

PART TWO

POLICIES TO MAKE TECHNOLOGY WORK FOR THE POOR

Inaugural Address

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I would like first of all to thank warmly Mr. Shin, who has travelled from Manila, and Mr. Braga de Macedo and his team from the OECD Development Centre, who are participating in this forum on Technology and the Fight Against Poverty in Asia and the Pacific.

To say that the new technologies are a true industrial revolution is both obvious and commonplace. Nonetheless, recall that our hopes for sustainable economic growth are based in fact on technological progress. The virtuous circle involving technological progress, globalisation, and economic growth may be our only and previously unimagined hope for truly staunching world poverty. Today, half of the planet's population lives on less than \$2 a day, and, as the FAO reminded us last 18 April, 800 million people suffer from hunger and malnutrition. The globalisation of progress is an opportunity that we must not miss. Yet there is one necessary condition. We must share this progress. New wealth must not get confiscated by the rich. Ideas, knowledge and know-how must circulate freely. We must never lose sight of these imperatives.

The development of the new information and communication technologies (NICTs) has been as stunning as it has been celebrated. These technologies first transformed financial exchanges and markets, and they are now making revolutionary changes in teaching. World information flows are also creating new prerogatives for citizens and communities. Still, the NICTs are only one part of the technological revolution. They cannot be dissociated from the growth of nanotechnologies, the technologies of the infinitely small. Work is now under way at the atomic and molecular levels. Data storage, the resistance of new materials in carbon nanotubes and the selective treatment of cells are only the first applications of these nanotechnologies. Today's new health economy, linked to research on the human genome, is a medical revolution comparable to the discoveries of Pasteur over a century ago.

In agriculture, biotechnology has made it possible to improve crop production, reduce the use of pesticides, increase the nutritional value of food and better withstand drought and salinity. The first green revolution was based on the introduction of intensive production techniques that included new varieties of rice and wheat, and fertilisers, and was supported by determined economic policies. It enabled many

countries, especially Asian countries, to meet their growing need for food. The French agronomist, René Dumont, who recently passed away and to whom I would like to pay tribute, was one of its most fervent supporters before becoming a ferocious critic. He was clairvoyant.

Today this revolution is losing steam. Crop production has levelled off for reasons that we cannot entirely explain, and a new green revolution is needed. The next agricultural revolution must link high production rates with ecological viability, and for this reason it must be conceived of as doubly “green”. The scientific revolutions in biology–molecular genetics and in IT and genetic research suggest many possibilities for realising it.

The promises held out by biotechnology as a tool for development are based on its capacity to reduce greatly the time needed for hybridisation and for traditional methods of selection. Vaccines against bovine diseases have already become one important product of biotechnological research. Fundamentally, however, this progress cannot rely solely on technology. It must be adapted to the needs of poor populations, and it must concern all agricultural regions, not only those with great potential.

Two French institutions have particular responsibility for co–operative research on agriculture and on tropical diseases. The International Co–operation Centre of Agricultural Research for Development (CIRAD) deals with agricultural questions and veterinary issues. The Development Research Institute (DRI) focuses on research in agriculture and human tropical diseases. These two institutions collaborate with researchers from developing countries in Africa, Latin America, and Asia. CIRAD programmes are currently working on animal breeding with Viet Nam, the Philippines, and Indonesia, on the sustainable management of forestry plantings in Southeast Asia, and on fruit growing in Viet Nam. The DRI has a specialised programme for rice production in Africa and Asia.

The number of forums for sharing knowledge and technology is growing. I am happy to observe that they have often made it possible for political leaders as well as representatives of the private sector and civil society to come together around the same table. Without making an inventory, I would like to examine with you some of the current thinking which I consider important.

The example of the NICTs is significant. Reducing the digital divide is central to discussions at ECOSOC, the OECD, WTO, the EU and the DOT–Force (GEANT, in French), created by the G–8 after the July 2000 Summit of heads of State in Okinawa. I can attest personally that France has been particularly active within this work group.

— More specifically, French co–operation, particularly *via* the French Development Agency, has begun to evaluate the legal, logistic, and economic infrastructure needs to encourage the development of NICTs. The goal is to define, with the beneficiary country, the national strategies that it would like to develop.

