areas impacted by the development and the surrounding landscape, is presented and this shows the development project's broader landscape context.

---

<sup>14</sup> Margules, C.R. and Pressey, R.L. 2000. Systematic conservation planning. *Nature* 405: 243-253.

<sup>15</sup> See, for example, Faith et al., 2001. *Pacific Conservation Biology* 6:325-343; Faith, D.P. and Walker, P.A. 2002. *Journal of Bioscience* 27 (Suppl. 2) 393-407.

<sup>16</sup> **Non-conformance** may be caused by, for example:

- No spatial data are presented and/or the information used to identify potential offset sites is outdated.
- The selection of potential offset sites is not explicitly based on contextual information on biodiversity conservation opportunities or constraints (threats).

2. The spatial and temporal scale of the information and analysis is adequate and appropriate for the purpose of identifying potential offset sites, and is explicitly justified in those terms.
3. Relevant regional conservation opportunities and constraints have been identified, and the landscape analysis underpins the identification of potential offset sites for the project.
4. The approach to the analysis and justification for selecting the offset site or sites from the list of potential sites, is fully documented in the biodiversity offset management plan.

<b>PRINCIPLE 3</b>	<i>Landscape context: A biodiversity offset should be designed and implemented in a landscape context to achieve the expected measurable conservation outcomes taking into account available information on the full range of biological, social and cultural values of biodiversity and supporting an ecosystem approach.</i>
<b>CRITERION 3-1</b>	The biodiversity offset shall be designed and implemented to complement and contribute to biodiversity conservation priorities identified at the landscape, eco-regional and national levels.
<b>INDICATOR 3-1-2</b>	Evidence is provided that the offset gains and conservation outcomes contribute to regional and national conservation goals, where these exist.

## GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 3-1-2

### Interpretation of Indicator:

- Offset gains to achieve no net loss outcomes can be generated in various ways, including through positive management actions, averted loss or degradation of biodiversity, and compensation for affected stakeholders (see interpretation of Indicator 4-1-3. As Principle 5 holds, a central tenet of biodiversity offsets is that the conservation outcomes from offset activities should demonstrably be additional, i.e., they should achieve outcomes beyond what would have occurred anyway and should not simply displace or substitute activities that are already a legal requirement, or included in public policy. (Please see Principle 5 and associated criteria, indicators and Guidance Notes).
- Many countries and regions (e.g., at the sub-national level) set their own conservation goals to meet specific regional, national, and/or international conservation objectives and targets. These targets and objectives will vary in their level of detail and specificity, and they may be spatially explicit or not. For example, Parties to the Convention of Biological Diversity (CBD) prepare National Biodiversity Strategies and Action Plans (NBSAPs, see <http://www.cbd.int/nbsap/>). These are the key instruments for implementing the CBD at the national level, and are updated in line with the CBD's overall Strategic Plan for Biodiversity (currently spanning 2011-2020) and internationally agreed targets (the 'Aichi Biodiversity Targets', <http://www.cbd.int/sp/targets/>). In addition, local, national and regional conservation agencies, often supported by non-governmental conservation organisations (NGOs), may have more detailed or complementary conservation plans and goals.
- While such national, regional and local conservation goals and priorities may well be quite clearly defined and sometimes mapped spatially, this does not necessarily mean that adequate resources are allocated or policies in place to secure and manage these priority areas for biodiversity conservation. Often they may represent targets, with no plan to implement them: 'paper parks' are a well-known phenomenon, particularly in developing countries (e.g., see Mora et al., 2006<sup>17</sup>). Where it can be shown that proposed activities will help meet conservation goals that would otherwise not be implemented in the foreseeable future, the activities can be considered to be a genuinely additional contribution and qualify towards an offset.
- Where existing conservation strategies are unclear or lacking in the level of precision or detail to guide offset planning, or where different views are expressed as to conservation priorities, the auditor should look for evidence of participatory processes that involved government authorities

<sup>17</sup> Mora et al. 2006. Coral Reefs and the Global Network of Marine Protected Areas. *Science* 312:1750-1751.

responsible for conservation and independent experts and built consensus on the most fitting way in which the offset could contribute to national and regional conservation priorities.

- Information contained in national or regional plans is usually publicly available, and it can be sourced from the relevant authorities, or from non-governmental conservation organisations (NGOs) which are undertaking conservation work. Drawing on this information to align biodiversity offset design, plans, and the delivery of measurable conservation gains from the offset with overall conservation goals can improve the efficiency with which these overall goals are met.
- Where no relevant or up-to-date national or regional land-use plans exist, or where it has otherwise been impossible to discover any planned future development, no reference to them can be made. However, the auditor should look for evidence that the offset planner has taken reasonable steps to identify any foreseeable future developments.

### **Factors to consider in assessing conformance:**

**Key Question:** Does the nature and location of activities selected to produce offset gains contribute to national or regional conservation goals?

#### **Conformance requires:**<sup>18</sup>

1. Information on national and regional conservation goals and plans is presented and interpreted in the Biodiversity Offset Management Plan with reference to the offset's design and implementation.
2. The delivery of offset gains contributes to local, regional or national conservation goals by being located in an area identified as a biodiversity priority area and/or by contributing to interventions identified as priority actions for meeting local, regional or national biodiversity conservation aims.

---

<sup>18</sup> **Non-conformance** may be caused by, for example:

- No recent information on regional or national conservation goals has been sourced and presented.
- The offset is not designed to contribute to regional or national conservation goals, even though this is feasible, and no reasonable justification is given for ignoring such goals.

<b>PRINCIPLE 3</b>	<i>Landscape context: A biodiversity offset should be designed and implemented in a landscape context to achieve the expected measurable conservation outcomes taking into account available information on the full range of biological, social and cultural values of biodiversity and supporting an ecosystem approach.</i>
<b>CRITERION 3-2</b>	The biodiversity offset shall be designed and implemented for the long term, taking into consideration other likely developments (e.g., competing land use pressures) within the landscape.
<b>INDICATOR 3-2-1</b>	Evidence is provided that any reasonably foreseeable future developments that might affect the offset, including developments by third parties, have been considered in the offset design.

### **GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 3-2-1**

#### **Interpretation of Indicator:**

- Development projects by third parties (e.g., by government agencies or the private sector) in the vicinity of the original project or its offset activities can compromise the feasibility of delivering successful long term conservation outcomes for the offset. The same is true for projects undertaken subsequently by the original developer, for example, opening of a new mine pit or expansion of a palm oil estate or building project. This risk is perhaps clearest where an offset is proposed on or near a site already earmarked for development which is not compatible with conservation as a land use. Where a third-party development is highly likely to go ahead (for instance, is already authorised) this constitutes a constraint for conservation. However, there can be situations where a proposed development presents the opportunity for an averted risk offset (for instance, if a logging or palm oil concession can be bought out prior to the land being cleared, and the land used instead for conservation purposes).
- Information on planned or authorised developments in areas being considered as the location of potential offset sites can be sourced from the responsible planning authorities at the national, provincial or local government level, and from other relevant sources, such as chambers of commerce.
- This information on third-party developments should generally be integrated into the landscape level analysis (see Indicator 3-1-1) when identifying conservation opportunities and constraints, and must be considered when assessing the relative merits of a suite of potential offset sites before selecting where offset gains are best delivered.

**Factors to consider in assessing conformance:**

**Key Question:** Are other potential developments taken into consideration into consideration in the offset design?

**Conformance requires:**<sup>19</sup>

1. The Biodiversity Offset Management Plan includes an assessment of possible third party developments that could influence areas identified as potential offset sites.
2. The Biodiversity Offset Management Plan sets out a justification of whether and how third party developments have been accounted for in developing the offset design.

---

<sup>19</sup> **Non-conformance** may be caused by, for example:

- No information is presented in the biodiversity offset management plan on the possibility of third party developments in or near areas identified as possible or intended offset sites.
- The information presented is out of date.



<b>PRINCIPLE 3</b>	<i>Landscape context: A biodiversity offset should be designed and implemented in a landscape context to achieve the expected measurable conservation outcomes taking into account available information on the full range of biological, social and cultural values of biodiversity and supporting an ecosystem approach.</i>
<b>CRITERION 3-2</b>	The biodiversity offset shall be designed and implemented for the long term, taking into consideration other likely developments (e.g., competing land use pressures) within the landscape.
<b>INDICATOR 3-2-2</b>	Evidence is provided that the offset planner has proposed to the relevant government authorities that the biodiversity offset should be incorporated, where possible, within local, regional and national government land use or other similar plans.

### **GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 3-2-2**

#### **Interpretation of Indicator:**

- Land use planning and other government planning processes influence and direct land use decisions in the region where an offset is proposed.
- To ensure the feasibility and success of delivering long-term conservation outcomes at the offset site or sites, it is important for the offset activities, and the associated long-term conservation land use at the site) to be reflected in the relevant government planning and decision-making processes and outputs.

#### **Factors to consider in assessing conformance:**

**Key Question:** Is the process for proposing the inclusion of the biodiversity offset site(s) and activities in any government plans documented in the Biodiversity Offset Management Plan, and do relevant government plans incorporate the biodiversity offset?

#### **Conformance requires:<sup>20</sup>**

1. Any land use plans and other planning processes that are relevant to the region where the offset is located are identified in the offset management plan.
2. The process for incorporating the biodiversity offset in these plans or processes is documented.
3. Where relevant, evidence of the inclusion of the offset in land use plans and decision-making processes is presented in the Biodiversity Offset Management Plan.

<sup>20</sup> **Non-conformance** may be caused by, for example:

- The biodiversity offset management plan does not identify any regional or national land use or other planning processes, or refer to research undertaken that shows that no such plan exists.

<b>PRINCIPLE 4</b>	<b><i>No net loss: A biodiversity offset should be designed and implemented to achieve in situ, measurable conservation outcomes that can reasonably be expected to result in no net loss and preferably a net gain of biodiversity.</i></b>
<b>CRITERION 4-1</b>	<b>The no net loss or net gain goal for the development project shall be explicitly stated, and the offset design and conservation outcomes required to achieve this goal clearly described.</b>
<b>INDICATOR 4-1-1</b>	The commitment to a goal of no net loss or a net gain of all biodiversity components affected by the project is stated by the project developer in a publicly available document.

## GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 4-1-1

### Interpretation of Indicator:

***Please note: A number of BBOP Handbooks and Resource Papers provide additional information and guidance that is useful in assessing conformance with the Criteria and Indicators under Principle 1.***

These are referenced in the text below if consulting them may be particularly helpful.

The documents that are most relevant to Principle 1 are:

- Offset Design Handbook: [http://bbop.forest-trends.org/guidelines/Updated\\_ODH](http://bbop.forest-trends.org/guidelines/Updated_ODH)
- No Net Loss and Loss-Gain Resource Paper: [http://bbop.forest-trends.org/guidelines/Resource\\_Paper\\_NNL](http://bbop.forest-trends.org/guidelines/Resource_Paper_NNL)

Additional helpful resources include:

- Limits to What Can Be Offset Resource Paper: [http://bbop.forest-trends.org/guidelines/Resource\\_Paper\\_Limits](http://bbop.forest-trends.org/guidelines/Resource_Paper_Limits)
- Offset Cost-Benefit Handbook: <http://www.forest-trends.org/biodiversityoffsetprogram/guidelines/cbh.pdf>
- Glossary: <http://bbop.forest-trends.org/guidelines/Glossary>
- Resource Paper on The Relationship between Biodiversity Offsets and Impact Assessment, available at [www.forest-trends.org/biodiversityoffsetprogram/guidelines/eia.pdf](http://www.forest-trends.org/biodiversityoffsetprogram/guidelines/eia.pdf)

- No net loss is a target for a development project in which the impacts on biodiversity caused by the project are balanced or outweighed by measures taken to avoid and minimise the project's impacts, to undertake on-site rehabilitation/restoration, and finally to offset the residual impacts, so that no overall biodiversity loss results. Where the gain exceeds the loss, the term 'net gain' may be used instead of no net loss.
- Much of this document is phrased in terms of evaluating a biodiversity offset developed by a company to address the impacts of a particular development project. However, while the document refers to offsets at the 'project' level (for instance, a specific development such as a road or a mine), biodiversity offsets can also be used to address the broader effects of programmes, plans and schemes that have wider-scale impacts on biodiversity. This PCI and Guidance Notes document can also be used to assess conservation banks or the nature of government schemes and offsets developed at the level of policies and plans (such as a national offset scheme or no net loss planning in the context of a regional development plan).
- The goal of no net loss or net gain is central to the idea of biodiversity offsets. As such, Principle 4 is a foundational principle for biodiversity offsets, and covers critical aspects of how no net loss is determined. Ensuring no net loss or net gain outcomes in biodiversity offsets is not a trivial matter and numerous issues need to be considered. The Criteria and Indicators under Principle 4 focus on

three areas that are particularly important for assessors checking that offsets are designed and implemented to deliver no net loss or a net gain of biodiversity:

- Credibility and transparency of methods and approaches related to establishing no net loss or a net gain (Criterion 4-1);
  - Credibility of the loss/gain assessment and ensuring ecological equivalence of losses and gains (Criterion 4-2); and
  - Addressing sources of uncertainty and risk (Criterion 4-3).
- **Please note: A Resource Paper on ‘No Net Loss and Loss Gain Calculations in Biodiversity Offsets’ (BBOP, 2011) is available, providing further technical information to assist with the interpretation of Principle 4. The paper sets out the major issues in developing an offset to demonstrate no net loss or a net gain of biodiversity, and discusses the steps involved in loss-gain calculations, which are the basis for demonstrating no net loss. In addition, BBOP’s Biodiversity Offset Design Handbook offers stepwise guidance in designing a biodiversity offset.**
  - Biodiversity as a broad, unifying concept is defined by the Convention on Biological Diversity 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 part; this includes diversity within species, between species and of ecosystems.’ Biodiversity is thus understood to encompass all forms, levels, and combinations of natural variation, at all levels of biological organisation (genetic variation, populations, species, habitats, and ecosystems). Variation in compositional (e.g., species or species groups), structural (e.g., vegetation density) and functional (e.g., nutrient cycling rates) characteristics are all included in the notion of biodiversity.
  - The BBOP definition of an offset states that: ‘The goal of biodiversity offsets is to achieve no net loss and preferably a net gain of biodiversity on the ground with respect to species composition, habitat structure, ecosystem function and people’s use and cultural values associated with biodiversity’. The definition tries to capture the breadth of the term ‘biodiversity’ by listing some important aspects in non- technical language, and all of these need to be addressed to demonstrate no net loss.
  - Even though as a practical matter, biodiversity offsets can only ever be *measured and evaluated* for a small, carefully selected subset of biodiversity components (see BBOP’s No Net Loss Resource Paper and discussion under Criterion 4-2), the goal of biodiversity offsets and the no net loss or net gain commitment is to achieve no net loss or a net gain of all biodiversity affected by a project; in other words, no net reduction in the overall type, amount, and condition of biodiversity over space and time. As such, ‘no net loss’ includes maintenance of biodiversity at the local and landscape scales, as well as persistence over time.
  - An explicit statement by the project developer of a commitment to an offset with a goal of no net loss or net gain of all the biodiversity affected by the project provides assurance that the offset is not too narrowly defined to achieve no net loss of biodiversity.
  - In the case of a developer from the private sector, a suitable public document for the purpose of this Indicator is a document issued or published by an authorised and responsible representative of the project developer, and readily available and accessible to the public (for example, corporate policies and reports in the public domain, and information published by developers on their websites.). It will use language that can be understood by local and national stakeholders.

- In the case of a developer from the public sector, such as a government department or agency, suitable public documents include policy documents or web pages describing policy on biodiversity offset.

**Factors to consider in assessing conformance:**

**Key Questions:** Has a commitment to achieve no net loss of biodiversity been published?

**Conformance requires:**<sup>21</sup>

1. Commitment to achieve no net loss or a net gain of biodiversity to be set out in a suitable public document.
2. The no net loss commitment covers all the project's impacts (e.g., impacts from all components of a project).
3. The definition of biodiversity includes at least species, habitats, ecosystems, ecosystem processes or functions, and human use and cultural values and/or,
4. The public commitment uses the definition of biodiversity agreed by the Convention on Biological Diversity.

---

<sup>2</sup> **Non-conformance** may be caused by, for example

- No public commitment made
- The commitment references only a small part of a larger project
- The commitment is vague and/or not clearly applicable to the project being audited
- The commitment excludes biodiversity related to people's use and cultural values

<b>PRINCIPLE 4</b>	<i>No net loss: A biodiversity offset should be designed and implemented to achieve in situ, measurable conservation outcomes that can reasonably be expected to result in no net loss and preferably a net gain of biodiversity.</i>
<b>CRITERION 4-1</b>	The no net loss or net gain goal for the development project shall be explicitly stated, and the offset design and conservation outcomes required to achieve this goal clearly described.
<b>INDICATOR 4-1-2</b>	All residual biodiversity losses due to the project are quantified relative to the 'pre-project' condition of affected biodiversity, which is identified, characterised, and documented.

## GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 4-1-2

### Interpretation of Indicator:

- The biodiversity losses that must be addressed by the offset are the residual losses due to the development project after avoidance, minimisation and restoration/rehabilitation. To determine losses due to the project, project developers and/or offset planners need to understand the condition of biodiversity that exists (or existed) in the project area before the project activities begin (or began).
- The pre-project condition (sometimes referred to as the baseline) establishes a reference point against which the losses due to the project can be identified, evaluated, quantified and addressed in the offset design.
- This indicator requires that the pre-project biodiversity condition in the area affected by the project be understood and documented as the basis for determining losses and gains for a no net loss or a net gain outcome. These guidance notes address what is needed to identify, characterise and document the pre-project condition, and how this information should be used in of the offset design.
- Understanding the pre-project condition of biodiversity is critical for many of the subsequent steps in delivering an offset, including:
  - Identifying biodiversity components that may be affected by the project and will need to be addressed in the offset design (Indicator 4-2-1),
  - Conducting an appropriate impact assessment and applying the mitigation hierarchy (Principle 1),
  - Understanding any limits to what can be offset (Principle 2),
  - Developing a suitable loss/gain calculation (Criterion 4-2),
  - Considering the landscape context (Principle 3), and
  - Designing an offset that results in no net loss (Indicator 4-2-5).
- BBOP's No Net Loss Resource Paper and the Offset Design Handbook provide guidance and useful references on establishing the pre-project condition in the project area.
- The pre-project condition of biodiversity in the areas to be affected by the project is influenced by factors that prevail in the near vicinity (e.g., land uses of the project area, vegetation or habitat

types present and their extent and quality, threats within the local area such as local agricultural conversion, hunting, or logging), and factors related to the landscape context (e.g., connectivity to other nearby habitats; surrounding land uses; threats operating over the larger region that affect the conservation importance or persistence of biodiversity in the local area). Both types of factors need to be considered in characterising the pre-project condition. Existing land uses and economic activities in the project area and surrounding landscape will affect biodiversity in the project area, and therefore information on socioeconomic factors influencing biodiversity should be included (see BBOP's Biodiversity Offset Cost-Benefit Handbook and the resource paper on Biodiversity Offsets and Impact Assessment).

- Understanding the pre-project biodiversity condition requires consideration of multiple aspects of biodiversity. Appropriate characterisation of the pre-project condition of biodiversity entails:
  - Identifying and characterising the biodiversity in the project area before project activities that may affect it have started.
  - Defining the geographic scale of the area to be characterised as the area affected by all the project's impacts, as well as the larger landscape that influences, or is important context for, biodiversity in the area affected by the project. Thus, the geographic scale of the analysis needs to enable an understanding of the local and regional significance of the impacts of the development project, and of the characteristics of the biodiversity and ecosystem services affected. The advice of a suitably qualified biodiversity specialist may be necessary to inform the choice of an appropriate scale for the pre-project characterisation.
  - Characterisation based on:
    - A compilation of existing biodiversity and socioeconomic information relevant to the project area and to the state of biodiversity prior to the project activities or impacts (e.g., from previous biodiversity inventories or surveys, scientific papers, research institutions, habitat maps, or conservation assessments; local, regional, national or global rare or threatened species listings (e.g., IUCN Red Lists), environmental impact assessments from the area, government databases, etc.);
    - Consultation with local or regional experts or stakeholders who are knowledgeable about the ecological context of the area (see also Principle 10);
    - Contacting appropriate government authorities and key non-governmental organisations to confirm the best available data have been collated; and
    - If needed, new surveys or studies of the area to fill key information gaps.
- Assessing biodiversity using a variety of measures, including composition (species presence and abundance, types of habitats present, types of landscape features present), structure (vegetation structure, landscape pattern), and function (ecological processes such migration, dispersal, disturbance such as fire or land use driven disturbance such as deforestation).
- Considering biodiversity at different scales (e.g., local area or site, region or landscape) and levels of organisation (species, habitats, ecosystems, and landscape features).
- Including consideration of components of biodiversity related to people's use and cultural values

- Including conservation status of biodiversity (e.g., presence of rare or vulnerable species; legally protected species or habitats), including context-dependent conservation importance of the area, for example, irreplaceability, or contribution of the area to the regional persistence of a species.
  - Evaluating trends in biodiversity, background rates of loss, and threats, including what is influencing or driving threats (e.g., threats from deforestation may be driven by lack of alternative economic opportunities for local people).
- Biodiversity losses that are evaluated relative to the pre-project condition are:
  - Those due to all of the project’s impacts on biodiversity – including direct, indirect and cumulative impacts, as appropriate); and
  - Residual biodiversity losses that remain following application of the mitigation hierarchy, especially significant residual impacts (see Principle 1).
- Considerations as to when the pre-project characterisation should be conducted include the following:
  - Timing of the pre-project characterisation is important. It is important to characterise the condition of biodiversity in the area before any project activities that could affect biodiversity have started, and especially before any impacts have taken place.
  - The best way, or the least risky way, of satisfying this indicator is to conduct a ‘prospective’ offset. A prospective offset is one where the decision to undertake an offset is made and the conditions in the project area are characterised and documented, prior to any impacts associated with the development project. This maximises the chance that the pre-project conditions can be accurately characterised and the residual biodiversity losses due to the project can be determined with confidence.
  - However, in some cases, a decision to undertake an offset may happen late in the project cycle, after some or all impacts due to the project have occurred: a ‘retrospective’ offset.
  - In the case of a retrospective offset, where the impacts associated with the development project have already occurred prior to the decision to undertake a biodiversity offset, or prior to the characterisation of pre-project conditions, it may still be possible to satisfy this indicator. Retrospective offsets increase the uncertainty and risk associated with offsets (see Criterion 4-3), but can be undertaken successfully if specific conditions are met. There are two general ways in which retrospective offsets could satisfy this indicator.
    - If the biodiversity in the area affected by the project was identified, characterised and documented in studies undertaken prior to the project impacts, then it may be possible to review these earlier studies in order know what biodiversity was present, as well as biodiversity condition and trends prior to the impacts. For example, biodiversity studies undertaken by an academic institution, government agency, or NGO, on the site before the development occurred could provide this information, or an assessment conducted in the area as part of an Environmental Impact Assessment for the project concerned or an unrelated project. Where the pre-project characterisation is consistent with the conformance requirements for this indicator, (which requires an estimation of the losses caused by the project, even if these happened in the past), it would be possible to consider a retrospective biodiversity offset.

- In cases where little or no biodiversity data for the area concerned were gathered prior to the project's impacts, satisfying the indicator will be much more difficult, but may still be possible. In such a case, the developer would need to demonstrate plausibly, using the best available data, that it is possible to infer the pre-project biodiversity condition using information from other similar locations, preferably nearby. For instance, it may be possible to use historical biodiversity data for the larger region concerned and show its similarity with the precise area affected by the project. It may also be possible to supplement historical information with additional data collected now from ecologically equivalent proxy sites nearby. If the re-constructed or inferred pre-project characterisation is consistent with the conformance requirements for this indicator, retrospective offsets can be considered.
  - Where, despite such efforts, it is not possible to ascertain the pre-project biodiversity prior to the project and thus impossible to calculate biodiversity losses with any confidence, compensation will still be possible, even if a full biodiversity offset that complies with these Principles, Criteria and Indicators is not.
  - Prospective offsets are the preferred approach because they involve less uncertainty in characterising the pre-project biodiversity and the relative loss from project impacts than retrospective offsets.
- Documentation of the pre-project biodiversity condition is needed to support the impact assessment and the quantification of residual biodiversity losses, as well as providing assurance for this indicator. Assuring conformance with this indicator requires describing and documenting certain information in the Biodiversity Offset Management Plan<sup>22</sup>. This information includes: methods and sources of information used in the identification and characterisation of the pre-project condition of biodiversity; the results of the characterisation; and the use of the pre-project condition in the residual loss calculations, so they show the loss of biodiversity due to the project.

