



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

Annual Report

2012



UNIDO Annual Report 2012

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Publishing production: English, Publishing and Library Section,
United Nations Office at Vienna.

The paper used for the inner text of this publication is woodfree and uncoated. It is certified by the Forest Stewardship Council (chain of custody) and the Programme for the Endorsement of Forest Certification (chain of custody).

The full report is available online at www.unido.org

ISSN 1020-7651

Distribution: GENERAL

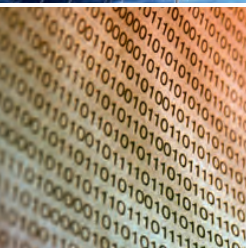
IDB.41/2-PBC.29/2 2012

Original: ENGLISH

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION
ANNUAL REPORT 2012

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I trust readers will forgive me if I begin this brief introduction to the *Annual Report 2012* on a personal note. For the past 17 years I have had the honour to serve UNIDO, first as Director of the Africa and Least Developed Countries Regional Bureau, then as the Organization's Representative and Director of the first UNIDO Regional Office in Nigeria and finally, for the past seven years as Director General. My experience over the years has made me very sure of one thing: UNIDO is an organization of which anyone associated with it—its staff, its beneficiaries, its donors or other stakeholders—can be immensely proud. The impact of its projects and programmes would do credit to a very large organization let alone an organization that has, over the years, had to face significant resource constraints. I believe that the enforced stringency has enabled us to sharpen our focus and become a centre of excellence on those issues closest to our mandate. It certainly instilled in the staff an innate sense of purpose, resilience and optimism that is evident in their commitment to our Organization, their service that stretches way beyond the normal working day and their willingness to leave no stone unturned in their pursuit of UNIDO's goals to support the inclusive and sustainable industrial development of its Member States.

We have endeavoured in this brief account of our work in 2012 to provide readers with concrete evidence of the impact of our programmes and projects. For the sake of economy, this year's *Annual Report* is slightly more compact than last year's, but readers can study UNIDO in greater depth at our newly designed website as well as other UNIDO databases.

It has been very encouraging to note the continuing increase in our technical cooperation delivery over the past few years, which has now reached a historic level. The confidence of UNIDO's Member States in the Organization is heartening, as is the growing partnership with stakeholders in those countries that are no longer contributing to our regular budget. One of our greatest strengths is our ability to harness the private sector in our efforts to build sustainable industries. At the same time, by creating capacities within developing countries, we are enabling them to emerge as effective trading partners in the global marketplace. This *Report* describes several initiatives undertaken with multinational partners—Japan's AEON is a notable example—where pro-poor business partnerships have enabled micro, small and medium enterprises in developing countries to reach international markets. At the same time, UNIDO's Sustainable Supplier Development Programme, undertaken in cooperation with Germany's METRO Group, is helping food producers in developing countries meet the standards required for the safe export of their produce.

I am also delighted that UNIDO has continued to prove itself a worthy partner within the United Nations system on a range of issues. Our long experience and proven expertise in energy issues has catapulted us to the forefront of efforts to provide universal access to sustainable energy by 2030. Indeed, I see my appointment by the United Nations Secretary-General as his Special Representative for Sustainable Energy for All as an acknowledgement of UNIDO's unique competence in this field as much as the personal insights I have gained during my years both as its Director General and

Message from the Director General

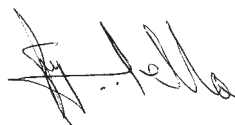
as Chair of UN-Energy. As a result of UNIDO's efforts in this field we are already witnessing an increased level of support from developing countries for the adoption of low-carbon growth strategies and a growing emphasis on industrial energy efficiency. In partnership with UNEP, UNIDO has also taken a leading role in the establishment of the new UNFCCC Climate Technology Centre and Network.

Another area where I believe we are gaining ground is in the pursuit of gender equality. Many of our projects, as you will notice yourselves as you read this *Report*, either target women specifically, or include an important component to ensure that women in developing countries, particularly the poorest among them, are empowered to make a genuine and lasting contribution to the welfare both of their communities and their countries as a whole. In order to ensure that gender issues are fully mainstreamed into the work of UNIDO, and to keep the Organization up to date and in line with gender issues within and outside the United Nations system, I have proposed the establishment of a dedicated gender unit in UNIDO, with a gender focal point, in the next biennium.

The United Nations Conference on Sustainable Development (Rio+20) laid the foundation for a new set of sustainable development goals that would guide the work of the international community in the years after 2015, the deadline for the attainment of the Millennium Development Goals. As an organization that is committed to eradicating poverty, supporting inclusive and equitable economic growth and promoting sustainable patterns of consumption and production, UNIDO is uniquely competent to deal with all three dimensions of sustainable development. I was particularly gratified

at the positive response to UNIDO's Green Industry Platform that we announced at Rio+20 as part of our Green Industry Initiative.

Ending, as I began, on a personal note, I would like to say how much I have enjoyed leading this focused and effective Organization during my years as its Director General. The enrichment it has brought, and will continue to bring, to countless lives in developing countries may not make the headlines in the popular press, but it is inestimable. Simply put, UNIDO provides people with the wherewithal to help themselves, to turn their lives around so that they can support their families and communities and bring about the economic transformation of their countries. I will be watching closely, with satisfaction and pride, as UNIDO continues to grow.



Kandeh K. Yumkella
Director General

UNIDO at a glance

■ UNIDO was established in 1966 and became a specialized agency of the United Nations in 1985. As of 1 January 2013, the Organization had 172 Member States. ■ UNIDO currently employs 676 staff members at Headquarters and other established offices. ■ The Director General, Kandeh K. Yumkella (Sierra Leone), was reappointed by the thirteenth session of the General Conference (7-11 December 2009) for a period of four years. ■ The estimated total volume of UNIDO operations for the biennium 2012-2013 is €460 million. The value of UNIDO's ongoing technical cooperation programmes and projects totalled \$884.7 million as of 31 December 2012. The value of technical cooperation delivery in 2012 amounted to \$189.2 million, the highest since UNIDO became a specialized agency. ■ The primary objective of the Organization is the promotion of sustainable industrial development in developing countries and economies in transition. To this end, UNIDO also promotes cooperation on the global, regional, national and sectoral levels. ■ In addition to its Headquarters office in Vienna, UNIDO has offices in Brussels, Geneva and New York as well as 29 regional and country offices and 17 UNIDO desks. It maintains Investment and Technology Promotion Offices in seven countries. Its 51 National Cleaner Production Centres and National Cleaner Production Programmes are run in cooperation with the United Nations Environment Programme.

■ UNIDO has two policymaking organs: the General Conference that meets every two years and the Industrial Development Board that meets once a year. The Programme and Budget Committee is a subsidiary organ of the Industrial Development Board and meets once a year. ■ The General Conference is the supreme policymaking organ of the Organization that determines its guiding principles and policies, approves the budget and work programme of UNIDO and appoints the Director General. The fifteenth session of the General Conference is scheduled to take place from 2 to 6 December 2013 in Lima, Peru. ■ The Board has 53 Members and reviews the implementation of the work programme, the regular and operational budgets, and makes recommendations to the General Conference on policy matters, including the appointment of the Director General. The fortieth session of the Board took place from 20 to 22 November 2012. ■ The Programme and Budget Committee, consisting of 27 Members, assists the Board in the preparation and examination of the work programme, the budget and other financial matters. The twenty-eighth session of the Programme and Budget Committee took place on 25 and 26 June 2012. ■

Member States of UNIDO

(as of 1 January 2013)

Afghanistan	Chile	Georgia
Albania	China	Germany
Algeria	Colombia	Ghana
Angola	Comoros	Greece
Argentina	Congo	Grenada
Armenia	Costa Rica	Guatemala
Austria	Côte d'Ivoire	Guinea
Azerbaijan	Croatia	Guinea-Bissau
Bahamas	Cuba	Guyana
Bahrain	Cyprus	Haiti
Bangladesh	Czech Republic	Honduras
Barbados	Democratic People's Republic of	Hungary
Belarus	Korea	India
Belgium	Democratic Republic of the Congo	Indonesia
Belize	Denmark	Iran (Islamic Republic of)
Benin	Djibouti	Iraq
Bhutan	Dominica	Ireland
Bolivia (Plurinational State of)	Dominican Republic	Israel
Bosnia and Herzegovina	Ecuador	Italy
Botswana	Egypt	Jamaica
Brazil	El Salvador	Japan
Bulgaria	Equatorial Guinea	Jordan
Burkina Faso	Eritrea	Kazakhstan
Burundi	Ethiopia	Kenya
Cambodia	Fiji	Kuwait
Cameroon	Finland	Kyrgyzstan
Cape Verde	France	Lao People's Democratic Republic
Central African Republic	Gabon	Lebanon
Chad	Gambia	Lesotho



Liberia

Libya

Luxembourg

Madagascar

Malawi

Malaysia

Maldives

Mali

Malta

Mauritania

Mauritius

Mexico

Monaco

Mongolia

Montenegro

Morocco

Mozambique

Myanmar

Namibia

Nepal

Netherlands

New Zealand

Nicaragua

Niger

Nigeria

Norway

Oman

Pakistan

Panama

Papua New Guinea

Paraguay

Peru

Philippines

Poland

Portugal

Qatar

Republic of Korea

Republic of Moldova

Romania

Russian Federation

Rwanda

Saint Kitts and Nevis

Saint Lucia

Saint Vincent and the Grenadines

Samoa

Sao Tome and Principe

Saudi Arabia

Senegal

Serbia

Seychelles

Sierra Leone

Slovakia

Slovenia

Somalia

South Africa

Spain

Sri Lanka

Sudan

Suriname

Swaziland

Sweden

Switzerland

Syrian Arab Republic

Tajikistan

Thailand

The former Yugoslav Republic of

Macedonia

Timor-Leste

Togo

Tonga

Trinidad and Tobago

Tunisia

Turkey

Turkmenistan

Tuvalu

Uganda

Ukraine

United Arab Emirates

United Republic of Tanzania

Uruguay

Uzbekistan

Vanuatu

Venezuela (Bolivarian Republic of)

Viet Nam

Yemen

Zambia

Zimbabwe



Signposts and road maps

Responding to requests from Member States, the focus of this year's *Annual Report* is on the impact of UNIDO's projects and programmes on the lives of men, women and youth in developing and transition economy countries. Nonetheless, as a relatively small organization with limited resources, UNIDO would not have been able to achieve the results presented in this *Report* without the cooperation of its Member States and sister organizations and bodies within the United Nations system, as well as the valuable support of its administrative services in Vienna. It has also been guided in its work by the decisions and resolutions emanating from its policymaking organs that have helped ensure that it remain firmly on course despite an ever-changing economic climate. The first part of this chapter offers a brief summary of UNIDO's support activities during the year under review while the second part describes activities that strengthen both its regional focus and its key role on the United Nations development stage.

UNIDO at home

Our funding

In carrying out the core requirements of its mandate and mission, UNIDO has more than doubled its technical cooperation delivery over the past 10 years. At the same time, it has substantially increased its ability to mobilize financial resources, testifying to the growing recognition of the Organization as an effective provider of inclusive and sustainable industrial development services. The increase in its services has been accomplished with stable staffing levels and an essentially unchanged regular budget for much of the past 15 years. This underlines the increasing efficiency and productivity of the Organization, a fact that has not gone unnoticed by Member States and indeed by others that are no longer members of UNIDO (see below). Canada and the United States of America that left the Organization in 1993 and 1996, respectively, made a substantial contribution to UNIDO's technical cooperation activities during the year under review.

UNIDO's core budget, covering staff and operating costs, is funded by assessed contributions from its Member States. Programmes and projects are mainly funded through voluntary contributions from donor countries and institutions, as well as from multilateral funds. The total volume of funds mobilized by the Organization for technical cooperation

“UNIDO’s volume of project services [in 2011] exceeded the previous record from 1990 when UNIDO had twice the number of staff. These developments are a remarkable success in times of economic crisis and constitute a major proof of UNIDO’s efficiency and effectiveness, which in turn creates trust among donors.”

Statement of the Permanent Representative of Austria to UNIDO to the fortieth session of the Industrial Development Board

Figure 1. UNIDO FUNDS AVAILABLE FOR FUTURE IMPLEMENTATION (millions of US dollars)



Figure 2. UNIDO TECHNICAL COOPERATION DELIVERY (millions of US dollars)



activities in 2012 showed a slight decrease as a result of a cyclical drop in the funding from the Multilateral Fund for the Implementation of the Montreal Protocol and from the Global Environment Facility (GEF) (see below).

In terms of UNIDO's thematic priorities, environment and energy attracted by far the largest share of overall funding with \$82.6 million, while poverty reduction through productive activities received \$42.7 million and trade capacity-building \$28.9 million. Appendix B shows the distribution of project approvals by region and thematic priority.

Funding from donor countries and institutions

Funding from governmental sources remained at the high level of recent years, bearing witness to the value attached to UNIDO as well as recognition of the quality of its services.

The largest contributor in 2012 was once again the European Commission with net approvals (excluding support costs) in project budgets of \$17.2 million, followed by Japan with \$11.7 million (including \$0.5 million through the United Nations Trust Fund for Human Security). Net contributions above \$1 million were received from Switzerland (\$10.1 million), Sweden (\$6.1 million), Italy (\$4.7 million), Germany (\$4.6 million), Norway (\$4.4 million), Spain (\$2.8 million, mainly through the Millennium Development Goals Achievement Fund or MDG-F), Austria (\$2.2 million), Republic of Korea (\$2 million), Canada (\$2 million), South Africa (\$1.9 million), France (\$1.6 million), United States (\$1.3 million), Russian Federation (\$1.1 million) and Uruguay (\$1 million). In addition, \$5.4 million was received from Nigeria, to be allocated in 2013.

Funding from multi-donor trust funds

Indirect government funding of UNIDO technical cooperation through various United Nations multi-donor trust funds reached \$8.4 million in 2012. In addition to the MDG-F (\$2.1 million) and the United Nations Trust Fund for Human Security (\$0.5 million), net increases under the Delivering as One funds reached \$3.3 million, while self-starter multi-donor trust funds amounted to \$2.5 million, including the United Nations Peacebuilding Fund.

Global Environment Facility

The Global Environment Facility (GEF) operates in replenishment cycles, with the GEF-4 cycle from 2006 to 2010 and the current GEF-5 from 2010 to 2014. During these cycles, concept notes in the form of project identification forms are approved by the GEF Council in its June and November meetings. Once a concept is approved, UNIDO has an 18-month project preparation period to develop the actual project document; grant transfer is only triggered after approval of the document. The fact that most concepts were only approved in 2009 and 2010, explains why during 2011—the final year of GEF-4 funding releases—the actual grant funds received from the GEF reached an all-time record of \$72.5 million. In the current GEF-5 cycle, UNIDO is once again in the process of gaining approvals on the concept stage with major grant fund transfers expected from 2013 to 2015. As such, the total value of net funding received from the GEF this year was \$34.9 million.

As a result of the arrears of donors and deferral of contributions, the GEF has announced a potential reduction of 13.8 per cent from the \$4.25 billion of programme funding planned at the beginning of the current replenishment period. This implies that the \$324 million (7.6 per cent) originally foreseen for UNIDO during GEF-5 will need to be reduced, with a corresponding drop in portfolio funding to \$279.3 million. This would nevertheless present an impressive increase of 46 per cent over the grants received during GEF-4.

Montreal Protocol

Funding from the Multilateral Fund for the Implementation of the Montreal Protocol continued in 2012 around the average of recent years at \$23.4 million. Although this figure represents a decrease over the record level of 2011, the difference is largely attributable to the approval in 2011 of the plan for the phase-out of hydrochlorofluorocarbons in China, whereby 41 per cent of the total funds were allocated to UNIDO. It is also worth noting that, upon the request of the Montreal Protocol Executive Committee at its December meeting, the payment of a tranche of \$10 million for China was postponed to early 2013. Leaving aside the case of China, the level of approvals in the year under review showed an increase over previous years.

Trust funds

UNIDO has been operating a number of programmable trust funds, mainly for the development of new projects and

Figure 3. SHARE OF SUBMITTED PROJECTS BY REGION



Figure 4. SHARE OF SUBMITTED PROJECTS BY THEMATIC AREA



programmes. A total of 30 Member States renounced their shares of unutilized balances, resulting in €14.2 million available for UNIDO programmes.¹ Further contributions to these trust funds would allow UNIDO to develop high-priority projects in key areas and at the same time provide for UNIDO cost sharing where required.

Our projects

Programme Approval and Monitoring Committee

As a highly specialized organization, UNIDO attaches the utmost priority to the quality of its technical cooperation projects and programmes. All project and programme proposals are assessed by a dedicated appraisal group before submission to the Programme Approval and Monitoring Committee. In the course of the year, the Programme Approval and Monitoring Committee looked at 142 project and programme proposals and gave the green light to 91 per cent of them. The high approval rate in 2012—compared to 79 and 75 per cent respectively for 2011 and 2010—confirms the findings of the Quality Assurance Unit that there has been a steady increase in the quality of the project and programme proposals submitted by the respective technical units of the Organization. Almost all project documents contain a logical framework of expected results, indicators to measure them and risk management strategies. They also address economic, financial, social, institutional, gender and procurement issues more comprehensively than in the past and have begun to apply results-based budgeting that will be used systematically in 2013 with the implementation of the Enterprise Resource Planning (ERP) system.

Evaluation

In the same way that UNIDO's project and programme proposals are carefully scrutinized before a decision is taken on whether or not to proceed, once complete they undergo an equally scrupulous, systematic and impartial assessment to

measure their relevance, efficiency and effectiveness. The UNIDO Evaluation Group looks at programmes, projects, or themes and its conclusions form a valuable input into UNIDO's strategic decision-making process.

During 2012, the group conducted thematic evaluations in diverse areas of UNIDO's activities, namely its contribution to the One UN mechanism, the performance of its field offices, its global forum function, its contribution to the Millennium Development Goals (MDGs), its enterprise upgrading initiatives, its projects related to the elimination of persistent organic pollutants and its post-crisis interventions. Independent UNIDO country evaluation reports were published on UNIDO's activities in Cuba, Nigeria, Rwanda, South Africa and Viet Nam. The Evaluation Group also completed its country evaluation of Kenya, while work on the evaluation of Iraq, Mexico and Zambia is ongoing.

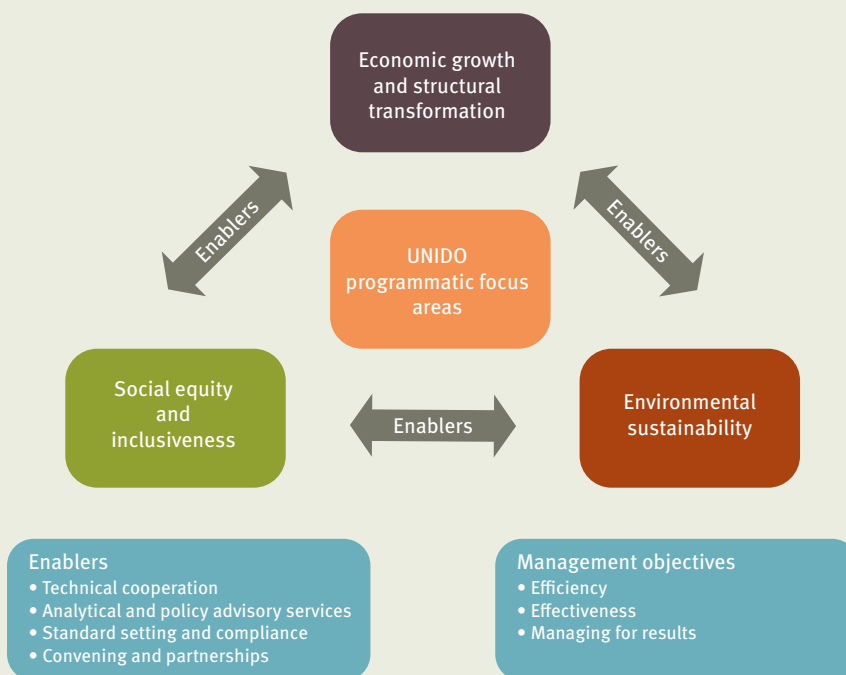
UNIDO's evaluation capabilities are recognized within the United Nations family and beyond. In April, UNIDO was one of the organizers of the 2012 meeting in Rome of the Network of Networks for Impact Evaluation, established in 2006 to promote quality impact evaluation. The Director of the Evaluation Group served as vice-chair of the United Nations Evaluation Group for one year until the end of April. UNIDO's evaluation function formed part of the professional peer review of the evaluation functions of the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP) and the United Nations Human Settlements Programme.

The way we work

Wide-reaching changes to the way UNIDO operates were initiated in 2010 with the introduction of a Programme for Change and Organizational Renewal designed to make UNIDO fit for the future. Yearly adjustments, some major, some more subtle, have been described in previous *Annual Reports*. The year under review saw the roll out to all staff of a new ERP system, specifically the portfolio and project management module that incorporates all steps in the life of a project as well as the human capital management modules that integrate the various human resource management processes into the new ERP system (see below). Risk management is a key feature of the project management module and includes online reporting tools to monitor and report risk. UNIDO is on target and within budget to achieve a fully functioning ERP system by the end of 2013.

¹ Brazil, China, Colombia, Côte d'Ivoire, Democratic People's Republic of Korea, Denmark, Ecuador, Finland, France, Germany, Hungary, India, Indonesia, Israel, Italy, Japan, Lebanon, Malta, Mauritius, Mexico, Mozambique, New Zealand, Norway, Panama, Poland, Republic of Korea, Sweden, Switzerland, Syrian Arab Republic and Thailand.

Figure 5. UNIDO CONTRIBUTION TO SUSTAINABLE INDUSTRIAL DEVELOPMENT



The introduction of the new system has already streamlined what were once cumbersome and time-consuming processes. It allows greater transparency, accessibility, reporting on results/impact following the principles of results-based management, accountability and decentralization for Headquarters and field staff. It also facilitates collaboration and knowledge-sharing between staff at Headquarters and the field as well as with sister organizations.

With targeted training in 2012—classroom sessions, UNIDO-specific e-learning materials, online webinars for field staff and available help options—staff are now equipped to make optimum use of the new system and processes. Selected field staff underwent training at Headquarters to become “super users” to support colleagues in their respective regions. External stakeholders joined staff at numerous briefings and town hall meetings that were supplemented by regular newsletters, including the *UNIDO Times* and UNIDO’s intranet and extranet pages. The readiness with which staff throughout the Organization have accepted and adjusted to the new system provides a foretaste of the working culture UNIDO hopes to achieve in the coming years.

For further information on the Programme for Change and Organizational Renewal see www.unido.org/changemanagement.

