

Definitions for Evaluating Conservation Targets-Direct Threats

Scope: Most commonly defined spatially as the proportion of the target that can reasonably be expected to be affected by the threat within ten years given the continuation of current circumstances and trends. For ecosystems and ecological communities, measured as the proportion of the target's occurrence. For species, measured as the proportion of the target's population.

Explanation of key terms as you evaluate the direct threats for “Scope”:

The *target* refers to the focal conservation target at the scale being assessed - in technical terms, the target occurrence within the defined project area (e.g., small site, landscape, or even global scale). *Affected* means subject to one or more stresses from the threat. The *ten-year* time frame can be extended for some longer-term threats like global warming that need to be addressed today. *Current circumstances and trends* include both existing as well as potential new threats. *Occurrence* for ecosystems is typically by area. Species includes both single species targets as well as multiple species guilds. If a species is evenly distributed, then the proportion of the target's population is the same as the proportion of the area occupied, but if it is patchily distributed, then it is not. In these cases, it is important to specify the unit of assessment for the target (e.g., breeding pairs vs. nests vs. individuals).

For both ecosystems and species, the proportion is estimated as the percentage of the target's occurrence at the scale being assessed (e.g. a water pollution threat affecting an aquatic ecosystem target is measured as the percentage of that aquatic ecosystem target affected, not the percentage of the area of the entire site).

Severity: Within the scope, the level of damage to the target from the threat that can reasonably be expected given the continuation of current circumstances and trends. For ecosystems and ecological communities, typically measured as the degree of destruction or degradation of the target within the scope. For species, usually measured as the degree of reduction of the target population within the scope.

Explanation of key terms as you evaluate the direct threats for “Severity”:

Within the scope refers to both the spatial and temporal scope defined above. It is important to note that the severity rating is not made for the entire assessment area, but only within the scope the threat affects. Thus, if the scope of a hunting threat only affects a sub-population of the overall species target, the severity assessment is only made in relation to that sub-population. For ecosystem targets, *destruction or degradation* is defined in reference to one or more key attributes of the target. Likewise, damage to species targets is most often defined in terms of the *degree of reduction* of the key attribute "population size." In some cases it may be appropriate to consider other key attributes for species targets, such as reduction of breeding pairs or reduction of juveniles.

Irreversibility (Permanence): The degree to which the effects of a threat can be reversed and the target affected by the threat restored.

Explanation of key terms as you evaluate the direct threats for “Irreversibility (Permanence)”:

Permanence applies to the *effects of the threat* on the target, not the threat itself. In other words, it is not a measure of how difficult it is to stop the threat, but rather to undo the stress caused by

the threat on the target. It is important to note that the use of the permanence rating as specified is largely in respect to prioritizing potential threats. If a threat is looming that will cause irreversible damage, then it makes sense to try to address that threat. However, if the threat has already occurred and the irreversible damage has already taken place, then it may not make sense to prioritize that threat for action.

Options for Scores:

Scope:

- **Very High:** The threat is likely to be pervasive in its scope, affecting the target across all or most (71%-100%) of its occurrence/population.
- **High:** The threat is likely to be widespread in its scope, affecting the target across much (31-70%) of its occurrence/population.
- **Medium:** The threat is likely to be restricted in its scope, affecting the target across some (11-30%) of its occurrence/population.
- **Low:** The threat is likely to be very narrow in its scope, affecting the target across a small proportion (1-10%) of its occurrence/population

Severity:

- **Very High:** Within the scope, the threat is likely to destroy or eliminate the target, or reduce its population by 71-100% within ten years or three generations.
- **High:** Within the scope, the threat is likely to seriously degrade/reduce the target or reduce its population by 31-70% within ten years or three generations
- **Medium:** Within the scope, the threat is likely to moderately degrade/reduce the target or reduce its population by 11-30% within ten years or three generations
- **Low:** Within the scope, the threat is likely to only slightly degrade/reduce the target or reduce its population by 1-10% within ten years or three generations

Irreversibility/Permanence:

- **Very High:** The effects of the threat cannot be reversed and it is very unlikely the target can be restored, and/or it would take more than 100 years to achieve this (e.g., wetlands converted to a shopping center).
- **High:** The effects of the threat can technically be reversed and the target restored, but it is not practically affordable and/or it would take 21-100 years to achieve this (e.g. wetland converted to agriculture).
- **Medium:** The effects of the threat can be reversed and the target restored with a reasonable commitment of resources and/or within 6-20 years (e.g., ditching and draining of wetland).
- **Low:** The effects of the threat are easily reversible and the target can be easily restored at a relatively low cost and/or within 0-5 years (e.g., off-road vehicles trespassing in wetland).