



The Precautionary Principle Project

sustainable development, biodiversity conservation
and natural resource management
www.pprinciple.net

GUIDELINES FOR APPLYING THE PRECAUTIONARY PRINCIPLE TO BIODIVERSITY CONSERVATION AND NATURAL RESOURCE MANAGEMENT

These guidelines have been developed by The Precautionary Principle Project – a joint initiative of Fauna & Flora International, IUCN-The World Conservation Union, ResourceAfrica and TRAFFIC. They are the product of an international consultative process carried out from 2002 to 2005, involving a wide range of experts and stakeholders from different regions, sectors, disciplines and perspectives. This process has included three regional workshops (for East/Southern Africa, Latin America, and South/South-East Asia), a commissioned set of case studies, an open-access e-conference, and a final international review workshop. The Guidelines are also informed by meetings and discussions held at the World Summit for Sustainable Development, the IUCN World Parks Congress and the IUCN World Conservation Congress. These Guidelines are taken from the forthcoming publication Biodiversity and the Precautionary Principle: Risk and Uncertainty in Conservation and Sustainable Use (Earthscan, London), and do not necessarily reflect the view of IUCN or other collaborating organisations.

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INTRODUCTION

The uncertainty surrounding potential threats to the environment has frequently been used as a reason to avoid taking action to protect the environment. However, it is not always possible to have clear evidence of a threat to the environment before the damage occurs. Precaution – the “Precautionary Principle” or “Precautionary Approach” – is a response to this uncertainty.

The Precautionary Principle has been widely incorporated, in various forms, in international environmental agreements and declarations and further developed in some national legislation. An element common to the various formulations of the Precautionary Principle is the recognition that lack of certainty regarding the threat of environmental harm should not be used as an excuse for not taking action to avert that threat (See Box 1). The Precautionary Principle recognizes that delaying action until there is compelling evidence of harm will often mean that it is then too costly or impossible to avert the threat. Use of the principle promotes action to avert risks of serious or irreversible harm to the environment in such cases. The Principle therefore provides an important policy basis to anticipate, prevent and mitigate threats to the environment.

BOX 1: Some examples of different formulations of the Precautionary Principle

Rio Declaration, 1992, Principle 15

In order to protect the environment the Precautionary Approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

Convention on Biological Diversity, 1992, Preamble

[W]here there is a threat of *significant reduction or loss* of biological diversity, lack of full scientific certainty should not be used as a reason for postponing measures to avoid or minimize such a threat.

UK Biodiversity Action Plan, 1994, para 6.8

In line with the precautionary principle, where interactions are complex and where the available evidence suggests that there is a significant chance of damage to our biodiversity heritage occurring, conservation measures are appropriate, even in the absence of conclusive scientific evidence that the damage will occur

Convention on International Trade in Endangered Species of Wild Fauna and Flora, Resolution Conf 9.24 (Rev CoP13)

[T]he Parties shall, by virtue of the precautionary approach and in case of uncertainty either as regards the status of a species or the impact of trade on the conservation of a species, act in the best interest of the conservation of the species concerned and adopt measures that are proportionate to the anticipated risks to the species.

There has been much debate about the nature of the concept of precaution, in particular whether it should be accepted as a legal principle in addition to being a sound policy approach. Some have argued against the recognition of precaution as a “principle” of environmental law, which implies a broad obligation to apply precaution in decision-making, in favour of viewing precaution as merely one particular policy/management “approach” to dealing with uncertain threats. While it is undisputed that in an increasing number of specific contexts there are clear legal requirements to apply precaution, there is an ongoing debate on whether precaution has become part of international customary law. The development of these guidelines has not been shaped by this distinction. The term 'Precautionary Principle' has been used throughout these guidelines for consistency.

Scope and target audience

This document provides guidance on the application of the Precautionary Principle to the conservation of biodiversity and natural resource management. Throughout this document the term natural resource management (or NRM) refers only to the management of living natural resources. These guidelines have been formulated through focusing on forestry, fisheries, protected areas, invasive alien species, and wildlife conservation, management, use and trade. They may also be relevant to decision-making in other sectors that impact on biodiversity.

The primary target audience of these guidelines is policymakers, legislators and practitioners, but they also aim to create a culture of precaution in all sectors relevant to biodiversity conservation and NRM.

THE GUIDELINES

To apply the precautionary principle effectively:

A. ESTABLISH THE FRAMEWORK

Guideline 1: INCORPORATE

Incorporate the Precautionary Principle explicitly into appropriate legal, institutional and policy frameworks for biodiversity conservation and natural resource management.

Elaboration: Application of the principle requires a clear legal and policy basis and an effective system of governance. It also requires the establishment and maintenance of adequately resourced institutions to carry out research into risk and uncertainty in environmental decision-making.