**Factors to consider in assessing conformance:**

**Key Questions:**

1. Has the pre-project biodiversity condition in the area affected by the project's impacts been identified, characterised, and documented?
2. Has biodiversity loss been calculated as the residual loss resulting from the project's impacts (i.e., as the difference between biodiversity condition before the project and after it).

---

<sup>22</sup> For convenience, the document which describes and documents the detail of methods and approaches, design and implementation for the biodiversity offset (e.g., impact assessment, applying the mitigation hierarchy, loss/gain calculation, offset design and activities, etc.) is referred to here as the 'Biodiversity Offset Management Plan'. Developers typically adopt some form of management plan (often called a Biodiversity Action Plan) to address the mitigation measures set out in the ESIA and then developed as part of the environmental management plan to ensure their implementation. Biodiversity may be integrated throughout the environmental management plan, or may form a discrete component.

Whatever approach is most suitable for the given project, one or more plans are needed that satisfy all the requirements for the 'Biodiversity Offset Management Plan' in this document. Where there is more than one plan, they should be clearly cross-referenced and made available to assessors together.



**Key Question 1:** Has the pre-project biodiversity condition in the area affected by the project's impacts been identified, characterised, and documented?

**Conformance requires:**<sup>23</sup>

1. Pre-project biodiversity condition has been identified and characterised.
2. Appropriate identification and characterisation of pre-project conditions includes elements such as those noted above – 'Understanding the pre-project biodiversity condition' and 'Evaluating biodiversity losses'.
3. For retrospective offsets (i.e., if the pre-project characterisation is conducted after impacts have occurred), additionally:
  - a. Biodiversity surveys of areas judged to contain biodiversity similar to the project area have been conducted to infer baseline conditions in the project area, and the rationale for the choice of these areas as appropriate proxies is documented; and/or
  - b. Historical data from the project area (or similar area nearby) is used to infer the biodiversity baseline, and the basis for determining that the pre-impact baseline can be adequately characterised in this way, is documented.
4. The pre-project characterisation is documented in the Biodiversity Offset Management Plan, including:
  - c. Methods and information sources used to identify and characterise pre-project conditions.
  - d. Results of the characterisation provided.
  - e. Rationale for methods provided (esp. for retrospective characterisation after impacts have occurred).

**Key Question 2:** Has biodiversity loss been calculated as the residual loss resulting from the project's impacts (i.e., as the difference between biodiversity condition before the project and after it).

**Conformance requires**<sup>24</sup>:

1. The loss calculation quantifies residual biodiversity losses from all project impacts relative to the pre-project condition.
2. Biodiversity loss is calculated as the residual losses remaining after application of the mitigation hierarchy.
3. The loss calculation is documented in the Biodiversity Offset Management Plan

---

<sup>23</sup> **Non-conformance** may be caused by, for example:

- Major sources of data omitted
- Surveys not commensurate with conservation status of area
- Major source of advice on data not consulted
- Key biodiversity components not identified
- Baseline biodiversity condition prior to impacts occurring not understood
- Basis for choosing proxy or similar areas for retrospective offsets not documented

<sup>24</sup> **Non-conformance** may be caused by, for example:

- Losses from project impacts not calculated relative to pre-project conditions
- Loss calculation not documented

<b>PRINCIPLE 4</b>	<b><i>No net loss: A biodiversity offset should be designed and implemented to achieve in situ, measurable conservation outcomes that can reasonably be expected to result in no net loss and preferably a net gain of biodiversity.</i></b>
<b>CRITERION 4-1</b>	<b>The no net loss or net gain goal for the development project shall be explicitly stated, and the offset design and conservation outcomes required to achieve this goal clearly described.</b>
<b>INDICATOR 4-1-3</b>	The biodiversity gains anticipated from the offset are quantified relative to the ‘without-offset’ condition of biodiversity in the area of the offset site(s). The ‘without offset’ biodiversity condition is identified, characterised and documented.

## **GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 4-1-3**

### **Interpretation of Indicator:**

- This indicator, on establishing the condition of biodiversity prior to the offset activities, is very similar to Indicator 4-1-2 on establishing the condition of biodiversity prior to the project’s impacts. Where the requirements are the same, we refer to Indicator 4-1-2. However, there are some differences in establishing the baseline for quantifying an offset’s biodiversity gains, and the Guidance Notes for Indicator 4-1-3 focus on these.
- The biodiversity gains delivered by the offset must be due to the offset activities, otherwise the offset will not result in no net loss (and will not deliver ‘additional’ outcomes and will fail to satisfy Principle 5). To determine gains due to the offset, project developers and/or offset planners need to understand the condition of biodiversity that exists in the offset area(s) before the offset activities begin, or in the absence of offset activities: ‘without offset’ condition.
- The ‘without offset’ condition, sometimes referred to as the baseline, establishes a reference point against which the gains that the offset can achieve are identified and then planned in the offset design.
- According to this indicator, the ‘without-offset’ condition should be understood and documented as the basis for determining gains for a no net loss or a net gain outcome.
- Establishing the baseline for quantifying biodiversity gains requires an understanding of the biodiversity conditions in the area of the offset that exists before offset activities take place, and also an evaluation of the likelihood that the condition of biodiversity would change without and with the offset, and in what way. The difference in biodiversity condition that is projected to occur between the ‘with offset’ scenario and the ‘without offset’ scenario, is the biodiversity gain that is due to the offset (see the Offset Design Handbook for more information).
- These guidance notes describe how assessors can determine whether the without offset condition of biodiversity is suitably identified, characterised and documented, and how the assessment of biodiversity gains is included in the offset design.
- There are two general types of actions that result in biodiversity gains: actions for positive management and for averted risk (see Indicator 4-1-4 and Indicator 5-1-1).

- Positive management offsets:
  - Positive management offsets deliver biodiversity gains through restoration and enhancement actions that improve biodiversity condition. The biodiversity gains due to the offset activities need to be assessed or quantified relative to the biodiversity condition that exists in the area before the offset activities take place.
  - Averted risk offsets deliver biodiversity gains through actions that prevent further harm by removing existing sources of biodiversity loss or that guard against future threats by averting known future risks. As with positive management offsets, the biodiversity gains due to the offset activities need to be assessed or quantified relative to the biodiversity condition that exists in the area before the offset activities take place. For averted risk offsets, an additional requirement is that the baseline condition be assessed with a particular focus on the threats or future risks being averted – i.e., assessment of the likelihood, the timing, and the severity of risk posed by existing sources of loss or future threats. This requires careful projection of the pre-offset condition under both a ‘with-offset’ and a ‘without-offset’ scenario to determine whether, and to what extent, offset activities designed to avert risk will result in real conservation gains.
- Characterisation of the ‘without-offset’ biodiversity condition should include the same considerations as are described for assessing the pre-project condition under Indicator 4-1-2, and in addition:
  - An evaluation of trends in biodiversity, background rates of loss, and threats is needed, particularly:
    - An estimation of the existing rates of biodiversity loss in the offset area, and the probability of these losses occurring;
    - Identification and evaluation of the underlying causes of biodiversity loss in the offset area, to check that the actions planned to avert risk will genuinely address significant causes of loss; and
    - An estimation of loss and condition of the biodiversity in the offset area over the period during which project’s impacts are expected to last.
- Offset gains will not occur immediately on commencement of the offset activities, but over a period of years or decades as the ecological system responds to the offset activities.
- The time frame for projecting the baseline condition should therefore be tied to the expected time frame of the ecological response to the offset activities (positive management or removal of risk or threats).
- This time frame is then used in the gains calculation, using a reasonable estimate of the period over which the offset gains are expected to be delivered, based on predicted ecological responses to the offset activities (see 4-1-4).
- Unless the offset is delivered before project impacts occur (for example, with biodiversity banking), the temporal loss of biodiversity that occurs between the project impacts and the delivery of offset gains should also be considered. In addition, the offset should be designed to deliver the biodiversity gains as soon as feasible, to reduce the risks associated with the temporal loss of biodiversity (see Criterion 4-3).

- The estimation of gains from the offset, compared to the baseline, should include an assessment of the effectiveness of the offset activities (positive management or averted risk) and the risk that management interventions will or will not work (see Indicator 4-1-4 and Indicator 4-3-1).
- The characterisation includes all areas affected by the offset activities, including direct and indirect effects of offset activities.
- For an averted risk offset to demonstrate biodiversity gains, it must be shown that the pre-offset biodiversity condition would decline significantly, that is, that there is likely to be on-going loss at a rapid rate, unless the offset activities are implemented.
  - When underlying causes of biodiversity loss in the offset area are due to immediate threats (for instance, increasing and high rates of deforestation), such trends are an important part of the baseline condition, and can be factored into calculations about the loss of biodiversity in the absence of the averted risk offset, and thus the relative gains of biodiversity that can be brought about by the offset. This baseline is the basis against which offset planners can: (1) evaluate the gains that can be achieved with the planned offset activities; and (2) once the offset is designed, quantify the anticipated biodiversity gains to demonstrate that the offset can achieve no net loss or a net gain.

**Factors to consider in assessing conformance:**

**Key Questions:**

1. Has the baseline ‘without offset’ condition of biodiversity in the offset area(s) been identified, characterised, and documented?
2. Have the anticipated biodiversity gains been calculated relative to the ‘without offset’ biodiversity baseline condition?

**Key Question 1:** Has the baseline ‘without offset’ condition of biodiversity in the offset area(s) been identified, characterised, and documented?

**Conformance requires:**<sup>25</sup>

1. The biodiversity condition that exists before the offset activities in the areas affected by the offset has been identified and characterised.
2. A suitable characterisation of the biodiversity baseline includes elements listed above and under Indicator 4-1-2.
3. The time frame for projecting the biodiversity baseline and ‘with-offset’/‘without offset’ scenarios should be tied to the expected time frame of the ecological response to the offset activities.
4. For averted risk offsets, the likelihood, severity, and timing of averted risks has been evaluated and used in the baseline characterisation.
5. The baseline characterisation is documented in the Biodiversity Offset Management Plan, including:

---

<sup>25</sup> **Non-conformance** may be caused by, for example:

- Major sources of information omitted
- The likelihood of future losses and risks not evaluate for averted risk offsets
- Basis for methods used to characterise baseline condition not documented

- a. Methods and information sources used to identify and characterise pre-project conditions
- b. Results of the characterisation provided
- c. Rationale for methods provided (esp. for retrospective characterisation after impacts have occurred)

**Key Question 2:** Have the anticipated biodiversity gains been calculated relative to the ‘without offset’ biodiversity baseline?

**Conformance requires:** <sup>26</sup>

1. The gain calculation quantifies biodiversity gains from the offset relative to the without-offset biodiversity baseline condition.
2. The gain calculation is documented in the Biodiversity Offset Management Plan.

---

<sup>26</sup> **Non-conformance** may be caused by, for example:

- Calculation of gains not relative to the without-offset baseline
- Calculation of gains not documented

<b>PRINCIPLE 4</b>	<b><i>No net loss: A biodiversity offset should be designed and implemented to achieve in situ, measurable conservation outcomes that can reasonably be expected to result in no net loss and preferably a net gain of biodiversity.</i></b>
<b>CRITERION 4-1</b>	<b>The no net loss or net gain goal for the development project shall be explicitly stated, and the offset design and conservation outcomes required to achieve this goal clearly described.</b>
<b>INDICATOR 4-1-4</b>	The Biodiversity Offset Management Plan (BOMP) describes the offset design and its intended conservation outcomes, and includes the evidence and assumptions used to predict that these outcomes will result from the offset activities described.

#### **GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 4-1-4**

Interpretation of Indicator:

- The goal of the offset design is to achieve measurable, *in situ* conservation outcomes. A conservation outcome is the result of a conservation intervention aimed at addressing threats to biodiversity or their underlying socio-political, cultural and / or economic causes. Conservation outcomes can, for example, be in the form of:
  - (a) Extinctions avoided (i.e., outcomes that lead to improvements in a species’ national or global threat status);
  - (b) Sites protected (i.e., outcomes that lead to designation of a site as a formal or informal protection area, or to improvement in the management effectiveness of an existing protected area); or
  - (c) Corridors created (i.e., outcomes that lead to the creation of interconnected networks of sites at the landscape scale, capable of maintaining intact biotic assemblages and natural processes, and, thereby, enhancing the long-term viability of natural ecosystems).
- ‘*In situ*’ refers to on-the ground conservation outcomes as opposed to less direct outcomes such as awareness-raising, training and capacity building. The Convention on Biological Diversity defines ‘*in situ* conservation’ as ‘the conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings and, in the case of domesticated or cultivated species, in the surroundings where they have developed their distinctive properties’. In the context of biodiversity offsets, the term ‘*in situ*’ does not imply that the offset will be undertaken ‘on site’ within the area affected by the project, but rather that the conservation outcomes must be generated in natural conditions, rather than *ex situ* in a botanical garden or zoo, for instance.
- Forms of gain that count towards measurable conservation outcomes for the purposes of achieving no net loss include:
  - Positive management interventions to improve the biodiversity of an area through restoration and enhancement; and
  - Averted risk / arrested or retarded degradation (see Indicators 4-1-3 and 5-1-1).
- In order to provide assessors with assurance that the biodiversity offset, as planned, can achieve no net loss, it is necessary for the Biodiversity Offset Management Plan to describe in some detail the

offset activities proposed, the features of the offset design, and the predicted conservation outcomes resulting from the offset activities, including the assumptions involved, the timeframe within which these outcomes are anticipated, and the basis for confidence that the predictions are realistic.

### **Factors to consider in assessing conformance:**

#### **Key Questions:**

1. Have the offset's intended conservation outcomes (particularly for the key biodiversity components), offset activities, and the features of the offset design, been described and documented in the Biodiversity Offset Management Plan?
2. Are the assumptions behind the belief that the offset activities will result in intended outcomes documented, and the evidence used to predict the effectiveness of the offset activities in delivering intended conservation outcomes provided in the Biodiversity Offset Management Plan?

**Key Question 1:** Have the offset's intended conservation outcomes (particularly for the key biodiversity components), offset activities, and the features of the offset design, been described and documented in the Biodiversity Offset Management Plan?

#### **Conformance requires:<sup>27</sup>**

1. Intended conservation outcomes are described, particularly for the key biodiversity components.
2. Predicted conservation outcomes are quantified (e.g., results of loss/gain calculation are available).
3. The description of the conservation outcomes includes the predicted timing of the delivery of biodiversity gains and for how long the biodiversity gains are expected to last.
4. Offset activities and locations are described.
5. The description of the offset design and activities should include information such as:
  - a. the assessment of the biodiversity baseline, including condition;
  - b. the loss/gain calculation, including determining equivalence to ensure that biodiversity gains are comparable, in ecological terms, to losses that result from the project (see Criterion 4-2);
  - c. addressing limits to what can be offset (see Principle 2);
  - d. spatial aspects (e.g., methods for offset site selection; landscape context (see Principle 3) and conservation importance of the offset site; location and scale of the offset);
  - e. temporal aspects (e.g., for how long will biodiversity gains be secured and the timing of biodiversity responses or gains at the offset site(s));
  - f. specific offset activities to be implemented (e.g., habitat restoration, management of logging or hunting, invasive species control), including where located and the timing of implementation;

---

<sup>27</sup> **Non-conformance** may be caused by, for example:

- Biodiversity components omitted from description of outcomes
- Conservation outcomes poorly described or not described in the Biodiversity Offset Management Plan
- Conservation outcomes not quantified
- Time frame for ecological response to offset activities or delivery of gains not provided
- Spatial or temporal scale of the offset not described or documented
- Offset activities or design elements not described or documented
- Landscape context for the offset design is not described or documented

- g. which organisations, communities and individuals will be involved in implementing the activities; and
  - h. an assessment of risk and uncertainty in delivering the offset (see Criterion 4-3).
6. The above information for offset outcomes, design and activities is documented in the Biodiversity Offset Management Plan.

**Key Question 2:** Are the assumptions behind the belief that the offset activities will result in intended outcomes documented, and the evidence used to predict the effectiveness of the offset activities in delivering intended conservation outcomes provided in the Biodiversity Offset Management Plan?

**Conformance requires:**<sup>28</sup>

1. Assumptions about relationships between the offset activities and their intended outcomes are described, particularly for the key biodiversity components.
2. The Biodiversity Offset Management Plan sets out the basis for predicting that the conservation outcomes can reasonably be expected to be achieved within the timeframe described.
3. Evidence is provided (e.g., from peer-reviewed, published research etc., on the approaches to be used or case studies from a similar ecological context) to substantiate the assumption that offset activities will result in the intended outcomes.
4. The above information for offset outcomes, design and activities is documented in the Biodiversity Offset Management Plan.

---

<sup>28</sup> **Non-conformance** may be caused by, for example:

- Assumptions about relationship between offset activities and intended outcomes is not described or documented
- No evidence provided by effectiveness of proposed offset activities



<b>PRINCIPLE 4</b>	<b><i>No net loss: A biodiversity offset should be designed and implemented to achieve in situ, measurable conservation outcomes that can reasonably be expected to result in no net loss and preferably a net gain of biodiversity.</i></b>
<b>CRITERION 4-2</b>	<b>An explicit calculation of loss and gain shall be undertaken as the basis for the offset design, and shall demonstrate the manner in which no net loss or a net gain of biodiversity can be achieved by the offset.</b>
<b>INDICATOR 4-2-1</b>	A set of key biodiversity components at species, habitats and ecosystem levels, including landscape features and components related to use and cultural values, is identified. The rationale for selecting these key biodiversity components to represent all the biodiversity affected by the project is explained and documented.

#### **GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 4-2-1**

##### **Interpretation of Indicator:**

- **Please note: A Resource Paper on ‘No Net Loss and Loss Gain Calculations in Biodiversity Offsets’ is available, providing further technical information to assist with the interpretation of Principle 4. The paper sets out the major issues in developing an offset to demonstrate no net loss or a net gain of biodiversity, and discusses the steps involved in loss-gain calculations, which are the basis for demonstrating no net loss. BBOP’s Offset Design Handbook also includes guidance and additional information on loss-gain calculations.**
- The purpose of a biodiversity offset is to deliver no net loss of all the biodiversity offset components affected by the project. The BBOP definition of an offset states that: ‘The goal of biodiversity offsets is to achieve no net loss and preferably a net gain of biodiversity on the ground with respect to species composition, habitat structure, ecosystem function and people’s use and cultural values associated with biodiversity’. The definition tries to capture the breadth of the term ‘biodiversity’ by listing some important aspects in non- technical language, and all of these need to be addressed to demonstrate no net loss.
- Although the goal of biodiversity offsets is no net loss or a net gain in overall type, amount, and condition of biodiversity, as a practical matter it is impossible to identify and measure the loss and gain of every single biodiversity component affected by a project or conserved through an offset. Consequently, identifying a subset of biodiversity components and related measures which can represent or provide proxy measures for the overall biodiversity affected by a project is a necessary step in defining an offset. It is a useful approach to ensure rigour in biodiversity offset planning. Identifying an appropriate subset of biodiversity components and measures is critical for key aspects of good offset design, such as ensuring ecological equivalence of losses and gains, calculating losses and gains, selecting appropriate offset sites, and determining the set of offset activities that will deliver no net loss or net gain outcomes.
- A necessary step in evaluating losses and gains is therefore to identify biodiversity components that can be used to represent all biodiversity affected by the project. This subset of components is selected as being characteristic or representative of the biodiversity of the affected area, and/or important for intrinsic as well as use and cultural value, and termed the ‘key biodiversity components’ (KBCs).

- The KBCs are used in the offset to:
  - Help identify and evaluate the biodiversity impacts that the development project will have;
  - Help determine whether impacts can be offset (see Principle 2);
  - Help identify the offset activities needed to deliver gains to offset residual impacts;
  - Check that the offset design will deliver specific conservation outcomes;
  - Establish the ecological equivalence or ‘like for like or better’ comparison of losses and gains;
  - Inform the selection of the metrics that form the basis of the loss-gain calculation to demonstrate no net loss; and
  - Provide a basis to check that the offset sites and activities selected can deliver conservation gains for these KBCs, as a proxy for all the biodiversity affected by the project.
- The offset is intended to address the entirety of biodiversity affected by the development project, but reviewing elements of the offset design against the KBCs, as above, can be a good way to check that this can happen.
- The set of KBCs should be large enough to capture essential distinctive elements of the biodiversity affected by the project and also capable of representing all the biodiversity affected, but also be small enough to be practical to check individually in terms of designing a suitable offset.<sup>29</sup>
- It is important to base the selection of KBCs on the best available scientific knowledge and data for the area, as well as engaging stakeholders (see Principle 6) and incorporating traditional knowledge, where appropriate, to ensure that KBCs of particular human use or cultural value are included. Documenting the rationale behind selection of the KBCs in the Biodiversity Offset Management Plan can give the assessor confidence that the KBCs have been selected with a good rationale for doing so and using appropriate data.
- It is likely that selecting KBCs will require the consultation and involvement of knowledgeable biodiversity specialists, as well as input from stakeholders. This could include recognised specialists with expertise in biodiversity and ecosystem assessment, in biodiversity offsets, in the relevant species or taxonomic groups, with excellent knowledge of the local natural environment, ecology and conservation biology, etc. These specialists may be recommended by specialist peer groups or organisations (academic, governmental, non-governmental).
- Identifying an appropriate set of KBCs is challenging: for example, it requires expert consultation (ecologists and biologists familiar with the area), the availability of biodiversity data for the project area, knowledge of the ecological context of the development area, and outreach to stakeholders on use and cultural values. Because biodiversity is context dependent, it is impossible to prescribe how to select appropriate KBCs for a particular project. However, guidance on issues to consider when identifying KBCs and useful references can be found in the BBOP’s No Net Loss Resource Paper and the Offset Design Handbook, and the accompanying Cost Benefit Handbook. The case studies of BBOP pilot projects found at <http://bbop.forest-trends.org/guidelines/> also give examples

---

<sup>29</sup> Note: the loss and gain of each individual key component of biodiversity will not necessarily be calculated. Rather, the key biodiversity components can inform the selection of metrics, as discussed in the Offset Design Handbook and the No Net Loss Resource Paper.

of sets of KBCs for particular projects. This guidance can be used to check that the KBCs selected for a specific project are reasonable and appropriate.

- The assessor should look to see whether the KBCs selected by the offset planners consider, if not contain, the following:
  - Characteristic components that describe or characterise a particular area (including for example dominant or typical species, major vegetation or habitat types and landscape features);
  - Components that are important for conservation because of their irreplaceability and vulnerability or high conservation value (e.g., rare, threatened or endangered species within local/regional, national and international categories, rare habitats and ecosystems, some of which will be legally protected);
  - Multiple levels of organisation: populations, species, habitats, ecological communities/assemblages and ecosystems (including landscape features);
  - Local and landscape scales – e.g., biodiversity attributes of the local area affected by the project, the contribution of local biodiversity to the larger landscape (e.g., performing key ecological functions such as supporting breeding areas or migration corridors, or conservation significance – irreplaceability), and attributes of the larger landscape that affect or influence local biodiversity (e.g., connectivity);
  - Pattern (species composition or abundance, habitat type and structure, landscape features such as migration corridors, size of habitat patches or areas);
  - Ecosystem processes or function (dispersal, migration, pollination, ecosystem engineers, keystone species);
  - Human use and cultural values – e.g., species, habitats, or functions of particular importance to livelihoods or cultural values; and
  - Components that are relevant to more than one of the considerations above (these are particularly good candidates for key biodiversity components).
  - The ‘area affected by the project’ should be identified based on a complete assessment of the impacts to biodiversity including any direct, indirect or cumulative impacts.