Ethics

In August, the Director General appointed a new Officer for the Focal Point for Ethics and Accountability to strengthen the culture of ethics, transparency and accountability in UNIDO. The Ethics Officer, who reports directly to the Director General, implements and administers UNIDO’s ethics-related policies, provides advice and guidance to UNIDO staff, conducts training sessions on UNIDO’s Code of Ethical Conduct and monitors global trends and best practices. The Ethics Officer also represents UNIDO vis-à-vis internal and external counterparts in ethics-related matters.

One of the tasks of the Ethics Officer is to review annually the declaration of interests and financial disclosure submissions of staff. For 2012, a total of 307 forms on declaration of interests and financial disclosure were examined by the Ethics Officer.



Our staff

The staff of UNIDO is composed of men and women from a wide range of countries, backgrounds and areas of expertise, but all of them are dedicated to serving the Organization in its efforts to eradicate poverty. Many of them are called on to share their experience and knowledge for a specific assignment of limited duration, generally in the field at the site of a project. Some are stationed in the UNIDO offices in Brussels, Geneva and New York or in one of its 29 regional or country offices or at 17 UNIDO desks around the world. A critical number of staff serve at UNIDO Headquarters in Vienna, although an operational field mobility policy allows many staff members an opportunity to witness UNIDO in action in the field as well as being part of its Headquarters operations

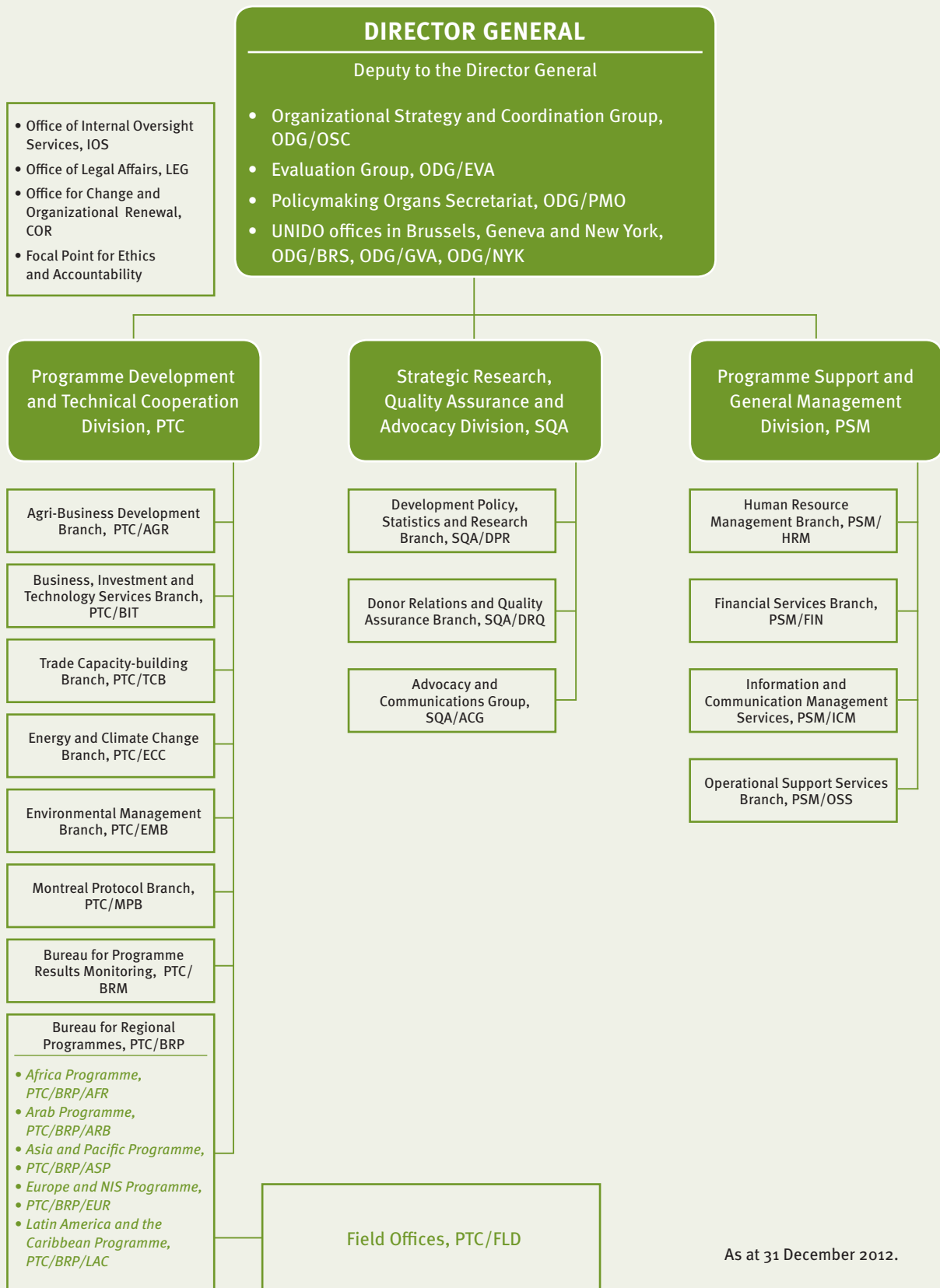
Human resources management

This year, a new framework was introduced for the recruitment and administration of personnel under individual

service agreements. This means that external experts recruited under these agreements are now an integral part of the UNIDO human capital and their employment is governed by similar principles and standards of conduct as those applicable to staff serving under regular contracts.

The start of the year saw the organization-wide move of operations to a new ERP system, SAP (see above). This system includes several modules related to human capital such as organizational management, performance management, personnel administration, e-recruitment, time management and employee as well as manager self services. One novel feature of the new system is a resource pool of experts who have already been assessed by UNIDO and who can be recruited directly by project managers for their projects and programmes. Training given throughout 2012 ensured that staff members were well versed in the new system.

UNIDO introduced a new system in March to measure staff performance in terms of achievement of both individual and corporate goals. The new system calls for a



As at 31 December 2012.

greater dialogue between staff and supervisors and allows for 360° feedback to assess managerial as well as core competencies.

Gender balance

It has long been an aspiration of UNIDO to achieve a better gender balance of staff at all levels, but particularly at the decision-making level where men continue to outstrip women in terms of numbers. The adoption of a strong policy in 2009 and the establishment of the Gender Mainstreaming Steering Committee provided the tools to put this goal into action. In 2012, the Committee earmarked the technical branches of the Programme Development and Technical Cooperation Division where work began on the development of sector-specific gender tools in project cycle management as well as assessment tools to help review the gender responsiveness of project concepts and proposals. The first unit to come under scrutiny was the Environmental Management Branch where a gender expert, recruited in October, worked with project managers to create gender mainstreaming tools specific to the branch's development themes. Other technical branches will follow in an exercise scheduled for completion in October 2013. An internal newsletter focusing on gender issues was launched in November.

UNIDO is part of the larger efforts of the United Nations family towards gender equality including consultations to shape the global development agenda beyond 2015. Its inputs, in the form of participation at, and position papers to, United Nations forums such as the System-wide Action Plan on Gender Equality and Women's Empowerment, the Inter-Agency Network on Women and Gender Equality, the United Nations Entity for Gender Equality and the Empowerment of Women and the system-wide consultations on the post-2015 development agenda are gradually making it a key player in different forums.

Our work environment

With a staff of 134 specialists in different fields of engineering and maintenance, UNIDO is responsible for the safe and reliable operation of the Vienna International Centre that is also home to the United Nations Office at Vienna, the United Nations Office on Drugs and Crime, the

International Atomic Energy Agency and the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization. With a building that is 35 years old, repairs and renovations are inevitable and 2012 saw a number of important refurbishments, many of which affected the conference tower (building C) and all of which were designed to help make the VIC a greener, more healthy workplace. The installation of state-of-the-art conference equipment is under way with an expected completion date early in 2013. The replacement of the facade and the connecting tunnels of building C was concluded at the end of the year and the asbestos removal in building C will be finished in April 2013. Thermal insulation of building C will lead to significant energy savings as will the installation of new light fittings. Savings in water will be achieved by new sanitary installations, including sensor taps, the use of well water in lavatories and waterless urinals. Water pipes and electric wiring were replaced during the asbestos removal exercise and heating, ventilation and air conditioning equipment housed in a dedicated technical room where a major challenge was to raise the ceiling to allow for the installation of the new energy-efficient equipment. New fire dampers that complied with Austrian standards replaced the earlier asbestos dampers. Their connection to the building's fire protection system adds to the safety of the building.

Our support services

UNIDO is only as effective as its logistical support services enable it to be. Efficient, responsive and up-to-date procedures for activities such as the procurement of goods and services, communications, travel and transportation, property records and archiving and registry services translate into a smooth functioning Organization, able to deliver the highest quality services to its client countries. Transparency, accountability and cost-effectiveness are also a feature of UNIDO's administrative support services, whether through the introduction of a seamless electronic procurement system—the first such integrated system within the United Nations family—or agreements negotiated jointly with sister organizations with travel agents and airlines to secure the best conditions, or through a wide range of other activities. In conjunction with the ERP system, UNIDO is in the process of moving to the online management of procurement and travel.



In October, Kandeh K. Yumkella, Director General of UNIDO, joined an illustrious list of world leaders, Nobel Peace Prize laureates and outstanding personalities when he received a Global Leadership Award for his work on advancing sustainable energy for all, poverty reduction, efforts to reduce the impact of climate change and the Millennium Development Goals. In his acceptance speech, he dedicated the award to the staff of the Organization he has headed since 2005 who were, he emphasized, at the forefront of efforts to create prosperity for people around the world. The Global Leadership Award is presented annually by the United Nations Foundation and the United Nations Association of the United States of America.

Photo © Gary He/Insider Images for United Nations Foundation

Beyond UNIDO

UNIDO and the United Nations

Although smaller than some of its sister agencies, UNIDO plays a key role on the United Nations stage. The Director General is Chair of UN-Energy and was recently appointed to lead the Secretary-General's initiative on Sustainable Energy for All, presently one of UNIDO's foremost concerns. This throws UNIDO into the limelight in those forums dedicated to poverty and energy issues. As in the past, UNIDO continued to take part in efforts of the United Nations family to achieve system-wide coherence and greater efficiency and effectiveness. These included the United Nations System Chief Executives Board for Coordination and the work of its subsidiary bodies: the High-level Committee on Programmes that deals with global policy issues, the High-level Committee on Management that covers administrative matters, and the United Nations Development Group (UNDG) that promotes country-level coherence and operational effectiveness.

One of the year's highlights for the entire system was the United Nations Conference on Sustainable Development (Rio+20). UNIDO played a key role in preparations for the conference and its inputs during the conference included a number of important side events described in greater detail

in chapter 4. The Rio+20 outcome document called on Member States to agree on a set of Sustainable Development Goals (SDGs) that would provide a new framework for global development once the MDGs reach their 2015 deadline. As a member of the United Nations System Task Team on the post-2015 United Nations Development Agenda, UNIDO provided analytical inputs to the Task Team report *Realizing the Future We Want for All* that examines the strengths and weaknesses of the MDGs and provides initial suggestions for the post-2015 development agenda.

The Organization was closely involved in a number of UNDG thematic consultations with civil society and other stakeholders on key issues of the post-2015 development agenda to ensure that industrial development receives proper recognition as a powerful catalyst for sustainable development. This concern was similarly reflected by the United Nations General Assembly in its resolution on industrial development cooperation adopted on 21 December² following its consideration of the Director General's report on industrial development cooperation that highlighted the need to link industry to the wider development agenda. A useful brochure, widely distributed to Member States and others entitled *Industry for inclusive and sustainable development* reinforces the message that sustainable industrial development is the only solution to meeting the global objectives of eradicating poverty and

² A/RES/67/225.

“We recognize that people are at the centre of sustainable development and in this regard, we strive for a world which is just, equitable and inclusive and we commit to work together to promote sustained and inclusive economic growth, social development, environmental protection and thereby to benefit all.”

Rio+20 Outcome Document *The Future We Want*

reducing income disparities while minimizing environmental damage.

UNIDO also continued to work closely with the United Nations Department of Economic and Social Affairs and sister agencies in the United Nations system in implementing the triennial comprehensive policy review of operational activities for development of the United Nations system, and in formulating suggestions to Member States on options for a new quadrennial comprehensive policy review, adopted by the General Assembly in December.

In March, UNIDO and the United Nations Office on Drugs and Crime, in cooperation with the Global Compact, were the hosts of this year’s annual United Nations System Private Sector Focal Points Meeting. With more than 130 participants from United Nations agencies and the private sector, this year’s event entitled “Accelerating UN-Business Partnerships” attracted the largest turnout to date, indicative of a growing interest in partnerships between the United Nations and the private sector to address the challenges of the 21st century. Recommendations emerging from the plenary and working group sessions included a strong call to implement strategic partnership models that could drive systemic change.

In November, UNIDO hosted the fifth annual Global South-South Development Expo at Vienna’s Hofburg Palace, in cooperation with the United Nations Office for South-South Cooperation. For more information on this key event, see chapter 2.

Delivering as One

The United Nations Delivering as One approach was the result of the need expressed by Member States to make the United Nations development system more coherent, effective and relevant. Although initiated on a trial basis at the end of 2006, Delivering as One has radically changed the way that the United Nations family does business. Following the outcome of an independent evaluation of lessons learned from the Delivering as One pilots as well as high-level conferences on the approach, the landmark resolution on the quadrennial comprehensive policy review (see above), recognized for the first time the Delivering as One model.³ UNIDO is one of 36 funds, programmes, specialized agencies and entities of the United Nations Secretariat involved in the initiative that presently covers over 50 countries. From the outset, it contributed to the design of Delivering as One programmes and other pillars of the approach and led, and continues to lead at the country level, a number of United Nations Development Assistance Framework working groups that correspond with the Organization’s thematic priorities. A report by the UNIDO Evaluation Group published in May found UNIDO to be “an important driver in promoting industrial development issues and responding to national priorities”.⁴

³ A/RES/67/226.

⁴ ODG/EVA/11/R.60

During 2012, UNIDO was able to implement over 90 per cent of its planned delivery including the \$5 million mobilized from One UN funds. This figure is likely to increase in 2013 as Member States strengthen their commitment to Delivering as One. There is a growing trend among Member States to wish to contribute to United Nations Trust Funds in preference to unilateral support to individual organizations and this required UNIDO to keep a high profile at donor partner and other meetings throughout the year. At the same time, its participation provided an opportunity for UNIDO to prove itself a worthy partner in this system-wide approach and further enhance its credibility both with Member States and within the United Nations system. As a result, UNIDO's inputs were taken fully into account in the various agreements relating to country programmes. UNIDO also signed, or extended, memoranda of understanding with the eight Delivering as One pilot countries and new self-starters including Indonesia, Kyrgyzstan, Malawi, Montenegro and Sierra Leone. Through an ongoing dialogue with UNDG working mechanisms at the regional and global level, UNIDO was able to ensure that its positions were similarly reflected in relevant system-wide agreements, policies and guidelines.

Our regional focus

The regional programmes

The presence in UNIDO of individual units with expertise in the sustainable industrial development challenges facing specific regions makes a crucial difference to the impact and

effectiveness of UNIDO technical cooperation. The regional programmes cooperate with specialists from the technical branches in the formulation, execution and monitoring of the Organization's projects and programmes, keep a watchful eye on what is going on in the countries under their purview and have a unique overall perspective of socio-economic conditions as well as activities related to industrial development in their region. They are the first port of call for representatives of Member States and other stakeholders approaching UNIDO for information about proposed or ongoing activities within their specific country. The following paragraphs describe briefly some of the additional activities in which they were involved in 2012.

Africa

One of the highlights of UNIDO activities in Africa in 2012 was the organization of a two-day conference on strategies to promote economic diversification, with a focus on investment in the agribusiness and pharmaceutical sectors. Held in Addis Ababa in June in cooperation with the Department of Trade and Industry of the African Union Commission, participants included over 200 African ministers of industry and industry experts as well as representatives of United Nations agencies, Regional Commissions, regional development banks and the private sector. A Business to Business Platform organized during the conference to showcase African companies involved in the agribusiness and pharmaceutical sectors led to a number of concrete arrangements for collaboration; three memorandums of understanding were actually signed during the conference. This was indicative of the wide interest expressed by both public and private

“In order to turn bright prospects into employment opportunities for its young people, Africa needs to embrace economic diversification.”

Kandeh K. Yumkella, Director General of UNIDO

sector participants to embark on joint venture partnerships. South-South linkages were also forged between emerging economies and African countries for funding and implementing technical cooperation in the two key sectors. Inter-African trade was discussed as well as the role of the state in improving the business environment among others through sound investment policies, efficient quality and standards and improved infrastructure.

Officials of the African Union visited UNIDO in September to attend the Asia 2050 round table (see below) and used the opportunity to discuss future plans. UNIDO agreed to work with the African Union on its inputs to the Fifth Tokyo International Conference on African Development that takes place in June 2013 and where UNIDO will hold a side event on a green growth strategy for Africa. UNIDO also undertook to approach African Union donors and partners in order to mobilize resources for the African Agribusiness and Agro-industries Development Initiative programme and to assist in the organization of the 2013 Conference of African Ministers of Industry.

July saw the signing of an agreement between UNIDO, the East African Community and IPACK-IMA—one of the world's foremost trade exhibition organizers—to hold a major processing and packaging exhibition in 2014 in Kenya. At the same time, the Director General of UNIDO and the Secretary-General of the Community examined potential areas for collaboration including ways in which UNIDO could assist in an industrial development strategy. Other key areas discussed included the implementation of the UNIDO Investment Monitoring Platform in the region, the establishment of a renewable energy centre, a new trade capacity-building programme, an industrial upgrading programme and technology transfer centre and a regional food value chain project.

Arab States

An important event in the Arab region in 2012 was a green technology exhibition and forum, held in Bahrain in March with the support of UNIDO. The first of its kind in the kingdom, the Bahrain Green Tech Expo 2012 was organized under the patronage of the Public Commission for the Protection of Marine Resources, Environment and Wildlife. The three-day event focused on renewable energies, water management, waste management and a green lifestyle, and allowed exhibitors from over 100 national and foreign companies to showcase their green consumer products, services and technologies. It also established a baseline for environmental projects from

which Bahrain could continue its development including the proposal that Bahrain could act as a regional hub for cleaner production. The Green Tech Expo in Bahrain was seen as the launch of a series of events, the next to take place in 2013, where once again, UNIDO will be closely involved.

Another event dealing with sustainable development was held in the United Arab Emirates in June. The Ajman 2nd International Environment Conference took place at the University of Science and Technology in the Emirate of Ajman. Under the theme, “An innovative approach to sustainability”, the conference brought together decision makers, regulators, private sector representatives, professionals, youth and intellectuals in a move to reach innovative and practical solutions for common challenges facing sustainable development. The conference also provided updates on the latest technology that could be implemented to contribute to sustainable development. UNIDO gave a keynote address on the subject of green growth, innovation and sustainable development and chaired the session on technology and innovation.

In Vienna, UNIDO played an active role in the 6th Arab-Austrian Economic Forum and International Conference entitled “Sudan and Europe: Prospects of cooperation for regional peace and development”. Held in October under the patronage of the Austrian Vice-Chancellor and Minister for European and International Affairs and the Minister of Foreign Affairs of Sudan, the high-level conference was the fifth in a series of conferences held in Vienna on sustainable peace in Sudan. With participants from 17 countries from Europe, the Arab region and Africa, discussions concentrated on ways to encourage foreign investments in Sudan in order to secure a prosperous future and stability for the entire region.

UNIDO's strategy for countries in the Arab world was presented to Member States at a special briefing in September as well as to Vienna's Diplomatic Academy the following month. In April, UNIDO discussed with representatives of the Chamber of Commerce and Industry of Brazil possibilities for South-South cooperation between Latin American and Arab countries.

Asia and the Pacific

The continent of Asia possibly displays a greater disparity in development than any other region. It includes a number of rapidly developing countries that have already achieved middle income status while at the same time it is home to some of the world's poorest countries. A round table held

in Vienna in September and organized by UNIDO in cooperation with the Asian Development Bank, the Austrian Research Foundation for International Development and the Austrian Federal Economic Chamber, examined ways to achieve sustainable and inclusive development in the region. Entitled “Asia 2050: the sustainable route to prosperity”, discussions addressed the issue of countries caught in the “middle-income trap”, where they find themselves unable to compete with either low-wage or advanced economies. The round table was attended by regional experts and policymakers from Asian countries, as well as international development practitioners, representatives of industry, academia and regional and international organizations and civil society organizations working in the fields of sustainable development, trade and commerce. In September, UNIDO signed a Joint Declaration with the Asian Development Bank to strengthen cooperation on research and technical cooperation projects.

Stability and prosperity was the topic of the high-level Fifth Regional Economic Cooperation Conference on Afghanistan, held in Dushanbe in March, that brought together representatives of more than 40 countries. The conference looked at ways to consolidate cooperation and partnership towards peace and prosperity in Afghanistan and reviewed a number of projects including 17 pipeline projects to which UNIDO had contributed. Keynote speakers included the Presidents of Afghanistan, the Islamic Republic of Iran, Pakistan and the host country, Tajikistan. UNIDO subsequently participated in the Tokyo Conference on Afghanistan hosted by Japan in July, where the Tokyo Mutual Accountability Framework was established to coordinate efforts on the part of the Government and the international community to secure economic growth and development in Afghanistan. The Tokyo Conference also established a regular cycle of meetings to ensure continued cooperation and coordination. UNIDO took part in a symposium on “A new silk road: Afghanistan beyond 2014 and US-Japan cooperation with South-Central Asia” held in parallel with the Tokyo Conference on Afghanistan.

As one of the follow-up activities to the visits from representatives of the University of International Business and Economics in Beijing in 2011 and 2012, UNIDO helped to prepare a working paper on future cooperation between UNIDO and China that elicited a very positive response from the Permanent Mission of China to UNIDO as well as related ministries in the capital. UNIDO also helped prepare a brochure in Chinese on 40 years of cooperation between UNIDO and China.

Europe and the Newly Independent States

The Europe and the Newly Independent States region extends over 25 million km², and includes around 480 million people in 31 countries that are highly diverse in terms of geography, population and socio-economic development.

Two countries of the region—Azerbaijan and Uzbekistan—requested assistance in 2012 in drawing up a framework for future cooperation with UNIDO. Development priorities identified in the Azerbaijan-UNIDO programme included the non-oil sector, environment and energy, investment promotion and the transfer of technology and strengthening infrastructure and the agro-industrial sectors. A draft country programme proposal for Uzbekistan focuses on modernization and upgrading, competitiveness of small and medium enterprises (SMEs), innovation and technology transfer, the development of SME clusters, export consortia and business linkages and the creation of an enabling business environment. A request received by UNIDO in 2011 from the Government of Kazakhstan resulted in the submission early in 2012 of a Kazakhstan Country Programme Framework 2012-2015, comprising several components. The component on the development of industrial enterprises in cooperation with the Damu Entrepreneurship Development Fund was approved and its implementation will start in 2013 (see also chapter 2). Other components of the country programme are currently under Government review.

