

**New United Nations Conference for Trade and Development (UNCTAD) Report Correctly Emphasizes the Importance of Science & Technology Innovation to LDC Economic Growth.**

**HOWEVER, UNCTAD Fails to Understand the Fundamental Role that Exclusive Private Property Rights Serve in Fostering Entrepreneurship, Risk-Taking and Innovation. Absent Local Appreciation for and Official Enactment and Enforcement of Laws Protecting Exclusive Private Property Rights Against Unauthorized Imitation, There Will Be Less Domestic and Foreign Direct Investment Leading to the Types of Innovations and Spillovers That Can Break the Cycle of LDC Poverty and Lead to Greater LDC Participation in International Trade.**

**Therefore, the Report's Conclusion that the "[P]resence of intellectual property rights in the local context does not play a role either as a direct incentive for innovation or as an indirect incentive enabling knowledge spillovers," is fatally incorrect.**

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**PRESS RELEASE**

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**REDUCE POVERTY BY NARROWING TECHNOLOGY GAP, UNCTAD'S  
LEAST DEVELOPED COUNTRIES REPORT 2007 URGES**

**EMBARGO**

The contents of this press release and the related Report must not be quoted or summarized in the print, broadcast or electronic media before **19 July 2007, 17:00 GMT**  
(1 PM New York, 19:00 Geneva)

**Science, technology and innovation are necessities, not luxuries, for the world's 50 poorest nations, study says**

Unless their domestic businesses and farmers can acquire knowledge and technology that enable them to catch up

with the rest of the world, the world's 50 poorest nations will not be able to achieve the sustained economic growth necessary to reduce poverty, [Least Developed Countries Report 2007\(1\)](#).

Most least developed countries (LDCs) have opened their economies and are now highly integrated with the rest of the world, notes the report, which is subtitled "Knowledge, Technological Learning and Innovation for Development." But even where they are increasing exports and attracting foreign investments, most LDCs are not climbing the economic and technological ladder. Their economies remain locked into low value-added commodity production and low-skill manufacturing.

The current pattern in LDCs appears to be economic liberalization without learning, and global integration without innovation, the report says. This spells increasing marginalization for the 767 million people who now live in LDCs.

**LDCs must innovate their way out of poverty, the report argues. Knowledge is becoming increasingly important in global production and competition -- but this is precisely where the LDCs are at their weakest.** Their domestic firms and farms have low technological capabilities; skills are underdeveloped; and the domestic institutions which could support technology acquisition and diffusion are lacking or ineffective.

Recently a number of LDCs have experienced growth spurts associated with high commodity prices. But this cannot be sustained in the long run, the report says. **These nations must develop their productive capacities and diversify their economies by increasing the application of knowledge and technology to agriculture, manufacturing, and services.**

**Science, technology and innovation matter even in the poorest countries**

LDCs cannot expect to be at the frontiers of technology. **But extremely important innovation also occurs with the commercial introduction of products and processes that are new to a country or to an enterprise.**

Such innovation is at the heart of economic diversification, productivity growth and technological upgrading in "follower" countries such as LDCs. It occurred, for example, when an entrepreneur started manufacturing garments for export in Bangladesh in the early 1980s and when others imitated the idea. It occurred when an entrepreneur in Mauritania started to export camel cheese to the European Union in the 1990s. It occurred when smallholder farmers in Malawi experimented with adopting high-yield maize varieties. These were entrepreneurial acts which involved risk but had potentially high payoffs.

Seen from this broader perspective, **science, technology and innovation are necessities, not luxuries, for the poorest countries.** Agricultural productivity is very low in most of them, and with rising populations and declining farm sizes, more and more people are seeking work outside agriculture. Without sustainable, science-based improvements in crop yields and quality, and without the creation of non-farm jobs through the technological upgrading and diversification of existing manufacturing and service activities, substantial poverty reduction will not be possible in LDCs. Weak technological capabilities neutralize opportunities that potentially arise when other countries open their trade and markets to LDCs.

High-income countries such as those belonging to the Organization for Economic Cooperation and Development, along with an increasing number of developing countries, are adopting STI (science, technology and innovation) policies, the report notes -- but the LDCs have rarely done so. The looming challenge of mitigating climate change adds to the need to promote the technological capabilities of LDCs.

