

## UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION



## UNIDOScope

weekly internet newsletter

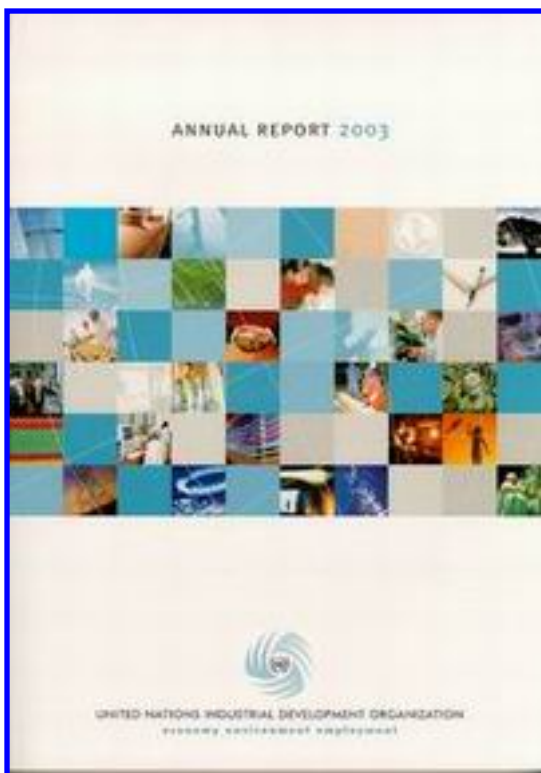
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## UNIDO Annual Report 2003 A Specialized Agency "re-Specialised"



Although formally a record of UNIDO's activities for 2003, the UNIDO Annual Report 2003 just distributed to UNIDO Member States, is a forward looking document. As Director-General Carlos Magariños says in his message at the beginning of the Report, "A number of important steps were taken in 2003 to consolidate the results of the reform process and to ensure its continued alignment with the evolving international development agenda in general, and the Millennium Development Goals in particular. These measures involved the formulation of a new corporate strategy, the refinement of the UNIDO service modules, the drafting of a new medium-term programme framework for 2004-2007, and the preparation of a consolidated research programme for the Organization." Chapter One deals with these activities in detail.

The UNIDO corporate strategy — *Productivity enhancement for social advance* — rests on the premise, derived from empirical research and experience, that productivity enhancement plays a crucial role in promoting faster growth, and the conviction that industry can make an important contribution to the achievement of this increase in productivity by promoting improved skills, knowledge and technology. The corporate strategy therefore proposes a new approach for UNIDO activities and interventions, which focuses on productivity growth as the central theme for these interventions, both to optimize their effectiveness and provide the needed strategic fit between them. This new

approach is aimed at promoting sustainable industrial development by reinforcing the multiple links between entrepreneurship, technology, productivity enhancement and growth, and at facilitating a better conceptual and operational design of the Organization's support services.

In reviewing UNIDO's performance in 2003, the Director-General draws attention to an increased impact at

field level as one of the tangible results of UNIDO's reform process, that has brought about a "sharpening of the focus and deepening of the substance of UNIDO's technical cooperation activities. ...Apart from narrowing the range of our activities, and thereby leading to a "re-specialization" of our specialized agency, this process has also helped us to achieve a real concentration on low-income countries in general and sub-Saharan Africa and the least developed countries in particular. By 2003 our technical cooperation services to low-income countries accounted for about 70 per cent of our portfolio, while in 1996 it amounted to 48 per cent."

In 2003 the value of UNIDO technical cooperation delivery reached \$94.6 million as against the target of \$95 million set for the year. This represented an increase of 16 per cent over the corresponding figure for 2002 (\$81.8 million) and 38 per cent over that for the year 2000 (\$68.7 million). This increase in technical cooperation delivery, which takes it back to the levels prevailing prior to the crisis years of the mid-late 1990s, reflects a strong rise in the voluntary contributions received by UNIDO from its development partners. Net approvals from Governmental sources have doubled since 1998, when the reform process started, and net approvals from multilateral sources have also registered a significant increase since that date. This increase in financial contributions reflects the renewed confidence of the international community in the Organization, which has also been underlined by the accession of new Member States.

