

## Greenpeace Criteria for Sustainable Fisheries

October 2008

### Defining sustainable fisheries

In simple terms, a sustainable fishery is one whose practices can be maintained indefinitely without reducing the targeted species' ability to maintain its population at healthy levels, and without adversely impacting on other species within the ecosystem – including humans – by removing their food source, accidentally killing them, or damaging their physical environment.<sup>i</sup>

Fisheries can be defined either broadly as the group of fishers targeting a specific stock of a species (e.g. the North Sea cod fishery or the South Atlantic albacore fishery); or more precisely according to the species, stock, and the fishing method used and even down to a specific country's fleet e.g. (the Norwegian North sea cod gillnet fishery or the US South Atlantic albacore long-line fishery). Clearly where these criteria are applied to the broader definition, all the components of the fishery must be operating sustainably, while when applying it to the more specific definition, the cumulative impacts of other fisheries in the area will have to be considered.

The Greenpeace criteria for sustainable fisheries are based on the *FAO Code of Conduct for Responsible Fisheries*<sup>ii</sup> and highlight some of the key issues we have with fisheries. The overarching messages of the code are contained within the first two general principles:

1. "States and users of living aquatic resources should conserve aquatic ecosystems. The right to fish carries with it the obligation to do so in a responsible manner so as to ensure effective conservation and management of the living aquatic resources."
2. "Fisheries management should promote the maintenance of the quality, diversity and availability of fishery resources in sufficient quantities for present and future generations in the context of food security, poverty alleviation and sustainable development. Management measures should not only ensure the conservation of target species but also of species belonging to the same ecosystem or associated with or dependent upon the target species."

The code emphasises the need for strong, co-ordinated, effective management and conservation of resources by all users and the need for co-operative research to improve scientific and technical knowledge of fisheries including their interaction with the ecosystem.

The code stipulates the need to apply a precautionary approach to conservation and management, based on the best scientific evidence available, while also taking into account 'traditional knowledge of the resources and their habitat, as well as relevant environmental, economic and social factors.' It warns that 'the absence of adequate scientific information should not be used as a reason for postponing or failing to take measures to conserve target species, associated or dependent species and non-target species and their environment.'

**In 2002, at the World Summit on Sustainable Development, world governments agreed to implement the *FAO Code of Conduct for Responsible Fisheries* with the goal of restoring global fish stocks by 2015.<sup>iii</sup>**

Unfortunately governments are still a long way from achieving this objective, leaving not only our marine biodiversity at risk, but also the millions of people who depend on the sea for food and livelihoods. Industrial societies need to redefine their relationship with the oceans. A swift and fundamental transition to ecologically responsible, low impact fishing is urgently needed. Adjustments in consumption patterns are also be required.

Greenpeace seeks a substantial transformation from fisheries production that is dominated by large-scale, capital-intensive, destructive methods, to one based on smaller scale, community-based, labour-intensive fisheries using ecologically responsible, selective fishing technology and environmentally sound practices that take into account our incomplete understanding about the workings of complex ecosystems.

Greenpeace believes that the principles expressed here are achievable and, that if they are applied, there will be enormous benefits, both for the environment and fishing communities. But to achieve this, sweeping institutional, social and economic reforms are required.

The complexity and scale of today's crisis in fisheries mean there is no simple panacea. Each fishery has unique characteristics related to the social, economic and political context, the species fished, the nature of the exploited environment, and the type of technology employed.

For some fisheries, particularly small-scale local fisheries, the only data currently available is on the target species and the fishing method – there may be no scientific data on stock status, fishing rates or the wider impacts on the environment. While these fisheries may not yet achieve the Greenpeace definitions of sustainable, they often have a lower impact than many larger fisheries and are of particular importance to local communities. We encourage the support of small-scale local fisheries, by fish buyers and governments, to provide data and improve their sustainability.

The criteria described here are specific for fisheries – they describe in detail what a sustainable fishery would look like. There are many reforms that need to take place at a broader national and international level in order to support the necessary changes to achieve and protect sustainable fisheries, such as laws requiring impact assessments prior to the introduction of new fisheries, and policies which ensure that the export of a nation's fisheries production are not at the expense of the environment, or domestic consumption needs, and do not cause any significant adverse social or cultural impacts. For a more detailed briefing on the reforms required, please refer to:

- Greenpeace (1998). *Principles for ecologically responsible low impact fisheries*. May 1998. Greenpeace Briefing.

For a more detailed briefing on the criteria that Greenpeace uses to identify the most *unsustainable* fishing practices, please refer to:

- Greenpeace (2009). *Greenpeace 'Red-Grade' Criteria for Unsustainable Fisheries*. Version 2.0. Greenpeace Briefing.

