



## Ecosystem services and IFC Performance Standard 6

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## Summary

The Biodiversity Consultancy has world-leading experience in the application of IFC Performance Standard 6 (PS6) to complex development projects. This document outlines a practical ecosystem services assessment method that fits with PS6 requirements. An Ecosystem Services assessment can seem a daunting task, but is key to safeguarding resources that may be crucial to both the project and external stakeholders. Extensive stakeholder consultation is paramount.

### 1 What are ecosystem services?

Ecosystem services have been defined in many ways but are fundamentally 'the benefits that people, including businesses, derive from ecosystems'. PS6 follows the Millennium Ecosystem Assessment<sup>1</sup>, in organising ecosystem services into four types: provisioning; regulating; cultural; and supporting services. The most frequently discussed ecosystem services are those provisioning services also commonly referred to as 'natural resources', e.g. water, food, fibres and fuel.

### 2 Why is a separate ecosystem services assessment necessary?

Ecosystem services come from the environment, but their focus is on benefits to people. Assessment of, and compensation for, impacts on ecosystem services therefore requires both social and environmental expertise and stakeholder consultation. Such a trans-disciplinary approach is rare in impact assessments, which tend to partition 'social' and 'environmental' impact assessments. Stakeholders will likely include not just Affected Communities<sup>2</sup>, but also the industry project itself, which probably relies on ecosystem services like freshwater to function effectively.

The trans-disciplinary nature of ecosystem services is demonstrated by the split in IFC guidance between assessment of impacts on ecosystem services (PS6) and mitigation/compensation of those impacts (PS4, 5, 7 and 8).

### 3 How should ecosystem service risks be assessed?

PS6 requires clients to (i) maintain the value and functionality of services considered a priority for the well-being of Affected Communities ('type I priority services') and (ii) minimise impacts to maintain the ecosystem services essential to the project over its lifetime ('type II priority services'). Note that only priority, not all, ecosystem services require attention. Further, only ecosystem services over which a client has "direct

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<sup>1</sup> Millennium Ecosystem Assessment . (2005) *Ecosystems and Human Well-Being: Synthesis*. Island Press, Washington.

<sup>2</sup> An Affected Community is defined as a group of stakeholders using an ecosystem service that is affected by the project and reliant on that ecosystem service for their wellbeing.

management control or significant influence” need to be included. This includes direct and indirect impacts, but not cumulative impacts, and so services such as carbon storage and climate regulation are covered under PS1 (paragraph 7).

Maintaining ecosystem services may be challenging in the face of external influences out of a client’s direct control. For type I priority services, clients must try to avoid impacts and, if impacts are unavoidable, must minimise them and implement mitigation measures acceptable to Affected Communities. Compensation should only be used if there is still residual damage after implementation of the mitigation hierarchy.

PS6 does not mandate a single approach to ES assessment, or require a quantitative approach. Instead, it places emphasis on the need for extensive stakeholder involvement. However, modelling approaches can be very helpful in predicting future ES availability and developing appropriate mitigation.

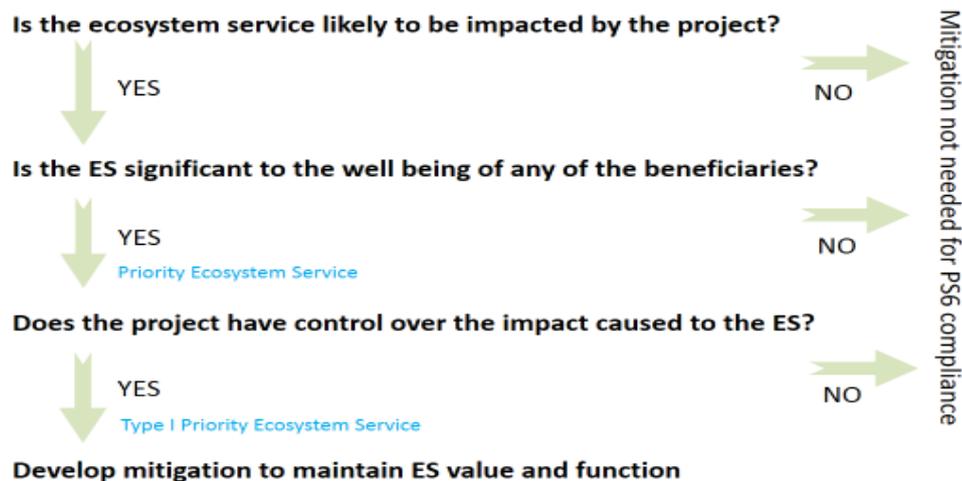
PS6 provides a framework for the processes that should be covered in an ES review (PS6 Guidance Note paragraph 140), which TBC divides into three main stages:

- Stage 1: Identify Type I and Type II priority ecosystem services
- Stage 2: Establish current and future trends in priority ecosystem services
- Stage 3: Develop a mitigation/compensation strategy that minimises project risk

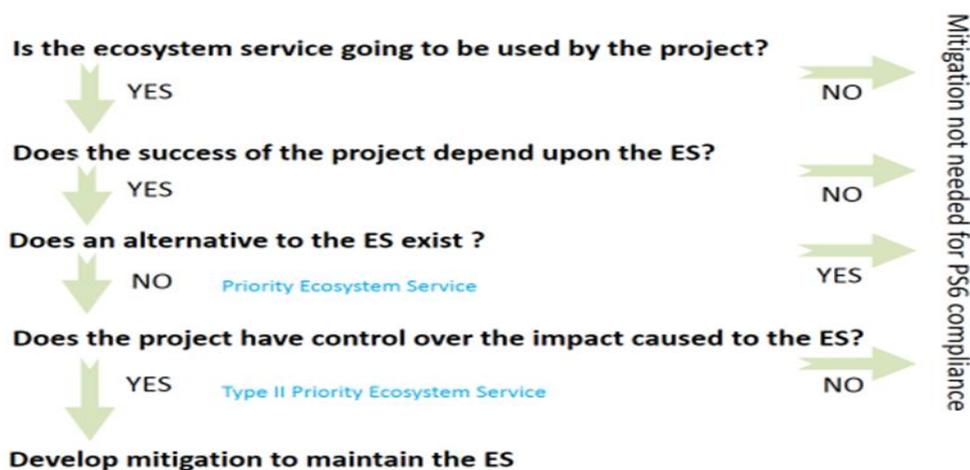
## Stage 1: Identify Type I and Type II priority ecosystem services

Existing tools, such as those from [IPIECA](#) or [WRI](#), provide useful guidance on identification and prioritisation of ecosystem services.

Identifying Type I priority ES requires substantial engagement with Affected Communities, alongside expert opinion. TBC has developed a simple decision tree as follows:



In contrast, identification of Type II ecosystem services requires a detailed knowledge of the project's requirements, as follows:



## Stage 2: Establish current and future trends in priority ecosystem services

A baseline of current conditions and predicted future trends (in the absence of the project) are required in order to determine a project's impact on priority ecosystem services. A modelling approach such as [InVEST](#) or [ARIES](#) may be useful in combining and mapping this information.

## Stage 3: Develop a mitigation/compensation strategy that minimises project risk

While every project will need to develop context-specific mitigation measures, useful general guidelines include those from [IPIECA](#) and the [Natural Value Initiative](#). In particular, it will be important to:

- Develop a risk-averse strategy with an emphasis on avoidance, especially for those ecosystem services that are irreplaceable or where stakeholders are highly vulnerable to a change in the supply;
- Use an adaptive management approach to allow for continual improvement of the effectiveness of mitigation measures over a project's lifetime;
- Develop mitigation actions in close collaboration with stakeholders and relevant specialists;
- Consider compensation only when the mitigation hierarchy has been fully implemented. Compensation may include offsets or substitution of different services (e.g. man-made versus biodiversity-based). Financial compensation is a last resort, both conceptually and because of its economic and socio-political complexity;
- Balance mitigation/compensation measures for ecosystem service and biodiversity risks so that they are complementary (e.g. communities may not prefer biodiversity-based replacement of services – in some cases this is not an issue, but it could be for rare or threatened biodiversity).