One key UNIDO activity in the region is a \$2.2 million project, funded by the Russian Federation, to deepen international industrial cooperation and integration among countries of the Eurasian Economic Community. Launched in 2010, the project is designed to create a common economic space and is supported by recently created Centres for International Industrial Cooperation in Armenia, Belarus, Kazakhstan, Kyrgyzstan and Tajikistan. Representatives of Member States of the region were given an update on progress of the project at a special briefing in February.

Industrial parks have a vital role to play in showcasing new, sustainable technologies and practices. The contribution of a new generation of eco-industrial parks to the diversification of Eastern European and Central Asian economies was one of the topics of a conference held in Baku in April. Following the success of the recently opened Sumgait Technology Park, the Government of Azerbaijan requested UNIDO support in convening the two-day event to describe the innovative approaches and technical support offered by the Organization. Some 60 senior government representatives visited Sumgait to experience first-hand a modern eco-industrial park in operation.

“Cooperation between the EU and UNIDO

has produced tangible results in partner countries in stimulating economic diversification and competitiveness, and facilitating access to external markets by supporting compliance with international standards and norms.”

Joint Statement by the EU Commissioner for Development, Andris Piebalgs and the Director General of UNIDO, Kande K. Yumkella, October 2012

One of UNIDO’s long-standing partnerships—endorsed by the United Nations General Assembly—is with the Economic Cooperation Organization, an intergovernmental regional organization, initially established in 1985 by the Islamic Republic of Iran, Pakistan and Turkey to promote economic, technical and cultural cooperation among its Member States.⁵ In 2012, this cooperation moved up a notch with the appointment of focal points within the respective organizations and the formulation of an action plan identifying areas for joint initiatives. Support from the Economic Cooperation Organization for UNIDO projects will include funding, logistical support and technical assistance.

Ways to better coordinate work in the region was the topic of another meeting, held in September. It provided an opportunity for United Nations coordination officers in national and regional offices to connect with regional and global focal points, including the United Nations Development Operations Coordination Office and the Regional UNDG team.

Latin America and the Caribbean

One important initiative launched in the Latin America and Caribbean region in 2012 was designed to let countries know precisely where they stand in terms of green growth on a scale devised by the Organisation for Economic Co-operation and Development (OECD) as well as indicators for the region set by UNEP. Working with OECD, UNEP, CAF Development Bank of Latin America and the

Latin American and the Caribbean Economic System, UNIDO established a framework to monitor green growth in seven pilot countries—Colombia, Costa Rica, Ecuador, Guatemala, Mexico, Paraguay and Peru—and organized workshops, video conferences and online training to introduce the methodology, monitor progress and present preliminary reports on green growth indicators to senior government officials, international experts and the OECD secretariat.

Updated reports were presented to experts and policy-makers from the region during the Ecuador Resource Efficiency Week, organized by UNIDO in September in cooperation with the Ministry of Industry and Competitiveness of Ecuador and the Latin American Energy Association. Twenty countries of the region joined regional and national experts to exchange experiences on a range of subjects related to resource efficiency in a year declared by the United Nations as the International Year of Sustainable Energy for All. UNIDO co-organized three of the four events held during the week and participants were able to learn from the Organization’s extensive experience. The event concluded successfully with an agreement on a joint strategic proposal that asked UNIDO, inter alia, to identify donors to support green growth in Latin America and the Caribbean and to draw up an action plan for 2013-2014, based on the conclusions and recommendations of the various meetings taking place during the week.

Another important initiative was launched in 2012 to enhance the productivity and competitiveness of Uruguay’s agro-industrial sector. The first step of the \$1.8 million self-financed project is to provide the sector with qualified

⁵ Afghanistan, Azerbaijan, Iran (Islamic Republic of), Kazakhstan, Kyrgyzstan, Pakistan, Tajikistan, Turkey, Turkmenistan and Uzbekistan.

human resources in the field of automation technology and process control.

2012 saw the expansion of Latin America's Industrial Knowledge Bank—a multi-stakeholder cooperation mechanism to meet urgent technical cooperation needs in Latin America and the Caribbean—whose partners now include Argentina, Brazil, Colombia, Chile, Costa Rica, Cuba, Ecuador, Panama, Paraguay, Spain and Suriname. It continued to promote South-South cooperation by enhancing the exchange of expertise and know-how and acting as a knowledge wheel that allowed member institutions to play alternatively the role of donor and recipient. With a contribution from the Government of Spain, the Bank brokered over 40 technical cooperation arrangements with a total of 100 workweeks, at a quarter of the usual cost. Currently, the Bank has at its disposal over 400 workweeks of knowledge donated by over 30 associated organizations.

Our liaison function

UNIDO in Brussels

The role of the UNIDO Brussels Office is to strengthen the partnership between UNIDO and the European Union, its largest donor, as well as other development partners represented in Brussels. Its presence in the headquarters city of the European Union has paved the way for solid cooperation between the two institutions that combines policy dialogue and joint technical cooperation to developing countries. Over the past six years, the EU has provided over €100 million for projects implemented by UNIDO in 70 developing countries.

As a demonstration of this growing partnership, the two institutions agreed to hold their first high-level review meeting in Brussels in October, where the Director General of UNIDO and the EU Commissioner for Development, together with the European External Action Service, reaffirmed their conviction that the successful experiences of past cooperation should be replicated and new opportunities for cooperation developed in those areas of UNIDO's mandate that coincide with the EU Development Policy. The new EU development policy, "Agenda for Change" provides a solid basis for future cooperation since its concentration on inclusive growth and sustainable development closely corresponds with UNIDO's development priorities.

February saw the joint launch in Brussels by the EU and UNIDO of the Sustainable Energy for All initiative at the European Parliament and the adoption of a resolution in support of universal energy access by 2030. A few months later, the EU Sustainable Energy for All Summit took place in Brussels and was attended by the United Nations Secretary-General Ban Ki-moon, accompanied by the UNIDO Director General who chaired several dialogues with EU Ministers for Development Cooperation, moderated a session on catalysing growth and empowering change and gave a keynote speech on a gender and rights-based approach to energy access and governance. On this occasion, the President of the European Commission pledged €450 million for energy policies and projects in developing countries over the coming years. The EU repeatedly reiterated its support of the Sustainable Energy for All initiative at various events throughout the year, including Rio+20.

Discussions in February between the Director General and the European Commissioner for Agriculture on the topic of agribusiness in Africa led to a proposal for a joint agribusiness seminar in 2013. In June, the Director General attended the launch of the EU Resource Efficiency Platform established by the European Commissioner for the Environment. The EU was highly supportive of the UNIDO Green Industry Platform, launched later in the month at Rio+20 (see chapter 4). During discussions with the European Commissioner for Industry and Entrepreneurship in November on cooperation in Africa, the Commissioner pledged his support for the joint AU-EU-UNIDO high-level conference on industrial cooperation to be held in 2013, on the occasion of the Conference of African Ministers of Industry.

New agreements were signed in 2012 for major projects in Côte d'Ivoire (vocational training and youth employment), Haiti (national quality infrastructure), Mozambique (business environment support and trade facilitation) and in the Mediterranean region (regional conference on productive youth employment held in Tunis). A substantial volume of joint programming is under development and should lead to a significant increase in cooperation in 2013. In the framework of new EU programming for 2014-2020, more systematic consultations between EU representatives and UNIDO field officers on new joint activities were initiated during the year under review and will continue in 2013.

In addition to the development of EU-UNIDO cooperation, the UNIDO Representative in Brussels regularly presents UNIDO policies and activities to various audiences

ranging from parliamentarians to ambassadors and from industry to think tanks.

UNIDO in Geneva

With 22 international organizations located in Geneva as well as 23 Permanent Missions to UNIDO, the Organization's Geneva Office plays a key role in ensuring close coordination with sister agencies as well as those Member States not represented in Vienna, allowing an optimum communication and flow of information with Headquarters. It represented UNIDO at more than 110 conferences, events, workshops and seminars organized by the international community in Geneva. Contacts with civil society, academia and the private sector were maintained through participation in a wide range of events and workshops, including the International Geneva Luncheon Series, a forum for select senior-level managers, communications and policy practitioners to discuss current challenges in the multilateral system, together with scholars of international governance. Undergraduates attending the "study abroad" programme of the School for International Training in Vermont, United States, had an opportunity to learn about the work of UNIDO through special lectures given by the Geneva Office; high-school students listened to a presentation of UNIDO's energy initiatives at the popular United Nations Open Day in September.

In addition to regular contacts with sister bodies—in particular the Economic Commission for Europe, the United Nations Conference on Trade and Development, the International Labour Organization, the International Telecommunication Union (ITU) and the World Trade Organization—the Geneva Office took part in a number of working groups such as the United Nations Inter-Agency Cluster on Trade and Productive Capacity and the United Nations Special Programme for the Economies of Central Asia that led to the formulation of several technical cooperation projects in which UNIDO is involved. It also represented UNIDO at meetings of the Enhanced Integrated Framework.

In the field of pharmaceuticals and essential medicines, UNIDO stepped up cooperation with the Joint United Nations Programme on HIV/AIDS, the World Health Organization and UNITAID, an international drug purchase facility that provides long-term funding for the treatment of HIV/AIDS, malaria and tuberculosis in developing

countries. Through its Geneva Office, UNIDO helped organize a special session of the fifth African Union Conference of Ministers of Health, held in Geneva in May. The conference discussed and endorsed the business plan of the Pharmaceutical Manufacturing Plan for Africa, prepared with the assistance of UNIDO.

An agreement was signed in April between the executive heads of the World Intellectual Property Organization and UNIDO to strengthen the development of joint activities in areas relating to science and technology, innovation promotion, private sector development and trade capacity-building. The two organizations will work together to help strengthen the capacity of developing countries to use science, technology and innovation in addressing key development challenges related to agriculture, energy, water, public health and the world's oceans.

Through its close interaction with other bodies in the United Nations system, UNIDO's Geneva Office provides crucial information to Headquarters on the basis of which the management can take decisions, adopt strategies and approaches, develop technical cooperation projects and play a meaningful role in global forum activities. In 2012, the Geneva Office provided support for 65 missions undertaken by UNIDO staff to attend multilateral meetings and hold discussions with sister agencies. A series of meetings took place with the Joint Inspection Unit and ITU with a view to comparing experiences and best practices in the application of enterprise resource planning systems.

UNIDO in New York

Through its proximity to the United Nations headquarters, the General Assembly and other decision-making organs, the role of the UNIDO Office in New York is fourfold: it strategically positions UNIDO in intergovernmental and inter-agency processes and international development debates; it coordinates the collaboration of UNIDO with the United Nations system; it increases the visibility of UNIDO vis-à-vis Member States as an effective player on the international development stage; and it provides analytical and programmatic support to the Director General and Headquarters staff. 2012—the International Year of Sustainable Energy for All—called for special initiatives to showcase both UNIDO's achievements and its value as a partner. Permanent Missions to the United Nations received a briefing in February as a lead-up to Rio+20 and in April attended a seminar organized

by UNIDO with support from the Governments of Germany, the Philippines and Switzerland, on the contribution of resource and energy efficiency to sustainable development in the context of Rio+20. The seminar introduced participants to UNIDO's Green Industry Initiative and presented them with key findings of the *UNIDO Industrial Development Report 2011* entitled "Industrial Energy Efficiency for Sustainable Wealth Creation: Capturing Environmental, Economic and Social Dividends".

In June, the Director of the New York Office made a keynote speech at an annual conference organized by the Sustainable Energy Fund, an independent, non-profit organization based in Pennsylvania, United States, putting forward the case for a green industry revolution. The aim of the conference was to discuss sustainable energy at the local, state, and national level under the heading "America's Sustainable Energy Future". At the same time, it looked at how the country's efforts to establish a sustainable energy future were linked to those of the United Nations at the global level. The conference also provided a platform to promote the Sustainable Energy for All initiative as well as UNIDO's Green Industry Initiative and Platform. UNIDO continued to cooperate with the Sustainable Energy Fund six months later, when the two organizations held an energy event in Philadelphia, United States, to raise awareness of the Sustainable Energy for All initiative and encourage action by various stakeholders. Representatives of the United Nations, Government, including the United States Department of State, the private sector, academia, industry professionals and civil society discussed the challenges of implementing the initiative at the global and local levels in a high-level debate moderated by UNIDO. The event provided an opportunity for UNIDO to advocate its work on sustainable energy inside and outside the United Nations system.

November saw a discussion on the role industrialization and intra-African trade play in the development of the continent in order to galvanize international support from key stakeholders, including Governments, the private sector, civil society and academia. The event took place at the United Nations headquarters on the occasion of Africa Industrialization Day on 20 November, and was moderated by the Under-Secretary-General and Special Advisor on Africa and attended by over 100 participants.

A strong, sustained, physical and intellectual presence in New York allows UNIDO to strategically position the Organization in many of the United Nations policymaking organs, in particular the General Assembly, as well as the

Economic and Social Council. This presence was essential during the informal consultations to draft the outcome document for the Rio+20 Summit. It also allows UNIDO to play an active role in various intergovernmental and inter-agency advisory panels, task forces and working groups, many of which have assumed lead roles in defining the post-2015 development agenda. Among other things, UNIDO was entrusted with co-leading the global thematic consultation on energy to provide a vision and concrete recommendations on how energy should be reflected in the development agenda beyond 2015. The New York Office continued to provide effective and substantive support to UNDG, particularly the Advisory Group, its Working Group on Resident Coordinator System Issues, of which the Director of the New York Office serves as Co-Convenor, and as Chair of the UNDG Reference Group on the Management and Accountability System Review.

UNIDO was also represented at the Intersessional Meeting of the Inter-Agency Network on Women and Gender Equality, held in September in New York, to ensure an appropriate gender perspective in the post-2015 development agenda. A follow-up meeting in December, attended by experts on gender issues from UNIDO Headquarters, ensured that issues advocated by UNIDO would ultimately be reflected in the recommendations emanating from the UNDG thematic consultation on inequalities, particularly with regard to the economic empowerment of women and energy. As a follow-up to this meeting, the UNIDO New York Office actively engaged in the Expert Group Meeting on Applying a Gender Equality Perspective to the Post-2015 Development Framework and the SDGs, held in December in collaboration with UNIDO Headquarters focal points on the thematic consultation on inequalities.

Our voice

As in the past, UNIDO used a range of communication tools to highlight the impact of its projects and increase its visibility. In 2012, these tools included over 140 press releases and the production of multimedia features, including video news reports that are available on UNIDO's YouTube account. The Organization's Twitter and Facebook accounts had over 12,000 and 3,000 followers respectively by the end of the year, the result of special efforts to develop a strong UNIDO presence in the social media. UNIDO also took time to research and showcase the human angle of its projects and programmes in the field.



The UNIDO website was overhauled with a fresh focus on “One UNIDO” rather than its different branches and divisions, and improved security as well as content. Basic information on the website will be available next year in Chinese, French and Spanish. Special attention was paid to highlighting UNIDO’s global forum function at high-level events during the year, including Rio+20 and the South-South Development Expo.

In July, the BBC World Service *Rendezvous with Zeinab Badawi* featured the Director General, together with the Chairman of Bank of America, Chad Holliday, and the wife of former British Prime Minister, Cherie Blair, who runs a foundation focusing on women’s empowerment. On another popular show—CNN’s *African Voices*—close to 200 million people around the world heard the voice of UNIDO as they watched a 30-minute feature about UNIDO’s Director General that can also be viewed on YouTube. UNIDO provided advocacy and communication support to the Sustainable Energy for All initiative at launches in Abu Dhabi, Accra, Brussels, Nairobi and New Delhi, to name a few, and produced videos featuring

UNIDO Goodwill Ambassadors Rajendra Pachauri and Marcos Pontes.

Printed information material this year included four issues of *Making It* magazine. In addition to French and Spanish, selected issues were translated into Chinese, in cooperation with China’s Ministry of Commerce. The magazine website featured all print articles and additional original content; through its dedicated Facebook, Twitter and LinkedIn accounts, the magazine conveyed UNIDO’s key messages to a worldwide public, creating a network of devoted followers. The *UNIDO Times* newsletter was also issued regularly. A book about UNIDO, published by Routledge, was distributed to Member States and key counterparts and the launch of *Agribusiness for Africa’s Prosperity* was organized in various cities worldwide.

Headquarters staff and UNIDO stakeholders welcomed news from UNIDO’s field offices in the form of press releases, interviews with local media and other initiatives to present UNIDO’s activities to a broader public. Of particular note were the efforts made by the UNIDO Offices in Lebanon, Nigeria and Viet Nam to provide regular updates.



The path out of poverty

Poverty kills. It starves. It maims. It isolates. And it defines the lives of some 1.3 billion people who, according to World Bank figures, remain below the extreme poverty line with an income of no more than \$1.25 a day; a further 2.6 billion manage to survive on less than \$2 a day.

For the international community, the fight against poverty is the most pressing issue we are facing today. The Millennium Development Goals set 2015 as the finishing line in the race to halve the number of people suffering extreme poverty and each organization within the United Nations system is doing its part to ensure that this becomes reality. The UNIDO approach is best summed up in the words of the Director General:

“When people ask whether UNIDO is relevant, or whether industrialization is relevant in fighting poverty, we must base our answer not on ideology, but on evidence—on the evidence given by the demand for our services. This demand is vast. No nation can fight poverty without creating wealth, and no nation can create the jobs that the youth of today needs without structural change. You may disagree with industrial policy, but you cannot disagree with the realities of the world ... Development should not be about aid alone, but about creating opportunities for people”.

The present chapter describes a cross-section of activities undertaken by UNIDO in the year under review that create these opportunities and help bring the United Nations system one step closer to meeting its targets.

Business, investment and technology services

From the beginnings of mankind, technological innovation and investment have played a key role in human development. For UNIDO, these are two vital tools in its contribution to reducing poverty and improving livelihoods in its client countries and form the backbone of its poverty reduction programme.

Africa remains the continent with the highest overall incidence of poverty and UNIDO has put in place a wealth of measures to address the specific challenges facing the continent. Information from surveys carried out by UNIDO in individual African countries are aggregated in African investor surveys produced periodically by UNIDO. The African Investor Survey 2011 provides information on over 7,000 enterprises in 20 African countries as well as the quality investments that stimulate the long-term development of local small and medium enterprises (SMEs). The survey allows participating countries to assess their own needs for improving the investment climate and designing the appropriate interventions. Results of the survey are given in

The *Africa Investor Report 2011: Towards evidence-based investment promotion strategies* published early in 2012 in partnership with the European Union Commission and launched in Brussels in February where it was showcased later in the year during the European Development Days (see below).

Another survey that was completed during the year and aroused considerable interest was the Viet Nam Industry Investor Survey 2011. It was one of the outcomes of a project completed in 2012 to increase investment flows to Viet Nam. The aim of the project was to concentrate on the quality of investments, measured in terms of the impact of foreign direct investment on the domestic economy, rather than simply on quantity. The Viet Nam Industry Investor Survey involved a sample of 1,494 foreign and domestic enterprises from nine provinces in the country. Questionnaires were distributed and the extensive data checked and validated in cooperation with the General Statistics Office and the Provincial Statistics Offices. The project also included the design, launch and maintenance of the Viet Nam Investment Monitoring Platform that serves as a web-based repository of survey data available for analysis. UNIDO provided training on the Platform to a wide range of users.

The *Viet Nam Investment Report 2011*, prepared in collaboration with the country's Ministry of Planning and Investment, was published in 2012 and received a resounding echo in the Vietnamese media. Entitled *Understanding the impact of foreign direct investment on industrial development*, the report addresses the role and impact of foreign direct investment on employment and skill formation, foreign trade, productivity and the creation of backward and forward linkages. It is a useful tool for policymakers in drawing up industrial policies and investment promotion

strategies at a critical juncture in Viet Nam's industrial development process.

In undertaking its investment-related activities and reporting on their outcomes, UNIDO cooperates with a number of academic institutions including the Copenhagen Business School in Denmark, the Universities of Florence and Parma in Italy and the University of Manchester in the United Kingdom. An international workshop on the economics of global interaction was organized by the UNIDO Institute for Capacity Development in collaboration with the University of Bari Aldo Moro in Italy, where UNIDO presented the main results of a joint research project on foreign direct investment in Africa. The following month, UNIDO co-sponsored an international seminar organized by the Ecuadorian Intellectual Property Institute on Ecuador and its origin-based products: implementing intellectual property as a mechanism for development. Held in Guayaquil, Ecuador, the seminar helped highlight UNIDO's role in the promotion of typical products with a geographical indication. In October, UNIDO held a training course at the International Training Centre of the International Labour Organization (ILO) in Turin, Italy, for French-speaking countries in Africa, in cooperation with the Food and Agriculture Organization of the United Nations (FAO) and the World Intellectual Property Organization (WIPO).

UNIDO Investment and Technology Promotion Offices

During the year under review, UNIDO's Investment and Technology Promotion Offices (ITPOs) continued to play



■ The ITPO Bahrain pavilion showcased the accomplishments of 35 Arab entrepreneurs from eight countries and displayed agricultural produce and services.

a key role in building support for UNIDO within their respective regions. Located in seven countries,⁸ they provide unique services to entrepreneurs and business institutions and open the door for investors and technology suppliers to identify potential partners. They guide potential investors at each stage of the investment cycle and in so doing, offer a full package of information on investment opportunities. ITPOs have the advantage of first-hand knowledge on how to do business in local environments and are well versed in both legal and economic issues.

Through its ITPO in Bahrain, UNIDO co-sponsored the eighth Bahrain International Garden Show, held in Manama in January under the theme of sustainable food security. The event fostered linkages between Arab and foreign entrepreneurs and drew attention to the urgent need for sustainable food security in the region. UNIDO was praised for its relentless efforts in strengthening and empowering entrepreneurs locally, regionally and internationally in all sectors of the economy. The ITPO Bahrain pavilion showcased the accomplishments of 35 Arab entrepreneurs from eight countries and displayed agricultural produce and services ranging from seeds, flowers and organic fruits and vegetables, to the latest trends in landscaping. The design of the pavilion was inspired by a traditional Bahraini home and received first prize for epitomizing the show's theme of sustainable food security. Arab entrepreneurs gained exposure to best practices in areas such as water management and could explore possibilities of joint cooperation and investments in the agricultural sector.

UNIDO has two ITPOs in China, one in Beijing and the other in Shanghai. The ITPO in Beijing provided support during the year for a joint initiative between China and the Netherlands to harness tidal power to generate clean energy for domestic use in millions of homes using a technology known as dynamic tidal power. A consortium of Dutch companies and universities joined a group of Chinese companies and research institutes to carry out studies, with ITPO Beijing in the role of neutral broker and coordinator. Together with the Ministry of Commerce and the Shanghai Municipal Commission of Commerce, the Shanghai Investment Promotion Centre co-organized the BRICS investment and trade forum that took place in Shanghai in October. It was attended by some 160 representatives from the five BRICS countries: Brazil, Russian Federation, India, China and South Africa.

