



## WATER IN THE THIRD WORLD

S.1197

Water is essential to support human life. It is necessary for the survival of the body, to provide food and to aid industrial development. Plenty of water is available on our planet but it is unevenly distributed. The developed, industrial world uses vast quantities to produce food, to maintain sanitation and to manufacture goods. It has the money to control and manage supplies in areas where there are shortages. Even so at times of drought supplies may be inadequate. The Third World lies mainly in the tropical and sub-tropical areas where water supplies tend to be too little or

1. Water is basic to life. A man needs 2-2½ litres a day to survive. Not all of it is drunk. Much is in the food we eat, but that also requires water in great quantities.
2. Water is needed for livestock for both drinking and hygiene. These sheep in India are being washed after the monsoon rains. These rains often bring floods but for much of the year most of India is parched and dry. Proper water control is a priority in India, as in many Third World countries.
3. Water is needed for transport in many areas. In the tropical forests, such as here in Indonesia, there is plenty of rain. The rivers are important highways as there are few roads in some of these regions but there are few people to use the rivers or the abundant water supply.
4. Water is needed for personal hygiene. These women in Sri Lanka are typical of the majority of women in the Third World. Their homes lack running water. Drinking water has to be carried home in containers, in many cases from the same supply where they have had to wash.
5. Water is easily polluted and unclean water causes half the deaths in the Third World. This really filthy water is in Bangkok, Thailand, at the floating market. Water in the countryside also becomes polluted, for example with fertilisers and insecticides. Insects and other disease carriers breed in wet areas spreading malaria, bilharzia, river blindness, and other diseases.
6. As more people flock to the towns, water for drinking and sanitation becomes even more difficult to supply. These children in Laos, South East Asia, are lucky. Less than 30 per cent of people in Third World cities have

too much. Some of the Third World societies have learned to manage their resources from earliest times but many societies do not have the knowledge, the money, nor the organisation to ensure sufficient, regular supplies.

The map at the end of these notes shows the distribution of rainfall in the Third World. The amount is the average falling in a year but some places have all their rain in a few wet days or months and have to survive drought for the remainder of the year.

7. Most of the world's deserts and semi-deserts are in the Third World. People living in these areas have adjusted their ways of living to the water that is available. When drought becomes more severe in these lands the result may be devastating famines such as those of Ethiopia and the Sahel region of the southern Sahara in the 1970s. This jeep, part of a relief scheme, is on its way to starving farmers. It too needs water.
8. A single irrigation scheme, begun hundreds of years ago, controls the water to the crops in this valley in Iran but the hillsides have been eroded and are without much vegetation. When rain falls on them it rushes to the valley and causes floods. Proper control is needed to prevent soil erosion, control flooding and conserve water in many Third World countries.
9. More water is needed for irrigation. The population of the Third World is increasing much more rapidly than that of the rest of the world. If the food needs by the year 2000 AD are to be met, the irrigated area will need to be increased by a half. This family in Jordan has a plentiful supply, which is pumped electrically into storage tanks but much of the Third World relies on irrigation techniques, such as the shaduf and Archimedes screw, which are thousands of years old.
10. The same family in Jordan can grow large quantities of crops, such as these peppers, for export. Most farmers in the Third World grow little more than they need for themselves. Many do not get enough water to irrigate their land properly and to wash harmful salts

11. Some water control schemes are on a large scale and are very expensive. Huge dams create vast reservoirs which drown large areas of countryside. They provide water for irrigation, for industry and, as here at the Guri Dam in Venezuela, generate hydro-electric power. Many large schemes, such as the Aswan High Dam, in Egypt, have had bad side effects which were not foreseen. Many scientists think that the cost of some of these schemes has not been justified by the results. Poor Third World countries have to borrow much money to develop them.
12. Small scale schemes for water control are thought to be more suitable in most cases. Third World countries may need help and advice for these, but they do not need as much money. Here a British worker with Voluntary Service Overseas has fixed a simple irrigation unit on a Bangladesh farm. Even small schemes can have unwelcome side effects. Too many pumps would cause the underground supplies to dry up. Other improvements in countries such as Bangladesh include building many very small reservoirs.

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 will provide a useful library of pictures to illustrate the general themes of development studies in the Third World. There is a large amount of case study material available, such as that published by Oxfam and the Voluntary Committee for Overseas Aid and Development. Well illustrated studies of these general themes may be found in "The Third World" by Roger Clare (Macdonald Educational. World Topics. Colour Units. ISBN 0 356 04490 4) and other books in the same series.

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**WATER IN THE THIRD WORLD : QUESTIONS**

**(Numbered to correspond with the related slides)**

1.
  - a. How much do you drink in a day?
  - b. How much of what you drink is purely water?
  - c. Have you ever been really thirsty?..... for how long?
  
2.
  - a. From the map attached find out which parts of the Third World have the highest rainfall.
  - b. Why is proper water control needed in India?
  - c. Find out more about the seasonal monsoons of India.
  
3.
  - a. Why is water transport most suitable in this forest area?
  - b. Which parts of the Third World are least likely to rely on water transport?
  - c. How important is water transport in the area where you live?
  
4.
  - a. How, and where, is your washing done?
  - b. Where is Sri Lanka?
  - c. What are the dangers to health shown here?
  
5.
  - a. What steps are taken to protect you from the dangers of polluted water?
  - b. Find out about malaria and bilharzia.
  
6.
  - a. How much a year does your family pay for piped water supplies?
  - b. Find out about the problems of the shanty towns of Calcutta and other cities in the Third World.
  - c. Why are water pipes more hygienic than open wells?

7.
  - a. Of what animal is this the remains?
  - b. Identify Ethiopia and the Sahel on an atlas map and on the rainfall map provided.
  - c. Find out the usual sources of water in deserts and semi-deserts.
  - d. What are the difficulties facing relief workers during severe droughts?
  
8.
  - a. Where is Iran?
  - b. Find out about ancient irrigation schemes such as those of Iran and Egypt.
  - c. Find out about the causes and effects of soil erosion.
  
9.
  - a. Why is water conservation essential to most parts of the Third World?
  - b. Where is Jordan?
  - c. Find examples of ancient and modern methods of irrigation.
  
10.
  - a. Find out about irrigation methods where crops are grown on a large scale for export.
  - b. Find out how rice, the most important food in the world, is grown using intensive methods of irrigation which require a lot of hand labour.
  
11.
  - a. What are the disadvantages of building huge dams?
  - b. Find out all you can about one large scale scheme. How does it affect irrigation, power, fishing and transport?
  
12.
  - a. Find out about the small scale improvements which are possible to control water supplies.
  - b. Which improvements might (1) need government help, (2) be undertaken by the local and villages?

# RAINFALL IN THIRD WORLD

