

FISHING IN THE THIRD WORLD

SLIDEFOLIO
S.1337

The world aquatic harvest from seas, rivers and lakes includes thousands of different kinds of freshwater and saltwater fish as well as shellfish, crustaceans (such as shrimps and lobsters), cephalopods (such as squid and octopus), marine animals and seaweed. The total catch has risen slowly to more than 72 million tonnes a year, more than 90% of which is hunted. The catch from the seas is about 60 million tonnes a year but of this only about 2% is caught by the developing countries of the Third World.

Fish is a good food which is rich in protein, vitamins and minerals. Most people in most countries eat some fish but fish provides less than a third of the "animal" protein eaten by humans. In some countries, such as China, more fish is eaten than in other parts of the world but most Chinese supplies come from freshwater rivers, lakes and ponds. Some other countries, such as Japan, eat a lot of fish from the sea, but the sea provides only a small part of the world's food supply considering that it covers nearly 70% of the Earth's surface.

Many countries of the Third World have acute shortages of protein but few have any large fishing industries. Many people in the Third World supplement their diets with fish caught locally in the rivers and lakes, sometimes using primitive methods such as bows and arrows and traps.

1. This map shows the relationship of the Third World countries to the world's most important fishing grounds. The greatest potential is in the South Atlantic and Indian Oceans. Most overfishing is in the North Atlantic and the South East and North Pacific Oceans.
2. Many people in the Third World use lakes and rivers to supplement their food supplies catching fish by traditional and primitive methods. These butterfly nets are on Lake Patzcuaro, Mexico.
3. Most people living near coasts obtain some food from inshore fisheries where shell fish and crustacea are caught. In many areas there are now experiments to begin inshore fish farming, for example with oyster farms. These conch fishermen are in the Bahamas.
4. Some coastal people, such as these on the West African coast, rely heavily on fish caught in shoreline nets. The effort is co-operative and there is a mad scramble for

Some Third World countries would like to follow the example of China and develop fish farms and breed fish in flooded paddy fields. Some have established new fisheries in lakes created by irrigation and hydro-electric power schemes, such as Lake Kariba in East Africa. Some others, such as Peru and Chile, seek to build sea fishing industries.

Unfortunately, the seas, although providing only a small part of the world's diet, are becoming overfished for some types of fish by the developed nations especially Japan, Russia, Poland and Britain. It is difficult for Third World countries to acquire the skills and the fishing fleets necessary for modern deep sea fishing. The developed countries also claim most of the important fishing areas as their own or have put wide fishing limits around their own shores. Many Third World countries which are landlocked, such as Uganda, have little opportunity of sharing in the ocean fisheries.

Recent international conferences such as the United Nations Conference on the Law of the Sea and various E.E.C. agreements, have tried to prevent overfishing, encourage research, prevent pollution and agree fair fishing limits. Unfortunately, full agreement by the nations has never been reached.

- the catch. West African fisheries still rely mainly on canoes, but today outboard motors are used. There is concern that developed countries, such as Poland, are overfishing these waters using factory ships.
5. With proper organisation even muddy ponds and waters, such as this one in Nepal, can provide valuable food supplies. Unfortunately, the waters may become polluted with fertilisers and insecticides used on the farms. Tropical waters also carry the sources of sickness, such as bilharzia and are breeding areas for mosquitoes which carry malaria.
6. Ponds and flooded rice fields can be used for fish farming. The earliest fish farms were in China, more than 4,000 years ago, where carp, similar to these, were raised.
7. The best use must be made of fish when it has been caught. This fish is being smoked as part of a United Nations Food and Agricultural Organisation plan to encourage a greater use of fish in Benin, West Africa.

8. Many of the poorer Third World countries need aid to develop their fisheries. This deep sea trawler is being built as part of a fleet in the Philippines for fishing in the West Pacific. Aid is being provided by the World Bank.
9. Aid is also being provided to develop a deep sea fishing industry in West Africa. The building of this trawler will help to create conditions very different from those seen in slide 4.
10. People must be trained for deep sea fishing and the Food and Agricultural Organisation runs fishery schools such as this one in Chile. A trawler is returning with its catch. Fishermen from different parts of South America go to this school.
11. The main fishing grounds to the west of South America lie in the cold waters of the Humboldt Current. The fisheries of Peru were based on these waters and grew to be the largest in the world. The main catch was anchovies, used largely for fertilisers and as animal feed. Suddenly the anchovies disappeared, perhaps because of a change in the sea currents, and the Peruvian boats had to go further away. Other countries could face similar problems, for example if there is over fishing.
12. Research is necessary to find new types of food from the sea and to provide areas which will enable everyone to fish whilst at the same time regulating the amount of fish caught. In particular, it is necessary to control hugh factory ships from, for example, Japan, Poland and the USSR. One fishing area which is not overexploited and which may be a source of protein for Third World countries is the Antarctic. Of special interest is the krill, a kind of tiny shrimp. Bird and sea life in the Antarctic depends for much of its food on the krill which can also provide food for people, cattle feed and fertiliser.

The pictures and notes in this set are not intended as a complete treatment of the subject. They provide a core of material to which the teacher can add further materials and questions. Additional sets in the series provide a useful library of pictures to illustrate the general themes of development studies in the Third World. Other relevant folios are to be found under separate sections in this series of "World Studies" and in the series "Themes for Integrated Studies". A large amount of case study material is available, such as that published by CWDE and Oxfam. Well illustrated studies of these general themes may be found in "The Third World" by R.Clare (Macdonald Educational: World Topics. Colour Units) and other books in the same series. Similar themes are considered more simply in "Tropical Forests" and "Hot Deserts" by R.Clare (Edward Arnold: Meet the World).

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FISHING IN THE THIRD WORLD : QUESTIONS

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(Numbered to correspond with the related slides)

1.
 - a. Identify the oceans.
 - b. Locate the areas (1) with the best future for fishing (2) which are most over-fished.
 - c. Are Third World countries near the important fishing grounds?

2.
 - a. Why are these called butterfly nets?
 - b. Find other examples of lake fisheries.

3.
 - a. Locate the Bahamas on a map of North America.
 - b. Identify the conch shells.
 - c. Find examples of (1) other inshore fisheries (2) inshore fish farming.

4.
 - a. Why are these people on the shore with bowls?
 - b. What is happening to the fisheries in this part of Africa?
 - c. Find out about the factory ships of some of the developed nations.

5.
 - a. How has this fish been caught?
 - b. Why might catching a fish be an important event for a Third World farmer?

6. What are some of the advantages of fish farming?

7.
 - a. How is this fish being cooked?
 - b. Why is it important to (1) encourage people to eat fish (2) teach them the best way to use the catch?

8. Why do some Third World countries need help from other countries to develop a deep sea fishing industry?

9.
 - a. Why is it important for West Africa to develop deep sea fishing?
 - b. Who is taking most of the fish from the Atlantic ocean off the West African coast?

10.
 - a. Why are fishery schools important?
 - b. Why is international help and advice needed to run this school?

11.
 - a. Why are there good fisheries off the coast of Peru and Chile?
 - b. What happened to the Peruvian catch of anchovy? What lesson is to be learned from this?

12.
 - a. Why are fishermen turning their attention to the Antarctic ocean?
 - b. Why is krill important?
 - c. Do you think these could become good fishing grounds for Third World countries?

General:

- a. Why is it important to develop fishing throughout the world?
- b. Why was a Law of the Sea Conference necessary?
- c. List the ways in which Third World countries could improve their fisheries.
- d. Will all Third World countries benefit from 320 kilometre (200 mile) off-shore fishing limits? Give your reasons.