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## Environmental Quality

Under the terms of the legislation creating it, the Council on Environmental Quality (CEQ) is required to report at least once a year on the state of the environment and efforts to improve it. Recently the third annual report\* was issued. Because CEQ is charged with surveillance of the environment, the report touches on many topics, including air pollution, water quality, waste disposal, toxic substances, radiation, noise, land use, national parks, endangered species, and international matters. A perusal of the report discloses many things done and many undone. Much legislation has been enacted. Considering the complexity of environmental problems and the economic and political forces involved, the record of the Administration and Congress has been good, although Congress has been slow to pass on some essential Administration proposals.

Legislation is, of course, only a beginning. The full impact of the new laws is yet to be felt. We cannot accurately gauge either costs or benefits. The CEQ report provides an estimate of costs (about \$300 billion) that will be incurred in improving the environment during this decade. The estimate is based only on legislation already enacted and therefore undoubtedly understates the ultimate expenditures.

Of all the environmental parameters, the most universal and probably the most important is air. People can find ways of avoiding most unpleasant environmental impacts, but it is impractical to stop breathing. The CEQ report estimates that during this decade we will spend about \$100 billion in combating air pollution. In view of the importance of the matter, it would seem reasonable for the government to provide up-to-the-moment data on the status of air pollution abatement. Indeed, the report states:

Accurate and timely information on status and trends in the environment is necessary to shape sound public policy and to implement environmental quality programs efficiently. Further, the American people are entitled to know whether the public and private money being spent to protect the environment returns a commensurate improvement in environmental quality.

Unfortunately, realities do not measure up to intentions. Timely information on the status of the environment is not available. The CEQ report was compiled as of 30 June 1972, but its latest air data are those of 1970.

Implicit in the CEQ report is an even more fundamental gap in knowledge—the extent of the hazard posed by various individual pollutants. The council has been seeking an overall index for air quality. In this search, one of the problems cited is lack of knowledge concerning effects. The report rightly states that "the ambient air quality standards on which most of the air pollution indices are based are still somewhat controversial."

Weaknesses in the water quality surveillance program are also evident. There are more than 20,000 measuring stations, but only a small fraction are equipped to monitor as many as eight of the variables of interest. Performance of an adequate job of monitoring toxic substances will require a much expanded program. At the moment, it is likely that many chemicals that should be followed are not being measured at all.

Society wants cleaner air and water and is committed to spend some \$200 billion during this decade to attain them. Unless we understand better what we are trying to do and have done, a large fraction of that money could be spent ineffectively. It would seem prudent to devote at least a fraction of a percent of the huge sum to creating an adequate knowledge base.—PHILIP H. ABELSON

\* Council on Environmental Quality, *Environmental Quality* (Government Printing Office, Washington, D.C., 1972).