**Factors to consider in assessing conformance:**

**Key Questions:**

1. Have the key biodiversity components been identified and methods for their selection documented?
2. Have the key biodiversity components informed the selection of metrics for the loss-gain calculations?

**Key Question 1:** Have the key biodiversity components been identified and methods for their selection documented?

**Conformance requires:**<sup>30</sup>

1. Key biodiversity components have been identified and are listed in the Biodiversity Offset Management Plan.
2. Qualified biodiversity specialists, as well as relevant stakeholders, have participated in the selection of KBCs.
3. The set of KBCs should, at a minimum, contain components as described above that:
  - characterise the biodiversity of the area
  - are of conservation importance
  - are relevant at both site and landscape scales;
  - include multiple levels of organisation (e.g., both species and habitats);
  - are of ecological importance; and
  - if and when these are relevant in the particular case, are important to local use and cultural values.
4. KBCs are identified for all areas affected by the development (including areas affected by direct, indirect, and cumulative impacts, as appropriate).
5. The data and information sources, best available science, and methods used to identify, evaluate, and select a set of KBCs, are documented in the Biodiversity Offset Management Plan.

**Key Question 2:** Have the key biodiversity components informed the selection of metrics for the loss-gain calculations?

**Conformance requires:**<sup>31</sup>

1. Documentation of the offset design in the Biodiversity Offset Management Plan includes a description of how the KBCs have been considered in the selection of metrics for the loss-gain calculation.

---

<sup>30</sup> **Non-conformance** may be caused by, for example:

- KBCs do not include multiple levels of organisation (e.g., species, habitats, ecosystems, landscape features).
- Important components not included (e.g., use and cultural values; highly vulnerable species).
- Suitable sources of information not consulted.
- KBCs for some areas impacted by project not included (e.g., areas affected by indirect impacts).
- No, or inadequate, reference in the Biodiversity Offset Management Plan to how biodiversity components were identified and selected.

<sup>31</sup> **Non-conformance** may be caused by, for example:

- No documentation provided in the Biodiversity Offset Management Plan

<b>PRINCIPLE 4</b>	<b><i>No net loss: A biodiversity offset should be designed and implemented to achieve in situ, measurable conservation outcomes that can reasonably be expected to result in no net loss and preferably a net gain of biodiversity.</i></b>
<b>CRITERION 4-2</b>	<b>An explicit calculation of loss and gain shall be undertaken as the basis for the offset design, and shall demonstrate the manner in which no net loss or a net gain of biodiversity can be achieved by the offset</b>
<b>INDICATOR 4-2-2</b>	Methods for (1) determining the equivalence of residual biodiversity losses and gains (assessing like for like or better) in the offset design, and (2) calculating the net balance of biodiversity losses due to the development project and gains due to the offset activities, including identification of suitable metrics, are identified and the rationale for their selection explained and documented.

## GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 4-2-2

### Interpretation of Indicator:

- As described in the No Net Loss Resource Paper and the Offset Design Handbook, the assessment of biodiversity losses and gains between areas affected by impacts and areas affected by offset activities is the cornerstone of the offset design process. A wide variety of methods are available for quantifying exchanges in biodiversity offsets (please see the No Net Loss Resource Paper for references). In choosing among methods it is important that defensible approaches to measuring biodiversity loss and gain are selected and tailored to fit local circumstances. An important consideration is the availability of, or ability to collect, spatial information on patterns of biodiversity in the project area and offset area is an important consideration, for instance in order to evaluate whether impacts can be offset according to Principle 2, and to identify appropriate offset sites bearing in mind landscape level planning, as required by Principle 3. In addition, suitable approaches for assessing losses and gains should consider the following issues and include the following elements:

<b>Loss-Gain Issue</b>	<b>Loss-Gain and Offset Design</b>	<b>Role in Quantifying Losses and Gains and Offset Design</b>
Choice of biodiversity components	Key biodiversity components (Indicator 4-2-1)	<i>What kinds, or which elements, of biodiversity are lost and gained?</i>
Choice of a currency or metric to quantify losses and gains	Metrics for the loss-gain calculation (Indicator 4-2-2 and Indicator 4-2-4)	<i>How much (amount or extent) of what kind (type and condition) of biodiversity is lost and gained?</i>
Choice of accounting approach or system, based on chosen metrics	Accounting method or system (Indicator 4-2-3)	<i>What framework will be used for recording and comparing the losses and gains?</i>
Choice of approach for maximising ecological equivalence	Approach for equity in type, space, and time (Indicator 4-2-3)	<i>Checking that biodiversity exchanges are comparable in type (how much of what), space or location (where losses and gains occur), and time (lags between losses and gains).</i>

Balancing losses and gains to determine whether an offset can or will achieve no net loss or net gain outcomes requires that two related types of methods be defined:

- An 'accounting' method (or model) with related metrics, that allows a calculation of the net balance of biodiversity losses in the project impact area(s) and gains at the offset site(s) using the same units or currencies. This allows the net outcome of losses and gains to be determined; and
- An approach or method for determining that the kind of losses and gains are comparable in ecological terms, i.e., they are ecologically equivalent.

***Metrics and accounting approaches:***

- Metrics are the unitary measures of biodiversity lost, gained or exchanged. Metrics vary from very basic measures such as area, to sophisticated quantitative indices of multiple biodiversity components that may be variously weighted.
- Using the metrics, accounting methods allow a comparison of the losses and gains in the same units.
- Metrics are sometimes referred to as 'currencies', as metrics are the units of biodiversity that are exchanged in balancing losses due to impacts and gains due to the offset. Examples of metrics are direct measures (such as number of individuals of a particular bird or mammal species); indirect, surrogate or proxy measures (such as measures of habitat area, structure or complexity as surrogates for habitat suitability or viability of the species of conservation concern). Direct and surrogate measures can also be either aggregated or disaggregated – for example an aggregated measure that combines area and condition of habitat (such as habitat hectares) vs. a disaggregated measure such as area of a given vegetation type. Finally, metrics can apply at the local or site-level (such as the number of hectares of a particular habitat type in the area affected by the project). Metrics can also be context-dependent, and include information on the importance of biodiversity at the site within the larger landscape or regional area (e.g., measures of relative rarity or levels of threat; the contribution that losses or gains of biodiversity at the local level will make to the regional persistence of particular species).
- Choosing appropriate metrics to use with the accounting method depends, for example, on the availability of good biodiversity data and knowledge of the ecological context. To provide assurance that appropriate metrics are used in the loss-gain calculations, clear documentation of the metrics chosen and the rationale for their selection needs to be provided in the Biodiversity Offset Management Plan, and the uncertainties and risks associated with the metrics addressed (see Criterion 4-3). Assurance that suitable forms of metrics have been identified is addressed in Indicator 4-2-4.
- There are many accounting methods that may be used and the choice of appropriate method will depend on the specific context. The selected accounting methods may involve the use of multiple loss-gain calculations to guide the offset design. Some examples of methods that have been used in Australia, the US and New Zealand, and issues associated with these methods are provided in BBOP's Offset Design Handbook; methods are also addressed in the No Net Loss Resource Paper.

- An estimation of gains at the offset site(s) is used to guide the offset design, because it involves an assessment of which offset sites and activities will deliver equal or greater gains in biodiversity than the losses that are expected to occur in the area affected by project impacts.
- Although it is not possible to prescribe the 'correct' accounting method for a particular offset's context, whichever accounting methods is chosen, it will need to provide assurance that the calculation of losses and gains is appropriate for the particular situation. The method selected and the basis for selecting it should be clearly explained and documented in the Biodiversity Offset Management Plan. Documentation should include any evidence that the method has been tested and validated (e.g., peer review publication; case studies). If new or untested methods are selected, appropriate provision for addressing uncertainty should be included in the documentation (see Criterion 4-3).

***Approaches for ecological equivalence:***

- Ecological equivalence, also termed 'Like-for-like', means that the biodiversity gains due to conservation actions are comparable in ecological terms (in type, amount, and condition over space and time) and in terms of conservation status or priority, to the biodiversity lost through impacts. Equivalence, or 'like for like', is sometimes referred to as 'in-kind'. 'Like-for-like or better' is a variation under which the offset may target biodiversity of higher priority for conservation than the biodiversity impacted. (For example, in some situations, the biodiversity to be impacted by the project may be neither a national nor a local conservation priority. There may be other areas of biodiversity 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 development project.)
- Methods for addressing equivalence can include how 'like for like' is categorised or classified (e.g., vegetation or habitat types, conservation priority classes, individual species of importance) and how 'like for like' is incorporated in the accounting method. Therefore, demonstrating that biodiversity offsets are ecologically equivalent or 'like for like' exchanges requires careful selection of the accounting methods and metrics as discussed in the No Net Loss Resource Paper and addressed in Criterion 4-3, there is inevitably a degree of uncertainty associated with approaches for determining equivalence.
- To provide assurance that the approach to equivalence is appropriate for a particular offset, the approach and the basis for selecting it should be clearly explained and documented in the Biodiversity Offset Management Plan.
- The principal elements of like-for-like methods that should be documented, are to:
  - Address equivalency in the type, amount, and condition of biodiversity components exchanged.
  - Address equivalency in terms of landscape context (e.g., impact and offset areas may be equivalent in terms of local species presence and abundance, habitat structure, etc. but differ in terms of connectivity to other habitats);
  - Identify the conservation priority of biodiversity components and areas (e.g., according to local and national conservation targets based on irreplaceability and vulnerability), group

into different ‘priority classes’<sup>32</sup>, and address equivalency in conservation priority in exchanges.

- Seek a reasonable balance between the precision of equivalency measures (e.g., defining in great detail the parameters for equivalence) and the feasibility and practicality of finding offsets.
- The use of any exchange rules to guide ‘out of kind’ exchanges. Such rules may include allowing like for like or better – ‘trading up’, with gains to higher conservation priority biodiversity offsetting loss of lower conservation priority biodiversity; preventing trading down or exchanging high conservation priority diversity for lower conservation priority biodiversity; or use of ‘service areas’ or restrictions to the geographic area within which losses and gains can be exchanged.

### **Factors to consider in assessing conformance:**

#### **Key Questions:**

1. Has the accounting method, along with the metrics to be used for estimating the net balance of losses and gains been identified, applied in the offset design, and documented in the Biodiversity Offset Management Plan?
2. Has the approach for determining equivalence (i.e., the like-for-like or like-for-like-or- better method) been identified, documented and applied in the offset design?

**Key Question 1:** Has the accounting method, along with the metrics to be used for estimating the net balance of losses and gains been identified, applied in the offset design, and documented in the Biodiversity Offset Management Plan?

#### **Conformance requires:**<sup>33</sup>

1. An accounting method(s) has been identified for estimating losses and gains.
2. The metrics used with the accounting method can quantify losses and gains for all biodiversity affected.
3. How the accounting method(s) has been used in the offset design is documented in the Biodiversity Offset Management Plan.
4. The method(s) and the rationale for selecting the accounting method (including whether the accounting method is new or has been tested or validated in a similar ecological context), and the metrics, have been described in the Biodiversity Offset Management Plan.

**Key Question 2:** Has the approach for determining equivalence (i.e., the like-for-like or like-for-like-or- better) been identified, documented and applied in the offset design?

---

<sup>32</sup> For instance, the rules established for exchanges in biodiversity offsets in Victoria, Australia, classify biodiversity into the following priority classes: ‘Very High’, ‘High’, ‘Medium’ and ‘Low’.

<sup>33</sup> **Non-conformance** may be caused by, for example:

- Accounting method(a) not documented or described in the BOMP
- Rationale for selection of the method(s) not given
- Metrics used with the accounting method not documented



**Conformance requires:**<sup>34</sup>

1. An approach or method has been identified for determining equivalence in exchanges (like-for-like or like-for-like-or-better).
2. How the principal elements of a like for like method (described above) have been addressed is documented in the Biodiversity Offset Management Plan.
3. How the method(s) for equivalence has been used in the offset design is documented in the Biodiversity Offset Management Plan.
4. The approach to equivalency and the rationale for selecting the method(s) has been described in the Biodiversity Offset Management Plan.

---

<sup>34</sup> **Non-conformance** may be caused by, for example:

- Equivalence or like for like approach not documented or described in the BOMP
- Rationale for selection of the approach and/or method(a) not given
- Evidence for how the approach to equivalence was used in the offset design not provided

<b>PRINCIPLE 4</b>	<b><i>No net loss: A biodiversity offset should be designed and implemented to achieve in situ, measurable conservation outcomes that can reasonably be expected to result in no net loss and preferably a net gain of biodiversity.</i></b>
<b>CRITERION 4-2</b>	<b>An explicit calculation of loss and gain shall be undertaken as the basis for the offset design, and shall demonstrate the manner in which no net loss or a net gain of biodiversity can be achieved by the offset</b>
<b>INDICATOR 4-2-3</b>	The methods used for determining equivalence of biodiversity losses and gains address equity <sup>35</sup> in the type and condition, the location, and if possible, the timing of biodiversity losses and gains, and explicitly consider the key biodiversity components.

## GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 4-2-3

### Interpretation of Indicator:

- Because no two places hold identical biodiversity, it is not possible to guarantee with absolute precision that the offset will deliver gains identical to the biodiversity losses (truly like for like). However, the selection of appropriate key biodiversity components (KBCs – see Indicator 4-2-1), metrics, and accounting methods, along with explicit consideration of ecological equivalence and whether exchanges are comparable provides assurance that the offset will deliver gains essentially equivalent to the losses.
- Equivalence helps ensure that biodiversity losses in one place are comparable to gains in another. The No Net Loss Resource Paper discusses the three kinds of equivalence in exchanges should be considered in approaches for evaluating whether exchanges of losses in one area are comparable to gains in another area: in type and condition of biodiversity; y in the location of biodiversity; and in the timing or temporal occurrence of biodiversity.
- Equivalence in type (and amount and condition), location, and timing of loss and gain of biodiversity can be explained as follows:
  - Type is addressed by checking there are similar habitat types or vegetation types and the same species occurring in the project impact areas and the offset site(s). There are a number of well-known tools and methods (e.g., GIS-based software) for doing so. Determining whether losses and gains are comparable in the kind of biodiversity affected should include considerations not only of the type of biodiversity (species, vegetation type) but also of the amount and especially the condition of that biodiversity.
  - Location (over geographic space) may be particularly important for some aspects of biodiversity – for example, the regional persistence of species or the presence of a culturally important habitat or species in the landscape. Comparable exchanges in terms of location needs to be considered where there is the chance that biodiversity losses in one location are supposedly offset by gains in a geographically distant region, but in fact there could be a net overall reduction in biodiversity in the region, as follows:

<sup>35</sup> The word ‘equity’ is used here in the sense of ‘comparability’, rather than ‘fairness’.

- For example, with biodiversity important for use or cultural values, an offset that replaced lost biodiversity in a distant location would still result in a loss of those biodiversity values to the local peoples or communities.
  - Some locations may be particularly important for the persistence of a particular species' population within the larger region or landscape (for example because this is a 'source' area that contributes individuals to other locations). Exchanging the loss of the population at this location for gains in population numbers in a different or distant region, may result in the inability of the species to persist within the region where the impacts occurred.
  - Addressing equivalence in time (reducing differences between the time when biodiversity is lost through impacts and gained through offset activities) is particularly challenging when designing offsets. Unless the biodiversity gains are delivered before the project impacts occur (for instance, through biodiversity banking), there is an inevitable loss of biodiversity for some period of time before the biodiversity gains are realised, and in some circumstances, this temporal loss could affect the persistence of a regional population of a vulnerable species. BBOP's Resource Paper on No Net Loss provides some guidance and additional references on addressing equity in time, for example through the use of discount rates in estimating biodiversity gains.
- Equivalence in location can be addressed in part by considering landscape context in the KBCs and loss/gain calculation, through offset site selection (see Principle 3), and through the use of exchange rules for ensuring 'like for like' or 'like for like or better'.
  - Although the goal of biodiversity offsets is no net loss or a net gain in overall type, amount, and condition of biodiversity, as a practical matter it is impossible to identify and measure the loss and gain of every single biodiversity component affected by a project or conserved through an offset. Consequently, checking that the offset satisfies equivalence (or 'like for like or better') for the Key Biodiversity Components described in Indicator 4-2-1, at least, is a good step towards ensuring overall equivalence.
  - Because of uncertainties inherent in endeavouring to ensure equivalence (see Criterion 4-2 and the No Net Loss Resource Paper), offset design may need to include provisions to guard against losing biodiversity that is highly irreplaceable or in good ecological condition through the project's impacts, and 'exchanging' it through the offset activities with biodiversity that is in lower condition or more common, since this would result in a net loss of biodiversity.
  - Exchange rules are generally established as part of national or regional policy on biodiversity offsets. Exchange rules offer one way to address some of the problems in assuring equivalence, particularly in the type of biodiversity exchanged, since they place restrictions on the types of exchanges that are most likely to result in failure to deliver an offset:
    - Exchange rules are particularly important when there is high uncertainty in the estimation of biodiversity losses and gains (see Criterion 4-3).
    - Some regional or national exchange rules that have been developed under particular offset programs (e.g., wetland banking in the U.S.). Where these rules have been established, they should be used or incorporated into any project-specific exchange rules. However, in most cases, there will be no exchange rules already developed, and the offset planner will need to develop a suitable basis for determining equivalence that is appropriate for the context.

- Principal elements of exchange rules include:
  - Exclude exchanges that trade a higher conservation priority class for a lower conservation priority class (i.e., ‘trading down’).
  - Specify the basis for allowing exchanges that trade impacts to a lower conservation priority class for gains to a higher conservation priority class (‘trading up’).
  - Specify provisions to exclude trading higher quality biodiversity at the impact site with lower quality biodiversity at the offset site (including measures of quality or condition at site and landscape scales).
  - Define the geographic region within which exchanges can occur (i.e., where related impact and offset projects can be located (addressing equity in location)).
  - Specify when the offset gains need to be delivered (relative to when the project impacts occur). For example, this could include requirements to deliver all or some offset gains before impacts occur, or link timing of the offset gains to other project milestones that affect impacts (e.g., offset gains delivered at the same time that impacts occur).

**Factors to consider in assessing conformance:**

**Key Questions:**

1. Does the approach for determining equivalence include provisions to address equity in the type (and amount and condition), location, and timing of biodiversity in the exchange of losses and gains for the offset?
2. Have exchange rules been developed and used in assuring equivalence in exchanges of losses at the impact site(s) for gains at the offset site(s)?

**Key Question 1:** Does the approach for determining equivalence include provisions to address equity in the type and condition, location and timing of biodiversity in the exchange of losses and gains for the offset?

**Conformance requires:**<sup>36</sup>

1. A clear approach is articulated and followed to ensure equivalency, and this addresses the type, amount, and condition of biodiversity lost through the project and gained through the offset.
2. The approach taken to equivalency explicitly addresses the key biodiversity components.
3. In selecting the location for offset activities, offset planners take into consideration whether:
  - a. Biodiversity related use and cultural values of indigenous peoples and local communities that are impacted by the project can be replaced by the offset (i.e., offset gains to use and cultural values are accessible to people located in the development project vicinity); and
  - b. Gains from the offset activities occur near enough to the area affected by project’s impacts that the goal of no net loss is not jeopardised (e.g., gains in the same watershed or ecoregion as the impacts)

---

<sup>36</sup> **Non-conformance** may be caused by, for example:

- Only equity in type of biodiversity is considered
- No provision for equity in location
- Equity in type does not include condition
- Not clear how equity in type, location, and/or timing has been addressed in the offset design

4. Measures are taken to ensure that any delay between the project's impacts and the delivery of the offset's conservation outcomes is avoided or minimised and does not jeopardise the goal of no net loss.
5. How equity in type, location, and timing of biodiversity losses and gains are addressed in the offset design is described in the Biodiversity Offset Management Plan.

**Key Question 2:** Have exchange rules been developed and used in assuring equivalence in exchanges of losses at the impact site(s) for gains at the offset site(s)?

**Conformance requires:**<sup>37</sup>

1. Any available exchange rules to ensure equivalency contained in the national or state biodiversity offset policy have been adopted.
2. *OR, If no national/state approach is available;*
3. In the absence of existing exchange rules, a basis for trading between conservation priority classes and condition or quality classes has been established according to which:
  - a. Exchanges that trade a higher conservation priority class for a lower conservation priority class (i.e., 'trading down') are excluded.
  - b. The basis for allowing exchanges that trade impacts to a lower conservation priority class for gains to a higher conservation priority class ('trading up') is established.
  - c. Provisions to exclude trading higher quality biodiversity at the impact site with lower quality biodiversity at the offset site (including measures of quality or condition at site and landscape scales) are specified.
4. If the offset design includes departures from like-for-like and trades up to 'better', these are consistent with the exchange rules and are justified and documented in the Biodiversity Offset Management Plan.

---

<sup>37</sup> **Non-conformance** may be caused by, for example:

- National policy on equivalency in exchanges not adopted • Project method developed not suitable (see conformance elements)
- National policy adopted not suitable (see list of elements)

<b>PRINCIPLE 4</b>	<b><i>No net loss: A biodiversity offset should be designed and implemented to achieve in situ, measurable conservation outcomes that can reasonably be expected to result in no net loss and preferably a net gain of biodiversity.</i></b>
<b>CRITERION 4-2</b>	<b>An explicit calculation of loss and gain shall be undertaken as the basis for the offset design, and shall demonstrate the manner in which no net loss or a net gain of biodiversity can be achieved by the offset</b>
<b>INDICATOR 4-2-4</b>	The metrics selected for quantifying the net balance of biodiversity losses and gains capture the type, amount and condition of affected biodiversity, including the key biodiversity components, and are used to calculate losses and gains in the offset design.

## GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 4-2-4

### Interpretation of Indicator:

Metrics, sometimes referred to as ‘currencies’, are the units of biodiversity that are exchanged in balancing losses due to impacts and gains due to the offset. Considerations for selecting metrics and appropriate documentation of the metrics used and rationale for their use are discussed under Indicator 4-2-2.

- Indicator 4-2-4 addresses suitable forms of metrics. Current guidance suggests the following are attributes of suitable forms of metrics:
  - They capture the type, amount, and condition or quality of the biodiversity that is being lost or gained.
  - They adequately quantify the losses and gains at the species, communities and assemblages, habitats, and ecosystem levels within the specific context of the project.
  - They enable the calculation of residual losses and gains of use and cultural values of biodiversity.
  - Surrogate metrics are used with an understanding of the relationship between changes in the surrogate value and changes in the value of the underlying biodiversity of conservation concern, and evidence should be provided on this relationship.
  - Whenever possible, metrics should be used that include context-dependent information about conservation status, vulnerability or irreplaceability of the biodiversity component(s). This can help prevent low values being allocated to degraded, yet highly irreplaceable or threatened biodiversity.
  - Assumptions and rationale for selection of metrics are clearly documented.
- Further information on metrics can be found in BBOP’s No Net Loss Resource Paper and the Offset Design Handbook.
- Although the goal of biodiversity offsets is no net loss or a net gain in overall type, amount, and condition of biodiversity, as a practical matter it is impossible to identify and measure the loss and gain of every single biodiversity component affected by a project or conserved through an offset. The Key Biodiversity Components described in Indicator 4-2-1 can help inform the selection of the metrics that form the basis of the loss-gain calculation to demonstrate no net loss. It’s worth noting that there may be good reasons for the metrics to measure components of biodiversity other than

those listed as Key Biodiversity Components. (For instance, one or more KBCs may be difficult to measure.) However, some KBCs may form a very suitable part of the metrics selected. Due consideration should at least be given to the KBCs when selecting metrics, as this can help ensure the metrics do a good job in representing losses and gains of biodiversity overall. may check The Consequently, checking that the metrics facilitate good quantification of loss and gain of, at least, is a good step towards ensuring overall equivalence.

### **Factors to consider in assessing conformance:**

#### **Key Questions:**

1. Do the metrics capture type, amount, and condition of affected biodiversity?
2. Have the metrics been used in the loss-gain calculation?