⁸ Currently, UNIDO maintains investment promotion offices in Bahrain, China, France, Italy, Japan, Republic of Korea and the Russian Federation.

ITPO Italy played a key role in bringing together UNIDO, the East African Community and IPACK-IMA, one of the world's leading organizers of trade fairs for the processing and packaging technology industries (see chapter 1 and below). A letter of intent was signed by the three organizations in July to promote food safety and security in Africa. ITPO Italy was also closely involved in the Iraq Trade and Investment Forum, organized by UNIDO and the Italian Ministry of Foreign Affairs to present business opportunities in Iraq to Italian companies. A similar event focused on industrial partnerships between Italy and Ethiopia. UNIDO described a number of its projects in Ethiopia that would benefit from such partnerships. In October, ITPO Italy organized a study tour for a delegation of entrepreneurs from India, supported by the Indian Finished Leather Manufacturers and Exporters Association, to the Italian tannery district of Santa Croce sull'Arno.

During the United Nations Conference on Sustainable Development that took place in June in Rio de Janeiro, Brazil (see also chapter 4), a team of UNIDO Headquarters staff joined ITPO Japan to organize a green technology exhibition, with the support of the Government of Japan, that showcased a selection of innovative environmental technologies, identified under the Green Industry Initiative. The exhibition demonstrated good practices and successful solutions for improving resource efficiency and pollution control technologies in industry that could be transferred to other countries to help them cope with environmental challenges. The exhibition attracted over 18,000 guests with more than 3,000 visiting the UNIDO booth. Japanese companies participating in the exhibition reported 342 bilateral meetings and interactions with visitors. At the Green Innovation EXPO 2012 held in Tokyo in November, ITPO Japan organized a UNIDO booth on the theme "Green Industry and Water Management". Delegates in charge of water management from Cambodia, Russian Federation, Sri Lanka and Viet Nam attended the event at the invitation of ITPO Japan.

In September, ITPO Republic of Korea held a trade and investment seminar in Seoul for Latin America at the Ulsan Chamber of Commerce and Industry. Representatives of the embassies of Argentina, Colombia, Ecuador and Mexico were introduced to the local investment environment and were shown opportunities for expansion into foreign markets. Around 40 representatives of local businesses also attended the seminar. In November, ITPO Republic of Korea was joined by Chonbuk National University in Jeonju City in organizing a workshop to raise understanding among

university students from regions outside the capital of the work of United Nations organizations represented in Seoul. Four United Nations organizations took part in the workshop, that was part of the office's outreach programme. Students were also given a thorough briefing on the role of investment and technology promotion.

The UNIDO Centre for International Industrial Cooperation in Moscow organized a meeting of heads of ITPOs in October to discuss new options for the ITPO network in the context of the Organization's current technical cooperation services and global forum activities. Joining the annual ITPO meeting were two special guests: the former Russian cosmonaut, Sergei Avdeev, who spent over 747 days orbiting the earth, and UNIDO Goodwill Ambassador and pioneer Brazilian astronaut, Marcos Pontes. Sergei Avdeev took part in a presentation entitled "The ecology of our planet—the view from space", while Marcos Pontes presented an inspiring project for creating an eco-state in Roraima, the northernmost and least populated state of Brazil. The meeting also reviewed progress on a project to create a common space for countries of the

Eurasian Economic Community by setting up an ITPO network in the region that would encourage international industrial cooperation and the flow of investment and technology and expand the network's geographical coverage to emerging donors. Implemented by the UNIDO Centre for International Industrial Cooperation, the initiative has paved the way for future ITPOs in Armenia, Belarus and Kazakhstan.

Clusters and business linkages

For all too many developing countries, the wages of workers forced to seek employment outside their country—and often outside the continent—represent a lifeline to families who would otherwise be living in abject poverty. The establishment of local businesses not only creates jobs that secure livelihoods, but enables families to stay together and build a common future.

With a team of experts dedicated to promoting the development of SME clusters, UNIDO is well placed to meet

■ UNIDO assistance in Iraq has gone a long way towards rebuilding a private sector that had been badly affected by years of economic sanctions and instability. Funded by Italy, two projects were completed at the end of the year involving investment promotion and enterprise development through information and communication technology. The core objective of the projects, which built on the success of an earlier UNIDO enterprise development and investment promotion project, was to revitalize the private sector, particularly SMEs. The primary focus was on employment generation. Under the projects, enterprise development centres to assist Iraqi SMEs were established in three governorates: Baghdad (Ministry of Industry and Minerals), Dhi Qar (Nassiriya Chamber of Commerce) and the Kurdistan region of Erbil (Ministry of Trade and Industry). They now operate under a cost-sharing arrangement with a certain level of autonomy that bodes well for their sustainability. Teams of local experts trained by UNIDO provided capacity-building to nearly 600 Iraqi entrepreneurs. Almost all the SMEs that benefited from the business advice and investment promotion services offered by the enterprise development centres reported a high level of satisfaction. In addition to the 422 enterprises immediately targeted by the project, UNIDO provided support to an additional 189 new or existing SMEs, creating over 1,000 jobs. More than 100 SMEs took part in study tours and fairs, leading in turn to 739 bilateral business talks during which 35 international partnership agreements were signed with an estimated investment of \$7 million. The projects also prepared 68 investment opportunity profiles. Fully operational Subcontracting and Partnership Exchange Centres in the three governorates have demonstrated to local staff how to match suppliers to buyers, while 149 e-learning courses were arranged with the Telematic University, UNINETTUNO in Rome. The e-learning portal bundles different UNIDO training modules for enterprise development, subcontracting and partnership exchange, investment promotion and investment appraisal and makes them available to a potentially unlimited group of beneficiaries.

this challenge. During the year under review, UNIDO focused on micro, small and medium enterprises (MSMEs), ensuring, in particular, that businesses struggling to survive were able to link up with similar businesses through the creation of networks, business clusters and consortia. The aim was to enable MSMEs to compete both on domestic and international markets. At the same time, UNIDO continued to support public-private partnerships with a special focus on agro-based industries, construction materials and the automotive sector.

A conference on clusters as drivers for economic and social development in the Mediterranean area took place in June in Izmir, Turkey. It was organized jointly by UNIDO, the Aegean Exporters' Association and the non-governmental Competitiveness Institute, the leading global network for practitioners, policymakers, researchers and business leaders involved in improving competitiveness in regions and clusters. UNIDO shared its experience on the development, monitoring and evaluation of cluster projects with 200 participants from over 15 countries. UNIDO and TCI Network—a non-governmental organization dedicated to

the improvement of clusters—are currently discussing possibilities for future cooperation on cluster development.

UNIDO had another opportunity to promote its cluster approach in October at the Confederation of Indian Industry's fifth national cluster summit where its presentation on cluster development and upgrading led to discussions on a joint project with the Confederation of Indian Industry on industrial maintenance and collaboration on study tours, whereby experts from other UNIDO projects would receive training in India.

Montenegro is in the final stage of transition to a market economy and is able to attract direct foreign investment despite a recent recession. Nevertheless, there are many SMEs that have the potential to contribute more to the national economy. As part of the Integrated United Nations Programme for Montenegro that addresses social inclusion, democratic governance, sustainable economic development and environmental protection, UNIDO, together with other UN agencies, embarked on a programme to enable a more equitable integration of SMEs into domestic and regional value and supply chains. As a first step, it mapped all business

■ Despite favourable agricultural and climatic conditions for the production of oilseed, the edible oil processing industry in Ethiopia has not yet realized its potential. Low production and quality, inadequate trading infrastructure and facilities, weak business development services and a lack of finance were some of the obstacles facing UNIDO when, in collaboration with ILO and FAO, it embarked on a project in 2010 to enhance the sustainable supply of high quality raw materials, introduce more efficient processing and improve access to markets by the effective integration of the private sector in the entire edible oil value chain. The recently completed \$1 million project, funded by Spain under the Millennium Development Goals Achievement Fund, has taken the Ethiopian small-scale oil industry to a higher level. UNIDO has helped group small-scale oil processors into clusters to ensure that they obtain a better supply of raw materials, improve the quality of their products and foster linkages between farmers and SMEs. By working together, over 70 small-scale edible oil processors were in a better position to purchase raw materials and supply more than 3 million litres of edible oil to refineries in the capital. They are currently in the process of establishing their own refineries and relocating to an industrial zone where they can benefit from joint services such as storage, waste treatment and packaging.

clusters in Montenegro. Guided by the UNIDO cluster development methodology, the Government adopted a strategy for sustainable economic growth through the introduction of business clusters by the end of 2016. The strategy contains a concrete set of measures for increasing the competitiveness and market access of selected SME clusters and networks. UNIDO conducted preparatory assessments across a wide range of clusters and initiated pilot activities in selected clusters that are still ongoing.

Public-private partnerships

A public-private partnership is a long-term contractual agreement between a public agency and a private sector body. Through this agreement, the skills and assets of each sector are shared in delivering a service or facility for the use of the general public. In addition to pooling resources, each party participates in the risks and rewards involved in the delivery of the service or facility. The principle behind a pro-poor public-private partnership is that there are no losers. On the one side, it opens the door to new market opportunities for suppliers in developing countries, while on the other it guarantees the partner in the industrialized

country a sustainable local supplier base under favourable conditions.

UNIDO's Sustainable Supplier Development Programme was drawn up in cooperation with the German retailer, METRO Group, to enable suppliers to meet internationally recognized food safety and quality standards promulgated by the Global Food Safety Initiative (GFSI), a non profit-making foundation set up in 2000 to harmonize food safety standards. The capacity-building programme is sustainable through a business model whereby all stakeholders, including the United Nations, Governments, the private sector, donors and academia, contribute either in kind or financially. The success of the Sustainable Supplier Development Programme led to its expansion into the non-food sector as well as environmental, social and ethical issues.

UNIDO attended the 2012 GFSI Food Safety Conference that took place in February in Orlando, United States, where it shared its successful sustainable supplier development experiences involving GFSI and METRO Group in Egypt, India and the Russian Federation. In the latter country, suppliers have shown a remarkable improvement in their compliance with food safety standards and good agricultural practices resulting in an improvement in both the quality and volume of marketable products. At the same time, consumers have

■ Egypt's high-end export and formal domestic markets are beyond the reach of fruit and vegetable growers in Upper Egypt where the absence of pro-poor policies, the increasing marginalization of farmers and workers and the inefficiency of the horticultural value chains have led to an increase in poverty. In an effort to reverse this situation, a joint programme supported by the Millennium Development Goals Achievement Fund (MDG-F) was designed to improve the efficiency of the horticulture and agribusiness sector with UNIDO in a key role. Working with the United Nations Development Programme (UNDP), the United Nations Entity for Gender Equality and the Empowerment of Women and ILO and in partnership with the country's Ministry of Industry and Trade and Ministry of Investment, UNIDO is helping to improve the access of small farmers to domestic and export markets. This in turn will lead to the creation of decent and productive employment in the region for both men and women. The programme is building viable partnerships between farmers and private sector investors in efficient pro-poor horticulture value chains in three locations in the poorest governorates of Upper Egypt and encouraging the establishment of entrepreneurial forms of organization by small farmers. The project is also working closely with the Government to introduce the policy and regulatory changes that will promote pro-poor private sector-based growth in the region's horticultural sector.

benefited from better and safer products and can look forward to more stable food prices. METRO Group has signed contracts with the majority of the upgraded suppliers.

At the Viet Nam Summit, organized in Hanoi in January by Economist Conferences—the conference arm of *The Economist*—UNIDO took part in a foreign investor panel moderated by the Editorial Director for Asia and Pacific of the Economist Intelligence Unit and gave a presentation on investments and partnerships in the industrial sector.

Later in the year, UNIDO had the chance to showcase its Sustainable Supplier Development Programme during other forums. At a meeting of United Nations System Private Sector Focal Points in Vienna in March, UNIDO described the public-private partnership with HOLCIM—one of the world's largest cement suppliers—that involves microfinance schemes and training within the One UN project on sustainable housing in San Salvador. It reported that HOLCIM had expressed an interest in replicating the programme in other countries of the region.

In July, the Organization described its experience in supplier development in the automotive, food, textiles and other sectors, to participants at an international conference in San Salvador. The Supplier Development Conference was organized by the Inter-American Development Bank.

UNIDO public-private partnerships, in particular with METRO Group, were also presented at European Development Days, a two-day forum on international affairs and development cooperation, held in October at the headquarters of the EU in Brussels. Wide media coverage opened the door to potential partnerships with donors, NGOs and private sector companies.

In addition to the examples already mentioned, UNIDO endeavours to protect the sustainability of supply chains through partnerships with international companies. Negotiations are under way with top retailers such as the Swedish clothing company H&M on the development of a joint project on integrating socially and environmentally sustainable business practices in the textiles supply chain in Turkey; with the British retailer Marks & Spencer for joint project development based on the UNIDO sustainable supplier development approach; with the United States retailer Walmart for sustainable supplier development in the Russian Federation; and with South Africa's supermarket chain store Pick n Pay to run a similar programme in Africa. Details of UNIDO cooperation with Japan's AEON Group are given in chapter 3, while partnerships with other large companies are mentioned elsewhere in the *Report*.

So far, the programme has reached more than 2,000 beneficiaries in 17 farmers' associations. Results achieved have been extremely encouraging with a 30 per cent increase in productivity for the five main horticultural crops and reports of lower production costs from 80 per cent of the farmers. Laboratory analyses have revealed that three-quarters of the farmers have managed to produce pesticide-free pomegranates, priced significantly higher than the market rate. Pilot greenhouses have been set up and new activities introduced such as sun-dried tomatoes and marketing of pomegranate arils that will add value to the harvest. The programme is also working on reducing technical barriers to trade by helping farmers to implement international quality and food safety management systems and through capacity-building among women to meet the requirements of the United Nations Gender Equity Seal by April 2013. The programme has also assisted 1,200 farmers in marketing their produce to exporters, processors and wholesale traders with a total revenue of 40 million Egyptian pounds for the current year. Since an estimated three-quarters of those employed in the sector are women, the programme set up women's committees in each of the farmers' associations and entrepreneurship training has enabled 80 women to start their own micro-businesses. The programme is also addressing the needs of local youth and so far has put over 150 recent graduates of agricultural faculties in touch with job markets.



■ Fifteen years ago, the United Nations Educational, Scientific and Cultural Organization (UNESCO) designated some two million hectares in northern Nicaragua as a UNESCO protected biosphere reserve. The Bosawás Biosphere Reserve, one of Latin America’s ecological treasures, is rich in biodiversity and is largely unexplored. Harpy eagles, giant anteaters, jaguars, pumas, Central American spider monkeys, Beard’s tapirs, macaws—many of them rare and endangered species—inhabit the region together with over 150,000 species of insects. The reserve is also home to some 30,000 indigenous Mayangna and Miskito people who live along the riverbanks and eke out a living through subsistence farming. They have been joined by impoverished farmers migrating in ever greater numbers from other areas, causing deforestation through overgrazing and their use of slash and burn agriculture. With repercussions for global climate, the preservation of Bosawás is gradually becoming a matter of urgency.

Financed by the Government of Spain through the MDG-F, a United Nations joint programme has improved the livelihood of numerous families by increasing incomes and services to rural populations, while at the same time enlisting the communities themselves to manage the watershed and other natural resources. The four-year programme that ended in 2012 was a collaboration between the Government of Nicaragua, UNIDO and six other United Nations programmes or agencies: UNDP, the United Nations Environment Programme, the United Nations Children’s Fund (UNICEF), the World Food Programme (WFP), UNESCO, the World Health Organization as well as the Pan American Health Organization.

UNIDO’s involvement was mainly related to the production of cocoa. The Organization put in place collection centres, set up plant nurseries and revitalized and extended plantations. It organized 266 families involved in cocoa production into 18 producer networks to allow an exchange of experiences, shared materials and equipment and introduced joint marketing activities. Through the new networks, cocoa producers now work in a more organized and collaborative way and better manage the various processes involved in cocoa production, including storage and post-harvest management. Improved, stable quality and a higher output places them well on the way to reaching competitive markets that offer better prices for their products. UNIDO is currently seeking to replicate the best practices and lessons learned from this project in a larger value chain development project with public and private sector partners.

UNIDO has been working closely with stakeholders in Ghana and Kenya to put in place strategies for the pharmaceutical sector and has worked at the company level in Botswana, Cameroon and Ghana. It is also engaging with various policymaking bodies at the global, regional and sub-regional level and is a member of the Southern African Development Community's pharmaceutical task force. Recently, UNIDO entered into a partnership with the African Union Commission to help accelerate the implementation of the Pharmaceutical Manufacturing Plan for Africa. Drawing on experience gained from a global project to strengthen the local production of essential medicines in developing countries, UNIDO and the African Union Commission drafted a business plan that laid out a coordinated approach towards fostering the local manufacturing of essential medicines in Africa at large. The final plan was discussed at a meeting of partners in May and approved first by the African Union Ministers of Health and endorsed by the African Union Heads of State at their July summit.

UNIDO was invited by the African Union Commission to continue its support towards an early implementation of the business plan. A meeting in Vienna in November led to the formation of a consortium of core implementation partners including UNDP, the Joint United Nations Programme of HIV/AIDS, WHO and the African Development Bank and as well as other organizations involved. Further activities include the development of solution packages, resource mobilization and awareness-raising at various levels.

Agribusiness and rural entrepreneurship development

Agribusiness

The Organization's agribusiness activities focus on strengthening the food processing sector in developing countries in order to increase the availability of wholesome and nutritious food both for the local market, contributing to national food security, as well as international markets, in order to generate income and create wealth. UNIDO plays a prominent role on the international agribusiness development stage and is a lead agency in the African Agribusiness and Agro-industries Development Initiative (3ADI).

UNIDO took part in a number of global conferences on agribusiness during the year where it could share its knowledge and experience with others and in turn learn from their experiences. In February, the Director General highlighted UNIDO's contribution to promoting food safety and food security in Africa from farm gate to consumer at an international conference on processing and packaging technologies. Held in Milan, Italy, the conference was organized by IPACK-IMA with the support of WFP, FAO, the International Fund for Agricultural Development (IFAD) and UNIDO (see above). In the same month, UNIDO made a presentation at the International Food, Agriculture and Gastronomy Congress held in Antalya, Turkey, and took part in an international food safety conference and exhibition in Dubai. In June, the Organization attended the third African, Caribbean and Pacific (ACP) Fisheries Ministers Meeting, held in Nadi, Fiji, and organized a side event at the second conference of the Global Cassava Partnership for the 21st century that took place in Kampala in July.

In September, UNIDO presented a paper at the 2012 Poverty Reduction, Equity, and Growth Network's conference entitled *Beyond Corporate Social Responsibility: public-private partnerships in agroindustry development*. The theme of the Conference, held in Dakar, was "How to make African economic lions: tapping Africa's growth and poverty reduction potentials" (see also chapter 5). UNIDO gave a presentation on the options for building competitive economies in a changing world. At the Eighth Africa Development Forum that took place in Addis Ababa in October, UNIDO made a keynote address at a round table on fishery resources. In November, UNIDO hosted the Global South-South Development Expo 2012 (see below).

Value chains

With its proven expertise and experience in designing and carrying out programmes for the development of the agro-industries sector, UNIDO is ideally placed to lead partnerships at the national level and engage chain actors and development partners.

During the year under review, UNIDO continued to work with other development agencies to find innovative solutions to challenges facing the food industries of its client countries. One particular area of focus was the development of value chains and investment in agribusiness to enhance productive capacities and reduce post-harvest

losses. UNIDO's agro-industrial specialists were responsible for identifying and strengthening food value chains by conducting gap analyses and designing programmes to allow access to appropriate technologies, business development services, financing, markets and trade opportunities. UNIDO co-organized an international conference entitled "Making the connections: Value chains to transform small-holder agriculture", held in Addis Ababa in November, that drew over 500 participants. Value chains that received special attention in 2012 included cashew nuts (United Republic of Tanzania), dairy products (Iraq, Rwanda), fisheries (Bangladesh, Sudan), fruits and vegetables (Democratic People's Republic of Korea, Ethiopia, United Republic of Tanzania), meat (Mongolia, United Republic of Tanzania) and palm oil (Cameroon, Congo). A survey of post-harvest losses undertaken by UNIDO in countries belonging to the Association of Southeast Asian Nations (ASEAN) led to

the formulation of a post-harvest loss prevention programme (see box below).

The year under review saw the publication of a brochure entitled *Pro-poor value chain development: 25 guiding questions for designing and implementing agroindustry projects*. Prepared in cooperation with IFAD and the Danish Institute of International Studies, the practitioner's guide examines the role of value chains in development strategies. The guide builds on a review of common practices in value chain development projects in Asia and the Pacific region as well as on experience from six case studies of projects in Indonesia, Sri Lanka and Viet Nam. The questions, checklists and tools drew on project design and analysis over the past decade and made use of the many existing tools on the market, all of which had been tested in the field.

■ Despite growing populations, the world produces sufficient food to ensure that no one should go hungry. The reason why 925 million people are undernourished clearly lies elsewhere. The solution is not to increase agricultural production, which would take an inevitable toll on the environment and the planet's natural resources, but to ensure that all food products harvested actually make it into the mouths of the hungry. While in the developed world, consumers are generally responsible for food wastage, in some extreme cases in the developing world poor management along the food chain means that only half the raw product harvested is finally available for consumption.

Countries of the ASEAN region, home to over half the world's undernourished, experience post-harvest losses equivalent to approximately 100 million tons of food each year. Over the past two years, UNIDO has been carrying out studies of post-harvest losses of the main food commodities in Cambodia, Indonesia, Lao People's Democratic Republic, Philippines, Thailand and Viet Nam, as well as on each country's policies and priorities with respect to post-harvest losses. Depending on the country, the studies covered rice and maize, cassava, fish and coffee, as well as a selection of fruits and vegetables. They assessed the extent of the losses at various stages from farm to retailer, examined post-harvest technologies currently in use as well as existing support frameworks and made recommendations based on which UNIDO could formulate technical cooperation programmes to reduce post-harvest losses.

The country reports were presented to a workshop held in July at the ASEAN secretariat in Jakarta. Participants stressed the need for a holistic approach that would look at all stages in the value chain, from pre-harvest to the consumer, and first tackle the weakest link.

Workshops, panels and expert group meetings

UNIDO held several workshops on agro-industries in 2012. In May, participants from countries within the Southern African Development Community region met in Gaborone, Botswana, for a presentation of national and regional agribusiness investment projects, to be financed over the coming years through partnerships with public and private investors within the region and in Germany, as well as through the UNIDO technical cooperation budget. In July, UNIDO organized a workshop in Accra on options for increasing cotton productivity, in collaboration with the Government of Ghana. Detailed information is provided in chapter 3.

