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MINISTRY FOR LAND AND ENVIRONMENT

Manual for the Implementation of the Directive on Biodiversity Offsets in Mozambique: Ministerial Order No. 55/2022 of 19 May

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Executive Summary

This document is the manual for the implementation of the Directive on Biodiversity Offsets in Mozambique (Ministerial Order No. 55/2022, of 19 May). The manual has been produced to provide the necessary technical details, both theoretical and practical, for the correct application of the Directive on Offsets.

The manual is intended for all technicians involved in the Environmental Impact Assessment procedure, whether employees of the Environmental Impact Assessment Authority, consultants or project developers. The manual is particularly relevant to technicians involved in designing measures to mitigate the negative impacts on biodiversity of a given project; analysing the suitability of projects and verifying the need to design and implement biodiversity offsets. The manual thus serves as a guidance tool for project developers and their environmental consultants, helping them to ensure their project meets Decree No. 54/2015, of 31 December, as well as Ministerial Order No. 55/2022, of 19 May. It also serves as a guide for checking documents and procedures for state technicians at the Central Environmental Impact Assessment Authority, local impact assessment authorities and the Agency for Environmental Control and Quality.

The manual follows the structure of Ministerial Order No. 55/2022, explaining each section and number of that Order. It can therefore be used to clarify questions that may arise about the technical interpretation of its sections or points. This document is extensive and comprehensive: rather than being read in its entirety, it should be used as a reference tool in the day-to-day interpretation and implementation of Order 55/2022.

List of abbreviations

AoI	Area of Influence
ADI	Area of Direct Influence
AII	Area of Indirect Influence
ANAC	Administração Nacional das Áreas de Conservação [National Administration for Conservation Areas]
AQUA	Agência para o Controlo da Qualidade Ambiental [Agency for the Control of Environmental Quality]
BBOP	Business and Biodiversity Offset Program
BIOFIN	Biodiversity Finance Initiative
BIOFUND	Biodiversity Conservation Foundation
BNG	Biodiversity Net Gain
BOMP	Biodiversity Offset Management Plan
CA	Conservation Areas
CBD	Convention on Biological Diversity
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CR	Critically Endangered
CSO	Civil Society Organisation
CTA	Comissão Técnica de Avaliação do Impacto Ambiental [Technical Commission for Environmental Impact Assessment]
DINAB	Direcção Nacional do Ambiente [National Environment Directorate]
DINAF	Direcção Nacional de Florestas [National Forestry Directorate]
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
EN	Endangered
EMP	Environmental Management Plan
ESIA	Environmental and Social Impact Assessment
EPDA	Estudo de Pré-Viabilidade Ambiental e Definição do Âmbito [Environmental Pre-Feasibility and Scoping Study]
FSC	Forest Stewardship Council
IER	Independent Expert Reviewers
IFC	International Finance Corporation
IUCN	International Union for Conservation of Nature
KBA	Key Biodiversity Area

KPI	Key Performance Indicators
MAGTAP	Mining And Gas Technical Assistant Project
MIREME	Ministério dos Recursos Minerais e Energia [Ministry of Mineral Resources and Energy]
MITADER	Ministério da Terra, Ambiente e Desenvolvimento Rural [Ministry of Land, Environment and Rural Development]
MH	Mitigation Hierarchy
MTA	Ministério da Terra e Ambiente [Ministry for Land and Environment]
NBSAP	National Biodiversity Strategy and Action Plan
NCEA	Netherlands Commission for Environmental Assessment
NGO	Non-Governmental Organisation
NNL	No Net Loss
NT	Near Threatened
PPP	Public-Private Partnership
PQG	Plano Quinquenal do Governo [Five Year Government Plan]
PS	Performance Standards
RAACB	Repartição de Avaliação e Acompanhamento de Contrabalanços de Biodiversidade [Biodiversity Offset Assessment and Monitoring Division]
REPMAR	Regulamento da Pesca Marítima [Marine Fisheries Regulation]
SES	Simplified Environmental Study
SGLA	Sistema de Gestão de licenciamento Ambiental [Environmental Licensing Management System]
SIBMOZ	Sistema de Informação de Biodiversidade de Moçambique [Mozambique Biodiversity Information System]
ToR	Terms of Reference
UNDP	United Nations Development Programme
UTC	Unidade Técnico-Científica [Technical-Scientific Unit]
VU	Vulnerable
WCS	Wildlife Conservation Society

Contents

1 Purpose and instructions for using the document

1.1 Purpose of the document

The purpose of this manual is to provide the necessary technical information, both theoretical and practical, for the correct application of the Directive on Biodiversity Offsets in Mozambique (Ministerial Order No. 55/2022, of May 19).

1.2 Audience for the document

This manual is intended for the environmental authority at national and provincial level, project developers, environmental consultants and any parties interested in the application of the Directive.

1.3 Structure of the document

This document is structured as follows:

1. *Framework and rationale*: this chapter presents the key factors for the adoption of mitigation hierarchies and biodiversity offsets at a global level, as well as the legal and institutional context for their application in Mozambique, including their relevance to the attainment of the country's conservation targets.
2. *Outline of the structure of the Directive*: this chapter presents the structure of the Directive on Biodiversity Offsets in Mozambique (Ministerial Order no. 55/2022, of May 19).
3. *Interpretation of the Directive on Biodiversity Offsets*: this is the main chapter of the document; it provides a detailed interpretation of each section of the Directive and its respective articles, using diagrams, illustrative images and practical examples whenever possible.
4. *Annexes*: this chapter contains additional information including a glossary, form template, project planning flowchart, methods for calculating biodiversity gains and losses and a Biodiversity Offset Management Plan structure.

1.4 Updating the document

The cover of the manual shows its version number and the date it was produced. The manual should be considered a 'live' working document: biannual review is recommended to update key aspects, include new information and review the roles of the various actors and developments in methodologies such as metrics.

2 Framework and rationale

2.1 General framework

Over the last decade there has been a significant increase in the exploitation of natural resources in Mozambique (mining, oil and gas, agriculture, forestry and fishing) as well as in the creation of basic infrastructure (roads, power plants, power transmission lines, etc.). These activities have produced negative environmental and social impacts.

In addition to direct negative impacts, indirect or induced and cumulative impacts also pose a high risk to the country's biodiversity (see Annex A. Glossary and definitions). This is because the majority of projects produce conditions that attract communities to the area of intervention in search of business opportunities and/or improved living conditions. This influx of people puts increased pressure on an area's existing ecosystems (examples include deforestation to create farmland, logging, charcoal production, subsistence hunting and aggregate extraction). There is therefore an urgent need to find ways of reconciling economic development with the conservation of both biodiversity and the ecosystem services on which most of the Mozambican population directly depends.

The approach most widely used at international level to balance economic development with biodiversity conservation is grounded in the appropriate application of the Mitigation Hierarchy. This requires economic actors to avoid the most significant impacts; minimize their project's footprint; restore any damage caused to the biodiversity and the ecosystem services of affected areas and finally, if significant residual negative impacts persist, to design and implement biodiversity offsets. The aim of biodiversity offsets is to achieve No Net Loss (NNL) or, preferably, a Net Gain (NG) of biodiversity. In recent years, several countries have adopted the Mitigation Hierarchy, including the stage relating to biodiversity offsets. In several cases, legislation has been enacted that requires companies to develop specific plans and identify projects to offset biodiversity losses and guarantee measurable conservation results.

A key driver in the adoption of the concept of biodiversity NNL has been the environmental and financial sector. The International Finance Corporation (IFC)'s 2012 Performance Standards (PS) led the way in drawing up guidelines. These were followed in 2013 by the Equator [1] Principles and in 2016 by the World Bank's requirement for NNLs whenever natural habitats are affected.

2.2 The Mozambican context

A consensus has emerged in the Mozambican business community, as well as in key ministries such as the Ministry for Land and Environment (MTA) and the Ministry for Mineral Resources and Energy (MIREME), about the necessity of creating a clear and regulated national framework to promote the concepts of NNL and NG. These are seen as valuable tools for mitigating the negative impacts of large-scale development projects and contributing to the sustainable development goals to which Mozambique has committed. They will also enable project developers to meet their obligations to ensure international standards. In recent years, private sector companies operating in the country, in particular multinationals, have expressed a clear commitment to adhering to international standards of best practice, paving the way for the creation of this structure.

During the revision of Mozambique's Environmental Impact Assessment legislation in 2015, a crucial step was taken towards the development and implementation of a regulated framework to promote the concept of NNL with the approval of Decree No. 54/2015, of 31 December, known as the Environmental and Social Impact Assessment Regulation. The MTA (then MITADER) undertook to align its legislative package with this approach, receiving technical assistance from the Netherlands Commission for Environmental Assessment

1 92 financial institutions in 37 countries have adopted the Equator Principles, including banks operating in Mozambique such as Standard Bank, Société General, Barclays and Nedbank.

(NCEA) to do so. Substantial progress has been made since that date. In 2016, the World Bank financed the production of the document 'An Aggregated System of Biodiversity Offsets: a Roadmap for Mozambique', which served as a guide to the development of policies and implementation options. The document recommended that biodiversity offsets be aggregated in Conservation Areas. The underlying rationale for this was that biodiversity offsets, in addition to offsetting the significant negative residual impacts of projects, could also serve to support the conservation and restoration of biodiversity in the country's National Network of Conservation Areas, which are currently underfunded and unable to achieve their conservation aims.

Through the National Directorate for the Environment (DINAB), the MTA has been supported since 2016 by the COMBO+ Program to manage biodiversity offsets in Mozambique in accordance with national legislation and the aforementioned roadmap. The COMBO+ Program is led by the Wildlife Conservation Society (WCS)[2] and BIOFUND, the Foundation for Biodiversity Conservation, with funding from the World Bank/Mozbio2 Project and the United Nations Development Program (UNDP) BIOSFAC and BIOFIN projects.

One of the major outputs of this joint initiative was the development of the Directive on Biodiversity Offsets in Mozambique, approved through Ministerial Order No. 55/2022, of 19 May 2022. This instrument provides legal, technical and financial guidelines for the correct implementation of biodiversity offsets as required by the Environmental Impact Assessment Regulation (Decree No. 54/2015, of 31 December). It requires all A or A+ category development projects which, after proper application of the Mitigation Hierarchy, result in residual negative impacts on biodiversity which are considered to be significant (e.g. threatened species or ecosystems) to implement biodiversity offset management plans in the form of conservation projects to restore or rehabilitate and protect biodiversity equivalent to that lost in a location outside the direct influence of their development project. Development projects are thus provided with an opportunity to contribute to the achievement of the country's biodiversity targets through biodiversity offsets.

In preparation for this, the MTA created the Office for the Assessment and Monitoring of Biodiversity Offsets (RAACB), part of the Environmental Assessment Department of DINAB, to lead on the implementation of the Directive.

The MTA has also developed the legal instrument required for the correct application of Decree No. 54/2015 in the form of the Directive on Independent Expert Reviewers of Environmental Impact Studies for Category A+ Activities. This instrument provides the environmental authority with the tools required to categorise projects as A+ and assess whether they meet the criteria in Annexe I of Decree No. 54/2015.

Finally, with the support of the COMBO+ Programme, technical tools have been developed. These include the map of Key Biodiversity Areas (KBAs); the historical map of ecosystems and its associated red list; methodologies for identifying areas for restoration and metrics for assessing the condition of key biodiversity; maps of areas with the potential to receive biodiversity offsets and tools for testing learning methodologies in Conservation Areas, forest reserves and other important biodiversity zones.

2.3 Legal and Institutional Framework

2.3.1 Legal framework

The legal framework for Environmental Impact Assessment and Biodiversity Conservation in Mozambique is well-developed and current. The specific legal instruments in this area are as follows:

- **Environment Law (Law no. 20/1997):** The Environment Law constitutes the general legal framework for environmental issues in Mozambique. It centres around Article 4, which discusses the general principles, and specifically Principle 7, the principle of responsibility. This principle states that, 'Anyone who pollutes or in any way degrades the environment will always be required to repair or

2 In June 2017, a Memorandum of Understanding was signed between WCS/The COMBO Project and MITADER to formalize COMBO.

compensate for the resulting damage.' Article 15 of the same law decrees that the issuing of an Environmental Licence should precede the issuing of any other commercial licence. This applies to all the economic sectors mentioned in the Environmental Impact Assessment regulations.

- **Legislation on Environmental and Social Impact Assessment (ESIA):** The basic instrument of this legal framework is Decree No. 54/2015, of 31 December (Environmental and Social Impact Assessment Regulations). Specific decrees with additional details[3] also exist for the mining sector (Decree No. 26/2004) and the oil and gas sector (Decree No. 56/2010). The ESIA procedure consists of the following stages:

    - **Analysis of the project**;
    - **Classification of the project into one of four possible categories** (A+, A, B or C), based on criteria relating to the type of development and its expected impacts. Different levels of rigor are required for Environmental Impact Assessment studies in each category (annexes I to IV of Decree No. 54/2015). Category A+ (Annex I) is for projects expected to have very significant and irreversible impacts on biodiversity and/or social components. This category is specifically designed to address so-called 'megaprojects', although the EIA and related documents need only be analyzed by independent expert reviewers;
    - **Identification and assessment of the direct, indirect, cumulative and residual impacts** of the project (Article 11(2)), which requires the quantification of these impacts. Annex V of the Decree is particularly relevant in this context, as it identifies the 'Fatal Issues', or factors or areas that would automatically make it impossible for the project in question to be approved;
    - **Appropriate mitigation of environmental impacts:** Articles 9 and 12 relate to Environmental Impact Studies (EIS) and Simplified Environmental Studies (SES). The Decree states that both procedures must guarantee the adequate application of the impact Mitigation Hierarchy. This concept is detailed in the Decree's glossary, which explains that the impacts of development projects must be avoided and/or minimized; affected areas must be restored and, if significant negative residual impacts persist, biodiversity offsets must be applied;
    - **Drawing up of an Environmental Management Plan (EMP), this must be accompanied by a Biodiversity Offset Management Plan (BOMP) whenever there are significant negative residual impacts,** which must be developed as an integral part of the EIA (Article 11(2)). In the case of Category A+ projects, the renewal of the environmental license may be conditional on the submission of the BOMP (Article 22(7)). Once approved, the plans become part of the project's legal framework and their fulfilment becomes a mandatory requirement for the project developer. For example, if an environmental license stipulates that a biodiversity offset must be carried out, its implementation becomes mandatory for the development of the project, even if it is sold to another company;
    - Article 8(4) of the Directive states that, "**The terms and conditions for assessing and identifying the need to offset affected biodiversity will be governed by specific regulations"**. These guidelines constitute the technical bases of these specific regulations.
    - It should also be noted that the **ESIA system allows for a provisional environmental license to be issued** (for the purposes of financing a project), as well as **an installation environmental license and an operating environmental license** (dependent, for example, on the completion of a resettlement process, where necessary).

- **The Law on the Protection, Conservation and Sustainable Use of Biological Diversity** (Law no. 16/2014, of 20 June, amended and republished by Law no. 5/2017, of 11 May), under Article 11, no. 2, states that 'the public or private entity exploiting natural resources in a Conservation Area or its

3 This situation has been the subject of analysis in recent years, the environmental regulations for mining and oil operations requiring updating in accordance with new laws in those sectors as well as with Decree No. 54/2015, of 31 December.

buffer zone must compensate for their impacts to ensure there is no net loss of biodiversity'. Its regulation (Decree No 89/2017, of 29 December) defines how no net loss (NNL) should be achieved in Conservation Areas and their buffer zones in a variety of scenarios (environmentally- licensed projects, accidents, etc.). This legislation is complementary to the ESIA legislation and does not replace the application of biodiversity offsets.

- The **specific environmental regulations for the sectors of mining** (Decree No. 26/2004) and oil (Decree No. 56/2010) require the Environmental Impact Assessment of projects, as does the specific legislation for most other sectors of activity. The ESIA procedure follows Decree No. 54/2015, as explained above. The environmental license is issued by the MTA.
- In terms of **national policies and strategies**, the following should be emphasized:
    - The **Conservation Policy** (2009-2019) reinforces the specifications of the Environment Law, namely the principle of Environmental Responsibility, as well as adding some important aspects, for example:
      'The preservation, protection and management of the environment must prioritize the establishment of systems to prevent acts that are harmful to the environment...'; *'The requirement that those who damage biodiversity without the appropriate license should restore that damaged biodiversity and/or pay the costs of preventing and eliminating the damage they have caused.'*
    - **The National Strategy and Action Plan for the Conservation of Biological Diversity** (2015-2035) sets clear targets which emphasize the importance of making development compatible with biodiversity conservation, in the explicit context of the NNL system.
    - **The Strategic Plan for the National Administration of Conservation Areas** (2015-2024) aims to establish a national network of Conservation Areas which are managed by fully-trained teams, are economically and financially sustainable and contribute to an improvement in the living conditions of their local communities.
    - **The Government of Mozambique's Five-Year Plan** (PQG) 2020-2024 defines as its central objective the adoption of a more diversified and competitive economy, intensifying productive sectors that have the potential to increase income generation and create job opportunities, in particular for young people. One of the three priorities of the PQG is to strengthen the sustainable management of natural resources and the environment, as outlined in the National Sustainable Development Program. Objectives defined as part of this priority include: 'i) improving planning and territorial organization and strengthening the monitoring and evaluation of their implementation; ii) ensuring the conservation of ecosystems and biodiversity and the sustainable use of natural resources; iii) strengthening the capacity to assess and monitor environmental quality, especially in areas where development projects are being implemented; iv) reducing the vulnerability of communities, the economy and infrastructure to climate risks and natural and anthropogenic disasters; v) ensuring the transparency and sustainability of mineral and hydrocarbon extraction activities; and vi) strengthening monitoring and inspection capacity in areas where mining activities are taking place'.
    - **The National Development Strategy** (2015-2035) provides guidance for promoting development in the country.

The Government of Mozambique, together with its partners, has prioritized the creation of a legal framework for the implementation of the biodiversity mitigation and offsetting hierarchy in Mozambique, through the development of:

- **An Aggregated System of Biodiversity Offsets**: A Roadmap for Mozambique developed by the World Bank and published in 2016, this document defines the steps and activities required for the implementation of a system to ensure the country achieves No Net Loss of Biodiversity (or preferably a Net Gain) at project level.

- **The Environmental Guidelines for Mining Activities and Petroleum Operations (Onshore and Offshore) and Technical Capacity Building in Mozambique, developed under the Mining and Gas Technical Assistance Project (MAGTAP):** this document explains the EIA procedures and contacts for projects involving: i) large-scale mining; ii) artisanal and small-scale mining; iii) onshore oil and gas operations and iv) offshore oil and gas operations.
- **Ministerial Order no. 55/2022, of 19 May, on Biodiversity Offsets:** this document establishes the principles, methodologies, requirements and procedures for the correct implementation of biodiversity offsets as part of Environmental Impact Assessments (Directive no. 54/2015).
- **Ministerial Order no. 118/2022, of 21 November:** this document establishes procedures for the registration and operation of **independent expert reviewers (IER)** in the environmental impact assessment process for Category A+ activities, regulated by Decree 54/2015.

2.3.2 Institutional framework

The implementation of policies and laws relating to the environment and biodiversity sector is the responsibility of the **Ministry for Land and Environment (Ministério da Terra e Ambiente, MTA),** which has the mandate to co-ordinate environmental management and conservation, the sustainable use of natural resources and the management of Mozambique's Conservation Areas. The following institutions within this ministry are of particular importance in the context of the current document:

- **The National Directorate for the Environment (Direcção Nacional do Ambiente, DINAB)** oversees the implementation of Environmental Impact Assessment legislation, including the issuing and renewal of environmental licences, the co-ordination and implementation of relevant international conventions signed and ratified by Mozambique, including the Convention on Biological Diversity (CBD), and the implementation of the National Strategy and Action Plan for the Conservation of Biological Diversity;
- **The Biodiversity Offset Assessment and Monitoring Bureau (Repartição de Acompanhamento e Avaliação de Contrabalanços de Biodiversidade, RAACB)** of the Environmental Licensing Department was created specifically to deal with issues relating to biodiversity offsets and to ensure their implementation.
- **The Agency for Environmental Quality Control (Agência para o Controlo da Qualidade Ambiental, AQUA)** is responsible for the monitoring, inspection and compliance auditing of environmental licences, including of Environmental Management Plans (EMPs);
- **The National Administration for Conservation Areas (Administração Nacional das Áreas de Conservação, ANAC)** is responsible for the conservation of biodiversity and the sustainable development of ecotourism in Mozambique. Its main functions are the planning, co-ordination and execution of activities in Conservation Areas, in partnership with other organizations and local communities.
- **The National Forestry Directorate (DINAF)** is responsible for guaranteeing the protection, conservation, establishment, appreciation, promotion and sustainable use of the country's forestry heritage, in a transparent manner and for the economic, social and environmental benefit of current and future generations of Mozambicans.
- At the provincial level, the **Provincial Environmental Services and the AQUA Provincial Delegations** fulfil the MTA role in each province.

3 Outline of the structure of the Directive on Biodiversity Offsets (Ministerial Order 55/2022)

Ministerial Order nº. 55/2022 consists of the following 7 sections and annexes:

- **Section I - Introduction** (*p. 683-684*): outlines the definitions, object, scope and purpose of biodiversity offsets and related principles.
- **Section II - Material requirements** (*p. 684-686*), covers the characteristics of the biodiversity to be offset; the importance of biodiversity offsets not being replaced by compensations of a different nature (such as monetary); the types of activities involved in offsets; the duration of activities; the territorial approach to implementation and the relevant management models.
- **Section III - Management bodies** (*pp. 686-688*), outlines the competencies of the Environmental Impact Assessment Authority, the Technical Commission for Environmental Impact Assessment, the Technical-Scientific Support Unit for Biodiversity Offsets and the Provincial Environmental Services; the functions of the Biodiversity Offset Management Plan Monitoring Committee and the responsibilities of the project developer.
- **Section IV - Requirements** (*p. 688-690*), describes the minimum contents of the preliminary and final Biodiversity Offset Management Plans (BOMPs), with a model for their structure provided in an annexe to the Directive; the metrics or indices used to quantify biodiversity losses or gains and the five-yearly obligation to present a monitoring and evaluation plan, proof of funding and a financial guarantee.
- **Section V - Approval and registration of the offset** (*pp. 690-692*), covers the need for verification at all stages of the Environmental Impact Assessment and licence renewal process; the drawing up of the Biodiversity Offset Management Plan as an integral part of the environmental licence and a condition for its issue; the public consultations and assessments required for the issuing or renewal of the environmental licence and the registration of the Biodiversity Offset Management Plan and the environmental audits to assess biodiversity gains.
- **Section VI - Sanctions and infringements** (*p. 692*), describes the sanctions specified in the Regulations on the Environmental Impact Assessment Process (Decree nº. 54/2015, of 31 December) and the Regulations on the Environmental Audit Process (Decree nº. 25/2011, of 15 June) in the case of non-compliance with the Biodiversity Offset Management Plan.
- **Section VII - Transitional provisions** (*p. 692*) presents the deadline for submitting the Biodiversity Offset Management Plan for pre-approved projects (if necessary).
- **Annexes** (*p. 692-696*), present the definitions and structure of the final Biodiversity Offset Management Plan.

4 Interpretation of the Directive on Biodiversity Offsets (Ministerial Order nº. 55/2022)

This chapter details each section of Ministerial Order nº. 55/2022 and its respective chapters. These are interpreted in detail with the assistance of diagrams, illustrative images and, wherever possible, concrete examples from the Mozambican context.

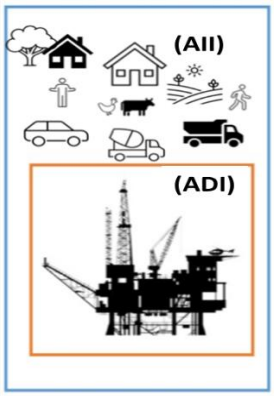
4.1 SECTION I - INTRODUCTION (Pages 683-684 of Ministerial Order nº. 55/2022)

In accordance with the Ministerial Order on the Directive on Biodiversity Offsets, this section presents and explains the articles relating to the key definitions, object, scope, purpose and key principles of biodiversity offsets.

4.1.1 Chapter 1. Definitions

All the concepts that guide the implementation of the Ministerial Order on the Directive on Biodiversity Offsets can be found in Annex A. Glossary and definitions of this document, as well as in the glossary of the Directive itself (page 692). Several of these concepts, fundamental to the correct interpretation of the Directive on Biodiversity Offsets, are explained in detail below. These include Area of Influence (AoI), Mitigation Hierarchy (MH), No Net Loss (NNL) and Net Gain (NG).

- **Area of Influence:** this is defined as the geographical space susceptible to alterations (physical, biophysical and/or socio-economic) as a result of the environmental impacts of an activity or project. It can be sub-classified as an **Area of Direct Influence (ADI)** or an **Area of Indirect Influence (AII)** (Figure 1).



- **Area of Direct Influence (ADI):** Area subject to direct impacts on biodiversity that can be attributed to project activities, the delimitation of which is determined by the physical, biotic and socio-economic characteristics of the ecosystems, as well as the characteristics of the project.
- **Area of Indirect Influence (IIA):** Area subject to indirect or secondary impacts resulting from changes in the area of direct influence of the project. Typically falls outside the immediate boundaries of the project (e.g. human settlements established or expanded as a result of the project's presence).

Figure 1. Schematic representation of an Area of Influence

- **Mitigation Hierarchy**

According to Mozambican legislation, specifically Decree nº. 54/2015, of 31 December, the Mitigation Hierarchy defines the order of importance of impact mitigation measures. These measures follow the principles of **avoidance, minimisation, rehabilitation, restoration and offsetting**.

The Directive on Biodiversity Offsets (Ministerial Order No. 55/2022) and Decree No. 89/2017, of 29 December, on the regulation of the Biodiversity Conservation Law, define the term more precisely, describing the Mitigation Hierarchy as **'a process that works in stages to reduce the impacts of a given activity on the environment'** (see the diagram in Figure 4).

The Mitigation Hierarchy is based on the principle that **avoiding impacts is the best solution**, namely that measures should be implemented from the planning stage of a development project that aim to prevent impacts on biodiversity from the outset. Ideally, the avoidance principle should be adopted even **before the project is designed**, i.e. during **territorial planning.** At this stage, the types or values of biodiversity that the country does not wish to be impacted are defined according to their importance for both the environmental sustainability of the territory and the achievement of the national targets set (Box 1). **Potentially damaging activities should thus be avoided in areas that are important for biodiversity, in order to reduce the**

likelihood of these areas suffering irreversible impacts. AVOIDANCE is always the easiest, cheapest and most effective way of preventing potential negative impacts on the environment.

The avoidance principle also encompasses **socio-economic and cultural values**, which should be taken into account when following the Mitigation Hierarchy.

Box 1. Avoidance/prevention of negative impacts

To **avoid negative impacts**, it is essential to interrogate the project plan in terms of (i) Opportunity: *is the project really necessary?* (ii) Geography: *can the project be implemented in another region?* (iii) Specific location: *can the project be located elsewhere?*

When implementing development projects, if unavoidable impacts are still present, **minimisation should be employed**, as far as is practically feasible, in the form of the application of control measures to **reduce the intensity, duration and/or magnitude** of any impacts that cannot be completely avoided (which may include direct, indirect and/or cumulative impacts) (Figure 2, Figure 3 and Box 2).

Box 2. Minimising negative impacts

In order to **minimise negative impacts**, it is essential to interrogate the project plan in terms of (i) Spatiality: *can the elements of the project be organised differently in space?* (ii) Temporality: *can the project be phased differently?* (iii) Technique: *can the project be designed differently (materials, technology, maintenance, operations, etc.)?*

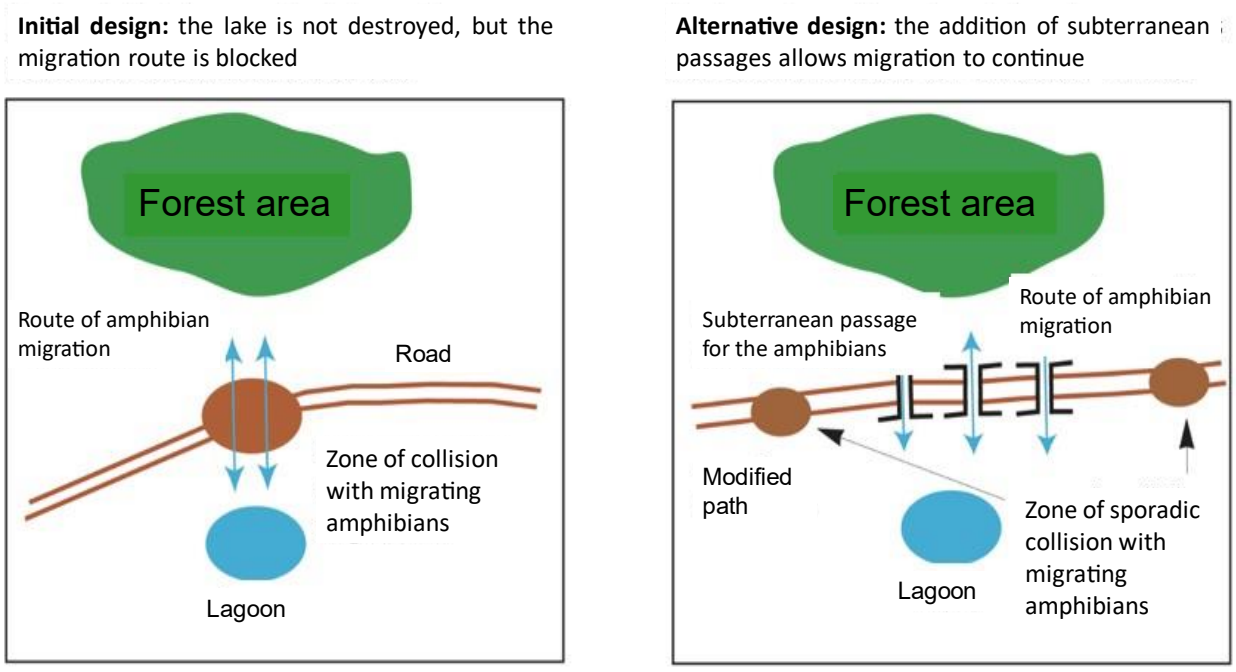


Figure 2. Example of the application of a measure to minimise negative impacts on biodiversity. In the example shown, the project is a road that is to be built between a lagoon and a forest area where an endangered species of migratory amphibian is found. In the initial design, the amphibians migrate across the road, where they are at risk of being run over by vehicles, negatively impacting their population. In the alternative design, the method of minimising the impact (the running over of migratory amphibians) is the building of underpasses. These allow the amphibians to migrate between the lagoon and the forest area by travelling safely beneath the road.

Figure 3. Placement of speed bumps and speed limit signs on the Maputo National Park road, as a measure to minimise possible collisions between vehicles and medium or large wild animals, which can result in serious road accidents and the deaths of both people and animals (Credit: Idnórcio Muchanga).

If **prevention and minimisation** measures are not sufficient to curtail the environmental impacts of the project, **additional remedial measures should be implemented in the affected areas**, such as **ecological restoration or rehabilitation**[4] (see Box 3).

Box 3. Ecological restoration

Restoration should be based on evidence of **'what works'** for a particular system or species (for example, from field trials or previous research).
Common restoration activities include:

- Collecting and storing topsoil from cleared areas and using it to restore areas occupied by temporary roads or other areas impacted by (short-term) projects that are no longer needed (e.g. construction sites or areas of borrowed land);
- Preparing areas disrupted by projects for sowing/replanting with seedlings of the appropriate species and during the appropriate season;
- Invasive species control measures (e.g. where exotic plant species have occupied the project area or there is a risk of this occurring);

Note: *The term 'restoration' is also used in the context of biodiversity offsets: in this case it refers to the concrete realisation of conservation activities aimed at improving the biodiversity targeted by the offset, i.e. the final step in the Mitigation Hierarchy (detailed later in this document).*

4 **Restoration** aims to recreate the original ecosystem or habitat that existed before the impact occurred, while **rehabilitation** aims to restore some ecological features aspects of the ecosystem.

Finally, if unavoidable and significant negative **residual impacts**[5] persist, as is often the case, biodiversity offsets should be **designed and implemented as a way of counteracting these impacts**.

It is the responsibility of the project developer to demonstrate to the environmental authorities that the steps described above have been properly implemented, in order for them to verify compliance with Articles 9, 12 and Annexe V of Decree nº. 54/2015.

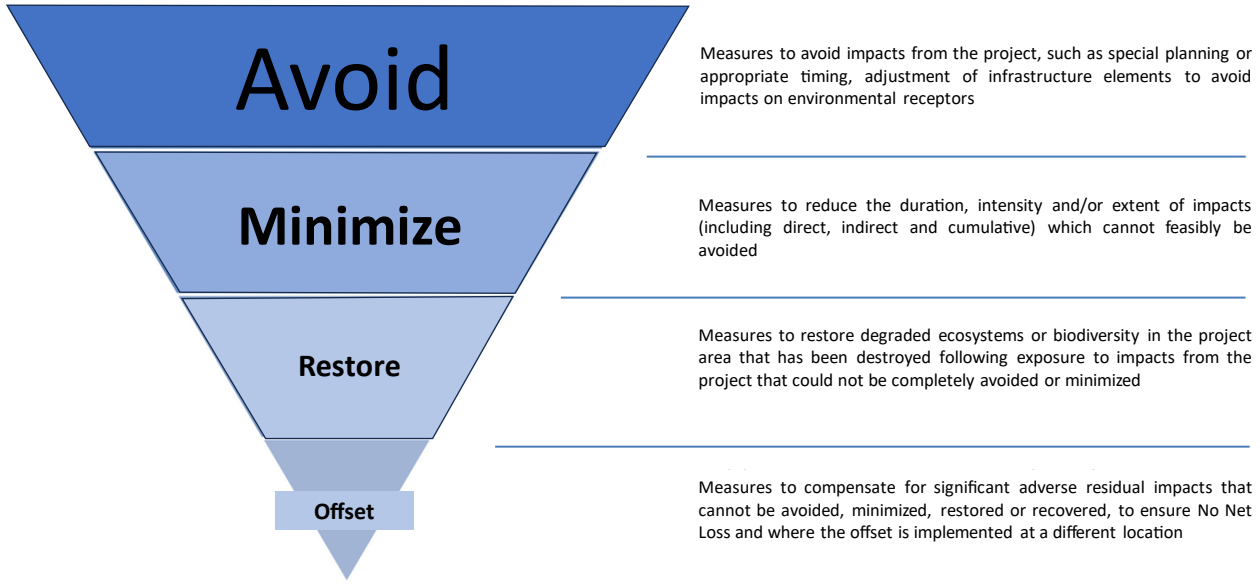


Figure 4. Summary of the steps in the Mitigation Hierarchy (adapted from BBOP, 2012).

A practical example of the application of the Mitigation Hierarchy can be found in the Portucel Mozambique case study produced as part of the COMBO+ program, available at: https://sibmoz.gov.mz/content//uploads/2022/12/portucel-report-EN-all-LR-25-jan.pdf.
Portucel Mozambique is one of the largest forestry investment projects in Mozambique. In this case study, the company demonstrates how it has applied the steps of the Mitigation Hierarchy in its areas of operation to achieve No Net Loss of Biodiversity.

- **No Net Loss and Net Gain of Biodiversity**

The concept of No Net Loss (NNL) is complex and can often lead to confusion[6]. In simplified terms, it refers to the achievement of a final result in which, following the application of the steps of the impact Mitigation Hierarchy, the biodiversity losses considered most significant have been offset by the conservation gains generated.
In the context of the Directive on Biodiversity Offsets, achieving **NNL** implies **the assumption that some important biodiversity will be lost** due to the development of a project in a particular place at a particular time, but that **equivalent biodiversity, equal to or greater than that which existed before the implementation of the project and the offset, in both quantity and quality, will be gained in another place.**

5 **Residual impacts** are those impacts that remain **AFTER** the implementation of prevention, minimisation and rehabilitation and/or restoration measures. The purpose of offsets or offsetting is to address residual impacts.

6 According to Ministerial Order No. 55/2022, No Net Loss of Biodiversity means that the losses in representative values of the most important biodiversity are cancelled out by the quantitative and qualitative conservation gains generated through the implementation of offsetting projects. This should follow the application of the respective stages of the impact Mitigation Hierarchy and should consider the condition of biodiversity at the project site and the offset together immediately before the project's impacts begin.

A **Net Gain (NG)** of biodiversity is considered to have occurred **when the gains resulting from the proper implementation of the Mitigation Hierarchy have exceeded the losses** (see Figure 5).