Guideline 2: INTEGRATE

Integrate application of the Precautionary Principle with the application of and support for other relevant principles and rights.

Elaboration Other principles and rights are also relevant to conservation and NRM, including prevention, liability for environmental damage, inter-generational and intra-generational equity, the right to development, the right to a healthy environment and human rights to food, water, health and shelter. These other rights and principles must be borne in mind when applying the Precautionary Principle. In some circumstances they may strengthen the case for precautionary action, while in others the Precautionary Principle may need to be weighed against these other rights and principles.

Guideline 3: OPERATIONALISE

Develop clear and context-specific obligations and operational measures for particular sectors and contexts, or with respect to specific conservation or management problems.

Elaboration: The Precautionary Principle is a general guide for action; it is not a “rule” specifying that a particular decision should be made or outcome reached. To have conservation impact, it will typically require translation into concrete policy and management measures that are readily understood, that address the conservation problem and that identify actions to be taken in specific contexts. Without these, incorporation of the principle in law or policy may have little influence on practice. However, there is also a need for flexibility: the specific decisions and management or policy measures that it supports may vary over time and with changing circumstances.

Guideline 4: INCLUDE STAKEHOLDERS AND RIGHTHOLDERS

Include all relevant stakeholders and rightholders in a transparent process of assessment, decision-making and implementation

Elaboration: Precautionary decision-making involves making decisions where there is uncertainty about the underlying threat. This means that judgements, values and cultural perceptions of risk, threat and required action must play a role. Therefore, it is important to include stakeholders and rightholders and to be transparent throughout the process of assessment, decision-making and implementation. Key stakeholders include those who bear the costs of the potential threat, such as those who will be impacted by degradation or loss of biodiversity or natural resources, and those who bear costs of precautionary action (if any), such as those whose legitimate use of natural resources will be restricted. Indigenous peoples and local communities often play a very important role in NRM or rely on biodiversity and natural resources, and should be included. They should have the opportunity and resources to represent themselves and their interests effectively, and this should not be precluded by logistical, technical or language barriers. The imperative of including key stakeholders should, however, be balanced against potential conservation costs of delaying a decision.

Guideline 5: USE THE BEST INFORMATION AVAILABLE

Base precautionary decision-making on the best available information, including that relating to human drivers of threats, and traditional and indigenous knowledge

Elaboration: All relevant information should be taken into account, including that relating to human drivers of threats to biodiversity, as well as biological and ecological information. The best available scientific information should be used. In addition, traditional and indigenous knowledge and practices may also be relevant and should therefore be taken into account in decision-making.

Efforts should be made to ensure evidence and information is independent, free of bias, and gathered in a transparent fashion. This can be facilitated by ensuring it is gathered by independent and publicly accountable institutions without conflict of interest. In addition, taking into account multiple sources of information can help minimise bias.

B. DEFINE THE THREATS, OPTIONS AND CONSEQUENCES

Guideline 6: CHARACTERISE UNCERTAIN THREATS

Characterise the threat(s), and assess the uncertainties surrounding the ecological, social and economic drivers of changes in conservation status.

Elaboration: The threats addressed should include not only direct ones but also indirect, secondary and long-term threats, and the incremental impacts of multiple or repeated actions or decisions. Their underlying causes and potential severity should be assessed, and efforts made to determine what is known and not known, what knowledge can be easily improved and what cannot. There should be explicit recognition of ignorance, areas of uncertainty, gaps in information, and limitations of the statistical power of available methods for detecting threats. Where threats may interact or be inter-related (e.g. action against one may exacerbate another) they should not be addressed in isolation. However, there is a need to balance the benefits of delaying a decision to gather more information against the potential threats raised by such a delay.

Guideline 7: ASSESS OPTIONS

Identify the available actions to address threats, and assess the likely consequences of these various courses of action and inaction

Elaboration: The principle should guide a constructive search for alternatives and practical solutions, and support positive measures to anticipate, prevent and mitigate threats. The potential benefits and threats raised by available courses of action and inaction should be assessed – these threats and benefits may be of various kinds, from various sources, and may be short or long term. There may be threats associated with all courses of action: often conservation and NRM decisions involve a choice between “risk and risk” rather than between “risk and caution”. In assessing the likely consequences of alternative courses of action and inaction the technical feasibility of different approaches should be taken into account.