Two UNIDO workshops on post-harvest losses took place during the year. In cooperation with the International Centre for Science and High Technology, UNIDO ran a

workshop on the quality and food safety of tropical fruit production in South-East Asia in Bangkok in May to tackle the problem of major post-harvest losses of fruit and vegetables so that the region can take greater advantage of trade liberalization and globalization. A workshop on post-harvest losses of the main commodities of the ASEAN countries was organized by UNIDO in cooperation with ASEAN in July.

In cooperation with the Government of Turkey, UNIDO ran two training programmes in 2012 in Bursa, Turkey, for experts and policymakers from developing countries involved in the agro and food industry. The training programmes were conducted through a partnership between UNIDO and the Scientific and Technological Research Council of Turkey. Their aim was to encourage an exchange of expertise and experiences among the various participating countries, in particular least developed countries. They focused on quality management systems, food processing technologies and process

■ Although there has been a substantial drop in poverty levels in Latin America and the Caribbean over the past 20 years,⁸ food insecurity and hunger affects the lives of 49 million people.⁹ In the Plurinational State of Bolivia, four out of ten children suffer from chronic malnutrition, particularly in rural areas. Overall, approximately 40 per cent of the population lives below the poverty line. UNIDO is currently working on part of a \$7 million project financed through the MDG-F established by the Government of Spain to address this challenge. The project is being implemented in cooperation with the Government of the Plurinational State of Bolivia as well UNICEF, the United Nations Population Fund (UNFPA), WFP, FAO and WHO.

UNIDO's specific role involves strengthening local capacities for food processing in five municipalities—Arque, Bolivar, Sicaya, Tapacarí and Tacopaya—with the dual aim of increasing the income-generating potential of rural communities and family farms and giving poor families, in particular children, pregnant or breast-feeding women, access to safe and nutritious food. Together with the governmental counterpart PROBOLIVIA, UNIDO is aiming to strengthen local capacities for food processing by providing and upgrading equipment, running training courses and offering managerial assistance. One of the modules that has already started involves the production of biscuits made from chuno (a traditional freeze-dried potato product) in Japo, Tapacarí. It has already benefited 38 producers, nearly half of them women, as well as thousands of schoolchildren. The remaining productive modules will start working in early 2013, serving nearly 400 producers, 19 per cent of them women, and helping to feed almost 9,000 schoolchildren. Training has been provided on good manufacturing practices and the management of rural agro-industrial enterprises in the communities of Japo, Llaytani, Puyucani, Totorá Vaquería and Ventilla. UNIDO has distributed a manual on good manufacturing practices to producers.

⁸ Social Panorama of Latin America 2011, Economic Commission for Latin America and the Caribbean.

⁹ The State of Food Insecurity in the World 2012, Food and Agriculture Organization of the United Nations.

control for the development and upgrading of agro-industry capabilities. The international workshops were designed specifically to assist the development efforts of participating countries and to support relevant ongoing UNIDO projects.

Narrowing the gap between developed and developing countries in the leather and leather products industry was the main aim of the eighteenth meeting of the UNIDO Leather and Leather Products Panel that comprises leather and footwear industry professionals and consultants from around the world. The meeting was held in Shanghai, China, in September. Delegates from Australia, Bangladesh, Belgium, Brazil, China, Colombia, Ethiopia, France, Germany, India, Italy, Mali, Mexico, Nigeria, Pakistan, Spain, Turkey, the United Kingdom and the United States discussed a number of papers on education, most specifically UNIDO's efforts to develop materials, including visual training and e-learning tools. The meeting concluded with an agreement that relevant bodies—trade associations, research and development and training institutions as well as international organizations—should coordinate their efforts in the preparation of learning programmes. Other papers focused on carbon footprint and life cycle analysis. It was accepted that the calculation of the carbon footprint for leather production should begin at the slaughterhouse and end at the tannery gate once the leather is shipped. The effect of this would be to exclude from the calculation the agricultural footprint involved in animal rearing. Much of the work of UNIDO over the last 30 years has focused on cleaner technologies, helping tanners with their processes and waste treatment. UNIDO described its work in Bangladesh, in particular waste water treatment, the use of renewable, largely solar, energy in leather processing and other clean technologies.

One outstanding issue that continues to concern the industry is the environmental problem caused by salt. This was the subject of a long discussion at the seventeenth UNIDO leather panel meeting, in 2010 and remains unresolved. The reverse osmosis system in operation in Tamil Nadu in India was presented at the meeting, but the high cost of energy and the disposal of the resultant imperfect salt was thought likely to make this impractical elsewhere. No conclusion was suggested although UNIDO was asked to continue to promote the reduction or elimination of the use of salt where practical.

Rural entrepreneurship development

Many of the Organization's efforts to develop entrepreneurial capacities in rural areas target vulnerable groups of people in

regions recovering from political disturbance or natural disaster and are covered in the section on human security and post-crisis rehabilitation of this chapter. Projects that address the specific needs of women and youth are reported in the section on women and youth in productive activities.

In addition to a wide portfolio of successful projects, many of which reached completion in 2012, UNIDO had several opportunities to showcase its rural entrepreneurial development activities. At the European Forum Alpbach⁹ held in August on the theme "Expectations: The Future of the Young", UNIDO organized a panel on development policy and creative industries that formed the basis of a useful brochure entitled *Creative industries for youth: unleashing potential and growth*. UNIDO also contributed to a World Bank workshop held in May/June in Washington, D.C. on investing in and strengthening agricultural innovation systems. Its input on innovation partnerships and business development led a session on "Partnerships beyond corporate social responsibility: public-private partnerships in agro-industrial development". UNIDO also shared in the organization of an international conference on value chains for agricultural and rural development, held in Addis Ababa in November, which brought together 500 private sector representatives, government officials, donors, civil society representatives, farmers and academics to discuss ways to incorporate smallholders in value chains in order to promote agricultural and rural development.

In March, UNIDO joined forces with another of its sister organizations based in Vienna in the United Nations' fight against drugs. A memorandum of understanding, signed by the Executive Director of the United Nations Office on Drugs and Crime and the Director General of UNIDO, recognizes the complementary relationship between industrial development, job creation, drug control and crime prevention as a vehicle for poverty alleviation and the enhancement of human security, economic growth and sustainable development. The two organizations will work together to offer a sustainable alternative means of livelihood to poor rural communities dependent on the cultivation of illicit drug crops in countries such as Afghanistan through capacity-building activities and job opportunities. In the spirit of One UN that supports sustainable development and the achievement of the Millennium Development Goals, the new

⁹ The European Forum Alpbach is an annual event that takes place in the village of Alpbach, Austria. Over 3,000 politicians, academics, students, and decision makers come together every August to discuss new ideas and solutions to European and global problems.



■ The Democratic Republic of the Congo, with a population of nearly 70 million, is both one of the largest countries in Africa and one of the poorest. Cassava is considered to be the country's main staple food—it is consumed more than in any other country of sub-Saharan Africa—but it is becoming increasingly hard to provide enough cassava to feed the rapidly growing population of the capital Kinshasa, which now stands at 10 million. Cassava represents an important source of livelihood for thousands of rural households and UNIDO recognizes its enormous potential as an income-generating activity for the poor. The focus of an ongoing UNIDO project in the country is to add value to cassava products and improve supplies to Kinshasa as well as to the province of Bas-Congo. The Government of Japan provided \$1.3 million to set up a cassava processing plant in Kimpese, in Bas-Congo, as part of a programme that also includes an agro-industrial technical training centre for would-be entrepreneurs. The centre will provide agro-industrial facilities for the community and strengthen the productive and entrepreneurial capacities of vulnerable groups including poor farmers, rural entrepreneurs and processors, women and youth. It is also expected to generate income, create jobs, improve food security in the country and ease the conflict level in targeted areas.

Results half way through the project are extremely promising. There has been a successful integration of women and youth in the agro-processing sector of the target region and a marked improvement in the quality of products offered for sale on local markets. Over 1,000 people received training in good production, manufacturing and hygiene practices as well as entrepreneurship and management. They are now in a position to add value to their products and manage their own micro and small enterprises. Facilities constructed under the project include a cassava processing plant, a fully equipped laboratory for food testing and classrooms, offices and dormitories for trainees. There have been significant improvements in general processing methods and women have been able to expand their range of commercial activities to include, for example, tailoring, baking or selling fish. The second phase of the project, scheduled to end in March 2013, is building on the pleasing results achieved so far. A new fruit processing plant will be operational in 2013.

strategic partnership builds on a previous joint project to provide alternative livelihoods for opium poppy growing communities in the Lao People's Democratic Republic. UNIDO will focus on private sector development with emphasis on micro, small and medium enterprises, agri-business development and environmental management while the United Nations Office on Drugs and Crime will concentrate on limiting the dependence of small and marginalized farming communities on illicit drug crop cultivation through the creation of legitimate livelihoods.

Other projects of this kind—in the Plurinational State of Bolivia, Colombia, Peru and Thailand, for example—have given local communities a stake in building a sustainable future by involving them in income-generating activities, providing social services and basic infrastructure and helping them find markets for their products. A particularly beneficial effect is the empowerment of rural women who have set up their own businesses with micro-credit. Environmental benefits have resulted from reforestation projects, which help to capture carbon in the atmosphere.

Human security and post-crisis rehabilitation

A project in Armenia funded from the United Nations Trust Fund for Human Security to secure livelihoods for vulnerable groups was completed at the end of the year (see *UNIDO Annual Report 2011*, chapter 7). UNIDO, in cooperation with its partners in the project—UNDP, the Office of the United Nations High Commissioner for Refugees (UNHCR), UNICEF and the United Nations Population Fund (UNFPA)—was able to help vulnerable households in rural areas to improve their quality of life. The project involved a range of activities including the conversion of a factory into housing units for refugee families (UNHCR), access to health-care services (UNFPA and UNICEF), capacity-building of local governments to design and implement strategic community development plans (UNDP), alternative energy sources (UNIDO) and the promotion of income-generating activities (UNIDO and UNDP). Under the latter component, over 100 fledgling or established

■ Heavy monsoon rains in the summer of 2010 brought widespread flooding to a corner of the world that was already facing daunting challenges. Poverty and insecurity meant that the people of Nangarhar in eastern Afghanistan were particularly vulnerable and when the rivers broke their banks, wiping away homes, destroying crops and cattle and covering roads, their prospects for a better future plummeted. While the international community rushed to provide vital food supplies, UNIDO put in place a project that would enable people in flood-affected areas to apply newly acquired skills to earning a livelihood and ensure their social reintegration. As a first step, UNIDO took a careful look at existing agricultural skills and mechanization levels as well as the region's development needs before selecting the inputs to be provided through the project. Next, UNIDO distributed machinery and cottage industry equipment, ranging from tractors for farmers' associations, to handicraft tools, masonry tool kits and metalworking instruments to individuals and small groups of people. Training courses were organized in different subjects, including tractor operation and maintenance, home-based food processing and solar food drying techniques, entrepreneurship development, wood- and metalwork, carpentry and masonry, traditional handicrafts and embroidery. Most of the 400 trainees were considered particularly vulnerable: women, internally displaced persons, former rebels and small-scale farmers. The group includes 87 trainers who will be able to pass on their newly acquired skills to future beneficiaries.

The \$850,000 project, financed by Japan, supported efforts by the Government of Afghanistan to stabilize the country's economy through a rapid response to those most in need in rural areas. Although it was completed at the end of the year, the sustainability of the project is ensured by the training in vocational and managerial subjects provided to local counterparts who also received guidance on business advisory services, producer organization schemes and monitoring tools.

entrepreneurs, of which one third were women and a quarter young adults, learned how to manage small businesses. A further 55 men and women had the opportunity to exchange experiences and link up with businesses in other parts of the country. Thirty-six businesses, including small hotels, shops, food producers and health-care providers, received loans from an SME support fund one year after its establishment with a total value of almost \$166,000. The project was responsible for the building or reconstruction of four community facilities such as a sports hall for the community kindergarten, kitchen fittings for a refugee house, a communal agriculture machinery garage and a water pipeline. It also improved access to modern and clean energy services through the construction of pilot biogas plants.

The Maluku Islands in Indonesia suffered from intermittent religious conflict until a fragile peace was restored in 2004. The security situation remains such that many displaced people have not returned to their homes—yet another obstacle to economic stability in Maluku. Under a project to ensure minimum living standards for disadvantaged communities through peacebuilding and village-based economic development, UNIDO has succeeded in creating or upgrading village-based industries that in turn contribute to social cohesion and reconciliation. The \$2 million project, funded from the United Nations Trust Fund for Human Security, was completed at the end of the year in collaboration with ILO.

South Sudan became a Member of the United Nations in July 2011 after it gained independence following a 2005 comprehensive peace agreement that ended the decades-long civil war. Under a UNIDO project funded by the Government of Japan and launched in April, help is being given to the large number of displaced persons of all ages, trying to cope with the dual challenges of a chronic food shortage and lack of job opportunities that are typical of a post-conflict environment. The project will support vocational training centres so that they are able to teach young people the skills needed to find employment or start their own businesses to support themselves and their families. The \$1.5 million project hopes to reach a minimum of 750 young men and women, many of them former combatants and most of them displaced. In a parallel move, the project seeks to pave the way for the creation of new micro industries that will meet the needs of the target groups. Results so far have been encouraging: the project has engaged over 700 young people in vocational training programmes and has earmarked those trainees interested in setting up their own enterprises for special business skills training programmes. It will also

support those business plans that show the most promise. Training courses on product design for women dressmakers will take place early in 2013.

Progress continued on a UNIDO project in Côte d'Ivoire to assist the Government in its efforts to attain lasting peace, eradicate poverty and achieve sustainable social and economic development. Targeting vulnerable young people and demobilized combatants in the region of Bouaké, the project is seeking to provide them with the skills, know-how and experience that will enable them to generate income and play a productive role both in the life of their communities and their country. The aim is for them to achieve sustainable livelihoods either through self-employment or by working for the construction, manufacturing or service sectors. The capacity of the region's vocational training centre has been restored and upgraded to meet the increased demand for technical skills. So far 620 young people have acquired marketable skills. In all, the project, funded by the Government of Japan, expects to reach 3,000 young men and women.

Women and youth in productive activities

Women

“Rural women are active agents of economic and social development. They play crucial roles ensuring food and nutrition security, eradicating rural poverty and improving the well-being of their families, yet continue to face serious challenges. UNIDO assists its Member States to improve the entrepreneurial and technical skills of rural women by supporting the development of gender responsive policies and strengthening service providers operating in skills training, entrepreneurship and technology promotion and information dissemination in rural communities. UNIDO provides advice on integrating gender considerations in industrial policies, assists implementation of programmes that improve rural women's access to clean energy sources, and helps women entrepreneurs and producers”. These words, spoken by Taizo Nishikawa, Deputy to the Director General of UNIDO, on the occasion of International Women's Day 2012, underline UNIDO's determination to ensure that women throughout the world are in a position to make a full and meaningful contribution to a brighter future in their countries.

“The global economic crisis has hit youth the hardest and many are understandably discouraged by rising inequalities. A large number have no immediate prospects and are disenfranchised from the political, social and development processes in their countries. Without urgent measures, we risk creating a ‘lost generation’ of squandered talent and dreams.”

United Nations Secretary-General Ban Ki-moon on the occasion of International Youth Day

Creative industries produce tangible or intangible artistic and creative output and have a potential for income generation through the exploitation of cultural assets and the production of knowledge-based goods and services. In an age when competition is stronger than ever, they can play a crucial role in the revitalization of rural and depressed communities. In some countries, the promotion of creative industries is part of national industrial and economic policies where they have contributed to poverty alleviation and job creation, assisted the local economies of villages and inner city districts and promoted self-reliance. In other countries, authorities are unaware of the economic value of their creative industries.

Although Pakistan has a rich and diverse crafts tradition dating back 5,000 years, the creative industries sector has been largely neglected. Characterized as an informal industry, the creative economy, as defined by the United Nations Conference on Trade and Development,¹⁰ has never featured as a development priority resulting in a gradual decline in the quality and value of craftsmanship. A three-year project undertaken by UNIDO as part of its entrepreneurship development programme has helped create the job opportunities for women working in Pakistan’s creative industries sector, particularly in non-traditional areas, that will lead to their

economic empowerment as well as the creation of enterprises. Addressing both MDG 1 (eradication of extreme poverty and hunger) and MDG 3 (promotion of gender equality and empowerment of women), the aim of the project was to integrate women into prioritized non-traditional sectors—marble and mosaics, jewellery, home textiles and fashion—by applying UNIDO’s tools for value chain analysis and small business development, with synergies between Government, public and private sector support services and academia. UNIDO conducted training workshops for over 500 women from poor communities in entrepreneurship development, business set-up and management combined with technical training, design and product innovation.

The First Women’s Bank in Pakistan was approached to provide credit and training through business growth centres set up by UNIDO under the project, the first of which was inaugurated in November. Also involved in the project were the Women’s Chamber of Commerce and the Pakistan Stone Development Company that together with UNIDO organized a national exhibition in Islamabad in April on women in creative industries. Products displayed included marble and mosaic inlay, gems and jewellery and home furnishing and fashion items prepared by women who participated in the training programmes. Completed in 2012, the project has helped to create an enabling environment for women

¹⁰ UNCTAD (2010) *Creative Economy: A Feasible Development Option*.



■ Youth unemployment represents a serious challenge for Armenia. A new UNIDO project, funded by Austria, is supporting the creation and expansion of youth-led enterprises, particularly those run by young women such as this skilled carpet weaver.

Photo ©ILO



entrepreneurs and those who wish to be employed in the creative industries sector by teaching them to develop marketing strategies and identify business opportunities and gain access to services and training. It has enhanced the production capacities of businesses, with an immediate 10 per cent increase in sales and improved linkages with supply chain partners and access for women entrepreneurs to competitive markets. Project counterparts, members of the project team and entrepreneurs visited marble and mosaic fairs and workshops in Xiamen, China, in April as well as fashion and textile trade fairs in New Delhi in September. The project benefited from wide coverage in the print media, radio and television.

Under two MDG-F projects, UNIDO is targeting creative industries in Panama and Peru in the fight against poverty where a large majority of beneficiaries are women. Both projects aim to strengthen the participation of women artisans in the economic life of their respective countries, help them to improve their entrepreneurial skills through the creation of networks and upgrade the quality of their handcrafts to make them more competitive. In Peru, UNIDO assistance will focus on the handicraft sector and on building the capacities of regional public and private sector institutions in four selected regions to undertake cluster development initiatives. In Panama, the three-year programme is encouraging the development of sustainable micro-enterprises in rural areas,

mainly in the sectors of agro-industries and tourism. The target beneficiaries of the programme are people living below the poverty line, particularly indigenous communities in the provinces of Chiriqui, Coclé, Herrera and Veraguas.

Another MDG-F project in Senegal is hoping to develop cultural and traditional industries in the regions of Toubacouta and Delta du Saloum, where women are responsible for fish processing activities. The project has provided financial and technical assistance to develop capacities in more than 30 women's associations in the two regions. A similar project in Mali that was completed in 2012 in cooperation with UNDP, targeted women working with dairy and agricultural products. As a result of the four-year project, several shea butter processing centres are operational. Training in quality, safety, technology and operation has enabled women to become entrepreneurs. The \$1 million project was financed by the Government of Luxembourg.

Youth

Providing jobs for young people is one of the most pressing challenges for Governments across the globe, a challenge that affects both developed, developing and transition economy countries. The problem is exacerbated in the developing



■ Classified as both a least developed and low-income, food-deficit country, Sudan has endured armed conflict for the past 20 years. This situation has been compounded by recurrent drought; in several regions of the country, the population is facing chronic food insecurity and malnutrition, as well as unemployment and a lack of training opportunities, especially among the poor, the young and the vulnerable. A UNIDO project on “Skills for Peace and Income” under its Community Livelihood and Rural Industry Support Programme was launched early in 2011 to help create sustainable livelihoods for young women and men. Launched originally in South Kordofan State, problems of security and access meant that activities had to be transferred to Khartoum State. The development goal was reset to become poverty alleviation among young displaced persons moving from South Kordofan to shanty towns in Khartoum State. The \$800,000 project concluded in August.

Sponsored by the Government of Japan, UNIDO provided young, internally displaced women and men with the technical, entrepreneurial and social skills that would help them earn a living. The Sudanese Red Crescent Society—that implemented the project in collaboration with UNIDO and the Supreme Council for Vocational Training and Apprenticeship—conducted an assessment based on criteria drawn up by UNIDO and provided a list of potential beneficiaries. Twenty-one vocational training courses were held for 234 men and 119 women, of which all but seven completed the course and were given tool kits and business start-up materials as well as help in honing their CV preparation and interview skills. Most of the courses were held in vocational training and employment centres in Halfayat, Kerrari, Haj Yousif and Khartoum South and one in the Sudanese Red Crescent Society Centre. Those hoping to set up, or enter, business were given start-up assistance including microfinance and were familiarized with labour laws, market analysis and business organization and trained in marketing, financial planning and time management skills. They had an opportunity to present their own business ideas that were subsequently assessed. Technical training focused on those trades for which there is the greatest demand in Khartoum State, namely electricians, welders, plumbers, tilers, chefs, painters, tailors and decorators. Technical and entrepreneurship mentoring was also provided.

Some of the beneficiaries have already established their own businesses where they can earn a steady income and employ other members of their communities. Those who were particularly needy or showed special promise will receive a scholarship for long-term training in the four Khartoum State vocational centres.

world by a lack of opportunities and financial resources. The inability to earn an income not only leads to poverty and deprivation, but all too often to insecurity, civil disturbance and crime. Without a future of their own, what can the youth of a country contribute to that country's own future? This is a high priority issue for the United Nations and its specialized agencies and there are few better examples of inter-agency cooperation than in its common response to the challenge. For its part, UNIDO has a dedicated youth entrepreneurship development programme that provides training in technical skills to empower youth, develop the local business environment and instill an entrepreneurial culture. It targets in particular underprivileged youth.

In August, UNIDO joined hands with Samsung Electronics and the Korea International Cooperation Agency to help create employment opportunities for young people in Cambodia in the electronics industry. The programme focuses on capacity-building to improve the skills of youth in handling electronic products, upgrading repair services while promoting better e-waste management practices in SMEs. The project will benefit from state-of-the-art training and will give Cambodia's young population a greater chance of passing accreditation procedures or finding employment in customer care or service repair centres. At the same time, efficient e-waste management contributes to the conservation of natural resources, energy savings and the elimination of health and environmental hazards.

In October, over 200 participants from 14 African countries took part in a workshop on developing agribusiness entrepreneurship and agribusiness value chains as a way of empowering young women and men in Western Africa. The four-day event, "Women and youth as catalyst for agribusiness development and growth in Western Africa", was organized in Porto Novo by UNIDO in cooperation with the United Nations Entity for Gender Equality and the Empowerment of Women, UNDP, ILO, FAO and IFAD. Participants shared best practices in implementing agribusiness strategies and showcased state-of-the-art processing machinery. The workshop also formed a network of young agro-entrepreneurs in the region to share information and develop a strategic plan of action to promote agriculture as a lucrative business.