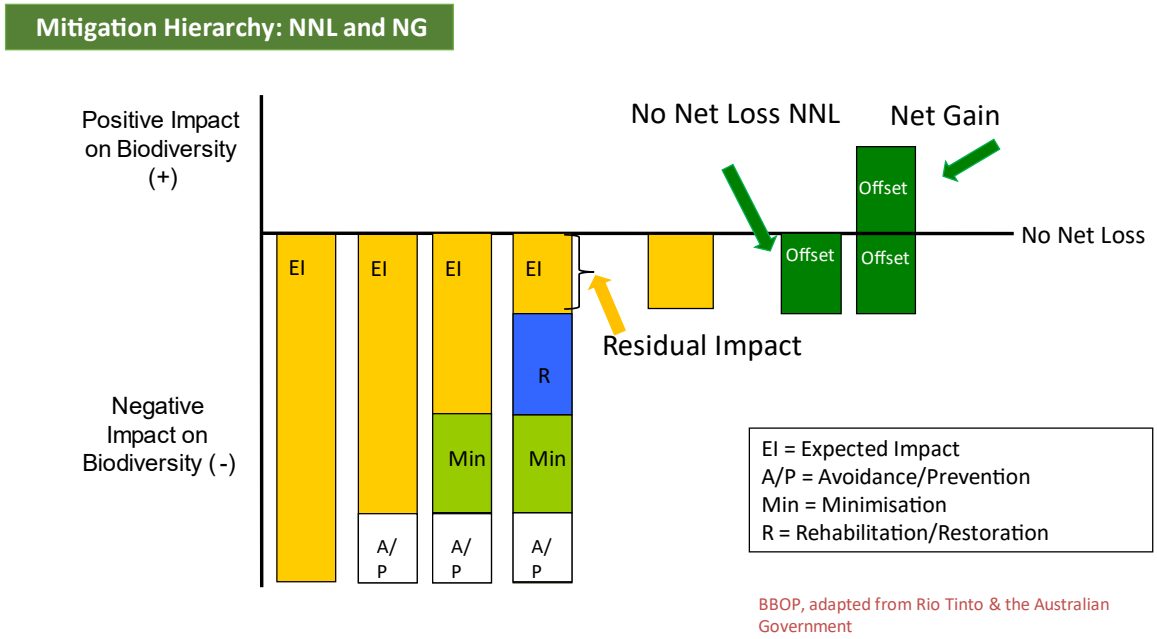


Figure 5. The predicted impacts of a development project on biodiversity must be balanced or exceeded by the measures taken to avoid and minimise the project's impacts, to carry out on-site restoration and to offset residual impacts. When the gain exceeds the loss, the term 'Net Gain (NG)' may be used in place of No Net Loss (NNL). Financial compensation should not be used in place of offsetting: this is rarely able to balance or exceed the biodiversity loss caused by development projects, as it allows residual impacts to remain.

A simplified explanation of the concept and application of the Mitigation Hierarchy, including Biodiversity Offsets in a Mozambican context, can be found in the explanatory video available at the following link: https://youtu.be/LNXeS57VB0E.

- **Biodiversity offsets**

National legislation (Ministerial Order no. 55/2022 and Decree no. 89/2017), as well as international good practice (Business and Biodiversity Offset Program - BBOP - and Performance Standard 6 of the International Finance Corporation - IFC), defines biodiversity offsets as **measurable conservation results stemming from actions designed to offset significant residual adverse impacts on biodiversity resulting from the development of an activity or project, after appropriate measures have been taken to avoid and minimise these impacts and to restore affected areas.** The aim of biodiversity offsetting is to achieve No Net Loss (NNL) and preferably a Net Gain (NG). Offsetting can be implemented through a single project or a group of projects aimed at achieving conservation gains on the ground. It is not a simple financial payment (see Box 4). Discussion of biodiversity offsets therefore refers to the **offsetting of unavoidable and significant but acceptable residual negative impacts on the types of biodiversity in question, provided the applicant of the project in question has already fully implemented all steps of the Mitigation Hierarchy.** Adequate compliance with the Mitigation Hierarchy is therefore a mandatory requirement (set out in Ministerial Order nº. 55/2022 and Decree nº. 54/2015) for the design and implementation of a project to offset significant residual negative impacts that are unavoidable but acceptable.

Box 4. Biodiversity offsets versus environmental compensation

Biodiversity offsets are not financial payments made to support ongoing or planned conservation actions or the management of Conservation Areas. They are concrete conservation actions on the ground, which must necessarily result in measurable conservation gains that specifically offset the significant negative residual impacts on biodiversity of a given project.

Environmental compensation is a monetary reward for some environmental loss, damage or service, and may correspond to payment for its use, improvement, repair or replacement.

WHAT IS IT?	COMPENSATION	OFFSET
Objective	Financial: Fee payment (%)	Produce measurable conservation results
Calculation of the amount payable vs impact	Not directly associated with impacts on biodiversity	Closely linked to real impacts on biodiversity; not everything can be offset
Result	The money raised is used for general sector priorities	They must result in concrete improvements to biodiversity, in addition to what already exists
Benefit type	Punctual Local	Long-term (permanent) Framed in the landscape
Easy implementation	Relatively easy to apply	It requires an implementation mechanism
Modality in Mozambique	Intended for application within CAs and their Buffer Zone: Conservation Law Regulation (Decree 89/2017)	Provided for any type of A+/A project that causes residual impacts on biodiversity after an adequate mitigation strategy has been applied: EIA Regulation (54/2015; Ministerial Order 55/2022)
Current application	ANAC is applying (Decree 89/2017)	DINAB is applying (Ministerial Order 55/2022)

4.1.2 Chapter 2. Object

As described in Chapter 2 of Section I of the Directive, the Directive on Biodiversity Offsets establishes principles, methodologies, requirements and procedures for the correct implementation of biodiversity offsets as part of Environmental Impact Assessment processes. **This necessarily involves the application of the Mitigation Hierarchy** (see definitions section, page 9).

4.1.3 Chapter 3. Scope

As described in Chapter 3 of Section I of the Directive, the Directive on Biodiversity Offsets applies to all national and international public and private entities registered in Mozambique and implementing projects that have the potential to generate impacts on national territory and waters under national jurisdiction, and to all sectors of activity subject to Environmental Impact Assessment.

It should be noted, however, that **this Directive only applies to projects categorised as A+** or **A according to Decree nº. 54/2015**. Projects categorised as **B** (See Annex III - Simplified Environmental Study) or **C** (See Annex IV - Environmental Management Plan) do not require a Biodiversity Offset Management Plan. Due to their intrinsic characteristics, type B and C projects are not considered likely to cause significant negative residual impacts on biodiversity, and it is therefore assumed that the screening carried out according to the criteria described in the respective annexes will be sufficient.

However, for this condition to be met, **it is essential that projects are properly categorised, as defined by Decree nº. 54/2015**. The necessary internal procedures should be followed by the Provincial Environmental

Services (Serviços Provinciais do Ambiente, SPA) and the National Environmental Directorate to ensure the categorisation of projects is carried out correctly and makes use of uniform criteria across provinces. The decision-making process shown below in Figure 6 reflects the definition in Decree nº. 54/2015.

For Category A+ and A projects, which require the preparation of a full Environmental Impact Assessment, as stipulated in Article 11(2)(o) of Decree nº. 54/2015, the Environmental Assessment Department of DINAB will issue an environmental installation licence[7] only following receipt of a preliminary Biodiversity Offset Management Plan (BOMP)[8] for projects in which significant negative residual impacts persist but are acceptable following application of all steps of the Mitigation Hierarchy (avoidance, minimisation and restoration), as explained below. The applicant should therefore be aware that their Environmental Impact Assessment Report (EIAR) must demonstrate the appropriate application of the Mitigation Hierarchy and identify an initial estimate of residual impacts. The final BOMP should contain all the details of the offset and will condition the issue of the environmental operating licence. The following chapters explain how the BOMP should be developed.

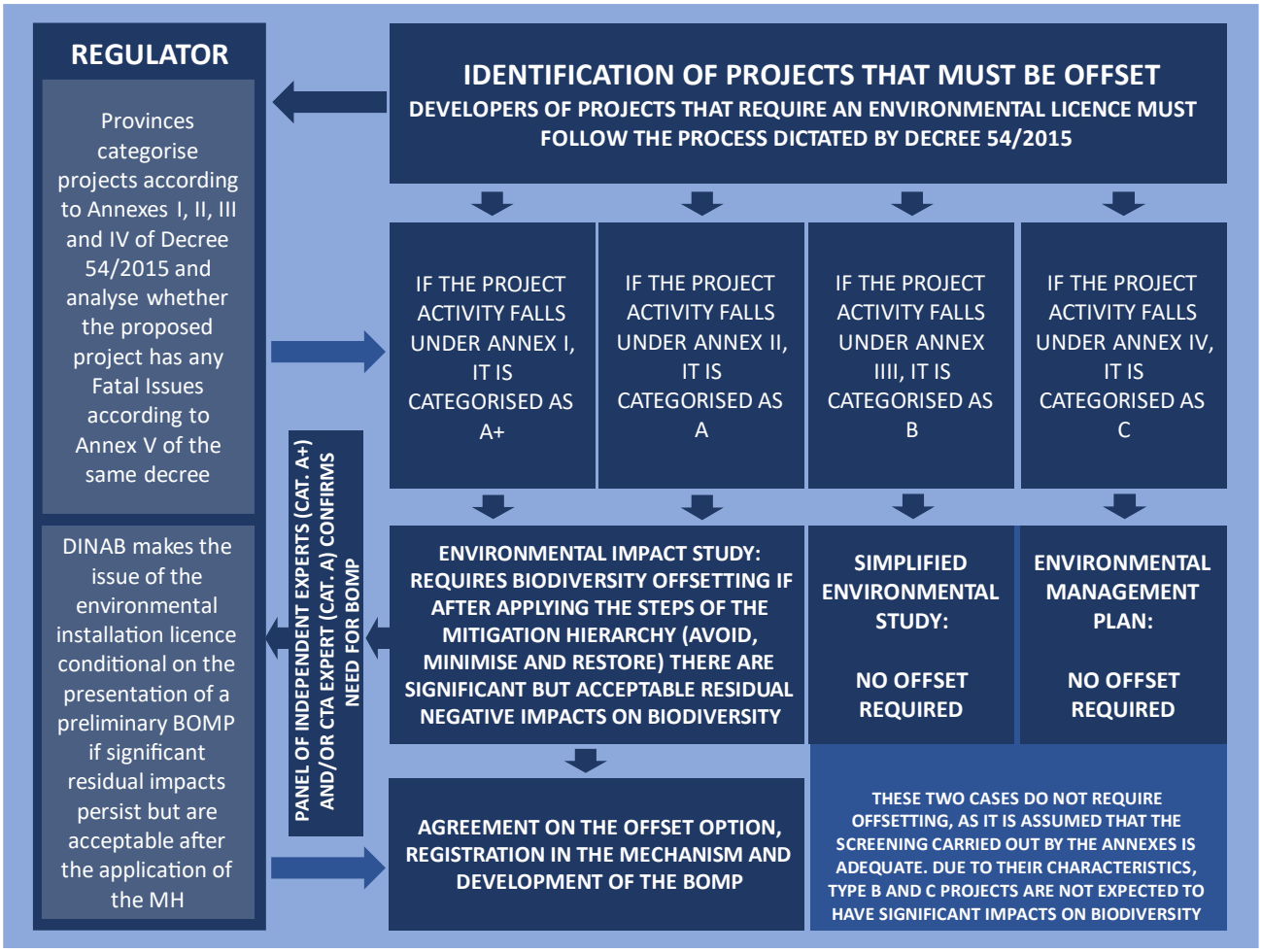


Figure 6. Flowchart of the types of projects that should develop a Biodiversity Offset Management Plan (BOMP)

4.1.4 Chapter 4. Purpose of biodiversity offsets

The purpose of offsets is addressed in Chapter 4 of Section I of Ministerial Order nº. 55/2022. **Point 1** of the chapter states that biodiversity offsets should achieve either No Net Loss (NNL) or a Net Gain (NG) of

7 According to Article 20 of Decree No. 54/2015, the environmental licensing process consists of three stages, covering provisional (optional), installation and operating environmental licences.

8 As explained below, the preliminary Biodiversity Offset Management Plan is expected to identify and estimate the expected residual impacts. It is not required to present all the detail of the design and implementation of the offset.

biodiversity and should consider the condition of biodiversity at the project site and the offset together immediately before the project's impacts begin.
It is important to remember, however, that some impacts on biodiversity cannot be reversed, and that certain ecosystems, species or places of cultural significance, once lost, cannot be restored (Annex V of Decree nº. 54/2015). Projects must therefore be designed to avoid areas in which biodiversity cannot be offset (this is discussed in further detail in the section on principles below).

As explained in **point 2** of the same chapter, biodiversity offsets must be designed to achieve **Net Gain** whenever any significant negative residual impacts occur in the project's area of direct or indirect influence in relation to:

a) **Key biodiversity areas**, provided these do not meet the requirements to be considered **Fatal Issues** according to Environmental Impact Assessment Regulations [9];
b) **Critical habitats**, according to the criteria of the **International Finance Corporation (IFC)** or **High Conservation Value Areas**, according to the **Forest Stewardship Council (FSC)**;
c) Any **threatened species or ecosystems**.

A **Net Biodiversity Gain** is defined as a gain that improves on the result of No Net Loss by at least **15%**, as described in **point 3** of the same chapter.
This definition acknowledges that during the implementation of an offset project, the calculation of losses and gains can produce errors (standard deviation), that losses usually occur during the process, and that results can take a long time to appear. The 15% rule, which aligns with international best practice, is intended to provide a minimum guarantee that a Net Gain will actually be achieved.
Point 4 of the same chapter states that biodiversity offsets must be designed to achieve at least **No Net Loss** whenever any significant negative residual impacts of the project in its area of direct or indirect influence occur to the specific types of biodiversity listed in the Directive (such as Miombo Forest) (Figure 7).

In the last point of the chapter (point 5), the Directive states that the conservation outcomes for achieving No Net Loss or Net Gain of biodiversity through an offset project can be achieved either **before or after** the **implementation of the project** or **activity**.

Box 5. Why is starting earlier with offset projects advantageous?

Although the Directive leaves this open-ended, international good practice recommends starting offset projects **before the implementation of the development project itself**. This is principally because the results of offsetting take a long time to appear, so starting activities as early as possible confers an advantage. Starting the offset project before the development project also reduces the risk that the applicant will not continue with the offsetting once their project or activity has been implemented.

9 It is important to note that while KBAs should be avoided wherever possible, they may not meet the criteria for Fatal Issues identified in Annex V of Decree nº. 54/2015. If they are affected, it is essential that, in addition to the criteria set out in Decree No. 55/2022, the good practice guidelines in the following document are observed: *The KBA Partnership (2021) Guidelines on Business and KBAs: Managing Risks to Biodiversity. Gland, Switzerland: IUCN.*

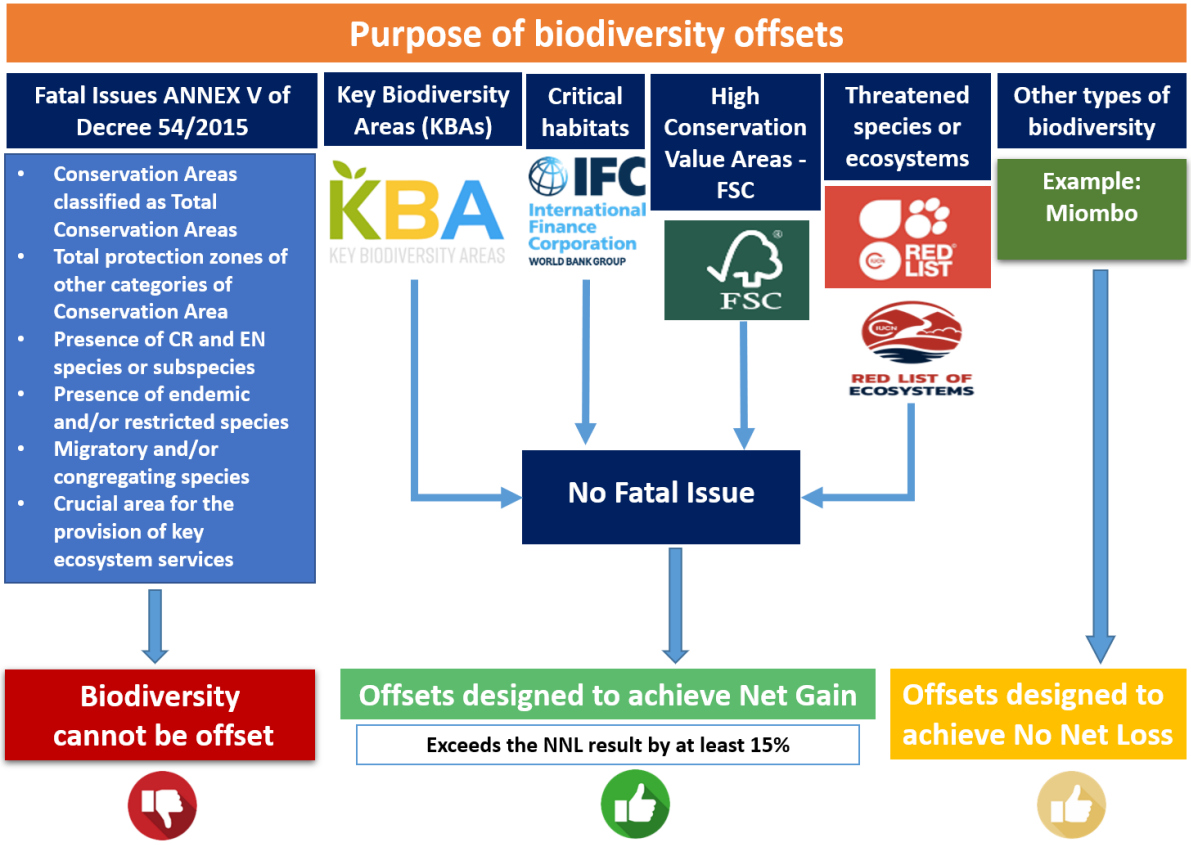


Figure 7. Aim of the offset for different types of biodiversity

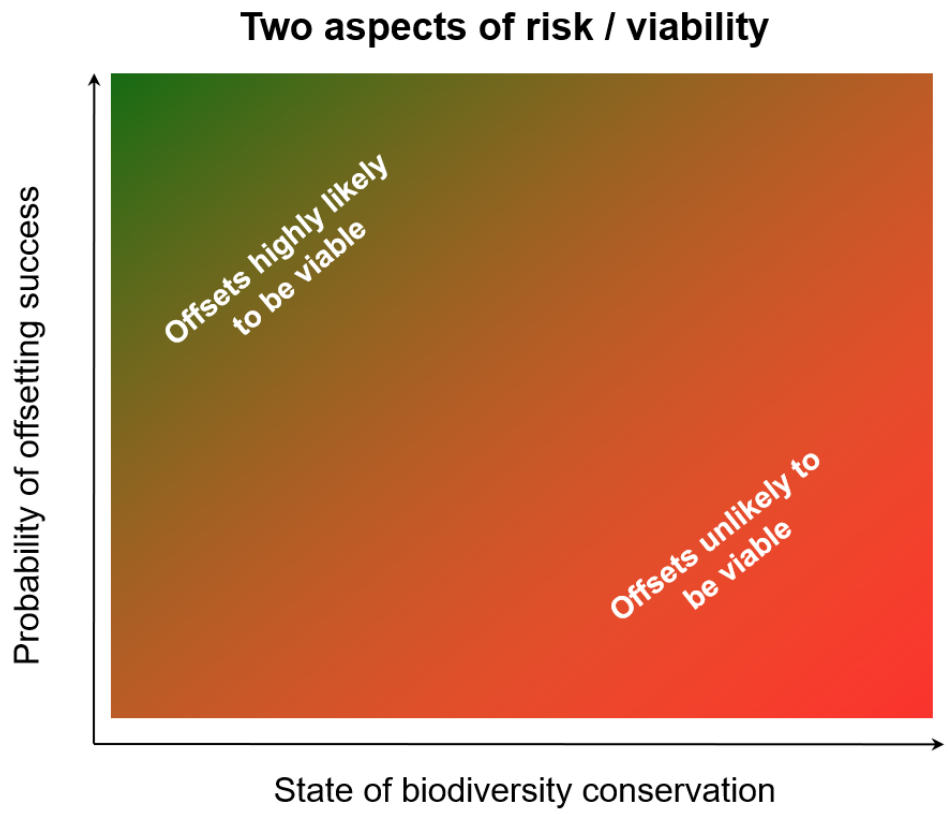
4.1.5 Chapter 5. Principles

Chapter 5 of Section I of Ministerial Order nº. 55/2022 lists the principles that should be considered by the Environmental Impact Assessment Authority when making decisions regarding biodiversity offsets, without prejudice to those already established by specific legislation on environmental management and the protection of biodiversity, forest and ecological heritage. The essential principles governing the Directive are as follows:

a) ***Non-offsettable values***[10]*: NO project or activity should be approved that is considered a Fatal Issue or that, due to its location, could have significant negative impacts on non-offsettable biodiversity;*

It is important to note that there are limits to what can be offset. Some biodiversity is irreplaceable and some damage may be irreversible, meaning **no offset can compensate for its loss** (see Figure 8 and Box 6). This type of biodiversity is identified in Mozambican legislation as being non-offsettable (or a **Fatal Issue**). In these cases, development activities with the potential to cause significant negative impacts **will not be authorized**.

10 For additional information on the treatment of potential 'non-offsettable impacts', see the following case studies:
→ BBOP (2012) Resource Paper: Limits to What Can Be Offset. https://www.forest-trends.org/bbop/resources/
→ Pilgrim et al. (2012) A process for assessing the offsetability of biodiversity impacts https://doi.org/10.1111/conl.12002



See BBOP (2012) Limits paper and Pilgrim *et al.* (2013)

Figure 8. For impacts on irreplaceable biodiversity that is found in only a small number of places and on highly threatened biodiversity, offsets are unlikely to be feasible, as the chances of their success are low.

Box 6. An example of non-offsettable biodiversity in Mozambique

Memecylon incisilobum (CR) is a species first discovered in 2009 in a single area of forest in the Bilene region of southern Mozambique. It covers an area of less than 4 km2 and consists of no more than 250 mature individual plants. The species is considered critically endangered (CR). Increasing demand for wood for charcoal and land for agriculture has resulted in the loss of 20% of the forest in the last five years. It is considered highly likely that growth of the human population in the surrounding area will deplete the single known location for this species in a short space of time (± 20 years).

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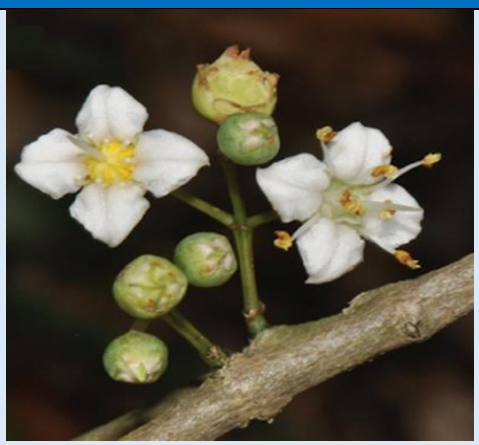


b) ***Fatal Issues:*** *developers of offset projects* ***must ensure that areas or biodiversity considered to be Fatal Issues according to the applicable legislation are respected****, by designing and implementing activities in order to* ***avoid them*** (Figure 9 and Figure 10);

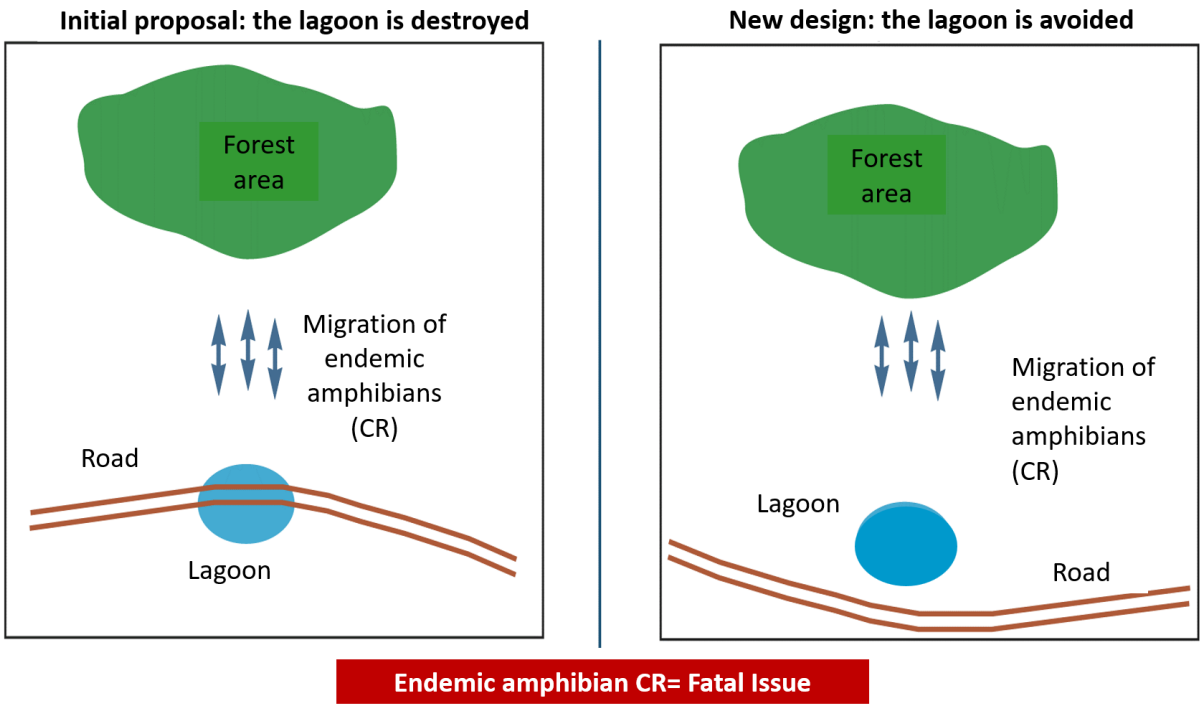


Figure 9. The example above shows that in the initial project design the road traverses a lagoon, potentially resulting in its degradation. The lagoon is a key habitat in the early life cycle of an endemic and critically endangered (CR) amphibian species found nowhere else in the world (Fatal Issue). The construction of the road on this site could significantly impact the total global population of this species, even leading to its extinction. The new road design aims to avoid fatal impacts on this endemic and critically endangered species by avoiding the lagoon.

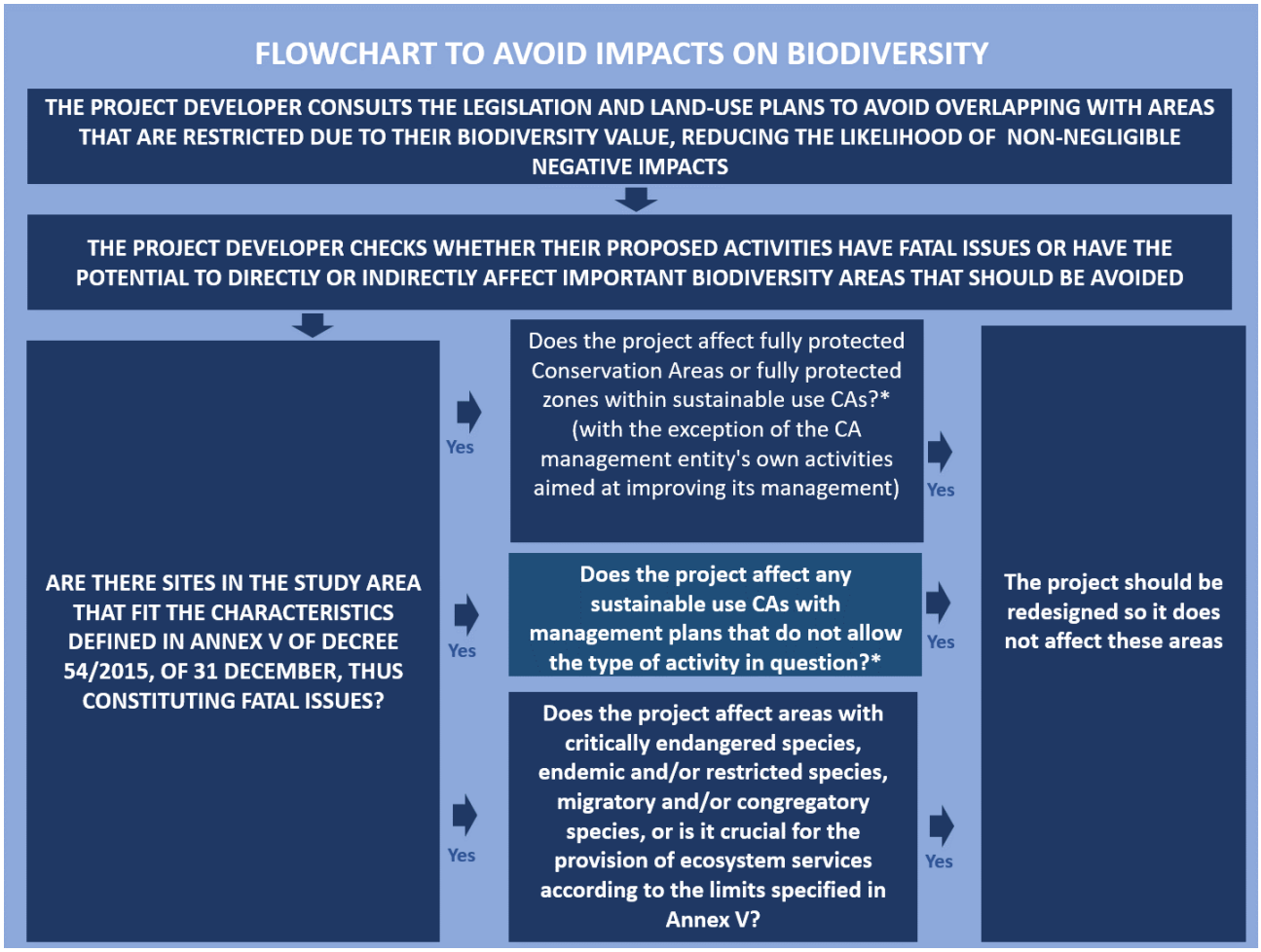


Figure 10. Flow chart for avoiding impacts on biodiversity (Fatal Issues according to Annexe V of Decree No. 54/2015, of 31 December). * Note: If the answer to any of the questions is 'no', an analysis of the impact of the project on biodiversity should still be performed. If, following application of the minimisation and restoration steps, significant negative residual impacts remain, a Biodiversity Offset Management Plan should be developed which enables, as a minimum, No Net Loss to be achieved, as explained in the guidelines.

c) ***Mitigation Hierarchy:*** *The Mitigation Hierarchy must be properly implemented such that the offset is a commitment to achieving* ***No Net Loss or Net Gain*** *in relation to any significant residual adverse impacts on biodiversity identified after the implementation of appropriate avoidance, impact minimisation and restoration measures* (see Figure 11 and Figure 12).

Figure 11. Stages of the Mitigation Hierarchy. Note: The design and implementation of biodiversity offsets in Mozambique is regulated by Decree nº. 54/2015 and Ministerial Order nº. 55/2022.

Box 7. The hierarchical approach
The hierarchical approach must be applied from the beginning of the EIA. The proposed measures must be based on proven scientific knowledge (in order to guarantee their effectiveness).

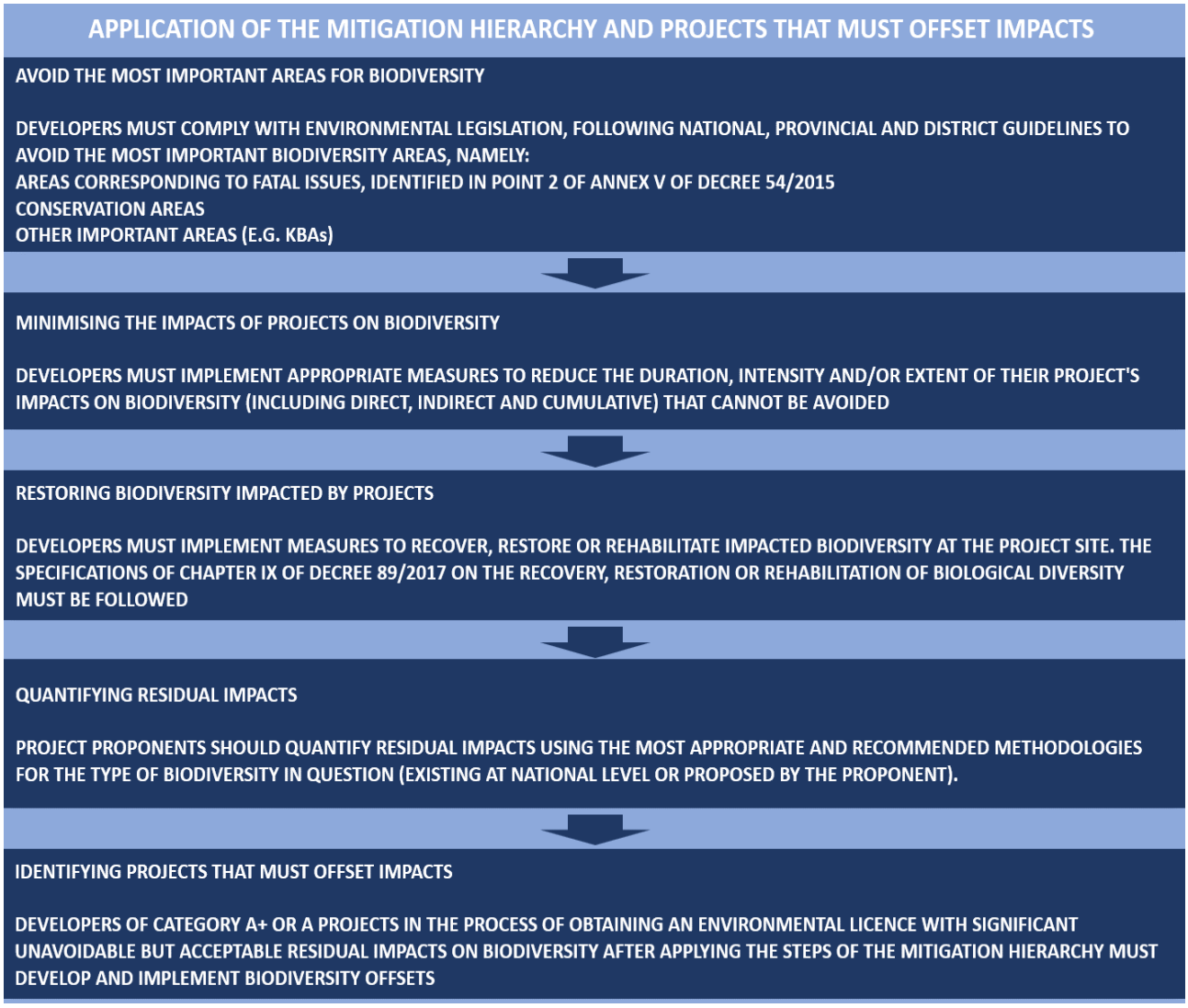


Figure 12. Application of the Mitigation Hierarchy and projects that must be offset.

d) ***Subsidiarity:*** *Offset management plans can only be approved on the basis of what has been established by the environmental management plan (including the appropriate measures for prevention, minimisation and recovery, restoration or rehabilitation of damaged biodiversity)* (Figure 13).

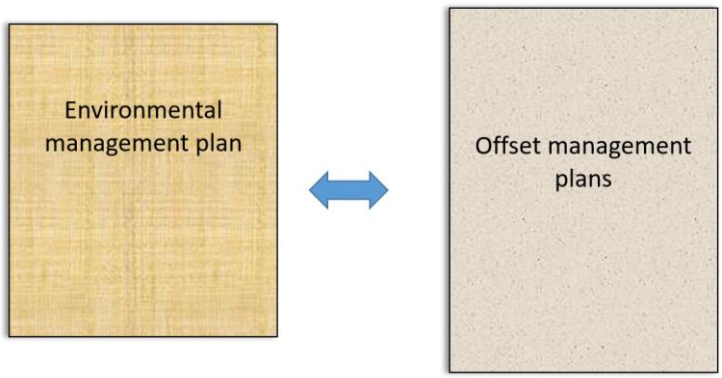


Figure 13. Subsidiarity between the Biodiversity Offset Management Plan and the Environmental Management Plan

e) ***Net gain or No Net Loss:*** *The offset should be planned and implemented with the aim of achieving tangible and measurable conservation outcomes on the ground, resulting in No Net Loss and preferably a Net Gain of biodiversity relative to the condition of biodiversity at the project site and the offset sites. These should be considered together immediately prior to the start of the project's impacts* (as explained in Definitions: Chapter 1, Section 1);

In order to achieve tangible and measurable results on the ground, **continuous monitoring** should take place of actions implemented and results obtained, in order to assess actual achievements against objectives.

It is essential that results are measured in both the impacted area and the offset area, both before and after the impact has taken place (Figure 14).