Regarding the challenge facing UNIDO and the development community in the coming years, the Director-General referred to issues he has been campaigning on for some time and that he had raised once more at the 10th Session of UNIDO's General Conference in December 2004: an increase in the resources devoted to development aid; the drafting of a new development agenda; and the reform of the United Nations system to reinforce the linkage between its political and development agenda.

"Unlike what happened in the past six years, when UNIDO focused on internal restructuring, the point has now been reached when future efficiency gains at UNIDO will depend ever more on system-wide efficiency gains and the capacity of our Organization to benefit from them while contributing to them. I therefore strongly believe that future progress in reform efforts in UNIDO cannot take place in isolation, and that there is a critical need to increase the operational interaction and coordination in the field of economic development among the relevant United Nations programmes, funds and specialized agencies and the Bretton Woods institutions through enhanced information and experience-sharing. The resulting improvement in the integration of the programmes for economic and social development desired and promoted by the international community will greatly accelerate the achievement of the Millennium Development Goals, and will facilitate the development process far beyond the scope of what can be achieved through reforms of the individual agencies alone."

"This will be the challenge of the coming years, and having re-established its own position of respect in the development community, UNIDO stands ready to make its contribution in helping to overcome this challenge."

As usual, the Report is sprinkled (see chapters three, four and five) with interesting stories from the field. The 2003 Report is also more user-friendly, with a new section at the front containing: an explanation of the functions of UNIDO's three Governing Bodies; and "UNIDO at a Glance" with the basic facts and figures on the Organization. Another addition is the UNIDO organigram inside the back page.

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## **Low Cost - High Impact building materials technology transfer to Afghanistan**

By June 2004, a UNIDO programme financed by [Japan's Human Security Fund](#) to set up an environmentally friendly, energy efficient, low cost building materials sector in Afghanistan should be underway. The immediate focus will be on the creation of 10 self sustaining enterprises and the building 100 demonstration dwelling units in Kabul. The programme will be implemented in close cooperation with the UN Human



Settlements Programme, [UN HABITAT](#) and the UN Assistance Mission in Afghanistan ([UNAMA](#)). The transfer of low cost building materials technologies is an important component of (but not exclusive to) [UNIDO's Post Crisis Initiative](#).

Other countries high on the "needs list" for such projects include: Kenya; Malawi, Mozambique; Sudan; Uganda; Zambia; and of course, Iraq. Serious donor interest has already been expressed for Mozambique ([DANIDA](#)), Sudan (Japan) and the Eastern Africa Region by the Arab Bank for Economic Development in Africa, ([BADEA](#)).

promoting South - South Cooperation in poverty alleviation and post crisis reconstruction: MoU with India's Department of Urban Employment and Poverty Alleviation in January 2004.

The delegation, led by DUEPA Secretary L.M. Mehta, comprised: Ambassador of India & Permanent Representative to UNIDO, T.P. Sreenivasan, HUDCO Chairman-cum-MD, P.S. Rana and BMTPC Executive Director, T.N. Gupta

The expertise that UNIDO will apply to these projects has been built up over the last ten years through its International Centre for Science and High Technology ([ICS, Trieste, Italy](#)) and International Centre for Advancement of Manufacturing Technology ([ICAMT, Bangalore, India](#)), in partnership with India's Building Materials and Technology Promotion Council

([BMTPC](#)) and Housing and Urban Development Corporation ([HUDCO](#)), two institutions that operate under India's Ministry of Urban Development and Poverty Alleviation ([MoUD&PA](#)) ([view list of selected events](#)).

