

In my statement on January 7, 1966, to the House Committee on Government Operations, Subcommittee on Research and Technical Programs, I suggested a series of questions that need to be answered in determining the allocation of resources to programs involving research and development. What is the magnitude of the need and how important is it compared with other needs? What ideas are available on how to meet the need? I would like to emphasize that. Can the developments be applied in practice? Is society ready to assimilate and to pay for these results? In this area I should add another question, which is: What efforts are being undertaken outside the Federal Government, for instance in the private sector?

These questions must also be asked about research and development on environmental problems before deciding on the amount and character of research required in each area of environmental concern.

It is not enough to recognize the existence of a problem in general terms. Clearly, we know that the Los Angeles area is beset by "smog" and that most of our major streams are polluted by industrial effluents.

Only by detailed analysis of these general statements, however, can we determine those problems which can be solved now as opposed to those where the answer will require new knowledge and new technology.

As an illustration, the Department of Interior has been deeply involved during the past year in bringing together information in greater detail than ever before about the water pollution problem, including the location of pollution sources, types and characteristics of pollution, the magnitude of the problem in relation to population and industrial centers, States, river basins or subbasins; coastal areas, major lake areas, and other significant geographic characteristics.

From such information we can better determine—

- what we can do now with existing technology to gain the greatest results with available resources. This is the burden of our action program;

- what we can do with developing technology but which has to be tested before acceptance by the public to meet critical or future requirements. This represents our demonstration program;

- what we are not yet in a position to do. This will provide the basis for designing our research and development program through which we will seek the knowledge and techniques necessary to accomplish our future objectives.

If such analyses were available in detail we could answer the questions posed earlier in connection with determining the allocation of resources to programs of research, demonstration, and development in the general area of environmental quality. We can determine whether society is ready to assimilate—to accept, pay for, and use—the results of research.

In placing such emphasis upon detailed analysis of the problems of environmental pollution and their interaction, I do not mean to imply that we can or should wait until our understanding is complete before undertaking action. Rather, we should initiate action programs on the basis of the best information available, while continuing to add to our knowledge base so that action programs can be improved continually in the future.