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FEATURE

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SCIENCE WORLD

(development-oriented
science news briefs that may be used
as a column, or as separate items)

PAKISTANIS HOPE TO PREDICT INDUS RIVER LEVEL BETTER

(approx. 200 words)

Researchers from Pakistan's Water and Power Development Authority (WAPDA) have teamed up with Canadian experts to study two important factors in the economic life of Pakistan and parts of India: the Indus River and its glacial headwaters.

The melting snow and ice of the Upper Indus Basin are the main source of the Indus and its tributaries. They are responsible for the great variation in the quantity and quality of the river's water. But despite the importance of the Indus to Pakistan's hydropower generation and to agriculture in both Pakistan and parts of India, there exists little scientific knowledge of the hydrology of the region.

WAPDA will work with researchers from Canada's Wilfred Laurier University and the Canadian Ministry of the Environment, who have developed expertise in glacial hydrology. A network of recording stations will be set up to gather important data on snow, ice and water.

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A major goal of the project is to develop hydrological models to improve prediction of the quality and flow of water in the Indus. The project will also help train a WAPDA team in the operational and research aspects of glacial hydrology.

The three-year project is being funded jointly by WAPDA, Wilfred Laurier University, and Canada's International Development Research Centre.

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INDIAN GOVERNMENT WANTS ITS STATES TO BAN LOGGING

(approx. 240 words)

India's forests are being depleted at an alarming rate and the Department of Environment wants to introduce drastic measures to stop it.

A complete ban on the logging and felling of trees is proposed in a report for the department by Prof. Madhav Gadgil, head of the Centre for Ecological Studies on the Management of Forests.

The report, which was approved by the department, stresses that while a minimum of 35 percent of India's land should be covered by forest, the present figure is in fact only 11 percent. It is estimated that the deforestation rate in India is a dangerous one million hectares per year, while reforestation through plantations is barely half that. In India, forests come under State rather than national jurisdiction.

According to some experts, the practice of State governments of planting single species of trees (monoculture) for inexpensive lumber is one of the worst aspects of forest planning. They say it diminishes the mixed natural forest cover which serves to protect soil and prevent floods.

Prof. Gadgil's report insists that all industries that need to clear away trees to establish a factory or other operation should first secure a clearance from the Department of Environment.

The report calls for a halt to the felling of forests for new plantations,

saying that new sources of fuel, fodder and timber will have to be found. It recommends the reforestation of 88 million hectares of degraded land by the year 2000.

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PLANTAINS UNDER ATTACK

(Approx. 200 words)

"It should be declared a national disaster," says Ndoumbé Nkotto, a researcher at the Ekona, Cameroon, station of the agronomic research institute known as the IRA.

He is referring to a disease that is threatening to wipe out Cameroon's plantain stands. In French, the disease is called "maladie des raies noires" because of the black streaks that appear on the plants, caused by a tiny fungus known as cercospora. The disease entered Africa from Central America, first attacking crops in Gabon and then spreading to neighbouring countries.

Researchers don't know how the disease spreads, but it almost certainly was introduced to Africa by a contaminated plant.

In Central America, the fungus has caused terrible damage. "Even today pesticides are the only way to fight the disease," says Mr. Nkotto, adding that such products greatly increase costs, making production unprofitable.

All plantains have been affected by the fungus. The only hope of saving the industry lies in the introduction of a related plant such as the Saba cooking banana which is resistant to the destructive fungus. In certain areas of Cameroon, people have had no choice: they have gone ahead and introduced the new variety because their plantain stands succumbed.

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