**Key Question 1:** Do the metrics capture type, amount, and condition of affected biodiversity?

#### **Conformance requires:**<sup>38</sup>

1. The metrics include measures of biodiversity type, amount, and condition (or quality), and enable loss and gain of the biodiversity affected, including the key biodiversity components, to be calculated.
2. The metrics quantify the losses and gains at the species, communities and assemblages, habitats, and ecosystem levels within the specific context of the project.
3. If biodiversity related to use and cultural values is an important consideration for the offset, metrics can be used to quantify loss and gain in biodiversity related to use and cultural values.
4. Use of surrogate or aggregated metrics should include an explanation and evidence on the relationships between the surrogate or aggregated measure and the overall biodiversity it is used to represent.

**Key Question 2:** Have the metrics been used in the loss-gain calculation?

#### **Conformance requires:**<sup>39</sup>

1. The metrics identified above have been used in the loss-gain calculation(s);
2. Use of the metrics in the loss-gain calculation is documented in the Biodiversity Offset Management Plan.

---

<sup>38</sup> **Non-conformance** may be caused by, for example:

- Relevant use or cultural values not covered by metrics
- Metrics capture type, but not amount or condition of biodiversity

<sup>39</sup> **Non-conformance** may be caused by, for example:

- Identified metrics not applied in loss-gain calculation
- Use of metrics in the loss-gain calculation not documented

<b>PRINCIPLE 4</b>	<b><i>No net loss: A biodiversity offset should be designed and implemented to achieve in situ, measurable conservation outcomes that can reasonably be expected to result in no net loss and preferably a net gain of biodiversity.</i></b>
<b>CRITERION 4-2</b>	<b>An explicit calculation of loss and gain shall be undertaken as the basis for the offset design, and shall demonstrate the manner in which no net loss or a net gain of biodiversity can be achieved by the offset</b>
<b>INDICATOR 4-2-5</b>	The methods to determine net balance and equivalence of losses and gains (Indicator 4-2-2) are applied as the basis for the offset design, and demonstrate no net loss or a net gain of biodiversity.

## **GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 4-2-5**

### **Interpretation of Indicator:**

- The identification of key biodiversity components, selection of appropriate accounting methods and metrics, and identification of an approach for ensuring equivalence are brought together in determining the biodiversity gains that are needed for the offset to balance the losses due to the project’s impacts.
- Based on the quantification of residual impacts, appropriate offset sites(s) and offset activities are identified that can deliver the requisite gains. Calculations of the anticipated gains from the offset relative to the ‘without offset’ biodiversity baseline conditions at the offset site(s) are used to decide upon the specifics of the offset design (e.g., size, location, whether one site or a composite offset of two or more sites is needed).
- Although the goal of biodiversity offsets is no net loss or a net gain in overall type, amount, and condition of biodiversity, as a practical matter it is impossible to identify and measure the loss and gain of every single biodiversity component affected by a project or conserved through an offset. Consequently, checking that the methods used for determining net balance and equivalence have influenced the design of the offset and that they address the Key Biodiversity Components described in Indicator 4-2-1, is a good step towards ensuring no net loss overall.
- To provide assurance that the design can deliver no net loss outcomes, the manner in which the loss-gain calculation has influenced the final offset design needs to be documented in the Biodiversity Offset Management Plan, to demonstrate no net loss or net gain outcomes.
- Further information on the loss-gain calculation can be found in BBOP’s No Net Loss Resource Paper, BBOP’s Offset Design Handbook, and for socioeconomic and cultural values in the Cost Benefit Handbook.



**Factors to consider in assessing conformance:**

**Key Questions:** Has a 'no net loss' or 'net gain' calculation been used as the basis for the offset design, and does the calculation demonstrate a 'no net loss' or 'net gain' outcome?

**Conformance requires:**<sup>40</sup>

1. The loss-gain calculation(s) have been used to determine the offset activities and locations needed to deliver no net loss.
2. The results of the loss-gain calculation(s) demonstrate a no net loss or a net gain of biodiversity.
3. The results of the loss-gain calculation(s) and their use in the offset design are documented in the Biodiversity Offset Management Plan.

---

<sup>40</sup> **Non-conformance** may be caused by, for example:

- Loss-gain calculation not documented
- How the loss-gain calculation has been applied in the offset design not explained

<b>PRINCIPLE 4</b>	<b><i>No net loss: A biodiversity offset should be designed and implemented to achieve in situ, measurable conservation outcomes that can reasonably be expected to result in no net loss and preferably a net gain of biodiversity.</i></b>
<b>CRITERION 4-3</b>	<b>The offset design and implementation shall include provisions for addressing sources of uncertainty and risk of failure in delivering the offset.</b>
<b>INDICATOR 4-3-1</b>	Sources of risk and uncertainty in the design and implementation of the offset (including in the loss/gain calculations), together with the measures taken to manage them, are documented in the Biodiversity Offset Management Plan.

## **GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 4-3-1**

### **Interpretation of Indicator:**

- Delivering no net loss involves a level of uncertainty and risk (see BBOP’s No Net Loss Resource Paper). In order to ensure successful delivery of the offset, it is important to understand the uncertainties and risks involved and to make provisions that address the risk of failure. Some sources of uncertainty in the loss/gain assessment and offset delivery include:
  - Biodiversity losses are not all accounted for: some impacts are not considered or the key biodiversity components selected do not in fact capture some important components of biodiversity (data not available, uncertainty in knowledge of biodiversity, surrogates or proxies don’t represent more than a subset or are not scalable);
  - Uncertainty in predicting gains from offset activities: uncertainty about ecological responses to offset activities, use of offset activities that have not been adequately tested or demonstrated to be effective, time frame of ecological response to offset activities poorly understood, not considering landscape factors that affect success;
  - Threats from external and/or future factors (climate change, floods, fires); and
  - Dissimilarity between impact and offset sites, uncertainties associated with evaluating equivalence, time lags in delivery of gains (impacts are certain and occur now; gains are less certain and occur in future).
- To provide assurance that no net loss outcomes can reasonably be delivered, it helps to make explicit the consideration of sources of risk and uncertainty inherent in the major steps in designing and implementing the offset.
- Sources of uncertainty and risk of failure in the delivery of the biodiversity offset should be addressed in several steps in the offset design and implementation. Uncertainty is associated with the assessment of impacts, with the loss/gain calculation, and with the design and implementation of the offset activities.
- BBOP’s No Net Loss Resource Paper and the Offset Design Handbook provide guidance and useful references on addressing uncertainty.
- Provisions for risk and uncertainty include:
  - Use of multipliers, where the ratio of the offset area to the affected area is increased to improve the chances of achieving no net loss; however, multipliers should be used with

caution and attention to some of the problems that may arise from using multipliers (see the No Net Loss Resource Paper);

- Selection of metrics (or currencies) and accounting models that improve chances of capturing all biodiversity and maximising equivalence of exchanges;
- Rather than relying on a single offset site or strategy, including a varied portfolio of offset activities and sites to hedge against uncertainty in outcomes; e.g., combining restoration and averted risk offset activities;
- Securing offset gains before impacts have occurred (i.e., with conservation banking);
- Design offset to take account of wider landscape context (e.g., Principle 3);
- Use of discounting to address temporal losses of biodiversity and the uncertainty associated with the timing of delivery of offset gains; and
- Bonds and insurance.

### **Factors to consider in assessing conformance:**

#### **Key Questions:**

1. Have major sources of uncertainty and risk in the assessment of losses and gains and in the offset delivery been explicitly considered in the offset design?
2. Has adequate provision for risk and uncertainty been factored into the plan for the 'no net loss' or 'net gain' outcome?

**Key Question 1:** Have sources of uncertainty and risk in the assessment of losses and gains and in the offset delivery been factored into the plan for the 'no net loss' or 'net gain' outcome?

#### **Conformance requires:<sup>41</sup>**

1. Identification of major sources of uncertainty and risk in the loss/gain calculation.
2. Identification of major sources of uncertainty and risk in the offset implementation.
3. Documentation of these in the Biodiversity Offset Management Plan.

**Key Question 2:** Has provision for risk and uncertainty been factored into the plan for the 'no net loss' or 'net gain' outcome?

#### **Conformance requires:<sup>42</sup>**

1. Provisions for addressing risk have been identified for all major sources of uncertainty identified in offset design and implementation.
2. Rationale for choosing specific measures to address risk is provided.
3. Provisions for addressing risks are documented in the Biodiversity Offset Management Plan.

---

<sup>41</sup> **Non-conformance** may be caused by, for example:

- Major sources of uncertainty or risk not identified
- Methods or approach for assessing uncertainty and risk not documented

<sup>42</sup> **Non-conformance** may be caused by, for example:

- Major risks not addressed
- Measures for addressing risk not documented

<b>PRINCIPLE 4</b>	<i>No net loss: A biodiversity offset should be designed and implemented to achieve in situ, measurable conservation outcomes that can reasonably be expected to result in no net loss and preferably a net gain of biodiversity.</i>
<b>CRITERION 4-3</b>	The offset design and implementation shall include provisions for addressing sources of uncertainty and risk of failure in delivering the offset.
<b>INDICATOR 4-3-2</b>	A series of milestones for implementing the offset, tracking progress towards achieving no net loss or net gain and verifying that the offset delivers the intended conservation outcomes, is established and monitored.

## GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 4-3-2

### Interpretation of Indicator:

- A milestone signifies the completion of a major step in a process, the completion of a major task, or the achievement of a major performance target or goal. Milestones are typically a way to flag progress in a work plan to signify that some work has been completed; usually a milestone is used as a project checkpoint to validate how the project is progressing and to verify that targets are being met.
- To assure that the biodiversity offset achieves the intended outcomes, it is good practice to develop a series of milestones to track progress in implementing the offset activities, delivering the intended outcomes, and achieving no net loss or a net gain.
- As the offset’s ultimate no net loss outcomes may take a considerable time to be delivered (years and decades for some biodiversity components), developing interim milestones to track progress is a good way to check that the offset stays on track and ultimately delivers the required biodiversity gains.
- Developing and monitoring milestones also supports adaptive management or contingencies in the event that the offset is not progressing as planned. The use of milestones is thus one mechanism for managing risk (see Principle 8 and Indicator 4-3-1).

### Factors to consider in assessing conformance:

**Key Question:** Have milestones for the offset implementation and conservation outcomes been developed and the means for tracking milestones identified and implemented?

#### **Conformance requires:**<sup>43</sup>

1. Milestones are developed for implementing the offset activities.
2. Milestones are developed for achieving conservation outcomes, based on the estimated timeframe for the offset to deliver biodiversity gains.
3. The Biodiversity Offset Management Plan describes the means of tracking when milestones are reached.
4. Milestones are tracked and progress evaluated against them.

<sup>26</sup> **Non-conformance** may be caused by, for example:

- No milestones developed
- No system established for tracking milestones
- No tracking or reporting on progress towards milestones

<b>PRINCIPLE 5</b>	<b><i>Additional conservation outcomes: A biodiversity offset should achieve conservation outcomes above and beyond results that would have occurred if the offset had not taken place. Offset design and implementation should avoid displacing activities harmful to biodiversity to other locations.</i></b>
<b>CRITERION 5-1</b>	<b>The conservation outcomes of the biodiversity offset shall be ‘additional’ in that they are due to the offset activities and would not have occurred without them.</b>
<b>INDICATOR 5-1-1</b>	Evidence is provided that the conservation gains at the offset site(s), calculated as the difference between the conservation outcomes with and without the proposed offset activities, were caused by the offset activities. The gains are predicted for a specified, long-term period, and monitored and verified during offset implementation.

## **GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 5-1-1**

### **Interpretation of Indicator:**

- Biodiversity gains from an offset are considered additional if they occur as a result of the offset activities, and would not have occurred in the absence of the offset activities.
- If the biodiversity gains are not new, and in addition to what would have occurred anyway without the offset activities, then the offset cannot balance the biodiversity losses caused by the development project, and it will not achieve no net loss or a net gain.
- The fundamental question for determining additionality is: what would have happened in the absence of the offset?
- To be additional, the offset gains cannot occur from activities that would already occur under existing laws or public policy. For example if a government has made a commitment to set aside protected areas or take certain conservation actions, simply shifting the cost of establishing those protected areas or implementing those conservation actions to the developer as an offset will not result in additional biodiversity gains over what the government is already committed too. (However, offset activities that help significantly improve management or stewardship of existing protected areas can be additional in cases where governments are meeting their commitments and external threats or causes of biodiversity loss are degrading the effectiveness of a protected area. Similarly, offset activities that expand existing protected areas or add new protected areas to an existing network would be additional).
- While national, regional and local conservation goals and priorities may well be quite clearly defined and sometimes mapped spatially, this does not necessarily mean that adequate resources are allocated or policies in place to secure and manage these priority areas for biodiversity conservation. Often they may represent targets, with no plan to implement them: ‘paper parks’ are a well-known phenomenon, particularly in developing countries (e.g., see Mora et al., 2006<sup>44</sup>). Where it can be shown that proposed activities will help meet conservation goals that would otherwise not be implemented in the foreseeable future, the activities can be considered to be a genuinely additional contribution and qualify towards an offset.

<sup>44</sup> Mora et al. 2006. Coral Reefs and the Global Network of Marine Protected Areas. *Science* 312:1750-1751.

- From a scientific perspective, conservation gains are indicated by increased probability of persistence of species populations (as quantified in terms of distribution, abundance, relative density, mortality rates, reproductive success or statistical measures of population viability), improved condition of impacted community types, or a greater area occupied by either species populations or community types. Any increased area (e.g., of species or community types) needs to occur without reducing the probability that these gains will persist in the future. For example, a management intervention could increase the area of habitat available to a particular species, but if that larger area is subject to increased threats (e.g., invasive species) then the species' long-term persistence may be threatened even though it has access to larger areas of habitat.
- From a management perspective, biodiversity gains can be achieved by actions in two broad categories, as described below: removing the risk of further loss (by averting loss, degradation and increasing the level of protection); and positive management interventions such as restoration and enhancement, that improve biodiversity condition. The Biodiversity Offset Management Plan should show that the gains from either category are additional.

a) *Averted loss and/or degradation of biodiversity and improving protection status*

- Preventing further harm to biodiversity by tackling the drivers of background losses.* This relates to activities that will slow or stop known and ongoing environmental degradation, such as through the implementation of environmentally responsible natural resource management practices, and/or the strengthening or creation of protected areas (to guard against identifiable threats such as vegetation clearance, timber extraction, fire encroachment, hunting etc.). It can also include the provision of alternative livelihoods for people who undertake unsustainable levels of resource extraction (e.g., providing alternative protein sources to substitute for poaching of wild game). However, it is essential that any investment results in *measurable conservation outcomes* that are directly linked to the offset activity itself. Generalised 'structural' investments in local capacity building and environmental education may be important but they need to be shown to be clearly linked with actual biodiversity gains if they are to qualify as part of an offset package.
- Guarding against future threat.* This refers to interventions that are designed to *avert known future risks* to biodiversity in areas that may currently be secure. One example of this would be a landowner who may have the right to cut down a forest on his land at any time in the future. Entering into a permanent conservation covenant or easement with the landowner could remove his right to do so and thus avert the risk of future loss of the forest. For an averted loss offset to make a defensible contribution to the goal of no net loss, it must be possible to show that any impending threats are highly likely to occur in the future (and certainly within the timeline of the project), and are also likely to have a significant impact on local biodiversity.

b) *Positive management actions (restoration, enhancement) that improve biodiversity condition*

- This encompasses a wide variety of management activities that seek to improve the quality of biodiversity in sites with varying levels of degradation. Such activities can be divided into two basic types: restoration and enhancement. Restoration refers to activities that specifically aim to return an area to its original (pre-disturbance) ecological condition prior to some anthropogenic impact. This may take the form of planting native species, removal of exotic and weed species, or ecological engineering to accelerate natural regeneration processes (e.g., inclusion of bird perches to encourage seed dispersal). Enhancement may in

turn include similar activities (aimed at improving desirable ecological features or states), but it differs from restoration in that the goal is not necessarily to return a system to a specific 'prior' state (also see BBOP Glossary, available at: <http://bbop.forest-trends.org/guidelines/glossary.pdf>).

- Averted risk offsets should be evaluated to confirm that the offset is averting risks that are not related to the development activities themselves (e.g., if development creates new roads that open up a forest to new illegal logging pressure, preventing logging is not an additional conservation action but is avoiding or minimising project impacts).
- Evaluating additionality requires that the no-offset, or without-offset, biodiversity baseline of the offset area be understood and characterised (see Indicator 4-1-3), to determine whether the biodiversity condition predicted to occur following implementation of the offset is new and additional.
- Positive management offsets should be evaluated to confirm that the offset activities are not already required under existing laws or part of other conservation programmes that will occur regardless of the development project.
- The kinds of factors to consider in evaluating additionality include the level of probability or certainty that the offset gains will be achieved, risks associated with achieving the offset and cumulative impacts from other sources that will affect both the 'no-offset' projection and the 'with offset' scenario. Uncertainty in evaluating additionality can contribute to the risk that an offset will not achieve its no net loss goal; uncertainty and risks associated with additionality should be addressed explicitly in the offset design (see Indicator 4-3-1).
- It is good practice to be explicit about the projected time span within which it is estimated that the conservation gains will be achieved, including when it is anticipated that no net loss can be accomplished, and to substantiate this with information on the assumptions involved, and the methods used to make the projections and gain calculations.

#### **Factors to consider in assessing conformance:**

##### **Key Questions:**

1. Does the gain calculation of the with-offset minus the without-offset scenario demonstrate biodiversity gains?
2. Will the offset activities described in the Biodiversity Offset Management Plan result in conservation outcomes that would not have occurred otherwise?

**Key Question 1:** Does the gain calculation the with-offset minus the without-offset scenario demonstrate biodiversity gains?

**Conformance requires:**<sup>45</sup>

1. An analysis of the likely future trajectory of biodiversity both with, and without, the conservation interventions of the offset (Indicator 4-1-3).
2. The analysis includes a consideration of uncertainty in predicting the with-offset and without offset scenarios (Indicator 4-3-1).
3. Time-frame used in the analysis is based on, or consistent with, the time-frame of expected ecosystem responses to the conservation interventions of the offset.
4. Gains are evaluated relative to the without-offset condition of biodiversity (Indicator 4-1-3 and 4-2-5).
5. The assumptions and methods used for the analysis of the future trajectory of biodiversity and the calculations of the conservation gain to be delivered by the offset are documented.

**Key Question 2:** Will the offset activities described in the Biodiversity Offset Management Plan result in conservation outcomes that would not have occurred otherwise?

**Conformance requires:**<sup>46</sup>

1. An assessment is conducted to verify that the offset activities are not already required by existing law or public policy.
2. Documentation is provided that the offset is not simply shifting costs to the developer for conservation actions that government is responsible for undertaking.
3. Conservation outcomes (gains) are monitored and verified during offset implementation and the Biodiversity Offset Management Plan describes the monitoring and verification steps (see Indicator 4-1-4).

---

<sup>45</sup> **Non-conformance** may be caused by, for example:

- Additionality analysis not undertaken
- Assumptions about conservation gains that will be attained by the offset appear unrealistic in the light of the available information.
- Time-frame for analysis not based on, or inconsistent with, the time frame of expected ecosystem responses

<sup>46</sup> **Non-conformance** may be caused by, for example:

- Existing public laws or policies already require offset activities
- Offset activities simply shift cost for already committed conservation actions from government to developer



<b>PRINCIPLE 5</b>	<i>Additional conservation outcomes: A biodiversity offset should achieve conservation outcomes above and beyond results that would have occurred if the offset had not taken place. Offset design and implementation should avoid displacing activities harmful to biodiversity to other locations.</i>
<b>CRITERION 5-2</b>	The offset shall be designed and implemented to avoid ‘leakage’: the displacement by the offset of activities that harm biodiversity from one location to another.
<b>INDICATOR 5-2-1</b>	An assessment is undertaken to identify potential leakage resulting from the offset activities.

## GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 5-2-1

### Interpretation of Indicator:

- Leakage is the displacement of activities that harm biodiversity from one location to another. For example, an offset that sets aside a new protected area and eliminates activities that are converting or degrading forested habitats (e.g., logging, palm oil plantations, illegal hunting) may result in simply shifting those activities to the adjacent forested areas. Such an offset results in leakage and cannot result in no net loss or a net gain in biodiversity, due to the new impacts on the adjacent forest.
- Typical examples of leakage would be increased hunting pressure in remaining areas of forest if access to traditional hunting grounds is lost, or the need to convert land for farming following strict protection of an area for offset purposes. Leakage could also occur with offshore oil and gas exploration and production activities that result in illegal or unsustainable fishing activities moving to another location.
- The effects (direct and indirect impacts) of the offset activities must be evaluated in light of their potential to shift existing impacts or drivers of biodiversity loss to another location and/or to affect people’s livelihoods in a way that puts pressure on biodiversity in new areas.
- Assessing the potential for the offset activities to result in leakage requires knowledge of the underlying causes of biodiversity loss at the offset sites and surrounding areas; the offset activities and how these address causes of biodiversity loss; and the direct and indirect effects of the offset activities (e.g., biodiversity gain at the offset site, impacts to peoples’ access to resources at the offset site; impacts to peoples’ livelihoods; or changes in the local or regional value of resources from the offset activities).
- In addition to considering the possibility of leakage occurring, the assessment should consider the probability or likelihood of its doing so. The likelihood of leakage will be related to the intensity of the pressures on biodiversity from the causes of loss. For example, if the following pressures on biodiversity are relatively intense in the area of the offset, then the potential for leakage is likely or highly likely:
  - There is intense pressure to access forests for subsistence hunting;
  - Extremely valuable wildlife or timber resources in the area will be much less available following offset implementation;
  - High local population density and dependence on biodiversity for livelihoods; or

- The offset site and areas like it provide significant source of income to local communities or commercial enterprises.
- An explicit consideration of the potential for leakage would enable the offset planners to take steps (see Indicator 5-2-2) for managing the risk of leakage, such as:
  - Putting in place measures to monitor the indicators that would reveal leakage
  - Identifying and carrying out steps that to avoid or minimise the risk of leakage
- It can be difficult to identify the potential (possibility and likelihood) for leakage with certainty, and impractical to address leakage that may occur at scales much greater than the scale of the project (e.g., logging activities that could be displaced to another country or region). However, leakage can be addressed by explicitly considering the potential for, or risk of leakage, and by making provisions to minimise or manage leakage if there is a potential or risk of leakage.
- A good assessment for explicitly considering the potential for leakage would include the following:
  - Describe the threats to biodiversity in the area of the offsets
  - Describe the factors or forces behind those threats (e.g., If a major threat is illegal hunting, or logging and deforestation, a possible driver could be limited access to alternative sources of income. If local people use the offset area for traditional livelihoods such as fishing, hunting, etc., and the offset activities restrict access for local people, this could displace the pressure for hunting or logging to forests adjacent to the offset.)
  - Evaluate how these threats and drivers of biodiversity loss may be affected by the offset activities
  - Describe each offset activity
  - Consider the risk that each offset activity could result in the displacement of the pressures on biodiversity that the activity seeks to address to another location (i.e., the direct and indirect impacts of the offset)
  - Describe the manner in which displacement could happen
  - Consider the likelihood that leakage will occur given the type and intensity of threats to biodiversity
  - Identify indicators that would reveal whether leakage is taking place (e.g., increased rates of deforestation in forests adjacent to offset sites(s); migration of people away from the offset area to adjacent regions).

