

Trade Related Issues in Biodiversity

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Definitions

Trade

Exchange of goods for money or other goods; business carried out as means of livelihood or profit; buy and sell

Trade in fish is common to all societies and has taken place from time immemorial

A fisher returning with more fish than is needed to meet personal needs will tend to exchange surplus fish for other goods or services

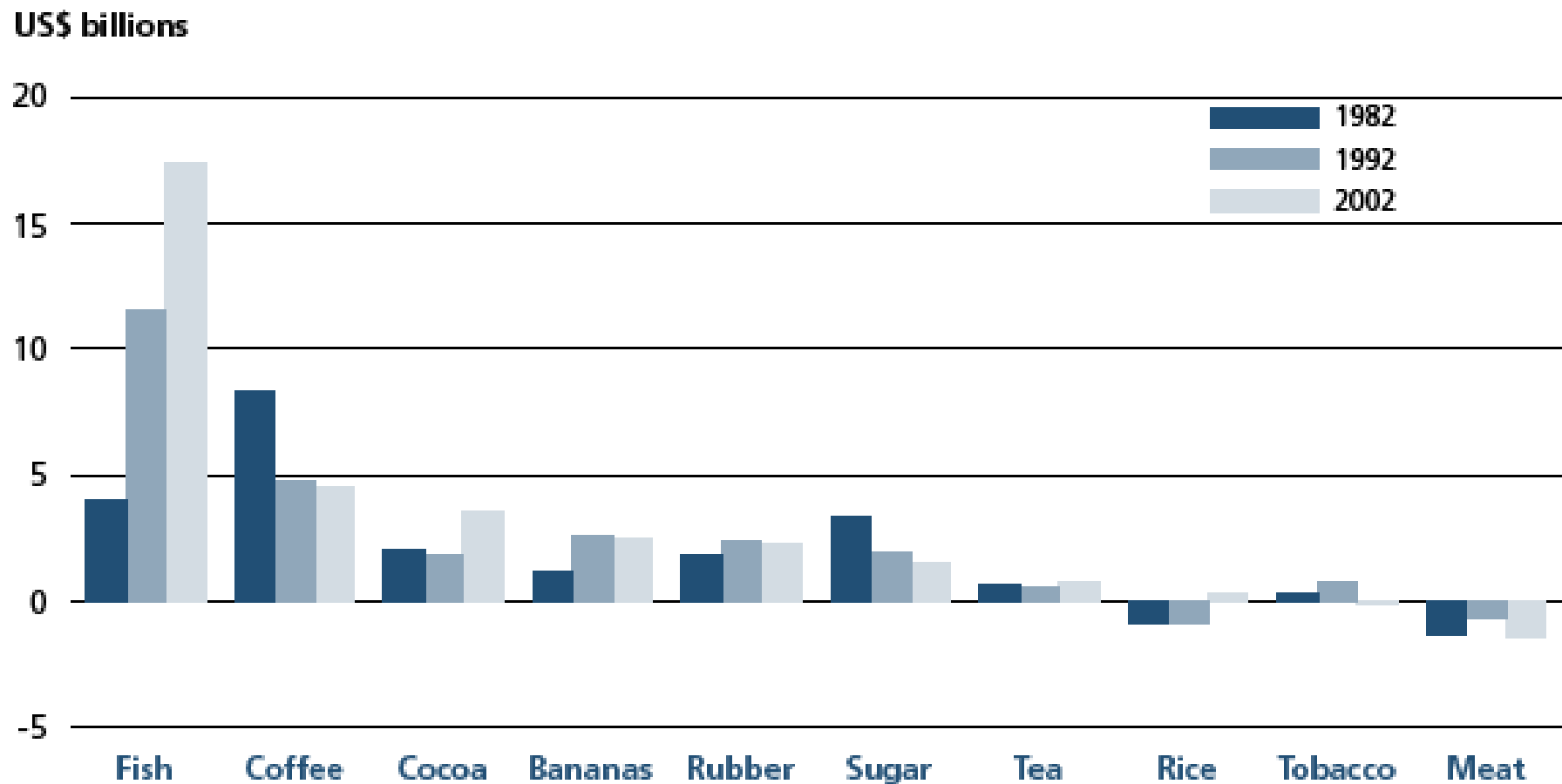
The distribution of fish globally is very uneven. Some places enjoy abundance far beyond the needs of the local population, while others may have no direct access to fisheries resources

This means that trade has a role to play in order to achieve a more even distribution of fish around the globe

An estimated 45% of the world catch is now traded internationally

Fish is the most traded of agricultural commodities

Net exports of selected agricultural commodities in developing countries



Definitions

Biodiversity

The most straightforward definition is "variation of life at all levels of biological organization"

