UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

### THE LEAST DEVELOPED COUNTRIES REPORT 2007

#### **OVERVIEW** by the Secretary-General of UNCTAD



EMBARGO The contents of this Report must not be quoted or summarized in the pirit, broadcast or electronic media before 19 July 2007, 17:00 hours GMT



UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT Geneva

## THE LEAST DEVELOPED COUNTRIES REPORT 2007

# **OVERVIEW**

by the Secretary-General of UNCTAD



UNITED NATIONS New York and Geneva, 2007

#### Note

Symbols of United Nations documents are composed of capital letters with figures. Mention of such a symbol indicates a reference to a United Nations document.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

All references to dollars (\$) are to United States dollars. A "billion" means one thousand million.

Material in this publication may be freely quoted or reprinted, but acknowledgement is requested, together with a reference to the document number. A copy of the publication containing the quotation or reprint should be sent to the UNCTAD secretariat.

The Overview contained herein is also issued as part of *The Least Developed Countries Report 2007* (UNCTAD/LDC/2007), sales no. E.07.II.D.8).

UNCTAD/LDC/2007 (Overview)

This Overview can also be found on the Internet, in all six UN languages, at the following address: http://www.unctad.org



"Where is the wisdom we have lost in knowledge? Where is the knowledge we have lost in information?"

T.S. Eliot, The Rock

#### THE CHANGING CHALLENGE OF DEVELOPMENT

Since the year 2000, UNCTAD's *Least Developed Countries Report* has argued that there are two possible future scenarios for the 767 million people who now live in the poorest countries in the world.

At the one extreme, the LDCs will remain trapped at a low level of economic development. By 2015, they will be the major locus of extreme dollar-a-day poverty in the global economy. They will continue to fall behind other developing countries and be obliged to call on the international community for aid to tackle humanitarian crises and for peace-keeping missions to deal with recurrent conflicts. They will also be epicentres of the global refugee population, incubators of global health crises and major sources of international migrant workers, who leave their countries, sometimes dramatically risk their lives, for the sake of earning a living because their life-chances are simply too restricted at home.

At the other extreme, it is possible to envisage a progressive transition in which sustained and accelerated economic growth is achieved through the development of productive capacities, and that with the associated expansion of productive employment opportunities, there will be substantial poverty reduction. In that scenario, foreign aid supports development rather than "fire fighting" complex humanitarian emergencies. Moreover, dependence on development aid is reduced as economic growth is more and more sustained by domestic resources mobilization and the LDCs are no longer marginalized from beneficial international private capital flows.



This Report is a contribution to promoting the second scenario. It focuses on how LDC Governments and their development partners can promote technological progress in LDCs as part of their efforts to develop domestic productive capacities.

If one focuses on the problems associated with the first scenario, that may seem to be an irrelevant luxury. Some might also argue that existing policies are already adequate. In the past few years the economic growth performance of the LDCs as a group has indeed much improved. However, from the *LDC Report 2006* it is apparent that a significant number of LDCs still have slow growth and the poverty-reducing effects of the form of GDP growth that is occurring are weak. The recent growth spurt which some LDCs have experienced is also very fragile as it depends in particular on high commodity prices and, for a number of LDCs, high levels of aid and also FDI to exploit natural resources. Experience indicates that such growth spurts can easily be followed by growth collapses unless windfall resources are properly invested.

Sustained economic growth and substantial poverty reduction in the least developed countries require the development of the latter's productive capacities in such a way that the working-age population becomes more and more fully and productively employed. This was discussed at length in the *LDC Report 2006*. National productive capacities develop through the interrelated processes of capital accumulation and technological progress, which in turn lead to structural change. Promoting technological progress is thus vital for achieving a positive scenario in the *LDCs*. The basic challenge of development is to increase the knowledge intensity of their economies.

The overall argument of this Report is that unless the LDCs adopt policies to stimulate technological catch-up with the rest of the world, they will continue to fall behind other countries technologically and face deepening marginalization in the global economy. Moreover, the focus of those policies should be on proactive technological learning by domestic enterprises rather than on conventionally understood technological transfer, and on commercial innovation rather than on pure scientific research. Since the 1990s most LDCs have undertaken rapid and deep trade and investment liberalization. Liberalization without technological learning will result, in the end, in increased marginalization.