## **Factors to consider in assessing conformance:**

**Key Question:** Have the most likely sources of potential leakage been identified and evaluated?

### **Conformance requires<sup>47</sup>:**

1. An assessment of the potential for leakage is included in an impact assessment for the project and the offset activities (preferably from the scoping stage of the EIA onwards).
2. The assessment includes at least:
  - (i) Main causes of biodiversity loss at the offset site identified;
  - (ii) Direct impacts, both positive and negative, of offset activities have been identified for all offset sites, and the likelihood of leakage assessed;
  - (iii) Indirect effects, both positive and negative, of the offset activities have been identified for all offset sites, and the likelihood of leakage assessed;
  - (iv) The assessment considers effects on intrinsic biodiversity values (populations, species, habitats, ecosystems, etc.) and the use and cultural values of biodiversity; and
  - (v) The approach for assessing the potential for leakage, and the results of the assessment are documented in the BOMP and the assessment describes the likelihood that leakage may occur and the manner in which leakage could happen.
3. The results and conclusions of the assessment are provided and documented

---

<sup>47</sup> **Non-conformance** may be caused by, for example:

- Potential for leakage has not been evaluated for the offset activities
- Leakage with respect to people's livelihoods and use and cultural values is not assessed
- Assessment of potential for leakage not documented

<b>PRINCIPLE 5</b>	<i>Additional conservation outcomes: A biodiversity offset should achieve conservation outcomes above and beyond results that would have occurred if the offset had not taken place. Offset design and implementation should avoid displacing activities harmful to biodiversity to other locations.</i>
<b>CRITERION 5-2</b>	The offset shall be designed and implemented to avoid 'leakage': the displacement by the offset of activities that harm biodiversity from one location to another.
<b>INDICATOR 5-2-2</b>	The offset design includes provisions for addressing the risk of leakage and these are put into effect during implementation.

## GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 5-2-2

### Interpretation of Indicator:

- If the assessment for leakage determines that some displacement of the causes of biodiversity loss from the offset site(s) to other locations may occur, it may be possible to prevent or minimise these impacts to avoid leakage, usually through ensuring the offset activities are drawn sufficiently broadly to address the possible causes of leakage.
- Prevention or minimisation could take the form for example, of providing alternative livelihoods and sources of income to local communities (e.g., as protected area stewards or in monitoring and management of the offset site, or ecotourism ventures) so that pressure to conduct logging, habitat conversion, or hunting on adjacent areas is reduced or eliminated.
- Demonstrating the prevention or minimisation of leakage will involve describing measures taken to address the underlying causes of biodiversity loss. This generally involves working with the stakeholders who are affected by the development project and also by the offset activities to engage them in the measures. It also involves attention to issues of equity in evaluating the impacts of the offset.
- Auditors will find it easier to assess the measures planned to address the risk of leakage if they are documented clearly in the Biodiversity Offset Management Plan, together with the rationale for choosing them.

### Factors to consider in assessing conformance:

**Key Question:** Have measures for preventing or managing leakage been identified?

#### **Conformance requires<sup>48</sup>:**

1. Provisions to prevent or minimise leakage are identified.
2. Relevant stakeholders have been involved in the process of developing measures to prevent or minimise leakage.
3. Measures and rationale for selecting them are clearly documented in the Biodiversity Offset Management Plan.

<sup>48</sup> Non-conformance may be caused by, for example:

- Provisions to prevent or minimise leakage are not identified
- Provisions are not documented in the Biodiversity Offset Management Plan
- Provisions do not apply to all offset sites or activities

<b>PRINCIPLE 6</b>	<b><i>Stakeholder participation: In areas affected by the development project and by the biodiversity offset, the effective participation of stakeholders should be ensured in decision-making about biodiversity offsets, including their evaluation, selection, design, implementation, and monitoring.</i></b>
<b>CRITERION 6-1</b>	<b>Consultation and participation of relevant stakeholders shall be integrated into the decision-making process for offset design and implementation, and documented in the Biodiversity Offset Management Plan.</b>
<b>INDICATOR 6-1-1</b>	Relevant stakeholders are identified and informed of the plan to design and implement a biodiversity offset for the project.

## GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 6-1-1

### Interpretation of Indicator:

- Relevant stakeholders are those people, groups, or organisations who have an interest in, or are affected or impacted by, the project and who need to participate in the design and implementation of a project or offset for its success. Relevant stakeholders will need to be identified and informed of the project so that their input can be solicited and contribute to the design and implementation of the offset. The best designed offsets will fail if they are not developed with the support and involvement of key stakeholders.
- Stakeholders will vary from project to project as will the appropriate level of their participation. They may be local communities, indigenous peoples, individuals, interest groups, government agencies or corporate organisations. They may include politicians, commercial and industrial enterprises, labour unions, academics, religious groups, national and international social and environmental groups, public sector agencies, citizens' organisations, and the media.
- In the context of biodiversity offsets, among the most important stakeholders are often persons or groups who hold rights over land and resources that might be affected (such as indigenous peoples and local communities) as well as institutions and organisations with authority for biodiversity planning and expertise in conservation (such as government departments, conservation NGOs and scientific organisations).
- It is important to seek out stakeholders who may be marginalised or not represented in formal structures, for example indigenous peoples, youth or women.
- Identifying stakeholders whose engagement is important and working appropriately with them can be challenging. However, this is a topic on which there is considerable experience and practical guidance. Some authoritative sources of guidance on best practice in this field can be found in BBOP's Resource Paper on Biodiversity Offsets and Stakeholder Participation, available at [www.forest-trends.org/biodiversityoffsetprogram/guidelines/participation.pdf](http://www.forest-trends.org/biodiversityoffsetprogram/guidelines/participation.pdf).
- The stakeholder participation process should begin with a review of any existing stakeholder information already collected as part of any social and environmental impact assessment or existing general stakeholder engagement strategy. Depending on the scale of the project and level and complexity of participation required, it may be helpful to produce a stakeholder participation plan to identify who should be involved at each stage of the offset design and implementation process

and to outline the resources needed to ensure their effective participation. Attention needs to be paid to ensure stakeholders are informed through means of communication that are accessible to them. This topic is addressed under Principle 9 (Transparency), particularly Indicator 9-1-1, which discusses appropriate media for communication.

**Factors to consider in assessing conformance:**

**Key Question:** Have relevant stakeholders been identified and informed?

**Conformance requires:**<sup>49</sup>

1. Evidence that agencies, civil society organisations and people who might be affected by the project or the offset have been identified through a systematic process.
2. Demonstrated mechanisms/process indicating that relevant stakeholders have been informed of the offset project through appropriate media and are aware of the project and the plans for an offset.

---

<sup>49</sup> **Non-conformance** may be caused by, for example:

- No evidence of a systematic approach to identify potential stakeholders.
- Failure to invite one or more relevant stakeholders whose involvement could determine the success of the offset to participate in discussions about offset design and implementation.
- The information provided to stakeholders is inaccessible or very hard to access. For instance: only available on the web when some stakeholders have no ready internet access, or not in local languages, or through media that are only accessed by a limited number of the stakeholders without meetings being held to address this gap. (This is similar to non-conformance under Indicator 9-1-1.)

<b>PRINCIPLE 6</b>	<b><i>Stakeholder participation: In areas affected by the development project and by the biodiversity offset, the effective participation of stakeholders should be ensured in decision-making about biodiversity offsets, including their evaluation, selection, design, implementation, and monitoring.</i></b>
<b>CRITERION 6-1</b>	<b>Consultation and participation of relevant stakeholders shall be integrated into the decision-making process for offset design and implementation, and documented in the Biodiversity Offset Management Plan.</b>
<b>INDICATOR 6-1-2</b>	Records are maintained that document the results of informed consultation and participation of relevant stakeholders related to the design and implementation of the biodiversity offset.

## GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 6-1-2

### Interpretation of Indicator:

- ‘Participation’ is the active involvement in decision-making of those with an interest in or affected by important decisions. It refers to a process through which stakeholders can influence the decisions and resources regarding the offset project which affect them. In terms of offset design and implementation, the consultation process is intended to encourage active stakeholder participation in planning and decision-making. The results of the consultation and of the participatory process as a whole should be documented.
- BBOP’s Resource Paper on Biodiversity Offsets and Stakeholder Participation describes several authoritative best practice guidelines on how to identify and engage stakeholders in participatory processes. It can be found at: [www.forest-trends.org/biodiversityoffsetprogram/guidelines/participation.pdf](http://www.forest-trends.org/biodiversityoffsetprogram/guidelines/participation.pdf).
- The public consultation process is a key part of stakeholder engagement and participation. The goal of consultation is to obtain public feedback on analysis, alternatives and/or decisions. The process of dialogue between individuals or groups should be based upon a genuine exchange of views, and normally with the objective of influencing decisions, policies or programmes of action<sup>50</sup>. That process typically involves the following steps:
  1. Information giving – letting the relevant people know what the project is planning and keeping people informed throughout the process.
  2. Soliciting Input– inviting people to have a say before a decision is taken so that peoples’ issues are addressed appropriately.
  3. Acting together – involving people in the decision making process, and coming to a joint decision (s).
  4. Supporting actions – helping stakeholders to define their roles and responsibilities vis a vis others involved in the process
- It is good practice for the developer to compile and summarise the issues raised by stakeholders through a systematic process of consultation and participation and then to explain how these issues have been dealt with in the offset design. Issues and suggestions raised by stakeholders may not

<sup>50</sup> UK Consultation Institute.

necessarily be accepted but in each case a response should be documented and explained in terms of the specific circumstances related to the design and the implementation of the project.

Documentation that demonstrates that stakeholder consultation has taken place typically includes:

- Meeting minutes or notes;
  - Minutes from or recordings of workshops;
  - Signed agreements; and
  - Other documentation that demonstrates that a consultation process has taken place, issues have been identified and discussed and that agreements reflect decisions taken during the consultation process.
- The documentation should also consider any stakeholder concerns or perceptions about potential adverse impacts of the offset itself and ensure that the Biodiversity Offset Management Plan addresses those concerns. As indicated in the BBOP Cost Benefit Handbook (see [www.forest-trends.org/biodiversityoffsetprogram/guidelines/cbh.pdf](http://www.forest-trends.org/biodiversityoffsetprogram/guidelines/cbh.pdf)), stakeholder participation should help ensure that local people are not worse off (and preferably better off) because of the project's impacts on biodiversity related livelihoods and as a result of the biodiversity offset.

### **Factors to consider in assessing conformance:**

#### **Key Questions:**

1. Is there, or has there been, an established, well-publicised participatory public consultation process as part of project development and offset design that included relevant stakeholders?
2. Has the process and its results been documented to demonstrate the extent of the consultation and the results of the process?
3. Is there documentation that demonstrates that the development of the biodiversity offset management plan reflects stakeholder participation and input and addresses their concerns?

**Key Question 1:** Is there, or has there been an established, well-publicised participatory public consultation process as part of project development and offset design that included relevant stakeholders?

#### **Conformance requires:<sup>51</sup>**

1. An established and well-publicised consultation process.
2. Documented evidence showing how the consultation process was publicized.

---

<sup>51</sup> **Non-conformance** may be caused by, for example:

- No evidence of a systematic approach to identify potential stakeholders.
- Failure to invite one or more relevant stakeholders whose involvement could determine the success of the offset to participate in discussions about offset design and implementation.



**Key Question 2:** Has the process and its results been documented to demonstrate the extent of the consultation and the results of the process?

**Conformance requires:**<sup>52</sup>

1. Documented evidence of meetings, points discussed, and decisions or agreements reached at the consultations.
2. Any signed agreements with communities that may be negotiated as part of the process.
3. The project developer has published an explanation of the responses to the issues raised through the stakeholder participation process and how they were addressed as part of the final Biodiversity Offset Management Plan.

**Key Question 3:** Is there documentation that demonstrates that the development of the biodiversity offset management plan reflects stakeholder participation and input and addresses their concerns?

**Conformance requires:**<sup>53</sup>

1. The project developer has taken into account the input received from stakeholder, included relevant issues in the offset design and implementation, and captured these in the Biodiversity Offset Management Plan.

---

<sup>52</sup> **Non-conformance** may be caused by, for example:

- No evidence of public consultation or evidence indicates an inadequate public consultation process
- Failure to invite relevant stakeholders whose involvement could determine the success of the offset to participate

<sup>53</sup> **Non-conformance** may be caused by, for example:

- The project developer has not indicated the manner in which it has responded to public comment in determining offset design. Stakeholders have not been informed or updated on the project design in public forums or documents.
- Opportunities and mechanisms for stakeholder contributions to the decision making process have been insufficient or inadequate.

<b>PRINCIPLE 6</b>	<b><i>Stakeholder participation: In areas affected by the development project and by the biodiversity offset, the effective participation of stakeholders should be ensured in decision-making about biodiversity offsets, including their evaluation, selection, design, implementation, and monitoring.</i></b>
<b>CRITERION 6-1</b>	<b>Consultation and participation of relevant stakeholders shall be integrated into the decision-making process for offset design and implementation, and documented in the Biodiversity Offset Management Plan.</b>
<b>INDICATOR 6-1-3</b>	The roles of relevant stakeholders in the implementation of the biodiversity offset, including its evaluation and monitoring, are established and clearly defined in the Biodiversity Offset Management Plan.

## GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 6-1-3

### Interpretation of Indicator:

- The Biodiversity Offset Management Plan should be developed with the participation of relevant stakeholders and based on decisions reached with them. It should:
  - Ensure the offset design adequately addresses any concerns or issues related to impacts on stakeholders and loss of cultural values, ecosystem services, and access to resources in general both from the project and the offset.
  - Demonstrate that the benefits from the offset are not less than the costs of the residual project impacts as well as the cost of offset impacts.
  - Help create an understanding among stakeholders of the concept of no net loss, and the importance of putting in place mechanisms to achieve long-term stakeholder benefits from improved resource management;
  - Ensure that stakeholders agree to and are committed to any roles and responsibilities outlined for them in the management plan, particularly with regard to offset implementation and monitoring, and that they understand how the costs of these roles and responsibilities will be financed.
  - Identify the need for any necessary written agreements and commitments from stakeholders regarding those roles and responsibilities.
  - Identify any technical gaps or needs and outline plans to increase stakeholder capacity to implement the Biodiversity Offset Management Plan.
- The Biodiversity Offset Management Plan should establish and define clearly the roles and responsibilities of stakeholders in implementing and monitoring of the offset. The provisions in the BOMP should include:
  - Clear identification of the roles and responsibilities of the stakeholders, along with the benefits from their participation; and
  - Clear monitoring protocols and approaches so that stakeholder participation in the monitoring process is relevant and useful.
  - The BBOP Biodiversity Offset Implementation Handbook offers a number of suggestions on the roles and responsibilities of stakeholders in the implementation (including monitoring) of a biodiversity offset, and is available at:
 

[www.forest-trends.org/biodiversityoffsetprogram/guidelines/oih.pdf](http://www.forest-trends.org/biodiversityoffsetprogram/guidelines/oih.pdf).

## **Factors to consider in assessing conformance:**

### **Key Questions:**

1. Are there clearly defined, established and agreed roles for stakeholders in the implementation and monitoring of the Biodiversity Offset Management Plan?
2. Do the monitoring activities established in the Biodiversity Offset Management Plan include monitoring whether the various stakeholders are undertaking the roles and responsibilities established for them in the BOMP?

**Key Question 1:** Are there clearly defined, established and agreed roles for stakeholders in the implementation and monitoring of the Biodiversity Offset Management Plan?

#### **Conformance requires:**<sup>54</sup>

1. Clear definition in the Biodiversity Offset Management Plan of the roles and responsibilities of the stakeholders in offset implementation and monitoring

**Key Question 2:** Do the monitoring activities established in the BOMP include monitoring whether the various stakeholders are undertaking the roles and responsibilities established for them?

#### **Conformance requires:**<sup>55</sup>

1. Evidence that stakeholders are fulfilling the roles defined for them in implementing the Biodiversity Offset Management Plan, including monitoring activities.
2. Evidence that stakeholder have adequate capacity to fulfil their roles over time given changes in implementation or monitoring needs.

---

<sup>54</sup> **Non-conformance** may be caused by, for example:

- No documentation of stakeholders' roles and responsibilities.
- Lack of clarity in the BOMP about the roles and responsibilities of stakeholders in offset implementation and monitoring.

<sup>55</sup> **Non-conformance** may be caused by, for example:

- No evidence of stakeholder involvement in offset implementation and monitoring.
- Evidence shows stakeholders are not, or only partly, fulfilling the roles and responsibilities ascribed to them in the Biodiversity Offset Management Plan.
- Evidence that gaps in capacity exists regarding ability of stakeholder to fulfil their responsibilities.

<b>PRINCIPLE 6</b>	<b><i>Stakeholder participation: In areas affected by the development project and by the biodiversity offset, the effective participation of stakeholders should be ensured in decision-making about biodiversity offsets, including their evaluation, selection, design, implementation, and monitoring.</i></b>
<b>CRITERION 6-1</b>	<b>Consultation and participation of relevant stakeholders shall be integrated into the decision-making process for offset design and implementation, and documented in the Biodiversity Offset Management Plan.</b>
<b>INDICATOR 6-1-4</b>	For projects and/or offsets with adverse impacts on indigenous peoples, their free, prior and informed consent (FPIC) will be obtained and documented. <sup>56</sup>

## GUIDANCE NOTES FOR INDICATOR 6-1-4

### Interpretation of Indicator:

- Free prior and informed consent (FPIC) is a specific right for Indigenous Peoples recognised in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). FPIC can be claimed by indigenous peoples where a project affects their lives, livelihoods, lands and territories.
- Indicator 6-1-4 explicitly defines the approach required on FPIC for the purposes of the Standard on Biodiversity Offsets as that required by IFC Performance Standard 7 (PS7), and its accompanying Guidance Note (GN7). The footnote to Indicator 6-1-4 explains that the process and outcome of obtaining FPIC should be those described in PS7 and GN7, and it also defines the scope of circumstances when FPIC must be obtained in the terms used by PS7, namely when the project concerned will have adverse impacts on indigenous peoples, as defined by PS7. In PS7, ‘adverse impacts’ are impacts to lands and natural resources subject to traditional ownership or under customary use, relocation of indigenous peoples from communally held lands and natural resources subject to traditional ownership or under customary use, and significant impacts to critical cultural heritage.
- More detail may be found at:
  - Performance Standard 7 (PS7): Indigenous People:**  
[http://www1.ifc.org/wps/wcm/connect/topics\\_ext\\_content/ifc\\_external\\_corporate\\_site/ifc+sustainability+framework/2012+edition/performancestandard7](http://www1.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/ifc+sustainability+framework/2012+edition/performancestandard7)
  - Guidance Note 7 (GN7): Indigenous People:**  
[http://www1.ifc.org/wps/wcm/connect/topics\\_ext\\_content/ifc\\_external\\_corporate\\_site/ifc+sustainability+framework/2012+edition/guidancenote7](http://www1.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/ifc+sustainability+framework/2012+edition/guidancenote7).

<sup>56</sup> The process of obtaining FPIC and the outcome (i.e., evidence of agreement between parties) for the purposes of this Indicator are those set out in IFC Performance Standard 7 on Indigenous Peoples. As described in IFC Performance Standard 7, adverse impacts on indigenous peoples are impacts to lands and natural resources subject to traditional ownership or under customary use, relocation of indigenous peoples from communally held lands and natural resources subject to traditional ownership or under customary use, and significant impacts to critical cultural heritage.

- FPIC elements can be understood in the following way:<sup>57</sup>
  - **Free:** Means free from force, intimidation, manipulation, coercion or pressure by any government or company.
  - **Prior:** Prior to government allocating land for particular land uses, and prior to approval of specific projects, relevant stakeholders need enough time to consider all the information and make decisions.
    - Informed: Relevant stakeholders need all the relevant information to make decisions about whether or not to agree to the project, or offset.
    - Information provided in a language that stakeholders can easily understand.
    - The relevant stakeholders need access to independent information, not just information from the project developers or government.
    - The relevant stakeholders can access experts on law and technical issues, if requested, to help make their decision.
  - **Consent:** Consent requires that the people involved in the project allow indigenous communities to say “Yes” or “No” to the project according to an agreed decision-making and negotiating process. The right to give or withhold consent is the most important difference between the rights of Indigenous Peoples and other project-affected peoples.
- Identifying those indigenous peoples whose FPIC is needed can be challenging, and can need expert assistance. Some authoritative sources of guidance on best practice in the field of identifying and engaging with indigenous peoples and stakeholders of all kinds can be found in BBOP’s Resource Paper on Biodiversity Offsets and Stakeholder Participation, available at: [www.forest-trends.org/biodiversityoffsetprogram/guidelines/participation.pdf](http://www.forest-trends.org/biodiversityoffsetprogram/guidelines/participation.pdf).

**Factors to consider in assessing conformance:**

**Key Questions:** Where the project and offset may impact communities of indigenous peoples, have the project developers obtained their free, prior, and informed consent?

**Conformance requires:**<sup>58</sup>

1. Documented evidence that FPIC has been obtained from indigenous peoples, where appropriate.
2. Indigenous peoples indicate their support for the offset design and any role they may have in offset implementation.

---

<sup>57</sup> Hill, Christina, Serena Lillywhite and Michael Simon, June 2010. Guide to Free, Prior and Informed Consent, Oxfam Australia.

<sup>58</sup> **Non-conformance** may be caused by, for example:

- No documentation of stakeholders’ roles and responsibilities.
- No evidence of stakeholder involvement in offset implementation and monitoring.

<b>PRINCIPLE 6</b>	<b><i>Stakeholder participation: In areas affected by the development project and by the biodiversity offset, the effective participation of stakeholders should be ensured in decision-making about biodiversity offsets, including their evaluation, selection, design, implementation, and monitoring.</i></b>
<b>CRITERION 6-2</b>	<b>A mutually agreed and documented system for handling grievances exists and is accepted and implemented by all relevant parties.</b>
<b>INDICATOR 6-2-1</b>	A documented system, open to relevant affected parties, which handles and resolves grievances in an effective, timely and appropriate manner and records outcomes, is in operation.

## **GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 6-2-1**

### **Interpretation of Indicator:**

- Processes for resolving grievances that arise between the project developer and stakeholder groups throughout the design and implementation phases of the project and the offset usually involve:
  - Definition of clear and understandable procedures to resolve a grievance;
  - Provisions to ensure that the grievance procedures are fair and reasonable; and
  - Mechanisms to ensure adequate access for stakeholder groups to the process. In particular these mechanisms should address issues of cost, timeliness and representation.
- In some areas, the process for resolving grievances may be mandated by law; in other places traditional mechanisms may be in place to resolve stakeholder grievances and could be employed. Finally, in some places it may be necessary to establish an appropriate mechanism or approach to resolve grievances because no formal or traditional mechanisms exist. All stakeholders need to be aware of the approach to be employed and accept those terms.

### **Factors to consider in assessing conformance:**

**Key Question:** Does a process for resolution of grievances exist, and do stakeholders know about and have ready access to it?

#### **Conformance requires:<sup>59</sup>**

1. A process accessible to stakeholders exists to resolve stakeholder grievances arising from the project or the offset.
2. Stakeholders understand the process and know how to engage in that process as necessary.

<sup>59</sup> **Non-conformance** may be caused by, for example:

- No grievance resolution mechanism or process exists.
- Process established for grievance resolution not followed.

<b>PRINCIPLE 7</b>	<i>Equity: A biodiversity offset should be designed and implemented in an equitable manner, which means the sharing among stakeholders of the rights and responsibilities, risks and rewards associated with a development project and offset in a fair and balanced way, respecting legal and customary arrangements. Special consideration should be given to respecting both internationally and nationally recognised rights of indigenous peoples and local communities.</i>
<b>CRITERION 7-1</b>	Rights, responsibilities, risks and rewards shall be clearly identified and mechanisms to share these fairly amongst relevant stakeholders shall be included in the Biodiversity Offset Management Plan.
<b>INDICATOR 7-1-1</b>	The Biodiversity Offset Management Plan references all agreements with relevant stakeholders pertaining to sharing of rights, responsibilities, risk and rewards related to the design and implementation of the project and offset.

## GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 7-1-1

### Interpretation of Indicator:

- As explained in Principle 6, relevant stakeholders are those people, groups, or organisations who have an interest in, or are affected or impacted by, the project or offset, and who need to participate in the design and implementation of a project or offset for its success. Stakeholder participation is deemed crucial to the success of any project and should be undertaken from an early stage in the project development process.
- ‘Participation’ is the active involvement in decision-making of those with an interest in or affected by important decisions. It refers to a process through which stakeholders influence and share control over development initiatives and the decisions and resources which affect them. In terms of offset design and implementation, the consultation process is meant to encourage active stakeholder participation in planning and decision-making.
- A transparent and participatory process would include steps to ensure that rights, responsibilities, risks and rewards (or costs and benefits) have been determined and agreed by the stakeholders as part of the design and implementation for both the development project and the offset.
- BBOP’s Resource Paper on Biodiversity Offsets and Stakeholder Participation describes several authoritative best practice guidelines on how to identify and engage stakeholders in participatory processes. It can be found at: [www.forest-trends.org/biodiversityoffsetprogram/guidelines/participation.pdf](http://www.forest-trends.org/biodiversityoffsetprogram/guidelines/participation.pdf).
- ‘Equity’ is a notoriously difficult goal to attain, since there is no single right answer to what is equitable in a particular setting, and different individuals will hold a variety of views as to what is fair and equitable. The assessor can examine:
  - The openness and rigour of the participatory processes involved in determining the offset provisions and the roles, responsibilities and benefits of various stakeholders in the plan for implementation set out in the Biodiversity Offset Management Plan.
  - Evidence that there has been an estimation of the costs and benefits associated with the offset, including roles and responsibilities for its implementation.

- Some best practice methods for assessment of costs and benefits in offset design are set out in the BBOP Cost Benefit Handbook, available at: [www.forest-trends.org/biodiversityoffsetprogram/guidelines/cbh.pdf](http://www.forest-trends.org/biodiversityoffsetprogram/guidelines/cbh.pdf).
  - Evidence from the use of methods such as these that local stakeholders will at a minimum not be made worse off by the offset activities and the residual biodiversity impacts of the development project, can help establish that the offset is fair.
  - Similarly, the use of such methods to show that the level of financial and in-kind compensation for the various local affected stakeholders incorporated in the offset design adequately addresses the negative effect of the development project and/or offset on their livelihoods and values can also help establish that the offset is fair.
- Evidence that the stakeholders have agreed with the outcome and were provided with information on its implications so their decision was informed (as described in Indicator 7-1-2).
- Agreements and other evidence that stakeholders were adequately informed and are content with the offset provisions offer a good basis for making an assessment of the apparent equity of the arrangements.

**Factors to consider in assessing conformance:**

**Key Question:** Has the project achieved an agreement with all relevant stakeholders, including indigenous peoples and local communities, with regard to peoples’ rights and responsibilities related to the offset, and sharing of rewards from the offset.

**Conformance requires:**<sup>60</sup>

1. Agreements exists (e.g., contracts, Memoranda of Understanding) between the project developer and all relevant stakeholder groups regarding rights, responsibilities, risks and rewards (costs and benefits).
2. The Biodiversity Offset Management Plan describes the roles, responsibilities, rights and benefits involved in the implementation of the biodiversity offset.
3. The Biodiversity Offset Management Plan addresses rights, responsibilities, risks and rewards and was developed through transparent with open consultation of all relevant stakeholders.
4. The Biodiversity Offset Management Plan contains or refers to agreements between developer and stakeholders concerning their respective roles, responsibilities, rights and benefits associated with the implementation of the biodiversity offset, offering evidence that the parties have mutually agreed these matters and are satisfied with the terms of the agreement.
5. Over the course of implementation of the biodiversity offset, minutes of meetings showing that the stakeholders are satisfied that the Biodiversity Offset Management Plan and associated agreements are being implemented.
6. The project developer has published materials recognising the rights of indigenous peoples affected by the project.

---

<sup>60</sup> **Non-conformance** may be caused by, for example:

- Agreements have not been put in place regarding rights, responsibilities, and rewards of the stakeholders vis a vis the offset
- Rights of indigenous peoples have not been recognised



<b>PRINCIPLE 7</b>	<i>Equity: A biodiversity offset should be designed and implemented in an equitable manner, which means the sharing among stakeholders of the rights and responsibilities, risks and rewards associated with a development project and offset in a fair and balanced way, respecting legal and customary arrangements. Special consideration should be given to respecting both internationally and nationally recognised rights of indigenous peoples and local communities.</i>
<b>CRITERION 7-1</b>	Rights, responsibilities, risks and rewards shall be clearly identified and mechanisms to share these fairly amongst relevant stakeholders shall be included in the Biodiversity Offset Management Plan.
<b>INDICATOR 7-1-2</b>	Documented evidence exists that agreements concerning the project and the design and implementation of the biodiversity offset were entered into willingly by all parties and comply with existing regulations, recognise customary arrangements and, as appropriate, respect the internationally and nationally recognised rights of indigenous peoples.

## GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 7-1-2

### Interpretation of the Indicator:

- Principle 7 concerns equity. It is very difficult to establish Indicators to demonstrate that offset arrangements are fair and equitable. This Indicator suggests that one of the most practical ways for an assessor to reach the conclusion that the offset arrangements are equitable is if people involved in its implementation (including local people) have willingly become involved, as evidenced by the fact that they're party to agreements about the offset. Another practical basis for establishing fairness is to ensure that any agreements concerning the project and the design and implementation of the offset meet at least national law, honour customary arrangements, and respect the rights of indigenous peoples, as they're set out in international and national law. .
- Expertise on customary arrangements and on international and national law, including on the rights of indigenous peoples, is a specialist area, so developers may need expert assistance to ensure a good understanding of the situation where they are working and to ensure compliance. Some authoritative sources of guidance on best practice in the field of identifying and engaging with indigenous peoples and stakeholders of all kinds can be found in BBOP's Resource Paper on Biodiversity Offsets and Stakeholder Participation, available at: [www.forest-trends.org/biodiversityoffsetprogram/guidelines/participation.pdf](http://www.forest-trends.org/biodiversityoffsetprogram/guidelines/participation.pdf).

### Factors to consider in assessing conformance:

#### Key Questions:

1. Is there evidence that any indigenous peoples and local communities involved in agreements on the design and implementation of the project and offset, are satisfied with them, and entered into the agreements willingly and on an informed basis?
2. Do agreements concerning the project and offset respect the internationally and nationally recognised and customary rights and arrangements of indigenous peoples and local communities?

**Key Question 1:** Is there evidence that any indigenous peoples and local communities involved in agreements on the design and implementation of the project and offset, are satisfied with them, and entered into the agreements willingly and on an informed basis?

**Conformance requires:**<sup>61</sup>

1. Documented evidence that FPIC has been obtained from indigenous peoples where appropriate (See also Indicator 6-1-4)
2. Documented evidence that any agreements with local people were freely entered into, and that they were fully informed about the project and offset design and implementation before they entered into the agreements.
3. The communities and individuals concerned indicate their support for the offset design and their role in implementation, and this is recorded, whether in a written agreement or some other suitable medium.

**Key Question 2:** Do agreements concerning the project and offset respect the internationally and nationally recognised and customary rights and arrangements of indigenous peoples and local communities?

**Conformance requires:**<sup>62</sup>

1. Evidence of legal analysis of internationally and nationally recognised rights and of customary law and arrangements.
2. Evidence that these rights and arrangements have been respected in the design and implementation of the offset.

---

<sup>61</sup> **Non-conformance** may be caused by, for example:

- No documentation of FPIC from any indigenous peoples affected and involved in the offset design and implementation.
- No evidence of stakeholder involvement in offset design, implementation and monitoring.
- No evidence that local communities involved in agreements related to the design and implementation of the offset were properly informed about the nature of the offset.

<sup>62</sup> **Non-conformance** may be caused by, for example:

- No evidence of legal research on the international, national and customary rights and arrangements of indigenous peoples and local communities.
- No evidence that the international, national and customary rights and arrangements of indigenous peoples and local communities have been respected in the design and implementation of the offset.

<b>PRINCIPLE 7</b>	<i>Equity: A biodiversity offset should be designed and implemented in an equitable manner, which means the sharing among stakeholders of the rights and responsibilities, risks and rewards associated with a development project and offset in a fair and balanced way, respecting legal and customary arrangements. Special consideration should be given to respecting both internationally and nationally recognised rights of indigenous peoples and local communities.</i>
<b>CRITERION 7-1</b>	Rights, responsibilities, risks and rewards shall be clearly identified and mechanisms to share these fairly amongst relevant stakeholders shall be included in the Biodiversity Offset Management Plan.
<b>INDICATOR 7-1-3</b>	Agreements with relevant stakeholders demonstrate that the impacts on peoples' biodiversity uses and values resulting from the development project and offset have been taken into account and appropriately compensated.

## GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 7-1-3

### Interpretation of Indicator:

- This indicator addresses the issue of compensation for peoples' loss of their biodiversity uses and values. Where losses of this kind justify compensation, the compensation may come in the form of a payment or may be in terms of an exchange for similar biodiversity values or uses (e.g., direct provision of medicinal plants when one effect of a project has been to remove local people's access to an area where they collected medicinal plants). Such losses can not only arise as a result of the development project, but also through the offset activities. For instance, offset activities might result in restrictions on land use, such as prohibitions on clearing forest for agriculture. These restrictions could have an impact on people who had used the offset areas for their livelihoods in the past. As a result the offset creates a loss to be compensated.
- BBOP has published a Cost-Benefit Handbook that explains how to use economic tools to analyse the biodiversity related impacts of a project on indigenous peoples, local communities and other local stakeholders ('local stakeholders') and compare them with the costs and benefits to these local stakeholders of the potential biodiversity offset. The tools included in the Handbook can be used to help determine an appropriate level of compensation, providing a compensation package that addresses losses in peoples' biodiversity values and use of biodiversity as a result of the project and the offset.
- IFC Performance Standard 7 (PS7) also discusses the issue of compensation with regard to projects affecting indigenous peoples. Paragraph 12 states that 'Mitigation measures including the determination, delivery, and distribution of compensation and other benefit sharing measures to affected indigenous peoples will take account of the laws, institutions, and customs of the affected communities of indigenous peoples as well as their level of interaction with mainstream society. Eligibility for compensation can either be individually or collectively-based, or be a combination of both. Where compensation occurs on a collective basis, mechanisms that promote the effective delivery and distribution of compensation to all eligible members of the group should be defined and implemented'.
- Furthermore, PS7 establishes various types of compensation that may be considered by the project developer, including:

- Land-based compensation or compensation-in-kind will be offered in lieu of cash compensation where feasible
- Project development may be associated with the loss of access to and the loss of natural resources independent of project land acquisition. In such circumstances, clients should identify measures to ensure continued access to natural resources, identify the equivalent of replacement resources, or, as a last option, provide compensation and identify alternative livelihoods.
- Where the client intends to utilise natural resources that are central to the identity and livelihood of Indigenous People and their usage thereof exacerbates livelihood risk, the client will explore mechanisms to ensure fair and equitable sharing of benefits associated with project usage of the resources.
- The client will also consider providing affected communities of indigenous peoples with access, usage and transit on land it is developing subject to overriding health, safety, and security considerations.

**Factors to consider in assessing conformance:**

**Key Question:** Is there documented evidence that impacts on peoples’ biodiversity values and use of biodiversity have been adequately assessed, valued, and compensated?

**Conformance requires:**<sup>63</sup>

1. Existence of an assessment that determines the impacts on biodiversity values and use of biodiversity from the project and the offset.
2. Application of cost benefit tools to determine the value of the impacts and of adequate compensation.
3. Compensation that is commensurate with the value of the losses in biodiversity and biodiversity use values and agreed by the relevant stakeholders.

---

<sup>63</sup> **Non-conformance** may be caused by, for example:

- No evidence of an assessment of impacts on use and cultural values
- No evidence of an approach for compensation

<b>PRINCIPLE 8</b>	<i>Long-term outcomes: The design and implementation of a biodiversity offset should be based on an adaptive management approach, incorporating monitoring and evaluation, with the objective of securing outcomes that last at least as long as the development project's impacts and preferably in perpetuity.</i>
<b>CRITERION 8-1</b>	<b>Mechanisms shall be in place to ensure that the measurable conservation outcomes from the offset will outlive the duration of the development project's impact.</b>
<b>INDICATOR 8-1-1</b>	Evidence is provided that those responsible for implementing the offset (see indicator 6-1-3) have the requisite management and technical capacity.

## GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 8-1-1

### Interpretation of Indicator:

- A Biodiversity Offset Management Plan should include provisions that establish specific goals and objectives for the offset, identify commitments and offset activities, and clearly assign roles and responsibilities for the developer and stakeholders involved in offset implementation. The BBOP Offset Implementation Handbook offers a number of suggestions as to the different roles and responsibilities related to the implementation of biodiversity offsets that can be played by a variety of stakeholders.  
It can be found at: [www.forest-trends.org/biodiversityoffsetprogram/guidelines/oih.pdf](http://www.forest-trends.org/biodiversityoffsetprogram/guidelines/oih.pdf).
- Stakeholder agreements would usually be indicated through some form of documentation that outlines expectations, understandings and commitments.

### Factors to consider in assessing conformance:

#### Key Questions:

1. Does the Biodiversity Offset Management Plan establish clear roles and responsibilities for all stakeholders involved in implementation?
2. Has the capability of each organisation or group involved in implementing the offset been assessed and capacity building opportunities identified to fill any identified gaps?

**Key Question 1:** Does the Biodiversity Offset Management Plan establish clear roles and responsibilities for all stakeholders involved in implementation?

#### **Conformance requires:**<sup>64</sup>

1. The Biodiversity Offset Management Plan clearly describes the roles and responsibilities of the different organisations involved in the implementation of the offset (including monitoring and evaluation).

<sup>64</sup> **Non-conformance** may be caused by, for example:

- Absence of a Biodiversity Offset Management Plan with clear goals, objectives and activities;
- Biodiversity Offset Management Plan not agreed with stakeholders;
- Roles and responsibilities for carrying out commitments and measures do not exist or are poorly articulated

**Key Question 2:** Has the capability of each organisation or group involved in implementing the offset been assessed, and capacity building opportunities identified to fill any identified gaps?

**Conformance requires:**<sup>65</sup>

1. An assessment of those organisations and groups involved in implementing the offset to determine whether they have the human and institutional capacity necessary to undertake their planned roles successfully.
2. Assurance that adequate capacity exists to implement the BOMP, and/or
3. Identification of training and capacity building activities needed to fill gaps in implementation capacity; and
4. Such capacity building activities planned and funded.

---

<sup>65</sup> **Non-conformance** may be caused by, for example:

- No assessment of the capacity of organisations and groups involved in offset implementation to do so;
- In situations where there is no evidence that implementing organisations have the necessary capacity, a lack of identification of needs for training and capacity building.
- No financial provision made for the training and capacity building activities needed to ensure those organisations implementing the offset have the capacity to do so.

<b>PRINCIPLE 8</b>	<i>Long-term outcomes: The design and implementation of a biodiversity offset should be based on an adaptive management approach, incorporating monitoring and evaluation, with the objective of securing outcomes that last at least as long as the development project's impacts and preferably in perpetuity.</i>
<b>CRITERION 8-1</b>	<b>Mechanisms shall be in place to ensure that the measurable conservation outcomes from the offset will outlive the duration of the development project's impact.</b>
<b>INDICATOR 8-1-2</b>	Legal and financial mechanisms are in place to guarantee the financial and institutional viability of the offset for at least the duration of the project's impacts, including under conditions of a sale, or transfer of project ownership or management.

## GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 8-1-2

### Interpretation of Indicator:

- The long-term viability of the offset depends on the ability to ensure its finance over the long-term. Systems need to be in place to ensure that the financing is guaranteed and management systems are in place even in the face of changing conditions, such as if the developer sells its interests in the operation to a third party. The BOMP should describe the management objectives together with the financial and institutional arrangements that have been put in place to ensure that the plan can be implemented in the long term. The plan should allow for the long term viability of the offset given potential foreseeable scenarios, such as sale of the project, acquisition of the developer by another company, receivership if the developer runs into financial problems, etc.
- There are two important components of establishing financial stability for an offset:
  - **A financial plan:** This should include a budget to cover the costs of activities required over the period for which the offset is designed to operate (including costs associated with building the capacity to implement the defined measures), along with an indication of the source of the funds available for this purpose. The Biodiversity Offset Management Plan should include, or be accompanied by, a financial plan of this kind.
  - **Clear financial mechanism for delivery:** As well as knowing how much the offset activities will cost and where the funds will come from, some mechanism will be needed to disburse and deliver the funds. The financial mechanism will need to be in place to guarantee offset financing for as long as the offset operates.
- One possible financial mechanism is the conservation trust fund. A conservation trust fund is a long-term funding mechanism or financial asset that is legally restricted to a specific purpose or set of objectives (e.g., conservation of biodiversity) and is managed by an independent board of trustees or board of directors. Trust funds can be set up as foundations, non-profit corporations, or other types of institution depending on the legal system in place, and considerations of risk. A number of mechanisms are possible: endowments, sinking funds, revolving (recurrent) funds or a combination approach. In some situations, conservation trust funds may be established to secure funding for measures to be implemented in the future (e.g., for rehabilitation and restoration measures). Situations suitable for a trust fund include when it is possible to capitalise the trust fund (e.g., for large extractive projects) and when the legal framework allows a trust fund to be established.

- In order to deliver the biodiversity offset, one or more legal arrangements may need to be put in place. Depending on the circumstances, they may range from setting up or using an existing trust (if a conservation trust fund is the favoured financial mechanism for the offset), contracts with landowners, indigenous peoples and local communities, designation of areas with protected status, the use of covenants or servitudes on land, and a variety of other legal instruments.
- Information on options for financial plans and mechanisms for biodiversity offsets, including conservation trust funds and alternative approaches, as well as information on legal issues, are discussed in BBOP's Offset Implementation Handbook, available at [www.forest-trends.org/biodiversityoffsetprogram/guidelines/oih.pdf](http://www.forest-trends.org/biodiversityoffsetprogram/guidelines/oih.pdf)

### **Factors to consider in assessing conformance:**

#### **Key Questions:**

1. Does the Biodiversity Offset Management Plan, include a financial plan (or is there a separate financial plan) that clearly outlines and commits the financial resources needed to ensure the successful implementation of the offset?
2. Are legal arrangements and financial mechanisms in place to ensure that the offset will be guaranteed funding into the future?
3. Have the appropriate institutional arrangements been put in place to ensure the effective management of the offset, including development of management objectives and corresponding financial plans and budgets?

**Key Question 1:** Does the Biodiversity Offset Management Plan, include a financial plan (or is there a separate financial plan) that clearly outlines and commits the financial resources needed to ensure the successful implementation of the offset?

#### **Conformance requires:<sup>66</sup>**

1. A budget exists that includes all investment and operational costs required to meet the objectives outlined in the Biodiversity Offset Management Plan for at least as long as the development project's impacts will last.
2. The financial plan identifies the source(s) of revenue to cover the offset management plan requirements and contains commitments to provide those financial resources.
3. Guarantees are in place that funding for the offset will be available as part of any settlements related to the operation of the project.

**Key Question 2:** Are legal arrangements and financial mechanisms in place to ensure that the offset will be guaranteed funding into the future?

---

<sup>66</sup> **Non-conformance** may be caused by, for example:

- No or poorly developed budget for the offset management plan.
- Financial plan does not project recurrent and investment cost for the time horizon over which the offset will be implemented.
- Sources of the long-term financing are unclear or not committed.



**Conformance requires<sup>67</sup>:**

1. Financial mechanisms are in place so that the project will be funded into the long-term and that the financing will not be affected by changes in ownership or the financial condition of the company.
2. Legal arrangements have been established to ensure the long term delivery of the offset, through appropriate means, such as trusts, contracts, covenants/servitudes, designation of land-use and protected status of land or biodiversity components, etc.

**Key Question 3:** Have the appropriate institutional arrangements been put in place to ensure the effective management of the offset, including development of management objectives and corresponding financial plans and budgets?

**Conformance requires<sup>68</sup>:**

1. Clear and appropriate institutional arrangements (between the developer and any organisations involved in the design, implementation, monitoring and auditing of the offset) have been put in place to ensure the management of the offset over the long term and to deliver the outcomes outlined in the Biodiversity Offset Management Plan.

---

<sup>67</sup> **Non-conformance** may be caused by, for example:

- No or poorly developed mechanism for management and delivery of steady finances for the duration of the activities set out in the Biodiversity Offset Management Plan.
- No or poorly developed legal arrangements governing the relationships between the developer and those designing, implementing, monitoring, enforcing and auditing the offset.
- Lack of clarity regarding legal status (tenure, designation) of land or biodiversity components involved in the biodiversity offset.

<sup>68</sup> **Non-conformance** may be caused by, for example:

- No or poorly developed arrangements between the different organisations involved in the design, implementation, monitoring, enforcement and auditing of the offset.
- Roles and responsibilities unclear and/or not captured in Memoranda of Understanding or agreed workplans. (See also legal arrangements in Key Question 2).

<b>PRINCIPLE 8</b>	<i>Long-term outcomes: The design and implementation of a biodiversity offset should be based on an adaptive management approach, incorporating monitoring and evaluation, with the objective of securing outcomes that last at least as long as the development project's impacts and preferably in perpetuity.</i>
<b>CRITERION 8-2</b>	Adaptive monitoring and evaluation approaches shall be integrated into the Biodiversity Offset Management Plan to ensure regular feedback and allow management to adapt to changing conditions, and achieve conservation outcomes on the ground.
<b>INDICATOR 8-2-1</b>	Evidence is provided that the measures to manage and mitigate identified risks (see Indicator 4-3-1) are implemented, the results are monitored, and that risk assessment and management are adapted as necessary throughout offset implementation.

## GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 8-2-1

### Interpretation of Indicator:

- A risk management plan is a means to identify, avoid and minimise those risks likely to affect the implementation of a project, and in this case, of the Biodiversity Offset Management Plan. Part of the risk management plan is generally a risk register, which records the project's identified risks to biodiversity, their severity, and the actions required to mitigate them.
- The elements of a risk register are generally:
  - **Dates:** Record the dates on which the risks are identified or modified. The register could also include the risk mitigation target and completion dates.
  - **Description of the Risk:** Include a short descriptive phrase
  - **Risk type (business, project, stage):** Classify the risk: business risks relate to delivery of achieved benefits, and the project risks related to the management of the project such as timeframes, resources, availability of land for the offset site, external factors that affect management, socio-economic issues and biodiversity concerns.
  - **Likelihood of Occurrence:** Provide an assessment of how likely it is that this risk will occur over a specific time period (short term up to one year; medium term up to five years; long-term beyond 5 years). Examples of classifications are: L-Low (<30%), M-Medium (31-70%), H-High (>70%).
  - **Severity of effect:** Assess the impact that the occurrence of this risk would have on the aspects of the project – on biodiversity or ecosystem service protection, on stakeholder livelihoods, on other components or aspects of the project).
  - **Counter Measures:** Identify actions to be taken to prevent, reduce or transfer the risk.
  - **Responsibility:** Identify who is responsible for the ensuring this risk is appropriately managed and counter measures are undertaken.
  - **Status:** Indicate whether this is a current risk or if the risk lies in the past and can no longer arise and impact the project. Classification system could be employed to determine whether the risk is on-going/current, or has ended.
- The developer is likely to have a risk management plan embracing the full set of operational, social and environmental risks associated with the project. It is preferable for the risks related to the project's impacts on biodiversity, including risks associated with the design and implementation of

the biodiversity offset, to be integrated into the developer’s overall system for managing all risks related to the project. However, it would also be helpful to spell out the risks associated with managing the project’s impacts on biodiversity (including the offset) in the Biodiversity Offset Management Plan, as this will be developed with, and accessible to, partners and stakeholders outside the company involved in the design and implementation of the biodiversity offset. Indeed, Indicator 1-3-1 provides that ‘Sources of risk and uncertainty in the design and implementation of the offset (including in the loss/gain calculations), together with the measures taken to manage them, are documented in the Biodiversity Offset Management Plan.’ While Indicator 1-3-1 requires sources of risk to be documented (and thus identified), Indicator 8-2-1 requires evidence that these risks are being managed.

### **Factors to consider in assessing conformance:**

#### **Key Questions:**

1. Is there a risk management plan that identifies and establishes responses to the risks associated with the project’s impacts on biodiversity and successful implementation of the offset?
2. Is the risk management plan being used as part of project implementation, with periodic review and update?

**Key Question 1:** Is there a risk management plan that identifies and establishes responses to the risks associated with the project’s impacts on biodiversity and successful implementation of the offset?