A second definition holds that biodiversity is a measure of the relative diversity among organisms present in different ecosystems. "Diversity" in this definition includes diversity within a species and among species, and comparative diversity among ecosystems

A third definition that is often used by ecologists is the "totality of genes, species, and ecosystems of a region"

Genetic diversity - diversity of genes within a species

Species diversity – diversity among species in an ecosystem

Ecosystem diversity – diversity of habitats in a given area

Governance of Trade

- **Important frameworks relative to trade in fisheries have been established**
- **International trade rules have developed through several rounds of trade negotiations under General Agreement on Tariffs and Trade (GATT)**
- **The last of these, the 1994 Uruguay Round, agreed to establish the World Trade Organization (WTO) and a number of important agreements with relevance to fisheries were concluded**
- **The FAOs Committee on Fisheries has a Sub-Committee on Fish Trade, which provides an intergovernmental forum for consultations on technical and economic aspects of trade in fish and fish products**

Governance of Trade

- **The idea of free trade in the fisheries, however, is often vehemently contested because there are often tariff and non-tariff barriers to trade and other distorting factors, such as subsidies, present in trading relationships**
- **Exchange of and access to information is vital to successful trade practices**

Exploitation of Marine Biodiversity

- **Carried out from time immemorial**
 - **Coastal and deep-sea Fisheries**
 - **Aquaculture**
 - **Pharmaceutical industry (newly emerging)**

An Idea about Marine Biodiversity

- **Oceans cover 71 per cent of the earth's surface and account for 90 per cent of the biosphere**
- **In 1998, 'only' 200,000 marine animal species, about 20,000 algae and fewer microorganisms had been described;**
- **Not very impressive figures, compared with over 2 million animal species and 40,000 plants with flowers inhabiting the continents.**
- **Only five out of the 33 existing animal phylum are not represented in the marine environment, while 13 of them are exclusively marine.**
- **As a result, genetic, biochemical and physiological animal diversity is much larger in the oceans than on land**

Number of marine chemical structures discovered or refined from marine organisms

Group of organisms	Chemical structures
Marine Microorganisms	140
Green Algae	8
Brown Algae	10
Red Algae	39
Sponges	316
Coelenterates	193
Bryozoans	7
Molluscs	45
Tunicates (ascidians)	74
Echinoderms	24
Miscellaneous (crustaceans and others)	13

Source: Extracted from Faulkner, J. Marine natural products, *Nat. Prod. Rep.*, 2002, 19: 1-48

Marine Bioprospectors at work

- **Research is in progress on antibacterial, anticoagulant, antifungal, anti-inflammatory, anti-helminthic, anti-platelet, antiprotozoal and antiviral substances with actions on the cardiovascular, endocrine, immune and nervous systems**
- **Between 1969 and 2005, 63 marine substances were patented as anti-tumor agents, accounting for half the marine molecules patented for pharmaceutical purposes**

Control and Regulations over Marine Biodiversity

- **Convention on Biological Diversity (CBD)**
 - the sovereign rights of States over biodiversity;
 - the rights of the holders of industrial technology, who enjoy IPRs and may keep their information confidential; and
 - the rights of the holders of TEKS (traditional ecological knowledge systems), which are subject to national legislation, and whose knowledge must be made publicly available
- **Trade-related Aspects of Intellectual Property Rights (TRIPS) Agreement of the World Trade Organization (WTO).**
 - all WTO members to establish IPR systems covering all technologies and products, including, to an unprecedented extent, life forms and their parts.
- **The United Nations Convention on the Law of the Sea (UNCLOS)**



United Nations Convention on the Law of the Sea

UNCLOS

- **Negotiated between 1973 and 1982 and entered into force in November 1994, UNCLOS is the international convention governing the world's oceans.**
- **UNCLOS is relevant to control over biodiversity in three ways:**
 - **it establishes the rights and obligations of coastal States on the marine areas surrounding them, and the rights and obligations of other States on those waters;**
 - **it sets the conditions to conduct marine research; and**
 - **it forces countries to give access to "surpluses"**



Convention on Biological Diversity

CBD

- **The Convention on Biological Diversity (CBD or the Convention) was born out of a bundle of common concerns and conflicting interests, including:**
 - **the growing recognition that biological diversity is a global asset of tremendous value to present and future generations;**
 - **the unprecedented threats to species and ecosystems;**
 - **the rise of biotechnology, genetic engineering in particular;**
 - **the spectacular increase of IPR claims on developed countries' "inventions" building on genetic resources and associated knowledge from developing countries**

Objectives of the CBD

- The conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding
- Recognizes the following:
 - the sovereign rights of States over biodiversity;
 - the rights of the holders of industrial technology, who enjoy IPRs and may keep their information confidential; and
 - the rights of the holders of TEKS (traditional ecological knowledge systems), which are subject to national legislation, and whose knowledge must be made publicly available

