
NEWS AND VIEWS

Science and Technology

- 5-18/b **SCIENCE AT THE FRONTIER, Vol.I** By Addison Greenwood and Others National Academy Press, 1992.(500 GRE)I

Greenwood provides a wider audience with insight into the frontiers of contemporary science. A group of science writers have translated the proceedings of the Second Frontiers of Science Symposia, organized by the National Academy of Science in 1990. The topics covered are at the cutting edge of scientific endeavors and will give both scientists and nonscientists an excellent summary of the state of existing developments in the major fields of scientific endeavor as well as applied areas of science.

- 5-19/B **TECHNOLOGY FOR THE COMMON GOOD** Edited by Michael Shuman and Julia Sweig Institute for Policy Studies, 1993.(303.483 TEC)L

Since the end of WW-II the United States has spent billions of dollars on military research and development and on megaprojects like the Synthetic Fuels Corporation and the Hubble telescope. Technology policy has been largely driven by Cold War

priorities and by an uncertain faith in the free market. The volume lays out an agenda for U.S. technology policy, one designed to meet the goals of full employment, ecological sustainability, community well-being, democracy, and demilitarization.

- 5-20/B **UP THE INFINITE CORRIDOR: MIT and the Technical Imagination** By Fred Hapgood Addison-Wesley, 1993. (620.0072 HAP) I

In this volume Hapgood explores the mental landscape of engineering - a style of thought, a mode of operation, a particular form of creativity that increasingly defines the trajectory of modern life. With the Massachusetts Institute of Technology as his point of reference, Hapgood explores a selection of research projects currently going on the Institute and takes us inside the process, bringing to life the struggle to design an artificial human knee that in every way mimics nature, the creation of an automated navigational system for cars, the attempt to infuse a piece of silicon with the capacity for vision, the construction of a human-powered airplane, and the development of robot mice for maze racing in international competition.

The Market Economy

Throughout history, every society has faced the fundamental economic problem of deciding what to produce, and for whom, in a

world of limited resources. In the 20th century, two competing economic systems, broadly speaking, have provided very different answers: command economies directed by a centralized government and market economies based on private enterprise. Today, in the last decade of the 20th century, it is clear that, for people throughout the world, the central, command economy model has failed to sustain economic growth, to achieve a measure of prosperity, or even to provide economic security for its citizens.

Yet to many, the fundamental principles and mechanisms of the alternative, a market economy, remain unfamiliar or misunderstood - despite its demonstrable successes in diverse societies from Western Europe to North America and Asia. In part, this is because the market economy is not an ideology, but a set of time-tested practices and institutions about how individuals and societies can live and prosper economically. Market economies are, by their very nature, decentralized, flexible, practical and changeable. The central fact about market economies is that there is no center. Indeed, one of the founding metaphors for the private marketplace is that of the "invisible hand".

Market economies may be practical, but they also rest upon the fundamental principle of individual freedom, freedom as a consumer to choose among competing products and services; freedom as a producer to start or expand a business and share its risks and rewards; freedom as a worker to choose a job or career, join a labor union or change employers.

It is this assertion of freedom, of risk and opportunity, which joins together modern market economies and political democracy.

Market economies are not without their inequities and abuses - many of them serious - but it is also undeniable that modern private enterprise

and entrepreneurial spirit, coupled with political democracy, offers the best prospect for preserving freedom and providing the widest avenues for economic growth and prosperity for all.

PJF 43(3) Bandung Global Forest Conference

A Global Forest Conference, as a follow-up to the Earth Summit in Rio de Janeiro last year, was held February 17-20, 1993 in Bandung, Indonesia. Excerpts from the commitment made by participants at the end of the conference follow:

Call on the world leaders, the Secretary General of the United Nations, governments, heads of the national forest agencies, leaders of the private forest sector, professionals, NGOs as well as others concerned with the conservation of global forests, to undertake immediate actions to develop, enhance, and strengthen global partnership by:

- * Achieving international trade and financial arrangements that strengthen national capacities to sustain growing investment in forests and conservation of forest's ecological functions.
- * Promoting and expanding efforts to increase the area of forests, to enhance the protection, sustainable management and conservation of all types of forests, and enlarge the carbon sink of the world.
- * Promoting active participation of all sectors of the society in forest-related activities to address the challenge of meeting the basic human needs including food, fuel, shelter and social and economic opportunities for an expanding population from a shrinking resource base.
- * Promoting human resources development by integrating environmental factors into all forms of education in order to improve the interest and capability of people to advance sustainable forest development.

Strengthening global mobilization of scientific research to resolve central problems in the sustainability of forests.

We call upon the existing organizations within the United Nations system and its specialized agencies, scientific and other institutions from around the world to increase their efforts to work toward attaining sustainable forest development.

We also appeal to the United Nations Commission on Sustainable Development to accord the highest priority to global forestry issues in their agenda due to the vital role and impact of forests on local, regional and global environments.

We strongly support the establishment by the Secretary General of the United Nations of an independent World Commission on Forests and

Sustainable Development of limited duration to examine international institutional arrangements for advancing forestry issues as part of the mainstream of socio-economic development.

Source: ISTF NEWS 5400 Grosvenor Lane
Bethesda, Maryland 20814, USA
Vol.14 No.3 September 1993.

FAO issues 1993 deforestation estimates

Continued refinement of the FAO Forest Resources Assessment Project 1990 led to the January 1993 update on tropical deforestation in 90 countries. It was received through the courtesy of Christel Palmberg-Lerche, Chief, Forest Resources Division FAO, Viale delle Terme di Caracalla, 00100, Rome (Italy).

Region	Millions of hectares	
	Forest 1990	Deforested 1981-90
Africa	528	40
West Sahelia	41	3
East Sahelia	65	6
Central	204	11
Tropical Southern	146	13
Insular	16	1
Asia	310	39
South	64	6
Continental S.E.	75	3
Insular S.E.	135	19
Pacific	36	1
America	918	74
Mexico, Cent.America	68	11
Caribbean	47	1
South America	803	62
Total	1756	153

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Vol.14 No.3 September 1993.