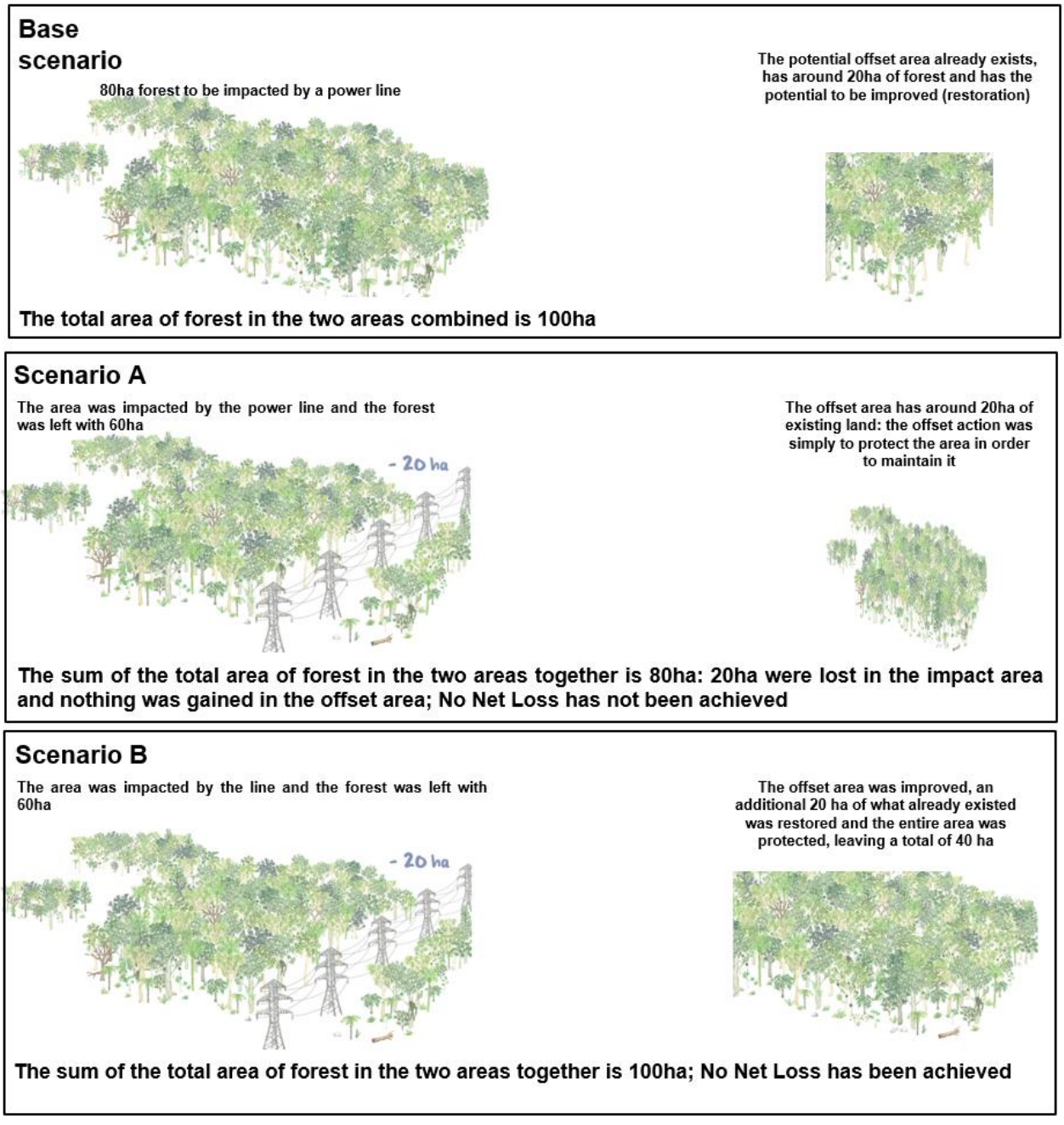


Figure 14. Practical example of the principle of Net Gain or No Net Loss, in accordance with Ministerial Order 55/2022

f) ***Equivalence:*** *The type, value, function and extent of the conservation activities proposed for the offset must be* ***equivalent*** *to or* ***greater than*** *the damage caused, benefiting the same types of biodiversity that are or will be affected, in order to maintain the balance of habitats and ecosystems.* The offset activity must therefore be aimed at the same type of species, habitat or ecosystem as that affected by the project (see Figure 15). **If this is not possible, a biodiversity value considered higher than the one impacted must be selected**. For example, if the impact is registered on important biodiversity classified as Near Threatened (NT), the offset must be carried out either for the benefit of the same type of biodiversity or for another type of biodiversity which has a higher threat category (e.g. Vulnerable-VU, Endangered-EN or Critically Endangered-CR). The same logic is used for successive categories, with the important proviso that not all biodiversity will be offsettable, as explained in principle a) (see Figure 16).

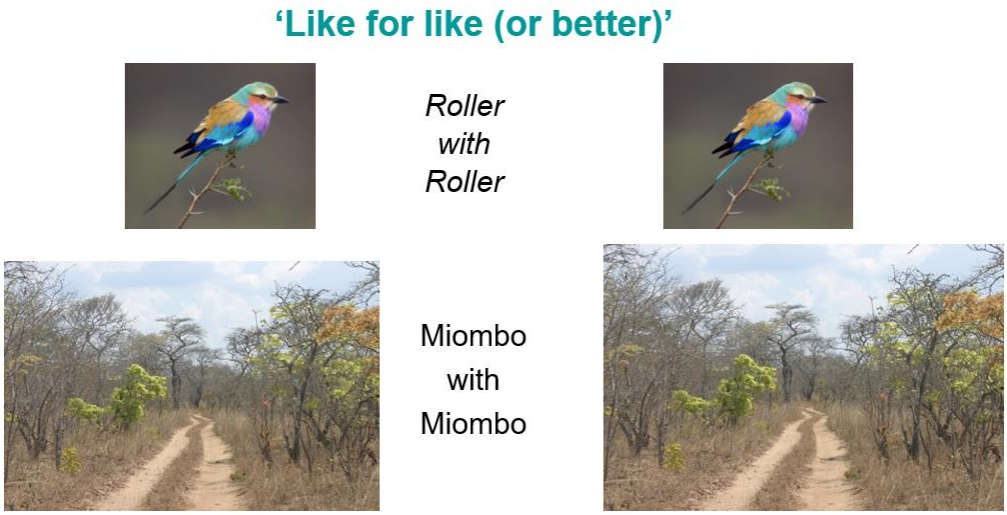


Figure 15. Equivalence of the biodiversity value to be offset

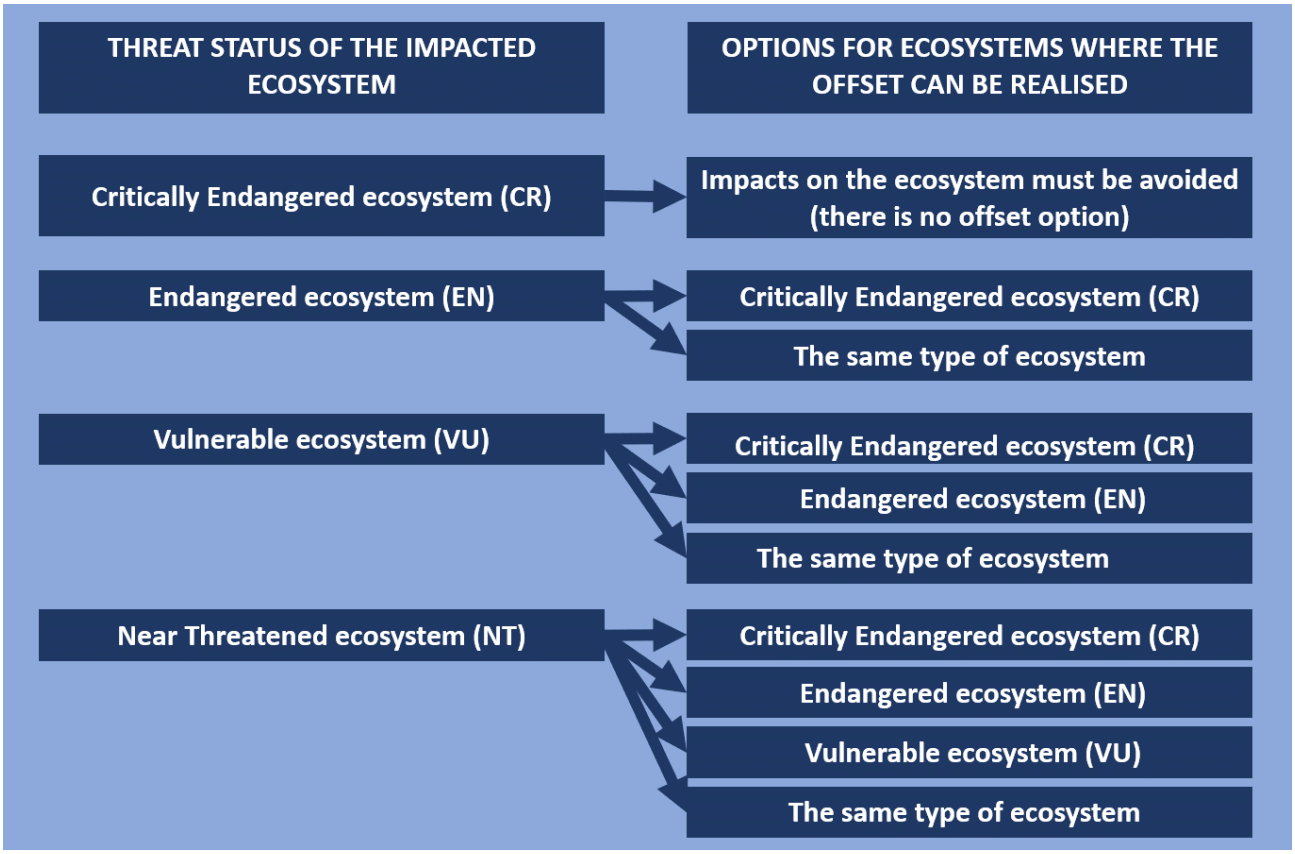


Figure 16. Example of exchange rules applicable to ecosystems according to their threat status

g) ***Permanence:*** *Biodiversity offsets must ensure the permanence of the results achieved. They should achieve this through the use of a management approach that is adapted to the context and includes monitoring and evaluation actions aimed at guaranteeing permanent results or, at the very least, results that have the same duration as the impacts of the project or activity in question;*

This means that project developers must ensure the permanence of the results achieved through offsetting at least for the duration of the period in which the residual impact persists. This requires a long-term implementation and monitoring plan with the corresponding financial guarantees (Figure 17).

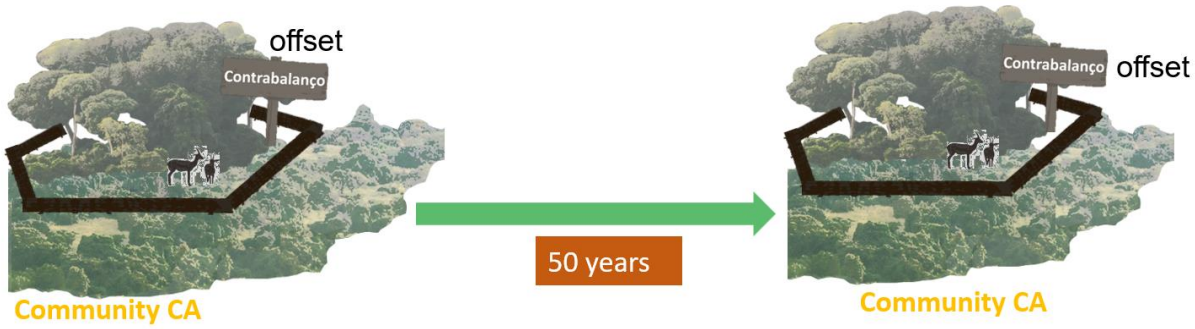


Figure 17. The example above shows an offset that consisted of the establishment of a community Conservation Area. After 50 years the results generated by the offset have been maintained.

h) ***Landscape context:*** *The offset should preferably be planned to fit into the* ***landscape context*** *of the area identified for its implementation, thereby promoting a* ***holistic approach*** *and maximising knowledge of the biological, ecological, social and cultural value already present in the region and its surroundings;*

Box 8. Co-ordination between offset projects
In order for the offset to fit into the **landscape context**, it is essential that it is co-ordinated with other offsetting projects. The overall aim is for all projects to contribute to the national biodiversity targets, with reference to the country's needs and priorities as described in principle 1.

i) ***Participation:*** *The planning and implementation of biodiversity offset programmes, as well as the monitoring of their activity and impact, must take a participatory and inclusive form: there should be involvement from both stakeholders affected by the development project and those with a potential interest in the implementation of the offset. Steps must be taken before its implementation to ensure that communities benefit from the offset and are not disadvantaged;*

The implementation of offset projects can also harm communities, for example when the expansion of a Conservation Area to achieve NNL/NG prevents local people from collecting key resources such as timber, medicinal plants and other products on which they depend for their livelihoods. Consideration is therefore urged of the principles outlined in the guide *'Ensuring no net loss to people as well as communities'*.[11] The guide is based on international best practice in the achievement of NNL/NG of biodiversity while simultaneously ensuring that affected populations are 'no worse off and preferably better off than they were before the projects were implemented' (Figure 18).

Figure 18. Cover of the guide 'Ensuring No Net Loss for people and biodiversity: good practice principles'. (Bull, J.W., Baker, J., Griffiths, V.F, Jones, J.P.G., and Milner-Gulland, E.J., (2018). Oxford, UK. DOI: 10.31235/osf.io/4ygh7).

j) ***Equity:*** *Biodiversity offsets must be planned and implemented in a fair and balanced way, with the rights, duties and benefits associated with them being shared between all affected and interested parties;*

As discussed below, the Ministerial Order requires the involvement of all stakeholders, who must be able to participate actively. It emphasises in particular that local communities must be able to participate in and benefit from the implementation and monitoring of offsets (Figure 19).

11 Available at https://sibmoz.gov.mz/content/uploads/2022/09/2018_baker_et_al_NNLforpeople-and-biodiversityprinciples_PT.pdf

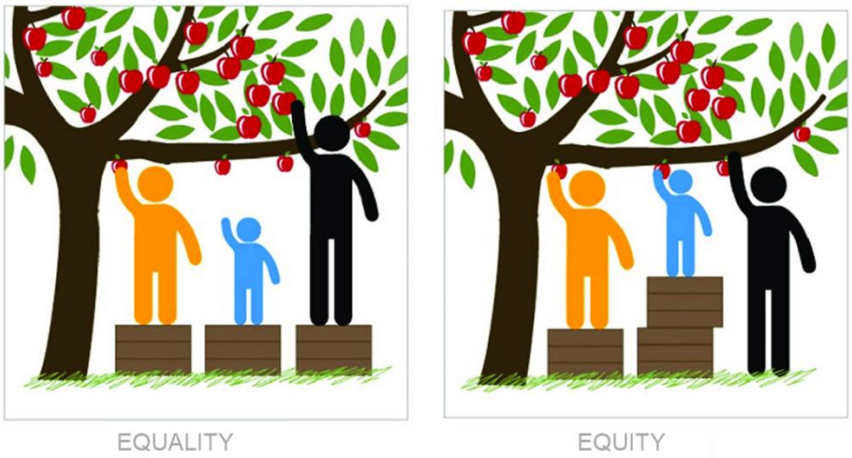


Figure 19. Representation of equity in benefit sharing. In the example on the left, the tools are distributed equally among the stakeholders, but the opportunities and the sharing of benefits are neither balanced nor fair. In the example on the right, the tools are distributed on the basis of what each person needs, with the result that everyone has equal opportunity and access to benefits (the principle of equity through fair and balanced distribution).

k) ***Transparency:*** *The design and implementation of biodiversity offsets must guarantee freely-available information, accountability and adequate responsiveness to the different actors involved and affected;*

To ensure the maximum transparency and availability of information on biodiversity offsets, the MTA has established two key platforms:

- **Environmental Licensing Management System (Sistema de Gestão de licenciamento Ambiental, SGLA)** (https://sgla.mta.gov.mz/): This includes a module for the registration of Biodiversity Offset Management Plans (BOMPs). Key information can be consulted and downloaded by any interested parties. The information/documentation can be submitted online by the environmental authority and the project developer, according to the criteria defined in the Order (see chapter 9 of section V of the Ministerial Order). The system also contains a section for public consultations on draft EIAs and biodiversity offsets;
- **Mozambique Biodiversity Information System (Sistema de Informação de Biodiversidade de Moçambique, SIBMOZ)** (https://sibmoz.gov.mz/public-consultations/?lang=pt-pt): This has a page dedicated to biodiversity offsets which provides general information on the subject in the Mozambican context, including indicators (number of sites with biodiversity offset initiatives, total area covered by biodiversity offset initiatives, etc). There is also a page dedicated to public consultations on studies, projects, plans and programmes related to biodiversity, including BOMPs, where users can review and comment on documents in the pipeline.
- In addition to these tools, Section 3, Chapter 5 of the Order provides for the establishment of a dedicated **monitoring committee** for each BOMP, involving a variety of actors and stakeholders to increase transparency in the implementation of the BOMP.

l) **Commitment to national targets:** *Biodiversity offset projects should be targeted towards making a contribution to the achievement of national biodiversity conservation targets.*

Box 9. Alignment with national conservation targets

Ministerial Order nº. 55/2022 **seeks to align the elements of national policies, strategies, laws and regulations associated with mitigating the environmental impacts of development projects with the country's policies and strategies for biodiversity conservation**. Appropriate implementation of the Biodiversity Impact Mitigation Hierarchy should be considered from the perspective of alignment with

Box 9. Alignment with national conservation targets

the 20 national biodiversity conservation targets, and should contribute to the achievement of at least the 8 targets defined in the current National Biodiversity Strategy and Action Plan (NBSAP), namely:

- **Target 3:** 'By 2025, adopt and effectively implement policies and legal instruments for the prevention, mitigation and compensation of the impacts of human activities likely to cause biodiversity degradation';
- **Target 5:** 'By 2035, reduce by at least 20% the area of critical ecosystems or those providing essential goods and services that are subject to degradation and/or fragmentation';
- **Target 6:** 'By 2025, ensure that at least 30% of habitats of endemic and/or threatened species of flora and fauna have conservation strategies and action plans in place';
- **Target 7:** 'By 2020, catalogue, systematise, disseminate and encourage sustainable practices in agriculture, livestock, aquaculture, mining, forestry and wildlife management';
- **Target 11A: '**By 2025, assess and redefine 75% of current Conservation Areas, and formally include 100% of the areas of Afro-mountainous endemism (altitude >1500m) and at least 5% of marine ecosystems in Conservation Areas';
- **Target 11B: '**By 2030, effectively and equitably manage at least 50% of Conservation Areas';
- **Target 12:** 'By 2035, rehabilitate at least 15% of degraded ecosystems/habitats, restore their biodiversity and ensure their sustainability, with a view to mitigating the effects of climate change and combating desertification';
- **Target 17:** By 2020, ensure that the sectors involved in biodiversity issues have developed sectoral targets, based on national targets, have integrated them into sectoral plans and have begun implementing them effectively.'

A nationwide, holistic vision is required, in which **both public and private sector development projects contribute to achieving Mozambique's goals and international commitments.**

4.2 SECTION II - MATERIAL REQUIREMENTS (Pages 684-686 of Ministerial Order 55/2022)

In accordance with the Ministerial Order on the Directive on Biodiversity Offsets, this section presents in detail the chapters of the Directive that cover the characteristics of the biodiversity to be offset; the importance of ensuring biodiversity offsets are not replaced with compensations of another nature (such as purely financial); the types of activities included in offsetting; the duration of the offsets; the territorial approach to implementation and management models.

4.2.1 Chapter 1. Biodiversity that must be offset

Point 1 of Chapter 1, Section II of the Directive defines the types of biodiversity that must be safeguarded from any significant adverse impacts following application of the Mitigation Hierarchy. It specifies two conditions: i) the Mitigation Hierarchy (avoidance, minimisation and restoration) must be effectively applied to ensure that the biodiversity in question is not affected by the impacts of a given project or activity; ii) if the biodiversity in question is affected in a significant negative way, even following application of the Mitigation Hierarchy, it must be offset.

It should be noted that the term 'biodiversity' in this context does not refer to the totality of biodiversity, according to its broader definition [12], but rather to that which is **considered most relevant** in the case in question because it meets one or more of the following criteria:

a) **A legally-protected species, ecosystem and/or habitat,** whether protected by laws, decrees and/or resolutions ratified by Mozambique (see Box 10);

12 According to the Convention on Biological Diversity (CBD), biodiversity is defined as the variability among living organisms from all sources, including, but not limited to, 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.

Box 10. Examples of national legal instruments which list protected species

Laws, decrees and/or resolutions ratified by Mozambique which list protected species (see also https://sibmoz.gov.mz/legal-framework/):

- **Decree No. 34/2016, of 24 August, on the Regulation of CITES** - Establishes rules on the protection and international trade in specimens of endangered species of fauna and flora (CITES) described in Appendices I, II and III of CITES (see CITES Appendices https://sibmoz.gov.mz/content/uploads/1981/12/CITES-Convention-apendices-I-II-III.pdf), along with **Law No. 5/2017, of 11 May,** which amends and republishes Law No. 16/2014, of 20 June, on the **Protection, Conservation and Sustainable Use of Biological Diversity**, which applies, in its Article 62, point 1, the penalty of imprisonment of 12-16 years plus a financial penalty to anyone who: a) destroys, without a license, any element of a protected or prohibited species of fauna or flora, including the species listed in Appendices I and II of CITES (Article 54, point 3 also applies a fine ranging from 50 to 1000 x the national minimum salary for undertaking the illegal exploitation, storage, transport or commercialization of a species on the country's protected species list);
- **Decree No. 51/2021 on the Regulation of Avifauna** - Establishes rules for the protection, conservation and sustainable use of the avifauna found on national territory, along with its natural habitats. Appendix A presents the List of Protected Bird Species in Mozambique, including migratory species for which hunting is prohibited.
- **Decree No. 12/2002, of 6 June, on the Regulation of the Forestry and Wildlife Law (Law No. 10/99, of 7 July)**, which identifies, in its Appendix II, a list of protected species for which hunting is prohibited.
- **Decree No. 89/2020 on the Regulation of Maritime Fisheries (REPMAR)** - Regulates the provisions of the Fisheries Law relating to maritime fisheries. Annexe XIII contains a list of protected marine species for which fishing is prohibited.
- **Decree No. 82/2021 on the Regulation of Sport and Recreational Fishing** - Regulates the provisions of Law no. 22/2013, of 1 November, the Fisheries Law, which relates to the exercise of recreational and sport fishing in the jurisdictional waters of Mozambique. Annexe VIII contains a list of protected species for which fishing is prohibited.

b) A species or ecosystem/habitat that is threatened or in a situation of vulnerability

This definition covers species or ecosystems that are included in the three main categories of extinction threats according to IUCN criteria: Critically Endangered - CR; Endangered - EN; and Vulnerable - VU. Information on threatened species can be found at https://sibmoz.gov.mz/red-list-of-species/, which links to the official page of the IUCN Red List of Threatened Species (https://www.iucnredlist.org). As of 2023, there is still no national red list of threatened species in Mozambique, so the list in use is the global red list.

A national evaluation of terrestrial ecosystems provides a list of threatened species that can be consulted at: https://sibmoz.gov.mz/red-list-of-ecosystems/.

The national historical vegetation map (terrestrial ecosystems) can be consulted at: https://experience.arcgis.com/experience/578f9184d6d54320a8cf7bf886b194cf.

c) A species or ecosystem/habitat that is endemic or has a restricted geographical distribution;

Information on endemic ecosystems and habitats is available in the SIBMOZ ecosystems database: https://sibmoz.gov.mz/ecosystems/, which includes a link to the terrestrial ecosystems map. The list of endemic and/or restricted species[13] can be accessed at https://sibmoz.gov.mz/species/.

d) An ecosystem/habitat that is of significant importance for threatened species, species that are endemic or of restricted geographical distribution and/or national protected species;

13 At the time of publication of this document, the list of species was still being completed.

While there is no specific information for this criterion, it aligns with Criteria A and B[14] of the Key Biodiversity Areas (KBAs) already identified for Mozambique (e.g. Mount Mabu KBA, which meets Criteria A and B due to the existence of significant populations of species that are threatened, endemic and/or of restricted distribution). The ecosystem map available at https://experience.arcgis.com/experience/578f9184d6d54320a8cf7bf886b194cf lists threatened species and species with restricted geographical distribution for each ecosystem.

e) An ecosystem/habitat that favours significant concentrations of migratory and/or congregatory species;

While there is no specific information for this criterion, it aligns with Criterion D[15] of the Key Biodiversity Areas (KBAs) already identified for Mozambique (e.g. Ponta do Ouro KBA, one activation criteria of which is Criterion D1b, due to the large concentrations of the Giant Shearwater - *Caranx Ignobilis* – found there, considered the largest breeding concentration recorded anywhere in the world).

f) A site corresponding to a Key Area for Biodiversity

Information on Mozambique's Key Biodiversity Areas (KBAs) is available at: https://sibmoz.gov.mz/key-biodiversity-areas/. It contains the Atlas of Mozambique's KBAs, which provides a map and specific information about each area: https://wcs-global.maps.arcgis.com/apps/Shortlist/index.html?appid=2b6445c402514b81a0ed327b081ea12c

g) Another species and/or ecosystem/habitat that is considered important for preservation

This definition includes high-value biodiversity types such as coral reefs, primary dunes, mangroves, wetlands, seagrass and others. When activating this criterion, it is necessary to provide a detailed justification to evidence its validity.

The EIA should dedicate the greatest attention to the types of **biodiversity** described above and to the calculation of the **unavoidable negative residual impacts, whether direct, indirect/induced or cumulative**, that will affect them. It is therefore of prime importance that the EIA provides a comprehensive characterisation of the project's areas of direct and indirect influence, making use of technical and scientific literature and databases, consultation with specialists and fieldwork.

Point 2 of Chapter 1 notes that the **list of threatened species and ecosystems**, as well as the **Key Areas for Biodiversity**, should be consulted using the SIBMOZ resources. The examples above provide links to the lists and maps available at www.sibmoz.gov.mz.

14 **Criterion A** - Significant importance for threatened species, **Criterion B** - Significant importance for geographically- restricted biodiversity.

15 **Criterion D** - Biological processes

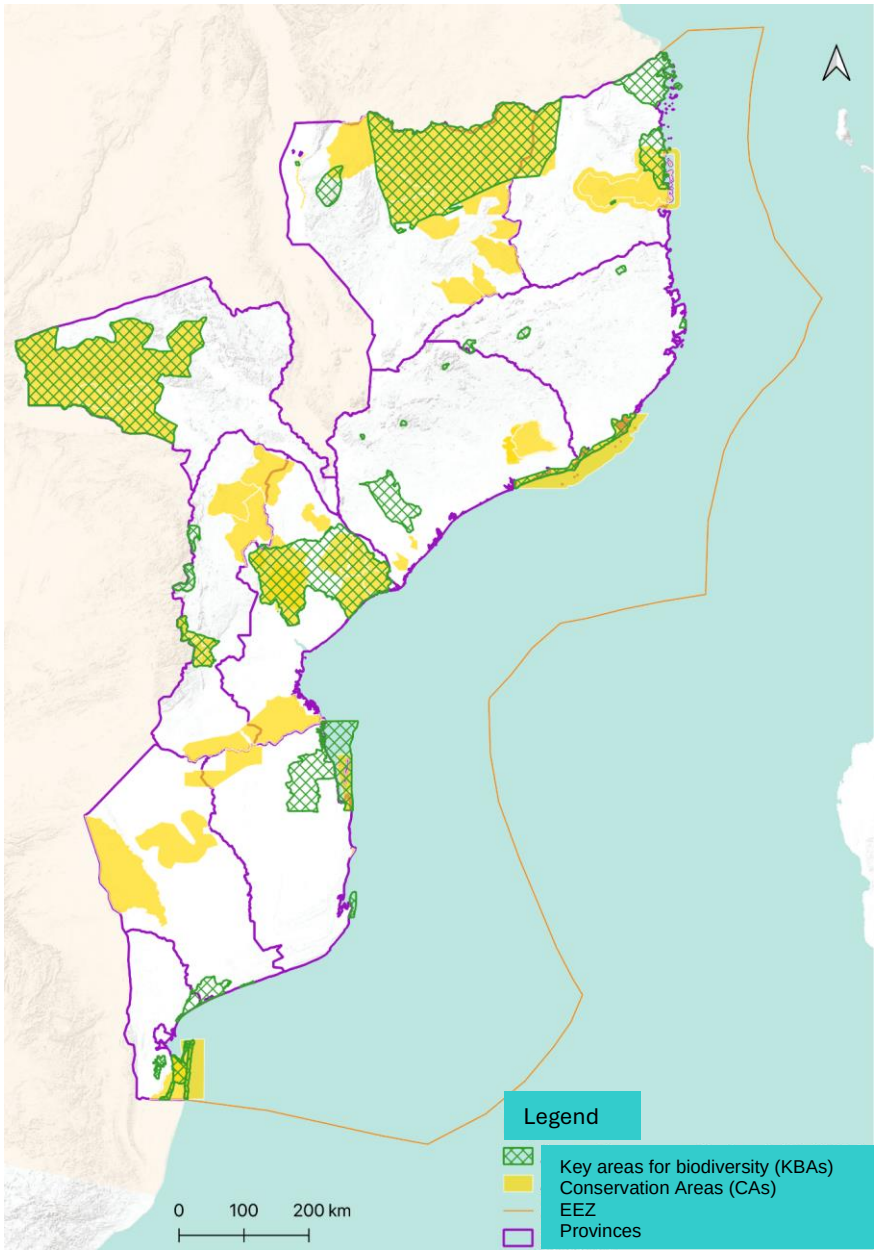


Figure 20. Map of Mozambique's Key Biodiversity Areas (KBA) and Conservation Areas

4.2.2 Chapter 2. Non-substitution

As described in **Chapter 2 of Section II** of the Order, the biodiversity offset may not be exchanged or replaced by any compensation of a purely economic, monetary, social, cultural or other nature that is not directly related to the significant residual negative impacts on biodiversity (Figure 21).

Figure 21. Biodiversity offsets cannot be replaced by compensation of a financial nature

4.2.3 Chapter 3. Type of Activities

As described in **Chapter 3** of **Section II** of the Order, biodiversity offsets can be developed through various activities. **These include**:

a) **The restoration and rehabilitation of biodiversity;**
b) The r**eduction of the anthropogenic impact on existing biodiversity** in Conservation Areas or Important Biodiversity Areas, resulting in biodiversity gains.

It should be noted that that the **activities carried out on the ground** to offset the residual impacts of a project site must **result in the improvement of existing biodiversity at the offset site**, as this is the only way to achieve the equivalent of No Net Loss or Net Gain of biodiversity. In other words, **the interventions on the ground must lead to a quantifiable increase in biodiversity and its condition in relation to the situation before the impacts and the offset, equivalent to that which was affected by the project.**
It is also essential that these interventions are **additional to what has already been planned for the offset area**, such as cases in which funding is already in place. This means that offset activities cannot replace other activities for which the necessary resources are already available. The offset-related activities or interventions on the ground **must also incorporate the effective maintenance and protection of the results obtained with regard to current pressures and future threats.**
Examples of the types of possible activities are described in Table 1. These can be seen to be similar to activities already carried out as part of various conservation projects implemented in Mozambique aimed at contributing to sustainable development that will allow the country's biodiversity to be maintained or improved. In the case of offsets, this type of conservation activity is directly related to mitigating an impact caused by a project. The specific biodiversity indicators associated with the results to be achieved **must be detailed and presented in the form of a Biodiversity Offset Management Plan (BOMP)**, the structure of which is presented in Annex D of this manual- Structure of the Final Biodiversity Offset Management Plan. A framework for the offset should outline the results to be achieved, the reference situation prior to the start of the activity, and how the offset activity will be implemented, when and by whom (see Annex D - Structure of the Final Biodiversity Offset Management Plan).

Table 1. Possible types of offset activity and their features

Type of activity	What can be considered
Biodiversity restoration and rehabilitation	**Improving, restoring or rehabilitating habitats or ecosystems:** • **Developing and implementing activities to improve, restore or rehabilitate habitats or ecosystems that have been affected by project impacts** (e.g. a mangrove swamp or the habitat of an important species of flora or fauna), **gearing their management towards the maintenance of results in the long term.** • Actions to improve the functioning of an ecosystem as a whole, for example offsetting impacts from a project that affects coral reefs through **actions aimed at improving the condition of the ecosystem** (abundance of coral fish, cover, etc.).
	Restoration or reintroduction of populations of specific species of flora or fauna: • **Actions to restore and/or strengthen populations of species of flora or fauna, or reintroduction** projects to improve populations of flora or fauna that have been affected by project impacts.
Reducing the anthropogenic impact on existing biodiversity in Conservation Areas or Important Biodiversity Areas, with the aim of achieving biodiversity gains.	**Effective protection and management of Conservation Areas:** • Actions to protect and manage the Conservation Area to achieve the results that have been determined to offset the significant negative residual impacts of the project (e.g. an increase in enforcement patrols, numbers of inspectors or equipment to improve enforcement efficiency).
	Improving and protecting important areas for biodiversity: • Improving and protecting areas recognised as important for biodiversity (ecosystems/habitats or species) which are currently being degraded due to human activity, to offset the significant negative residual impacts of the project (e.g. creation of a Conservation Area, ensuring its adequate management and protection, relieving the pressure of local communities on the area by providing them with alternative livelihoods or benefits from the management of the new CA).
	Actions in the community development or controlled use areas of Conservation Areas (in accordance with their management and zoning plans) • Implementing actions with communities, such as the development of alternative livelihoods, with a view to reducing pressure in key areas of the CA, to achieve the conservation results that have been determined to offset the significant negative residual impacts of the project.
	Actions in the buffer zones of CAs with the aim of ensuring the sustainable use of biodiversity by communities in these zones

Type of activity	What can be considered
	• Actions that contribute to the improvement of the livelihoods of communities in buffer zones and reduce their use of existing biodiversity in the most important areas of the CA, **to achieve the results that have been determined** to offset the significant negative residual impacts of the project.

The Biodiversity Offset Management Plan (BOMP) may include any of the types of activities described in Table 1. **The specific strategy should be based on how best to achieve the conservation results required to offset residual impacts.** It should include **not just active biodiversity intervention activities** but also additional activities that can lead directly or indirectly to conservation gains. An example of this would be the improvement of the **surveillance system** of a Conservation Area in the sector that will receive the offset, through the provision of equipment (surveillance posts, 4x4 vehicles, aircraft, airstrip, etc.) or specific investments in local communities to promote alternative livelihoods. The latter would be aimed at improving community use of the ecosystem and biodiversity in general and relieving pressure on the offset area, whether this is in a Conservation Area or an area recognised as important for biodiversity, such as a KBA.
In cases in which the offset is implemented in a Conservation Area, the proposed activities must align with the needs and strategies identified in the relevant **Conservation Area Management Plan**, as well as with the overall objectives of that Conservation Area (see Chapter 6: Implementation in Conservation Areas). Another **aspect to take into account when developing the BOMP is whether an existing strategy and/or action plan is in place at a national or provincial level for the conservation of the biodiversity element to be offset** (an example would be the National Strategy and Action Plan for Mangrove Management in Mozambique 2018-2023)**.** If such a strategy or plan is in place, the BOMP should be aligned with it.

Box 11 summarizes the **key criteria to be taken into account when selecting and designing offset activities.**

Box 11. Criteria to be taken into account when selecting and designing offset activities

- **Alignment of offset activities with the management plan and conservation objectives** (if applicable) **of the Conservation Area** in which they will be implemented, as well as with its zoning plan, regulations and ecological recovery plan.
- **Alignment of offset activities with national strategies and action plans for the biodiversity impacted by the project or for priority ecosystems/habitats/species at national level**, provided equivalence is guaranteed.
- **Requirement for activities to improve and/or protect biodiversity that is equivalent to that which has been impacted.**
- **Requirement for offset activities to constitute results additional to those that are already defined for the offset areas in question** and already have a budget for their implementation.
- **Requirement for offset activities to remain active on the ground and continue to be effectively managed** at least for the duration of the project's residual impacts on biodiversity.

4.2.4 Chapter 4. Duration

As described in **point 1 of Chapter 4 of Section II** of the Order, the duration of the offset must be defined in the BOMP and must take into account the actions necessary to achieve the conservation results envisaged to ensure No Net Loss or Net Gain of biodiversity.
The BOMP should therefore preferably begin before the project's operational phase and should last for at least the entire period during which the significant negative residual impacts of the development project occur. The justification for starting the offset project early is that the majority of impacts resulting from the implementation of development projects are immediate or occur in the short or medium term, while most

offset actions take years or decades to offset significant negative residual impacts. In many cases there is also uncertainty about the effectiveness of the offset. In order to increase the likelihood of a successful offset activity and ensure results are seen as quickly as possible, the earliest possible implementation is urged. It should also be noted that requiring offset activities to begin early helps to prevent project developers from evading their realisation.

Since some of the residual impacts on biodiversity of development projects are likely to be permanent, developers should ensure the results at least until the project is decommissioned, creating the necessary conditions to ensure the perpetuity of the results achieved through offsetting. Good practice dictates that **offsetting should take place for at least as long as the significant residual negative impacts of the development project will occur**.

Point 2 of the same chapter notes that **it is the applicant's responsibility to offset any significant residual negative impacts that occur which were not foreseen** in the Biodiversity Offset Management Plan or are identified after the closure of the project and found to be related to the effects of the project. As explained in Chapter 2.3.1, Principle 7 of the Environment Law (principle of responsibility) states that 'anyone who pollutes or in any way degrades the environment is always obliged to repair or compensate for the resulting damage'. Thus, if there is proof that impacts have been created by the effects of the development project, these must be offset by the developer.

4.2.5 Chapter 5. Territorial approach

As described in **point 1 of Chapter 5 of Section II** of the Order, biodiversity offsets should be implemented in locations that have the characteristics to guarantee the viability and permanence of the offset results. The project developer should select one or more of the following areas:

a) Conservation areas:
   i. Those showing biodiversity degradation where funding is insufficient to achieve their conservation objectives;
   ii. Those under considerable human pressure and requiring improved conservation conditions or territorial extension in order to achieve or increase their conservation objectives.

b) Important areas for biodiversity outside Conservation Areas:
   i. Areas considered important for biodiversity include **Key Biodiversity Areas, Ramsar Areas, Forest Reserves** and other areas of ecological importance at national or local level.

