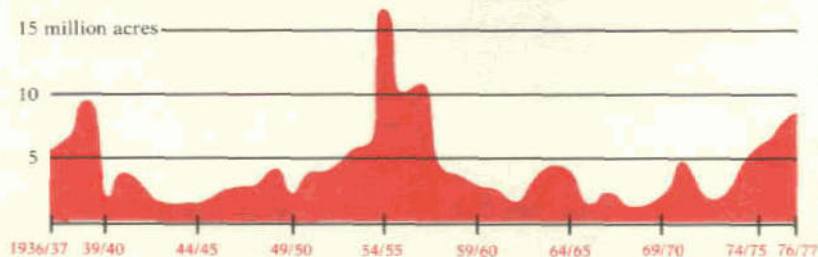


RESOURCES & ENVIRONMENT

Adapted from *American Scientist*

Despite improved conservation techniques, more acreage in the Great Plains was damaged by wind erosion in the 1950s than during the 1930s.

"boom-or-bust" pattern. The transition on the Plains from cattle grazing to cultivated crops, especially wheat, was accomplished by successive waves of farmers who arrived during periods of plentiful rainfall and later faced episodes of severe drought, dust storms, bankruptcies, and foreclosures. (Precipitation data for Dodge City, Kans., show five different periods between 1875 and 1936 when, for at least three successive years, annual rainfall totaled less than the 20-inch average needed to cultivate crops.)

When drought returned to the Dust Bowl region during the 1950s, strip cropping, windbreaks, and other measures helped to soften the blow; even so, some 10 to 16 million acres were damaged by winds each year between 1954 and 1956. And again, in 1976-77, says Lockeretz, wind erosion damage "reached levels comparable to the 1930s." Why? The boom-or-bust pattern continued. Sharply higher wheat prices, fostered this time by world food shortages, brought a rapid expansion of crop production on acreage that should have been left uncultivated as grassland.

The manmade cycle of overcultivation followed by attempts at conservation shows no sign of ending. With future droughts inevitable, says Lockeretz, this means more damaging dust storms are likely too.

Cleaning Up the Volga

"The New Soviet Environmental Program: Do the Soviets Really Mean Business?" by Thane Gustafson, in *Public Policy* (Summer 1978), Journals Dept., John Wiley & Sons, Inc., 605 Third Ave., New York, N.Y. 10016.

In 1973, the Soviet Union launched its first large-scale environmental program, aimed especially at improving water quality in the Moscow area and the Ukraine, where 80 percent of Soviet industrial and agricultural production is concentrated and where demand for clean water for irrigation is growing.

RESOURCES & ENVIRONMENT

Concerned by declining catches of freshwater fish and outbreaks of cholera in southern river basins, Kremlin leaders added an environmental division to the State Planning Committee, consolidated enforcement powers in the Ministry of Reclamation and Water Management (Minvodkhoz), and boosted funding (the equivalent of \$11 billion for 1976–80).

Deterioration of the Volga River has been halted and Moscow's water quality slightly improved, writes Gustafson, a Harvard government professor, but the clean water effort still lacks clout; "the water quality program has simply not been given the weapons to fight with the large ministries in charge of industrial and agricultural development." Although Minvodkhoz, in principle, can levy fines, cancel the bonuses of plant managers, and shut down polluting enterprises, the ministry, in practice, cannot interfere with high-priority industries or local employment.

In 1975, only 23 of 38 Soviet ministries and agencies fulfilled their goals for physical and chemical treatment of wastewater. Bureaucratic resistance aside, the blame falls largely on the Soviet leaders, writes Gustafson. The new water control program did not stem from conservationist sentiment or public pressures, as in the West. The Kremlin sought only to promote economic growth by securing clean water for farm and industrial use. Given that objective, however, Soviet leaders will still have to give increasing political support and resources to the water quality program.

Outsmarting the 'Climatic Factor'

"Climate as an Obstacle to Development in the Tropics" by Jayantanuja Bandyopadhyaya, in *International Social Science Journal* (vol. 30, no. 2, 1978) UNESCO, 7 Place de Fontenoy, 75700 Paris.

The tropics' heat, humidity, and rainfall patterns have long been known to curb economic activity. Studies have shown that man's capacity for work declines and his susceptibility to disease increases when the mean annual temperature rises above 70°F. "The climatic factor," says Bandyopadhyaya, professor of international relations at Jadavpur University, Calcutta, accounts for much of "the wide divergence in labor productivity between the North and South."

Tropical climates, moreover, affect soil conditions (e.g., by hastening organic decomposition and leaching out soil nutrients), as well as water supply, plant reproduction, and the raising of livestock. High temperature and humidity cause rapid deterioration of factories and equipment, while heavy monsoon rains disrupt transport and communications.

Bandyopadhyaya argues that no amount of Western industrial technology, even if available and affordable, can offset the harmful local effects of tropical weather patterns in the Third World. What is needed is an international effort, under United Nations auspices, to alter climatic conditions, either regionally or globally, through the ap-