UNIDO's ten year partnership with India in the low cost building materials sector was cemented on 12 January, 2004, when the then Secretary of India's Department of Urban Employment and Poverty Alleviation, L. M. Mehta, signed a Memorandum of Understanding MoU with UNIDO on technical cooperation in low cost housing (the current Secretary, appointed on Mr. Mehta's retirement, is Mr. A. N. Tiwan). The MoU, which received specific encouragement from the Governments of Afghanistan, Ghana, Mexico, Egypt, Mozambique, Namibia, Peru, Rwanda, Venezuela, Uruguay, Sudan and Sri Lanka, will facilitate the establishment national and regional *Technology Demonstration and Diffusion Centres* for new and proven technologies for manufacturing environment friendly and energy efficient building materials.

These technologies, ([view or download BMTPC range](#)) which are also low cost, take a number of forms. Some use innovative composite materials based on local resources from forestry, agriculture, natural fibres, plant materials, and other resources such as agricultural and industrial wastes available within small geographical regions. [Bamboo](#) is another material grown widely in developing countries for which new technologies have been developed to overcome problems formerly caused by moisture and insects. Other technologies enable the production of blended cements and binders from industrial ashes and slags from furnaces and power houses and residues and tailings from copper, zinc, gold and iron ore mining. Mineral fibre-based artificial materials like fiberglass, basalt fibres, carbon fibres, fibres of blended mineral composition, etc. are significantly superior (in terms of their strength, thermo-physical characteristics, durability, purity of environment, availability and cost) to plastics, wood and aluminum. The availability of, and ability to use, primary raw materials such as quartz sand, basic rocks, carbon, etc., will diminish dependence on conventional materials and products for the construction sector.

Indian technologies are not the only ones available through the UNIDO programme. Low cost building materials that have been successfully commercialised in a number of other countries: China; Sri Lanka; Kenya; Tanzania; Ghana; Brazil; and Peru are all available for "south south" transfer.

The cost advantage of building materials produced with equipment manufactured in the south (and the equipment itself) was dramatically illustrated in research done by DANIDA in Mozambique. Intending to allocate some US\$75 million to construct 60,000 school rooms at a rate of 6,000 per year, DANIDA set a limit

on cost per school room of US\$10-12,000. According to their research on locally available production processes, the cost per school room was US\$18,000. A UNIDO proposal based on low-cost technology put cost per school room around US\$4,500. The initial UNIDO project in Mozambique, based around a self-sustaining Production / Demonstration / Technology Diffusion Centre, will be for 250 school rooms (this centre is at the same time a production site which is used for on the job training and a showroom with a range of "best practice" materials and technologies). The cost to establish a conventional plant of "northern" design and train operators to process building debris was US\$800,000. An Indian alternative to this equipment cost US\$8,000. The Indian equipment is also mobile, meaning the plant can be taken to the debris rather than vice versa (a handy option if the roads and transport facilities are not so good).

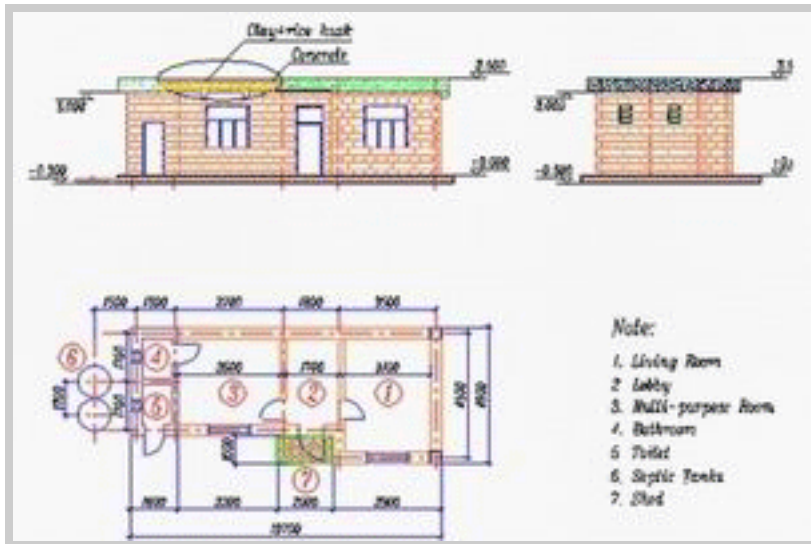
Another event which signified a coming of age of UNIDO's low cost housing programme was the ICAMT – BMTPC / HUDCO International Exhibition and Seminar on Low Cost Housing Technologies, in Bangalore, India, 13-16 December 1999. UNIDO requested nine African governments to identify entrepreneurs most likely to make a successful business out of low cost housing. Speaking to UNIDOScope about the event, UNIDO's low cost housing specialist, Vladimir Kozharnovich said "The event comprised one and a half days of workshops an exhibition of building products and machinery and visits to production sites. On the last day, the nine participants only had two requests: to have their visas extended and to sign contracts. They signed 45 contracts to a value of US\$250,000 and no one asked for a single dollar from UNIDO! Within six months, UNIDO received an invitation to the inauguration of the *East African Regional Association of Private Producers of Low Cost Building Materials!*"