When the Government of Luxembourg decided to help young people in Senegal to better compete on the job market, it realized that the complexity of the task would require the involvement of different kinds of expertise and asked UNDP, ILO and UNIDO for their combined assistance. The first phase of the project is complete. ILO and UNIDO

provided financial and non-financial services to help integrate young people into professional life by facilitating their placement in selected companies or helping them to set up their own companies. The second phase of the project, that began in 2012, is focusing on non-financial services and local economic development.

In November, UNIDO held a workshop on cooperation in the development of industrial skills among young people that brought together the Swedish International Development Cooperation Agency (Sida), private sector companies and representatives of national vocational training centres. Partnerships between UNIDO and private sector companies in Sweden, including leading automobile manufacturers Scania and Volvo, have already led to training opportunities for young adults from developing countries in the operation and maintenance of heavy equipment in the sectors of transport, material handling and the construction of agricultural equipment. The first initiative of the Swedish Academy for Training that opened in April in Erbil, Iraq, was to train almost 100 young Iraqis. The project is a collaboration between the Kurdistan Ministry of Labour and Social Affairs, UNIDO, Sida, the international education company EF (Education First) and Scania. Using advanced and specialized training equipment, the Academy currently offers training in basic mechanics, computing and English for students from all parts of Iraq, while courses in advanced mechanics, driver training and sales and marketing will be added at a later date. The first of its kind in the country, the Academy targets unemployed Iraqis under the age of 30; almost all of the teachers are from the region. By engaging in joint activities, Scania and UNIDO are helping to ensure that a lack of skills does not limit or hamper industrial investment and are enabling Iraqi people to be better placed to take full advantage of the region's developing industries.

The early success of the Swedish Academy for Training led UNIDO and Scania to agree on a joint project to set up a learning and knowledge development facility. Implementation is scheduled to begin in March 2013. Initially, the facility will address the project in Iraq, described above, as well as another project recently initiated in Uruguay in partnership with the German automation company Festo.

In partnership with Volvo International, UNIDO is currently working with the Sida Business for Development programme to establish a training academy for underprivileged youth in Ethiopia. The project will improve Ethiopian youths' access to gainful employment and furnish them with the skills to get out of poverty and secure a sustainable income.

In May, an agreement was signed with Japan to fund a UNIDO project worth 234 million yen that will teach youth in Guinea the practical skills needed to find jobs. The beneficiaries of the project are some 4,000 young people and 50 entrepreneurial groups in ten districts in eastern Guinea, on the border with Côte d'Ivoire, Liberia and Mali, as well as in Mamou, a town bordering Sierra Leone. The selected communities have been affected in the recent past by natural disaster, conflicts and the influx of large numbers of refugees. Through the UNIDO training courses, young people will acquire the entrepreneurial and technical skills suitable for productive activities, income generation and employment, which will in turn allow them to build new lives.

In cooperation with the EU, UNIDO organized an international conference on productive work for youth in the Mediterranean countries. Held in November in Tunis, around 700 participants, including government delegations and representatives of international organizations and the private sector, attended the two-day event that was designed primarily to help young university graduates with an entrepreneurial spirit from less developed regions. The Director General, who attended the conference, paid tribute to the desire of countries in the region to opt for development based on shared prosperity and equitable participation in society. The EU and UNIDO were invited to coordinate the follow-up to the Tunis Declaration emanating from the conference. During the conference over 20 parallel events were held for young entrepreneurs, including interactive workshops organized by partner institutions. Against the

background of the conference, UNIDO, Hewlett-Packard, the Government of Italy and the United States Agency for International Development agreed on a partnership project to generate sustainable employment opportunities for young people in Tunisia in support of the strategy of the Government of Tunisia to promote private sector development through the creation of SMEs and growth in vulnerable regions. The project will draw on UNIDO's extensive experience in enterprise development, clean production and resource efficiency, as well as the valuable knowledge developed in its ongoing partnership programme with Hewlett-Packard that focuses on the company's learning initiative for entrepreneurs.

In Jordan, UNIDO is currently developing a project on productive work for youth to support youth-led businesses, with a particular focus on young women. The project reflects the priorities of Jordanian authorities to support the start-up and expansion of youth-led enterprises.

South-South cooperation

Many of the projects in progress during the year reflect UNIDO's determination to encourage developing countries with knowledge in certain areas to share that expertise with others. South-South cooperation is indeed a thread running through the entire spectrum of the Organization's activities and examples can be found throughout this *Report*. The following represent a few interesting initiatives.

■ Ilha de Moçambique in the Nampula Province of Mozambique is a former Portuguese trading-post and enjoys a rich historical tradition that in 1999 led to its designation as a UNESCO world heritage site. Despite its popularity as a tourist destination, unemployment is high with an estimated 85 per cent of young people out of work. The private sector is weak and in need of entrepreneurs who can recognize opportunities and turn them into profitable businesses. The backing of local government is crucial to build an enabling environment for private sector development. A Portuguese-funded UNIDO project, launched in 2010, has adopted a three-tiered approach to helping the region achieve sustainable economic growth. First, it set up one-stop shops in two districts, providing information and allowing access to business registration, licensing and taxation. In operation since August, they have led to a significant reduction in costs and

In May, Vietnamese lacquer producers, local government staff, experts and researchers took part in a five-day study tour to China where they visited lacquerware companies, museums and Fuzhou University's School of Art and Design. During the visit, participants exchanged information on the lacquer industry in China and Viet Nam. The delegation also visited the Institute of Chemical Industry of Forest Products and the Chinese Academy of Forestry where they shared details of their research on lacquer. The delegation from Viet Nam gained new insights into the application of cleaner production techniques in the production of lacquerware and ways to improve the quality of products for more profitable and sustainable development. Viet Nam returned the hospitality in December when lacquer specialists from China were sent by UNIDO to Phu Tho Province in Viet Nam in order to strengthen business ties between lacquer producers of both countries and discuss opportunities for cooperation on lacquer sap collecting and exporting, the use of by-products, as well as joint ventures in the lacquerware value chain. The delegation from China also held discussions with institutes and universities on research on lacquer and other crops as well as a possible student exchange programme.

The Egyptian Traceability Centre for Agro-Industrial Exports, established in 2004 by UNIDO and the Egyptian Ministry of Trade and Industry, is providing distance learning and support to the Philippines to build local capacity and develop an agribusiness and food traceability project. Under the market access component of a UNIDO project on medicinal and aromatic plants in Egypt, linkages have

been established for the transfer of technology and trade promotion with Brazil and Serbia.

UNIDO sponsored a number of study tours during the year where the experience of one country or group of countries has been very relevant to the current needs of another. The UNIDO expertise and experience on export consortia available in countries such as Morocco and Tunisia has been utilized extensively through training, study tours and awareness seminars in promoting the approach in Algeria, Burundi, Côte d'Ivoire, Egypt and other countries. Exchange of experiences on best practices has been promoted in various Latin American countries using the UNIDO expertise in export consortia accumulated in the region, in particular in Peru.

The highlight of UNIDO efforts to encourage and support cooperation between developing countries was its hosting of the Global South-South Development Expo in November. The Austrian Chamber of Commerce was one of a number of private sector bodies, international organizations and academia that attended the event and expressed interest in future cooperation with UNIDO in this important area of its work.

Launched in 2008 by UNDP's Special Unit for South-South Cooperation, the Global South-South Development Expo is an important mechanism to promote South-South solutions and a major venue for interactions among like-minded partners. It helps the South realize its shared aspirations for achieving sustainable and equitable development, inter alia through technology transfer and public-private partnerships. It was also the first initiative of its kind that

processing times for local enterprises. In a parallel effort, UNIDO introduced an entrepreneurship curriculum programme in secondary schools combined with a technical training programme. Over 1,500 students are being prepared for their future careers by 18 trained teachers who are showing them how to identify and implement business opportunities in their communities and save, innovate, invest and expand by applying tools to improve productivity, quality and efficiency. The third level of the project involves support to local private sector organizations and their members to help them meet an increasing demand for good quality services and products, particularly in the tourism sector. Local business owners have already seen a noticeable improvement and local investment has increased.



“Countries of the South are leading the way in many new technologies and they are giving new meaning to South-South cooperation by offering a wide range of technological options to their neighbours and partners all across the developing world”.

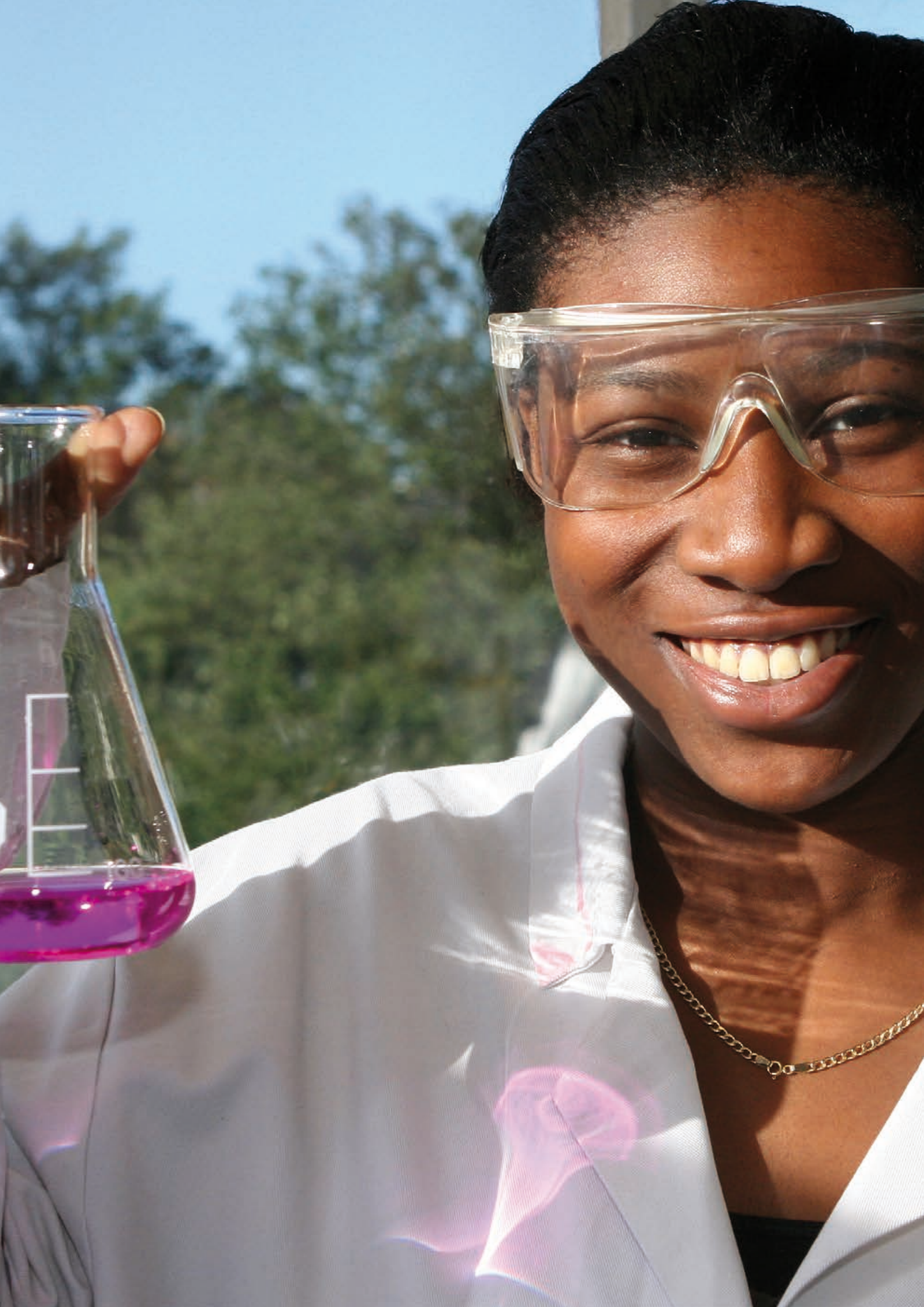
John W. Ashe, President of the High-level Committee on South-South Cooperation

was solely from the South for the South. Together with the Global South-South Development Academy and the South-South Global Assets and Technology Exchange, the Expo is part of the United Nations 3-in-1 multilateral support architecture dedicated to South-South cooperation.

The fifth annual Global South-South Development Expo, held in Vienna's Hofburg Palace in November, looked at the way renewable energy and climate change intertwine with development issues under the theme "Investing in energy and climate change: inclusive partnerships for development". The Expo covered all three dimensions of sustainable development; in addition to the environmental dimension it addressed economic issues in its forums on public-private partnerships and energy, as well as the linkages between industrial and social development in its forums on health, women and youth. Organized jointly by UNIDO and the United Nations Office for South-South Cooperation, it served as a vibrant platform for a large number of United Nations bodies and agencies as well as

over 600 delegates from 150 countries to celebrate achievements, share development successes and explore new avenues for collaboration. Discussions focused on innovative solutions to energy insecurity and climate change and showcased successful southern-grown development solutions that address the Millennium Development Goals. These included a presentation on the sustainable production of biofuels and an off-grid solar lighting initiative to improve the lives of over one million refugees, disaster victims, and impoverished populations through the provision of solar lanterns. In his statement, the United Nations Secretary-General stressed that "this Expo highlights successful development solutions as well as the efforts of the United Nations system to generate momentum toward sustainable development".

The Expo attracted considerable media coverage. In China, for example, highlights of the Expo were shown throughout the week on the evening news across the country and through its global network to the world beyond.



Prosperity through trade

“The creation of more competitive businesses and good jobs: that is the aspiration of all emerging countries and we know that it is not an easy task. We also know, however, that UNIDO is our great ally and that we have the support of Member States to work on projects that will ultimately provide mutual benefits.”

Gladys Triveño, Minister of Production of Peru, addressing the fortieth session of the Industrial Development Board

Trade capacity-building is a key ingredient of virtually all activities undertaken by UNIDO in its fight against poverty. Since UNIDO is not in the business of emergency relief, the sustainability of its technical cooperation activities is paramount. This is achieved by making sure that men, women and youth in its client countries acquire the skills to make a lasting improvement both to the economy and to livelihoods in their countries and regions.

Participation in global trade is an important aspect of a developing country’s approach to sustainable industrial development. Trade enables countries to make use of their comparative and competitive advantages by placing their resources into those productive activities that provide the highest economic and social returns. Access to markets can lead to more jobs, higher incomes and greater economic security.

One of the key challenges faced by industries in developing countries is how to join national, regional and global value chains. This not only requires stronger supply capacities but also evidence of international market conformity. Industries therefore need to have better access to know-how and services allowing them to manufacture products with a high export potential and in accordance with quantitative and qualitative market requirements, including international standards, private standards and technical regulations as well as social, environmental and corporate social responsibility (CSR) guidelines.

UNIDO’s trade capacity-building programmes contribute to improving consumer health and safety through the correct use of measurements in the market place as well as the application of internationally accepted food safety standards. Trade capacity-building activities often target labour-intensive industries such as textiles, food and fish processing that employ some of the poorer sectors of society. Through specialized training and capacity-building, UNIDO is committed to giving them the skills that will lead them out of poverty

Competitive productive capacities for international trade

Without safe, reliable and competitively priced goods and services, industries in developing countries cannot hope to compete in the global marketplace. To produce goods that have the requisite quality and comply with prevailing standards, they require a steady inflow of investment and technology as well as policy and institutional support to help them restructure

and upgrade enterprises, increase productivity and introduce quality management. With a wealth of experience behind it, UNIDO is uniquely positioned to assist in building the capacities of both public and private institutions in developing countries to formulate trade policies and strategies based on economic and statistical analysis; to benchmark competitive performance at sectoral and product levels; and to establish trade-related databases, such as inventories of technical barriers to trade. UNIDO also provides technical support in establishing regional and national productivity centres. Many of its trade capacity-building activities tend to concentrate on strengthening institutional

capacity through the provision of expert knowledge, training programmes, study tours, equipment, tools and methodologies and the implementation of pilot demonstration projects that can be replicated elsewhere.

Another large enterprise development project that got off the ground in 2012 was designed to strengthen the competitiveness of private sector companies in Mozambique through two programme components. The first component of the project focuses on quality promotion while the second concentrates on strengthening the production and management processes of small and medium enterprises (SMEs). The €5.1 million project, funded by the EU and the Government

■ Despite optimal climatic conditions for its growth, Ghana's cotton production does not even represent one per cent of the total for West and Central Africa and is currently less than half its 2000 level. Ways to increase the production of cotton in Ghana and improve the competitiveness of the cotton sector were the topic of a two-day expert group meeting organized by UNIDO in Accra in June, in collaboration with the Ministry of Trade and Industry, the Ministry of Food and Agriculture and the Ministry of Environment, Science and Technology. Workshop participants studied world trends in cotton production and Ghana's contribution to cotton exports from West Africa. They looked at strategies to increase productivity and reduce production costs, opportunities for organic cotton production for niche markets and commitment to quality assurance practices. Solutions discussed included crop biotechnology, with an emphasis on insect tolerant and herbicide tolerant cotton. The meeting provided information on the latest scientific and bio-safety developments as well as experiences of other African countries, based on which the Government of Ghana could make an informed decision on whether or not to adopt the technology. It brought together Government representatives, cotton farmers from Burkina Faso, Ghana, India and South Africa, researchers, representatives of local and international cottonseed companies, textile companies, financial institutions and Ghana's Export Promotion Authority and its Standards Board.

The workshop was part of a technical cooperation programme developed by UNIDO to support the Government's strategy for the revival of the cotton sector to reduce poverty in the poorer, northern region of the country. While UNIDO's partners in the programme—the World Bank and the International Finance Corporation—are currently involved in price setting, organization of value chains, farmer associations and restructuring ginneries and other assets of the Ghana Cotton Company Limited, UNIDO is responsible for seed improvement and compliance with bio-safety regulations, upgrading the cotton classification and grading system in line with international standards and improving agricultural mechanization. The programme also foresees the construction of pilot centres for cottonseed oil processing and value addition to other by-products from seed cotton. It is being implemented under the auspices of the African Agribusiness and Agro-industries Development Initiative (3ADI), established jointly by the Food and Agriculture Organization of the United Nations, the International Fund for Agricultural Development, UNIDO and the African Development Bank.

of Austria, also aims to improve the national quality infrastructure system and strengthen the main quality infrastructure bodies. So far, four laboratories have been accredited with a fifth to follow shortly. Equipment was provided to the country's National Institute of Standards and Quality.

Iraq's five-year national development plan identifies five priority areas for development: improved governance, including the protection of human rights; inclusive, more equitable and sustainable economic growth; environmental management and compliance with ratified international environmental treaties and obligations; increased access to essential quality services and investment in human capital; and empowerment of women, youth and children. The groundwork for a new \$10 million project to upgrade the national quality system began in May. The project, to be implemented in cooperation with the United Nations Conference on Trade and Development (UNCTAD) and the Swedish Board for Accreditation and Conformity Assessment, will address the country's priorities in terms of consumer protection and trade capacity-building. It aims to set up a legal framework and infrastructure for standards, testing, metrology and conformity assessment following international best practices. The overall development objective is to enhance the trade capacities and performance of Iraq to ease its integration into the regional and multilateral trading system.

The year under review saw the publication of the results of a major survey on the impact of ISO 9001 in Asia, carried out in cooperation with the International Organization for Standardization (ISO), the International Accreditation Forum (IAF) and the Norwegian Agency for Development Cooperation (Norad). *ISO 9001—Its relevance and impact in Asian developing economies* addresses a recent concern, shared by ISO, IAF and others, about whether excessive attention to gaining ISO 9001 certification has shifted the focus away from the effectiveness of quality management systems in the organizations involved. This publication represents an attempt to address these concerns. It is the outcome of a project initiated by UNIDO, funded by Norad and supported with technical inputs by ISO and IAF. The countries involved in the survey were Bangladesh, Bhutan, India, Indonesia, Malaysia, Maldives, Nepal, Pakistan, Philippines, Sri Lanka, Thailand and Viet Nam. The survey evaluated the development of the certified quality management system, the certification bodies, and the economic benefits of accreditation within the South Asian Association for Regional Cooperation, as well as the levels of conformity to ISO 9001 by companies primarily in the manufacturing and

construction sectors. The survey clearly demonstrates the economic benefits of the implementation and accredited certification of quality management systems in Asian developing economies.

October saw UNIDO's first workshop on business partnerships held in Vienna in cooperation with the International Business Leaders Forum. The capacity-building workshop on partnering skills and techniques demonstrated a consistent and coherent approach to partnering with the private sector, explored innovative models of collaboration partnerships across the United Nations system and introduced partnering tools and techniques for partner selection. The quality of training and relevance of the workshop was praised by the large number of technical staff participating.

Quality and compliance infrastructure

Many developing countries are hampered in their efforts to compete on the global market by the need to comply with the agreements related to technical barriers to trade and sanitary and phytosanitary measures promulgated by the World Trade Organization (WTO). In order to implement WTO agreements, they first have to establish national quality systems and develop institutional infrastructure for standards, metrology, testing and quality and, equally importantly, build the requisite capacities.

Until recently, Sierra Leone, a member of WTO since 1995, had neither a national quality policy nor an internationally recognized quality infrastructure for microbiological and chemical testing. It also lacked the facilities for the calibration of testing and measurement equipment. Without these controls in place, the local population faced potential risks from substandard imports while the country itself was limited in its ability to export goods. Building on the success of an earlier initiative, a new project was designed last year to ease the integration of Sierra Leone into global trade through the establishment of a national quality policy and the strengthening of key quality infrastructure services. Funding for the current project was provided by the Governments of Finland and Norway and by UNIDO.

Sierra Leone's new national quality policy was officially adopted by the President in October. It provides a framework to ensure that goods and services emanating from, or traded in, Sierra Leone meet the requirements of purchasers and consumers as well as those of the regulatory authorities,

both in the local and export markets. Results of the project so far include the design and construction of a modern metrology laboratory that will meet the needs of Sierra Leone, comply with international standards and enable the further development of the competent authority for the certification of fishery exports, one of the key export commodities of the country.

A similar project is under preparation for Malawi that will address market access and trade facilitation by strengthening institutional and national capacities related to standards, metrology, testing and quality. The Malawi national quality policy, drafted by UNIDO and currently awaiting cabinet approval, sets the stage for accelerated economic and social development. Through it, the Government of Malawi commits to put in place a technical regulation framework that will be observed by all ministries and their regulatory authorities. In February, UNIDO held a national quality policy workshop in Lilongwe that was attended by senior Government officials as well as some 60 stakeholders from the public and private sectors. Once the national quality policy has been approved, Norad will fund a technical cooperation project to strengthen the country's national quality infrastructure.

