

# Introduction

*David O'Connor and Yun-Hwan Kim*

The 2001 joint ADB/OECD Development Centre Forum, “Technology and Poverty Reduction in Asia and the Pacific” was particularly timely.

The first day’s Experts’ Meeting brought together a diverse group of academics, policy analysts and practitioners to assess technology’s role in poverty reduction. Among the participants were Michael Lipton of Sussex University (United Kingdom), Peter Ballantyne of the International Institute for Communication and Development (Netherlands), and Stéphane Ducable of Alcatel (France). The meeting was divided into four sub-sessions:

- A conceptual framework for mapping the connections between technology and poverty;
- The potential benefits of agricultural biotechnology and the impact of the intellectual property regime on technology diffusion from richer to poorer countries;
- ICT’s role in productivity growth and poverty reduction in Asia; and
- Technology financing questions.

The second day assembled a panel of high-level decision-makers for a public conference hosted by the French Ministry of Finance and attended by some 150 participants from the public and private sectors. Panellists included Suwit Khunkitti (Deputy Prime Minister of Thailand), Desmond O’Malley (Personal Representative of the Deputy Prime Minister of Ireland, Mary Harney), Yoginder K. Alagh (former Power/Science and Technology Minister of India), François Huwart (French State Secretary for International Trade) and John Kay (invited columnist for the *Financial Times* of London). Debate focused on policies for domestic technology development and diffusion and the implications for developing countries of current international rules protecting “trade-related intellectual property”.

## Results

The key conclusion resulting from the Forum was that technological advances have been historically — and have the potential to continue to be — one of the crucial contributors to poverty reduction in both the developed and the developing world. Realising this potential, however, depends on ensuring that innovation does not neglect the food security, health and livelihood needs of the poor and that potentially beneficial technologies are made affordable to them.

Poor people confront and can benefit from a whole range of technologies, from the simple to the advanced, in their daily lives. Yet, of the many that may be valuable, only a few are likely to be important in the sense of having major quantifiable effects on productivity and poverty. The Green Revolution technologies (GRTs) pass the “importance” test. Nevertheless, as important as the Green Revolution was to food security and improved basic nutrition in some large, poor countries, not all poor people have shared in the benefits. In addition, yield improvements have been increasingly difficult to sustain. The unfolding Gene Revolution — in the form of agricultural biotechnology — has the potential to provide benefits to some of those left aside by GRTs, *viz.* farmers in marginal environments where water and heat stress are high and soil quality is low. It may also prove an effective means of reducing micronutrient deficiency among the poor. Whether this occurs depends in part on the continued funding of public R&D (and perhaps public–private partnerships) to develop crop varieties with the desired properties. Lately, such funding has declined and remains under threat.

The productivity effects of ICTs are just beginning to show up in the statistics of a few OECD countries, so it will be some time before they become measurable in poor countries. Moreover, the link between technology and poverty is inherently more difficult to measure for ICTs than for GRTs, where individual farmers’ decisions on whether or not to plant hybrid seeds are a simple measure of technology adoption. In the case of ICTs, many of the adopters will be large organisations (government agencies, firms) rather than individuals, and any effects on poverty are likely to be far more diffuse and indirect. While many experts expressed guarded optimism about ICT’s value to the poor, they were cautious about the time frame within which ICTs would make an important contribution to poverty reduction. The research into ICT’s potential for the poor is still in the infancy stage and it will take some time before it can contribute substantially to shaping policy and resource allocation in developing countries.