

Two major steps which lead toward this broad objective are:

1. Development of a theory of ecosystems based on relatively small scale laboratory and field studies. True, the elements of such a theory already exist, but require reassessment, refinement, and exploration.
2. Extension of this ecosystem theory, once developed, to large-scale natural systems. Natural systems are, of course, composed of interacting subsystems, which present problems of scale and of organization. These problems can best be attacked by testing ideas developed relative to this higher level of complexity against the results of well organized field activities.

To the extent that efforts to thus integrate theory and observation are successful, they will provide perspective for the already extensive experience in landscape management and may indeed lead to alternative possibilities for that management. The results should make possible improved policies for natural resource use and ecological zoning.

International efforts to expedite this procedure include:

1. Exchange of information at two levels--research design and data analysis.
2. Exchange of mature scientists between laboratories interested in the IBP.
3. Training in specialized techniques of production biology for the IBP and related sciences.