Water Purification in Mexico

The short item "Purification in the time of cholera" (Random Samples, 22 July, p. 476) was of great interest. We have been working at the Center for Development and Technological Applications (CEDAT) with the Ministry of Health of Mexico to develop, produce, and install equipment that uses the same principle for water purification as that described in the Random Sample item. In 1985, with support from the Pan-American Health Organization, and especially from Fred Reiff, who is one of the developers and an enthusiastic supporter of this simple, appropriate, and easily sustainable technology, we started working with the MOGGOD (mixed oxidant gases generated on site for disinfection) system and making innovations to it (*1*). The seventh generation of the system has been installed in 15 villages of the "Huasteca Potosina," a mountainous region of northeast Mexico inhabited by Indian populations and in many other small communities around the country. The first generation of the equipment was installed at the Military Naval School in Veracruz in 1986 and functioned perfectly until 1991, when it was replaced by a new design. The results have been surprisingly beneficial in terms of decreased gastrointestinal infections and in terms of the cost-benefit ratio.

We have also integrated the technology into a mobile system that flocculates, filters, and disinfects water from rivers, reservoirs, wells, and tanks. This has been helpful during natural disasters and has been used to clean and purify water for restaurants and hotels in tourist areas. It was also used during the Pope's visit to Merída, Yucatán, last year. We believe the system has helped halt cholera in Mexico. The cost has been in the range mentioned in the Random Sample item, about 15 cents a month (*2*).

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References and Notes

1. F. M. Reiff, *Bol. Of. Sanit. Panam.* **105** (no. 4) (1988); *Bull. Pan Am. Health Organ.* **22** (no. 4) (1988); J. Juarez-Mendoza *et al.*, *Bol. Of. Sanit. Panam.* **112**, 406 (1992); H. Brust-Carmona *et al.*, "Efectividad del equipo MOGGOD-CEDAT para analisis y desinfección del agua suministrada a una población cautiva en Veracruz, México" (Center for Development and Technological Applications, DF Mexico, 1988).
2. We have edited manuals on the use of the system in Spanish, and a complementary simple system has been developed for the bacteriological control of water quality.

Italy's Environment

The Italian government, resorting to an urgent procedure (*1*), has recently passed legislation that radically changes the previous environmental protection act, which regulated waste disposal in water. The previous act provided for prosecution of industries responsible for polluting waterways. Now, those who pollute can only be fined. In practice, this considerably decreases the power of the state and of the judicial system to indict polluters.

Italy's population is highly concentrated, and its environment has already been seriously damaged by extensive industrialization. Italy has been prosecuted by the European Community for not complying with the rules concerning pesticide contamination of deep water (*2*), and it has a long record of noncompliance with European Community environmental legislation. As a whole, the Italian environment and landscape have reached unacceptable levels of degradation. Now is not the time to deregulate control of environmental pollution in Italy.

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1. *Gazzetta Ufficiale della Repubblica Italiana*, 15 July 1994, p. 4.
2. Pretura Unificata di Torino, "Procedimento contro ignoti per il reato di cui all'art. 328 C. P. Torino," 22 July 1987.

Corrections and Clarifications

The 1994 and 1995 federal science budget appropriations for two of the activities were inadvertently transposed in a table that accompanied the article "Hitting the President's target is mixed blessing for agencies" by Jeffrey Mervis (News & Comment, 14 Oct., p. 211). The correct figures for Defense Department spending on university research are $1.460 billion in 1994 and $1.279 billion in 1995; for research and development at NASA, the correct figures are $9.455 billion in 1994 and $9.824 billion in 1995.