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**A Review of  
"Science Policy and Technology Assessment"**

by

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for BOSTID Colloquium**

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## Science Policy and Technology Assessment

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### OVERVIEW

This is a brief summary of problems which will face LDCs in the face of slowed economic growth. Mr. Sagasti lists several strategies for science and technology to use in order to help LDCs in this period.

### HIGHLIGHTS OF PAPER

#### I. Problems

- A. LDCs will face a massive project of social change
- B. LDC problems are specific. A generalized approach cannot be used.
- C. While scarce resources must be allocated, this must be done without sacrificing human dignity.
- D. Physical facilities are deteriorating.
- E. LDCs will need new ways to enter labor markets. The global market cannot support many more Koreas.

#### II. Strategies

- A. The U.S. should avoid protectionism and other policies which are counterproductive to LDC efforts.
- B. Since technology is moving from the public to the private sector, nationalism should not become a barrier to the transfer of technology.
- C. Support for LDCs should be differentiated regionally, and then there should be an emphasis on technological policy.
- D. The U.S. should commit its promised \$10 million to a UN financial system for LDC development of science and technology.

Francisco Sagasti: Science policy and technology assessment

(Summary)

One of the tasks for science and technology in the next few decades is to improve the standards of living in developing countries without the social costs. It is a daunting task and few countries have been able to achieve it in spite of favorable conditions over the past 30 years.

There are some critical aspects for development over the next 20 to 30 years. The golden era of great economic growth, with growth rates of five to six percent, has come to an end and no one knows whether it can be achieved again. At best we can expect that economic growth will be lower than during the 1945-75 period. A significant improvement in per capita income will be difficult to obtain. Resources will be scarce. During the next 20-30 years, social demands of all types will explode in the developing countries as a result of population pressures.

We need to devise strategies to use during the upcoming period of slower growth. Development in the past has often meant capital projects. We need to get out intellectual house in order and put a high priority on mapping changes, interpretations, and developing theories to explain interactions.

From the perspective of developing countries, there are five characteristic problems:

- (1) LDCs face a massive process of social change, which cannot be contained through traditional processes.
- (2) We cannot apply generalized solutions to LDC problems.
- (3) The large majority of LDCs will face an economic crisis and will need a new conception of economic management, a new pragmatism. They will need to reconcile scarcity of resources with maintenance of human dignity.
- (4) There are deteriorating physical facilities in LDCs: roads, buildings, etc., are falling apart.

(5) LDCs need new ways to enter the labor market in the late 1990s. How many external markets are there for the Koreas and Taiwans of the world (How many Koreas or Taiwans can the world absorb?) The LDCs may need to concentrate more on internal markets.

The question is how to apply technological solutions to accelerated social change. Technology policy must be tailored to very difficult situations. We need a sophisticated cadre of technology policy decision makers. We cannot have a national S&T policy; it must be broken down further.

What can the United States do in the next few years?

(1) Technology has changed the world environment and is breaking down the concept of national sovereignty. It will be frustrating to keep applying national policies when technology is creating an interdependent world. The United States should put its own house in order, avoid protectionism, and not adopt policies counterproductive to efforts in LDCs.

(2) Access to technology is becoming a problem, as technology moves increasingly from the public to the private sector. This is evident in agricultural technology, specifically biotechnology and genetic engineering. We should prevent the rise of techno-nationalism.

(4) We need to differentiate the types of support given to different regions and put special emphasis on technology policy. (He expressed skepticism about the micro-development).

(5) The United States should live up to its commitment of 10 years ago for a \$250 million contribution to a UN financial system for LDC science and technology development.