The Order employs an aggregate model logic, meaning the project developer does not have free reign in the selection of offset options to consider, but must use the criteria described above. Due to the legal context of land ownership in Mozambique, in which all land belongs to the state and there is no private land, the permanence of offsets can be assured only in Conservation Areas or other legally-protected areas. In other words, **in order to be permanent, the offset must be implemented in a Conservation Area or other area protected by law and must contribute to the expansion of the boundaries of that area or give rise to the creation of a new Conservation Area to be included in the National Network of Conservation Areas** (or other status that guarantees its permanent protection) [16]. While the National Network of Conservation Areas covers around 26% of the country's land area, most of the Conservation Areas are insufficiently funded and depend on external funding for their management. There are, however, also other important areas for

16 The Conservation Law (5/2017) and its regulations (89/2017) provide for various categories of Conservation Area that may be established to ensure the proper management and permanence of the offset, as specified in Chapters II and V of Decree No. 89/2017 (for example Community Conservation Areas and Sanctuaries can be managed through partnerships between the local community and the private sector or civil society organisations). Another type of permanent protection are Zones of Total Conservation and sustainable use of fishery resources of a permanent nature under the Law on the Regulation of Maritime Fisheries (89/2020).

biodiversity [17], including KBAs, some of which are under local community management and offer great potential for the implementation of offsets.
The Order therefore **prioritises the improvement of biodiversity in underfunded Conservation Areas that feature the same type of biodiversity that is to be affected by the development project, with an emphasis on Conservation Areas that are already suffering impacts that are making it impossible for them to achieve their conservation objectives**. This might include impacts caused by anthropogenic activities at an intensity that should not be occurring in Conservation Areas, such as poaching, slash and burn, logging, charcoal production, overfishing or other types of over-exploitation of resources or elimination of biodiversity.
Other eligible options are the **expansion of existing Conservation Areas, the official categorisation of areas already managed for conservation but not yet officially included in the National Network of Conservation Areas** and the creation of new Conservation Areas. In each of these cases, it is essential that improvements in biodiversity are achieved in reference to the existing situation in these areas.

As described in **point 2 of the same chapter**, the Environmental Authority regularly publishes the **list of Conservation Areas and important areas for biodiversity** in which **biodiversity offsets should preferably be implemented**. The **Technical-Scientific Support Unit** for Biodiversity Offsets, in association with the **National Administration of Conservation Areas (ANAC)**, should identify the areas selected as **potential recipients of offsets** every five years, in order for them to be disseminated by the Environmental Authority.
According to **point 3** of the same chapter, the Biodiversity Offset Management Plan should preferably be implemented in the **same province in which the impacts on biodiversity occur;** if this is not feasible, in **a neighbouring province;** and as a last resort **anywhere else in national territory,** provided the terms of the Directive are met (see Figure 22). Where feasible, the offset should be implemented **as close as possible to the area in which the project will take place**, not only to **ensure equivalence on** ecological grounds, but also for **social and logistical reasons**. Only if this is not possible should areas further from the project site be considered.

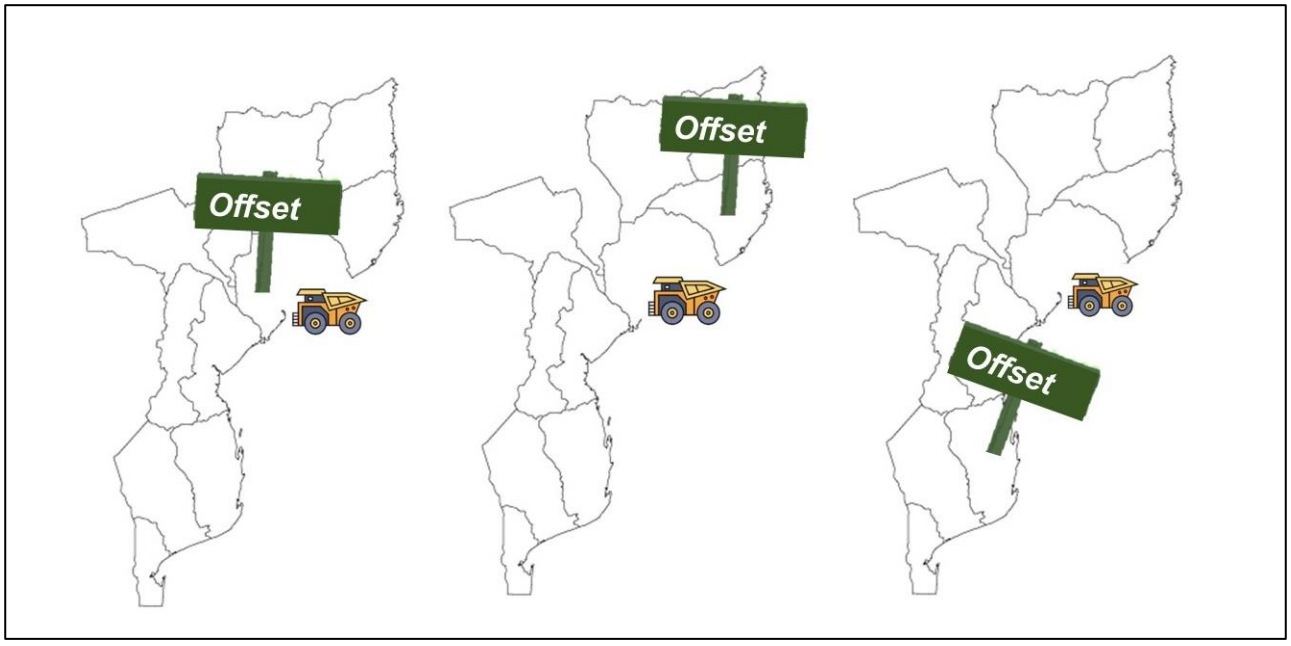


Figure 22. The offset should preferably be implemented as close as possible to the area where the project will take place. If this is not possible, another location in national territory should be selected, provided the terms of the Directive are

17 It is important that the identification of these areas has a clear, scientifically-supported justification, preferably identified through a systematic biodiversity planning exercise able to contribute to the achievement of national targets (e.g. Target 11A).

met. (1) Offset implemented in the province where the impacts on biodiversity occur (left), (2) in a neighbouring province (middle) and (3) in any other location in national territory (right).

In addition, as described in **point 4** of the same chapter, if the offset activities cannot be implemented in a given geographical area, or if they are not sufficient to achieve Net Gain or No Net Loss, the applicant must propose for approval by the Environmental Authority **two or more alternative or additional locations** which, individually or jointly, will enable the necessary results to be achieved.

Figure 23 shows an example of a decision-making process that combines the type of area selected and the geographical approach to implementation of the offset, in order to help the project developer and the authorities to determine which option is preferable for offsetting the significant negative residual impacts of a project.

The **preferred option** is the one shown at the top left of the matrix; i.e. if it is possible to offset the residual impacts of the project with equivalent biodiversity in an existing and eligible Conservation Area in the province where the project is being implemented, then the option should be to improve biodiversity in that area [18]. **If the preferred option is not the most viable, the developer should analyse the most viable options for offsetting the impacts of their project, according to the logic of the matrix** and the conditions identified in the section above. Note that the developer is not required to implement a linear approach, simply **to justify in the BOMP why they did not select the preferred option.**

It should be noted that the **options are not mutually exclusive**. **The developer** should assess which are the most viable to offset the impacts of their project, and **may choose more than one option**. The offset could, for example, comprise one component that involves improving biodiversity in a Conservation Area in the province where the project is located and another that involves creating a new Conservation Area in a neighbouring province.

18 That it forms part of the list of eligible Conservation Areas, i.e. underfunded and preferably impacted by communities to the point of jeopardising the conservation objectives for which they were created.

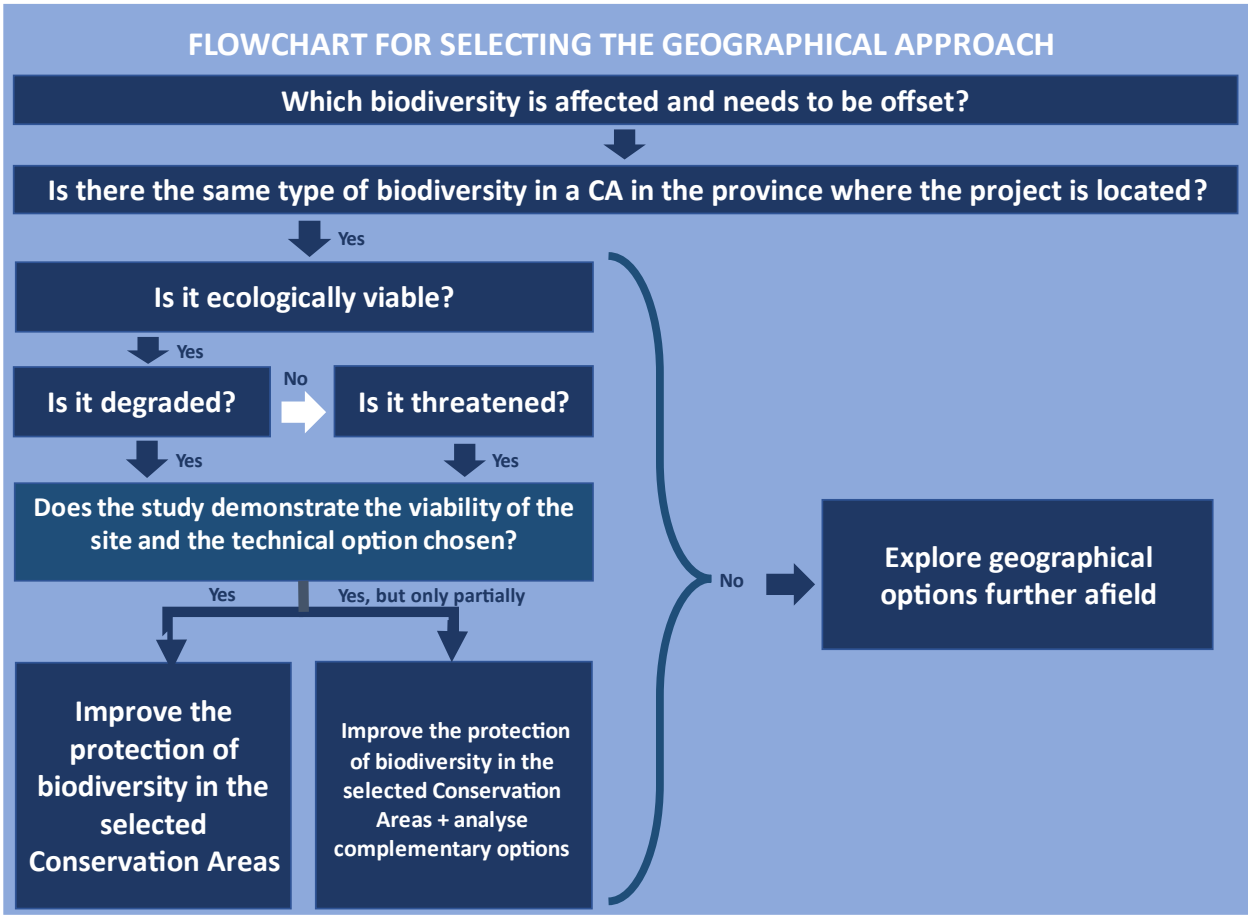


Figure 23. Decision-making process for selecting the most suitable option(s).

To avoid delays for the project developer, it is important that the analysis and selection of offset options begins as early as possible. It is recommended that during the pre-feasibility phase of the project, the developer seeks to identify the type of biodiversity that will potentially be affected, forecast the expected residual impacts and undertake a broad estimated quantification of these. This will allow the developer to begin the process of selecting the site and type of offset activity without compromising the project's licensing and implementation deadlines. They will then be able to begin establishing contacts with the regulatory authorities, environmental funds, implementers and/or other necessary institutions in order to analyse the various possible options. Most development projects require a large number of basic technical studies during the phase of pre-feasibility analysis, and this number is even larger in the case of megaprojects. The potential residual impacts on biodiversity can therefore also usefully be calculated at this stage. If this is not possible at the pre-feasibility stage, discussion of the likely choice of offset options should begin at least at the stage of the Environmental Pre-feasibility and Scoping Study [Estudo de Pré-Viabilidade Ambiental e Definição do Âmbito, EPDA] and Terms of Reference (ToR), in accordance with Decree No. 54/2015, of 31 December.
More in-depth analysis will be required during the **EIA phase,** when the preliminary BOMP [19] **is developed. This must include identification of the unavoidable residual impacts expected, as well as an estimated forecast of their quantification, indicating the probable types of receptor area, geographical options and types of activity to be implemented**, in accordance with the procedure detailed below.
Figure 24 summarizes types of receptor areas, geographical options and possible types of offset activity.

19 The preliminary BOMP, as the name implies, is only an initial document that forecasts and estimates the potential residual impacts, presenting the likely offset options. The calculations, selected options, detailed plan, institutional arrangements, budget, financial mechanism and bank guarantees or insurance are presented in the final BOMP.

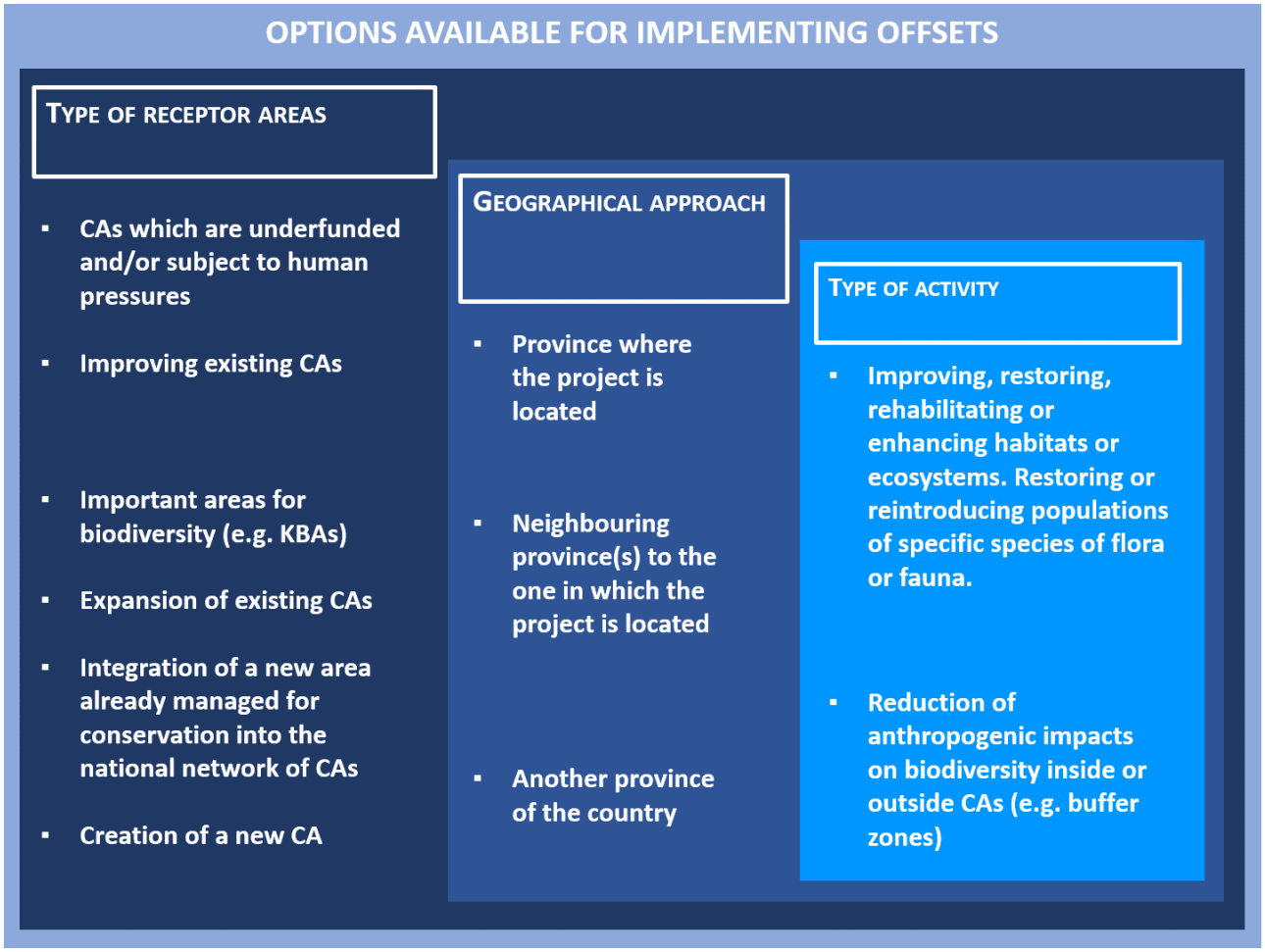


Figure 24. Description of the types of receptor areas, geographical options and types of activity that can be selected for biodiversity offsets.

According to **point 5** of the same chapter, the area receiving the offset must have had biodiversity values either **equivalent** to and/or higher than those impacted (in terms of threat status, degree of rarity, endemism or relevance to key ecological processes) according to the principles established in the Directive. As described in **point 6** of the same chapter, the site where the offset is to be implemented must be outside the area of direct influence of the project's impacts and must have the characteristics to **guarantee the permanence** of the offset results. Note that it may be located in the area of indirect influence, provided the project's impacts do not have significant adverse effects on the biodiversity targeted by the offset. The last point of the chapter **(point 7)** stipulates that offset areas must be properly **signposted** with **identification plaques** indicating the offset registration reference number. This allows them to be properly monitored and audited, as well as having a potential deterrent effect on people who may be intending to affect the area.

4.2.6 Chapter 6. Implementation in Conservation Areas

As described in **point 1 of Chapter 6 of Section II** of the Order, where the biodiversity offset is implemented in a Conservation Area, **a partnership agreement** covering the mechanisms and modalities for implementing the offset **must be established** between the project or activity developer, the administrative body and the management entity of the area.

A project developer may not implement an offset in a Conservation Area if there is no need for it, and/or without an agreement with the Conservation Area to implement it. It is therefore of key importance that the list of areas receiving offsets is published and agreed in advance by the key partners. If the list has not yet been published, the developer must ensure they establish the necessary agreements with Conservation Areas.

It is a core requirement that the Conservation Area **has an approved management plan**, or **declaration of intention to manage**, which identifies the management needs and priorities listed in the relevant habitat and species conservation programme, as described in **point 2** of the same chapter. In addition, as established in point 3 of the same chapter, **the Biodiversity Offset Management Plan must be in harmony with the Conservation Area's management plan** and must provide for specific activities that lead to measurable conservation results aligned with the objective of offsetting the significant negative residual impacts of a given project or activity (see Figure 25).

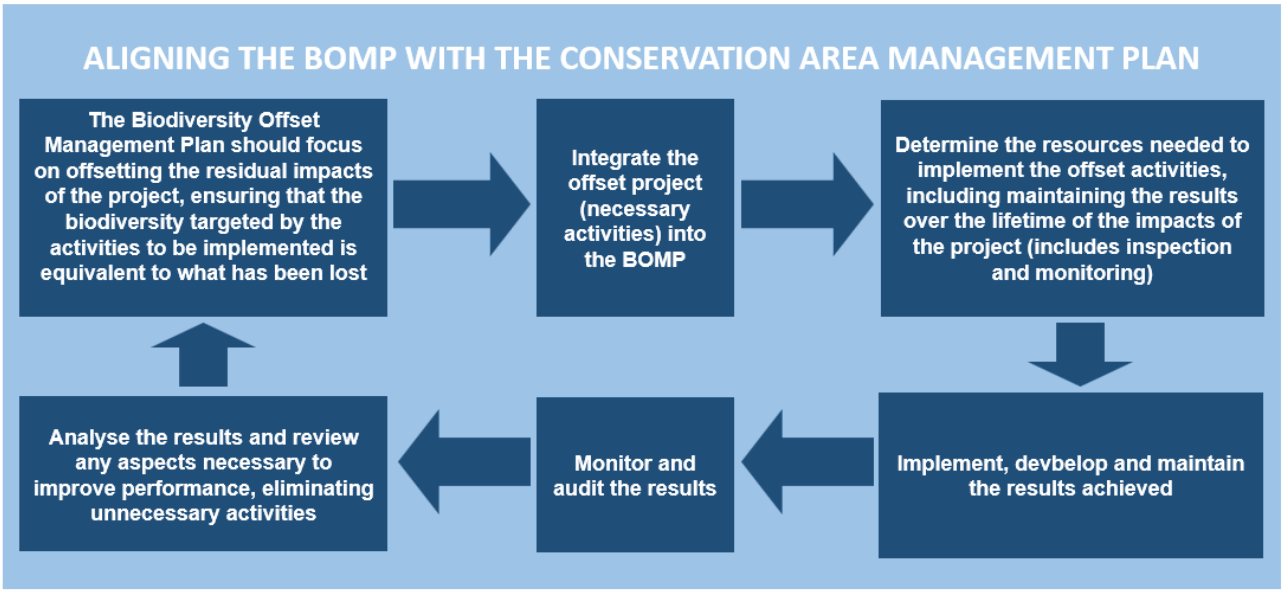


Figure 25. Explanation of how the BOMP should be aligned with the management plan of a Conservation Area when offsetting is implemented in this type of area.

The following additional elements must also be taken into account when offsetting is implemented in a Conservation Area:

- **The biodiversity offset must be designed to generate specific conservation outcomes that offset the project's residual impacts on biodiversity, whether these are direct, indirect, induced and/or cumulative:** the implementation of a biodiversity offset in a Conservation Area must entail a clearly defined conservation activity, which may consist of the restoration of an area planned for this purpose, an element of a management plan or the implementation of an area-specific Conservation Area Action Plan.
- **Offsetting should only be used to finance specific and concrete activities on the ground that lead to measurable conservation results intended to offset the residual impacts of a project:** these activities must be clearly identified and a system must be in place to monitor whether the conservation results have been achieved.
- **The contract established for the implementation of the offset must be based on the performance and realisation of specific activities. The results must be monitored and the implementation adjusted as necessary in order to achieve No Net Loss or, preferably, a Net Gain of biodiversity**: contracts must be signed between all parties involved in the management and implementation of the offset, depending on the model chosen, as explained below. In all cases, formal authorisation to implement the offset must be secured from the managing authority of the Conservation Area (where the CA already exists).

- **Where a Conservation Area has not been specifically created as a result of the offset, funding for offset projects should never constitute 100% of the financial cost of a Conservation Area** [20]: the funding should be dedicated to the specific activities of the offset, as well as to its effective maintenance and protection, with a view to achieving the agreed results. It should not result in any reduction in the government funding commitment towards that Conservation Area. Where the offset also contributes to activities associated with the overall management of a Conservation Area, such as an inspection team to protect the offset results, the budget for these activities must specify exactly what it will be used for, to avoid duplication of funding.
- **Cases in which payments or fees are provided to finance Conservation Areas in place of conservation activities (in lieu fees) cannot be considered as offsets:** the financing of biodiversity offsets should be orientated only towards achieving conservation results, not towards financing Conservation Areas, as the latter option usually results in few conservation gains on the ground.

For a Conservation Area to be considered as a potential recipient of an offset, **several requirements must be met** in order to ensure the offset does not replacing an existing government funding commitment. These requirements must be updated by the entity of the Government of Mozambique responsible for the administration of Conservation Areas, which should make available all relevant eligibility conditions, databases of Conservation Areas and mechanisms for coordination with partners or potential implementers of biodiversity offsets. Where these resources are unavailable, they may be created in the project's initial stages by the management entity of the Conservation Area in partnership with the offset developer. The requirements are summarised below:

- **A management plan developed and approved:** to identify management needs and priorities;
- **A management structure for the Conservation Area established and fully operational**, preferably using a partnership working system (PPP), in order to guarantee to the project developer the effective implementation, management and protection of future offset activities;
- **A condition of underfunding of the Conservation Area in question in terms of the budget needed to achieve the conservation objectives for which it was created:** as outlined above (**point 1 of Chapter 5 of Section II** of the Order), only Conservation Areas that are underfunded can be selected to receive offsets, in order to guarantee the principle of additionality [21]. Preference should be given to Conservation Areas in which human impacts and pressures are threatening conservation objectives, provided those same impacts and pressures do not make it impossible to implement the offset in that area;
- **An ecological recovery strategy** which identifies and prioritises biodiversity restoration, rehabilitation or repopulation needs, including the locations in the Conservation Area where this should take place. The strategy should also include a quantification of the needs (area of habitat to be restored, number or density of individuals to be repopulated, etc.). If possible, it should include an assessment of the ecological condition and/or quality of existing biodiversity. The strategy should ideally be included or referred to in the management plan of the Conservation Area.

In the case of **expansion of an existing Conservation Area**, an assessment should be made of the potential of the surrounding area, considering the aspects outlined above, in particular the potential for improving biodiversity and its effective protection. Consideration should be made of the possibility of the area functioning as an ecological corridor.

20 If the offset results in the creation of a Conservation Area, the same offset or a set of offsets must finance its management in full.

21 As outlined above, the selection of Conservation Areas to potentially receive offsets and the delimitation of specific areas where activities can be implemented is undertaken by the Government of Mozambique, based on an assessment of the history of state funding and a forecast of what will be available for the following 5 years, along with restoration potential. The 2015 study on the financing of the National System of Conservation Areas and future studies of this nature may be used as initial reference.

Whether the area selected is a Conservation Area or an expansion zone, it is essential for the managing body of the Conservation Area where the offset actions are to be implemented to prohibit any activity or project that could threaten the offset results, and to effectively monitor this. It is also recommended that the Conservation Area make use of environmental safeguards in the implementation of any project it permits. As explained above, the results of the offset must be ensured at all times.

4.2.7 Chapter 7. Important areas for biodiversity outside Conservation Areas

In addition to Conservation Areas, **the national territory includes other areas that are important for biodiversity and which should be selected as a priority** in cases in which the offset is used for i) **the integration of an area already unofficially managed for conservation** into the national network of Conservation Areas or ii) **the creation of a new Conservation Area**. These areas include Key Biodiversity Areas (KBAs), RAMSAR areas, and areas that are already protected in some way by local communities. In these cases, in addition to the process for official designation as a Conservation Area, the offset must include the **creation of a management structure** for the new Conservation Area and the **drawing up of its management plan**.

As described in **point 1 of Chapter 7 of Section II** of the Order, the implementation of offsetting projects outside the territorial limits of Conservation Areas should **preferably be carried out in an area adjacent to an existing Conservation Area, in order to contribute to its expansion or its connection with another Conservation Area.** It may also **result in the creation of a new Conservation Area**, in accordance with applicable law. **Point 2** of the same chapter states that the project developer must **establish a partnership agreement with the area's management body and with the holders of land use and utilisation rights** at the implementation site (e.g. local authorities, communities, etc.).

As described in **Point 3** of the same chapter, where the offset results in the **creation of a new Conservation Area**, a **management structure** must be created appropriate to the category of Conservation Area proposed. A **statement of management intent** should also be developed, which identifies the management needs and priorities listed in the habitat and species conservation programme. Lastly, as outlined in **point 4** of the same chapter, the Biodiversity Offset Management Plan must be in harmony with the statement of management intent and must provide for specific activities that lead to **measurable conservation results aligned with the objective of offsetting** the significant negative residual impacts of a given project or activity.

With reference to the points made in chapters **5, 6** and **7**, Table 2 summarizes possible scenarios for biodiversity offset projects that could be implemented in Conservation Areas or in areas of importance for biodiversity outside Conservation Areas.

Table 2. Biodiversity offset project scenarios that could be implemented in Conservation Areas or in areas of importance for biodiversity outside Conservation Areas

Biodiversity offset project options	Description
Improvement and effective protection of biodiversity in an existing Conservation Area	This is usually the preferred scenario. Its aim is **to promote the improvement and effective protection of species, habitats and/or ecosystems in existing Conservation Areas that are eligible for biodiversity offset projects. Eligible areas are those that are underfunded and are subject to impacts from the human population that threaten their conservation objectives.** It is important that **the BOMP considers the management and maintenance of biodiversity improvement during the period in which the project's impacts persist.** It may have to include **funding for complementary activities associated with the effective management and protection of the Conservation Area that are directly related to the conservation results to be achieved,** for example, strengthening an inspection team or providing equipment, as outlined above.

Biodiversity offset project options	Description
Improving and/or effectively protecting biodiversity by expanding an existing Conservation Area	This scenario **proposes expanding the existing boundaries of Conservation Areas to offset the biodiversity loss caused by the residual impacts of the project**. It follows the scenario above, with the difference being the geographical location off the offset, the preference being for it to be implemented in the same province. The offset could be implemented in areas of public or community domain in which the surrounding area has biodiversity values equivalent to or greater than those impacted, and preferably, which are already referenced as potential areas to be included in future expansion plans for the Conservation Area in question. The **aim is not just to expand the Conservation Area through a formal process to protect this additional area, but to do so by obtaining results that improve existing biodiversity to offset the significant negative residual impacts on the project's impact site.** In other words, the proposed offsetting plan must consider **expanding the Conservation Area with the aim of achieving specific conservation results and guaranteeing their management and permanence over time.**
Effective improvement and/or protection of biodiversity through the creation of a new Conservation Area	The biodiversity offset may result in the improvement and/or effective protection of biodiversity through the **creation of a new Conservation Area, not yet under any type of management, and the promotion of its protection, management and maintenance over time.** It follows the scenarios above, with the difference being the geographical location off the offset, the preference being for the creation of a new Conservation Area in the same province where the project is being implemented. The new Conservation Areas to be created may be public domain areas or, preferably, public-community domain areas, such as Community Conservation Areas or Sanctuaries, in order to involve and benefit local communities. The option exists of creating a total conservation or sustainable use area, in accordance with Law No. 5/2017 and its regulation 89/2017. This will depend on the conservation results to be achieved and the strategy needed to effectively maintain and protect them. In some cases the creation of an Integral Nature Reserve (total Conservation Area) may be preferable, but in most cases it is likely to be more advantageous to create a **Community Conservation Area or a Sanctuary** (sustainable use Conservation Areas). Community Conservation Areas in particular are an option with great potential, since they may be more readily accepted by the local population, which can benefit significantly from the activities and management of the area, reaping financial and livelihood benefits. **This type of sustainable use Conservation Area also has the advantage of being managed by communities in partnership with the private sector, NGOs or universities** (in the case of Sanctuaries) [22]. **New Conservation Areas must be defined with reference to the following requirements:** • The proposed area **must have biodiversity values equivalent to and/or of a higher value than those that have been impacted**, as explained above. • The areas must be included in the areas pre-selected as potential offset areas, i.e. they **must be referenced as being of relevance for biodiversity conservation and there must be evidence of this** (for example, having been identified as Key Biodiversity Areas -KBAs - or RAMSAR areas, or through a systematic biodiversity planning exercise);

22 See Decree No. 89/2017, Chapter V, Article 62.

Biodiversity offset project options	Description
	• If feasible, **priority should be given to the creation of Community Conservation Areas, Sanctuaries** or municipal areas, where relevant (e.g. Municipal Ecological Parks). If this is not feasible, public domain areas may be created, or other types of formal protection recommended by Mozambican law may be used, provided they guarantee the effective protection of the area in perpetuity, recognising it as an area dedicated to biodiversity conservation (e.g. permanent resource recovery areas under marine and fisheries legislation); Community Conservation Areas **must be managed using a partnership regime, as defined in the Conservation Law regulations** (Article 62 of Decree No. 89/2017). The delimitation of land and the creation of Natural Resource Management Committees are mandatory conditions for the creation of Community Conservation Areas.
	There are also cases in which high biodiversity values are present in areas that are not yet represented in the national network of Conservation Areas, such as in Forest Reserves and areas currently managed by communities with the aim of conserving biodiversity or promoting its sustainable use. This option creates potential for the official recognition of these areas, **including them in the national network of Conservation Areas**, as specified by Decree No. 89/2017 that regulates the Law on the Protection, Conservation and Sustainable Use of Biodiversity. Other types of formal protection permitted by law are accepted, as long as they guarantee effective protection at all times in areas dedicated to the conservation of biodiversity (e.g. total conservation zones and sustainable use of fisheries resources under marine and fisheries legislation, as in the Maritime Fisheries Regulation Decree No. 89/2020). As in the above scenarios, **the BOMP must result in measurable conservation results that offset the significant negative residual impacts of the project and guarantee its management and permanence over time.**

4.2.8 Chapter 8. Management Models

As described in **point 1 of Chapter 8 of Section II** of the Order, Biodiversity Offset Management Plans in Conservation Areas or areas of importance for biodiversity may be implemented through **public-private partnerships** and/or with the **active participation of local communities**. **Points 2 and 3** of the same chapter specify that when BOMPs result in new Conservation Areas, the most appropriate management model should be selected with reference to the categories and procedures set out in law. Other types of formal protection provided for by law may be used, provided they guarantee the effective protection of the area in perpetuity, recognising it as an area dedicated to biodiversity conservation. Table 3 summarizes the different types of management provided for in law for different types of areas.

Table 3. Types of management provided for in law for different types of areas

Type of area	Existing CAs or KBAs		New CAs				Other types of protection (eg REPMAR, Decree No. 89/2020)	
Type of management	Public-Private Partnerships (PPP)	Active participation of local communities	State	Public-Private Partnerships (PPP)	Private sector	Civil society organisations (CSOs)	Community management	Dependent on type of protection (e.g. co-management)

Several **fundamental aspects for the implementation, maintenance, financing, monitoring and updating of the offset must be identified in the BOMP**. Two key elements of the process are:

- **Management mechanism: defining who will manage the offset (the management entity)**, i.e. whether it will be the developer itself or a subcontracted entity;
- **Implementation mechanism: defining who will implement the offset (the implementing entity(ies))**, i.e. who the service provider will be on the ground and how they will co-ordinate with the Conservation Area management entity (where the offset is implemented in a Conservation Area);

Box 12. The offset management entity

Where the Environmental Impact Assessment procedure determines that a project must offset in order to obtain an environmental licence, the project developer is responsible to the regulatory authority for ensuring that the offset is implemented and that the results agreed in the BOMP are achieved. The management of the offset plan, i.e. the co-ordination of its implementation on the ground and its monitoring, including the involvement of stakeholders, may be undertaken by the developer or subcontracted by them to a third party (Figure 27). Either the developer or an entity contracted by it can therefore be designated as the offset management entity.

The choice of management option will depend on the developer's consideration of their internal policies and regulations and other factors. The developer must research which organisational format would be most efficient for implementing the offset and achieving the required results in accordance with these guidelines. **One entity that developers can subcontract are Environmental Funds.** Some of these are designed to ensure projects are compatible with national objectives, providing financial mechanisms and organisational models to allow for the long-term implementation and management of offsets. Regardless of which entity is selected to manage the offset, **strong co-ordination will be required with the National Administration for Conservation Areas (ANAC) in the case of Conservation Areas managed by this body.** This should form part of the BOMP from the outset.

Box 13. The offset implementing organisation

Once the offset management organisation has been selected, the implementing organisation(s) on the ground should be selected. The implementing organisation will be responsible for undertaking the day-to-day offset activities on the ground.

If the offset is to be implemented in an existing Conservation Area (particularly one administered by the state), there should be a technical implementing partner who has primary responsibility for carrying out the offset to ensure the managing body is not overburdened with additional duties. **In these cases, the partnership or consortium that takes on the role of implementing organisation must always include the area management organisation itself. In cases where the Conservation Area is co-managed with a conservation partner, this partnership can assume exclusive responsibility for implementing the offset.** Another option is for **the offset management organisation to contract a third party to implement all or some of the offset actions. The service provider can be a single entity or a consortium of several entities** (e.g. a private company, an NGO, a university or a combination of these). If the project developer elects to take on management of the offset, they can also be part of the implementation team.

As mentioned above, BOMPs in Conservation Areas or in areas important for biodiversity may be implemented through public-private partnerships and/or with the active participation of local communities, which should provide advantages in most cases. When BOMPs result in new Conservation Areas, the most appropriate management model should be selected in accordance with the categories and procedures set out in Law 5/2017 and its regulation 89/2017.

Where the biodiversity offset takes place in a Conservation Area administered by ANAC, a partnership agreement must be established between the applicant, ANAC and the partner entity of the Conservation Area (if any). **ANAC** (and the partner entity if any) **must give a positive assessment of the offset project for**

the Conservation Area in question before it can be approved by the Environmental Authority as part of the environmental licensing of the development project. ANAC may or may not be involved in the implementation of offset actions, and it is common practice to subcontract other specialised service providers.

Where the Conservation Area is not subject to a partnership regime between ANAC and a partner organisation, it is recommended that a specific consortium be established for the implementation of the offset project. This should include ANAC and partners who can demonstrate the appropriate technical capacity and experience for the long-term implementation of the project (e.g. private entities, research organisations, NGOs, etc.). As above, **ANAC must give a positive assessment of the offset project for the Conservation Area in question before the Environmental Authority can approve it.**

Where a new Conservation Area is being created, **a consortium or partnership must be set up with appropriate partners to guarantee the effective management and implementation of the BOMP.**

Other essential aspects to ensuring the proper management and implementation of offsets will be discussed below:

- **Who the entities are that comprise the offset Monitoring Committee:** Ministerial Order 55/2022 gives a list of possible entities to be included in the committee. The proposal of entities to be included must be submitted by the project developer alongside the BOMP;
- **How financial management of the offset will be ensured** in order to guarantee its implementation and the permanence of the results achieved: the developer must specify this information in the BOMP;
- **What institutional agreements are necessary** to clarify the relationships between the parties involved and who is responsible for managing and implementing the offset [23]: the developer must specify this information in the BOMP.

4.3 SECTION III - MANAGEMENT BODIES (Pages 686-688 of Ministerial Order 55/2022)

In accordance with the Directive on Biodiversity Offsets, this section describes the powers and composition of the management bodies, namely the Environmental Impact Assessment Authority, the Technical Committee for Environmental Impact Assessment, the Technical-Scientific Unit for Biodiversity Offset Support and the Provincial Environmental Service, as well as the functions of the Biodiversity Offsets Management Plan Monitoring Committee and the responsibilities of the project developer.

