

## Activity Typology for the Kelp Forest Challenge

### Target Overview

What is the kelp forest challenge?

The challenge is a global goal to protect and restore an ambitious but credible area of kelp forest around the world by an agreed upon date.

### Pledges

When is it restoration and when is it protection?

The easiest way to determine if an action is restoration or protection is to consider the area it is affecting. If that area already has a naturally occurring kelp forest, it would qualify as protection. Rather, if that area once contained a kelp forest and the action results in a kelp forest returning, it would qualify as restoration.

What activities count towards the restoration target?

We are working with the International Union for the Conservation of Nature's kelp forest restoration typology. This work is based on an accepted framework for terrestrial ecosystems but has been tailored for kelp forest conservation and restoration. Broadly, the categories are

#### Natural Regeneration

- Eliminating kelp harvesting
- Eliminating water pollution
- Eliminating habitat destruction

#### Assisted regeneration

- Seeding
- Transplanting
- Supplementing natural habitat

#### Protection

- Marine protected areas
- Protecting or restoring natural predator populations which benefit kelp forests

#### Problematic species control

- Managing the populations of herbivores such as urchins or fish
- Competitor removal

- Managing the populations of competitors such as turf algae or coralline algae

What activities count towards the protection target?

We are working with the International Union for the Conservation of Nature's kelp forest restoration typology. This work is based on an accepted framework for terrestrial ecosystems but has been tailored for kelp forest conservation and restoration. Much of the distinction between protection and restoration will be if there is already a kelp forest there. If yes, then the action likely counts as protection, not restoration. Management actions which count as protection are

Limiting Stressors

- Eliminating kelp harvesting
- Eliminating water pollution
- Eliminating habitat destruction

Protecting ecosystems

- Marine protected areas
- Protecting or restoring natural predator populations which benefit kelp forests

Problematic species control

- Managing the populations of herbivores such as urchins or fish

Competitor removal

- Managing the populations of competitors such as turf algae or coralline algae

## MPA Protection Level

Following the specifications from the Convention on Biodiversity, protected areas (MPAs) must be "...a network of highly or fully protected, well managed marine protected areas (MPAs) and other effective area-based conservation measures (OECMs)."

Following expert consultation, the IUCN has produced the below classifications which may count towards the target. Pledges will be marked by protection level so that we maintain a good understanding of what protection is being afforded to kelp forests.

Table of marine reserve classifications.

IUCN category	Definition	Primary objective	Permitted activities	Prohibited activities
<b>Ia</b>	<i>Category Ia are strictly protected areas set aside to protect biodiversity and also possibly geological/geomorphological features, where human visitation, use and impacts are strictly controlled and limited to ensure protection of the conservation values. Such protected areas can serve as indispensable reference areas for scientific research and monitoring.</i>	To conserve regionally, nationally or globally outstanding ecosystems, species (occurrences or aggregations) and/or geodiversity features: these attributes will have been formed mostly or entirely by non-human forces and will be degraded or destroyed when subjected to all but very light human impact.	Scientific research involving collection may be permitted if that collection cannot be conducted elsewhere and if the collection activity is minimised to that which is absolutely necessary to achieve the scientific goals of the study. Extraction to control invasive species is also permitted in some category Ia MPAs.	Removal of species or modification, extraction or collection of resources (e.g. through any form of fishing, harvesting, dredging) is considered to be incompatible with this category. Anchoring, which can damage bottom habitat, should not be permitted. If necessary for research, mooring buoys may be an alternative
<b>Ib</b>	<i>Category Ib protected areas are usually large, unmodified or slightly modified areas, retaining their natural character and influence, without permanent or significant human habitation, which are protected and managed so as to preserve their natural condition.</i>	To protect the long-term ecological integrity of natural areas that are undisturbed by significant human activity, free of modern infrastructure and where natural forces and processes predominate, so that current and future generations have the opportunity to experience such areas.	Same as Ia and in some circumstances, sustainable resource use by indigenous people to conserve their traditional, spiritual and cultural values, provided this is done in accordance with cultural tradition.	As with Category Ia, removal of species or modification, extraction or collection of resources (e.g. through fishing, harvesting or dredging) is not considered compatible with this category.
<b>II</b>	<i>Category II protected areas are large natural or near natural areas set aside to protect large-scale ecological processes, along with the complement of species and ecosystems characteristic of the area, which also provide a foundation for environmentally and culturally compatible spiritual, scientific, educational, recreational and visitor opportunities.</i>	To protect natural biodiversity along with its underlying ecological structure and supporting environmental processes, and to promote education and recreation.	As with category Ib. This category should also provide for visitation, non-extractive recreational activities and nature tourism (e.g. snorkelling, diving, swimming, boating, etc.) and approved research, provided that research cannot be done elsewhere (see p. 23 for more details).	Extractive use (of living or dead material) is not considered consistent with the objectives of category II (e.g. all types of fishing, including recreational, are not compatible), other than for approved research which cannot be done elsewhere
<b>III</b>	<i>Category III protected areas are set aside to protect a specific natural monument, which can be a landform, sea mount, submarine caverns, geological feature such as a cave or even a living feature such as an ancient grove. They are generally quite small protected areas and often have high visitor value.</i>	To protect specific outstanding natural features and their associated biodiversity and habitats.	Same as category II.	Extractive use (of living or dead material) is not considered consistent with the objectives of category III (e.g. all types of fishing, including recreational, are not compatible), other than for approved research which cannot be done elsewhere. All other activities which have the potential to impact the specific natural monument (e.g. aquaculture, waste discharge, habitation, etc) are also prohibited.

