Perspectives on the Role of Science and Technology in Sustainable Development

Sustainable development (SD) has emerged as a new goal for international development in the wake of a host of changing environmental, social, and economic conditions. Some of these are global environmental problems arising from industrial development patterns, resource degradation and depletion, widening economic gaps between and within industrial and developing countries, and resource-driven conflicts. Evolved from past foreign development paradigms that focus on economic aspects of development, SD expands on the social, environmental, and institutional components. Yet, SD is most notable in taking a world-view that seeks to promote equity among and within nations and generations. The role of science and technology in SD is viewed in a new way as well, with an emphasis on technologies for empowerment (e.g., education, information, communication) and environmental sustainability (e.g., sustainable agriculture, renewable energy. improved resource efficiency) and a focus on whole systems.

INTRODUCTION

The end of the Cold War left U.S. foreign aid without its main rationale, and Congress and the past two Administrations have been unable to agree on a new one. All parties seem to agree that the foreign aid program is plagued with many conflicting purposes but there is less agreement as to the few essential purposes on which scarce aid dollars should focus (47,1 07).

The Clinton Administration has attempted a major effort to redefine and clarify post-Cold War development assistance policy and strategy. The *Wharton Report,* representing the first initiative, articulated a rationale and purpose and objectives of foreign assistance (123). The Administrator of the U.S. Agency for Inter-