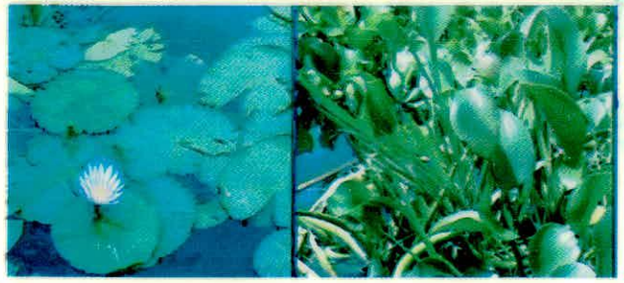
Aquatic weeds (water hyacinth) have had several negative impacts on the water quality, fish production and the livelihood of the people.



Aquatic weeds

How to reduce/avoid polluting the water environment.

Corrective action to stop water pollution requires combined effort by the water and fisheries managers and grass-root communities. This will involve effective watershed management. Educational programmes aimed at sensitizing the local people about impacts of intense subsistence crop farming and animal husbandry on the air and water environment and subsequently fish production should be carried out. Local people should recognize the bad impacts of their uncontrolled waste products. They should be discouraged from farming practices that contribute to and enhance excess nutrient releases into the water environment. These practices include uncontrolled:

- Grass and bush burning.



Grass and bush burning.

- Tree cutting (deforestation).
- Wetland destruction.
- Shoreline destruction by farming very close to the lake/river banks.
- Excessive use of pesticides and herbicides.

Benefits

Pollution control will lead to improved water health that will support high fish yields and sustain high production.

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FISH NEED A HEALTHY WATER ENVIRONMENT



NARO

March 2003

Introduction

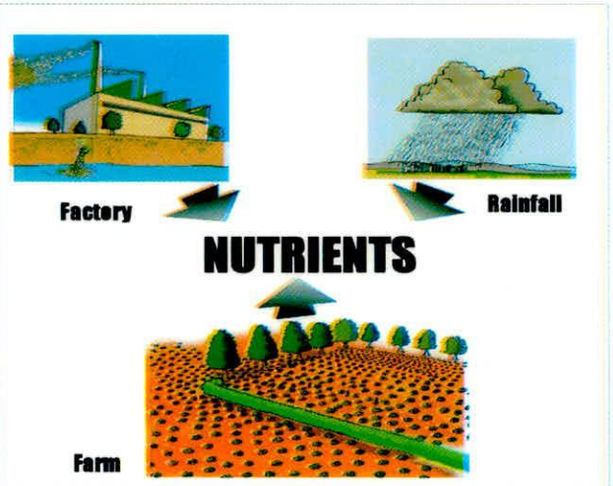
Clean water should be free of pollutants (dirt) that make fish growth, reproduction and survival difficult. Dirty water leads to poor fish health and lowers the standard of living for fish dependant families. Many pollutants do not lead to immediate bad effects, while others have rapid impacts resulting in obvious changes such as death or injury.

Objective

The objective of this compaign is too reduce and/ or control pollution so as to have clean water for improved fish production.

Sources of pollution

Pollution includes a wide variety of chemicals, pesticides, herbicides and particulate matter that are both man-made and/ or occur naturally. Here we focus on pollution due to excess nutrients. Sources of nutrients are varied and are not always found near the water body. Nutrients come from land and air and are improved by human activity in the surroundings. From land, nutrient sources include wastewaters from gardens, sewage, municipality and industry. Factories and vehicles and grass-and bush burning produce pollutants that can be transported through the air into nearby streams, rivers and lakes through rainfall into the water body. Once excess nutrients are in the water body, they cause some of the most serious problems facing the water and fishery resource managers today.



Pollution impacts

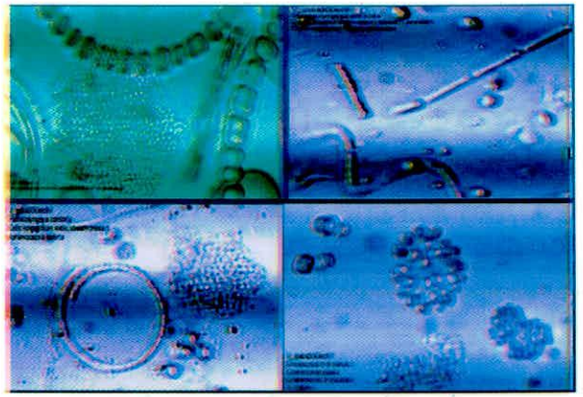
Pollution due to excess nutrients stimulates excess growth of water plants that include algae and weeds such as Water hyacinth. These plants, when in excess, have bad effects on the water quality. This in turn affects fish health and production. Excess plants contribute to water and fish habitat spoilage and compromise fish production by:

a) Changing the physical and chemical quality of water such as dissolved oxygen availability and water clarity.

b) Particulate organic pollutants that:

- block the fish gills resulting into fish death by suffocation.
- Use lots of oxygen during decomposition leading to low oxygen conditions associated with fish kills;
- Increase water turbidity that interferes with fish visibility for mates.

c) Some plants (algae) produce toxins that cause fish poisoning leading to poor fish health and kills.



Small water plants (blue-green algae)