Today, as a result of the various promotional events undertaken by the UNIDO - BMTPC/HUDCO partners, equipment producers in India cannot meet the demand (even though the objective of the promotion was to licence the equipment, rather than sell it). This is another important aspect of the project: the development of the building materials production sector and the machinery production sector (in addition to providing low cost environmentally friendly housing)!

In addition to being environmentally friendly and cheap, the technology is easy to master. "This advantage was clearly demonstrated at the exhibition and regional seminar in Venezuela (15-19 May 2002)" said Mr. Kozharnovich, "the Indian technicians employed local people to help with the installation of the equipment at the exhibition site. By the time the equipment was installed (in less than a week) the local people (irrespective of whether they were skilled, non-skilled, semi skilled) had learned how to use it well enough to do the demonstrations! Not only that, the equipment is also very easily produced in the country. The Indian manufacturers would rather issue licences to local manufacturers than try to sell the equipment, because the transportation costs often exceed the cost of the equipment.

The development of low cost environmentally friendly building materials is not just an issue for developing countries. Industrialized countries have already developed strategies and set up national policy and institutional infrastructures to support increased utilisation of secondary and locally available resources for manufacturing of construction materials. Experience has shown that technologies developed in the industrialized countries are too costly and sophisticated to be absorbed by the developing countries, particularly the least developed, and those in post crisis situations, where they are most needed.

"The dissemination of information on available technologies is another important function of the UNIDO programme" says UNIDO's Mr. Kozharnovich. "At the regional workshop in Uganda in 1998, someone from Botswana said "we have a housing programme, we have the plants which produce the construction materials, but we need to import all the steel rods we use to reinforce the concrete - at a very high cost." He did not know about the technology that uses basalt as a replacement for steel. The majority of his country is sitting on basalt, which is a material used by one of these low cost building materials technologies to replace steel to reinforce concrete. And the basalt fibres can be produced using typical machines used in the plastics industry. Unlike iron, the basalt does not corrode, so the quality is better and the product life longer. The equipment to melt the basalt only costs US\$120,000." The participation of UN HABITAT in the Uganda workshop laid the foundations for UNIDO - HABITAT cooperation in the transfer of low cost building materials technology.



south south cooperation for transfer of low cost environment friendly building materials technology to Afghanistan - funded by Japan's Human Security Trust Fund

A number of efforts have been made in the past by a variety of international agencies to strengthen national capacity, industrial services and transfer know-how in the area of materials for the construction industry. But these projects, because of their short-term nature, have failed to create any industry-wide impact. The UNIDO programme is based on the understanding that strengthening the technology diffusion, transfer and absorption capacity and linking the technology transfer processes to investment mechanisms and improving the policy environment require longer-term commitment and a mission-mode project approach.