- ASEAN has taken a similar approach. The e-ASEAN initiative signed in Singapore last fall seeks to accelerate the economic integration of countries in the region by emphasising the development of communication infrastructures and promoting e-commerce through establishing common legislation and more mutual assistance among member countries for creating and liberalising NICTs.
- Other institutions are considering the legal aspects of the trade and use of these technologies. The World Bank Information for Development Program (Infodev) finances technical assistance programmes and studies to improve market access and the regulation of the technology sector. Since its creation, Infodev has financed four projects in India, a particularly dynamic country in this respect (witness the creation of a “simputer”, for “simple computer”), two other projects in China and several regional projects. UNESCO and the World Intellectual Property Organisation (WIPO) both also work on legal issues, particularly intellectual property rights. UNESCO seeks to go beyond the copyright/public-domain legal debate to develop a more pragmatic, functional approach that would favour universal access to these technologies. The OECD has focused especially on fiscal incentives for developing technologies, making information secure and privacy issues — and therefore on consumer protection. This work is essential to create a framework that is secure and propitious for private initiatives and enables all States to derive the greatest benefit from the NICTs.
- At WTO, 56 countries, including several Asian countries, have signed an agreement on information technologies, including the ITA-1 agreement that seeks to exonerate a certain number of technological products from customs taxes. Negotiations are currently underway to extend this agreement to new products and to eliminate such non-tariff barriers as conformity evaluations, import license procedures and excessive technical norms.
- International thinking is finally addressing the means for using new technologies to make public development aid more effective in the battle against poverty in the priority sectors of education and health. The World Bank’s Global Development Gateway orients its work to putting knowledge on line and to developing distance-education capacity. The point is to use the NICTs to favour access in developing countries to high-level training and, more generally, to share best practices in development.
- The Asian Development Bank has already financed several projects, such as the Grameen Phone Project in Bangladesh that makes cell phones available in rural areas. I believe that the ADB is in the process of defining its strategy and I will be very happy to learn more about your projects in this area.

From this plethora of efforts, we can discern several principles to guide our actions.

- First, it is clear that trade negotiations must help to facilitate the access of poor countries to information technologies, and to enable them to appropriate them effectively. If liberalisation can make it possible to improve the quality and costs

of a set of services (telecoms, IT, on-line payment, marketing, distribution), it must be framed by political determination. This policy globalisation has a name: *regulation*. In this respect, I strongly encourage developing Asian countries to participate in the extension of the WTO agreement on information technologies. Another priority must be to create a propitious legal context that protects, for example, against cyber-crimes. The Telecommunications Regulatory Authority in France has regulatory and institutional expertise available on telecommunications that I hope it will share more fully, particularly with Asian countries. Still greater access to these new technologies necessarily requires reducing production costs. We must therefore consider how to make intellectual property rights less rigid. South Africa took a decisive step concerning drugs in the battle against AIDS. The issue of patents has also been raised. The ravages of certain epidemics require that all developing countries have recourse to obligatory licenses for copying patented products in the case of a national emergency. This possibility must remain part of the interpretation of the TRIPS agreements, however, so as to preserve the international patent context.

- Second, we must unite and incite. Unite different initiatives so that they converge. Each institution that addresses these questions must consider how to articulate its thinking and action with those of other institutions, by adhering to a principle of subsidiarity whereby the institution best able to address a specific question is the one that responds to it. In general, it is important to promote regional co-operation that will favour regulatory harmonisation and the sharing of best practices. We also should encourage public-private sector partnerships.

Mechanisms that create incentives must be designed. I find the *Proparco* initiative pertinent. This African Development Bank subsidiary is considering establishing a venture-capital fund for new technologies in West Africa. Several French enterprises in the technology sector could in fact be part of this initiative. It seems to me that this kind of mechanism could also be established in Asia, and that we should help particularly with the NICTs, because enterprises in this field generally require lower capital investments. In this area, we should support the private more than the public sector, which should concentrate on regulatory questions. This is true for Europe, and is probably true in developing countries, particularly in Asia. Donors such as the Asian Development Bank should therefore target their financing towards private projects that will have a true leverage effect for new technologies.

These are the principles that I believe should guide our actions. I hope that your work today will continue to be fruitful. Thank you.