**Links with international markets are not transferring technology to LDCs**

It is usually argued that greater openness to international trade and investment brings new technologies to

developing countries. But the Least Developed Countries Report 2007 shows that for LDCs such technology transfers are extremely limited.

- LDC investment in imported machinery and equipment -- a major channel for the arrival of new technology -- is about half the level of other developing countries.
- Participation in international value chains -- in which products go through numerous steps from raw materials to sophisticated, finished forms -- do little to infuse technology into LDCs. An analysis of 24 value chains in which LDC exports play a role shows that export upgrading has only occurred in 9 of them since the 1990s, involving just 18% of total merchandise exports from LDCs. But downgrading took place in 12 other value chains, representing a much higher 52% of total LDC exports.
- **Technological "spillovers" to domestic firms are expected from foreign direct investment (FDI) in LDCs. But in African LDCs, most FDI is focused on mineral extraction, and spillover into domestic firms and joint ventures is limited.** In Asian LDCs, the rapid growth in FDI in garment manufacturing has not led to a corresponding development of domestic firms' technological capabilities.
- **Technology licensing -- payments for the right to undertake activities protected by patents -- in LDCs is very weak and has been stagnant since the 1990s. On a per capita basis, it is 80 times higher in other developing countries than in LDCs.**

**The challenge is national and international**

**LDC governments should adopt policies to spur science, technology and innovation, just as industrialized countries do, the report recommends.**

Such policies were sidelined by the structural adjustment programmes of the 1980s and 1990s, and current Poverty Reduction Strategy Papers have failed to re-introduce them. New STI policies need to be appropriate to the level of technological development, the economic structure, and the capabilities of the country concerned. A one-size-fits-all approach will not work, says the Least Developed Countries Report 2007.

**Improving infrastructure, human capital and financial systems is absolutely vital because many LDCs are right at the start of the catch-up process and have major deficiencies in these areas, the report argues. Moreover, macro-economic policies need to ensure adequate resources for investment and to stimulate entrepreneurs.** Without an improvement in these foundations for development, technological progress will not occur.

Beyond that, the report says, LDCs should strive to increase agricultural productivity in basic staple foods by promoting a new "Green Revolution"; promote the formation and growth of domestic businesses; increase the ability of domestic firms and farms to absorb new technology and knowledge; invest in workers' skills; reap more learning and technology transfer from international trade and foreign investment; foster economic diversification through linkages between different economic activities; and upgrade export activities.

International action is also required, the report contends. Steps should be taken to make the intellectual property rights (IPR) system more compatible with the needs of LDCs (see press release UNCTAD/PRESS/PR/2007/017), to reduce the brain drain of skilled professionals from LDCs to industrialized countries (see press release UNCTAD/PRESS/PR/2007/015), and to increase official aid in support of science, technology and innovation in LDCs (see press release UNCTAD/PRESS/PR/2007/016). Such steps depend on coordination and cooperation between LDC governments and their development partners.

A focus on knowledge-based development can be the foundation for a reinvigorated and forward-looking partnership for development in LDCs. There is a wide sense of restlessness with the ineffectiveness of current policies and a desire to find a new policy model, the report notes. Focusing on science, technology and innovation can provide a platform for innovative solutions and fresh thinking. It is in this area that more effective policies to

promote sustained growth and poverty reduction can be found.

**Downloads [PDF]:** | [Full Report](#) [221 pages, 2604 KB] | [Overview](#) [35 pages, 334 KB] |

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## Endnotes

1. The Least Developed Countries Report 2007: Knowledge, Technological Learning and Innovation for Development (Sales No. E.07.II.D.8, ISBN 978-92-1-112717-1) may be obtained from UN sales offices at the addresses below or from UN sales agents in many countries. Price US\$ 50.00, and at a special price of US\$ 18.00 in developing countries and countries in transition). Please send orders or enquiries for Europe, Africa and Western Asia to United Nations Publication/Sales Section, Palais des Nations, CH-1211 Geneva 10, Switzerland, fax: +41 22 917 0027, e-mail: [unpubli@un.org](mailto:unpubli@un.org) ; and for the Americas and Eastern Asia, to United Nations Publications, Two UN Plaza, DC2-853, New York, NY 10017, USA, tel: +1 212 963 8302 or +1 800 253 9646, fax: +1 212 963 3489, e-mail: [publications@un.org](mailto:publications@un.org) . Internet: <http://www.un.org/publications> .

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