

available and can be used to get at some of today's problems were delayed because of emphasis on getting on with the technology needed for tomorrow's problems. There are measures that can be taken to abate several kinds of pollution now—with the technology that is at hand. It would be a pity if any of these measures were delayed, even a year, because of a mistaken impression that they should be deferred until an improved technology is developed. The Panel very correctly points out, "In fact, the future pace of pollution abatement will depend more and more on new and improved technology as the artificial barriers to application are removed." My plea is that, even as we plan imaginatively for the future, we leave no stone unturned now—in the present—to remove those "artificial barriers to application" that constitute the major problem of the 1960's in pollution abatement. An excellent case in point is the control of pollution by municipal sewage and here, in particular, I would urge that an expanded report treat more fully and more specifically with those aspects of the problem for which the technology is at hand for successful abatement and those for which available technology makes possible only partial alleviation. The thoughtful reader of the Panel report will recognize that the reservation probably applies to the matter of storm sewers but the less informed reader might conclude that vigorous action on the municipal sewage problem should be held in abeyance while waiting for further technological development.

My remark about seeking balance between those things that we can and should do today and those steps that must be taken to anticipate conditions in the years and decades ahead brings me to my third point and the principal thrust of my prepared statement. It is the importance I attach to the application of scientific technique and technological advances to the diagnosis of the pollution problems and to the assessment of alternative courses of action as fundamental elements in the process by which a community reaches a decision on the specifics of an abatement program. I have in mind in particular the air pollution problem and the attractive prospects for combining the high-speed computer and mathematical and statistical technique in the construction of simulation models.

I pause here to remark that mastery of information handling by the use of electronic computers may turn out to be a more profound and far-reaching technological revolution than the mastery of energy and of matter over the past century or so. Of special relevance to these hearings is the conviction some of us share that the computer revolution may provide us with an important tool in air resource management. The development of simulation models thus becomes an important element in the national research strategy with which your subcommittee is concerned.

Some amplification may be desirable. First a word concerning "air resources management." It may seem like an unnecessary sophisticated way of saying "air pollution control," but it signifies much more than just "control." Air resources management recognizes the air as an abundant natural resource that, in certain areas and at certain times, is not of the desired quality. Insuring the continuing availability of air of acceptable quality requires knowledgeable management of the air resource.