## What does a sustainable fishery look like?

### 1. A sustainable fishery is managed from an ecosystem perspective.<sup>iv</sup> It:

- **DOES** follow the FAO code of conduct, including the application of the precautionary principle. Precaution should increase with decreasing certainty of scientific data. Where scientific data or other reliable forms of information are inadequate to determine the likely impact of fishing on the populations and the ecosystem of which they are a part, fishing effort should be restricted to an extremely low percentage of the lowest estimate of the unfished biomass, pending proper analysis.
- **DOES** have clear goals set for implementing the use of marine reserves as part of the management plan. Marine reserves should serve as a mechanism to protect representative habits, allow recovery of damaged habitats, allow stock recovery, serve as 'witness' or comparison areas for monitoring the impacts of fishing on similar habitats, and act as a means of insurance against management failure outside the reserves.
- **DOES** have consistent monitoring procedures for both environmental and social impacts.
- **DOES** have an adaptive management plan to allow correction of possible mistakes or problems as soon as they are identified.

### 2. A sustainable fishery helps to protect sensitive species and habitats. It:

- **DOES NOT** operate in sensitive areas or habitats where there is concern that the fishing activities pose a threat to the biodiversity, productivity, or the characteristic structure and functioning of the marine ecosystems.
- **DOES NOT** negatively impact on any populations of protected, threatened or endangered species, or on their recovery.
- **DOES** closely monitor all populations of species within the target area that are listed as protected, threatened or endangered on the relevant country's lists, or on the IUCN Redlist (in any category from Near Threatened to Critically Endangered), to ensure that there is no negative impact on these populations either directly through bycatch or indirectly through decreasing the availability of key prey species. The management plan allows a quick response to close the fishery, or areas within the fishery, where impacts are suspected or identified.
- **DOES** include the protection of important areas such as spawning and nursery grounds.

### 3. A sustainable fishery maintains the stocks of all target species at a healthy level. It:

- **DOES NOT** target depleted stocks (biomass below a truly precautionary level), or fish at a rate that risks causing a decline in the stock (fishing mortality above a truly precautionary level)
- **DOES NOT** alter the age, genetic or sex composition of the stock to the point where it risks impairing the stock.
- **DOES** regularly monitor stocks.
- **DOES** follow, as a minimum, the advice of the relevant scientific advisory bodies.

- **DOES** set 'threshold reference points', or 'precautionary limits' for both the biomass and fishing rate as 'triggers' to ensure that any limit reference points or the maximum sustainable yield (MSY) are not breached accidentally. When these are triggered, the management plan allows a quick response to reduce the fishing rate (where fishing mortality has gone above precautionary levels), or close the fishery until the stock has recovered (where biomass has dropped below precautionary levels).
- **DOES** set positive target reference points, a key part of the FAO code<sup>v</sup>, for fishing levels that allow restoration to, and maintenance of stocks at, a plentiful level that considers both human use and the ecosystem as a whole. Clear timelines are set for achieving this goal. This is particularly important for slower-growing species that produce few young and for forage fish (such as herring, menhaden, squid, and krill) which are abundant but whose populations fluctuate widely under various environmental influences, are key prey for many larger marine species, and therefore require considerably more precautionary management. To achieve this goal, target stocks should be maintained at a high proportion of the biomass<sup>vi</sup> that would occur in the absence of fishing.
- **DOES** have a management plan that ensures that, where the fishery targets a mixed range of species, all species are assessed, and the most vulnerable and/or least healthy stocks are protected as a priority.

#### 4. A sustainable fishery uses selective fishing methods. It:

- **DOES NOT** use destructive fishing methods<sup>vii</sup> such as explosives or poisons, or bottom trawls (including demersal otter trawls, shrimp bottom trawls, beam trawls, or dredges).
- **DOES NOT** use indiscriminate fishing methods that result in high levels (>10% by weight) of bycatch of juveniles and unwanted/non-commercial or overfished species at any time (i.e. in any given haul) during fishing operations. Bycatch at 10% in any given haul should be set as a trigger that requires withdrawal from the area and a shorter test set of gear in the next area to ensure that bycatch remains low.
- **DOES NOT** discard any dead or dying marine life at sea.
- **DOES** use fishing methods that are suitable for the particular marine habitat where the fishery operates, and uses all necessary mitigation measures (e.g. closed areas, balanced quota composition for mixed fisheries) to minimise the accidental capture of non-target species.
- **DOES** land the entire catch, including bycatch that is dead dying or unlikely to survive being returned to the sea.
- **DOES** ensure that any live animals that are caught accidentally are return to the sea promptly and in a condition which affords a high chance of survival.
- **DOES** have a management plan that allows a rapid response to close the fishery, or areas within the fishery, where high numbers of juveniles or unwanted species are being caught.
- **DOES** have a bycatch reporting methodology that is accountable (i.e. onboard observers) and a regulatory structure that reduces bycatch over time.
- **DOES** show that the yearly average landing rate of juveniles, unwanted or non-commercial fish, or overfished species is zero or minimal (<5% by weight).
- **DOES** include measures to minimise the loss, and ensure prompt recovery where possible, of fishing gear to avoid 'ghost fishing'.