4.3.1 Chapter 1. The Environmental Impact Assessment Authority

As described in **point 1 of Chapter 1 of Section III** of the Order, the competences of the Environmental Impact Assessment Authority are, without prejudice to others attributed by law:

a. **Identifying and mapping, at national level**, potential areas with the appropriate conditions for receiving Biodiversity Offset Management Plans;
b. **Managing and co-ordinating**, in the context of Environmental Impact Assessment, **the assessment processes for Biodiversity Offset Management Plans** submitted by project developers;
c. Appointing and chairing the **Environmental Impact Assessment Technical Committee** for each project submitted for appraisal;
d. **Evaluating the information on socio-environmental reference conditions** in areas where negative impacts on biodiversity are produced and locations where Biodiversity Offset Management Plans are implemented;
e. **Approving Biodiversity Offset Management Plans and issuing licences** accordingly;

23 Through the contracts established, the developer will partially transfer their responsibility to third parties, namely the providers in charge of delivering the results of the offset. For the purposes of obtaining and renewing the environmental licence, however, it is the developer who bears responsibility for the successful achievement of the conservation results of the offset and who is accountable to the environmental authorities.

f. **Establishing, hosting and operating the Technical-Scientific Support Unit for Biodiversity Offsets;**
g. **Monitoring, evaluating and following up on the implementation of Biodiversity Offset Management Plans;**
h. **Collaborating and co-ordinating with the authority responsible for monitoring and auditing the implementation of Biodiversity Offset Management Plans**, as well as authorising or instructing any additional measures necessary to ensure the objectives defined in the plans are achieved;
i. **Ensuring the registration, using national mechanisms, of the Biodiversity Offset Management Plans,** the conservation results achieved and the assessments issued under the terms of this Directive;
j. **Assessing the sufficiency of the insurance and guarantees presented by the project developer** to cover all risks inherent in the implementation of the **Biodiversity Offset Management Plans**.
k. **Issuing and disseminating guidance on the design and drafting of Biodiversity Offset Management Plans**, as well as their implementation, monitoring and adaptation; and
l. Making available **for public** consultation **the reports, maps and assessments produced with reference to the design, implementation, monitoring, auditing and adaptation of Biodiversity Offset Management Plans.**

It should be noted that the Environmental Impact Assessment Authority is an established body, operational since 2015 under Decree No. 54/2015.

4.3.2 Chapter 2. The Technical Commission for Environmental Impact Assessment

As described in **point 1 of Chapter 2 of Section III** of the Order, it is the responsibility of the Technical Commission for Environmental Impact Assessment (CTA), without prejudice to the other competences attributed by law:

a) To **review the component relating to biodiversity offsets**, in the context of the Environmental Pre-feasibility Study and Definition of Scope and the Environmental Impact Study;
b) **Review the Biodiversity Offset Management Plans** and the respective proposals for alterations or adjustments, issuing opinions to be submitted to the Environmental Impact Assessment Authority.

It should be noted that the CTA is not a new structure, but already exists under Decree No. 54/2015, of 31 December. It is established whenever an EIA procedure is underway, and there is no need to create it when a project arises that requires the development of a biodiversity offset. The CTA is multi-sectoral and is made up of the organisations considered most relevant to each type of project.

4.3.3 Chapter 3. The Technical-Scientific Unit for Biodiversity Offset Support

The Technical-Scientific Unit for Biodiversity Offset Support is a new structure established to provide integrated, strategic support the Environmental Impact Assessment Authority in its decision-making on key aspects of the design, approval, implementation, evaluation and monitoring of BOMPs, namely alignment with national targets, areas receiving offsets and technical implementation tools.

As described in point **1 of Chapter 3 of Section III** of the Order, it is the role of the Technical-Scientific Unit for Biodiversity Offset Support to support the Environmental Impact Assessment Authority responsible for biodiversity offsets by:

(a) Carrying out **annual analyses of offset projects** already implemented and in progress nationally, verifying their alignment with government biodiversity conservation targets;
(b) Proposing the approval of programmes in order to **align the application of the Environmental Impact Mitigation Hierarchy with national conservation targets;**
(c) Contributing to the **identification of areas to receive offsets and sites** with the potential to become Conservation Areas through the implementation of offsets;
(d) Producing **technical guidelines or other instruments necessary for the implementation of offsets,** as well as any **necessary amendments** to this Directive;
(e) **Issuing assessments** of the design or implementation of Biodiversity Offset Management Plans when requested by the Environmental Impact Assessment Authority.

As established in **points 2, 3 and 4** of the same chapter, the terms of reference must be approved by the Minister for the Environment. This minister is also responsible for appointing the members of the Technical-Scientific Unit for Biodiversity Offset Support, which must be composed of representatives of the state, the private sector, academia and civil society who have experience in environmental impact assessment and the design, management, implementation and/or financing of Biodiversity Offset Management Plans or biodiversity conservation and management projects. It may include members who are familiar with other biodiversity groups already established by DINAB.
The unit should have an odd number of members to facilitate decision-making. This should preferably be by consensus or, if this is not possible, by simple majority.
Annex E. Terms of reference for the Technical-Scientific Unit for Biodiversity Offset Support presents the terms of reference for the Technical-Scientific Unit.

4.3.4 Chapter 4. The Provincial Environmental Service

As described in **point 1 of Chapter 4 of Section III** of the Order, the Provincial Environmental Service is responsible for:

a. **Approving and formalising the monitoring committee for each Biodiversity Offset Management Plan,** in co-ordination with the Environmental Impact Assessment Authority and the project developer;
b. **Chairing the monitoring committee for each Biodiversity Offset Management Plan in its province**, in co-ordination with the Environmental Impact Assessment Authority; and
c. **Promoting co-ordination and positive relationships between the organisations** involved in implementing the Biodiversity Offset Management Plans and the region's stakeholders.

The Provincial Environmental Service is an existing government structure, therefore no new structure need be created, but it must ensure it plays an active role in the process of monitoring biodiversity offsets at a provincial level.

4.3.5 Chapter 5. The Biodiversity Offset Management Plan Monitoring Committee

The **Biodiversity Offset Monitoring Committee** is a new structure created by Ministerial Order no. 55/2022. It is fundamental for the effective and transparent implementation of offset actions and the achievement of the results agreed in the BOMP. It should be established during the initial phase of the offset and has the task of monitoring and advising the management entity and the implementers of the offset, in order to ensure that the BOMP is implemented as effectively and efficiently as possible.
As established in **point 1 of Chapter 5 of Section III** of the Order, each Biodiversity Offset Management Plan should have a Monitoring Committee to carry out the following functions:

a) **To monitor the progress of the offset activities and the results achieved** in relation to the established timescale and targets, advising the developer and the entities involved in the management and implementation of the offset on aspects that can be improved to ensure effective implementation;
b) **To monitor the implementation process** of Biodiversity Offset Management Plans and propose any adjustments considered necessary to achieve the best conservation results;
c) **To promote co-ordination and positive relationships** between the entities involved in implementing the Biodiversity Offset Management Plans and the region's stakeholders; and
d) **To provide annual information to the central Environmental Impact Assessment Authority** through reporting on the implementation of the Biodiversity Offset Management Plans.

As described in **point 2** of the same chapter, **the Biodiversity Offset Monitoring Committee will be chaired by the director of the Provincial Environmental Service** and may be made up of the following members, the specific composition depending on the characteristics of the project in question:

a) A representative of the central Environmental Impact Assessment Authority, who also serves as assistant to the director;
b) A representative of the Provincial Environmental Service, who serves as the chair;

c) Where the offset is being implemented in a Conservation Area, a representative of the Conservation Area management body;
d) A representative of the organisation responsible for monitoring, supervising and auditing Biodiversity Offset Management Plans;
e) A representative of the Provincial Service responsible for the main activity carried out by the project developer;
f) A representative from a public university in the province or region;
g) Two representatives of civil society;
h) A representative of the district government;
i) Three representatives of local communities at or near the site of implementation of the offset project; and
j) A representative of the developer of the project or activity.

As described in **points 3 and 4** of the same chapter, the members of the Biodiversity Offset Monitoring Committee provided for in points a) to g) of the previous point will be appointed by the state representative in the offset implementation province or the province covering the largest offset area. The representatives of district government and local communities will be appointed by the district administrator of the district implementing the offset or by joint nomination by the district administrators where the offset covers more than one district. It should be noted that the proposal for members of the Biodiversity Offset Monitoring Committee must be made by the developer themselves, as part of their BOMP.

As established in **point 5** of the same chapter, **it is the responsibility of the developer to ensure** that the **Biodiversity Offset Monitoring Committee is functional.** The developer is also responsible for paying all costs arising from this process, including the cost of meetings, visits to offset implementation sites and any other costs required.

4.3.6 Chapter 6. Responsibilities of the project developer

The developer of the project or activity referred to in **the Order may be any public or private entity which is developing a Category A or A+ project.** As described in **point 1 of Chapter 6 of Section III**, the project developer is responsible for:

a) **Adequately implementing the Mitigation Hierarchy for impacts on biodiversity**, in accordance with these guidelines;
b) **Adequately qualifying and quantifying the significant residual negative impacts of the project** on biodiversity and the biodiversity gains to be achieved, adjusted for actual losses;
c) **Submitting the appropriate preliminary and final Biodiversity Offset Management Plans to offset the anticipated significant residual negative impacts**, even if the measures to prevent, minimise and restore damage to biodiversity have not yet been completed, in order to achieve the desired conservation outcomes;
d) **Undertaking studies of the reference ecological situation** in the impact zone and the offset zone;
e) Providing evidence that the project or activity to be developed **does not directly or indirectly affect areas that are considered to be Fatal Issues or critically endangered species or ecosystems;**
f) **Signing the institutional agreements** required to guarantee the proper management and implementation of the biodiversity offsets;
g) **Ensuring the necessary funding for the implementation of the Biodiversity Offset Management Plan**, including for the meetings of the Biodiversity Offset Monitoring Committee;
h) **Ensuring the presentation of guarantees in Mozambican territory** under the terms of these guidelines, the Biodiversity Offset Directive and other applicable legislation;
i) **Registering the Biodiversity Offset Management Plans** and the conservation results achieved with national mechanisms;
j) **Maintaining the biodiversity gains resulting from the offset** for a duration no shorter than that of the occurrence of the impacts caused and preferably in perpetuity, guaranteeing the effective protection of the results achieved and avoiding their loss or deterioration;

k) **Initiating the activities of the Biodiversity Offset Management Plan prior to the implementation of the development project activities**, with reference to the expected residual impacts presented in the EIAR;
l) **Submitting annual monitoring reports on the Biodiversity Offset Management Plan** to the central and provincial Environmental Impact Assessment Authorities;
m) **Contracting an independent external auditor to verify** the biodiversity gains achieved through the offset;
n) **Informing the central and provincial Environmental Impact Assessment Authorities and the Biodiversity Offset Monitoring Committee** of any situation that might threaten the implementation of offset activities and/or the achievement of the agreed results set out in the management plans;
o) **Proposing to the central Environmental Impact Assessment Authority any measures or adjustments necessary** to ensure the objectives defined in the Biodiversity Offset Management Plan are realised;
p) **Reviewing the calculations of actual biodiversity gains and losses at least every five (5) years**, prior to the renewal of the environmental licence, and proposing appropriate adjustments to the Biodiversity Offset Management Plan;
q) **Adjusting the Biodiversity Offset Management Plan** to the needs identified by the central Environmental Impact Assessment Authority at any stage of implementation;
r) **Ensuring, in the case of projects with a lifespan of less than five (5) years, that the Biodiversity Offset Management Plan allows for the achievement of conservation outcomes** within that period or includes an implementation and financing mechanism to ensure their achievement.

Stakeholder engagement

During the offset design phase, the developer must liaise with all interested parties. This includes not only the environmental authority, management entity and entities implementing the offset, but also the management entity of the Conservation Area (where the offset is implemented in such an area), local authorities, communities and civil society organisations in the area where the offset will be implemented. Other key organisations such as universities may also be involved.

Interaction and effective co-ordination with ANAC and the Conservation Area management entity is particularly important in order for the BOMP to be aligned with the Conservation Area Management Plan and to enable effective implementation of the necessary activities, both in the Conservation Area, its buffer zone and its surroundings. This engagement will ensure the accountability of all stakeholders and the transparency of the entire process, from planning to implementation, preventing potential problems and optimising the operation of the offset.

It is at this stage that the entities which will comprise the Biodiversity Offset Monitoring Committee should be identified. These should include the developer, environmental authorities (national and provincial), relevant local authorities, management and implementing entities, local NGOs and CSOs, communities, research institutions and others as appropriate.

The project developer may undertake this work directly or through the entity it contracts to manage the offset if it chooses to do this. The role of direct stakeholders in the implementation of the offset is described above, in point 8 of Section II - Material requirements.

4.3.7 Chapter 7. Monitoring

During the implementation phase of the BOMP, appropriate monitoring must be carried out to ensure the activities comply with the provisions of the BOMP. As described in **points 1 and 2 of Chapter 7 of Section III of the Order**, the body responsible for monitoring the implementation of Biodiversity Offset Management Plans will act in partnership with the Environmental Assessment Authority and, where necessary, by decision of the appropriate competent body, may undertake monitoring in collaboration with the ministries that oversee the activity carried out by the project developer.

At the time of writing this first edition of the manual, the competent authority is the Agency for Environmental Quality Control (AQUA), also represented by its provincial delegations. It has the following duties:

a) Environmental inspection of environmental licences for all activities, to check compliance with environmental protection standards;
b) Supervision of environmental auditing and monitoring actions, establishing whether the recommendations of environmental audits have been implemented and the condition of the environment where such actions have not been carried out;
c) Monitoring compliance with the mitigation measures proposed as part of the environmental impact assessment process, with a view to reducing or eliminating the negative effects of activities on the environment.

4.4 SECTION IV - REQUIREMENTS (Pages 688-690 of Ministerial Order No. 55/2022)

In accordance with the Biodiversity Offsets Directive, this section describes in detail the requirements for the implementation of biodiversity offsets: BOMPs, the quantification of biodiversity losses and gains, metrics, monitoring and evaluation plans, funding and financial guarantees.

4.4.1 Chapter 1. Biodiversity Offset Management Plans (BOMPs)

After applying the steps in the Mitigation Hierarchy, the project developer must determine whether biodiversity offsets need to be planned and implemented. To do this, they must **(1) determine whether there are any residual negative direct, indirect** and/or induced impacts that can be considered significant rather than negligible. If these exist, **(2) they must be quantified** in order to **(3) define the results to be achieved** and **(4) define the process for achievement of the results**, technically (how), spatially (where), temporally (when) and by whom.

All developers of Category A+ or A projects in the process of obtaining an environmental licence for projects with significant but acceptable residual negative impacts on the biodiversity considered most important after applying the steps of the Mitigation Hierarchy are required to develop and implement biodiversity offsets. To this end, they are **required to draw up a Biodiversity Offset Management Plan (BOMP), according to Article 11, point 2 of Decree No. 54/2015** and point 2 of Chapter 3 of Section I of Ministerial Order No. 55/2022. **Points 1 and 2 of Chapter 1 of Section IV** of this Order detail the structures of the preliminary and final BOMP. The development of each takes place at different stages of the EIA process, as explained below in **Section V, Chapter 3**.

Table 4 compares the minimum contents of the **preliminary and final BOMPs**, as established in **points 1 and 2 of Chapter 1 of Section IV**.

Table 4. Information that must be presented in the preliminary and final BOMPs

Point 1: Preliminary BOMP	Point 2: Final BOMP
a) Full identification of the developing organisation	a) Full identification of the developing organisation
b) Description of the activity or project that will cause negative impacts and the measures **planned** to avoid and minimise them, as well as to restore the affected areas	b) Description of the activity or project that will cause negative impacts and the measures **defined** to avoid and minimise them, as well as to restore the affected areas
c) Identification of the types of biodiversity that are **expected** to be directly or indirectly affected, whether ecosystems, habitats, species or others, and the respective areas of impact	c) Identification of the types of biodiversity that **will** be directly or indirectly affected, whether ecosystems, habitats, species or others, and the respective areas of impact

Point 1: Preliminary BOMP	Point 2: Final BOMP
d) Definition of the types of biodiversity affected and **for which** a Net Gain or No Net Loss **is expected** to be achieved	d) Definition of the types and attributes of biodiversity affected and **for which** a Net Gain or No Net Loss **is** to be achieved
e) Definition of the **types of biodiversity** to be enhanced and protected	e) Definition and **quantification of the results to be achieved**, particularly with regard to the types of biodiversity to be enhanced and protected
f) **Provisional indication of the metrics** that will be used to measure the biodiversity losses and gains obtained from the offset	f) **Description of the metrics used** to measure the biodiversity losses and gains obtained from the offset
g) **Preliminary proposal** for the type of offsetting activity and its geographical area of implementation	g) **Identification** of the type of offsetting activity and proposal for its geographical area of implementation
h) **Estimate of the total period** envisaged for achieving the offset objectives	h) **Description of the total** period envisaged for achieving Net Gain or No Net Loss objectives through the offset activities and detailed timetable for them
i) **Preliminary description** of the condition of the reference ecosystem in the geographical area prior to the implementation of the offsets	i) **Description** of the condition of the reference ecosystem of the geographical area prior to the implementation of the offsets
	j) An assessment study of the types, conditions and quality of biodiversity in order to determine the potential for improving it, in the case of plans to be implemented in Conservation Areas
j) **Preliminary identification** of the risks associated with the activity or project and the offset management plan	k) **Identification** of the risks associated with the activity or project and the offset management plan, as well as the measures to prevent and mitigate them
k) Preliminary proposal of the potential members of the Biodiversity Offset Monitoring Committee	l) Definition of the mechanisms for the participation of interested parties in the implementation of offsets, which should include the members of the Biodiversity Offset Monitoring Committee
l) **Summary** description of the implementation mechanisms required to implement the offset management plan	m) **Description** of the implementation mechanisms required to implement the offset management plan
NA	n) Assessment of the Conservation area Management body, where Biodiversity Offset Management Plans are implemented in Conservation Areas
NA	o) Partnership agreement between the developer of the project or activity and the Conservation Area management body, where Biodiversity Offset Management Plans are implemented in Conservation Areas.
m) Presentation of a **budget forecast** and financial mechanisms for implementing the offset activities and maintaining them over time	p) Presentation of a **detailed budget and description** of the financial mechanisms for implementing the offset activities and maintaining them over time
NA	q) Identification and description of the profile of the entity(ies) implementing the biodiversity offset activities, including evidence of their technical qualifications and experience
n) **A preliminary summarised description of the types of monitoring and evaluation** of the	r) **A plan for the monitoring and evaluation** of the Biodiversity Offset Management Plan, including **mechanisms for the submission of complaints**

Point 1: Preliminary BOMP	Point 2: Final BOMP
Biodiversity Offset Management Plan that are to be implemented	

The BOMP must be technically robust, drawn up by a team with the necessary technical expertise to incorporate everything listed in Table 4, at both the preliminary and final stages. Figure 26 illustrates the steps that must be taken when designing the BOMP to ensure it is of the required quality.

Before the environmental authorities approve the final BOMP, they must ensure the applicant fulfils the requirements identified above using the checklist (Form template) presented in Annex B. Form template of this manual.

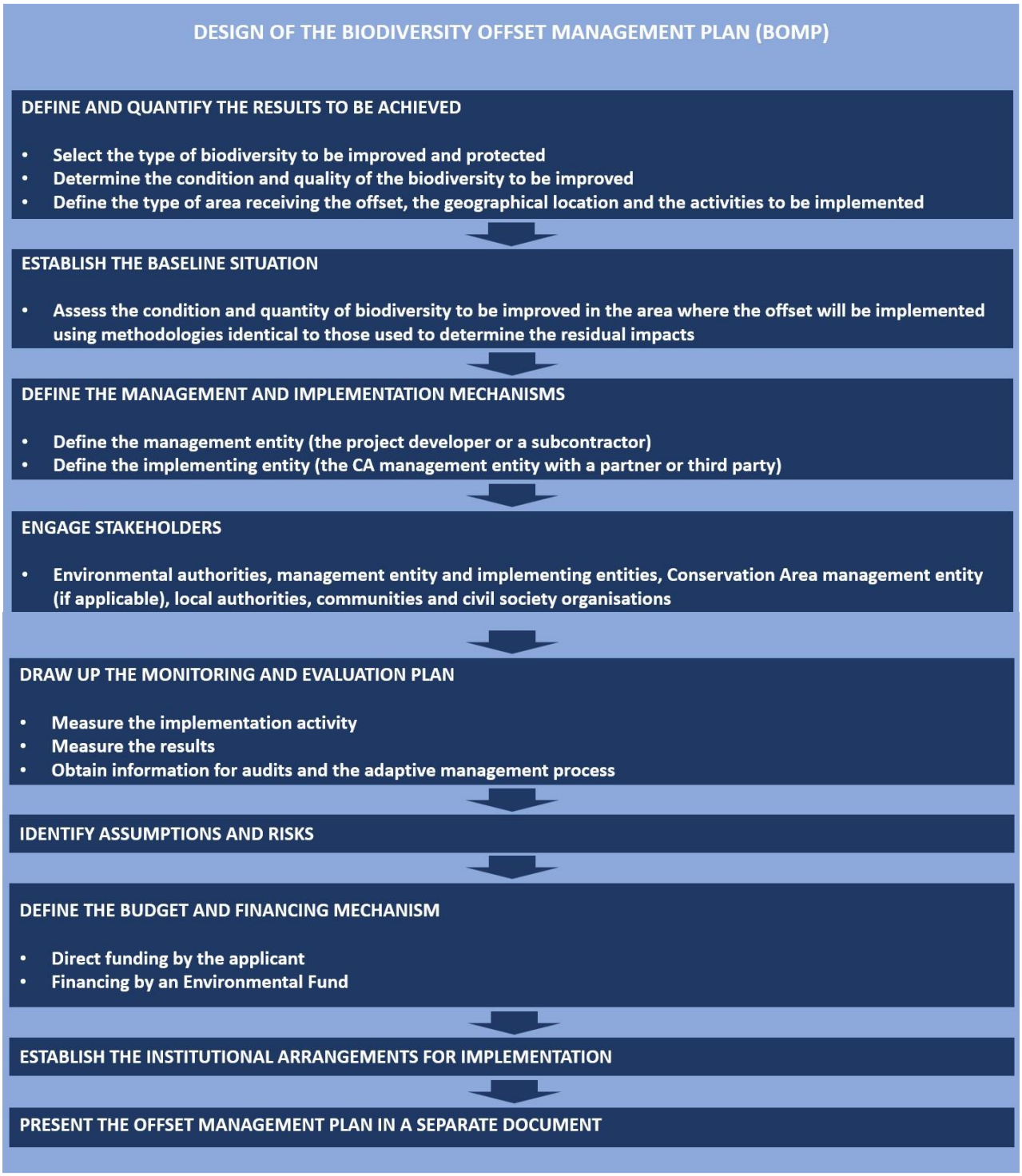


Figure 26. Summary of the steps required to design a Biodiversity Offset Management Plan (BOMP)

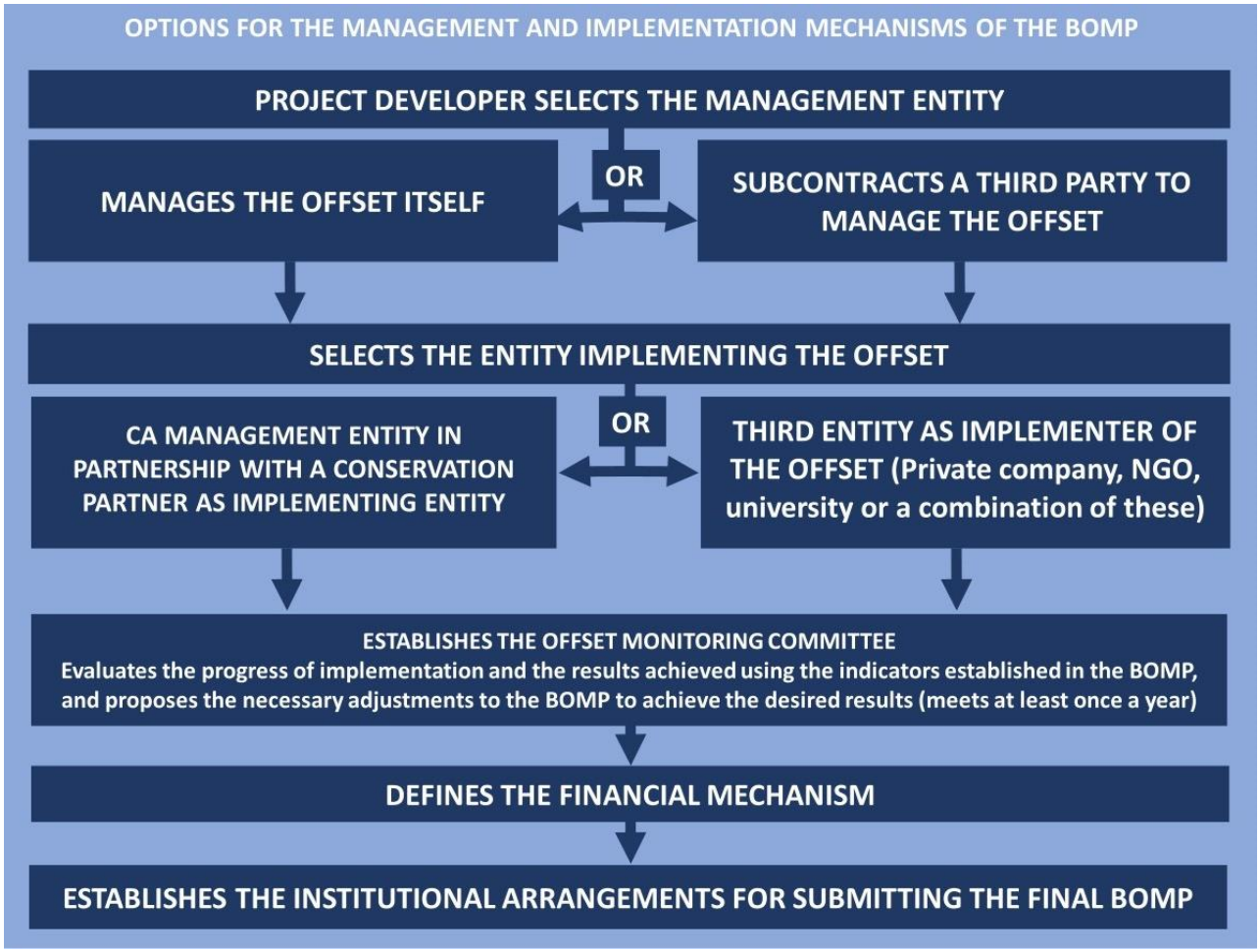


Figure 27. Summary of the process for selecting management options and implementing the offset, as well as subsequent steps (setting up the monitoring committee, defining the financial mechanism and establishing institutional agreements)

4.4.2 Chapter 2. Quantifying biodiversity losses and gains

Where there is a likelihood that important biodiversity will be impacted by a development project, biodiversity losses and gains must be quantified through the application of metrics. The gains obtained from offsetting projects for impacted biodiversity should subsequently be calculated using the same metrics. Note that the biodiversity that must be offset is that described in **point 1 of Chapter 1 of Section II** - Material requirements.

According to **point 1 of Chapter 2 of Section IV** of the Order, the **entity responsible for the environment will establish, by specific Order, technical guidelines** to support the design, implementation and monitoring of offsets, including the rules for quantifying and qualifying significant, direct, indirect or cumulative adverse residual impacts on biodiversity, as well as for defining equivalences for offsets.

Point 2 of the same chapter states that the rules for quantifying and qualifying biodiversity losses and defining equivalences should consider, among other aspects, the type and attributes of direct and indirect biodiversity affected by the project or activity.

As established in **point 3 of Chapter 2 of Section IV, where technical guidelines do not exist or where there is no specific metric for the type of biodiversity in question, the project developer may propose their own methodology**, provided it is justified and follows the parameters set out in the Biodiversity Offsets Directive. It is recommended that, in such cases, methodologies previously used and tested at international level be employed.

At the time of writing this document, national technical guidelines are available in Mozambique for the measurement of the ecological condition of three ecosystems: miombo forests, mangrove forests and coral reefs. All are available via SIBMOZ:

- Ribeiro, N., Nazerali, S. & Chuque, A. (2020). A contribution to Mozambique's biodiversity offsetting system: framework to assess the ecological condition of Miombo Woodlands. Final report. Maputo. 89 pp.
- Ribeiro, N., Nazerali. S., Nicolau, D., Sidat, N. and Costa, H. (2021). Validation report of the miombo metric in the Derre forest reserve in Zambézia province: contribution to the implementation of biodiversity offsets. BIOFUND, Maputo, Mozambique. 44 pp.
- Macamo, C., Nicolau, D., Machava, V., Chitará, S., Bandeira, S. (2021). A contribution to Mozambique's biodiversity offsetting scheme: Framework to assess the ecological condition of mangrove forests. Maputo. 104 pp.
- Birrell, C. L., Sola, E., Costa, H. M. (2021). A contribution to Mozambique's biodiversity offsetting scheme: Framework to assess the ecological condition of coral reefs. Wildlife Conservation Society, Maputo, Mozambique; pp 42.
- Birrell, C. L., Sola, E., and Costa, H. M. (2021). A contribution to Mozambique's biodiversity offsetting scheme: A Test of Coral Reef Indexes using WCS data for Mozambique. Wildlife Conservation Society, Maputo, Mozambique; pp 78.
- Birrell, C. L., Sola, E., and Costa, H. M. (2022), A contribution to Mozambique's biodiversity offsetting scheme: Protocol for assessing the condition of coral reefs in Mozambique. Wildlife Conservation Society, Maputo, Mozambique; pp 43.

A guide to the development of future metrics, for both ecosystems and species, will be published shortly as an annexe to this manual (see next chapter).

4.4.3 Chapter 3. Metrics

As explained in **points 1, 2 and 3 of Chapter 3 of Section IV** of the Order, losses of the most important biodiversity must be offset by gains in biodiversity of equivalent quantity and quality. The units of measurement used for these calculations are called **metrics** or **indices**. To ensure equivalence, the same types of metrics must be used to calculate losses and gains. Metrics are of two types and can be used separately or together depending on the characteristics of the biodiversity and/or ecosystems affected. Where the impacted biodiversity is a **species of flora or fauna**, the appropriate metric is one of the following:

i. **Abundance or density of species**: the number of individuals or their density is counted. In cases in which it is difficult to obtain these parameters, forms of indirect measurement may be used, such as area of occupation and/or occurrence, or the metric below;

ii. **Habitat quality and area for a given species, measured in area (hectares) and weighted by habitat quality**: if habitat suitability models exist, these can be used as a form of measurement for the species. This type of model is rare, however. As an alternative, the habitat preferences or requirements of the species can be determined. In this case, an area measure weighted by the quality of the habitat in question for the species, referenced to an ideal scenario, should be used. This is also known as a benchmark.

Where the impacted biodiversity is an **ecosystem or vegetation type**, the appropriate metric is:

i. **The condition and area of the ecosystem measured in hectares weighted by its condition**: this is a measure of area (in hectares) based on the condition of a given ecosystem or vegetation type. It requires a classification by ecosystem or vegetation type alongside an ideal reference scenario (benchmark). In this case, the assessment should be based on a composite metric, following existing national guidelines or best available practice.

According to **point 4 of Chapter 3 of Section IV**, for projects in which more than one type of biodiversity is impacted, the appropriate metric should be used for each type. Two concepts commonly used when referring to metrics are described below (Figure 28):

i) **Biodiversity type**: this usually refers to the biodiversity elements that will be directly or indirectly affected by a project, whether these are ecosystems, habitats or species, and for

which NG or NNL should be achieved (e.g. protected species of fauna or habitats with restricted geographical distribution);

ii) **Biodiversity attributes**: these are the elements that collectively (or sometimes individually, as in the case of species abundance or density) characterise the type of biodiversity and for which calculations can be made (e.g. number of breeding individuals; ecological condition of a given habitat; percentage of canopy cover of a tree species; diameter of a plant at chest height; percentage of invasive species). They can also be referred to as biodiversity indicators, and can be aggregated to produce an index of the condition of a given type of biodiversity.

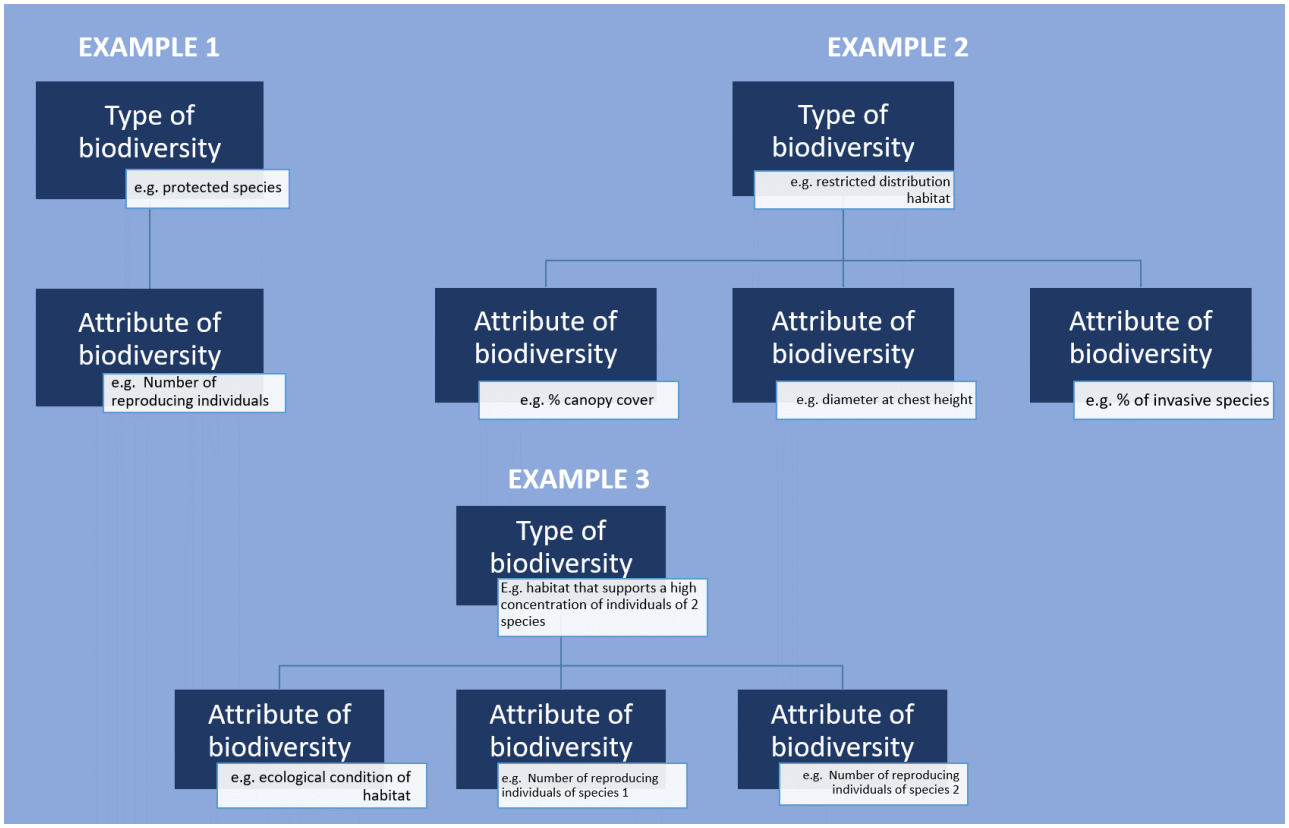


Figure 28. Conceptual diagram of examples of combinations of attributes used to calculate a metric or index.

As explained in **point 5 of Chapter 3 of Section IV** of the Order, the use by project developers of metrics or indices other than those presented above is subject to authorisation by the Environmental Impact Assessment Authority. As mentioned above, at the time of the first edition of this manual three metrics/indices existed, for calculating the ecological condition of the miombo, mangrove and coral reef ecosystems. Other indices will be created, and they may also be **produced by project developers** and **submitted to the Environmental Impact Assessment Authority**, provided they are properly evidenced.

As well as the requirement to calculate losses and gains, the project developer must also take into account **a number of offset rules when deciding on offset options**:

(a) **While the principle of equivalence must be maintained, in certain circumstances the affected biodiversity can be exchanged for another of greater value** (as described in point f of Section I of Chapter 5 and illustrated in Figure 16);

(b) **A quality of biodiversity must be achieved in the offset area that is equivalent to or higher than that in the impacted area** (in terms of e.g. habitat quality or ecosystem condition);

(c) **To calculate the offset area, the nationally-defined ratios for the types of biodiversity for which there are established national targets** should be applied. In addition, a multiplier, which is calculated

on a case-by-case basis, should be used to reduce the risk of failure of the offset as well as the time needed to achieve the agreed results;

(d) **Offsetting activities must include the improvement of existing biodiversity in relation to the situation prior to offsetting, as well as its effective protection in the long term.**

According to **point 6 of Chapter 3 of Section IV** of the Order, depending on the final offset result required, namely whether Net Gain or No Net Loss is to be achieved, the basic requirements as indicated below should be ensured:

a) For outcomes where **No Net Loss is to be achieved, the basic requirement is 1:1** for the number of individuals of a species or the weighted area gained for each unit lost. In other words, if the project involves the allocation of 10 hectares of mangrove forest, the end result of the offset must be at least 10 hectares more mangrove forest than existed previously.

b) For results where a **Net Gain is to be achieved, the basic requirement is 1:1.15** for the number of individuals of a species or the weighted area gained for each unit lost. Following the example above, in this case the final result of the offset must be at least 11.5 hectares more mangrove forest than existed previously; and

Where **national targets** for specific ecosystems or species exist, **the baseline requirement is determined per target**, unless this requirement is lower than that required by a) and b) above. In other words, if there is a national target stating that no more area of a particular ecosystem can be lost because it is threatened, and where, for example, it is stated that for every hectare affected, 5 hectares must be planted, this is the relevant requirement, as it is higher than those in a) and b) above.

As described in **points 7 and 8** of the same chapter, the basic requirements identified in the previous paragraph should be increased to reflect the uncertainty of the success of the offsetting activities and the length of time between the occurrence of the impacts and the expected results. The quality of biodiversity to be achieved in the offset area must be equivalent to or higher than that of the impacted area immediately before the impact occurred.