Trade-Related Aspects of Intellectual Property Rights

TRIPS

The Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement of the World Trade Organization (WTO) came into force on 1 January 1995, as an outcome of the negotiations of the Uruguay Round of the General Agreement of Trade and Tariffs (GATT)

Some of the main features of TRIPS

- **Setting minimum standards**
 - **TRIPS forces countries that are members of the WTO to fulfil minimum standards for protection in the areas of copyright, trademarks, geographical indications, industrial designs, patents, layout designs of integrated circuits and undisclosed information.**
- **Equal treatment for all inventors and all exporters**
 - **The National Treatment clause requires WTO members to treat the nationals of all other member countries exactly the way that they treat their own nationals**
- **Developed countries were to implement TRIPS within one year after the Agreement was adopted; developing countries until 1 January 2005**

Some of the main features of TRIPS

- Countries failing to fulfil TRIPS requirements may be challenged before a WTO dispute settlement mechanism and eventually be subject to retaliatory measures in any segment of their trade
- Under TRIPS Article 27 countries are obliged to grant patents for any product or technology, in all fields of technologies.
- The only exceptions are:
 - inventions whose utilization is against *ordre public* and morality.
 - diagnostic, therapeutic and surgical methods.
 - plants and animals other than micro organisms, although States must grant protection over plant varieties through an effective *sui generis* system

Resolution of Conflicts – The Swordfish Case



- For the past decade, the EU and Chile have been engaged in a controversy over swordfish fisheries in the South Pacific, resorting to different international law regimes to support their positions.
- Chile claims that the EU fails to cooperate with the coastal state to ensure the conservation of the highly migratory species, in violation of the United Nations Convention on the Law of the Sea (UNCLOS).
- The EU claims that Chilean denial of port access violates substantive provisions of the General Agreement on Tariffs and Trade (GATT 1994).

Resolution of Conflicts – The Swordfish Case



- During the last week of January 2006, the EU and Chile finally reached an agreement that effectively suspends proceedings at the WTO and at the ITLOS
- Port access for fish caught under a new scientific fisheries program, and the creation of a multilateral conservation forum for the Southeast Pacific
- The scientific fisheries program will allow each Party to unload in the Chilean ports of Arica, Iquique, and Punta Arenas up to a thousand tons of swordfish each year
- Long liners and fishing gear used in scientific fisheries will be subject to a satellite vessel monitoring system (VMS) and the fishing vessels will carry scientific observers on board
- The provisional agreement reached by the Parties is a first step in setting up the legal framework necessary to ensure the conservation of marine biodiversity in the South Pacific

Access & Benefit Sharing (ABS)

- **Since the CBD entered into force, many countries and international organizations have established several measures to ensure their participation in the benefits arising from the exploitation of their genetic resources.**
- **Countries are not obliged to provide access to their genetic resources.**
- **Australia, for example, has closed its hugely wealthy waters to foreign researchers**
- **Therefore, companies interested in accessing and developing active agents from the organisms of Australia's Great Reef Barrier (and from the rest of the countries' coral reef systems) need to do so through contract with national institutions like the Australian Institute of Marine Sciences (AIMS).**

New & Future Pressures

- In 2002, one of the major fish distributors in the world UNILEVER, partnered a conservation NGO, the WWF, in creating the Marine Stewardship Council (MSC)
- MSC is designed to bring market pressure to bear on what is perceived as underperforming management regimes
- The MSC also recognizes the need to observe and respect the long term interests of people dependent on fishing for food and livelihood

- Other NGOs (for example Greenpeace) are pressurizing governments to ensure sustainable management of fish stocks –
- to make sure that the product that reaches the market is eco-labeled
- The example of Indian squid fisheries

Eco-label: A non-tariff trade barrier?

- In the general sense, an eco-labeled product is entitled to bear a logo that comes with a claim that the product has been produced in accordance with certain environmental standards.
- An eco-label for fisheries products is expected to pursue two objectives:
 - sustainable resources and
 - a sustainable ecosystem



Conclusions

Developing Countries need to Overcome Fear by....

- **The pressures for developing and least developed countries to allow the patenting of genetic resources and living beings are so strong, both under TRIPS and under TRIPS-plus agreements, that countries could find, in the mid-term, that the sovereignty of their biodiversity has been appropriated through IPRs**
- **Establishing rights regimes ensuring the inalienability of indigenous peoples' and local communities' rights to access, conserve and sustainable use of biodiversity**
- **The CBD offers a space for countries to provide such rights— provided that they are established independently from the frame of IPRs, as is now happening.**