OECD SEOUL CONFERENCE ON INTERNATIONAL S&T CO-OPERATION FOR SUSTAINABLE DEVELOPMENT

POLICY RECOMMENDATIONS

Preamble

Global sustainability issues, such as climate change, demand global solutions. Rapid industrialisation is taking place in the developing countries and the economy is increasingly globalised. The shift to the knowledge-based economy implies increasing importance of science, technology and innovation to achieve sustainable growth. Governments of both developed and developing countries need to formulate and implement policies and programmes to integrate and address sustainable development issues in the national research and innovation systems. The global implications of sustainable development mean that it can be effectively addressed only through international co-operation in developing, accessing and diffusing appropriate knowledge and technology, especially for developing countries.

The Korean Government and the OECD jointly held a high-level conference to discuss these issues under the theme of “International S&T Co-operation for Sustainable Development” on 15-17 November 2000 in Seoul. Over 100 policy makers and experts from more than 40 countries participated. The following are the main policy recommendations that arose from the discussion.

Needs and objectives

Needs-driven co-operation

International co-operation to develop appropriate technologies for sustainable development should start with the identification of local needs. Appropriate technologies need to be identified and adapted. These could be simple and readily-available technologies, or the development of new innovative technology. International co-operation is the best means of identifying and adapting the right technologies.

Capacity building

Responding to local needs requires human and institutional capacities for assessing, adapting, developing and diffusing technology. These underpin the absorptive and adaptive abilities in the developing countries. This needs educational and research institutions which are the major elements of national systems of innovation. Such capacities can best be built when there is effective participation and commitment by the domestic and foreign private sector.
**Information access and diffusion**

Responding to local needs through suitable capacity building requires access to and diffusion of information. Many information systems now exist, but they often are not properly interlinked or fail to satisfy local needs in developing countries. Furthermore, there is still a lack of hardware and/or capacity to access these.

**How do we address these needs?**

**Public/private partnerships, networks of research and innovation**

These needs could best be addressed through public/private partnerships. These can be international partnerships involving governments, firms and university or research institutes in different countries. In contrast to unilateral assistance programmes, partnerships stimulate participation and commitment of the stakeholders involved. Strong partnerships result from networks of researchers and other stakeholders. There is a need for more research and innovation networks with sustainable development objectives, such as that developed through IPCC, in order to build effective partnerships.

**Role of public R&D in bilateral, multilateral or regional co-operation**

There should be easier access to the results of public R&D, especially for firms in developing countries. National R&D programmes could be linked to each other as a means for regional/global collaborative efforts geared towards sustainable development.

**Facilitating access to intellectual property**

Protection of intellectual property is an effective means to promote technological development and diffusion. However, in the case of technologies contributing to sustainable development, access to these could either be facilitated through policy incentives for firms to reduce royalties or firms may be encouraged to make IPR concessions. International agreements can enhance such policies.

**Role of international trade and investment**

International trade and investment are the most effective vehicles for international diffusion of knowledge and technology. For that reason, international co-operation for sustainable development should be pursued in parallel with liberalisation of trade and investment regimes.

**New mechanisms**

**Innovative financing mechanisms**

Conventional loan financing is often inadequate to finance cleaner technology projects in the developing countries. Innovations in financing are also needed to develop and diffuse appropriate technologies in developing countries; these include micro-credit and “eco-funds”. Public/private partnerships in financing could leverage limited public funds for R&D and technology diffusion and stimulate private financing. Innovative financing mechanisms could be developed through international co-operation. Governments could take policy measures to stimulate innovation in financing and facilitate the adoption of innovative financing mechanisms adapted to the needs of developing countries.
Role of government

Governments in the developing countries should strengthen regulatory and other framework conditions, so that the environmental and other sustainability issues can be dealt with under predictable and transparent conditions. Governments can facilitate well-functioning markets through these and other measures that enhance public-private partnerships, including matchmaking between demand and supply sides and among different international partners.

New institutional mechanism for international S&T co-operation

To address issues specific to sustainable development, new institutional mechanisms that facilitate international scientific and technological co-operation can be developed; one example is the proposed international fund to promote international S&T co-operation. The fund could be used to facilitate and stimulate the activities recommended above. The main functions of the fund could include:

- Conducting international programmes to combat global environmental problems.
- Co-ordinating international joint R&D programmes.
- Facilitating technology transfer.
- Providing technical and financial assistance for developing countries.
- Scientific monitoring of global environmental change.
- Policy research on prioritisation and effectiveness of international co-operation programmes for sustainable development.

Role of international organisations

International organisations can play a key role in facilitating international S&T co-operation for sustainable development. This includes:

- Compilation of data on national R&D activities and ODA devoted to sustainable development.
- Strengthening of information clearing-house functions by including international S&T co-operation activities.
- Fostering international co-operation in specific areas that contribute to sustainable development such as biotechnology and information technology.