It is therefore **necessary to determine the multipliers to be considered for each type of biodiversity**, i.e. by how many times an area to be offset (or a number of individuals of a species) must be greater than the impacted area (or number of individuals).

For the biodiversity considered to be of the greatest national relevance (whether this is ecosystems, habitats or species), these **multipliers** should be determined on a case-by-case basis. They **depend on various factors**, such as:

a) **threat status**

b) **degree of rarity in relation to what is desirable**

c) **difference between quality/condition in the impacted area before and after the implementation of the development project**, compared to the difference between the quality/condition in the area receiving the offset before and after its implementation;

d) **the length of time it takes for the offset activities to achieve the expected results** in relation to when the impact occurred;

e) **the degree of uncertainty** about the success of the offset activities;

f) the existence of an **established national target** for the area (in hectares) that is **to be safeguarded for certain ecosystems or types of vegetation present in the country**, with an associated ratio for re-establishment if they are affected (e.g. 1:2, 1:5, 1:10). In such cases, the offset rules state that this type of multiplier should override the previous factors, unless it is lower than c).

For each technical document containing the metrics to be considered for quantifying the losses and gains of a given biodiversity value should **include the respective multiplier** or **the instructions for calculating it**, and this should be used as a minimum reference. The team responsible for drawing up the BOMP must present the multiplier selected and justify it with reference at least to the factors listed above.

As and when metrics for different types of biodiversity are developed by various stakeholders, the **Environmental Authority will make them available to all actors involved in the process**.

As described in **point 9** of the same chapter, the estimate of the conservation results to be achieved must be based on solid ecological evidence and expert opinion. In other words, the BOMP must be developed on the basis of a detailed analysis of the potential success of the proposed actions, and the potential for achieving the desired results must not be overestimated. Evidence must be provided to justify how the results will be achieved over time and how the risks of failure will be mitigated.

4.4.4 Chapter 4. The Monitoring and evaluation plan

The **Monitoring and Evaluation Plan** is a fundamental component of the BOMP and must always be tailored to the offset in question, in accordance with **point 1 of Chapter 4 of Section IV**. There is no universal formula for this, but the plan should make it possible to:

- **Clearly identify the monitoring activities**;
- **Evaluate the degree to which the proposed activities** have been implemented in accordance with the specifications in the BOMP;
- Measure the **success of the implementation**[24];
- Measure the **conservation results achieved**;
- Promote **learning and training opportunities**;
- Propose **adjustments to the initial BOMP** that result in an increase in its efficiency and effectiveness.

In order to measure the results achieved, the **Monitoring and Evaluation Plan should use a Before-After/Control-Impact (BACI) approach**, in which the biodiversity targeted by the offsetting activities is measured before the activities are implemented, both at the site of their implementation (the reference situation or baseline) and in a control area or areas similar to the one receiving the intervention. The results should then be measured regularly after the offset activities have been implemented, and the baseline situation should be compared with the control, preferably using statistical analyses. The frequency and recurrence of monitoring should be defined on a case-by-case basis. When correctly applied, this approach allows the results achieved by the BOMP to be distinguished from natural variations and random events that may occur in ecosystems or populations of local species.

The data measured during the period prior to the implementation of the offset activities will help establish the baseline situation to be taken into account when recording the offset. To aid comparison, it is essential that the same metrics are used for both baseline and offset. The methods used must be quick to implement and focused on obtaining information for calculating the specific key indicators to be used to measure the results achieved (**Key Performance Indicators** - KPIs). They should also be cost-effective to enable monitoring to take place over the long term.

The Monitoring and Evaluation Plan will form the basis of the monitoring and supervision of the offset by the environmental authorities, as well as informing the management team and the project developer about the performance of the implementation team and the effectiveness of the activities being carried out. **Point 2** of the same chapter states that monitoring reports should be submitted to the Biodiversity Offset Monitoring Committee and the environmental authorities (the Environmental Impact Assessment Authority, the inspectorate and the relevant Provincial Service) at least annually. The information obtained will allow the stakeholders (environmental authorities, implementing organisation, management organisation, developer and monitoring committee) to contribute to and decide on any adjustments to the BOMP. This is known as **adaptive management** and is discussed later in this document.

Finally, this approach will facilitate decision-making about payments to the implementing organisation that depend directly on the achievement of previously-agreed results (whether implementation or conservation results), as well as providing the auditors with information to check against their audit data.

The **successful implementation** of the offset depends on the fulfilment of certain **basic principles and assumptions**. Offset projects however also contain **natural or anthropogenic risks**, as well as other risks inherent to their various stages of implementation. All of these can prevent successful implementation and the achievement of planned results. It is therefore essential that **the assumptions and risks associated with**

24 This requires the plan to have defined its indicators of success (KPIs).

each project are identified and quantified during the design of the BOMP, and that the contingency measures that have been put in place to minimise these risks are presented in the monitoring plan.
It is recommended that this analysis be carried out using a matrix format (Figure 29) and included in the dedicated chapter identified in Annex D- Structure of the final Biodiversity Offset Management Plan. The risks should be monitored by the offset management organisation on an ongoing basis by means of the monitoring plan. This will allow them to be managed in an adaptive manner, as discussed below.

	Probability	Rare	Unlikely	Possible	Probable	Almost certain
Severity/ consequence		1	2	3	4	5
Catastrophic	5	5 moderate	10 high	15 extreme	20 extreme	25 extreme
Elevated	4	4 moderate	8 high	12 high	16 extreme	20 extreme
Moderate	3	3 low	6 moderate	9 high	12 high	15 extreme
Low	2	2 low	2 moderate	6 moderate	8 high	10 high
Negligible	1	1 low	2 low	3 low	4 moderate	5 moderate

5	**4**	**3**	**2**	**1**
Catastrophic	**Elevated**	**Moderate**	**Low**	**Negligible**
Action with potential to lead to non-viability/failure of offset actions, causing significant damage and generalised long-term impacts.	A critical event that requires an extraordinary action, resulting in significant generalised or long-term impacts.	A serious event that requires additional actions to manage it, resulting in moderate impacts.	An event that effects the offset action, resulting in localised impacts of a temporary nature.	Minimal impact that can be mitigated through normal activity.

Figure 29. Example of a risk matrix that can be used to assess the risks of failure of the BOMP

Point 3 of the same chapter states that **conservation results** must be presented **every five (5) years**, prior to the renewal of the environmental licence, calculating the percentage result achieved in relation to the forecast and, where applicable, proposing the necessary adjustments to the Biodiversity Offset Management Plan to improve the performance of the conservation actions implemented to date. According to **point 4** of the same chapter, where projects have a lifespan of less than five (5) years, the project developer must demonstrate that the conservation results will be achieved by the end of the project's lifespan, or present the financial guarantees and implementation mechanisms necessary to achieve them, as set out in the Biodiversity Offset Management Plan.
Finally, it should be noted that the Central and Provincial Environmental Impact Assessment Authority must guarantee access to the monitoring and evaluation reports to all interested parties, in accordance with **point 5** of the same chapter, as well as point k of **Chapter 5 of Section I**.

4.4.5 Chapter 5. Financing

- **Budget and financing mechanism**

Under Mozambican law, the **project developer** is responsible for mitigating and offsetting their impacts. As such, they **are responsible for guaranteeing the financing of the offset, and must select the most appropriate mechanism to guarantee the sustainability of its implementation, management, maintenance, monitoring, auditing and review during the period established by the environmental operating licence**. In accordance with **point 1** of Chapter 5, the project developer must therefore:

- **Draw up and submit a detailed budget**.
- **Present the sources of funding** and **how payments will be made** over the implementation period (disbursement dates) along with estimates of the amounts allocated for each activity, including contingencies for risk management.

- **Detailed budget**

The **detailed budget** must cover all the costs associated with the BOMP, ensuring that the permanence of the results achieved is guaranteed. The **budget must be presented by activity and for the entire implementation and maintenance period**, and must take into account:

- All the costs of the BOMP (implementation, management, maintenance, monitoring, auditing and review) and assumptions;
- Contingencies for risk management;
- Inflation.

- **Financing modality and guarantees**

When developing the financing approach, the project developer should take into account that **certain activities are of a permanent nature, particularly those aimed at maintaining the biodiversity gains achieved**. **The developer will therefore need to establish the necessary arrangements** to guarantee this type of financing. In accordance with **point 2 of Chapter 5**, the developer must have a bank account domiciled in Mozambique, or other finance mechanism permitted by law, exclusively for the financing of offset activities. They must submit proof of budget availability to the Environmental Impact Assessment Authority on an annual basis.

The developer is obliged to provide a **financial guarantee to eliminate the risk of non-compliance in the event of a shortage of funds to implement and maintain the offset project until its completion**. This is covered in **Chapter 6** below.

Figure 30 shows proposed steps for establishing an appropriate financial mechanism for implementing the offset, considering two options: i) **the developer finances the offset autonomously, creating its own funding mechanism and channelling funds for the implementation period of the BOMP**; ii) or **it uses a specialised fund management entity, such as an Environmental Fund**.

Whichever option is selected, it is crucial that **part of the funding for the offset is made available in advance to ensure that the offset is implemented on time** and that funds are available to achieve the long-term results.

These **initial funds should be deposited in a trust account**, which should either be an **account created by the developer** for the sole purpose of financing the offset (with the environmental authority being provided with evidence of its creation), or **by means of a special account established through an Environmental Fund**.

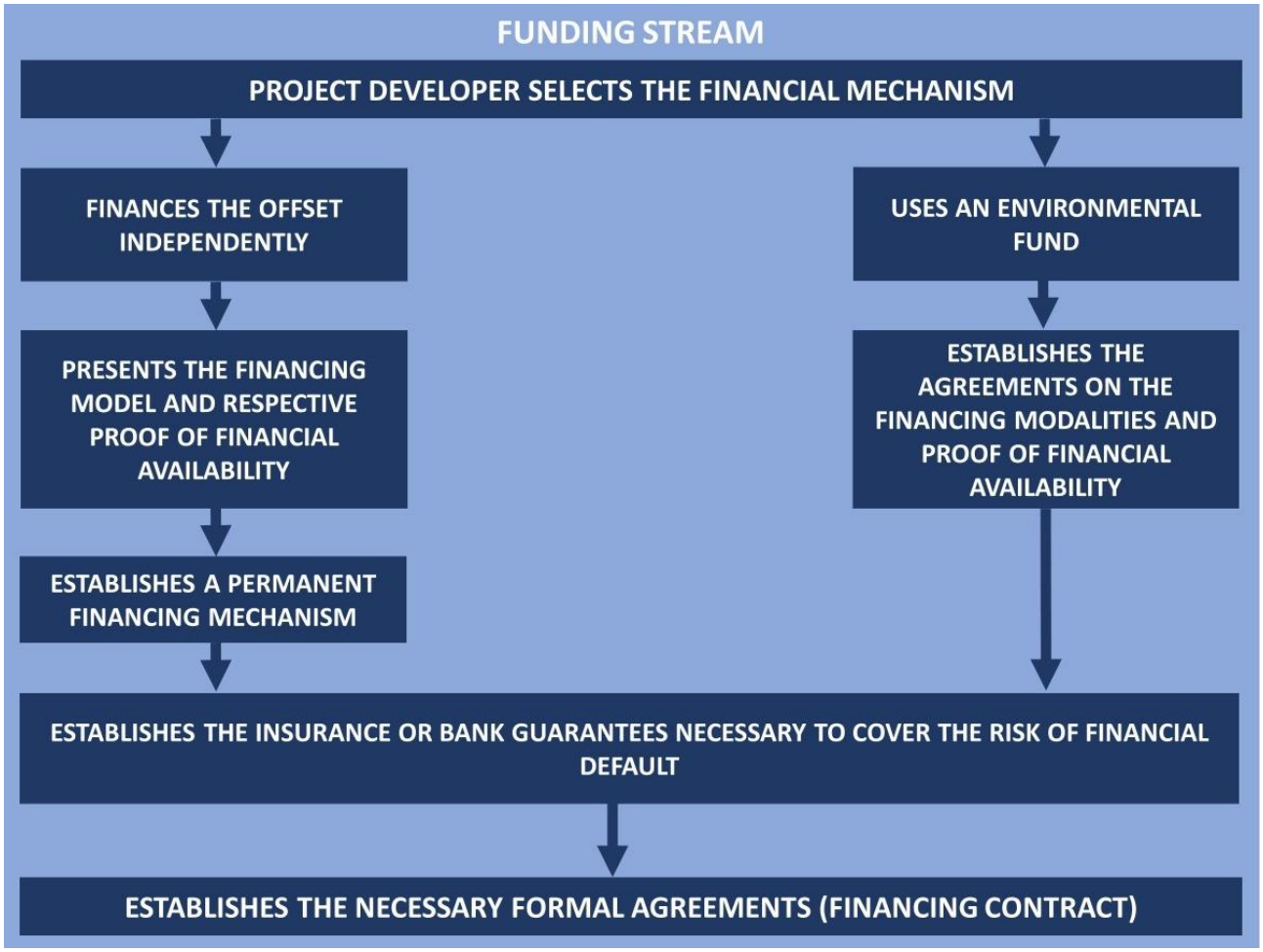


Figure 30. Procedure for establishing the financing mechanism for a BOMP

An example of a suitable financing mechanism for an offset is **the creation of a specific and permanent capital fund** (e.g. endowment fund). This option is often used by Environmental Funds. Such a fund should be designed on a case-by-case basis: **funding for the maintenance of the BOMP could, for example, come from the interest earned on investments in this fund**. The amount needed to establish this capital fund must be calculated according to the costs that will need to be covered to implement, maintain, monitor, audit and review the offset, and should take into account the annual inflation rate and expected net interest rate. The fund may be created at any time during the financing plan, in order to be capitalised at the end of the financing period. The payments to it must be channelled into a dedicated account.

- **Direct financing of the offset by the project developer**

As explained above, the project developer must submit:

- **Proof of funding secured** to cover the BOMP implementation budget;
- **A description of the financial mechanism that will guarantee funding throughout the defined period**.

In accordance with **point 3 of Chapter 5 of Section IV** of the Order, before the operating licence is issued, the project developer must make available in the bank account referred to above **at least 50% of the amount needed to cover the costs of the Biodiversity Offset Management Plan submitted**. The applicant should make the full amount available **once implementation of the offset has begun**, **by depositing the funds in**

the bank account domiciled in Mozambique (as described above) and designated for the sole purpose of implementing the offset.

As mentioned in **point 4 of the same chapter**, when **renewing the environmental licence**, **the project developer must present the bank account balance**, and must ensure it has the **necessary funds to cover the costs** of the biodiversity offset management plan **for at least the next five years**, until the next renewal of the environmental licence.

According to **point 5 of the same chapter**, projects with a duration of less than five years must make 100% of the amount needed to cover the costs of the Biodiversity Offset Management Plan submitted available in the bank account. For projects of short duration, it is crucial to ensure that the offset is actually implemented and has adequate funding to guarantee its permanence, even after the development project has been completed. Short-term development projects can lead to significant and permanent residual negative impacts. There may therefore be a need for offset actions to be maintained over a longer period of time. The results of offsetting, by definition, must be permanent, implying their maintenance over time.

- **Financing of the offset by a third party, such as an Environmental Fund**

Environmental funds are typically private, legally independent institutions that contribute to sustainable financing for biodiversity conservation. **Environmental funds offer advantages to developers, representing an ideal vehicle for managing biodiversity offset funds and supervising their implementation over time**, as they allow for the creation of a permanent capital funds and investment capital to manage offsets.

Implementation through this financing mechanism can be realised through a **combination of advance and/or annual payments**, for which the Environmental Fund provides the necessary arrangements to ensure the management of the offset financing. In practical terms, on implementation, **the funds flow from a project developer** with an obligation to implement their BOMP or renew their operating licence **to an Environmental Fund**, through the signing of a contract between the two parties.

At an early stage in the implementation of this financing model, the **Environmental Fund can use a *Progressive Financing mechanism*** for the implementation of the offset project, subject to the appropriate financial guarantees. This follows a process made up of the phases shown in Figure 31.

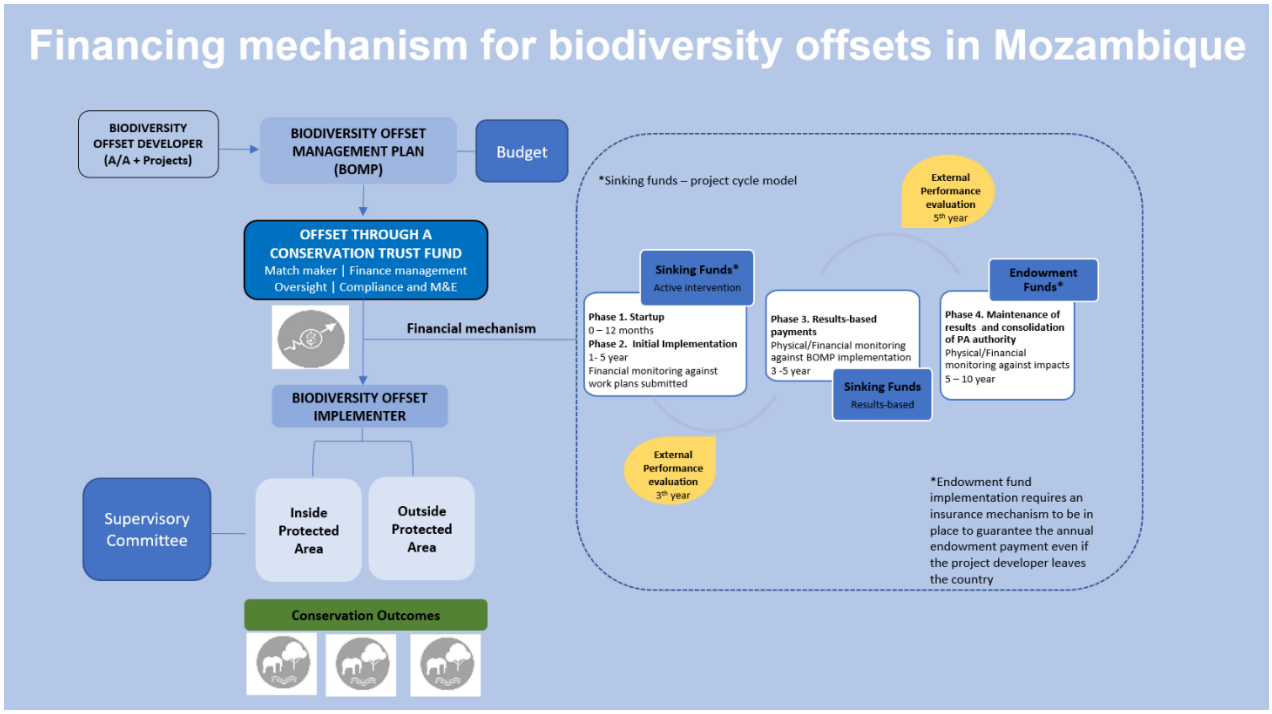


Figure 31. Offset financing process through an Environmental Fund

In the initial phase, a project management model is implemented in which **funding from the developer is channelled to the Environmental Fund** through sinking funds. The offset can be divided into several implementation phases, such as: i) initiation of activities; ii) establishment of the offset; iii) payment by results; and iv) stabilisation and maintenance (Figure 31). Payments can be linked to each of these phases.

From the stabilisation and maintenance phase onwards, it is possible to create and capitalise a specific capital fund (endowment fund), **the income from which will support the maintenance of the offset results until the end of the agreed period**. The **Environmental Fund provides and manages the financial mechanism through a contract with the project developer. It may also manage the implementation of the offset as a subcontractor**. The **Environmental Fund channels the necessary financial resources to the offset implementers in exchange for their achievement of the agreed biodiversity results**, for the duration of a collaboration period defined in a contract or collaboration agreement.
The key aspects of this financing mechanism are the **contractual relationships** between the project developer, the Environmental Fund, the management entity and the offset implementer, **the financial guarantees for payment or insurance** in the event of project discontinuation or recurrent non-payment and **the legal liability of the offset**. These aspects must all be addressed in the final BOMP. Even where they have contracted a third party to manage the financing of the offset, the project developer remains responsible for all of the requirements described in Chapter 5. The advantage is that the subcontracted entity, in particular if it is an Environmental Fund, should already have the required mechanisms in place.

4.4.6 Chapter 6. Financial guarantees

As described in **points 1 and 2** of Chapter 6, in cases in which the project developer does not provide the full amount required to ensure the implementation of the Biodiversity Offset Management Plan, including the full costs of monitoring, auditing, contingency, risk, etc., they **must provide a financial guarantee to the Environmental Impact Assessment Authority (EIA) for the remaining amount**. This may take the form of an insurance policy, bank bond or cash deposit, and must be autonomous, unconditional, irrevocable, enforceable on first demand and payable immediately. It should be provided to the EIA in a bank account in Mozambique opened exclusively for this purpose.

The financial guarantee must be paid in full within 30 days of a valid claim, in accordance with **point 4** of the same chapter.

Point 3 of the same chapter states that the EIA must assess the guarantees submitted, based on the estimated costs presented in the BOMP, in order to ensure they are sufficient to cover the risks associated with their implementation. The EIA may request a review of the BOMP and the amount of the financial guarantee from a qualified and independent third party, with the project developer being responsible for the cost of this, as established in **point 5** of the same chapter.

In the event that the financial guarantee proves insufficient, including for reasons of total or partial execution, the EIA may order its reinforcement in order to guarantee compliance with the BOMP. Proof of the reinforcement of the guarantee must be submitted to the EIA, as established in **points 6 and 7** of the same chapter.

The financial guarantee must be paid in full within 30 days of a valid claim, in accordance with **point 4** of the same chapter.
In accordance with **point 8** of the same chapter, a BOMP will be invalid unless the financial guarantee has been provided or reinforced in accordance with the Biodiversity Offset Directive. In such situations the environmental license will be limited.

4.5 SECTION V- APPROVAL AND REGISTRATION OF THE OFFSET (Pages 690-692 of Ministerial Order 55/2022)

This section explains how the offset is integrated into the Environmental Impact Assessment and environmental licence renewal process and how the respective verification processes are carried out. The following requirements are covered:

- the preparation of the Biodiversity Offset Management Plan, which is an integral part of the offset process and a condition for the issuing or renewal of the environmental license;
- the undertaking of public consultations and assessments to inform the decision on whether to issue the environmental license;
- the registration of the Biodiversity Offset Management Plan and environmental audits to assess biodiversity gains;

4.5.1 Chapter 1: Integration into the Environmental Assessment

As stated in **Chapter 1 of Section V,** Biodiversity Offset Management Plans must be **submitted, assessed, monitored, reviewed and renewed as part of the Environmental Impact Assessment and licence renewal processes,** of which they are an integral component.

4.5.2 Chapter 2. The Environmental Pre-feasibility Study and Definition of Scope and terms of reference

As described in **point 1 of Chapter 2 of Section V** of the Order, during the phase of the Pre-Feasibility and Scoping Study [Estudo de Pré-Viabilidade Ambiental e Definição do Âmbito, EPDA] and preparation of the terms of reference (ToR), project developers should analyse whether their project potentially requires offsets using the decision-making processes described above (see Box 14). Ideally, they should carry out a pre-feasibility study for the offset, adding the ToR of the BOMP to the ToR of the EIA.

Box 14. Assessing the need for offsetting during the project's pre-feasibility phase
As explained above, the need for a BOMP should be assessed at an early stage of the project (pre-feasibility or at least from the EPDA phase). If the probability of requiring a BOMP is high, investigation should begin of the potential offsetting options. Considering the possibility of needing to implement an offset at this stage could save the applicant time and avoid delays during the licensing phase.

Point 2 of the same chapter states that an indication in the Environmental Pre-feasibility and Scoping Study that there is no need to implement offsets, or that no significant residual impacts on biodiversity are foreseeable, does not exempt the applicant from the obligation to produce a Biodiversity Offset Management Plan should these impacts be identified during the Environmental Impact Study or by decision of the Environmental Impact Authority. It may be that within the scope of the EPDA there is not yet enough information available to determine whether there will be significant residual negative impacts on biodiversity that must be offset.

4.5.3 Chapter 3. The Environmental Impact Assessment

The Preliminary Biodiversity Offset Management Plan is submitted with the EIA and the Environmental Management Plan. As its name suggests, this document is a preliminary identification of the unavoidable residual impacts expected. It estimates their quantity, as well as indicating the probable types of area that will receive the offsets, the geographical options and the types of activity to be implemented, as established in **point 1 of Chapter 3 of Section V** of the Order. However, in accordance with **points 2 and 3** of the same chapter, if the applicant has sufficient information to submit a Final Biodiversity Offset Management Plan, this can be submitted as an alternative to the preliminary plan. The Environmental Impact Assessment Authority must rule on the Preliminary or Final Biodiversity Offset Management Plan within the same time frame as the Environmental Impact Assessment and alongside the Environmental Management Plan.

According to **point 4** of the same chapter, **the final BOMP is submitted at a later stage, prior to receipt of the environmental operating licence. It must include all the details**, including concrete measurement of residual impacts, results to be achieved, concrete implementation options, management and implementation mechanisms, institutional agreements, the financing mechanism and the financial guarantees or insurance.

Once each type of BOMP has been drawn up and submitted **to the environmental authorities, they must analyse it. In order to do so, they may call on the support of specialised technicians** (in the case of Category A+ projects, these will be independent reviewers; in the case of Category A projects, which may be more complex, they will be members of the Technical-Scientific Unit for Biodiversity Offset Support). Decision on approval will be given within 60 (sixty) working days, in accordance with **point 5** of the same chapter.
Once the final version of the BOMP has been approved, it can be registered with the national mechanism for registering biodiversity offset projects. Once implemented, the offset must be monitored regularly (at least annually) and the results audited every five years, before the environmental licence is renewed. The results of the independent external audit should inform the decision of the environmental authorities on whether the conditions for renewing the environmental licence have been met. Figure 32 shows the cycle for approving, licensing, registering and renewing an environmental license.

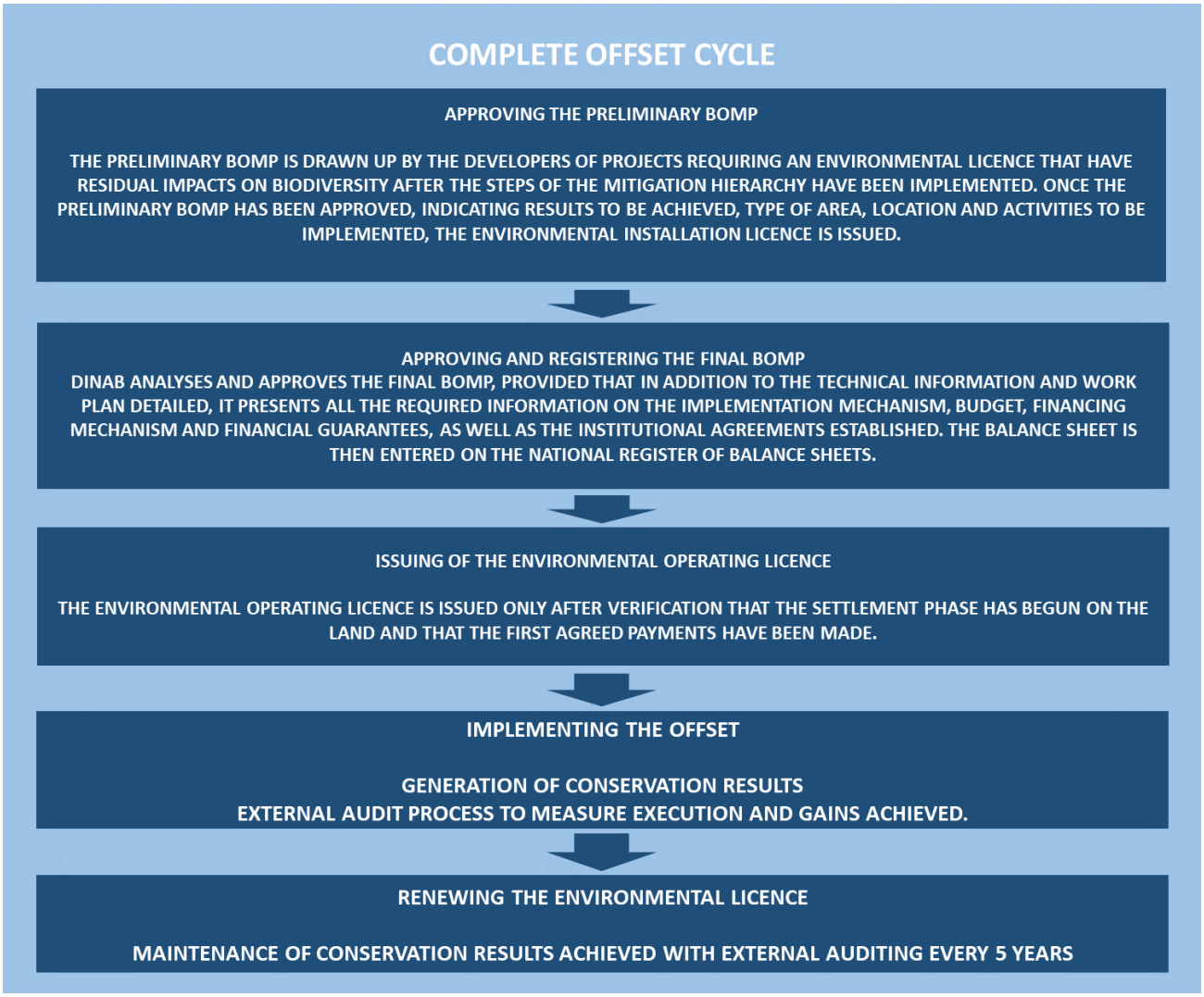


Figure 32. Process for approving, licensing and registering the BOMP and renewing the environmental license.

4.5.4 Chapter 4. The Environmental license

As described in **point 1 of Chapter 4 of Section V** of the Order, submission of the Preliminary or Final Biodiversity Offset Management Plan is a **condition for the issuing the environmental installation licence or environmental operating licence, respectively**, for category A+ or A projects with significant negative residual impacts (Figure 33). Note that the Preliminary BOMP allows the process to proceed normally. **The final BOMP conditions the operating licence.** This is also the case with the implementation of the Resettlement Plan (Figure 33).

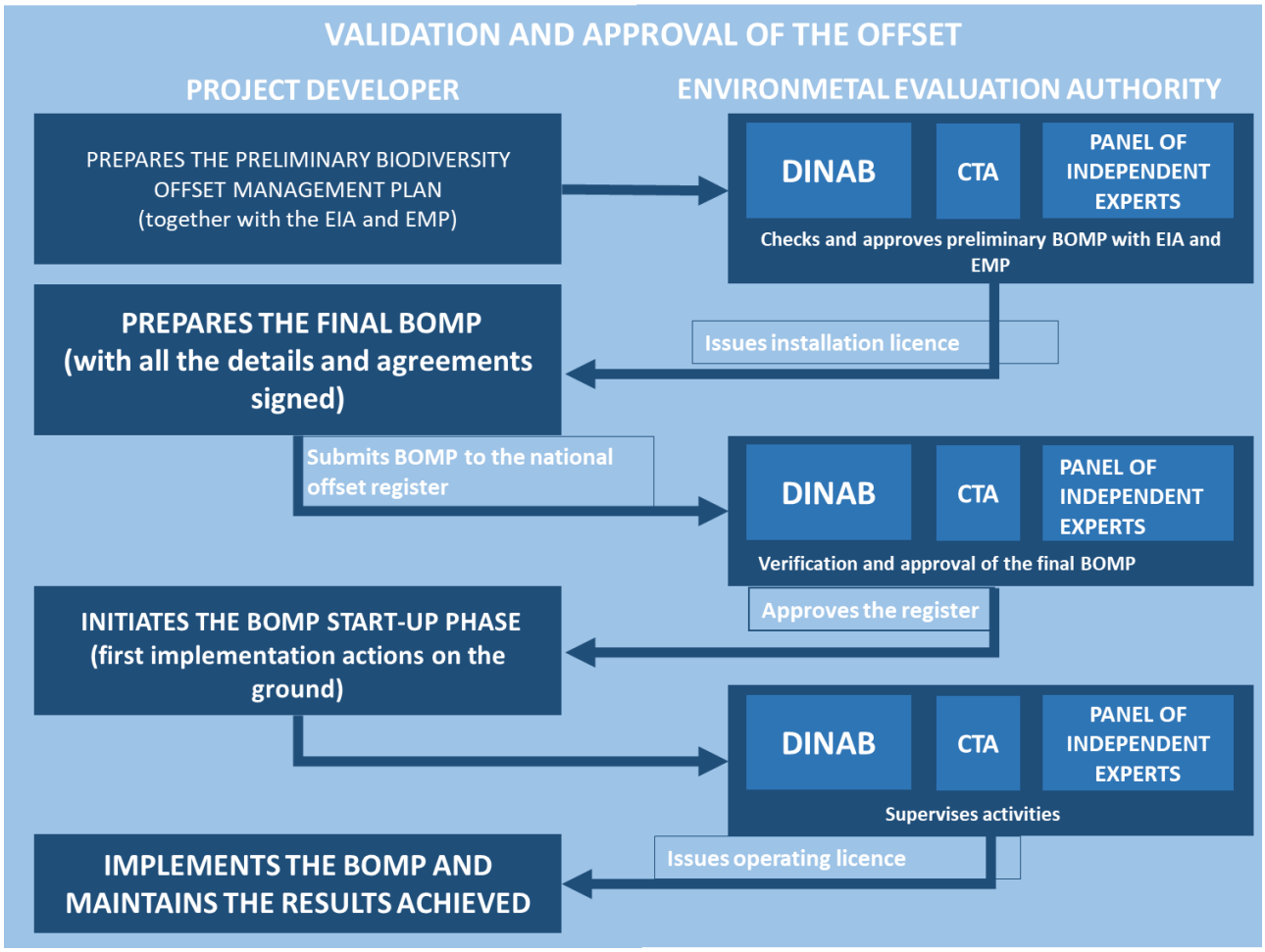


Figure 33. Stakeholders involved in the offset validation and approval process.

According to **point 2** of the same chapter, the issuing of the environmental operating licence is also contingent on the fulfilment of the following conditions:

a) Registration of the offset with the competent authority;
b) Proof of implementation of the actions in the Preliminary Biodiversity Offset Management Plan;
c) Proof of financial availability for the implementation of the Biodiversity Offset Management Plan and the provision of financial guarantees in accordance with point 5 of Section IV of the Directive (Ministerial Order no. 55/2022, of 19 May);
d) Proof of payment of the financial guarantee for the implementation of the Biodiversity Offset Management Plan, in accordance with point 6 of Section IV of the Directive (Ministerial Order no. 55/2022, of 19 May).

4.5.5 Chapter 5. Public Consultation

The Preliminary and Final Biodiversity Offset Management Plans are **subject to public consultation**, in accordance with **point 1 of Chapter 5 of Section V.** The relevant records must be attached to the EIAR. **Point 2** of the same chapter states that all natural or legal persons, public or private, directly or indirectly interested in and/or affected by the Biodiversity Offset Management Plan must be engaged through public consultations.

As established in **point 3** of the same chapter, it is the responsibility of the project developer to **ensure that public consultation is carried out.** This entails providing all required information in advance about the activity to be undertaken and the decisions made, as well as responding to requests for clarification.

Finally, as established in **point 4** of the same chapter, **the applicant must make the Biodiversity Offset Management Plans, any updates to them and the respective annual monitoring reports public** using the appropriate means to reach all of those interested and/or affected, including the relevant authorities, representatives of industry organisations, economic associations, civil society organisations and local communities.

Points 5, 6 and 7 of the same chapter state that **public notices must be posted at least twice, thirty (30) and fifteen (15) days before the consultations take place.** They must be printed in the country's most widely circulated newspaper and broadcast on public and community radio stations, where these cover the local communities in the places where the Biodiversity Offset Management Plan will be implemented. The Environmental Impact Assessment Authority may also recommend the use of other means of communication or dissemination of the notices or information, depending on the specifics of the project or activity or the profile of the target persons. Comments on the Biodiversity Offset Management Plan and the public consultation process, as well as on the respective records, **must be submitted to the Environmental Impact Assessment Authority within 30 days** of the date of the public consultations. Point 8 states that the applicant must produce a report containing all the **comments resulting from the public consultation process**, as is customary in this type of process.

4.5.6 Chapter 6. Assessments

The applicant must, develop the BOMP based on the foreseeable residual impacts of the project and following the decision-making logic described above, as well as the structure presented in Annexe D. For category A+ projects, both the Environmental Impact Assessment Reports (EIAR) and their respective EMPs, including the BOMP, must be assessed by a team of independent expert reviewers, who will give their opinion to DINAB and the Technical Assessment Commission (Comissão Técnica de Avaliação do Impacto Ambiental, CTA). **Once the preliminary BOMP has been approved, along with the EIA and EMP, DINAB will issue the environmental installation license** (Figure 33). One of the criteria for the approval of the preliminary BOMP is the establishment of a pre-agreement with the developer on the likely biodiversity offset option(s) and implementation location(s). **If the offset is to be implemented in an existing Conservation Area, a favourable assessment must be received from ANAC prior to approval by DINAB**. In the case of implementation outside Conservation Areas, an assessment by the entity that administers and manages the area is required and is binding.

4.5.7 Chapter 7. Decision

According to **point 1 of Chapter 7 of Section V**, the Environmental Impact Assessment Authority **makes decisions** on Biodiversity Offset Management Plans with reference to: the **information provided by the project developer;** the **assessments** of the Technical Commission for Environmental Impact Assessment; the **reports and minutes** of the public consultations and any comments on them; the information provided by the Offset Monitoring Committee; and **prior knowledge** of the area and the **environmental conditions** of the site where the project or activity is to be implemented (Figure 34).