Guideline 8: ALLOCATE RESPONSIBILITIES FOR PROVIDING EVIDENCE

Allocate roles and responsibilities for providing information and evidence of threat and/or safety according to who is proposing a potentially harmful activity, who benefits from it, and who has access to information and resources

Elaboration: In general, those who propose and/or derive benefits from an activity which raises threats of serious or irreversible harm should bear the responsibility and costs of providing evidence that those activities are, in fact, safe. The information itself should be the best available from a variety of sources (see Guideline 5). However, if this would involve requiring poorer, vulnerable or marginal groups to carry the responsibility and costs of showing that their activities (particularly traditional and/or livelihood activities) do not raise threats, either these responsibilities and costs should be placed on relatively more powerful groups, or financial/technical support should be provided. Moreover, in some circumstances, the different options available will *each* raise potentially significant conservation threats, in which case the guidance for assessing threats in Guideline 7 is relevant.

C. DEVISE THE APPROPRIATE PRECAUTIONARY MEASURES

Guideline 9: BE EXPLICIT

Specify that precautionary measures are being taken and be explicit about the uncertainty to which the precautionary measures are responding.

Elaboration: When decisions are made in situations of uncertainty, it is important to be explicit about the uncertainty that is being responded to, and to be explicit that precautionary measures are being taken. This ensures transparency, and also provides a clear basis for monitoring and feedback to decision-making/management.

Guideline 10: BE PROPORTIONATE

In applying the Precautionary Principle adopt measures that are proportionate to the potential threats

Elaboration: A reasonable balance must be struck between the stringency of the precautionary measures, which may have associated costs (*inter alia* financial, livelihood and opportunity costs) and the seriousness and irreversibility of the potential threat. It should be borne in mind that countries, communities or other constituencies may have the right to establish their own chosen level of protection for their own biodiversity and natural resources.

Guideline 11: BE EQUITABLE

Consider social and economic costs and benefits when applying the Precautionary Principle and where decisions would have negative impacts on the poor or vulnerable explore ways to avoid or mitigate these

Elaboration: Attention should be directed to who benefits and who loses from any decisions, and particular attention should be paid to the consequences of decisions for groups which are already poor or vulnerable. Where the benefits of an existing or proposed threatening activity accrue only to a few, or only to the already powerful and economically advantaged, or are only short-term, and potential costs are borne by the public and communities, by poorer or vulnerable groups, or over the long-term, this argues strongly in favour of increased precaution. If the application of precautionary measures would impact negatively on poor or vulnerable groups, ways to avoid or mitigate impacts on these groups should be explored. Threats to biodiversity and living natural resources may need to be weighed against potential threats to livelihoods and food security, or resources may need to be invested in compensation or in support for alternative livelihoods.

D. IMPLEMENT EFFECTIVELY

Guideline 12: BE ADAPTIVE

Use an adaptive management approach, including the following core elements:

- **monitoring of impacts of management or decisions based on agreed indicators;**
- **promoting research, to reduce key uncertainties;**
- **ensuring periodic evaluation of the outcomes of implementation, drawing of lessons and review and adjustment, as necessary, of the measures or decisions adopted;**
- **establishing an efficient and effective compliance system.**

Elaboration: An adaptive approach is particularly useful in the implementation of the Precautionary Principle as it does not necessarily require having a high level of certainty about the impact of management measures before taking action, but involves taking such measures in the face of uncertainty, as part of a rigorously planned and controlled trial, with careful monitoring and periodic review to provide feedback, and amendment of decisions in the light of new information.

Applying the Precautionary Principle may sometimes require strict prohibition of activities. This is particularly likely in situations where urgent measures are required to avert imminent threats, where the threatened damage is likely to be immediately irreversible (such as the spread of an invasive species), where particularly vulnerable species or ecosystems are

concerned, and where other measures are likely to be ineffective. This situation is often the result of a failure to apply more moderate measures at an earlier stage.

As precautionary measures are taken in the face of uncertainty and inadequate evidence surrounding potential threats to the environment, their application should be accompanied by monitoring and regular review, both to examine whether knowledge and understanding of the threat has increased, and to examine the effectiveness of the precautionary measure in addressing the threat. Any new information gained through monitoring and further research or information-gathering can then be fed back to inform further management and decision-making. While in some cases this may lead to the precautionary measure no longer being needed, in others it may lead to the determination that the threat is more serious than expected and that more stringent measures are required.

If meaningful participation by stakeholders/rightsholders is ensured throughout the process for implementing the Precautionary Principle, compliance is likely to be higher. The costs of compliance should be borne by the parties with the capacity to do it and at the least cost to society. Customary practices and social structures should be considered and, where appropriate, incorporated into the compliance scheme.

The management programme should be consistent with the available resource-base (monetary and non-monetary). Governments, private organizations, communities and individuals can contribute to this base. In determining this base, managers should consider the relative benefits to the relevant parties. Resources must be employed efficiently and tasks should be supportive of the management programme.