IUCN category	Definition	Primary objective	Permitted activities	Prohibited activities
IV	<i>Category IV protected areas aim to protect particular species or habitats and management reflects this priority. Many category IV protected areas will need regular, active interventions to address the requirements of particular species or to maintain habitats, but this is not a requirement of the category.</i>	To maintain, conserve and restore species and habitats.	Unlike categories Ia – III, within category IV MPAs extractive research is permitted, as is renewable energy generation and restoration/enhancement for other reasons (e.g. beach replenishment, fish aggregation, artificial reefs). Long-term and sustainable local fishing practices, small-scale aquaculture and works (e.g. harbours, ports, dredging) are all permitted so long as the activity can be managed in such a way that it is compatible with the MPA's objectives.	Industrial fishing, industrial-scale aquaculture, untreated waste discharge, mining and habitation not permitted.
V	<i>Category V protected areas are where the interaction of people and nature over time has produced an area of distinct character with significant ecological, biological, cultural and scenic value: and where safeguarding the integrity of this interaction is vital to protecting and sustaining the area and its associated nature conservation and other values.</i>	To protect and sustain important landscapes/ seascapes and the associated nature conservation and other values created by interactions with humans through traditional management practices.	Local communities living within and sustainably using the seascape is allowed, and long-term and sustainable local fishing practices or small-scale aquaculture are permitted. However, the primary objective of the area remains the sustainable interaction of people and nature over time. Works (e.g. harbours, ports, dredging) may also be permitted, provided they or any associated activities (e.g. waste discharge, sea dumping) do not cause adverse impacts on the ecological, biological, cultural or scenic values of the area.	Industrial fishing, industrial-scale aquaculture, untreated waste discharge and mining not permitted.
VI	<i>Category VI protected areas conserve ecosystems and habitats together with associated cultural values and traditional natural resource management systems. They are generally large, with most of the area in natural condition, where a proportion is under sustainable natural resource management and where low-level non industrial use of natural resources compatible with nature conservation is seen as one of the main aims of the area.</i>	To protect natural ecosystems and use natural resources sustainably, when conservation and sustainable use can be mutually beneficial.	Long-term and sustainable local fishing practices, small-scale aquaculture and small-scale sustainable collection of some species (e.g. food species, ornamental coral or shells) are permitted. Works (e.g. harbours, ports, dredging) may also be permitted, provided they or any associated activities (e.g. waste discharge, sea dumping) do not cause adverse impacts on the ecological, biological, cultural or scenic values of the area.	Industrial fishing, industrial-scale aquaculture, untreated waste discharge, mining and habitation not permitted.

Table of activities which are permitted in each classification.

Activities	Ia	Ib	II	III	IV	V	VI
Research: non-extractive	Y*	Y	Y	Y	Y	Y	Y
Non-extractive traditional use	Y*	Y	Y	Y	Y	Y	Y
Restoration/enhancement for conservation (e.g. invasive species control, coral reintroduction)	Y	Y	Y	Y	Y	Y	Y
Traditional fishing/collection in accordance with cultural tradition and use	N	Y*	Y	Y	Y	Y	Y
Non-extractive recreation (e.g. diving)	N	Y	Y	Y	Y	Y	Y
Large scale high intensity tourism	N	N	Y	Y	Y	Y	Y
Shipping (except as may be unavoidable under international maritime law)	N	N	N*	N*	Y	Y	Y
Research: extractive	N*	N*	N*	N*	Y	Y	Y
Renewable energy generation	N	N	N	N	Y	Y	Y
Restoration/enhancement for other reasons (e.g. beach replenishment, fish aggregation, artificial reefs)	N	N	N*	N*	Y	Y	Y
Fishing/collection: recreational (sustainable)	N	N	N	N	*	Y	Y
Fishing/collection: local fishing (sustainable)	N	N	N	N	*	Y	Y
Industrial fishing, industrial-scale aquaculture	N	N	N	N	N	N	N
Aquaculture – small-scale	N	N	N	N	*	Y	Y
Works (e.g. harbours, ports, dredging)	N	N	N	N	*	Y	Y
Untreated waste discharge	N	N	N	N	N	N*	N*
Mining, oil and gas extraction (seafloor as well as sub-seafloor)	N	N	N	N	N	N	N
Habitation	N	N	N	N	N	Y	N
<b>Key:</b>							
No							N
Generally no, a strong prerogative against unless special circumstances apply							N*
Yes							Y
Yes because no alternative exists, but special approval is essential							Y*
Variable; depends on whether this activity can be managed in such a way that it is compatible with the MPA's objectives							*

If you have further questions, about the qualified activities, please contact us.