#### THE APPROACH OF THIS REPORT

Effective national and international policies to promote technological progress in LDCs require a good understanding of how technological change occurs. This Report builds on the commonly accepted insight that processes of technological change in rich countries, where firms are innovating by pushing the knowledge frontier further, are fundamentally different from such processes in developing countries, where innovation primarily takes place through enterprises learning to master, adapt and improve technologies that already exist in more technologically advanced countries. Policies to promote technological development should be different in technologically leader countries from those in follower countries, including LDCs. The central issue is not acquisition of the capability to invent products and processes. Rather, policies to promote technological change in LDCs, as in all developing countries, should be geared to achieving catch-up with more technologically advanced countries. That is, they are concerned with learning about and learning to master ways of doing things that are used in more technologically advanced countries.

From that perspective some might argue that innovation is irrelevant to the LDCs. But this view is based on a definition of innovation sensu stricto, as occurring only when enterprises introduce for the very first time, products or production processes that are new to the world. It can hardly be expected that an LDC is already knocking at the frontiers of technological breakthroughs. Whilst this strict definition has wide currency, it is now common to recognize that creative technological innovation also occurs when products and processes that are new to a country or an individual enterprise are commercially introduced, whether or not they are new to the world. With this broader view, innovation is a critical aspect of technological catch-up even though it does not depend on inventions which are new to the world. Innovation also occurs when a firm introduces a product or process to a country for the first time. It occurs when other firms imitate this pioneering firm. Moreover, it occurs when the initial or follower firms make minor improvements and adaptations to improve a product or production process, leading to productivity improvements. In short, innovation occurs through "creative imitation", as well as in the more conventional sense of the commercialization of inventions.

In the context of technological catch-up, the process of innovation within a country depends critically on its links with the rest of the world. However, there are divergent views on how technological acquisition occurs.

According to one extreme view, technological acquisition in follower countries depends on the transfer of technology. In that process, access to foreign technology is equivalent to its effective use. Such access can be maximized through openness to trade and foreign investment, coupled with investment in education and perhaps increasing access to the Internet and stimulating competition between international telecom providers.

A basic problem with this view is that it largely treats knowledge in static terms, as a commodity with almost instantaneous transformative properties that can be transferred from one context to another guickly and with little cost. From that perspective, technology is seen as a blueprint which can be acquired off the shelf by any producer seeking to transform a particular combination of inputs dictated by a given factor endowment. At its most simplistic level, that perspective assumes that knowledge is like any other commodity, without geography or history. Information, knowledge and learning are all collapsed into one simple input into the universal productive process. In this approach, there is almost no discussion of how information is converted into knowledge or how learning occurs in practice — indeed, learning is not really understood or elucidated in any meaningful way. The complex dynamics of knowledge accumulation are essentially excluded from the picture altogether. This conception of knowledge ignores the fundamentally dynamic character and plural aspects shaping knowledge production and generation, as knowledge is perceived as socially disembodied and universally transferable. That perspective essentially ignores the components and processes that shape the production and generation of knowledge.

In practice, it is clear that the assimilation and the absorption of foreign technology involve costs and risks, and that success depends on technological effort — investments in technological change — of various kinds, and the development of competences and capabilities at the enterprise level.

For agriculture, the type of technological effort that is required reflects the fact that a key feature of agricultural technology is its high degree of



sensitivity to the physical environment (circumstantial sensitivity). The strong interaction between the environment and biological material makes the productivity of agricultural techniques, which are largely embodied in reproducible material inputs, highly dependent on local soil, climatic and ecological characteristics. This means that there are considerable limits to the agricultural development which can occur simply through the importation of seeds, plants, animals and machinery (agricultural technology) that are new to the country. What is required is experimental agricultural research stations to conduct tests and, beyond that, indigenous research and development capacity to undertake the inventive adaptation of plant and animal varieties to meet local ecological conditions. Without such inventive adaptation capabilities, knowledge and techniques from elsewhere are locally of limited use.

For industry and services, such circumstantial sensitivity is less important, but nevertheless technological effort is required because technology is not simply technological means (such as machinery and equipment) and technological information (such as instructions and blueprints), but also technological understanding (know-how). The latter is tacit and depends on learning through training, experience and watching. Tacit knowledge is important because various adaptations are required in establishing and operating new facilities. These may capitalize on local knowledge of various kinds. The development of firm-level capabilities and support systems is vital for successful assimilation of foreign technology.

The capabilities which are required in agriculture, industry and services are both core competences and dynamic capabilities. The former refer to the knowledge, skills and information to operate established facilities or use existing agricultural land, including production management, quality control, repair and maintenance of physical capital, and marketing. In contrast, dynamic capabilities refer to the ability to build and reconfigure

## 预览已结束,完整报告链接和二维码如下:



https://www.yunbaogao.cn/report/index/report?reportId=5 10108