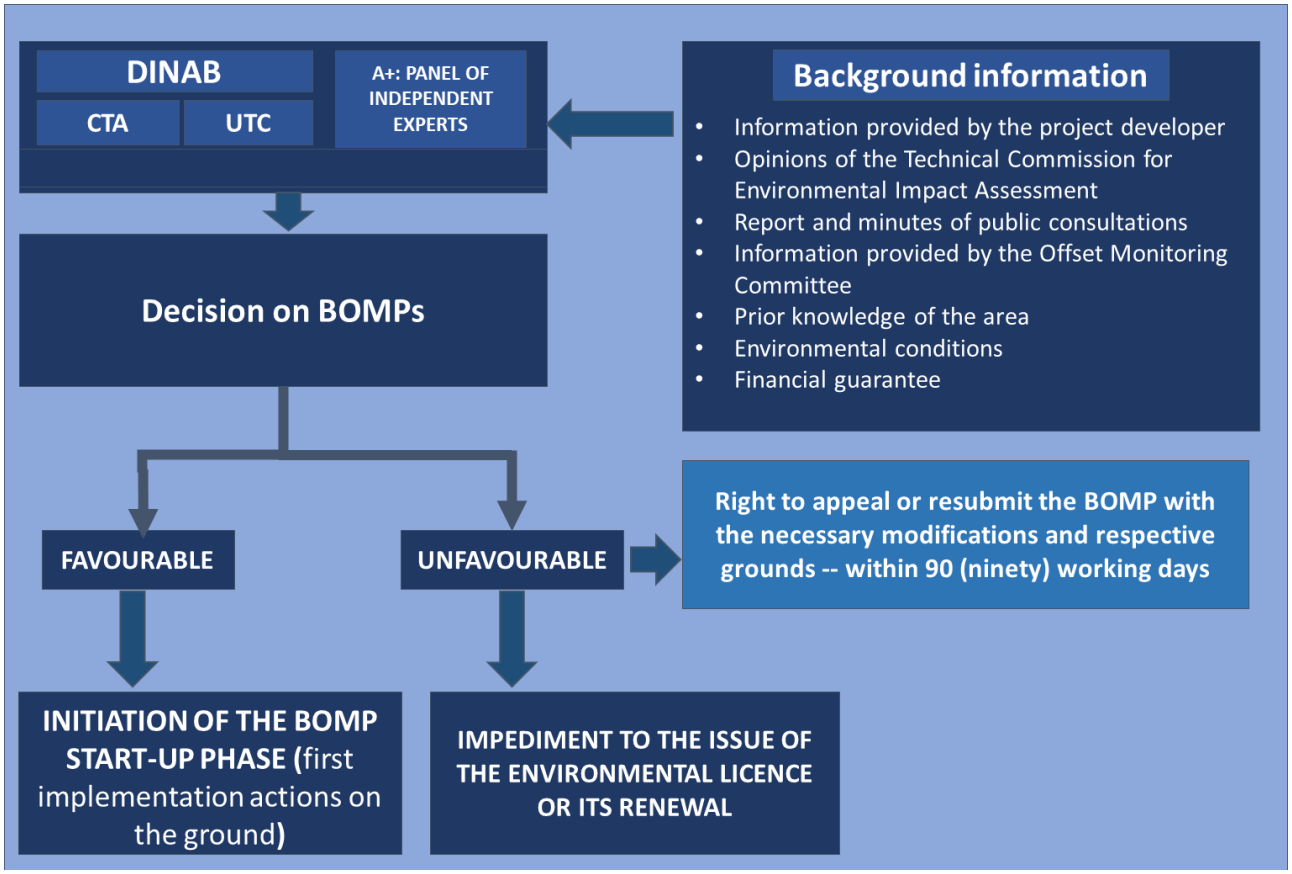


Figure 34. Process for deciding on the BOMP and issuing and/or renewing the environmental license.

In accordance with **points 2 and 3** of the same chapter, if the decision of the Environmental Impact Assessment Authority is unfavourable, **the applicant has the right to appeal or to resubmit the BOMP** with the required modifications and grounds within 90 (ninety) working days of receiving the notification. Note that the **rejection** of the Biodiversity Offset Management Plan will **prejudice** the issuing or renewal of the **environmental license**.

Figure 35 shows how the process of drawing up and approving the BOMP is aligned with the EIA process in accordance with Decree No. 54/2015.

Figure 35. Alignment of the BOMP (Directive 55/20233) with the EIA Process in accordance with Decree No. 54/2015.

4.5.8 Chapter 8. Adaptive Management

The **entity managing the offset is responsible for consulting with the implementing entity, as well as with the Offset Monitoring Committee, in order to make decisions about the management of risks of failure**, both in implementation of the proposed activities and achievement of the agreed results.

An adaptive management philosophy should be implemented (Figure 36) based on learning from the implementation of activities and adjusting the BOMP on the basis of that learning. This addresses the issue that the aspects of an ecosystem are never fully known, nor do they necessarily respond as expected. Monitoring of the activities implemented and the results achieved allows valuable lessons to be learned that can be applied during the subsequent phase of the offset cycle.

As established in points **1 and 2 of Chapter 8 of Section V** of the Order, **both the environmental authority and the project applicant can propose adjustments to the BOMP following analysis of the results obtained from monitoring, inspection and audit activities**. The Offset Monitoring Committee also plays a key role in this regard. In order to facilitate decision-making, the BOMP should describe the adaptive management process for implementing the offset, including the formal process for improving or changing it where necessary. The BOMP should be reviewed at least every 5 years but may be adjusted at shorter intervals if necessary.

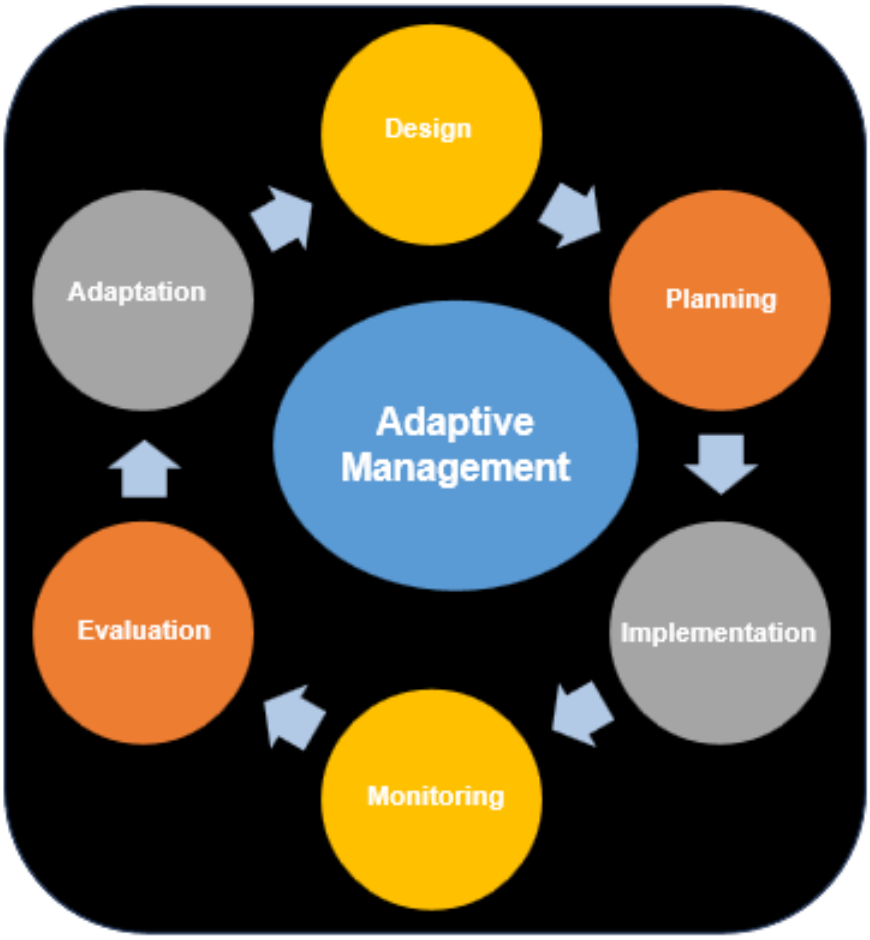


Figure 36. Adaptive management cycle of biodiversity offsets

In accordance with **points 3 and 4** of the same chapter, if at the time of renewal of the environmental licence or the closure of the project or activity, it is found that the residual adverse impacts are less than the conservation results achieved, this positive balance will be considered a biodiversity gain. This does not entitle the project developer, its contractors or subcontractors or any other interested parties to any indemnity or compensation.

4.5.9 Chapter 9. Registration of the Biodiversity Offset Management Plan

Registering and accounting for conservation gains through biodiversity offsets is an essential aspect of their effective implementation and management: it allows for verification of **whether the project developer has succeeded in achieving the results they committed to in the time scale defined in relation to a given reference situation**. It also provides **key information to inform the renewal of a development project's environmental licence by the environmental authority,** which takes place every 5 years. Registration also allows for the **distinction to be made between all national biodiversity gains that have been achieved through the implementation of offsets against the residual impacts of development projects** and those that have been obtained through funding dedicated to conservation activities in general.

As established in **point 1 of chapter 9 of section V** of the Order, The **National Register of Biodiversity Offsets** has therefore been created as part of the MTA, managed by the environmental authority. It is tasked with **ensuring that each individual offset project**:

- **Does not have multiple owners;**
- **Is not used more than once by the same or another entity; and**
- **Is not used for other purposes, including exclusively for publicity or image purposes.**

In cases in which residual impacts on biodiversity are expected, project developers are legally obliged to implement the entire process of offsetting, from the design to the implementation of the BOMP, in order to obtain their environmental licence. In accordance with **point 2** of the same chapter, the **project developer must register the offset as soon as the final BOMP has been approved by DINAB.** Any subsequent changes to it must also be registered, **at the request of the developer**. In accordance with **point 3** of the same chapter, the socio-environmental reference conditions, as well as biodiversity losses and gains resulting from the implementation of Biodiversity Offset Management Plans are also subject to registration **whenever independent external audits have taken place**, i.e. **when the environmental operating licence is issued and each time the environmental authority renews the environmental license.**

The biodiversity gains achieved over time through the implementation of the offset must be **monitored by the offset management entity and validated and verified by an independent external auditor every 5 years, in order to establish whether the project developer is complying with their legal obligations and to inform DINAB on the renewal or otherwise of the environmental license** (Figure 37). If the offset is achieved as planned, a declaration of fulfilment is issued. This specifies the results have been achieved to date in relation to those initially anticipated. According to **point 4** of the same chapter, it is the responsibility of the Environmental Impact Assessment Authority to ensure that the assessments and audit reports issued under the terms of the Biodiversity Offset Directive are registered.

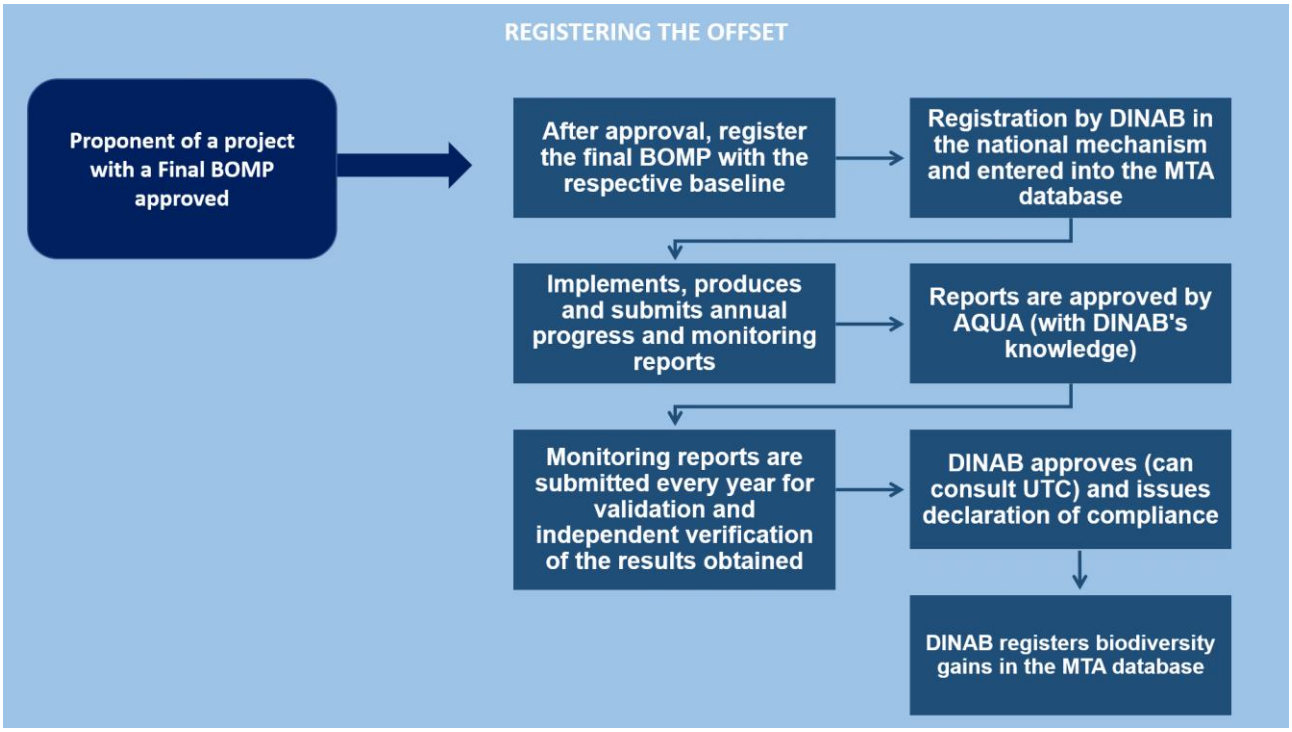


Figure 37. Recording the biodiversity offset in the traditional way

According to **point 5** of the same chapter, the following elements are required for the initial registration of the offset and its updating:

a) Executive summary of the project;
b) Summary of measures to mitigate impacts on biodiversity;
c) Quantification of residual adverse impacts on biodiversity;
d) Identification of the offset objectives and results to be achieved;
e) Indication of the reference level to be considered before implementation of the offset;
f) Indication of the level of risk of adequacy of the offset;
g) Description of the receiving area(s), locations and offset activities selected;
h) Indication of the total duration for the offset activities to achieve their Net Gain or No Net Loss objectives;
i) Identification of the stakeholders involved in the implementation of the offset;
j) Identification of the members of the Offset Monitoring Committee;
k) Summary of the monitoring, evaluation and reporting procedures to be used;
l) Presentation of the budget for the implementation and management of the offset;
m) Presentation of the financial mechanism selected to finance the offsets; and
n) Summary of the complaints procedure.

In accordance with **point 6** of the same chapter, the following documents must also be attached to the offset register:

a) Final Biodiversity Offset Management Plan and subsequent addenda or revisions;
b) Schedule of activities;
c) Monitoring reports;
d) Inspection reports;
e) Audit reports;
f) Reports drawn up by the Offset Monitoring Committee;
g) Environmental license and subsequent renewals; and

h) Assessments from environmental authorities and other government bodies.

According to **point 7** of the same chapter, all citizens have the right to free access to the registered data, which will be made available to the public via digital platforms and networks. The Environmental Licensing Management System operated by the National Directorate for the Environment has a specific module for registering offsets, which can be consulted by any citizen.

Renewal of offset certificates and environmental licenses

As stated in Article 22, point 6 of Decree No. 54/2015, of 31 December, the environmental licence for activities in operation is valid for a period of five years, renewable for the same period, upon application to the Environmental Impact Assessment Authority and payment of the appropriate fee. Point 7 of the same article states that the updating of the licence for Category A+ activities may be subject to the submission of an updated EMP and/or BOMP and, for Category A activities, to the submission of an updated EMP if the Environmental Audits already carried out and current practice justify this.

The BOMP is usually submitted together with the EMP, meaning that **both Category A+ and A project developers required to implement biodiversity offsets must submit monitoring reports every five years, along with the results of an independent audit**[25], as described above, that validates and verifies the biodiversity gains achieved by the project to date.

DINAB, in conjunction with AQUA (the entity responsible for the monitoring of project implementation), is responsible for validating and verifying the achievement and maintenance of biodiversity gains. If necessary, it can call on the support of a representative of the Technical-Scientific Unit for Biodiversity Offset Support. **It must visit the offset site to verify the biodiversity gains on the ground and, if these are positive, approve the monitoring and external audit reports and issue the declaration of fulfilment for the offset.** The costs of the site visit and the involvement of the Technical-Scientific Unit specialist must be covered by the project developer, as stipulated in point 9 of Article 22 of Decree No. 54/2015.

An important element of license renewal is the assessment of financial mechanisms and guarantees. After the first five years of implementation of the offset, the costs of the implementation and ongoing maintenance of the actions will generally be confirmed and reassessed. At this stage, as an integral part of the revised and updated BOMP, the project developer must, if required, present a review of the financial mechanism to ensure the permanence of the results[26], together with proof of payment of the associated amounts. Analysis of the financial mechanism should therefore form part of the external audit of the results achieved.

The offset renewal cycle is shown in Figure 38. The following section describes the various stages of implementation depicted in this figure. When deciding whether to approve the achievement or maintenance of the biodiversity gains resulting from the offset, DINAB must take into consideration the aspects below.

After the first cycle of the effective implementation phase of the offset (Figure 38):

- **If the results achieved are equal to or greater than half (50%) of the conservation objectives set out in the Final BOMP, in accordance with the approved implementation schedule and upon proof of their achievement, the Environmental Impact Assessment Authority will issue a declaration of compliance** to the project developer. This information must be entered in the offset register;
- **If the expected results are achieved in full, the declaration of compliance of biodiversity gains should be issued by the environmental authority** and should not negatively influence the decision on the issuing of the environmental license;

25 As explained above, the cost of audits should be included as part of the cost structure of the balance sheet.

26 If the biodiversity to be offset requires, by its nature, a longer period of time to become established, the renewal of initial financial arrangements can be accepted.

- **If the results fall short of those forecast, the declaration of compliance should be issued in a proportion corresponding to what has actually been achieved.** An analysis of the results should then be made (if necessary with the support of a representative of the Technical-Scientific Unit for Biodiversity Offset Support) in order to establish whether or not they condition the renewal of the environmental licence. **If the results are below half (50%) of what was forecast for the period in question and there is no justification considered plausible** (e.g. activities affected by a climatic phenomenon, fire or a natural pest), **the environmental licence must be conditional on the presentation of guarantees to reverse the situation and the payment of an appropriate fine.** A plan must be presented detailing what will be corrected in order to achieve the missing results. It should be noted that, according to **point 9 of the same chapter**, and without prejudice to the qualitative assessment, the declaration of compliance must **specify in absolute and percentage terms the degree to which the conservation objectives** set out in the Final Biodiversity Offset Management Plan have been achieved.

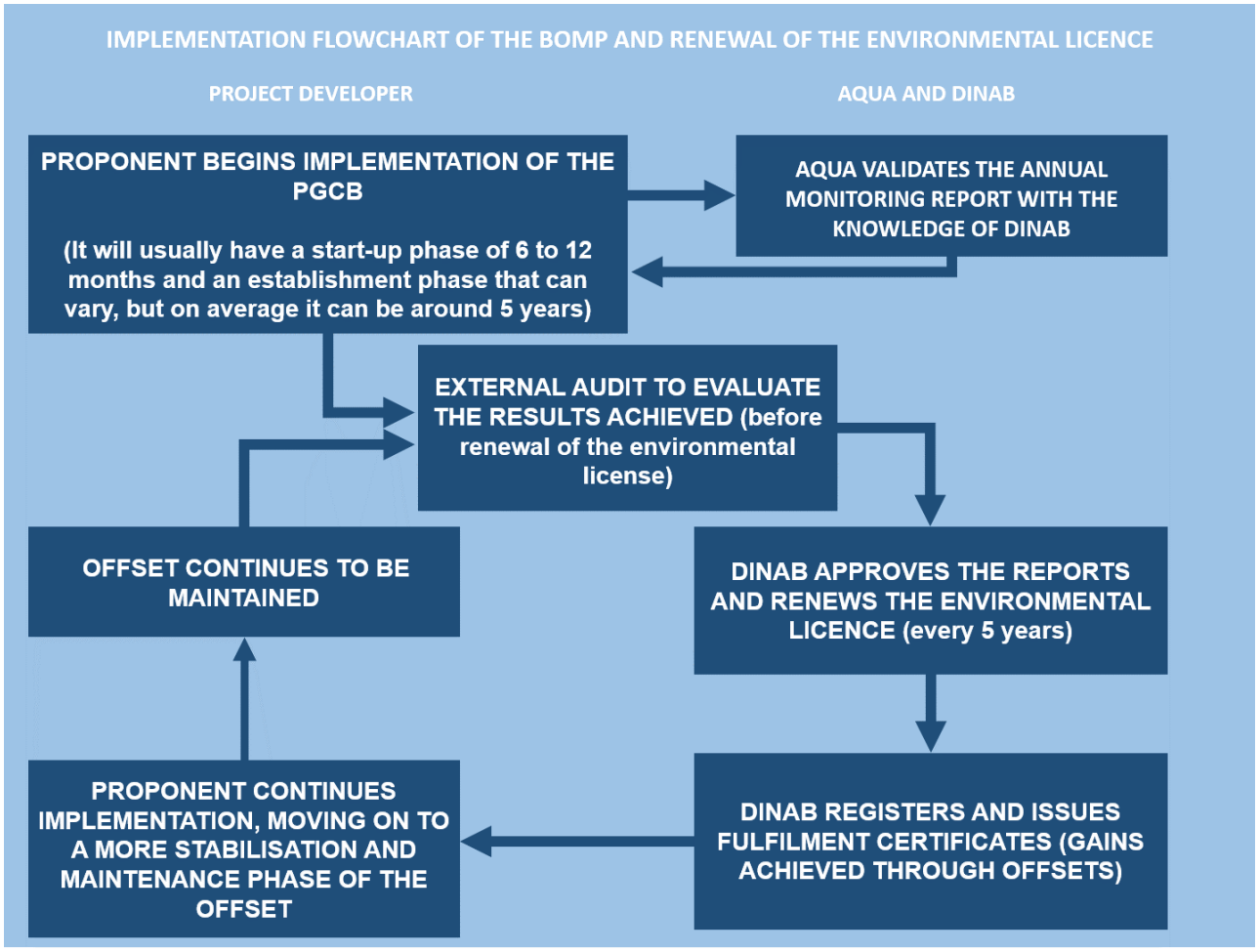


Figure 38. Offset implementation stages and their relationship with the environmental and offset license renewal process

As shown in Figure 38, after a certain point the offset enters what is essentially a stabilisation and maintenance phase. Audits however continue to be carried out every 5 years, using an approach similar to that described above:

- **If the predicted results are maintained in full, the declaration of compliance of biodiversity gains should be renewed** and should not negatively influence the decision on issuing the environmental license.

- **If the results decrease, the declaration of compliance should be issued in a proportion corresponding to the results achieved.** An **analysis of the results should then be made** (if necessary, with the support of a representative of the Technical-Scientific Unit for Biodiversity Offset Support) **in order to establish whether or not they condition the renewal of the environmental licence.** The criteria to be applied for renewal or non-renewal are the same as those indicated above.

Chapter 8 of Section V explains the adaptive management process, i.e. the way in which the BOMP should be adjusted each time the environmental licence is renewed, depending on the results obtained, then verified through monitoring and audits. **If the project developer demonstrates persuasively that the residual impacts of the project have been lower than expected, the BOMP may be revised, such as by proportionally reducing the results to be achieved**. This must be justified on the basis of concrete data obtained from the development project's Impact Monitoring Plan (part of the EMP).

4.5.10 Chapter 10: Auditors and audits

According to **point 1 of Chapter 10 of Section V**, after receiving the environmental licence, the developer must contract an **independent external auditor** with **technical competence and proven experience** to **evaluate the biodiversity gains achieved** through the offset. The independent external auditors should be proposed by the developer to the environmental authority responsible for licensing. They should be selected on the basis of their qualifications and experience in similar work, and must provide references from previous clients and a declaration of good repute.

The external auditors are responsible for auditing the results of the implementation of the BOMP, in particular validating and verifying the biodiversity gains achieved through offsetting. They should undertake an initial audit at the end of the first five years (the establishment phase of the offset) and then **every 5 years thereafter, prior to the renewal of the environmental licence** (Figure 38). In accordance with point 2 of the same chapter, it should be noted that it is **compulsory** to submit private (independent external) audit reports to the Environmental Impact Assessment Authority in order to **renew the environmental licence**.

According to **points 3 and 4** of the same chapter, without prejudice to the competences assigned to the Technical Commission for Environmental Impact Assessment, **the Environmental Impact Assessment Authority** may, where necessary, **appoint an auditing body to assess** the degree of implementation of the BOMP and the biodiversity results achieved. The Environmental Impact Assessment Authority must **guarantee** access to the audit reports to all interested parties. The final point of **Chapter V (point 5)** states that the regime of Decree No. 25/2011, of 15 June, which approves the Regulation on the Environmental Audit Process, is applicable to biodiversity offsets.

4.6 SECTION VI- SANCTIONS AND INFRINGEMENTS (Page 692 of Ministerial Order 55/2022)

Biodiversity offsets are subject to the sanctions laid down in the Regulations on the Environmental Impact Assessment Process (Decree No. 54/2015, of 31 December) and the Regulations on the Environmental Audit Process (Decree No. 25/2011, of 15 June). It is essential that the environmental authority's technicians and the project developer, their consultants and subcontractors are all familiar with these two Decrees. The table below summarises the information they contain (Table 5).

Table 5. Summary of the information on infringements and sanctions contained in the Regulation on the Environmental Impact Assessment Process (Decree No. 54/2015, of 31 December) and the Regulation on the Environmental Audit Process (Decree No. 25/2011, of 15 June).

Regulation on the Environmental Impact Assessment Process
(Decree No. 54/2015, of 31 December)

Article 28
(Offences and penalties)

1. Obstructing or hindering the performance of the duties entrusted to the entities referred to in these Regulations without just cause constitutes an administrative offence and is punishable by a fine of between 30 and 150 x the minimum wage, in addition to the imposition of other sanctions provided for in general law.
2. Failure to update the environmental licence in accordance with the provisions of Article 22(6) of these Regulations is an offence punishable by a fine of between 30 and 50 x the minimum wage plus the suspension of activity until the environmental licence is regularised.
3. Implementing activity without an environmental licence is an offence punishable by a fine of: 2,857 to 5,714 x the minimum wage - Category A+; 1,429 to 2,857 x the minimum wage - Category A; 286 to 1,429 x the minimum wage - Category B and 1 to 2 x the minimum wage - Category C, plus immediate freezing of activity.
4. The following offences are punishable by a fine of between 30 and 100 x the minimum wage:
   a. Illegal exercise of the activity of environmental consultancy without observation of the provisions of Article 25 of these Regulations, including the submission of an EIA process using an expired consultancy certificate;
   b. Submission of a proposed activity to the environmental licensing process after the initiation of its implementation;
   c. Altering the initial activity and implementing a new one after the environmental licence has been issued without prior authorisation from the competent authority;
   d. Submission of fraudulent, adulterated, outdated or incomplete information during the EIA process.
5. Failure to implement the measures proposed in the technical studies, as well as failure to comply with environmental licensing conditions, constitutes an offence punishable by a fine of 30 x the minimum wage.
6. Failure to submit an EIA process within the deadline established in Article 18(1) of these Regulations is an offence punishable by a fine of 25,000.00Mt (twenty-five thousand meticals).
7. Failure to pay an environmental licensing fee within the time limit stipulated in Article 20(1)(a) of Decree No. 54/2015, of 31 December, of up to 6 months (after which the process is considered to have lapsed), constitutes an offence punishable by a fine of between 10% and 20% of the value of the environmental licence.
8. Failure to update an environmental consultancy certificate within the period stipulated in Article 22(11) of these Regulations constitutes an offence punishable by a fine of between 25% and 50% of the renewal value of the certificate.
9. Environmental consultants who, during the term of their certificate, present EIA results that do not comply with the respective legislation and specific directives a maximum of four times will be suspended from their activity for a period of three years.
10. If three years have passed since the expiry of an environmental consultancy certificate without the holder requesting its renewal, they must start a new process.

Regulation on the Environmental Audit Process
(Decree No. 25/2011, of 15 June)

Article 14
(Offences and penalties)

1. Obstructing or hindering the performance of the duties assigned to the entities referred to in these Regulations constitutes an administrative offence and is punishable by a fine as follows:
   a) For category A activities 500,000.00MT;

b) For category B activities 300,000.00MT;
c) For category C activities ..... 100,000.00MT.

2. Without prejudice to other sanctions provided for in General Law, the unlawful exercise of the activity of private environmental auditor, without observation of the provisions of Article 10 of these Regulations, is punishable by a fine as follows:
   a) Individual environmental auditor 50, 000.00MT;
   b) Associated environmental auditors or environmental audit consultancy firms ……..500, 000.00MT.
3. An environmental audit carried out by an environmental auditor who is not certified by the Ministry that oversees the environmental sector is null and void.

Article 15
(Non-compliance with Environmental Audit recommendations)

Failure to comply with the provisions of Article 8(5) of these Regulations is punishable by a fine as follows:
a) For category A activities ..... 500,000.00MT to 1000,000.00MT;
b) For category B activities ..... 100,000.00MT to 500, 000.00MT;
c) For category C activities ..... 50,000.00MT to 100,000.00MT.

4.7 SECTION VII- TRANSITIONAL PROVISIONS (Page 692 of Ministerial Order 55/2022)

In accordance with **point 1 of Chapter 1 of Section VII**, projects that were approved before the entry into force of the Directive on Biodiversity Offsets (Ministerial Order 55/2022) must, during their renewal period, submit a Biodiversity Offset Management Plan (Preliminary) if significant residual impacts on biodiversity have been recorded or are foreseeable.

Once the application has been submitted and the renewal of the environmental licence has been approved, the applicant **must submit the Final Biodiversity Offset Management Plan within 2 (two) years**, in accordance with **point 2 of the same chapter**. During this two-year period (if the EMP is approved), the environmental licence will be renewed and is valid. At the end of this period, if the final BOMP has not been submitted and approved, the environmental license will be revoked.

5 ANNEXES

A – Glossary and definitions
B - Form template for the assessment of EIAs
C - Flowchart for the Biodiversity Offset Management Plan
D - Explanation of the structure of the Biodiversity Offset Management Plan
E - Terms of reference for the Technical-Scientific Support Unit for Biodiversity Offsets

5.1 Annex A. Glossary and definitions

Adaptive management: management based on the assumption that ecosystem components cannot be completely understood and that there is value in monitoring their condition and using what is learned to manage biodiversity.
Area of Direct Influence: the area subject to the direct impacts on biodiversity that can be attributed to a project's activities, delimited according to the physical, biotic and socio-economic characteristics of the ecosystems and the characteristics of the project.
Area of Indirect Influence: the area subject to the indirect impacts arising as a result of the activities of a project, covering ecosystems and physical, biotic and socio-economic environments that may suffer secondary impacts as a result of the alterations occurring in the area of direct influence. Typically, the area of indirect influence is outside the boundaries of a project and may include human settlements that have been established or expanded as a result of the project's presence.
Area of Influence: a geographical space that is susceptible to alterations in its physical, biotic and/or socio-economic environments as a result of the environmental impacts arising from the implementation and/or operation of a particular activity or project in proximity to it.
Avoidance: measures taken to prevent the creation of negative impacts from the outset, taking into account the spatial or temporal planning and/or the scope of the development project, in order to completely avoid impacts on certain components of biodiversity.
Biodiversity offsets: measurable conservation results that come from actions designed to offset significant residual adverse impacts on biodiversity resulting from the development of an activity or project, after appropriate measures have been taken to avoid and minimise the impacts and restore the affected areas.
Biodiversity Offset Management Plan (BOMP): an instrument that describes the offset project and its intended conservation results and includes the evidence and assumptions used to predict that these results will be the product of the offset activities described.
Biological community: a set of populations of species that live in a given geographical area and interact with each other.
Composite metrics: metrics made up of a series of ecosystem attributes, each of which is scored for a given site in relation to its reference state value and weighted and added together to provide an overall score for the condition of the ecosystem per hectare.
Conservation Area Management Plan: technical document setting out the activities and other technical measures to be implemented by the various parties involved in the conservation, administration and utilisation of forest and wildlife resources in a Conservation Area.
Critical habitat: an area with high biodiversity value, including (i) habitats of significant importance for Critically Endangered and/or Endangered species, (ii) habitats of significant importance for endemic and/or restricted action species, (iii) habitats that provide significant concentrations of migratory and/or congregating species, (iv) highly threatened and/or unique ecosystems, and/or (v) areas associated with key evolutionary processes.
Ecosystem: a dynamic complex of plant, animal and micro-organism communities and their non-living environment that interact as a functional unit.
Endangered species: a plant, animal or other living organism that is becoming rare and may be in danger of extinction if current trends continue. The International Union for Conservation of Nature (IUCN) classifies threatened species into three categories: critically endangered (CR), endangered (EN) and vulnerable (VU).
Endemic species: a species that occurs exclusively in a particular geographical region.
Environmental compensation: reward for a loss, damage or service, which may involve money given or received as payment for the use, improvement or repair of a service, loss or environmental damage.
Environmental Impact Assessment (EIA): a preventive environmental management tool consisting of the identification and prior qualitative and quantitative analysis of the beneficial and harmful environmental effects of a proposed activity.

Environmental Impact Assessment Authority: the entity that oversees the environmental area through the unit responsible for Environmental Impact Assessments.
Environmental Impact Study (EIS): the component of the Environmental Impact Assessment process concerned with the technical and scientific analysis of the effects on the environment of the implementation of development activities classified as category A+ and A, within the scope of this Directive.
Environmental Management Plan (EMP): an instrument containing actions to be taken by the project developer to manage the negative impacts and maximise the positive impacts resulting from the implementation of the proposed activity, drawn up within the scope of the EIA.
Fatal Issues: irreversible adverse impacts on biodiversity or on certain areas with such a high level of significance that the implementation of the project or activity in question is not considered to be in the public interest.
Habitat: a species-related concept referring to the particular abiotic and biotic conditions typically associated with individuals or populations of the same species. It can also refer to the circumstances in which populations of several species tend to occur simultaneously, in which case the term is equivalent to biotope.
Key Biodiversity Areas: according to the criteria defined by the IUCN in 2016, areas that contribute significantly to the global persistence of biodiversity in both terrestrial and aquatic environments.
Metrics: the unitary measures employed to measure the biodiversity affected or gained. In the case of species, they refer to their abundance or density, or to the quality and area of the habitat for that species, weighted by the quality of the habitat. In the case of ecosystems, they refer to its area, weighted by its condition in relation to a reference state that represents the best existing condition for that ecosystem. In the latter case, the assessment should be carried out on the basis of a composite metric.
Minimize: 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.
Mitigation Hierarchy (MH): a process that works in stages to reduce the impacts of a given activity on the environment and is composed of: i) prevent or avoid – measures taken to avoid the generation of impacts by a project, such as appropriate spatial or temporal planning, adjustment of infrastructure elements to avoid impacts on environmental receptors or components thereof; ii) minimise – measures taken to reduce the duration, intensity and/or extent of impacts (including direct, indirect and cumulative) which cannot be avoided in a manner considered feasible; iii) recover, restore or rehabilitate – measures taken to recover or rehabilitate degraded ecosystems or to restore ecosystems that have been destroyed following exposure to impacts that could not be completely avoided or minimised; iv) offset – measures taken to compensate for significant adverse residual impacts that cannot be avoided, minimised, restored, rehabilitated or recovered, in order to ensure an end result of No Net Loss or Net Gain of biodiversity.
Monitoring: inspection, supervision and surveillance of activities related to the implementation of Biodiversity Offset Management Plans, with a view to ensuring their compliance with Environmental Impact Assessment legislation and this Directive.
Native species: a species or lower taxonomic level that lives in its natural distribution area (past or present), including the area it can reach and occupy using its natural dispersal systems.
Natural habitat: an area formed by viable associations of plant and/or animal species and/or other organisms of predominantly native origin and/or in which human activity has not modified the primary ecological functions and species composition of the area.
Net Gain (NG)of biodiversity: when the gains resulting from the proper implementation of the Mitigation Hierarchy exceed the losses.
No Net Loss (NNL) of biodiversity: means that the losses of values representing the most important biodiversity in the country or in a given area are cancelled out by the quantitative and qualitative conservation gains generated through the implementation of offset projects, following the implementation of the steps in the Impact Mitigation Hierarchy and in relation to the state of biodiversity at the project site and at the offset sites taken together immediately before the start of the project's impacts.
Offset Monitoring Committee: a committee created specifically for each Biodiversity Offset Management Plan in order to monitor it throughout its implementation period.

Recovery: a set of restoration, rehabilitation or other actions, such as environmental remediation, which aim to improve the condition of a given ecosystem or habitat. These measures can also be broadly referred to as the process of improving, creating or recreating habitats and/or populations and/or ecological processes.
Reforestation: the activity of planting trees and other vegetation in areas that have been deforested, either by force of nature (e.g. fires or storms) or by human influence (fires, construction, mining, logging, etc). It is usually carried out using native species.
Rehabilitation: repairing the ecosystem processes, productivity and services of an area degraded through anthropogenic action. This does not necessarily imply a return to pre-existing biotic conditions.
Restoration: measures taken to restore a degraded ecosystem or population of flora or fauna to as close as possible to its natural condition before degradation, after exposure to impacts that could not be completely avoided and/or minimised, in an attempt to return it to its historical trajectory. Recovery will occur naturally once the degradation factors have been eliminated.
Significant negative residual impacts (also referred to as non-negligible adverse residual impacts): the direct or indirect negative impacts on biodiversity that must be offset, caused by a given project in its area of direct or indirect influence, and which are expected to remain after the adequate application of avoidance, minimisation and restoration measures, in accordance with the methodology of the Mitigation Hierarchy.
Species: the variety of different organisms (genera, families, orders, classes and phyla) represented and the relative abundance of each in an ecological community, population or ecosystem.
Statement of compliance: document issued by the Environmental Impact Assessment Authority on proof that at least 50% of the conservation objectives set out in the Final Biodiversity Offset Management Plan have been achieved, and which identifies the percentage of conservation results achieved by a given date (usually every 5 years, prior to the renewal of the project's environmental licence) in relation to the results set out in the Biodiversity Offset Management Plan for the same period and for the total period of the offset project.
Threat status: indicator of the vulnerability of a species or type of biological community, containing information on past losses, number of individuals and amount of available habitat, number and intensity of threats and current prospects for population trends based on recent data on its growth or decline, with reference to the International Union for Conservation of Nature's Red List of Threatened Species.

