Appendix - A

VARIOUS TERMS AND DEFINITIONS

According to FAO

- **Fishing Industry**

Includes both recreational, subsistence and commercial fishing, and the harvesting, processing, and marketing sectors.

- **Fishery**

Generally, a fishery is an activity leading to harvesting of fish. It may involve capture of wild fish or raising of fish through aquaculture.

Other Definitions

A unit determined by an authority or other entity that isengaged in raising and/or harvesting fish. Typically, the unit is defined in terms of some or all of the following: people involved, species or type of fish, area of water or seabed, method of fishing, class of boats and purpose of the activities.

- **Fishmeal**

Protein-rich meal derived from processing whole fish (usually small pelagic fish, and by-catch) as well as residues and by-products from fish processing plants (fish offal). Used mainly as agriculture feeds for poultry, pigs and aquaculture feeds for carnivorous aquatic species.

- **Artisanal Fisheries**

Traditional fisheries involving fishing households (as opposed to commercial companies), using relatively small amount of capital and energy, relatively small fishing vessels (if any), making short fishing trips, close to shore, mainly for local consumption. In practice, definition varies between countries, e.g. from gleaning

or a one-man canoe in poor developing countries, to more than 20 m. trawlers, seiners, or long-liners in developed ones. Artisanal fisheries can be subsistence or commercial fisheries, providing for local consumption or export. Sometimes referred to as small-scale fisheries.

▪ Aquaculture

The farming of aquatic organisms including fish, molluscs, crustaceans and aquatic plants with some sort of intervention in the rearing process to enhance production, such as regular stocking, feeding, protection from predators, etc. Farming also implies individual or corporate ownership of the stock being cultivated.

For statistical purposes, aquatic organisms which are harvested by an individual or corporate body which has owned them throughout their rearing period contribute to aquaculture.

▪ Inland Water

The surface water existing inland including lakes, ponds, streams, rivers, natural or artificial watercourses and reservoirs, and coastal lagoons and artificial waterbodies

Other Definitions

In commercial fishing, the point at which the added cost of producing a unit of fish is equal to what buyers pay. Producing fewer fish would bring the cost lower than what buyers are paying. Producing more fish would raise the cost higher than what buyers are paying. Fish harvesting at the point of economic efficiency produces the maximum economic yield. See maximum economic yield and economic rent.

▪ Mariculture

Mariculture: Cultivation, management and harvesting of marine organisms in the sea, in specially constructed rearing facilities e.g. cages, pens and long-lines. For the purpose of FAO statistics, mariculture refers to cultivation of the end product in seawater even though earlier stages in the life cycle of the concerned

aquatic organisms may be cultured in brackish water or freshwater or captured from the wild.

The raising of marine finfish or shellfish under some controls. Ponds, pens, tanks, or other containers may be used, and feed is often used. A hatchery is also mariculture but the fish are released before harvest size is reached.

▪ Ranching

Commercial raising of animals, mainly for human consumption, under extensive production systems, within controlled boundaries and paddocks (e.g. in agriculture), or in open space (oceans, lakes) where they grow using natural food supplies. In Fisheries, animals may be released by national authorities and re-captured by fishermen as wild animals, either when they return to the release site (e.g. salmon) or elsewhere (sea breams, flatfish).

▪ Effectiveness of Fishing

A general term referring to the percentage removal offish from a stock, but not as specifically defined as either rate of exploitation or instantaneous rate of fishing.

Other Definitions

In general, efficiency is the ratio of a system's output (or production) to input, as in the useful energy produced by a system compared to the energy put in the system.

In ecology, it is the percentage of useful energy transferred from one trophic level to the next (as in the ratio of production of herbivores to that of primary producers). Used in the context of production, efficiency is the ratio of useful work performed to the total energy expended, thus avoiding waste generation.

In the context of resources allocation, efficiency is the condition which would make at least one person better off and no one worse off. This implies that some may get richer and others not improve their status.

▪ Cephalopods

Animals (mollusks) with tentacles converging at the head, around the mouth (examples: squids, cuttlefish, and octopus).

- **Cod-end**

The end of a trawl net which retains the catch and the part of the net where most size-selection takes place. Cod end mesh sizes and structure (including shaffers) are usually regulated and may be preceded by a sorting grid to reduce by-catch.

- **Coastal Area**

In general, a geographic area of land and water along the coast, affected by the biological and physical processes of both the terrestrial and marine environments.

A geographic coastal area, defined for the purpose of natural resources management.

- **Coastal Zone**

The geographic interface between the oceans and the land, the boundaries of which are defined by the enabling legislation for integrated coastal zone management.

- **Continental Shelf**

The continental shelf of a coastal State comprises the sea-bed and subsoil of the submarine areas that extend beyond its territorial sea throughout the natural prolongation of its land territory to the outer edge of the continental margin, or to a distance of 200 nautical miles from the baselines from which the breadth of the territorial sea is measured where the outer edge of the continental margin does not extend up to that distance. The limits of the continental shelf or continental margin are determined in accordance with the provisions of article 76 of the Convention. If the continental margin extends beyond a 200 nautical mile limit measured from the appropriate baselines the provisions of UNCLOS Articles 76.4 to 76.10 apply.

Underwater edge of the continent, with moderate inclination, extending from the shore to the edge of the continental slope where the inclination increases

rapidly. Sometimes conventionally considered as the continent margin between 0 and 200 meters depth.

A zone adjacent to a continent (or around an island) and extending from the low water line to a depth at which there is usually a marked increase of slop towards oceanic depths.

- **Continental Slope**

That part of the continental margin that lies between the shelf and the rise. Simply called the slope in UNCLOS Article 76.3. The slope may not be uniform or abrupt, and may locally take the form of terraces. The gradients are usually greater than 1.5.

- **Culture-Based Fisheries**

Activities aimed at supplementing or sustaining the recruitment of one or more aquatic species and raising the total production or the production of selected elements of a fishery beyond a level which is sustainable through natural processes. In this sense culture-based fisheries include enhancement measures which may take the form of: introduction of new species; stocking natural and artificial water bodies; fertilisation; environmental engineering including habitat improvements and modification of water bodies; altering species composition including elimination of undesirable species, or constituting an artificial fauna of selected species; genetic modification of introduced species.

- **Culture-Based Capture Fisheries**

Capture fisheries which are maintained by stocking with material raised within aquaculture installations. More generally, activities aimed at supplementing or sustaining the recruitment of one or more aquatic species and raising the total production or the production of selected elements of a fishery beyond a level which is sustainable through natural processes. In this sense culture-based fisheries include enhancement measures which may take the form of: introduction of new species; stocking natural and artificial water bodies; fertilisation; environmental engineering including habitat improvements and modification of water bodies; altering species composition including elimination

of undesirable species, or constituting an artificial fauna of selected species; genetic modification of introduced species.

▪ Catch Per Unit of Effort (CPUE)

The quantity of fish caught (in number or in weight) with one standard unit of fishing effort; e.g. number of fish taken per 1000 hooks per day or weight of fish, in tons, taken per hour of trawling. CPUE is often considered an index of fish biomass (or abundance). Sometimes referred to as catch rate. CPUE may be used as a measure of economic efficiency of fishing as well as an index of fish abundance.). Also called: catch per effort, fishing success, availability.

Other Definitions

(C/f) or (Y/f). The catch of fish, in numbers (C or in weight (Y), taken by a defined unit of fishing effort (f).

▪ Catch at Size

The estimated number of fish caught, tabulated by size class and by other strata such as gear, nation and quarter. For any given species, catch-at-size should include all fish killed by the act of fishing, not just those fish that are landed.