A project was launched in September that will increase Burundi's capacity to trade by improving compliance with international standards on quality and sanitary and phytosanitary measures. Funded by the Enhanced Integrated Framework (EIF) and Norad, the three-year \$3 million project is the first EIF project to be implemented by UNIDO in Burundi. It will help strengthen the country's national quality infrastructure elements—standards, inspection and testing—related to conformity with sanitary and phytosanitary standards and lend support to targeted value chains in order to improve production quality and export competitiveness. It will enable goods produced or exchanged in Burundi to meet the needs, expectations and requirements of buyers and consumers as well as those of the regulatory authorities in both local and export markets.

Many developing countries that liberalized their markets in the hope of achieving export-led growth and eradicating poverty soon discovered that reducing tariffs and quotas alone did not lead to a discernible increase in their exports. It is against this background that UNIDO and WTO joined forces to assist developing countries to overcome remaining hurdles and become better integrated into the global economy. Under a memorandum of understanding between the two organizations, UNIDO will develop supply-side

capacity and competitiveness and assess conformity to market requirements while WTO will facilitate developing countries' access to the global market and integration into the multilateral trading system.

A national quality policy and its implementation plan were approved by the Government of Zambia at the end of 2010. The following year, UNIDO and WTO put in place a trade capacity-building programme for Zambia that would enhance the country's export performance by establishing a credible conformity assessment infrastructure. Financed by Norad, the €2.7 million project is expected to run until 2013. It was responsible for the establishment of the Zambia National Laboratory Association that will, among other things, run national testing schemes. The first training session on the Global Markets Protocol of the Global Food Safety Initiative was carried out in April and brought together food producers and suppliers as well as quality managers from major supermarket chains. Future local expertise was assured by training a core group of recent graduates in food science and food technology on the Protocol and checklists. Second level training on gap analysis took place in June and included visits and mentoring.

In February, UNIDO organized an international workshop in Dhaka on conformity assessment for Asian developing economies, in cooperation with the Government of Bangladesh and a number of international organizations. With financial support from the EU and Norad, the workshop aimed to create a better understanding among policy-makers of the standards promulgated by the International Telecommunication Union (ITU), ISO and the International Electrotechnical Commission. In its conclusions and recommendations, the workshop recognized the importance of raising levels of awareness of conformity assessment. It recommended the appointment of national focal points and national mirror committees, mentoring by international organizations as well as better regional collaboration. The Dhaka workshop was followed by another in Brasilia in June, organized by UNIDO, ITU and other organizations on conformity and interoperability for the Latin American region. UNIDO plans to run similar workshops in other regions to develop technical cooperation projects in the field of conformity assessment.

As part of a large-scale project for the least developed countries in South Asia, financed by Norad, UNIDO provided support to Bhutan on market access and trade facilitation through strengthening the country's institutional and national capacities in the field of standards, metrology,

■ The year under review saw the completion of a large project to help West Africa play a greater role in the world economy by strengthening regional integration and trade. The €16.5 million West Africa Quality Programme was funded by the EU and implemented by UNIDO on behalf of the Commissions of the Economic Community of West African States (ECOWAS) and the West African Economic and Monetary Union (UEMOA). It built on the success and extended the coverage of an earlier four-year project, completed in 2005, and involved accreditation, product testing and certification, support to enterprises, metrology, standardization, quality infrastructure, inspection and quality promotion.

Under its quality component, the programme was responsible for the adoption of a regional quality policy and several participating countries set up a legal quality framework. It also provided support to quality institutions within UEMOA to enable them to become fully operational. An assessment report on regional quality infrastructure and a road map for implementation were prepared and adopted by ECOWAS. Under the metrology component of the project, UNIDO provided equipment to national metrology bodies in 15 countries and trained 30 metrology technicians at the national and regional level. Both regional and national bills on metrology are in the final stage of preparation or adoption by the relevant authorities. In the area of standards, the programme led to the adoption of 42 technical standards by a subregional secretariat for the coordination of standards-related activities, which is now fully operational. UNIDO trained the staff of national standardization bodies and provided computer material. It also put in place procedures for the harmonization of regional standards adopted by ECOWAS. UNIDO also trained an accreditation manager and set up two accreditation committees.

Over 300 regional officers were introduced to accreditation and its significance for industry and the West African Accreditation System was upgraded. Under the conformity assessment component of the programme, more than 500 technicians from 100 laboratories in the region received training in accreditation benchmarks. UNIDO equipped 84 laboratories and nine were accredited of which eight received ISO 17025 certification and one the ISO 15189 certification. Ten laboratories are now ready to be evaluated for accreditation and a further two laboratories will be evaluated early in 2013. UNIDO provided training under this component to staff of 16 inspection services as well as the staff of national products certification bodies. In terms of quality promotion, UNIDO set up or reinforced quality and food safety management systems in 90 companies and trained over 1,500 staff. Of 13 certificates issued, nine were for ISO 9001 and two each for ISO 22000 and organic agriculture. Diagnosis and development plans were put in place for six technical centres. The programme supported four training workshops for 30 professional staff of the International Centre for Research and Development of Animal Husbandry in Sub-humid Zones in Bobo-Dioulasso, Burkina Faso. Support was also given to the Centre's genetic testing laboratory towards ISO/IEC 17025:2005 accreditation.

The West African Quality Programme has contributed to the development of an enabling business environment that will allow enterprises to produce goods that meet market requirements, including public and private standards. The impressive results achieved by the programme have been the subject of extensive media coverage both at the local, regional and international level.



testing and quality. Completed at the end of the year, the five-year project aimed to boost Bhutan's industrial development and in particular enhance its ability to export its products while protecting the population from the potential hazards of substandard imports. The project has triggered a marked acceleration in the country's economic growth, reducing technical barriers to trade through the strengthening of institutional structures and national capacities in standards, metrology, testing, quality and conformity assessment. Under the project, UNIDO helped prepare the country for the adoption of standards and set up the Bhutan Standards Bureau following the Bhutan Standards Act of 2010. The Bureau is about to become an autonomous body that will oversee standardization, certification and metrology activities in the country. It was recently equipped by UNIDO with the materials necessary to set up a national metrology laboratory to maintain the national standard for measurement units traceable to international standards. Its application for accreditation has been submitted to India's National Accreditation Board for Testing and Calibration Laboratories.

UNIDO also provided equipment and training to develop the chemical testing capacity of the National Quality Control Laboratory under the Bhutan Agriculture and Food Regulatory Authority of the Ministry of Agriculture and Forests. The laboratory can now test for pesticide residues, contaminants and heavy metals. In-house and overseas training for technical staff enabled it to fulfil the requirements for ISO 17025 accreditation. Fifteen auditors were given training on ISO 22000 and enhanced hazard analysis and critical

control points and ISO 22000 auditing capacity. UNIDO arranged a two-day awareness seminar in cooperation with the Bhutan Agriculture and Food Regulatory Authority for 53 participants, including 29 food inspectors. As a result of the project, companies reported an improvement in food safety and those implementing ISO 22000 were rewarded by higher productivity, largely attributable to changes in operating procedures that increased employee accountability and cut down waste.

With the help of UNIDO, another least developed Asian country was able to earn its first ever international accreditation for chemical testing in a public sector laboratory. The fact that certificates issued by laboratories in Nepal were not recognized internationally was one of the greatest stumbling blocks to its export sector. India refused the import of ginger and lentils from Nepal in 2004, while the EU banned the import of honey because of the presence of pesticide residue,¹¹ preventing the country's economy from realizing substantial potential benefits. In September, the central food laboratory of Nepal's Department of Food Technology and Quality Control in Kathmandu received international accreditation from India's National Accreditation Board for Testing and Calibration Laboratories, a signatory to the mutual recognition agreements both with the International Laboratory Accreditation Cooperation and with the Asia-Pacific Laboratory Accreditation Cooperation. This achievement is an important milestone in building up the quality infrastructure of Nepal that could pave the way for future

¹¹ Source: *Nepal Trade Integration Strategy 2010*.



Photo © iStockphoto.com/thiel_andrzej

accreditations. The Nepal Bureau of Standards and Metrology hopes to gain international recognition of its testing and calibration services in the near future.

Although the economies of Arab States are at varying stages of advancement, they tend to encounter similar challenges in the trade sector. Trade integration in the Arab world began with the creation of the Arab League in 1945 and several attempts have been made over the years to promote regional political and economic integration. Considerable scope still remains, however, and would have particular benefits for SMEs that are nowhere close to reaching their potential and currently employ a mere 15 per cent on average of the labour force. The contribution of the manufacturing sector to gross domestic product does not exceed 10 per cent, although this figure is slightly higher for some countries in the region. In any event, local manufacturing fails to meet the needs of most Arab countries in terms of food, clothing and lodging, or generate the jobs needed by growing populations.

In partnership with the Arab Industrial Development and Mining Organization (AIDMO)—the organization responsible for industrial development in the Arab region with its headquarters in Rabat—UNIDO was asked to design a quality infrastructure programme. Launched in 2010 and financed by the Swedish International Development Cooperation Agency, the aim of the project was to support the region's efforts to harmonize its quality infrastructure ensuring compliance with international trade rules and regulations. The UNIDO-AIDMO project led to the establishment in 2011 of Arab Accreditation, an agency designed to

provide reliable accreditation services, tailored to the needs of Arab countries.

Once its technical and regional coordination capacities had been strengthened under the project, AIDMO was given responsibility for regional activities on standards and quality infrastructure and now acts as the coordinating regional body between all national accreditation institutes in the region. It includes advisory committees on standardization, accreditation and metrology with the responsibility of setting up and implementing an Arab standardization strategy. A focus on gender balance within the project has empowered women to contribute to efforts to enhance trade and consumer protection. The project has also encouraged South-South cooperation by drawing on the expertise of more advanced accreditation bodies in the region to provide support to others.

The international community has responded very positively to progress made to date and Arab Accreditation has concluded a number of agreements with other regional bodies. In June, it signed a technical cooperation agreement with the InterAmerican Accreditation Cooperation—a non profit-making body that promotes cooperation among accreditation bodies and interested parties of the Americas—to boost the development of national, regional and interregional accreditation programmes. The agreement was signed during a regional accreditation workshop in Amman and aims to foster national, regional and global schemes to develop more reliable accreditation bodies, Arab Accreditation is now hosted by AIDMO with its own secretariat and three technical committees comprising

15 member countries. It is a member of the International Laboratory Accreditation Cooperation.

Despite remarkable progress over the past 20 years both in foreign direct investment and exports, the economy of Colombia was not immune to the recent financial crisis that slowed down the rate of growth of its industrial sector. Although the country is now recovering from the downturn, it recognizes that one of the bottlenecks to regional and international trade is its difficulty to fulfil some of the requirements in terms of metrology and conformity assessment exacted by trading partners in the industrialized world. To address this issue, Colombia has recently undergone substantial institutional reforms in the area of quality infrastructure, culminating in the establishment of the National Metrology Institute and the public-private Colombian Network of Metrology.

UNIDO and the Swiss State Secretariat for Economic Affairs are currently developing a project to enhance quality infrastructure in Colombia for selected sectors, in particular in the areas of metrology and conformity assessment. The project will also involve capacity-building in the field of energy efficiency. The Ministry of Commerce, Industry, and Tourism will act as focal point for the project at the institutional and national level. The main beneficiaries will be some of the sectors under the Colombian programme for productive transformation, government institutions working in the areas of quality infrastructure, food safety and energy efficiency, trade and manufacturing associations, the private sector and consumers in general. The project proposal will be submitted for approval in the third quarter of 2013.

Capacity-building projects are also ongoing in the Plurinational State of Bolivia, Ecuador and Nicaragua. In the Plurinational State of Bolivia, UNIDO assistance involves improving food safety for flour, dried fruits and processed cow blood and is a component of a larger MDG-F-funded project. Under its project in Ecuador, UNIDO has supported the country in developing a national cocoa traceability scheme. In Nicaragua, UNIDO is helping the country to strengthen and improve its standardization, metrology, testing and quality assessment infrastructure.

Industrial export promotion and SME consortia

It is no easy task for SMEs to compete effectively in the global, regional and even domestic markets. Without

extensive know-how and financial resources, attempts to export are often doomed to failure and may even put at risk the financial stability of the enterprises. Firms wishing to export must identify suitable foreign markets, contact local distributors, accurately gauge consumer preferences and adjust the quality and price of products accordingly. Finally, it is difficult to achieve a significant level of exports without offering a comprehensive product range. The skills needed and the costs involved in meeting these challenges are often beyond the capacities of individual SMEs. One effective way of entering export markets is through the development of export consortia or voluntary alliances of firms with the objective of promoting the export of goods and services through joint actions. UNIDO has extensive experience and expertise in this field to put at the disposal of its client countries.

An EU-funded project in Côte d'Ivoire has shown excellent progress mid-way in its implementation despite a lengthy interruption for political reasons in 2011. The project aims to improve the competitiveness of Ivorian enterprises in non-traditional export sectors. It was decided to concentrate on three priority areas: cashew nuts, cassava and textiles and garments. Training provided by UNIDO far exceeded the target. More than 130 representatives of national support institutions and 150 representatives of national enterprises were briefed on UNIDO's approach to competitiveness improvement, almost twice the number of participants originally planned. Over 150 staff from 72 enterprises were shown how to improve the competitiveness of their respective enterprises, whereas the planned target was 60 staff. Training was successfully offered to 33 promoters of export consortia, out of which 10 took part in a study tour of Italy. Twenty enterprises were assisted in the establishment of export consortia and three export consortia were formally established with a further two in progress. UNIDO was able to train 12 lead assessors in ISO 17025, four times the number foreseen. The project also conducted a feasibility study for a laboratory waste treatment centre and has drawn up a programme on national upgrading and restructuring that is currently under review by national stakeholders.

A project to encourage and support export consortia in Morocco drew to a close in 2012. Funded by Italy, the four-year project targeted the country's textile industry as well as its leather, agro, automotive, construction materials and mechanics sectors. One of the most pleasing outcomes of the project was the high level of satisfaction expressed by its beneficiaries who cited their new-found ability to access different markets

One effective way of entering export markets is through the development of export consortia or voluntary alliances of firms. UNIDO has extensive experience and expertise in this field to put at the disposal of its client countries.



or new clients in traditional markets, boost their professional image, develop their own collective label, increase their negotiating powers, organize their production lines, deepen their knowledge of external markets, maintain or improve their turnover and gain access to internationally recognized certification. UNIDO provided training in export consortia development to a total of 134 men and women in key public and private institutions, both at the national and local level. As a result of the project, 25 export consortia are now operational in 12 different sectors and covering eight regions of the country. The Moroccan Association of Export Consortia is up and running and has signed a partnership agreement with Federexport, the Italian Federation of Export Consortia. A website (www.marocconsortium.com) is in place and regular information on export consortia is provided in a quarterly newsletter. Finally, the sustainability of the project has been assured by a support scheme, funded by the Department of External Trade, that provides financial and technical assistance to export consortia during a three-year start-up period.

In support of the Government of Kuwait's efforts to decrease the country's dependence on oil revenues, UNIDO recently launched a pilot project to strengthen the export competitiveness of the Kuwaiti chemicals and plastics sector. Working together with the Public Authority for Industry of Kuwait, UNIDO is helping local SMEs to

upgrade their export skills and competences and access foreign markets. The pilot project also involves training and study tours for staff of the Industrial Exports Development Centre and the creation of an export database on potential foreign markets that will be accessible to the public. Other activities under way include assistance to pilot SMEs in the step-by-step implementation of their enterprise export plans, training for representatives of Kuwaiti SMEs on export-related topics and the preparation of a feasibility study on the possibility of developing export consortia in Kuwait. With the help of UNIDO, Kuwait should soon be in a position to diversify its export base, both in terms of products and markets.

Kazakhstan has made great economic strides since its independence in 1991. Whereas much of this success is based on the development of the mining and energy sector that provides plenty of opportunities for foreign direct investment and export earnings, the manufacturing sector, in particular SMEs, has not fared as well. This has led the Government to put in place several policy initiatives to support SMEs, including the creation of a joint-stock entrepreneurship development fund "Damu". In 2011, Kazakhstan turned to UNIDO for assistance in improving the overall competitiveness of industrial SMEs by setting up a centre for the development of industrial enterprises and

strengthening the business development services provided by Damu. A needs study undertaken by UNIDO stressed the importance of improving competitiveness and trade capacity, as well as building up regional and international cooperation in the industrial area to diversify the economy. While the Damu Fund will provide all necessary facilities, UNIDO will be responsible for the methodological base and the provision of expert and consulting services.

A seminar on SME export consortia took place in Quito in June, co-organized by UNIDO, the Latin American and Caribbean Economic System and the Ministry of Industries and Productivity of Ecuador. The Director General of UNIDO spoke about the third industrial revolution and the imperative for sustainable development to cope with a rapidly growing world population. Export consortia that met international environmental standards, he informed participants, represented one solution that UNIDO was uniquely positioned to promote in its client countries.

Corporate social responsibility for market integration

Corporate social responsibility (CSR) is a management concept that integrates social and environmental concerns in business operations and a company's interactions with its stakeholders. The implementation of CSR practices has long been considered the realm of large companies and globally operating multinational corporations that responded to pressures by Governments and consumers to address pollution and environmental degradation, inadequate working conditions in production, sourcing and delivery processes or human rights abuses. In the past few years, there has been growing interest in looking at the entire value chain, from primary production to consumption and disposal, and specifically to those SMEs and agri-businesses supplying raw materials or semi-processed or consumer goods and services to multinationals. Ensuring that CSR supports, and does not undermine, the development of SMEs in developing countries is crucial to meeting the goal of improving the impact of business on society. Support for SME development can be an important part of the CSR commitment of large companies in the context of responsible supply chain management, and improvements in social and environmental impacts can go hand-in-hand with better quality and management. In its CSR Programme, UNIDO addresses the need to establish a framework for SMEs that helps translate

the principles of corporate social responsibility into a relevant SME perspective, thereby enhancing their competitiveness and market access.

UNIDO recognizes that aligning business strategies, operations and supply chains with sustainable development outcomes is not only a social responsibility, but also increasingly a business imperative. Adopting more socially inclusive and environmentally sustainable business operations will help to mitigate risk, develop new markets and cultivate sustainable relationships with suppliers, customers and investors. For many producers in developing countries, the opportunity of being accepted as reliable suppliers and establishing long-lasting business linkages with potential buyers such as Ahold, IKEA, Marks & Spencer, METRO Group, Pick n Pay, PVH Corp, and Walmart can generate income and job opportunities fully in line with the UNIDO agenda of partnership with the private sector.

In order to familiarize staff throughout the Organization with the concept of CSR, UNIDO organized a seminar in October on its REAP 26 approach (see box). The idea was to help participants understand the REAP 26 principles and see how they could be applied in their own projects. Some of the topics covered in the seminar were a presentation of a CSR project in Viet Nam and the evolution of REAP, future opportunities in the area of ISO 26000 and recognizing the sphere of influence and circularity with regard to stakeholders. The seminar closed with a discussion on how to best align, integrate and build on each other's methodologies for future project developments.

In October, UNIDO and the Global Social Compliance Programme teamed up in an effort to encourage companies to pay due regard to social, environmental and economic concerns throughout their supply chains. The joint Sustainable Supplier Development Programme (see also chapter 2) seeks to develop capacities within clusters of suppliers to strengthen human and labour rights, foster better environmental practices and help those suppliers who have fulfilled these criteria to achieve better access to markets.

In November, UNIDO was invited to address the annual conference of the Business Social Compliance Initiative (BSCI), formed by companies committed to improving working conditions in the global supply chain. The Initiative was launched in 2003 by the Foreign Trade Association, that brings together over 1,000 retailers, importers, brand companies and national associations in Europe to improve the political and legal framework for responsible trade. At the conference in Brussels, UNIDO

RESPONSIBLE ENTREPRENEURS ACHIEVEMENT PROGRAMME (REAP)

UNIDO's Responsible Entrepreneurs Achievement Programme (REAP) is a comprehensive methodology to support the efforts of manufacturing SMEs in developing countries to implement CSR with the help of experts or special counsellors trained by the Organization. These typically assist selected SMEs over a period of between 8 to 12 months to implement the most relevant CSR topics.

Based on the ten principles of the United Nations Global Compact, the REAP methodology consists of step-by-step guides on specific issues such as occupational health and safety, environmental management, waste treatment, water usage, labour standards and human rights and anti-corruption. The guides support the incorporation of these issues into a company's business processes. REAP focuses purely on internal CSR issues—topics such as community involvement or external stakeholder engagement are not included in this methodology—and is based on a lean manufacturing approach. Experience has shown that in the case of a large number of SMEs in developing countries, CSR can be more easily comprehended when it initially addresses issues that are directly linked to the production process and the shop floor. For further information, please refer to www.unido.org/reap.

described its work on agribusiness supply chains through the Egyptian Traceability Centre for Agro-Industrial Exports. It also presented its sustainable supplier development work with the METRO Group as well as the scope of cooperation with the Global Social Compliance Programme, a business-driven programme for the continuous improvement of working and environmental conditions in global supply chains. The UNIDO presentation paved the way for future cooperation with BSCI. Members of BSCI are sourcing agricultural products, textiles, shoes, toys, furniture, electronic appliances and other goods from countries such as Bangladesh, China, India, Indonesia, Thailand, Turkey and Viet Nam.

At the end of the year, UNIDO completed a three-year capacity-building programme for the Turkish textile sector, funded by the Government of Spain's Millennium Development Goal Achievement Fund and developed by UNIDO in partnership with the United Nations Development Programme, the International Labour Organization and the Istanbul Textile and Apparel Exporters Association. The aim of the programme was to transform the Turkish textile sector into a competitive industry with a focus on integrating small textile producing firms in Adiyaman, Gaziantep, Kahramanmaraş and Malatya into domestic and global value chains. The programme sought to provide better job opportunities within the

regions and offer special support to disadvantaged local groups and women. Some of the concrete activities involving UNIDO include upgrading the production processes and promoting corporate social responsibility within the textiles value chain, among others by completing an analysis of the environmental conduct of 100 SMEs, 10 buyers and 10 business support organizations.

The project also carried out activities to promote the development of SME clusters in the target region and build the capacity of support institutions to assist the clusters over the long term. Twenty-six experts and institutional representatives have been trained on UNIDO's SME cluster development methodology and an expert group meeting was held for people involved in the textiles value chain. In the course of several meetings and site visits, UNIDO gathered information on CSR strategies and supplier requirements from international buyers including Gerry Weber, H&M, Marks & Spencer, Nike, Inc. and the Otto Group. Concrete cooperation activities with buyers were also identified and have led to the development of partnership programmes with H&M and Marks & Spencer.

SMEs producing agro-based products in developing countries, especially small production units, often lack the technical and financial means to produce goods of sufficient quantity and quality in a cost-effective manner. This means



Ensuring that CSR supports, and does not undermine, the development of SMEs in developing countries is crucial to meeting the goal of improving the impact of business on society.

that they miss out on the market opportunities offered by local and global supermarkets and manufacturers. This has a negative impact on those less developed businesses and their workers who strive to access formal and profitable markets with their products in order to grow and generate income and job opportunities.

