

Achieving development through science and technology

Each year, 11 million children die of malnutrition or disease. Many illnesses, such as diarrhoea, could easily be prevented with access to safe drinking water, or cured if treated with some basic medical knowledge. However, the benefits of modern science and technology (S&T) do not reach all countries and people – and are much less evident in poorer nations.

The socio-economic gap between rich and poor countries is expanding rapidly. Simply maintaining the status quo will leave many developing countries farther and farther behind. Without concerted efforts to apply the advantages of modern science and technology wherever they can improve living conditions, most countries will be unlikely to meet the [Millennium Development Goals](#) (MDGs) by 2015.

When used appropriately, taking into account differing needs and levels of development around the world, science and technology – in agriculture, health, trade, infrastructure, education, etc... – can promote all of the various forms of progress referred to under the blanket term of “development”. Poverty can be reduced, health improved, jobs created.

Application of science and technology to agriculture can greatly enhance crop yields and improve the quality of produce. It also can preserve soils and make irrigation more efficient. In the field of health, drugs, vaccines, diagnostic systems, improved access to medical information, and monitoring of drug quality can save millions of lives. Infant and maternal mortality, malaria, HIV/AIDS, and other diseases continue to take a horrific toll in developing countries. The number of Africans who are either infected with HIV, have died from AIDS, or have lost a parent to AIDS has climbed to more than 60 million.

To achieve the Millennium Development Goals will first require intelligent, well-managed approaches by the governments of developing nations. It is, for instance, essential that national science, technology and innovation policies be adapted to development needs. A solid science and technology base is essential to generate, use and diffuse knowledge.

Governments need to look at the growth potential of information and communications technologies (ICTs) and biotechnology, and adopt innovative strategies in these new areas. Also important is a sound governance system that can strike a balance between the global “public goods” nature of knowledge, the “private goods” nature of its application, and the need for developing countries to overcome the knowledge divide.

But help will also be needed from industrialized countries – they must expand efforts to share technology and scientific knowledge and they must help to train personnel in less-advanced nations to use and apply new and emerging science effectively.



UNCTAD's contribution to the promotion of science and technology

UN [Commission on Science and Technology for Development](#) (CSTD)

The Commission advises the UN General Assembly and the Economic and Social Council on science and technology (S&T) issues. UNCTAD provides the Commission with background studies and reports and helps to implement the Commission's decisions. In coming years, the Commission will focus on implementing the recommendations of the World Summit on the Information Society (WSIS) and oversee UN system-wide efforts in this area.

Helping countries to use S&T effectively

UNCTAD helps developing countries analyse their approach to obtaining and implementing S&T for the public good. To date, UNCTAD has carried out science, technology and innovation policy reviews ([STIPs](#)) in Colombia, Jamaica, and Iran.

Science and Technology for Development Network (STDev)

In 2001, UNCTAD set up this network to disseminate information on science and technology. It provides information on the work of the CSTD, as well as relevant material and documents produced by UN agencies and data on international S&T treaties and protocols. The [STDev](#) web site also lists hyperlinks to other multilateral and bilateral development institutions and non-governmental organizations.

Reducing the digital divide

Much of UNCTAD's work aims at reducing the technology gap, the so-called digital divide between industrialized and developing nations. New information technologies are developed all the time, and UNCTAD strives to keep up with these innovations and to analyse and provide advice on them to developing countries. The annual [Digital Divide Report](#) ranks countries in terms of ICT connectivity, access and usage. It includes a cross-country analysis of more than 150 countries in terms of infrastructure, policies and Internet access.

In partnership with the State of Geneva, UNCTAD has been helping African countries, especially the poorest among them, to develop human resources in ICTs. It has trained ICT engineers from Lesotho and is planning a similar project in Mali.

Network of centres of excellence

This UNCTAD programme, funded by Italy, will connect selected [centres of excellence](#) in developing countries – institutions already possessing adequate infrastructure for carrying out research and development. These centres will be turned into regional hubs of learning. Still in development, the programme is expected to focus first on establishing networks in the field of biotechnology and ICTs. The aim is to reverse the current “brain drain” of talented scientists and researchers away from developing countries.

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