

enhance a very fundamental piece of this Nation's science and technology by supporting the U.S. contribution to the IBP.

We ought also to be thinking in terms of semidomestication of relatively complex microcosms. By microcosms I have in mind small arrays of multiple species such as the little terrarium we have probably all seen as youngsters in school. These microcosms have beautiful experimental properties, but more than that they have absolutely irreplaceable bioassay capabilities.

We need to be able to predict what the systems outcome of a particular pollutant might be. Now, if one deals with pure cultures and makes a study of the behavior of one organism, it may not give you a clue about the behavior of a system of species. While no two systems behave the same a consistent effect of a pollutant on a range of bioassay microcosms could be useful in understanding more about pollution.

We ought really to be screening major parts of the world's genetic and ecological information for its potential in pollution abatement. The USDA has for many years operated a plant introduction center and an animal introduction center. They have been looking at a small fraction of the world's biological diversity with the idea of how you might eat it, wear it or enjoy looking at it. No one to my knowledge is seriously searching the world's biota to find a better species—or more likely—better species combination to crack the phosphorus problem before it destroys our lakes. We ought really to be exploring this sort of thing.

Now to return to the matter of advisers—and it's worth noting that you don't have anything like unbiased people sitting in front of you here today. We think ecologists have some useful things to say and we are delighted you have given us a chance to say some of them, but I think that a word of caution is due here.

Ecologists working alone don't provide a really useful advisory unit. The ecologists, the engineers, the economists, the sociologists and the political scientists together make the kind of body ultimately that you are going to need. Those of us who have been active in the Ecological Society have observed the creation of an environmentally oriented board or advisory committee that pronounced and evaluated programs in this area, but on which there wasn't one ecologically knowledgeable member. Prestigious, yes; intelligent, yes; ecologically educated, no.

Now I think that the idea of a Council of Ecological Advisers is one kind of way. I don't pretend to have thought this one through enough to know whether that is the best way to do it. This issue is really your realm anyway, not ours. It does seem to me that an interagency committee working alone is utterly ineffective for this type of need. I don't believe an interagency committee can in fact override the vested, long-entrenched interests of the respective individual Federal agencies. Interagency coordination is an absolutely essential partial ingredient, but by itself it cannot create and it can't really evaluate long-range merits between alternatives. So I would close by saying there are a number of avenues I think that we could move ahead on and I am very pleased to know you gentlemen are seriously considering it.

Thank you.

Mr. DADDARIO. You are very kind, Dr. Cantlon, to come and give us this statement. I hope we will have a chance to come back and ask you some questions.