5. **A sustainable fishery maintains the biodiversity associated with the fishery. It:**
- **DOES NOT** cause, is not associated with, and is not suspected of causing substantial ecosystem changes (such as trophic cascades or ecosystem state changes).<sup>viii</sup>
  - **DOES** regularly monitor wider ecosystem impacts to prevent substantial ecosystem changes, with particular focus on key predator–prey relationships of the target species.
6. **A sustainable fishery minimises energy use, chemical use, and waste production in all its operations. It:**
- **DOES NOT** use CFCs, HCFCs, HFCs or other ozone depleting refrigerants.
  - **DOES** use all available non-toxic chemical alternatives to minimise the use of toxic, persistent, or bio-accumulative substances.
  - **DOES** recycle, reuse or reprocess all materials used in fishing, storage, and transport of fish to point of sale, including packaging, where possible.
  - **DOES** minimise total energy consumption.
  - **DOES** include measures to prevent the dispersion of wastes (including fuel and engine lubricants, and plastics) in the sea.
7. **A sustainable fishery operates in a socially, and economically, fair and responsible manner. It:**
- **DOES NOT** target species in areas where problems with Illegal, Unregulated and Unreported (IUU) fishing are so high<sup>ix</sup> that any regulations and management plans in place are seriously undermined.
  - **DOES** operate to local, national and international laws and regulations.
  - **DOES** report to the relevant authorities any IUU practices witnessed during fishing operations.
  - **DOES** provide financial assistance, where possible, for monitoring, control and surveillance (MCS) to ensure regulations and management plans are enforced and comply with state of the art MCS provisions.
  - **DOES** collect and make available all catch, landing, and other relevant data for scientific monitoring and fishery management.
  - **DOES** have requirements for social impact assessments and mitigation of adverse impacts, particularly on the social fabric<sup>x</sup> of local populations.
  - **DOES** respect human rights.
  - **DOES** respect the International Labour Organization (ILO) Core Conventions.<sup>xi</sup>
  - **DOES** involve all stakeholders in decisions, particularly subsistence, artisanal and fishing-dependent communities that depend on fishing for food and livelihoods.
  - **DOES**, when relevant, have equitable access agreements that protect food security for local populations.
  - **DOES** train and employ local people in its operations, wherever possible.
  - **DOES** have equitable benefit sharing arrangements.<sup>xii</sup>
  - **DOES** pay fair wages, i.e. a fair share of the profits on the sale of the catch, or where applicable, wages that are at least equal or superior to the highest of legal minimum wages or local average wages for similar activities. .
  - **DOES** apply health and safety measures at a minimum at the level of legal requirements.
  - **DOES** ensure employee access to adequate medical care, wherever possible.

**8. A sustainable fishery provides full traceability of all its fish from the point of capture to the market. It:**

- **DOES** provide clear identification of the origin of the products including the fishing area and the fishing method used.
- **DOES** use all available interconnected traceability methods (including GPS, and Internet technology) for all larger boats (not necessarily applicable to small-scale coastal fisheries) as part of an unequivocal marking system and non-forgable document tracing system.

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## Endnotes and References

<sup>i</sup> For a broader definition of sustainability see: Johnston P, Everard M, Santillo D, Robèrt KH. Reclaiming the definition of sustainability. *Environmental Science and Pollution Research* 14 (1): 60–6.

