

urban areas through hundreds of miles of wadis, resulting in groundwater pollution, mosquitoes, poisoned fish in streams, and an unbelievable stench around major urban areas.

Marine pollution by urban wastewater is another problem plaguing residents, primarily of the Tel Aviv area. The daily dumping of some 100,000 cubic meters of waste-water into the sea near Tel Aviv has forced the Ministry of Health to close some of the surrounding beaches. The INCBE's report indicates that, although several regions in Israel are developing sewage disposal plans, the major obstacle to the creation and implementation of a national sewage plan is the difficulty of obtaining the funding necessary for such a long-range, major project.

Soil pollution seems to be another pressing environmental concern. The paucity of fertile land in the heavily agricultural economy and the Israeli passion for "making the desert bloom" has led to excessive fertilization of the land. The average rate of fertilization is estimated at 34 kilograms per hectare in dryland farming, and up to 115 kilograms per hectare on irrigated land. Nitrification is the most urgent problem, since nitrates are leached out of the soil and pollute the groundwater pumped from aquifers for industry, agriculture, and home use. Hydrologists, chemists, and plant physiologists are now being organized into research teams in Israeli universities to conduct multidisciplinary studies on nitrification, herbicide utilization, and other aspects of soil pollution. The INCBE report asserts almost pleadingly, "Now that the importance of the problem is recognized, and preliminary work has been begun, it is hoped that the progress achieved by concerted research will lay the groundwork for practical action to alleviate soil pollution."

Another problem Israel faces is that the country is quite literally up to its ears in garbage: because the Israeli diet is rich in fruits and vegetables, solid waste contains a great deal of moisture, making incineration difficult. According to G. Shelef and U. Aloni of the Ministry of Health, the moisture content of solid waste is about 70 percent in winter and 60 percent in autumn. Israelis produce about 1 kilogram of refuse per capita per day, or about half what Americans produce. Since incineration is impractical, disposal has been troublesome. At present, according to Marinov, one-third of the refuse is turned into compost, one-third is buried sanitarily,

FAS Group en Route to China

The Federation of American Scientists (FAS), a nongovernment organization, is now the first group to have successfully arranged visits of U.S. scientists and scholars to the Peoples Republic of China. A three-member delegation left Sunday for a 3-week visit to China. They are: Marvin L. Goldberger, who is FAS chairman, Jeremy T. Stone, FAS's director, and Harvard sinologist Jerome A. Cohen.

According to FAS sources, the purpose of the trip will be to "explore ways and means of improving peaceful, creative, and cooperative contacts between Chinese and American scientists."

FAS has also announced that the Chinese had also invited three FAS-connected economists to visit China in September. They are Harvard economist John Kenneth Galbraith, current president of the American Economic Association (AEA), and economics professors Wassily Leontief and James Tobin of Yale. The three economists will be the official guests of the Institute of Economic Studies of the Chinese Academy of Sciences.

A return visit to China is planned by Arthur W. Galston, chairman of the FAS committee on Sino-American Exchanges and a professor of biology at Yale. Galston will spend the summer in China as the guest of Kuo-Mo-jo, president of the Chinese Academy of Sciences. Galston and Ethan Signer, of the Massachusetts Institute of Technology, went to China in May 1971 (see *Science*, 7 January 1972) as the first U.S. scientists to visit that country in more than two decades.—D.S.

and one-third is simply thrown out into open dumps without treatment. Sanitary landfills are limited because of the danger of polluting groundwater. An intergovernmental committee was formed in 1964 to study the problem of solid waste disposal, but the committee's principal effect was to reiterate the severity of the problem. Solid waste disposal is not the only problem: refuse collection seems equally annoying. Collection systems range from 1500-liter refuse tanks that are mechanically loaded onto trucks and dustless compression vehicles to horse-drawn carts.

The Israelis are also beginning to be concerned about noise and its physical and psychological effects on man, especially since the average Israeli spends a good deal of time outdoors and with windows open when indoors. The INCBE report attributes the major sources of noise pollution to "... motor vehicles, industrial plants, and places of entertainment."

Other areas of environmental concern include food contamination, nature reserves, urban environmental quality, environmental aspects of arid zone research, and environmental education in Israel. Unlike other countries, Israel is not interested, at least officially, in people pollution (population control), because it runs counter to the national

ideology. Unofficially, however, many scientists and social scientists are concerned about the social ramifications of large families, since 92 percent of Israel's large (more than four children) families are of Afro-Asian descent and are very poor, relative to Jews from Western backgrounds. Not one of INCBE's ten subcommittees, however, is responsible for population control research.

The only environmental issue that seems to have generated substantial public concern is air pollution. In the heavily industrialized Haifa and Tel Aviv areas, air pollution levels are posing threats to health. The levels of settling particulates in the vicinity of a cement factory near Haifa, for example, were found to be three to four times higher than those allowed by the American standards for this type of pollution. According to Anthony Peranio, a senior lecturer at the Technion's faculty of civil engineering and an early member of the Public Council for the Prevention of Noise and Air Pollution (Malraz), the incidence of respiratory diseases is much greater in Haifa than in the southern part of the country. Asthma, he noted, is six times more prevalent in Haifa than in Jerusalem. Peranio is now chairman of the Haifa Public Council for Conservation of En-