

mean it should be there and nowhere else. I think we should have some diversity. For example, there is a major laboratory in Colorado, in Boulder, Colo., operated by a consortium of universities with support from the National Science Foundation. They too are moving in the direction of these large models. I would even go one step further. The kind of problem we are talking about in the CO_2 is intrinsically an international problem. We are now aiming at a concerted study of the global atmosphere in which there will be an international program in 1972 and it will hopefully provide precisely the kind of data on a worldwide basis which is necessary to crank up these models.

Moreover, it will, hopefully, initiate a pattern of international cooperation which will be helpful in anything you might have to do to counterbalance or control the CO_2 increase.

Mr. VIVIAN. I would like to point out, as was mentioned earlier today by previous witnesses, that at present we must choose whether to pollute water or air when we deal with sulfur oxides from stack gases. They can be leached out and put into the water systems or they can be heated up and spread out into the air. We have had previous comments of the same variety relating to disposal of other solid waste. There is an important question about the interchange of types of waste. Now, what part of the Federal Government decides which portion of our environment shall accept the waste? Is this the Environmental Science Services Administration or is this some other agency?

Dr. MALONE. This was a problem I was precisely trying to point out. I don't have an answer. I don't believe everything should be encompassed into a single agency. This kind of competence is found in several places in the Federal Government. That is desirable as long as there is at least one entity which is capable of mounting the rather large efforts that are needed so that things don't fall between the cracks.

Mr. DADDARIO. Dr. Hibbard, while you are here why don't you comment on that?

Dr. HIBBARD. I guess I would say I wouldn't know where one would go for this overall decision. I think that this question needs attention and actually isn't solved. I'm afraid I can't contribute much to that.

Mr. VIVIAN. Where are the natural places in Government today where such activity would gravitate?

Dr. MALONE. I would say Interior, certainly, because they have so many of these programs. Commerce because they have the Weather Bureau, the Coast and Geodetic, and the Central Radio Propagation Laboratory. Agriculture certainly has many of these problems in it, and HEW is quite involved in this. The National Science Foundation is involved in a somewhat different way. It is not mission oriented in the way some of these other agencies are. The Atomic Energy Commission has concern with some of these. The Defense Department, the Corps of Engineers. Well, you could go on and list this and about the only thing comes out of it is that you are persuaded it is a very complex problem.

Mr. VIVIAN. The Weather Bureau is working on a massive atmospheric model which is probably more complex than the smaller sized one needed for handling pollution problems. Wouldn't any air pollution model automatically run off of the atmospheric model that is used for weather prediction?