#### **Conformance requires:<sup>69</sup>**

1. The existence of a risk management plan that includes the elements such as those listed above to ensure that the project developer adequately understands and is addressing risk.
2. The risks associated with the project’s impacts on biodiversity and successful implementation of the offset have been identified and included in this risk management plan.
3. The advice of experts used to develop the Biodiversity Offset Management Plan has been taken into consideration in identifying biodiversity-related risks and suitable responses to them for inclusion in the risk management plan.
4. The principal risks and responses associated with the project’s impacts on biodiversity and successful implementation of the offset are included in the Biodiversity Offset Management Plan, or the risk management plan is referenced there.

---

<sup>69</sup> **Non-conformance** may be caused by, for example:

- Absence of a risk management plan
- The risk management plan fails to identify and address the principal risks associated with managing the project’s impacts on biodiversity and the successful implementation of the biodiversity offset.

**Key Question 2:** Is the risk management plan being used as part of project implementation, with periodic review and update?

**Conformance requires:**<sup>70</sup>

1. There is an established time frame for assessing risks and responding appropriately.
2. Evidence (through evaluation or audit) that risks are periodically reviewed and the list of risks updated.

---

<sup>70</sup> **Non-conformance** may be caused by, for example:

- No clarity on the timeframe within which risks will be identified, assessed and responded to.
- No evidence that measures have been implemented in response to risk events
- No mechanism or audit in place to indicate that the risk management plan is updated to indicate progress or respond to new threats.

<b>PRINCIPLE 8</b>	<i>Long-term outcomes: The design and implementation of a biodiversity offset should be based on an adaptive management approach, incorporating monitoring and evaluation, with the objective of securing outcomes that last at least as long as the development project's impacts and preferably in perpetuity.</i>
<b>CRITERION 8-2</b>	Adaptive monitoring and evaluation approaches shall be integrated into the Biodiversity Offset Management Plan to ensure regular feedback and allow management to adapt to changing conditions, and achieve conservation outcomes on the ground.
<b>INDICATOR 8-2-2</b>	Offset conservation outcomes and milestones are independently audited and project responds to audit recommendations in a timely manner.

## GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 8-2-2

### Interpretation of Indicator:

- A milestone signifies the completion of a major deliverable or a set of related deliverables. It is a flag in the workplan to signify some work has been completed. Usually a milestone is used as a project checkpoint to validate how the project is progressing and to revalidate work.
- Under Indicator 4-3-2, the offset planner is required to develop a set of milestones against which to gauge the performance, progress and success of offset design and implementation.
- This indicator requires that the progress against the milestones be independently audited and that a response to audit recommendations is timely.
- In addition to external audits, those responsible for the offset implementation should also conduct internal reviews to ensure that any management issues are addressed in a timely manner.

### Factors to consider in assessing conformance:

**Key Question:** Is there a systematic process in place to undertake third-party validation of offset design and verification of offset implementation in line with the Principles, Criteria and Indicators and to respond to recommendations arising from that audit?

#### Conformance requires <sup>71</sup>

1. The existence of a process for auditing the measures taken to avoid and minimise the project's impacts on biodiversity, to undertake rehabilitation/restoration, and to design and implement a biodiversity offset, in line with these Principles, Criteria and Indicators.
2. Reports show that responses to recommendations from auditors have been implemented.

<sup>71</sup> **Non-Conformance** could be caused for example by:

- Absence of a formal process to validate the design of the offset against these Principles, Criteria and Indicators.
- Absence of a formal process to verify, periodically, the implementation of the offset against these Principles, Criteria and Indicators.
- Validation and verification results not reported.

<b>PRINCIPLE 8</b>	<i>Long-term outcomes: The design and implementation of a biodiversity offset should be based on an adaptive management approach, incorporating monitoring and evaluation, with the objective of securing outcomes that last at least as long as the development project's impacts and preferably in perpetuity.</i>
<b>CRITERION 8-2</b>	Adaptive monitoring and evaluation approaches shall be integrated into the Biodiversity Offset Management Plan to ensure regular feedback and allow management to adapt to changing conditions, and achieve conservation outcomes on the ground.
<b>INDICATOR 8-2-3</b>	A system exists for monitoring and evaluating the success of offset implementation, including the monitoring of risks, and this provides regular feedback which is used to document, correct, and learn from problems and achievements.

## GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 8-2-3

### Interpretation of Indicator:

- According to the World Bank's 1998 Guidelines for Monitoring and Evaluation for Biodiversity Projects, monitoring and evaluation plans are 'a detailed programme of work which defines what monitoring activities will take place, when and by whom, and how that information will feed back into management decisions'.
- Adaptive management is a continuous process of revising management plans to take results to date into consideration. Objectives are set, actions to manage natural resources are taken, monitoring and evaluation of the affected ecosystem and human responses are assessed at suitable intervals, results are compared against expectations, and future actions are adjusted with each iteration of activity based on past experience. Such management is adaptive, because lessons learned are put in practice in the next cycle. Assessors will need to determine whether they believe the intervals at which the management plan is reviewed are appropriate. An appropriate interval will be a sufficiently long period that it is possible to assess whether the plan is on track to achieve its desired objectives, but not so long that opportunities to take any corrective action are missed.
- In developing monitoring and evaluation protocols, it is important to focus on success criteria for the biodiversity offset. Ideally the management and implementation of the offset will be monitored at two levels, implementation as well as impact performance. Monitoring implementation performance involves taking stock of how a project's inputs such as funding and staff time are being used to produce specific project outputs, such as reports, number of patrols, etc. This would entail checking whether the planned offset activities are underway and the necessary arrangements (i.e., institutional, legal, financial, training) in place. By contrast, monitoring impact performance tracks the project's actual impacts on the biodiversity of interest on the ground. This entails measuring the conservation outcomes of the offset.
- Specific information about monitoring implementation and monitoring impact performance is available in the Biodiversity Offset Implementation Handbook ([www.forest-trends.org/biodiversityoffsetprogram/guidelines/oih.pdf](http://www.forest-trends.org/biodiversityoffsetprogram/guidelines/oih.pdf)).

## **Factors to consider in assessing conformance:**

### **Key Questions:**

1. Are there monitoring and evaluation protocols in place for the offset which measure both implementation and impact performance?
2. Are monitoring and evaluation undertaken at suitable time intervals to allow for corrective actions as needed?

**Key Question 1:** Are there monitoring and evaluation protocols in place for the offset which measure and evaluate both implementation and impact performance?

#### **Conformance requires:<sup>72</sup>**

1. Existence of monitoring protocols that are used to measure performance on both implementation and impact of the offset?
2. Evidence that a monitoring and evaluation plan exists and is being followed by the offset managers and that lessons learned from the monitoring and evaluation process is being fed back into offset management.

**Key Question 2:** Are monitoring and evaluation undertaken at suitable time intervals to allow for corrective actions as needed?

#### **Conformance requires:<sup>73</sup>**

1. Clear provisions for the regularity of monitoring and evaluation activities.
2. The periods between monitoring activities enable assessment of whether implementation of the Biodiversity Offset Management Plan is on track to achieve its desired objectives, and are sufficiently short to enable timely corrective action.

---

<sup>72</sup> Non-conformance would include:

- Lack of established basis for monitoring and evaluating performance
- Monitoring and evaluation only covers implementation of activities, but not the resulting conservation outcomes (impact performance)
- No evidence that monitoring is being undertaken
- If monitoring is undertaken, no evidence that results are applied in adaptive management

<sup>73</sup> Non-conformance would include:

- Lack of monitoring protocols
- Monitoring and evaluation only measures implementation steps, but not conservation outcomes (impact performance)
- No evidence that monitoring is being undertaken
- If monitoring is undertaken, no evidence that results are applied in adaptive management

<b>PRINCIPLE 9</b>	<b><i>Transparency: The design and implementation of a biodiversity offset, and communication of its results to the public, should be undertaken in a transparent and timely manner.</i></b>
<b>CRITERION 9-1</b>	<b>The developer responsible for designing and implementing the biodiversity offset shall ensure that clear, up to date, and easily accessible information is provided to stakeholders and the public on the offset design and implementation, including outcomes to date.</b>
<b>INDICATOR 9-1-1</b>	Information on baseline findings, impact assessment as well as offset design and implementation is reported to stakeholders and the public in appropriate media during offset design and implementation.

## **GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 9-1-1**

### **Interpretation of Indicator:**

- It will be amply clear to readers by this stage that there is no unique ‘right answer’ or formula for what a particular biodiversity offset should comprise. The team designing and implementing the offset is likely to be able to identify several appropriate options for offset activities and their location, and for the manner of involving stakeholders in the design and implementation of the offset. In these circumstances, and as people who are not closely involved in the process are unlikely to understand the process followed and the legitimacy of the choices made, transparency is vital. The developer can build trust and respect for its activities through openness and good communication about the need for the offset and its feasibility; about the process followed for offset design and implementation, documenting that it is participatory and draws on suitable expertise; by explaining the choices faced at each decision-point and offering a rationale for particular approach (e.g., choice of offset activities and choice of offset locations) selected; and by sharing actual results to date (good and bad) and by showing how these track the results planned for offset.
- Transparency is a key part of the stakeholder engagement which is the subject of Principle 6, but applies equally to the broader public, although the nature and depth of information shared with close stakeholder partners and with the general public may vary, as may the channels of communication employed.
- There is justifiable scepticism on the part of conservation experts and the general public alike about the success of avoidance, minimisation, rehabilitation/restoration and offset measures, so it helps to share results of offset activities periodically, and to explain whether these have reached the milestones anticipated by those who planned the offset, being frank about successes and failures, and describing how any implementation plans have been altered as part of adaptive management.
- To be effective, the information provided needs to be clear, made available through appropriate avenues of communication (for instance, local radio and newspapers, and through meetings, may be more accessible to some people than companies’ websites) and up to date. Some stakeholders will have the expertise to grasp technical details, and will want to see some raw data, such as baseline information, while others will need analysis and interpretation to appreciate the situation.
- The PCI do not explicitly require the Biodiversity Offset Management Plan to be placed into the public domain in its entirety. However, this would be good practice. The conformance requirements set out several elements of the contents of the BOMP that need to be communicated publicly,



leaving the choice to the developer as to whether to put the BOMP itself into the public domain, or alternatively to ensure that at least a summary of its contents, sufficient to satisfy the conformance requirements, are communicated to the public. For more information, please see Box 2 on page 12 of Standard on Biodiversity Offsets document.

**Factors to consider in assessing conformance:**

**Key Questions:**

1. Has the developer made reports containing baseline findings, impact assessment, and plans and progress on offset design and implementation available to stakeholders and the public?
2. Has this information been communicated in appropriate media, and in meetings, as necessary, and in a timely manner?

**Key Question 1:** Has the developer made reports containing baseline findings, impact assessment, and plans and progress on offset design and implementation available to stakeholders and the public?

**Conformance requires:<sup>74</sup>**

1. Developer has produced reports and placed them in the public domain.
2. EITHER The Biodiversity Offset Management Plan (BOMP) in its entirety is placed in the public domain OR key elements of the BOMP are published together in the public domain, including baseline findings, key biodiversity components (see Indicator 1-2-1), impact assessment, loss-gain calculations, offset activities, offset location(s), agreements with stakeholders and roles and responsibilities of the different organisations and stakeholders in offset implementation, together with the legal, institutional and financial arrangements for offset implementation, including the plan for monitoring and adaptive management.
3. These reports describe the plans and progress on offset design and implementation.
4. These reports explain whether progress on design and implementation has kept pace with plans and milestones for the offset.

---

<sup>74</sup> **Non-conformance** may be caused by, for example:

- No reports produced.
- Reports not disclosed in the public domain.
- Reports lack enough information on biodiversity baseline and impact assessment for readers to grasp the nature of the project.
- Lack of information on the proposed offset design, plans for implementation and progress to date.
- Reports do not compare progress to date with the progress anticipated in the offset plans, and./or do not enable readers to assess whether the offset is meeting the milestones anticipated.

**Key Question 2:** Has this information been communicated in appropriate media, and in meetings, as necessary, and in a timely manner?

**Conformance requires:**<sup>75</sup>

1. The information is provided periodically and with sufficient regularity to keep readers apprised of progress or the lack thereof.
2. The information is provided through forms of media that enable stakeholders and the general public to be able to access them and all relevant information.
3. Where communication through media alone is unlikely to reach and adequately inform stakeholders, meetings are held.

---

<sup>75</sup> **Non-conformance** may be caused by, for example:

- The information available is out of date and/or is provided too seldom to enable readers to understand the progress of the offset design (or lack of it).
- The information is inaccessible or very hard to access. For instance: only available on the web when some stakeholders have no ready internet access, or not in local languages, or through media that are only accessed by a limited number of the stakeholders without meetings being held to address this gap.

<b>PRINCIPLE 9</b>	<b><i>Transparency: The design and implementation of a biodiversity offset, and communication of its results to the public, should be undertaken in a transparent and timely manner.</i></b>
<b>CRITERION 9-1</b>	<b>The developer responsible for designing and implementing the biodiversity offset shall ensure that clear, up to date, and easily accessible information is provided to stakeholders and the public on the offset design and implementation, including outcomes to date.</b>
<b>INDICATOR 9-1-2</b>	An independent mechanism (such as a steering committee, review panel, or system for peer review) is established to oversee the offset design and implementation process and report regularly to the public on their assessment of progress.

## GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 9-1-2

### Interpretation of Indicator:

- A number of companies and projects have established review panels or steering committees to guide their work on biodiversity. These include Sakhalin II<sup>76</sup>, the Lafarge Advisory Panel on Biodiversity<sup>77</sup>, the Holcim Expert Panel<sup>78</sup>, Yemen LNG<sup>79</sup>, and the QMM International Advisory Panel<sup>80</sup>. Some of these (for instance, the last) are explicitly tasked with advice on biodiversity offset design. The BBOP PCI call for such panels to be established to guide or review the design and implementation of biodiversity offset design and implementation.
- An independent review panel is a carefully selected group of specialists with the expertise and authority to evaluate the developer’s approach to following the mitigation hierarchy, including the design and implementation of a biodiversity offset. Such a panel generally comprises a small number of local and international independent specialists recognised in their specific fields and acting in their personal rather than official capacity. (In the case of biodiversity offsets, the panel might include expertise on ecology and biodiversity, community relations, biodiversity risk management, corporate environmental policies and action plans, economics, and biodiversity offsets.) It is helpful for panellists to represent a variety of points of view, in a balanced and impartial way.
- A review panel can involve little outlay or time investment (meeting in person perhaps once a year, and every 3-6 months by telephone), and can be less expensive than retaining more staff and consultants, and can be acknowledged as more independent. The panel can review proposals and progress in the project’s biodiversity management, including offset design and implementation, according to criteria agreed with the developer, evaluates overall biodiversity management and offset performance on the basis of baseline information, reports provided by the developer, its consultants, advisers and auditors, and occasional site visits. Minutes of meetings and periodic reports by the panel can be used by auditors. The panel can offer recommendations to the developer concerning further design, implementation and adaptive management of conservation measures, including the offset.

<sup>76</sup> [http://www.iucn.org/wgwap/initiative\\_background/history\\_of\\_engagement/isrp\\_phase\\_2/](http://www.iucn.org/wgwap/initiative_background/history_of_engagement/isrp_phase_2/)

<sup>77</sup> [http://www.lafarge.com/wps/portal/2\\_5\\_4-Panel\\_parties\\_prenantes](http://www.lafarge.com/wps/portal/2_5_4-Panel_parties_prenantes)

<sup>78</sup> <http://www.holcim.com/holcimcms/uploads/CORP/Expert%20Panel%20field%20trips.pdf>

<sup>79</sup> [http://yemenlng.com/ws/en/go.aspx?c=soc\\_Environment](http://yemenlng.com/ws/en/go.aspx?c=soc_Environment)

<sup>80</sup> <http://www.riotintomadagascar.com/english/PanelExecutiveSummary.asp>

- A steering committee can play a similar role to a review panel, but the term often connotes a group having more of a role shaping or directing the process and content of offset design than a review panel, whose activities may be more focused on reviewing past actions and progress.
- An independent review panel or steering committee can help ensure the credibility of the project's biodiversity management, including the offset, for a number of reasons. First, it can provide the developer with expertise on biodiversity that is not available in-house, enabling the developer to make a critical assessment of its process and content of offset design and implementation. Second, it can offer a view that is independent of the advice of its own staff and consultants. Thirdly, the provision of independent review by a panel of experts or steering committee can help an assessor or auditor to form a view as to whether the offset is in conformance with the BBOP Principles, Criteria and Indicators. The auditor him-or-herself is highly unlikely to be able to delve into detail and may not have the specialist knowledge to assess some of the technical aspects of good practice in biodiversity offset design and implementation. Information from an independent expert panel or steering committee can help the auditor form an informed view as to the quality of the offset.
- An independent review panel or steering committee can help ensure that appropriate experts are deployed in offset design and implementation, and also that independent peer reviewers are satisfied that there has been adequate use of scientific data and traditional knowledge as the basis of offset design and implementation, as required under Principle 10.
- Relevant experience for steering committee, review panel or expert review members could include combined experience in conducting baseline studies in botany, zoology and ecology; EIA and SEA; biodiversity offset design and implementation and conservation banking; applying the mitigation hierarchy to impacts on biodiversity and ecosystems services, and in biodiversity action plans; conservation finance, etc.
- For cases where a formal steering committee or review panel may not be appropriate (e.g., smaller projects), peer review by one or more outside experts could be used. Peer review should be conducted by appropriate experts (as above) but can be a simpler and more informal approach that does not require convening larger groups, but could rely instead on one or more individuals who review the offset. A critical aspect is that the peer review be conducted by experts who are independent (not affiliated with the offset project and/or project developer).

**Factors to consider in assessing conformance:**

**Key Questions:**

1. Has an independent review panel, steering committee or other mechanism for peer review been established?
2. Does the independent review panel, steering committee or system for peer review have a mandate and the expertise to evaluate and inform the offset design and implementation process?
3. Does the independent review panel, steering committee or system for peer review work transparently and are associated decisions and findings in reports from this review process that assess progress with offset design and implementation communicated regularly to the public?

**Key Question 1:** Has an independent review panel, steering committee or other mechanism for peer review been established?

**Conformance requires:**<sup>81</sup>

1. A review panel, steering committee or other mechanism for peer review been established.
2. This review mechanism is independent, comprising a majority of members not already working for the developer on the design and implementation of its biodiversity offset or its biodiversity policy, strategy and management.

**Key Question 2:** Does the independent review panel, steering committee or other mechanism for peer review have a mandate and relevant expertise to evaluate and inform the offset design and implementation process?

**Conformance requires:**<sup>82</sup>

1. Clear mandate exists for the independent review panel or steering committee.
2. Members have the relevant expertise as described above, to contribute to the review functions.
3. Mandate involves oversight of and input into the offset design and implementation process.

**Key Question 3:** Does the independent review panel, steering committee or system for peer review work transparently and are associated decisions and findings in reports from this review process that assess progress with offset design and implementation communicated regularly to the public?

**Conformance requires:**<sup>83</sup>

1. Membership and mandate of the independent review panel, steering committee or other system for peer review are clearly communicated in the public domain.
2. Reports of the deliberations, decisions and recommendations of the independent review panel, steering committee or other system for peer review are communicated regularly.
3. The Independent review panel, steering committee or peer reviewers assess the quality of, and progress with the offset design and implementation, and report on these to relevant stakeholders. Reporting also explicitly notes known limitations relating to offset design and implementation, and/or any uncertainties.

---

<sup>81</sup> **Non-conformance** may be caused by, for example:

- No review panel, steering committee or mechanism for peer review has been established.
- The review mechanism members are not 'independent', in that a majority of members work for the developer and/or are already involved in its biodiversity work, especially the design and implementation of the biodiversity offset.

<sup>82</sup> **Non-conformance** may be caused by, for example:

- The independent review panel, steering committee or mechanism for peer review does not have a clear mandate.
- The mandate of the independent review panel, steering committee or mechanism for peer review does not cover the design and implementation of the biodiversity offset.

<sup>83</sup> **Non-conformance** may be caused by, for example:

- The membership and mandate of the independent review panel, steering committee or other mechanism for peer review have not been clearly communicated in the public domain.
- The reports of the independent review panel, steering committee or peer reviewers, their decisions and recommendations are not communicated regularly and/or are out of date.
- The reports of the independent review panel, steering committee or peer reviewers do not compare progress with the offset design and implementation with what was set out as milestones for progress in the Biodiversity Offset Management Plan.

<b>PRINCIPLE 10</b>	<i>Science and traditional knowledge: The design and implementation of a biodiversity offset shall be a documented process informed by sound science, including an appropriate consideration of traditional knowledge.</i>
<b>CRITERION 10-1</b>	Scientific information, and, where applicable, traditional knowledge, shall be utilised when designing and implementing the offset.
<b>INDICATOR 10-1-1</b>	The Biodiversity Offset Management Plan describes how the best available scientific knowledge and methods have been used in offset design and implementation, providing evidence of consultation with scientific experts.

## GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 10-1-1

### Interpretation of Indicator:

- In recent years, a biodiversity offset has come to be understood as a measurable conservation outcome that can demonstrate no net loss of biodiversity, in line with the BBOP definition. Prior to that, some compensation efforts, sometimes loosely termed ‘biodiversity offsets’ involved some investment in conservation activities, but impacts on biodiversity were generally not quantified, and the outcome was unrelated to the impact in kind or quantity, leaving a net loss of biodiversity. The major difference in today’s biodiversity offsets that meet the Principles, Criteria and Indicators described in this document is that the offset design is based on:
  - (a) scientific understanding and research, drawing on the work and knowledge of appropriate experts (e.g., ecologists, taxonomists, socio-economists) to ensure that:
    - the project’s impacts are well understood and characterised;
    - the mitigation hierarchy has been followed;
    - residual impacts on biodiversity components have been quantified; and
    - offsets that meet thorough ‘like for like or better’ exchange rules have been selected. These offsets should incorporate adequate loss-gain calculations and a good assessment of risk and uncertainty relating to impacts on biodiversity, chosen mitigation measures, and the likelihood of success of offset activities, so that no net loss (or a net gain) can be carefully planned; and
  - (b) effective involvement of stakeholders in offset design and implementation.
- The preceding Principle 9 focuses on transparency, since there are many valid options for offset design and implementation. Open and clear communication about the choices made in a given case, and of the associated risks, limitations and uncertainties, is important to demonstrate that the offset is a thorough one and meets the BBOP Principles. This Principle 10 on the use of scientific information and traditional knowledge is a corollary to the provisions on transparency, since its purpose is to demonstrate that the offset is not an arbitrary investment in conservation or the result of ‘back-of-the-envelope’ calculations, but rather based on proper scientific rationale, methods and data.
- While much biodiversity remains to be discovered and studied, and while there are real limitations to the baseline information available in some areas, it is striking that datasets relevant to the design

and implementation of biodiversity offsets are readily available from many sources. Examples of the kind and source of such data cannot be listed comprehensively, but the following are examples of data that are publicly available online or in printed form with extensive geographical coverage:

- National Biodiversity Strategies and Action Plans (NBSAPs): <http://www.cbd.int/nbsap/>
  - Biodiversity A-Z and links mentioned here: <http://www.biodiversitya-z.org/>
  - Global Biodiversity Information Facility (GBIF): <http://www.gbif.org/>
  - Global Taxonomy Initiative (GTI): <http://www.cbd.int/gti/>
  - GoogleEarth: <http://www.google.com/earth/download/ge/agree.html>
  - IUCN Red List of Species: <http://www.iucnredlist.org/>
  - UNEP-World Conservation Monitoring Centre datasets and links: <http://www.unep-wcmc.org/>
  - Integrated Biodiversity Assessment Tool: <https://www.ibatforbusiness.org/>
- There are many different scientific methods, tools and approaches relevant to biodiversity offset design and implementation. It would be impossible to enumerate these exhaustively, or to define in advance which are most relevant and applicable in a particular setting. Publications such as BBOP's Offset Design Handbook available at <http://bbop.forest-trends.org/guidelines/odh.pdf> and Cost-Benefit Handbook available at <http://bbop.forest-trends.org/guidelines/cbh.pdf> offer a compendium of methods and references to many relevant sources of information on tools and approaches, many of which are continuously evolving and being refined in response to new insights and practical experience with biodiversity offsets. As the PCI and the resulting standard on biodiversity offsets are applied and improved over time, a future governance body for the standard may list certain approved methodologies and require developers to show that any others used achieve the same quality of outcome. For now, auditors should look for evidence provided by the offset design team that the methodologies applied are well established and appropriate, and that a good rationale is given for their selection. Should the offset design team be using a new methodology for which they cannot point to a track-record of use, they should be able to explain and demonstrate to the auditor's satisfaction that the methodology used is capable of delivering the outcomes required by the PCI.
  - To conform to this Principle, a developer will need to ensure that appropriate experts are on its staff or retained as advisors, to contribute their scientific knowledge to the process and select the most appropriate methods for the particular circumstances. Depending on the context of the project concerned, expertise may be needed in fields such as botany, zoology and ecology; in socioeconomic aspects of biodiversity, such as economics and anthropology; in impact assessment and mitigation; and in biodiversity offset design and implementation. The involvement of experts and the manner in which scientific methods have been selected and used in the design and implementation of the offset should be documented in the Biodiversity Offset Management Plan, enabling others to follow the logic involved and be reassured that appropriate choices have been made. Biodiversity offset design will be regarded by independent third parties as more authoritative and trustworthy if credible experts beyond employees of the developer have been involved. Auditors can thus look to see that efforts have been made to solicit guidance and expertise from outside the ranks of company employees.

