

Remarks

Keith Bezanson



We will now move from theory to practice by drawing on the experience of Pakistan. We will also benefit from comments on that and other experiences relating to Mexico and Egypt.

We will raise questions about real lessons learned. What are the experiences or lessons, both positive and negative, that can be extracted from the practical experiences of those who manage water resources in these three countries? And, going back to yesterday's discussions, what do these experiences tell us about theory and the adequacy of theory?

Does practice confirm the correctness of those who yesterday reminded us of the importance of getting the prices right? Does practice confirm that price signals are important and that without respecting such signals choices are difficult and bad practices follow? To what extent can our theory be applied in the pragmatic, real, political, institutional, and human settings of Pakistan, Mexico and Egypt?

We also learned yesterday that price signals do not always work. I remember Professor Dasgupta referring to the notion of trying to get all prices right as otiose. He mentioned that qualitative and cultural factors may prove very difficult to internalize within our economic or cost accounting models.

What do we do then in pragmatic and management terms to deal with that which we cannot quantify and which may have deleterious, indeed, even irreversibly negative effects on quality of life and environment?

In summarizing yesterday's discussion, Ismail Serageldin stated that, although imperfect, our

attempts to internalize prices and get the accounting right are essential. The main lesson he told us is that we must persevere. If I may paraphrase what he said: it is important not to make the perfect the enemy of the good.

Again, our question is: what works? Are there indications of directions for new research and new thinking on policy that can be derived from our panelists' experiences?

Allow me to suggest that one question that should be very clearly on the table today is whether the real constraints are indeed good theory. Are the real constraints not related to other factors—institutional, political will, societal expectation, or a plethora of nonspecific, amorphous factors that have to do with the way people react within their societies and interact with their environments?

We should also question whether deductive reasoning should not be replaced by a more inductive approach. Should not theory derive more from practice than the other way around? I would like our panelists to address this as well.

Yesterday we did not touch specifically on what we would consider to be good water management theory. I have written down four points that may comprise guidelines to what might be good theory. I will share these with you and invite the panelists to address these points for their adequacy or inadequacy and relate them to their pragmatic national experiences.

- First, we cannot deal with water entirely from the supply side. We must also deal with demand. In most of the cases I know of that deal with current and projected gaps between supply

and demand, there is a clear conclusion that it will prove easier, cheaper, and less environmentally damaging to cut demand rather than to increase supply.

- Second, with regard to guidelines to good policy, *we cannot separate issues of water quality from those of water quantity*. In many cases, what appear to be deficiencies in quantity are deficiencies in quality. That is, there is enough water, but it is seriously degraded, either naturally or by the intervention of human behavior. If we hold in abeyance natural degradation, which is caused mainly by minerals and salts, experience and research show that it is almost always cheaper to avoid pollution than to clean it up.
- Third, yesterday's discussion demonstrated that almost all issues of water problems require careful attention to economics. I take this as *sine qua non*. However, all solutions to water *would appear also to involve major changes in institutional arrangements*. The

interface between sound theory, sound economics, and sound institutional development is something that we should touch on today.

- Four, most of the efforts in water management throughout the world focus on household consumption. The gains from such efforts are rather small for one simple reason: household water use is less than one-fifth the total water use worldwide. Most use is industrial and that includes, of course, the generation of electricity. *We must inform our action and investments with due regard to marginal cost-benefit analysis*. In developing countries the preponderant use is irrigation. Shams ul Mulk's paper states that 70 to 90 percent of the total water availability in Pakistan that has been captured is used for irrigation. Indeed, his paper informs us that 97 percent of Pakistan's flow-through in its river system per year is already diverted for irrigation. These figures raise a number of important policy questions.

Valuing the Environment

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**Proceedings of the
First Annual International Conference on
Environmentally Sustainable Development**
held at The World Bank
Washington, D.C.
September 30–October 1, 1993

Environmentally Sustainable Development Proceedings Series No. 2
The World Bank, Washington, D.C.



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for Reconstruction and Development/The World Bank
1818 H Street, N.W., Washington, D.C. 20433 U.S.A.

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First printing September 1994

This report has been prepared by the staff of the World Bank. The judgments expressed do not necessarily reflect the views of the Board of Executive Directors or the governments they represent.

ISBN 0-8213-2882-4

Library of Congress Cataloging-in-Publication Data

International Conference on Environmentally Sustainable Development
(1st : 1993 : World Bank)

Valuing the environment : proceedings of the first annual
International Conference on Environmentally Sustainable Development
held at The World Bank, Washington, D.C., September 30-October 1,
1993 / Ismail Serageldin, Andrew Steer editors.

p. cm. — (Environmentally sustainable development
proceedings series ; no. 2)

ISBN 0-8213-2882-4

1. Economic development—Environmental aspects—Congresses.
2. Natural resources—Valuation—Congresses. 3. Sustainable
development—Congresses. 4. Environmental protection—Economic
aspects—Congresses. 5. Environmental policy—Cost effectiveness—
Congresses. I. Serageldin, Ismail, 1944— II. Steer, Andrew
D., 1952— III. Title. IV. Series.

HD75.6.I577 1993

363.7—dc20

94-22189

CIP

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