5.2 Annex B. Form template

Checklist for verifying the application of the guidelines for implementation of the Mitigation Hierarchy, according to the Environmental Impact Assessment legislation

Purpose
The purpose of this checklist is to guide Environmental Licensing Department technicians in the analysis and evaluation of Environmental Impact Assessments (EIAs), Environmental Management Plans (EMPs) and Biodiversity Offset Management Plans (BOMPs) – with a focus on the biodiversity component – submitted to the government by project developers, in order to guarantee compliance with EIA regulations and contribute to improving the quality of EIAs.

Scope
This checklist applies to EIAs in categories A+ and A. It can also be used for EIAs in category B. It can be used by technicians operating at both national and provincial level.

Instructions for use
This form template should be used as a guide for technicians involved in environmental licensing in order to verify whether Environmental Impact Assessments fulfil the legal requirements and minimum quality criteria to be properly assessed. The environmental licensing technician using this template should refer to each numbered line in the table below, checking that each topic has been addressed in the EIA documents. They should place a tick in the relevant column (yes or no) to indicate whether the EIA fully addresses the topic, and use the comments column to note any relevant aspects, such as in cases in which the EIA does not provide the information required.
The form is structured as follows:

1. Description of the project and its location: normally part of the initial chapters of the EIA document which describe the project and its activities.
2. Biodiversity baseline: part of the EIA document.
3. Impact assessment: part of the EIA document.
4. Application of the Mitigation Hierarchy and identification of projects that must be offset: part of the EIA document, with projects potentially requiring offsetting being limited to those in categories A+ or A.
5. Environmental Management Plan (EMP): included in a dedicated chapter or annexe which is submitted together with the EIA.
6. Biodiversity Offset Management Plan (BOMP): included in a dedicated chapter or annexe which is submitted together with the EIA in the case of projects in categories A+ or A.

Item	Does the document contain the elements indicated?		Comments
	Yes	No	
1 Description of the project and location			
With reference to the EIA, check:			
1.1 Whether the necessary and adequate information is presented to describe the project, namely:			
i. Justification			
ii. Location			

iii. Project plans and/or design			
iv. Associated structures			
v. Timeline (for construction, operation and decommissioning)			
1.2 Whether an analysis of alternatives is presented, namely:			
i. A list of the criteria used to select the best alternative for the project			
ii. Appropriate and transparent criteria			
1.3 Whether maps of the project's location at national, regional and landscape level are presented, to include:			
i. Administrative boundaries			
ii. Main cities, towns and villages			
iii. Main transport routes and access to infrastructure (ports, airports, railways, etc.)			
iv. The legal framework for the activity and its inclusion in existing spatial plans for the areas of direct and indirect influence of the activity			
1.4 Whether maps showing the main ecosystems and/or habitats in the area of direct, indirect and surrounding influence are presented, for example:			
i. Different types of forests			
ii. Wetlands			
iii. Rivers and estuaries			
iv. Mangroves, coral reefs, seagrass beds			
v. Mountainous areas			
vi. Any other ecosystems			
1.5 Whether the study area is clearly defined and mapped			
1.6 Whether the project's Area of Direct Influence (ADI) and Area of Indirect Influence (AII) are defined			
1.7 Whether the criteria and justification for defining the Area of Direct Influence (ADI) and the Area of Indirect Influence (AII) are presented, namely:			
i. Distance buffers			
ii. Other ecological criteria			
2 Biodiversity reference situation			
<u>With reference to the EIA, check:</u>			
2.1 Whether the location of the project is shown in relation to existing or proposed or planned			

Conservation Areas (or other types of protection), in particular:			
i. Through a contextualisation map showing existing or proposed or planned Conservation Areas			
ii. How far away the Key Biodiversity Areas (KBAs) are and what biological features have led to their designation.			
2.2 Whether the location of the project is presented in relation to KBAs or other areas of importance, namely:			
i. Through a contextualisation map showing KBAs			
ii. How far away the protected areas are and the conservation objectives that have led to their designation			
2.3 Whether a map of existing threats and/or pressures on biodiversity is presented, for example:			
i. Deforestation and/or forest degradation hotspots			
ii. Fishing			
iii. Hunting			
iv. Informal human settlements			
Other existing or planned projects			
2.4 Whether the sources used in the maps are presented, namely:			
i. Name of source			
ii. Date (at least the year)			
2.5 Whether the locations in the study area where important biodiversity may occur are identified			
2.6 Whether a list of people involved in the preparation of the study is provided, including:			
i. Names			
ii. Qualifications			
iii. External experts			
iv. Organisations consulted			
2.7 Whether local communities were consulted			
2.8 Whether a detailed list of bibliographical references is provided			
2.9 Whether the reference publications used are relevant to the project area under study			

2.10 Whether information about fieldwork is provided, in particular:			
i. A detailed record of the fieldwork carried out, specifying the biological groups studied (species, habitats, etc.) and the methodologies used			
ii. That the fieldwork covers all taxonomic groups relevant to the type of project and the geographical region in question			
iii. A map showing the locations where the fieldwork was carried out (including sampling points, transects, etc.)			
iv. A description of factors that may have contributed to any limitations of the fieldwork			
v. Mention of whether the studies cover the entire project study area			
vi. Identification of specific areas that may not have been adequately studied or mapped			
vii. Provision of the dates on which all fieldwork was carried out			
viii. Justification of the appropriateness of the fieldwork, taking into account the groups studied and the season			
ix. A description of the natural habitats and/or ecosystems present, supported by photos and satellite imagery			
x. Maps of the natural habitats, vegetation and ecosystems present in the study area			
xi. Indication of whether the habitat, ecosystem and/or type of vegetation is endemic or of restricted distribution			
xii. Indication of whether the habitat, ecosystem and/or type of vegetation is covered by national legislation (e.g. mangrove, coral reef, seagrass, mountain forest), and/or has special status or conditions			
xiii. Indication of the national, regional or global conservation status with reference to the IUCN Red List of Ecosystems.			
2.11 Whether a list of species for the study area is presented, to include:			
i. Species names presented in an ordered and systematic way (e.g. plants, invertebrates, fish, amphibians, reptiles, birds, mammals)			

ii. Species identified by type of record: i) observed during fieldwork; ii) referenced in the literature or iii) other sources consulted have confirmed the presence of the species at the site			
iii. Indication of the national legal protection status of the species			
iv. Indication of the national, regional or global conservation status with reference to the IUCN Red List			
v. A list of species that are endemic or have a restricted distribution area			
2.12 Whether it contains additional information regarding what was expected to be found, namely:			
i. Cumulative species curves			
ii. Maps detailing all the habitats and/or ecosystems present			
iii. Map showing the habitats considered most important			
iv. Presentation and categorisation of the ecosystem services provided in the study area			
v. Map showing the ecosystem services present			
vi. Map showing where the most important or sensitive species of flora and fauna are found or have been observed			
vii. Transparent assessment of the comprehensiveness or limitations of the EIA			
viii. Detailed map of species observed during fieldwork			
ix. Map showing the key areas or habitats used and/or essential for the species present in the study area, for:			
a) Resident species			
b) Migratory species			
c) Congregatory species			
d) Breeding and feeding habitats			
2.13 Whether it provides information on the criteria used to classify the importance of species and habitats in the study area, e.g. based on:			
i. Legal status			
ii. IUCN status			
iii. CITES appendices			

iv. Distribution area and trends (stable, declining, etc.)			
v. Known population size or population trends (stable, declining, etc.)			
vi. Degree of endemism or rarity			
2.14 Whether one or more maps showing the most sensitive areas identified in the ADI and AII (map of sensitivities) are presented			
3 Impact assessment			
With reference to the EIA, check:			
3.1 Whether it identifies the potential impacts, namely:			
i. Direct impacts			
ii. Indirect or induced impacts			
iii. Cumulative impacts			
iv. Residual impacts			
v. Temporary and permanent impacts			
3.2 Whether the methodology and criteria for assessing impacts are presented in a clear and transparent manner			
3.3 Whether the total area affected by the project is presented, including interventions prior to the start of the studies (e.g. geotechnical exploration)			
3.4 Whether the impacts of all the project components, including those relating to the structures associated with the project, are considered			
3.5 Whether the impacts on the biodiversity components identified in the characterisation phase of the reference situation are considered			
3.6 Whether the impacts on the biodiversity components identified in the characterisation phase of the baseline situation are quantified			
3.7 Whether there are any relevant biodiversity components that are not considered in the impact assessment			
3.8 Whether a map overlaying the project elements with the habitats, ecosystems and/or vegetation types identified in the study area is included			
3.9 Whether a map overlaying the project elements with the sensitive areas identified is included			
3.10 Whether a detailed matrix of impacts is presented, including magnitude vs sensitivity			

4 Application of the Mitigation Hierarchy and identification of the projects that need to be offset			
<u>With reference to the EIA, check:</u>			
4.1 Whether it demonstrates that the most important areas for biodiversity have been avoided, namely:			
i. Conservation Areas (CA)			
ii. Total protection areas or total protection zones of other categories of Conservation Area (with the exception of the activities of the CA's own management entity aimed at improving the area's management)			
iii. Areas with the presence of critically endangered species, endemic and/or restricted species, migratory and/or congregational species or species crucial to the provision of ecosystem services			
iv. Sustainable use CAs with management plans that do not permit the type of activity in question			
v. Areas identified as KBAs or threatened or protected ecosystems or containing threatened or protected species			
vi. Areas with any other type of biodiversity considered relevant at national, provincial or local level			
4.2 Whether other preventive measures are presented, namely:			
i. Changes to the routing and/or design of the project that allow some impacts to be avoided or minimised			
ii. Mapping of areas to be delimited in order to avoid affecting them (set-asides)			
4.3 Whether the appropriate minimisation measures are presented, namely:			
i. Measures to reduce the duration, intensity and/or extent of the project's impacts on biodiversity (including direct, indirect and cumulative impacts) that cannot be avoided			
4.4 Whether measures to restore the impacted biodiversity are presented:			
i. Immediately after the construction phase			
ii. During the operational phase			
iii. During or after the decommissioning phase			

4.5 Whether adequate mitigation measures for impacted biodiversity are proposed for various less obvious aspects of the project, namely:			
i. Mitigation measures for construction phase campsites			
ii. Mitigation measures for other temporary structures			
iii. Mitigation measures for the dismantling phase			
4.6 Whether the residual impacts on the various biodiversity elements characterised in the reference situation are quantified, by:			
i. Including a table characterising biodiversity receptors by their importance, sensitivity, impacts, mitigation measures and residual impacts			
ii. Presenting a quantitative or semi-quantitative analysis of residual impacts			
iii. Identifying which residual impacts need to be offset			
iv. Explaining how the offsets are expected to compensate for the residual impacts			
v. Outlining the biodiversity offset strategy to be developed			
5 Environmental Management Plan (EMP)			
<u>With reference to the EMP, check:</u>			
5.1 Whether it provides a description of the project, including:			
i. Project components			
ii. Project activities			
iii. Legal context (zoning, applicable legislation and regulations)			
5.2 Whether it presents a summary of the main biodiversity values and the main impacts on them, including:			
i. Biodiversity present (species, habitats, ecosystems, etc.)			
ii. Impacts by phase (or project component/activity)			
5.3 Whether it presents the environmental policies and commitments, including:			
i. Project governance			

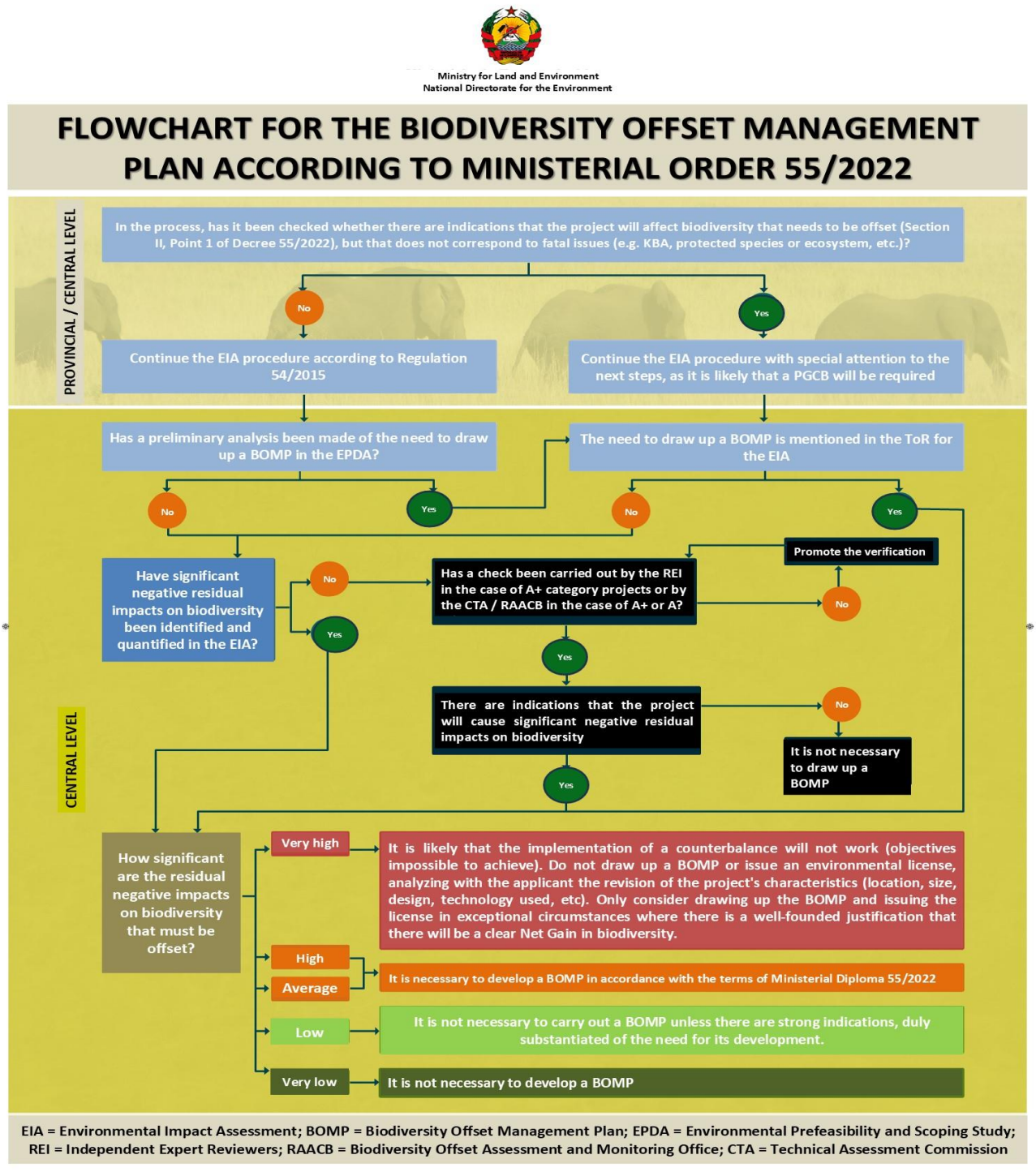
ii. Applicable corporate policies, procedures and recommendations			
iii. Applicable certifications (e.g. ISO 14001)			
5.4 Whether it presents an implementation programme, i.e. a detailed description of the actions to be implemented			
5.5 Whether it presents detailed monitoring plans for the impacted biodiversity that was identified during the EIA in order to assess the effectiveness of the proposed mitigation measures, whether the predicted impacts are occurring and whether other unforeseen impacts are occurring			
5.6 Whether it provides a detailed description of the processes required to verify the implementation and performance of the proposed measures			
5.7 Whether it provides a description of the roles and responsibilities of the stakeholders, including:			
i. Clear roles and responsibilities			
ii. Well-defined communication channels			
iii. Requirements for contractors and subcontractors			
iv. Terms of reference for key aspects and activities			
5.8 Whether it provides a detailed description of the mechanisms needed to deal with changes in project design, implementation or unforeseen events (e.g. accidents)			
5.9 Whether it presents an adaptive management cycle, including:			
i. Planning			
ii. Implementation			
iii. Monitoring			
iv. Learning			
5.10 Whether it includes a link to a Biodiversity Offset Management Plan (BOMP)			
6 Biodiversity Offset Management Plan (BOMP):			
<u>With reference to the BOMP, check:</u>			
6.1 Whether it follows the structure for a Biodiversity Offset Management Plan recommended by the environmental authority			

6.2 Whether it summarises the main characteristics of the development project (location, sector, type of activities, operator)			
6.3 Whether it explains the legal framework and the reason it was necessary to develop an offset			
6.4 Whether it describes the impacts of the project, its measures for prevention, minimisation, restoration and/or rehabilitation and residual impacts, by:			
i. Presenting a summary table of the strategy for mitigating impacts on biodiversity			
ii. Describing the measures to avoid impacts on and risks to irreplaceable and/or vulnerable biodiversity			
iii. Describing and quantifying the residual impacts on biodiversity			
iv. Indicating the level of risk to the suitability of the offset			
6.5 Whether the offset has been developed specifically to address the residual impacts of the project			
6.6 Whether the conceptual thinking behind the offset is clearly described, by:			
i. Describing the objectives of the offset and quantifying the results to be achieved			
ii. Describing the stakeholders to be involved, the engagement mechanisms and the Offset Monitoring Committee, namely:			
a) Environmental authorities			
b) Managing body			
c) Implementing organisations			
d) Conservation Area management body (if applicable)			
e) Local authorities			
f) Communities			
g) Civil society organisations			
iii. Defining the type of area receiving the offset			
iv. Defining the geographical location of the offset			
v. Defining the offset activities to be implemented			
vi. Identifying the type of biodiversity to be improved and protected			

vii. Describing the metrics selected and the reasons for selecting them			
viii. Briefly describing the biophysical and socio-economic conditions of the offset site			
ix. Analysing the current causes of biodiversity degradation in the offset area			
x. Determining the condition and quality of the impacted biodiversity and that which should be achieved at the offset site			
xi. Establishing the baseline of the condition and quantity of biodiversity to be improved in the area where the offset will be implemented, using the same methodologies as those used to determine the residual impacts			
6.7 Whether it describes how the offset will be implemented, by:			
i. Describing the roles and responsibilities of the stakeholders involved in implementing the offset			
ii. Describing the institutional and legal arrangements for the management and implementation of the offset, identifying:			
a) the entity managing the offset (the project developer or a subcontracted entity)			
b) The implementing organisation(s)			
iii. Describing the implementation stages and targets to be achieved			
iv. Describing the monitoring, evaluation and reporting plans and procedures to be produced, namely:			
a) Parameters for measuring implementation success			
b) Parameters for measuring the success of the results achieved			
c) Frequency of monitoring and reporting actions			
d) Detail and frequency of audits			
e) Description of the adaptive management procedure and related responsibilities			
6.8 Whether a risk analysis has been carried out, describing the basic assumptions and presenting a contingency plan			

6.9 Whether the total period of the offset is clearly identified and presents the schedule of project activities			
6.10 Whether the budget is presented and describes the financial mechanisms for implementing the offset, including:			
i. Whether a detailed activity-based budget is presented for the entire offset period			
ii. Whether the financing mechanism is being assumed directly by the developer			
iii. Whether the developer is using an Environmental Fund to ensure the financing mechanism			
iv. Whether the developer has specified how the funds will be disbursed			
v. Whether the developer has provided the necessary financial guarantees to ensure the implementation of the offset within the agreed time frame			
6.10 Whether the complaints procedure is described			
6.11 Whether conclusions and recommendations for the subsequent phases are presented			

5.3 Annex C. Flowchart for the Biodiversity Offset Management Plan



5.4 Annex D. Structure of the Final Biodiversity Offset Management Plan

1 - Executive Summary

- Presentation of the essential aspects of the plan in a summarised form.

2 – Introduction

- Summary of the development project (location, sector, type of activities, project developer or operator).
- Explanation of why it was necessary to develop an offset and its legal framework.
- Summary of the intended conservation results.

3 - Description of the project's impacts, measures for their prevention, minimisation, restoration and/or rehabilitation and residual impacts

3.1 - Summary table of the strategy for mitigating impacts on biodiversity

- A summary description of the project's impacts on biodiversity and the activities that give rise to them (including direct, indirect and cumulative negative impacts, as appropriate), with an emphasis on the biodiversity that needs to be offset in accordance with this Directive. For each impact, the measures selected for its prevention, minimisation and restoration and/or rehabilitation should be presented, in accordance with the specifications of the EIA regulations and the Conservation Law and its regulations. Finally, the significant residual negative impacts should be presented.

3.2 - Description of measures to avoid impacts on and risks to irreplaceable and/or vulnerable biodiversity

- Demonstration that the project or activity does not directly or indirectly affect biodiversity that is considered irreplaceable and/or highly vulnerable, i.e. not able to be offset, including areas that are considered Fatal Issues or critically endangered species or ecosystems.
- Demonstration that the risk of national-level extinction of the biodiversity targeted by the offset will not increase as a result of the project's impacts.
- Specification of the strategy developed to avoid impacts and risks to biodiversity considered irreplaceable and/or highly vulnerable, detailing how the relevant mitigation measures are to be implemented during the various project phases (planning, construction, operation and decommissioning).

3.3 - Description and quantification of residual impacts on biodiversity

- Clear description and quantification of the significant negative residual impacts on biodiversity that will persist after the measures to avoid and minimise the impacts and rehabilitate and/or restore the affected biodiversity at the project site have been implemented.
- Detailed description of the methods and metrics used to calculate the significant negative residual impacts, following the guidelines specified in the regulation.

3.4 - Indication of the level of risk regarding the suitability of the offset

- Ecological assessment to determine whether there is a risk that significant negative residual impacts will not be able to be offset, with qualification of this risk.

4 - Description of the conceptual thinking behind the offset

4.1 - Offset objectives, biodiversity to be offset and results to be achieved

- Clear identification of the objectives of the offset, including the target biodiversity and the results to be achieved, taking into account the significant negative residual impacts to be offset. Indication of the objective(s) to be achieved for each biodiversity component targeted by the offset, namely whether a Net Gain or No Net Loss is to be achieved.

4.2 - Description of stakeholders and engagement mechanisms

- A description of how the stakeholders will be identified and involved in the conceptual development of the offset, and the results of their involvement, in particular the Conservation Area management body (in the case of implementation in an existing Conservation Area or its surroundings) or the area management body (in the case of implementation outside Conservation Areas). In the latter case, the organisations that will be responsible for its establishment and management should also be described, as well as the potential members of the offset monitoring committee.

4.3 - Type(s) of receptor area, location options and offset activities selected

- With reference to the selection process provided for in this Directive, the option(s) selected should be explained, in particular the reasons why other areas that could be considered preferential were not selected.
- Geographical location, description of the site(s) selected to apply the offsets and the reasons for their selection, the needs of the areas in terms of ecosystem and/or species restoration and presentation of location maps.
- Detailed explanation of how the proposed type of activity is additional to what was already planned for the receptor area (whether or not it is already a Conservation Area) and is directly related to the result intended, to offset the significant negative residual impacts of the development project. Presentation of an evaluation study of the type, condition and quality of biodiversity occurring in the receptor area, in order to determine its potential for improvement.
- Location of other offset projects in the surrounding region.
- Analysis of land use and utilisation rights or titles for the private use of maritime space in the offset area.

4.4 - Description of the metrics selected and the reasons for selecting them

- Details of the metrics used to determine the quantities to be offset and their quality (e.g. metrics to determine the condition of the ecosystem or the quality of the habitat for a species, multipliers, etc).

4.5 - Summary description of the biophysical and socio-economic conditions of the offset site

- Description of the biophysical and socio-economic conditions of the offset site, with a focus on those related to the type of biodiversity targeted by the offset, surrounding communities, ecological connectivity at landscape level and susceptibility to climate change.

4.6 – Analysis of the current causes of biodiversity degradation in the offset area

- Description and analysis of the current causes of biodiversity degradation in the offset area, particularly in the area targeted by the activities to be implemented.

4.7 – Determination of the reference level

- Determination of the reference level (reference situation) considered in the offset area for the biodiversity values that will be offset, using the metrics indicated in 4.4 and showing the relevant calculations.

5 - Description of the offset implementation

5.1 - Description of the roles and responsibilities of the stakeholders involved in implementing the offset

- Description of the project developer.
- Description of the entity responsible for managing the offset, clearly explaining whether it will be managed directly by the developer or through a subcontracted entity such as an Environmental Fund; indication of the entities which will implement the offset (service providers).
- Where the offset is implemented in a Conservation Area, clear identification of the role of the Conservation Area management entity in the implementation and management of the offset.
- Description of the other parties involved in the offset.

5.2 - Description of the institutional and legal mechanisms for implementing the offset

- Description of the institutional relationships and co-ordination mechanisms, in particular the nature of relationships and types of contracts between the developer, other entities (e.g. Environmental Funds), the Conservation Area management entity and its co-management partner and/or third parties, if this is the option chosen for the implementation of the offset.
- Where the offset is implemented in a Conservation Area, presentation of the assessment of the Conservation Area management entity.
- Where the offset is implemented in a Conservation Area, presentation of the partnership agreement between the project developer and the Conservation Area management entity.
- Where the offset entails the creation of a new Conservation Area, presentation of the proposed management structure and which category of Conservation Area is proposed.
- Description of the community consultations.
- Description of the members of the Offset Monitoring Committee, their responsibilities, the Committee terms of reference, how it will operate, the frequency of meetings and its interactions with the regulatory body.

5.3 - Description of the implementation stages and targets to be achieved

- Detailed description of the operational implementation plan, including the objectives to be achieved, all of the stages and activities, as well as those responsible and the timetable for implementation. This information may be presented directly in this chapter, but there should also be an annexe in the form of an implementation plan table, which will be used as a reference for monitoring by the environmental authorities.
- If there are local communities, a description should be given of how they will be involved in the implementation, monitoring and evaluation of the offset.
- It should be explained how the offset area will be safeguarded from future impacts, for example by indicating whether there will be access controls or protective fencing. Information should also be provided about the type of identification plaque that will be used to designate the offset area. This should have the offset registration reference number on it.
- If the offset will create a new Conservation Area, the plans should be presented for its proposal document, declaration of management intent and habitat and species conservation programme, which should identify the area's management needs and priorities.

5.4 - Description of the monitoring and evaluation process and reports to be produced

- Detailed description of the monitoring actions, parameters to be measured, sites to be monitored and control areas, key performance indicators (KPIs), evaluation criteria and maximum and/or minimum acceptable limits and data processing methods (including statistical analyses). A summary table of the monitoring plan should indicate sampling frequency and responsible entities.
- Description of the process to be used for evaluating the results achieved in terms of implementation and performance, including the period and frequency, internal and external audits to be carried out and their respective processes.
- Description of the adaptive management process to be applied during the implementation of the offset, including the criteria and formal process for improving and/or amending the Biodiversity Offset Management Plan whenever necessary.
- Description of the arrangements for drawing up reports on the implementation of the measures defined in this plan, including their frequency and how they will be submitted to the regulatory body and other interested parties.

5.5 - Risk analysis and contingency planning

- Risk assessment of the project, including actions planned to achieve the desired results and identification of contingency measures to minimise these risks.

- Description of the uncertainties in relation to the success of the improvement activities (restoration, rehabilitation or repopulation, as applicable) and biodiversity protection, and explanation of the tolerable limits for these to be considered successful.

5.6 - Identification of the duration of the offset and presentation of the timeline of project activities

- Indication of the total period envisaged for the achievement of the Net Gain or No Net Loss objectives through presentation of a plan for achieving the results, describing the targets, i.e. what is proposed to be achieved during a given period (e.g. the first 5 years) until the Net Gain or No Net Loss of biodiversity is achieved.
- Presentation of a detailed timeline for the offset activities, including those relating to the effective protection of the results achieved.

5.7 - Presentation of the budget and description of the financial mechanisms for implementing the offset

- Detailed presentation, broken down by phase, of the budget required for the implementation, management, monitoring and auditing of the offset.
- A description of the financial mechanisms that will be used for each implementation phase of the BOMP. A detailed budget plan for the BOMP, containing information on the funding sources, disbursement dates and amounts allocated for each activity, including contingencies for risk management.
- Presentation of proof of a bank account domiciled in Mozambique, or other financing mechanism permitted by law, exclusively for financing the offset activities, and proof of budget availability.
- Description and proof of how the financial guarantee will be presented (e.g. escrow account, bank guarantees or insurance).

5.8 - Description of the complaint's procedure

- Description of the procedure for claims that any interested party may wish to submit.

6 - Conclusions and recommendations for the following phase

5.5 Annex E. Terms of reference for the Technical-Scientific Unit for Biodiversity Offset Support

Version: 21 March 2023

Framework

The 2015 revision of the Mozambican legislation covering the Environmental Impact Assessment process culminated in the publication of Decree No. 54/2015, of 31 December. This decree introduced the requirement to adequately implement the Mitigation Hierarchy, including biodiversity offsets whenever there are significant negative impacts on biodiversity, for all public or private activities that directly or indirectly influence environmental components. It also stipulated that biodiversity offsets should be regulated by a complementary legal instrument.

In May 2022, Ministerial Order no. 55/2022 was officially published by the National Press of Mozambique, approving the Directive on Biodiversity Offsets in Mozambique. This legal tool, complementary to the Environmental Impact Assessment (EIA) process, establishes the principles, methodology, requirements and procedures for the correct implementation of biodiversity offsets, under Article 2 of Decree no. 54/2015, of 31 December.

Biodiversity offsets are measurable conservation results that come from actions designed to compensate for significant residual adverse impacts on biodiversity resulting from the development of an activity or project, after appropriate measures have been taken to avoid and minimise the impacts and restore the affected areas. They are required by EIA regulations (Decree No. 54/2015, of 31 December).

According to Article 2, point 3 of Chapter I of the Directive on Biodiversity Offsets in Mozambique, '*(...) Whenever significant negative residual impacts on biodiversity exist or are foreseeable after the application of measures to avoid, minimise and/or restore them in the affected areas,* ***the approval of Biodiversity Offset Management Plans is mandatory for Category A+ or A projects of any type of activity subject to an environmental licence****, including oil operations and the mining industry, under penalty of rejection of applications for the issue or renewal of the environmental licence (...)'*. According to the same Directive, it is the responsibility of the Environmental Impact Assessment Authority to establish, host and manage the Technical-Scientific Support Unit for Biodiversity Offsets (point 1(f) of Chapter III), which is tasked with supporting the Environmental Impact Assessment Authority, in particular the Biodiversity Offset Assessment and Monitoring Office (Repartição de Avaliação e Acompanhamento de Contrabalanços de Biodiversidade, RAACB).

The Ministry for Land and Environment (Ministério da Terra e Ambiente, MTA) will be supported the process of establishing the Technical-Scientific Unit Biodiversity Offset Support by the Government of Mozambique's partner, the COMBO+ Programme, led by the Wildlife Conservation Society (WCS) in partnership with the Foundation for the Conservation of Biodiversity (BIOFUND). The main purpose of the COMBO+ Programme is to continue the work carried out in the previous phase (2016-2020), to ensure the proper application of the Mitigation Hierarchy in the country and the implementation of the Directive on Biodiversity Offsets in Mozambique (Ministerial Order no. 55/2022, of 19 May). This includes the training of RAACB technicians, the development of further tools and the capacity building of parties involved in the design and implementation of biodiversity offset projects through the implementation of pilot projects, as well as supporting progress towards the fulfilment of national biodiversity targets.

This document outlines the terms of reference of the Technical-Scientific Unit for Biodiversity Offset Support.

Purpose of the Technical-Scientific Unit for Biodiversity Offset Support

The Technical-Scientific Unit for Biodiversity Offset Support is a new structure established with the aim of providing strategic and integrated support to the Environmental Impact Assessment Authority in its decision-making on the key aspects associated with the design, approval, implementation, evaluation and monitoring of BOMPs, including alignment with national targets, selection of areas to receiving offsets and the technical tools for their implementation.

Composition of the Technical-Scientific Unit for Biodiversity Offset Support

The Technical-Scientific Unit for Biodiversity Offset Support is made up of representatives from government institutions, the private sector, academia and civil society organisations. They must have experience of environmental impact assessment, design, management, implementation and/or the financing of biodiversity offset management plans or biodiversity conservation and management projects. The unit may include members with experience of other biodiversity groups already established by DINAB.

The Environmental Impact Assessment Authority chairs the Technical-Scientific Unit for Biodiversity Offset Support, which is constituted with a maximum of 7 members (7 full members and 7 alternates).

Members of the Technical-Scientific Unit for Biodiversity Offset Support

The provisional list of potential members of the Technical-Scientific Unit must be submitted by the Environmental Impact Assessment Authority to the Minister for the Environment, who will formally invite them to join the unit. It must consist of 7 full members and 7 alternates.

Members who accept the invitation from the Minister for the Environment to form part of the Technical-Scientific Unit for Biodiversity Offset Support must declare in writing any conflicts of interest directly or indirectly related to the activity. During the course of the activity, if any conflict of interest arises, members must declare it, will not be able to give an opinion on the matter in question and must be substituted by an alternate.

Profile of members of the Technical-Scientific Unit for Biodiversity Offset Support

The specialists who make up the Technical-Scientific Unit for Biodiversity Offset Support must have:

- Solid experience and knowledge of Mozambican biodiversity and the relevant legal framework, including the National Biodiversity Strategy and Action Plan (NBSAP);
- Expertise in Environmental Impact Assessment (EIA) and knowledge of national regulations on the subject;
- Work experience and technical expertise in ecological and social impact assessment, the design and implementation of mitigation actions, environmental management plans, biodiversity action plans, monitoring plans and related areas;
- Experience in the design, implementation, management or financing of BOMPs or biodiversity conservation and management projects;
- Experience in spatial and economic planning aimed at reconciling biodiversity conservation and economic development;
- Strong oral and written communication skills in Portuguese and the ability to communicate in English;
- The ability to produce technically sound and scientifically correct opinions.

How the Technical-Scientific Unit for Biodiversity Offset Support works

The Technical-Scientific Support Unit for Biodiversity Offsets is chaired by the Environmental Impact Assessment Authority (represented by RAACB). RAACB is responsible for co-ordinating the unit's activities in

collaboration with the other biodiversity working groups chaired by DINAB (such as the Biodiversity Group and the National Coordination Group for Key Biodiversity Areas and Red Lists).

The Technical-Scientific Unit for Biodiversity Offset Support will use a decision-making process based on a preference for consensus, and will be guided by the available scientific knowledge and information. If consensus is not possible, decisions may be taken by simple majority, with the odd number of members facilitating a tie-breaking process.

Other natural or legal persons specialising in specific matters may take part in the meetings of the unit by invitation.

Structure of the Technical-Scientific Unit for Biodiversity Offset Support

The Technical-Scientific Unit for Biodiversity Offset Support will have a president, a vice president and a secretary, who will have the following functions:

- RAACB president:
    - Responsible for leading the meetings and signing off on the minutes;
    - Responsible for the voting process, ensuring that matters to be voted on are defined in the agenda for each meeting;
    - Responsible for representing the Technical-Scientific Unit for Biodiversity Offset Support at formal meetings, or appointing a representative to do so.
- Vice president:
    - Responsible for supporting the president in the functions described above and standing in for them in their absence.
- Secretary:
    - Responsible for supporting the unit's administrative work, providing information to the other members of the steering committee and acting in co-ordination with the Environmental Impact Assessment Authority;
    - Responsible for producing the minutes of meetings and sharing them with the members of the Technical-Scientific Unit for Biodiversity Offset Support.
    - Responsible for updating the lists of members and these terms of reference and their annexes whenever the Technical-Scientific Support Unit for Biodiversity Offsets makes changes to them.

Responsibilities of the Technical-Scientific Unit for Biodiversity Offset Support

The Technical-Scientific Unit for Biodiversity Offset Support must support RAACB in the application of Ministerial Order 55/2022, of 19 May. It has the following specific tasks:

a) Carrying out annual analyses of the offset projects proposed and being implemented in the country, verifying their alignment with the biodiversity conservation targets set by the government of Mozambique;
b) Proposing the approval of programmes to align the application of the environmental impact Mitigation Hierarchy with national conservation targets;
c) Contributing to the identification of areas to receive offsets and sites with the potential to become Conservation Areas through the implementation of offsets;
d) Defining technical directives or other instruments necessary for the implementation of offsets or any necessary changes to the BOMPs; and
e) Assessing and issuing opinions on the design or implementation of Biodiversity Offset Management Plans for category A+ and A activities or projects, whenever requested to do so by the Environmental Impact Assessment Authority.

Frequency of meetings of the Technical-Scientific Unit for Biodiversity Offset Support

The Technical-Scientific Unit for Biodiversity Offset Support will meet ordinarily every six months at the headquarters of the MTA or another designated place, and extraordinarily at the initiative of its president, via written notice (letter or email) at least seven days in advance. Notices must contain the date, time and, if feasible, the agenda of the meeting and be accompanied by the relevant documentation for prior analysis.

Approval of the terms of reference of the Technical-Scientific Unit for Biodiversity Offset Support

The Minister for the Environment is responsible for approving the terms of Reference of the Technical-Scientific Unit for Biodiversity Offset Support.