## **Factors to consider in assessing conformance:**

### **Key Questions:**

1. Does the Biodiversity Offset Management Plan describe at which points and how the best available scientific knowledge and methods have been used in offset design and implementation?
2. Does the Biodiversity Offset Management Plan provide evidence of consultation with suitably qualified and experienced scientific experts?
3. Does the Biodiversity Offset Management Plan provide evidence of the appropriate use of available datasets?

**Key Question 1:** Does the Biodiversity Offset Management Plan describe how the best available scientific knowledge and methods have been used in offset design and implementation?

#### **Conformance requires:**<sup>84</sup>

1. The Biodiversity Offset Management Plan describes the scientific rationale and methods used in offset design and implementation, and why they were selected.
2. The Biodiversity Offset Management Plan summarises the results of applying the scientific rationale and methods selected for offset design (e.g., loss-gain calculations, selection of offset site/s and activities), and shows how these influenced the final design and implementation of the offset.

**Key Question 2:** Does the Biodiversity Offset Management Plan provide evidence of consultation with scientific experts?

#### **Conformance requires:**<sup>85</sup>

1. The Biodiversity Offset Management Plan describes the relevant scientific expertise of the individuals involved in the offset design and implementation.
2. The Biodiversity Offset Management Plan lists the scientific experts consulted during the design and implementation of the offset.
3. The independent review panel, steering committee or system for peer review required under Principle 9 has been used to ensure peer review of the scientific data and traditional knowledge used as the basis of offset design and implementation.

---

<sup>84</sup> **Non-conformance** may be caused by, for example:

- No or only passing reference in the Biodiversity Offset Management Plan to the scientific methods used in offset design and implementation.
- No justification or explanation in the Biodiversity Offset Management Plan as to why particular scientific methods and approaches to offset design and implementation have been selected.
- No evidence that particular scientific methods were used to design the offset.
- No evidence that the final offset design is based on the results of using the scientific methods selected.

<sup>85</sup> **Non-conformance** may be caused by, for example:

- No reference in the Biodiversity Offset Management Plan to the scientific expertise of the individuals involved in the offset design and implementation.
- No reference in the Biodiversity Offset Management Plan to other scientific experts consulted during the design and implementation of the offset.



**Key Question 3:** Does the Biodiversity Offset Management Plan provide evidence of the appropriate use of available datasets?

**Conformance requires:**<sup>86</sup>

1. The Biodiversity Offset Management Plan describes the efforts made to identify available datasets useful and relevant to the design and implementation of the biodiversity offset.
2. The Biodiversity Offset Management Plan describes the data that have been used for offset design and implementation.

---

<sup>86</sup> **Non-conformance** may be caused by, for example:

- No or only passing reference in the Biodiversity Offset Management Plan to the efforts made to source data relevant to offset design and implementation.
- No or only superficial reference to the data used as the basis for offset design and implementation.

<b>PRINCIPLE 10</b>	<i>Science and traditional knowledge: The design and implementation of a biodiversity offset shall be a documented process informed by sound science, including an appropriate consideration of traditional knowledge.</i>
<b>CRITERION 10-1</b>	Scientific information, and, where applicable, traditional knowledge, shall be utilised when designing and implementing the offset.
<b>INDICATOR 10-1-2</b>	The Biodiversity Offset Management Plan describes whether and how relevant traditional knowledge has been used in offset design and implementation, with, as appropriate, the involvement and prior approval of local communities and indigenous peoples, and of relevant experts.

## GUIDANCE NOTES FOR AUDITORS FOR INDICATOR 10-1-2

### Interpretation of Indicator:

- To conform to the BBOP Principles, Criteria and Indicators, a biodiversity offset:
- Needs to deal with socioeconomic and cultural values of biodiversity, as well as ‘intrinsic’ ecological ones (Principle 4); and
- Should ensure the effective participation of stakeholders in decision-making about biodiversity offsets, including their evaluation, selection, design, implementation, and monitoring (Principle 6).
- The purpose of the preceding Indicator 10-1-1 is to ensure that appropriate scientific methods and expertise are used in offset design and implementation. The purpose of this Indicator 10-1-2 is to ensure, similarly, that traditional knowledge of local communities and indigenous peoples also informs offset design and implementation, where it is relevant.
- According to the Convention on Biological Diversity, traditional knowledge refers to the knowledge, innovations and practices of indigenous and local communities. In the context of biodiversity offsets, the traditional knowledge concerned relates to the conservation and sustainable use of biodiversity. The relevant holders of traditional knowledge could be among the stakeholders affected by and involved in the development project and corresponding biodiversity offset design and implementation. Or they could be individuals and communities who are not directly involved but hold knowledge that could be relevant to impact assessment and the design and implementation of measures to avoid and minimise the project’s impacts on biodiversity, to on-site rehabilitation and restoration, or to the design and implementation of the biodiversity offset.
- Traditional knowledge can be intimately linked with the socioeconomic and cultural values and uses of biodiversity by indigenous peoples and local communities, and to approaches to conservation and sustainable use. Thus traditional knowledge may play an important part of understanding a project’s impacts on biodiversity as well as options for biodiversity offset activities and locations. It is important to note that there are legal and ethical guidelines for obtaining and using peoples’ traditional knowledge related to biodiversity, and this Indicator follows the Convention on Biological Diversity<sup>87</sup> in requiring the use of traditional knowledge to be with the prior approval and

<sup>87</sup> CBD Article 8(j) states that each Party to the CBD shall: ‘(j) Subject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of

involvement of the holders of this knowledge. There is a comprehensive literature on this subject, and useful source materials on best practice in accessing and using traditional knowledge can be found at <http://www.cbd.int/traditional/> and <http://biocultural.iied.org/policy/convention-biological-diversity-and-its-working-group-article-8-j>.

### **Factors to consider in assessing conformance:**

#### **Key Questions:**

1. Does the Biodiversity Offset Management Plan describe whether and how traditional knowledge is relevant to the design and implementation of the offset?
2. If traditional knowledge is relevant, does the Biodiversity Offset Management Plan describe how it has been used to inform offset design and implementation?
3. If traditional knowledge has been used in offset design and implementation, does the Biodiversity Offset Management Plan document prior approval, where needed, from the holders of such knowledge and their involvement in offset design and implementation?

**Key Question 1:** Does the Biodiversity Offset Management Plan describe whether and how traditional knowledge is relevant to the design and implementation of the offset?

#### **Conformance requires:**<sup>88</sup>

1. Reference in the Biodiversity Offset Management Plan to whether and how traditional knowledge is relevant to the design and implementation of the offset.

**Key Question 2:** If traditional knowledge is relevant, does the Biodiversity Offset Management Plan describe how it has been used to inform offset design and implementation?

#### **Conformance requires:**<sup>89</sup>

1. If traditional knowledge has been used, the Biodiversity Offset Management Plan describes how it has been used in offset design and implementation.
2. References to the use of traditional knowledge also describe whether the prior approval of the holders of that knowledge was needed, and if so, confirm that it was obtained.

**Key Question 3:** If traditional knowledge has been used in offset design and implementation, does the Biodiversity Offset Management Plan document prior approval, where needed, from the holders of such knowledge and their involvement in offset design and implementation?

---

the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices;'

<sup>88</sup> **Non-conformance** may be caused by, for example:

- No reference is made in the Biodiversity Offset Management Plan to whether and how traditional knowledge is relevant to the design and implementation of the offset

<sup>89</sup> **Non-conformance** may be caused by, for example:

- Unclear from the Biodiversity Offset Management Plan whether traditional knowledge has been used in offset design and implementation.
- If traditional knowledge has been used in the offset design and implementation, the Biodiversity Offset Management Plan does not describe how.

**Conformance requires:**<sup>90</sup>

1. Does the Biodiversity Offset Management Plan clarify whether the prior approval of the holders of traditional knowledge (typically local communities and/or indigenous peoples) is needed and has been obtained?
2. If traditional knowledge has been used in the offset design and implementation, does the Biodiversity Offset Management Plan describe how the holders of the knowledge are involved?

---

<sup>90</sup> **Non-conformance** may be caused by, for example:

- A lack of clarity in the Biodiversity Offset Management Plan as to whether traditional knowledge has been obtained in such a way as to require prior approval.
- Prior approval, when required, has not been obtained, or it is unclear from the Biodiversity Offset Management Plan as to whether it has been obtained.
- A lack of clarity in the Biodiversity Offset Management Plan as to whether the holders of the traditional knowledge used in offset design and implementation have been involved.

## RELATIONSHIPS BETWEEN INDICATORS

*NB: This Table does not give the full text of each Indicator; rather it gives a synopsis of the content so linkages between the Indicators can easily be seen.*

INDICATOR [SUMMARY of text]	RELATED ACTIVITIES FROM OTHER INDICATORS [SUMMARY of text]
INDICATOR 1-1-1: An assessment of the development project's impacts on biodiversity is conducted with stakeholder participation.	<p>4-1-2: residual losses calculated relative to pre-project condition</p> <p>4-2-5: residual losses compared to gains demonstrates&gt;NNL</p> <p>1-1-2: avoidance, minimisation, and rehabilitation/restoration measures</p> <p>2-1-1: risks of impact not being offsetable evaluated</p> <p>6-1-1, 6-1-2, 6-1-3: stakeholder participation</p>
INDICATOR 1-1-2: Measures to avoid and minimise biodiversity loss and to rehabilitate/restore biodiversity are defined and implemented.	<p>1-1-1: assessment of development project's impacts</p>
INDICATOR 1-2-1: Any residual losses of biodiversity are identified and described.	<p>1-1-1: An assessment of the development project's impacts on biodiversity conducted with stakeholder participation</p>
INDICATOR 2-1-1: A risk assessment predicts the risk that residual impacts on biodiversity will be not be capable of being offset.	<p>4-2-1: key biodiversity components selected</p>
INDICATOR 2-1-2: Risk assessment demonstrates how residual impacts can and will be offset through specific measures and commitments.	<p>4-3-1: sources of uncertainty and risk in the offset identified and addressed</p> <p>4-1-4: offset design and evidence for effectiveness of offset activities described</p> <p>1-1-2: measures to address project impacts</p> <p>4-2-2: method for assessing equivalence of losses and gains</p> <p>6-1-1, 6-1-2: stakeholder participation</p>
INDICATOR 3-1-1: The identification of potential offset locations is done in the context of a landscape level analysis.	<p>4-2-2, 4-2-3: Identify a method for assessing a 'like for like' or 'like for better' approach.</p> <p>5-2-1: Determine potential negative and positive impacts on biodiversity of offset activities at all offset sites.</p> <p>2-1-1: Undertake vulnerability and irreplaceability assessment of affected biodiversity components.</p> <p>6-1-1, 6-1-2: Offset development process reflects stakeholder participation and takes into account social, cultural, as well as biological values.</p> <p>10-1-1: Biodiversity Offset Management Plan describes use of best available scientific knowledge and methods.</p>
INDICATOR 3-1-2: Offset gains and conservation outcomes contribute to regional and national conservation goals, where these exist.	<p>6-1-1, 6-1-2: Offset development process reflects stakeholder participation and takes into account social, cultural, as well as biological values.</p>

<p>INDICATOR 3-2-1: Reasonably foreseeable future developments that might affect the offset considered in offset design.</p>	<p>See related activities under 5-1-1 above.  4-1-4: Intended conservation outcomes described in the Biodiversity Offset Management Plan.  5-1-1: Conservation gains at the offset site(s) predicted for a specified, long-term period.  8-2-1, 8-2-3: Risk-monitoring protocol is in place and followed to identify any risks (such as climate change, population pressure, land-use change) that could affect achievement of proposed conservation outcomes.  See activities under 3-1-1 above.</p>
<p>INDICATOR 3-2-2: A proposal is made to incorporate biodiversity offset in government land use or other similar plans, where relevant.</p>	<p>4-2-1: key biodiversity components to represent all biodiversity identified</p>
<p>INDICATOR 4-1-1: Published commitment to a goal of no net loss or a net gain in biodiversity</p> <p>INDICATOR 4-1-2: Residual losses are quantified relative to the 'pre-project' condition of affected biodiversity; methods documented.</p>	<p>4-1-4: offset design and outcomes documented  4-2-5: loss/gain calculation demonstrates NNL  4-3-1: sources of uncertainty and risk are identified and managed  1-1-1: assessment of all project impacts, with stakeholder participation  1-1-2: mitigation hierarchy applied  1-2-1: residual losses identified</p>
<p>INDICATOR 4-1-3: Gains from the offset are quantified relative to the 'without-offset' condition of biodiversity in the area of the offset site(s); methods documented.</p>	<p>4-1-4: offset design and outcomes documented  4-2-5: loss/gain calculation demonstrates NNL  4-3-1: sources of uncertainty and risk are identified and managed  5-1-1: offset gains are additional  3-2-1: reasonably foreseeable future actions that could affect offset identified</p>
<p>INDICATOR 4-1-4: Biodiversity Offset Management Plan documents offset design, activities and intended conservation outcomes; assumptions and evidence documented.</p>	<p>4-2-1, 4-2-2, 4-2-3, 4-2-4, 4-2-5: loss gain calculations to demonstrate NNL explained and documented  4-3-1: sources of uncertainty and risk identified  8-1-1, 8-1-2: capacity and mechanisms for ensuring long term outcomes documented</p>
<p>INDICATOR 4-2-1: A set of key biodiversity components to represent all biodiversity is identified; rationale for selection explained.</p>	<p>4-1-2: pre-project biodiversity conditions identified  4-2-2, 4-2-3, 4-2-4: key biodiversity components inform selection of metrics, accounting methods, and approaches to equivalence  4-3-1: sources of uncertainty in selecting KBCs  2-1-1 assessment of whether impacts are capable of being offset</p>
<p>INDICATOR 4-2-2: Methods for (1) determining equivalence of biodiversity losses and gains (like for like or better) in the offset design, and (2) calculating the net balance of biodiversity losses and gains, including selection of metrics, identified and rationale for their selection documented.</p>	<p>4-2-1, 4-2-3, 4-2-4, 4-2-5: selection of KBCs, suitable forms of metrics, and types of equity to be considered in approaches to equivalence  4-3-1: sources of uncertainty in metrics, accounting methods, and determining equivalence  2-1-1: assessing the risk that impacts cannot be offset  3-1-1, 3-1-2: offset site selection and anticipated offset gains consider landscape context</p>
<p>INDICATOR 4-2-3: Method for determining equivalence of biodiversity losses and gains addresses equity in the type and condition, the location, and if possible, the timing of biodiversity losses and gains, and explicitly consider the key biodiversity components.</p>	<p>4-2-1, 4-2-2, 4-2-4: selection of KBCs, metrics and methods for accounting  4-2-5: method for equivalence used in loss-gain calculation to demonstrate NNL or NG  5-1-1: timing – gains at the offset site predicted for a specified long-term period, tied to development project duration</p>

INDICATOR 4-2-4: Metrics capture type, amount, and condition of biodiversity; used in the loss-gain calculation.	4-2-2: selection and rationale for metrics, accounting method, equivalence 4-2-5: metrics used in loss-gain calculation
INDICATOR 4-2-5: Calculation of biodiversity losses and gains forms the basis of offset design; demonstrates NNL.	4-1-2, 4-1-3: losses and gains are relative to the baseline that existed before the impacts and offset activities, respectively 4-3-1: assess and manage uncertainty and risk related to loss-gain calculations 5-1-1: gains are additional
INDICATOR 4-3-1: Risk and uncertainty relating to the offset is assessed and measures identified to address and limit risks.	4-1-2, 4-1-3: uncertainty and risk associated with establishing pre-project and/or without offset 'reference point' or condition 4-2-1, 4-2-2, 4-2-3, 4-2-4, 4-2-5: uncertainty and risk associated with loss/gain 5-1-1: uncertainty and risk associated with additionality 5-2-1: uncertainty and risk associated with potential leakage 2-1-1: risk assessment for impacts not capable of being offset
INDICATOR 4-3-2: Milestones are established for tracking progress towards and verifying offset delivery.	8-1-1: measures to manage risk are implemented, results monitored, and risk management is adapted as needed
INDICATOR 5-1-1: Additional conservation gains at the offset site(s) are specified, justified, predicted, and verified.	4-1-3: anticipated gains relative to the without offset baseline 4-3-1: sources of uncertainty and risk in estimating gains addressed
INDICATOR 5-2-1: An assessment is undertaken to identify potential leakage resulting from the offset activities.	No related indicators
INDICATOR 5-2-2: Provisions for addressing risk of leakage, in design and put into effect during implementation.	4-3-1: measures to address risk developed and implemented 4-3-2: milestones for progress in delivering offset gains established and monitored 8-2-1, 8-2-3: offset is adaptively managed; system in place to monitor success of implementation
INDICATOR 6-1-1: Relevant stakeholders identified and informed of the plan to design and implement a biodiversity offset for the project.	1-1-1: Planning process includes stakeholder participation 2-1-1: Stakeholders participate in a comprehensive assessment to determine existence of highly vulnerable and/or irreplaceable 3-1-1, 6-1-2: The offset development process takes into account social, cultural, as well as biological values to determine the contribution of the offset to landscape level conservation outcomes
INDICATOR 6-1-2: Stakeholder consultation and participation is integrated into design and implementation of the biodiversity offset.	See related Indicators for 6-1-1. 7-1-1, 7-1-2: A transparent and documented decision-making process that ensures community participation and recognises the rights of indigenous peoples is established as part of the design and implementation 3-2-1: The biodiversity offset planning process has adequately considered foreseeable developments of third parties when identifying offset objectives
INDICATOR 6-1-3: Roles of relevant stakeholders in implementing biodiversity offset, including evaluation and monitoring, established and defined in Biodiversity Offset Management Plan.	8-2-3: Procedures documented on how the offset management plan will be adapted in the event of circumstances likely to affect the ability of the offset to meet the conservation outcomes 3-2-1: The biodiversity offset planning process has adequately considered foreseeable developments of third parties when identifying offset objectives within the management plan. 9-1-1: Information has been made available to stakeholders and the public in appropriate media on the design and implementation of the offset
INDICATOR 6-1-4: Free prior and informed consent (FPIC) of indigenous peoples affected by project or offset.	7-1-2: Evidence provided that agreements have been reached with FPIC
INDICATOR 6-2-1: A system handles and resolves grievances and	7-1-3: An agreed and documented protocol exists for determining the level of compensation for impacts

records outcomes.	<p>on people's biodiversity uses and values resulting from the development project and offset</p> <p>9-1-1: Information on offset design and implementation reported and available to public.</p> <p>9-1-2: An independent mechanism (such as an independent review panel / steering committee) has been established to oversee the offset design and implementation process; they report regularly and are publicly available</p>
INDICATOR 7-1-1: Agreements are established with relevant stakeholders regarding rights, responsibilities, risk and rewards related to the project and offset.	<p>10-1-1, 10-1-2: Offset plans demonstrate the use and application of best available scientific approaches, providing evidence of consultation with scientific experts, and where appropriate, input from experts in traditional knowledge in design and implementation plans</p> <p>2-1-1: A comprehensive assessment has been undertaken (involving stakeholders) to determine whether, and if so which, highly vulnerable and irreplaceable biodiversity components are present in the area affected by the development project</p> <p>4-2-1, 4-2-5: Identification of key biodiversity components and calculation of losses and gains demonstrate no net loss (or net gain) of biodiversity, including people's use and cultural values</p> <p>6-1-1, 6-1-2: Relevant stakeholders identified, informed, and consulted in public forums about the project and offset design and implementation and understand the purpose of the offset program</p>
INDICATOR 7-1-2: Agreements concerning project and offset design and implementation comply with existing regulations, recognise customary arrangements and, as appropriate, internationally and nationally recognised rights of indigenous peoples.	<p>6-1-4: where project will affect indigenous peoples, their free, prior, and informed consent is obtained and documented</p>
INDICATOR 7-1-3: Agreements demonstrate that project and offset impacts on peoples' biodiversity uses and values have been considered and appropriately compensated.	<p>4-2-1, 4-2-5: Identification of key biodiversity components and calculation of losses and gains demonstrate no net loss (or net gain) of biodiversity, including people's use and cultural values</p>
INDICATOR 8-1-1: Those responsible for implementing the offset (see indicator 6-1-3) have the requisite management and technical capacity.	<p>6-1-1, 6-1-3: Participation and roles of stakeholders in offset implementation and monitoring are clearly defined and established</p>
INDICATOR 8-1-2: Legal and financial mechanisms are in place to guarantee the financial and institutional viability of the offset.	<p>8-1-1: Those responsible for implementing the offset have the needed technical and management capacity</p>
INDICATOR 8-2-1: Measures to manage and mitigate identified risks (see Indicator 1-3-1) are implemented, the results are monitored, and risk assessment and management are adapted as necessary throughout offset implementation.	<p>4-3-1: sources of uncertainty and risk are identified and addressed</p> <p>8-2-3: Procedures documented on how the offset management plan will be adapted in the event of circumstances likely to affect the ability of the offset to meet the conservation outcomes</p> <p>2-1-2: the assessment of limits to what can be offset demonstrates how losses will be offset and take into account risk and uncertainty</p>
INDICATOR 8-2-2: Offset conservation outcomes and milestones are independently audited.	<p>9-1-2: mechanism for independent review</p>
INDICATOR 8-2-3: A system exists for monitoring and evaluating the success of offset implementation.	<p>4-3-2: milestones established to monitor progress in delivering offset gains</p>



<p>INDICATOR 9-1-1: Communication on baseline findings, impact assessment and the offset to stakeholders and the public.</p>	<p>4-3-2: Milestones for achieving the offset's conservation outcomes are specified  8-2-3: Procedures documented on how the offset management plan will be adapted in the event of circumstances likely to affect the ability of the offset to meet the conservation outcome  6-1-3: Roles and responsibilities for implementation established  8-1-1, 8-1-2: Management and technical capacity for implementation established; financial and legal mechanisms to assure long-term outcomes  8-2-2: Offset conservation outcomes and milestones are independently audited  Same as 9-1-1</p>
<p>INDICATOR 9-1-2: A mechanism to ensure independent review of offset design and implementation is implemented.</p>	
<p>INDICATOR 10-1-1: Biodiversity Offset Management Plan describes use of best available scientific knowledge and methods in offset design and implementation.</p>	<p>As this is a cross-cutting requirement, many other indicators are related, particularly all the indicators under Principles 1-6 and Principle 9.</p>
<p>INDICATOR 10-1-2: Biodiversity Offset Management Plan describes use of relevant traditional knowledge in offset design and implementation.</p>	<p>All the indicators under Principle 6 (Stakeholder participation) are particularly relevant here.</p>