India's Building Materials and Technology Promotion Council ([BMTPC](#)), UNIDO's main

counterpart in the programme and cosignatory of the MoU, was chosen because of the way it applies these principles in its everyday work. The breadth of representation on the BMTPC Board of Management gives a clear indication of the seriousness and sophistication of the Indian approach. India's Minister of Urban Affairs and Employment is the ex-officio President and the Secretary Department of Urban Employment and Poverty Alleviation, Ministry of Urban Affairs and Employment, the Vice President of the Council. The Board of Management of the BMTPC has representatives from all concerned Central Ministries viz. Finance, Industrial Development, Rural Affairs and Employment, Department of Power, Science and Technology, Small Scale Industries, Environment, Scientific and Industrial Research and Planning Commission. The State Governments, Housing Finance and Industrial Development and Promotion Agencies such as the Housing and Urban Development Corporation ([HUDCO](#)), the National Housing Bank (NHB), [IDBI Bank](#), the Industrial Finance Corporation of India ([IFCI](#)), the Indian Chambers of Commerce and Industry ([ICCI](#)), are also represented on the Board. To draw upon the experience and expertise in the area of building materials technology, eminent technologists, professionals of the public sector construction agencies, the corporate sector, R & D and standardisation organisations are also associated with the Board of Management.

A second counterpart in the Afghanistan programme is the China Building Materials Academy ([CBMA](#)). The CBMA is also the host and counterpart of the latest of UNIDO's [International Technology Centres](#): the [International Centre for Materials Technology Promotion](#) (ICM). The CBMA consists of five research institutes and one design institute, two national engineering centres, three key laboratories open to enterprises working with building materials, three centres for testing and nine quality control centres for building materials products. The capacities of both the CBMA and the BMTPC will be available as technical support services to the project.

The low cost building materials production units in Afghanistan will be linked to and complemented by mini-cement plants, maximising the potential for the development of small-scale and micro enterprises especially in rural areas (in phase II of the programme) that involve skilled, semi-skilled and non-skilled workers, including women, in the production process. The technologies have shown a good potential for job creation and, with an optimum man-machine mix using simple machines, lack of transportation infrastructure and existence of local material resources, meet the need for decentralized production of building materials in the country. The technologies transferred within the frame of the project will also provide substantive input to the rehabilitation and construction of pedestrian bridges, drains, sewage systems, irrigation channels, installation of water supply systems, sports facilities and public service buildings, such as schools, clinics and community centres.

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## COMING SOON

Energy

Biotechnology

Nano-  
Technology

Materials

Information  
Communication  
Technology

Aerospace  
Industry

**Technology Fair of the Future at UNCTAD XI, São Paulo, Brazil, 14 - 18 June 2004, FREE OF CHARGE to selected participants.** If you are an innovative enterprise, technology park, research and development institute, or institution for innovation in an industrialized or emerging economy that has promising new technology, you could be among the 100 or so who will be eligible for an exhibition area, auditorium, multi-media area and room for business meetings (including video conferencing) free of charge.

The Technology Fair of the Future is one of a number of events being held at UNCTAD XI which together are expected to attract some 3,000 participants from over 190 countries. Other events are the [EMPRETEC](#) /SEBRAE Business Fair, [WAIPA](#) Investment Forum and Fair Brazil Invest, [ITC](#) Competitiveness Tools Fair and NGOs Solidarity Market Fair. The Technology Fair of the Future will take place at the Anhembi (São Paulo city) Conventions and Exhibition Centre, simultaneously with the FISPAL 20th International Food Fair, the most important fair for food products in Latin America.

The Technology Fair highlights selected technology sectors: energy; biotechnology; nano-technology and materials; information and communication; aerospace. Special feature: technologies for low-income and least developed countries (LDCs) - renewable energy, agro-food processing, medicines and building materials.

Due to the limited number of places available, applications should be submitted as early as possible. See the [Fair homepage](#) for more details and the online application form <http://www.unidoform.org>

[more coming events](#)



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