<sup>ii</sup> FAO (1995). *Code of conduct for responsible fisheries*. Rome, Italy: Food and Agriculture Organisation of the United Nations. Accessed Oct 2008 at: [www.fao.org/fi/agreem/codecond/codecon.asp](http://www.fao.org/fi/agreem/codecond/codecon.asp)

<sup>iii</sup> UN (2002). Report of the World Summit on Sustainable Development. Johannesburg, 26 Aug–4 Sept 2002. United Nations, New York, NY, USA. Accessed Oct 2008 at: [www.unctad.org/en/docs/aconf199d20&c1\\_en.pdf](http://www.unctad.org/en/docs/aconf199d20&c1_en.pdf) [see p23, article 31]

<sup>iv</sup> Ecosystem-Based Management (EBM) is a management approach that:

- Integrates ecological, social, and economic goals and recognizes humans as key components of the ecosystem.
- Considers ecological, not just political, boundaries.
- Addresses the complexity of natural processes and social systems and uses an adaptive management approach in the face of resulting uncertainties.
- Incorporates understanding of ecosystem processes and how ecosystems respond to environmental perturbations.
- Is concerned with the ecological integrity of coastal-marine systems and the sustainability of both human and ecological systems.
- Engages multiple stakeholders in a collaborative process to define problems and find solutions.

For additional information see: COMPASS (2005). *The Communication Partnership for Science and the Sea (COMPASS) scientific consensus statement on marine ecosystem-based management*. Statement prepared by scientists and policy experts to provide information about coasts and oceans to U.S. policy-makers. Released 21 March, 2005. Accessed Oct 2008 at: [www.compassonline.org/pdf\\_files/EBM\\_Consensus\\_Statement\\_v12.pdf](http://www.compassonline.org/pdf_files/EBM_Consensus_Statement_v12.pdf)

<sup>v</sup> FAO (1999). Indicators for sustainable development of marine capture fisheries. *FAO Technical Guidelines for Responsible Fisheries* 8. Food and Agriculture Organization of the United Nations, (FAO) Rome, Italy. 68p. Accessed Oct2008: [www.fao.org/DOCREP/004/X3307E/X3307E00.HTM](http://www.fao.org/DOCREP/004/X3307E/X3307E00.HTM)

<sup>vi</sup> There is no general figure for this as the impact will vary from fishery to fishery. It will vary depending on the vulnerability of the species and the overall health of the stock and the ecosystem.

<sup>vii</sup> Destructive fisheries alter habitat structure and biochemistry – e.g. flattening of wave-forms; removal of rock; removal of organisms that influence the 3-dimensional structure of the seabed; and disturbance of the upper layers of the seabed causing short-term re-suspension of sediments and pollutants into the water column, re-mineralization of nutrients and contaminants, and resorting of sediment particles.

<sup>viii</sup> For more details see: Committee on Ecosystem Effects of Fishing: Phase II – Assessments of the Extent of Change and the Implications for Policy, National Research Council (2006). *Dynamic Changes in Marine Ecosystems: Fishing, Food Webs, and Future Options*. The National Academies Press, Washington, DC, USA. pp41–5. Accessed Oct 2008 at: [http://books.nap.edu/catalog.php?record\\_id=11608](http://books.nap.edu/catalog.php?record_id=11608)

<sup>ix</sup> There is no general figure for this as the impact will vary from fishery to fishery. IUU will have a bigger impact on more vulnerable fish stocks for example. In some fisheries it might be easy to estimate fish taken illegally and adjust quotas to take IUU catches into account, while for others this can be extremely difficult.

<sup>x</sup> People within communities are linked or bonded together in a ‘social tissue’ or ‘social fabric’ by material conditions (employment, income, health, education, housing, food & water supplies, etc) and their relationships with others within, and outside, the community.

<sup>xi</sup> International Labour Organization Core Conventions:

- ILO C29 Convention on Forced Labour, 1930
- ILO C87 Freedom of Association and Protection of the Right to Organize 1948
- ILO C98 Right to Organize and Collective Bargaining 1949
- ILO C100 Equal Remuneration 1951
- ILO C105 Abolition of Forced Labour Convention, 1957
- ILO C111 Discrimination (Employment and Occupation) 1958
- ILO C138 Minimum Age Convention 1973
- ILO C182 Worst Forms of Child Labour, 1999

For more information see: ILO (2008). What we do> Labour standards> Conventions> ILOLEX database of international labour standards. *ILO website*. International Labour Organization (ILO), Geneva, Switzerland. Accessed Oct 2008 at: [www.ilo.org/ilolex/english/convdisp1.htm](http://www.ilo.org/ilolex/english/convdisp1.htm)

<sup>xii</sup> Equitable benefit sharing establishes, at each layer of a traditional value chain, principles for equitable commercial negotiations and price setting. It takes monetary and non-monetary benefits into account. It has, as a prerequisite, a robust traceability mechanism with full transparency that ensures the transfer of information from one layer to the other, both up and down the chain. Equitable benefit sharing is a broader concept than Fairtrade, which brings together small Southern producers and Northern buyers and guarantees above market prices by specifying prices outside of the traditional negotiation process in a commercial transaction.