

LETTER TO THE EDITOR

Dear Sir,

We introduce **environmental cybernetics** as the subject to scientifically explain what our environment is and how to protect it for human survival.

Earth's environment, an unified network system of interacting subsystems — atmosphere, hydrosphere, lithosphere and biosphere, is operated by two types of feedback, the negative and the positive. Negative feedback neutralises or transforms more output in natural processes of the environment, while the positive one tends to have more output as in the case of industrial concern of human needs. Furthermore, the positive feedback takes over environmental resources to meet with human needs and increases accordingly (fig. 1). It also releases in turn the toxic substances to environment causing environmental pollution which is hazardous to human health. Therefore, there is a need to evolve a goal oriented system for global environmental protection which must have:

- i) an information network of global, national, regional and local data bases to collect data from the environment and feed it back for the purpose of environmental protection wherever necessary,
- ii) an effective communication and control of information between global, national, regional and local data bases for mutual awareness and co-ordinative implementation of the global environmental protection programme (fig. 2),
- iii) the purpose of integrating the efforts of various environmental scientists in tune with our interacting environmental system,
- iv) regular, timely circulation of information (with detection and correction of errors) involved in the risk, cost, time, knowledge and wisdom for the purpose of evaluation while decision making in the regulation of global environmental protection programme,
- v) the timely education of economic policy makers about our environmental affairs to enable them to orient their decisions towards environmental protection by avoiding the plan to manufacture any thing detrimental to our environment, like nuclear weapons.

Moreover, the study of feedback processes operating the environment and the communication and control mechanisms involved in the goal oriented process of environmental protection conforms to the communication and control (Feedback) concept of a scientific discipline by name **cybernetics**. Hence, the involvement of cybernetics in environmental study amounts to **environmental cybernetics**.

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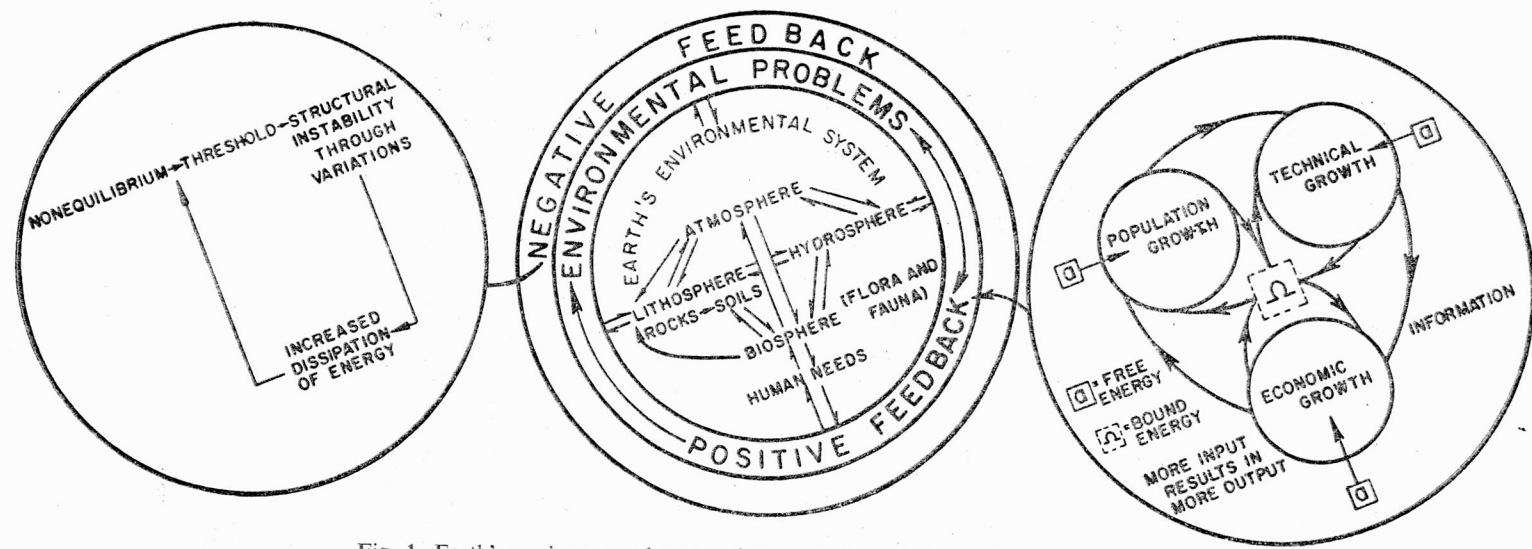


Fig. 1. Earth's environmental system interacted by negative and positive feedback

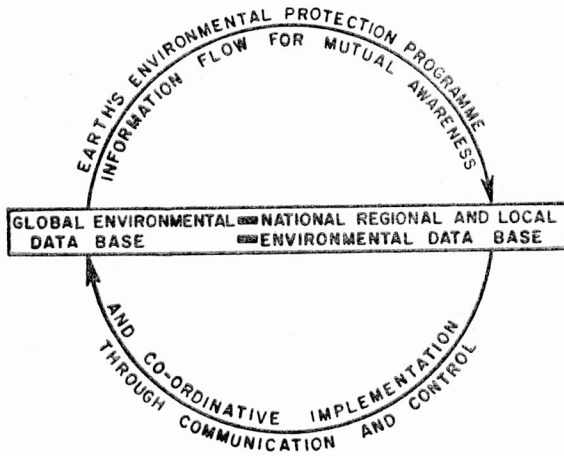


Fig. 2. Global environmental protection through effective communication and control between global, national, regional, and local environmental data base