An excellent example of a pro-poor business partnership brokered by UNIDO involves clusters of micro, small and medium enterprises in Malaysia. The partnership integrates development objectives with the objectives of corporate social responsibility, bringing together the clusters, local

government and support institutions and Japan's largest retail network, the AEON Group, which comprises a range of subsidiaries and affiliated companies, from convenience stores and supermarkets to shopping malls and specialty stores. Funded by the Government of Japan and on a cost-sharing basis with the AEON Group, the project will initially support 25 SMEs in Malaysia—primarily suppliers of fruit, vegetables, frozen food, dairy products, meat and confectionary—by improving quality and safety, increasing productivity and enabling them to apply best international practices in corporate social responsibility. The programme builds on shared

values among all the partners. It integrates Malaysia's development policies and the capacities of local private companies with AEON's Good Citizenship Business Principles that promote food safety, integrity, sustainable development and community development throughout the supply chain. It also draws on UNIDO's experience in fostering business partnerships, in building trade capacity by increasing product quality and safety, productivity and sustainability as well as on its corporate social responsibility for market

integration programme. It is part of the Organization's Sustainable Supplier Development Programme and builds on successful cooperation with some of the world's top retailers and manufacturers in developed countries to improve livelihoods of small producers in developing countries.

The project in Malaysia will be extended to 100 suppliers by 2015 and capitalizing on its strong capacity-building component should enable the country to become a hub for sustainable supplier development in the region.



The green growth pathway

“Green Industry and the Greening of Industries, concepts coined by UNIDO in the last few years, are helping place sustainable industrial development in the context of new global sustainability challenges. Together we can make the global transition to a green growth pathway work.”

Kandeh K. Yumkella, Director General, UNIDO

In order to lead its client countries to the green growth pathway, UNIDO follows two tracks: clean, green production and clean, green energy. It is at all times guided by the goals and principals enshrined in multilateral agreements that set a time frame for countries throughout the world to make adjustments to their industries.

Summing up the green event of the year—the United Nations Conference on Sustainable Development, or Rio+20 as it is commonly known—the United Nations Secretary-General Ban Ki-moon observed that Rio+20 had provided a solid platform to build on and the tools to build with. “The work”, he emphasized “starts now”. The conference also pledged \$513 million to put aspirations into action.

Held in Rio de Janeiro, Brazil, in June, the summit brought together 100 world leaders and 45,000 participants. While the outcome document, *The Future We Want*, did not provide the sweeping mandates given by its predecessor conference in 1992, it represented a true political consensus on a range of key issues. These included the need for a set of sustainable development goals, along the lines of the Millennium Development Goals that will be proposed by an intergovernmental working group and submitted to the 68th session of the General Assembly. The summit also agreed on a resolution that strongly encouraged the implementation of green economic policies in the context of sustainable development and poverty eradication while acknowledging the individual rights and priorities of each country. As in the majority of its outcomes, the resolution veered towards what was realistically attainable rather than the radical.

In common with other major conferences, some of the most successful events happened outside the plenary. One of the highlights for UNIDO was the launch of the Green Industry Platform, a joint initiative with the United Nations Environment Programme (UNEP). Another side event with particular relevance to UNIDO focused on green chemistry and its application for sustainable production and consumption, as well as the protection of human health and the environment. The event highlighted both current applications of green chemistry and new challenges, and showcased a number of success stories. It laid the groundwork for international partnerships between Governments, business, academia and non-governmental organizations to advance the safe development, application and management of chemicals. The launch of the Global Energy Assessment during Rio+20 was also a landmark event. Details are given later on in this chapter. The green technology exhibition organized by the UNIDO Investment and Technology Promotion Office (ITPO) in Japan is covered in chapter 2. UNIDO also held a round table discussion entitled “Do We Need a Green Industrial Policy?” (see chapter 5).

In collaboration with Switzerland and the World Bank's International Finance Corporation, UNIDO organized an event on resource efficiency and enterprise competitiveness where it showcased the Resource Efficient and Cleaner Production (RECP) programme and the global network of National Cleaner Production Centres (NCPCs). The event illustrated how RECP is based on the continuous application of an integrated preventive environmental strategy to processes, products and services in order to increase overall efficiency and reduce risks to human health and the environment. It also touched on the financing needs of the manufacturing sector in seeking to become more resource-efficient, reduce carbon emissions and benefit from the growing market for green products and services. UNIDO was similarly involved in events that revolved around reviewing the progress of the manufacturing sector in its transition to a low-carbon economy, establishing the need for an industrial policy on green growth, addressing the challenges of renewable energy for sustainable development, identifying innovative financing models for green growth, pursuing climate change mitigation through the Montreal Protocol and showcasing environmentally friendly technologies identified in the context of UNIDO's Green Industry Initiative (see below).

Resource-efficient and low-carbon industrial production

The green industry vision is rooted on the potential for industries to decouple economic growth from the excessive use of valuable resources. It foresees a world where industrial sectors will minimize waste and pollution in every form, use renewable resources as input materials and fuels and take every possible precaution to avoid harming workers, communities, the climate or the environment. Green industries must demonstrate creativity and innovation by developing new ways of improving their economic, environmental and social performance.

In October, the UNIDO Regional Office in India presented the Organization's Green Industry Initiative to staff of Government departments, national agencies and donor countries. UNIDO described the green industry perspectives for India and introduced its green industry portfolio for the country, which currently comprises a desk review of

policy gaps, the UNIDO RECP programme, its integrated cluster development programme and green growth policy advice for manufacturing. The discussion that followed the UNIDO presentation enabled participating organizations to describe their own activities in support of green industry.

The Green Industry Initiative

The UNIDO Green Industry Initiative was announced by the Director General at the International Conference on Green Industry in Asia, held in Manila in 2009. It aims to inject social and environmental considerations into the operations of enterprises in all countries and regions through the more efficient use of energy and raw materials, innovative practices and the application of green technologies. The initiative deals with all three dimensions of sustainable development in a mutually supporting triangle with environmental considerations at the base, supporting economic development that takes place as a consequence of the adoption of more resource-efficient and environmentally-friendly practices. At the same time, the project covers health and safety standards and policies and practices in manufacturing industries worldwide that make up the social aspects of sustainable development. The most significant achievement of the initiative in 2012 was undoubtedly the launch of the Green Industry Platform (see box).

UNIDO took the opportunity to introduce its green industry approach at a number of forums throughout the year. In January, it presented its RECP programme at an international conference that took place in Prague in January on the occasion of the opening of the Czech Presidency of the European network PREPARE 2012-2014 and the adoption of a road map to a resource-efficient Europe. At the Partnership Forum for Sustainable Development, which took place in Stockholm in April, UNIDO delivered a presentation on green industrial policies and practices. The forum marked the fortieth anniversary of the United Nations Conference on the Human Environment, held in Stockholm in 1972. The 15th European Round Table on Sustainable Consumption and Production was held in May in Bregenz, Austria, under the motto "SCP meets industry". Again in May, UNIDO was an official partner of the fifth Nevsky International Ecological Congress held in St. Petersburg, Russian Federation, the theme of which was the ecological basis for sustainable development. UNIDO representatives

“We want to see concrete results coming out of Rio and this has the potential to be one of the most important.”

Janez Potocnik, European Commissioner for the Environment



■ During the United Nations Conference on Sustainable Development, held in June in Rio de Janeiro, Brazil, UNIDO and UNEP launched a new, joint initiative: the Green Industry Platform. The goal of the Platform is to inspire measurable progress towards green industry and ensure that the emerging green industry revolution is given the policy profile, focus and coherence it deserves. The Platform provides a framework for a high-level, multi-stakeholder partnership to catalyze, mobilize and mainstream action on green industry around the world. It brings together Governments, businesses and international and civil society organizations to secure concrete commitments and encourage the greening of existing industries and the creation of new green industries for the production of goods and services. It advocates a more efficient use of energy and raw materials, a careful use of water resources and the safe management of chemicals in manufacturing processes and services. The Platform contributes both to cleaner and more competitive industrial development and will help reduce pollution and reliance on an unsustainable use of natural resources.

Membership in the Platform ranges in size from small and medium enterprises (SMEs)—Cambodia Modern Rattan is one example—to multinationals such as the French oil and gas company, Total S.A. Representatives from member businesses including the Chinese manufacturing company, Broad Group, the multinational Microsoft Corporation and Danish biotechnology company Novozymes A/S took part in the launch of the Platform, joining ministers from partner Governments of the initiative including Poland, Sierra Leone and Sweden. At the end of the year, the Platform counted 122 members—more than half of which are businesses—but the number is growing from day to day.

“We also note the active role played by UNIDO at Rio+20, particularly with regard to the launch of the Green Industry Platform. In the face of current energy and environmental challenges, the promotion of a new model of growth that favours truly sustainable development would seem essential. We are confident that UNIDO has an important role to play in the promotion of such a model.”

Statement of France to the fortieth session of the Industrial Development Board.

delivered a keynote address and moderated a round table on water management.

The effect of toxic pollution on human health in developing countries was the topic of a presentation given by UNIDO to the International Conference on Legacy Pollution in Developing Countries, held in Bellagio, Italy in July. Data presented had been collected in a collaborative effort with the Blacksmith Institute, an international not-for-profit organization focused on reducing the negative health impacts from toxic pollution. Since 2009, Blacksmith and its partners have conducted more than 1,500 assessments of polluted sites in 47 countries. Discussions at the conference also focused on a global alliance to address legacy pollution and its human health impacts in low and middle-income countries.

In October, UNIDO forged a new partnership with the Danish brewing company Carlsberg Group and its subsidiary Baltika Breweries, the largest beer company in the Russian Federation. The first of its kind in the Russian Federation, the business partnership represents a new way of thinking about environmental sustainability. It is expected to deliver environmental benefits by reducing natural resource consumption, pollution and greenhouse gas emissions from breweries and their supply chain, while also improving the agro-ecosystem and water systems.

In cooperation with UNEP and the Central European University in Budapest, the UNIDO Institute for Capacity Development held a summer course on “Green Industry: Moving Towards the Industry of the Future” (see chapter 5).

Cleaner production

The National Cleaner Production Centre programme, run jointly by UNIDO and UNEP, saw the addition of two more centres in 2012, bringing the total number of centres around the world to 51.¹² With financial support from the Swiss State Secretariat for Economic Affairs (SECO) and in cooperation with the Ministry of Environment and the Ministry

¹² Albania, Algeria, Armenia, Bolivia (Plurinational State of), Brazil, Bulgaria, Cambodia, Cape Verde, China, Colombia, Costa Rica, Croatia, Cuba, Czech Republic, Ecuador, Egypt, El Salvador, Ethiopia, Guatemala, Honduras, Hungary, India, Indonesia, Jordan, Kenya, Lao People's Democratic Republic, Lebanon, Mexico, Montenegro, Morocco, Mozambique, Nicaragua, Peru, Republic of Korea, Republic of Moldova, Romania, Russian Federation, Rwanda, Senegal, Serbia, Slovakia, South Africa, Sri Lanka, the former Yugoslav Republic of Macedonia, Tunisia, Uganda, Ukraine, United Republic of Tanzania, Uzbekistan, Viet Nam and Zimbabwe.

of Industry of Indonesia, UNIDO launched a new project targeting cleaner and more resource-efficient industrial production methods in Indonesia's metal products, chemicals and food and beverage sectors. The project involves a scaling-up of the country's national resource-efficient and cleaner production programme to expand the application of cleaner production in line with the UNIDO methodology. SECO was similarly involved in setting up a new cleaner production centre in Ukraine. The object is to enhance efficiency, productivity, competitiveness and environmental performance of companies in Ukraine, especially SMEs, through the implementation of RECP.

In September, UNIDO and the Vienna-based International Atomic Energy Agency (IAEA) took another step to strengthen cooperation in a number of areas, notably in the field of cleaner industrial production. A collaboration agreement was signed by the Head of the IAEA's Department of Technical Cooperation and the Managing Director of UNIDO's Programme Development and Technical Cooperation Division, whereby the two organizations would use each other's networks as well as the UNIDO National Cleaner Production Centres in various countries to share information on the technical advantages of nuclear techniques in cleaner industrial production processes. The agreement reflects a shared interest in promoting cleaner technologies for industrial applications and assisting developing countries in achieving sustainable development. Nuclear technology can contribute to the greening of industry by analysing and processing a range of industrial materials. E-beam technology and other nuclear applications are widely employed in the treatment of wastewater, while radiotracers can be used to detect and trace industrial pollution.

Chemical leasing

The use of chemicals in industry plays an important role in the economy but can have an adverse effect both on the environment and humans. Industry is one of the main contributors to hazardous waste and as more areas of the world have industrialized, the quantity of chemicals used in industrial processes has risen heavily. Chemical leasing offers a sustainable solution to the problem. The concept of chemical leasing whereby the producer of chemicals sells the functions performed by the chemical rather than a specific volume of the chemical itself is not new, but ten years ago was

“Pollution has no passport and is created anywhere and affects somewhere else.”

Kandeh K. Yumkella, Director General of UNIDO

only practised by a narrow group of companies, mainly in the paint industry. It was not until the World Summit on Sustainable Development in 2002 that the international community took steps to ensure that chemicals are produced and deployed in ways that minimize the adverse effects on human health and the environment. This was followed, a year later, by the founding of the Strategic Approach to International Chemicals Management. Both Austria and Germany have been instrumental in promoting the safe use of chemicals and in 2004 UNIDO and Austria embarked on a number of projects in support of chemical leasing.

In 2010, a chemical leasing award was announced, followed by a second award in 2012, jointly organized by UNIDO, the Austrian Federal Ministry for Agriculture, Forestry, Environment and Water Management and the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety. The award—that also reflects the UNIDO Green Industry approach—aims at enhancing the visibility of chemical leasing worldwide and encourages innovative applications of the concept; it also recognizes best practices in chemical leasing implementation, publication and promotion activities. The award ceremony took place in June in Frankfurt, Germany, where a total of 13 awards were presented in the different categories.

Water management

Progress continued in 2012 on projects in Cambodia, Egypt, Morocco, Russian Federation and Tunisia. Projects in Honduras and Mexico were successfully completed during the year (see box) with the one in Mexico triggering the development of a self-financed project in the State of Veracruz. The project in Honduras was showcased in *Water and the Green Economy: Capacity Development Aspects*,

published by UN-Water and launched at IFAT, one of the world's leading trade fairs for water, sewage, waste and raw material management, held in May in Munich, Germany.

In 2000, UNIDO put in place a special methodology to help enterprises in developing countries to increase their competitiveness while meeting stringent environmental standards: the Transfer of Environmentally Sound Technology (TEST). First launched in the Danube River Basin, TEST has been replicated in a number of industrial hotspots worldwide, protecting water resources for future generations by reducing the discharge of industrial effluents into international waters. The hotspot methodology is currently being applied in Cambodia to assess major pollution sites in the basin of the Mekong River that also runs through China, Lao People's Democratic Republic, Myanmar, Thailand and Viet Nam. The project aims to improve the water quality of the Mekong River and reduce the negative impact of industrial emissions and discharges. UNIDO will train local industries and SMEs identified as pollution hotspots on its TEST methodology, introducing best available techniques (BAT) and best environmental practices (BEP) and environmental management accounting and systems as well as the principles of corporate social responsibility. Once the project is complete, it will allow the responsible authorities in Cambodia to take decisions on mitigation measures to reduce man-made pressure on water resources.

In 2009, with financial support from the Global Environment Facility (GEF) and the Government of Italy, UNIDO extended the TEST initiative to the Southern Mediterranean to promote the transfer and adoption of cleaner technology in industries located in the region. A useful booklet, published in 2012, entitled *Transfer of Environmental Sound Technology in the South Mediterranean Region* describes the positive results achieved by UNIDO

■ Over the past four years, industries on the banks of the Rio Blanco in north-west Honduras have been causing less and less pollution to the environment while at the same time reducing their running costs. The UNIDO TEST methodology has helped three targeted companies—one chicken-processing company and two textile companies—to adopt sustainable green practices that demonstrated how reducing pollution from contaminated effluents can lead to lower costs. The aim of the UNIDO project, completed in 2012 and financed under the Millennium Development Goal (MDG) Achievement Fund, was to introduce best practices for industrial water management and pollution reduction. As one of the first steps, the manager of the Honduras NCPC came to Vienna for training in the TEST methodology. As a next step, the NCPC in Honduras organized TEST training workshops for 50 experts from the three companies involved, which included classroom instruction and an on-site introduction to the new techniques. Over 2,200 employees from the three companies received training on the sustainable use of water, with a wider impact on at least 25 neighbouring communities.

The project resulted in a 7.5 per cent reduction in water consumption in the three companies, leaving more water available for riverside communities. It also helped reduce energy consumption in the treatment plants of the textile companies by 20 per cent and halved the salt concentration in effluents to within permissible levels. Treated wastewater was reused in the irrigation of biomass crops. The chicken processing plant reduced the biochemical oxygen demand by 55 per cent. With a total investment of \$130,000, the three companies are set to make an annual saving of \$90,000.

during the implementation of MED TEST in three countries: Egypt, Morocco and Tunisia.

The success of the TEST methodology led to the endorsement by the European Commission of the new SWITCH-Med programme to assist target countries and areas of the Southern Mediterranean region that form part of the European Neighbourhood and Partnership Instrument—Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, State of Palestine, Syrian Arab Republic and Tunisia—with UNIDO as the lead agency and funding of €17 million. The SWITCH-Med sustainable consumption and production programme aims to promote a switch in the Mediterranean economies towards sustainable consumption and production patterns and green economy.

Elsewhere on the Mediterranean, UNIDO played an active part in the 6th World Water Forum—the world's largest gathering on the topic of water—that met in Marseille, France, in March. The forum provided an opportunity for UNIDO to promote its Green Industry Initiative among the heads of State or Government, European Commissioners and government ministers of 145 countries. The Director of UNIDO's Environmental Management Branch served as a

panellist on two ministerial round tables. UNIDO contributed two chapters to volume 2 (Knowledge Base) of the fourth *World Water Development Report* entitled *Managing Water Uncertainty and Risk* that was launched during the forum. The two chapters dealt with the global nexus of energy and water as well as fresh water for industry. The Organization was appointed lead agency for the preparation of the fifth *World Water Development Report* by UN-Water and the World Water Assessment Programme. In preparation, UNIDO organized a workshop in November to discuss and draft a storyline and annotated table of contents.

Other beneficiaries of UNIDO's water management services during 2012 included the Guinea Current Large Marine Ecosystem and the Gulf of Mexico Large Marine Ecosystem. Together with its partner agencies, UNIDO had been requested by the 16 countries that share the resources of the Guinea Current Ecosystem to work out a strategic plan of action. The project is an ecosystem-based effort, funded by GEF, to assist countries adjacent to the Guinea Current Ecosystem to achieve environmental and resource sustainability by recovering depleted fisheries, restoring degraded habitats and reducing land and ship-based

pollution. In May, UNIDO organized a ministerial conference for the Interim Guinea Current Commission as a step towards establishing a permanent body. The project was completed at the end of 2012. In preparation for the ministerial conference, UNIDO undertook a comprehensive analysis of the legal and institutional options for the establishment of the Guinea Current Commission in close cooperation with the Environmental Law Institute, a non-profit, non-advocacy environmental group that undertakes research and produces a range of publications.

The large marine ecosystem project in the Gulf of Mexico is also well advanced and UNIDO is working with its partners in both Mexico and the United States to develop a follow-up project to continue after its scheduled completion at the end of 2013.

Under a project in Sudan, funded by the Norwegian Embassy in Khartoum, UNIDO is cooperating with the Norwegian Institute of Marine Research on a survey of renewable marine resources—in particular fish and shellfish stocks—in the Red Sea State. The results of the survey will help diversify the country's economy by providing the knowledge base for the development of sustainable artisanal and semi-industrial marine fisheries.

The River Volga is the focus of another UNIDO TEST project to reduce industrial water pollution. UNIDO has also received a request from the Government of the Republic of Tatarstan, Russian Federation, to develop a TEST project for the environmentally-friendly dredging of sediment accumulated in the reservoirs on the river Volga and its tributaries. In October UNIDO signed a memorandum of understanding with Baltika Breweries to advance environmentally sustainable solutions in the brewery industry within the Russian Federation. A GEF-funded public-private-partnership project to reduce the environmental footprint of breweries and the agro-industrial industries along the supply chain is in preparation.

Since the 1990s, UNIDO has been at the forefront of global action to reduce and eventually eliminate the use of mercury in artisanal and small-scale gold mining. Artisanal gold mining is high on the list of the world's worst toxic pollution problems, according to an inventory under development by the Blacksmith Institute in cooperation with UNIDO and Green Cross Switzerland. The EU-funded Global Inventory Project made strides in 2012 with training of investigators undertaken in all the regions. In 2012, the Organization was closely involved in UNEP-led negotiations to develop an internationally binding treaty on mercury,

while GEF is funding projects to help prepare countries for the entry into force of the treaty, including a project to introduce measures to minimize mercury releases from artisanal gold mining in Ecuador and Peru and another to improve the health and environment of artisanal gold mining communities by reducing mercury emissions and promoting sound chemical management in Burkina Faso, Mali and Senegal. A new project was also approved for Côte d'Ivoire while a project in francophone Africa, co-financed by the French Global Environment Facility, is making good progress. Projects are currently under development in Nigeria and the Philippines.

The Organization's mercury programme, however, extends beyond the small-scale mining sector. In 2012, a GEF-funded project was approved for China to reduce mercury emissions from zinc smelters with a budget of almost \$5 million including substantial co-financing from national entities, while another is under development in Mongolia to tackle mercury waste.

2012 saw the establishment of the first UNIDO centre focusing on nanotechnology. The International Centre on Nanotechnology, set up by UNIDO on the initiative of the Government of the Islamic Republic of Iran, is involved in the development and application of nanotechnology in the water and wastewater industry. When fully operational, the centre will be active at national, regional and international levels and will promote technology transfer and knowledge sharing with developing countries. The first meeting of the new UNIDO Centre was held in Tehran in December on challenges and opportunities in the application of nanotechnology in water and wastewater. Participants included representatives of water and wastewater engineering companies, research centres and universities.

Clean energy access for productive use

Renewable energy

The year under review was particularly successful for the Organization's renewable energy programme. UNIDO ended the year with a total renewable energy portfolio of \$62 million, covering 40 countries. Fifteen renewable energy projects entered the full implementation phase while 20 projects were under development.



“Sustainable energy is the golden thread

that connects economic growth, social equity, and a climate and environment that enables the world to thrive”

United Nations Secretary-General, Ban Ki-moon

■ One year after the launch of his initiative, Sustainable Energy for All, the United Nations Secretary-General Ban Ki-moon announced that Kandeh K. Yumkella, Director General of UNIDO, had agreed to serve as his Special Representative for Sustainable Energy for All and chief executive of the initiative, responsible for its planning and implementation. The President of the World Bank and the Secretary-General himself will co-chair the initiative’s newly formed Advisory Board. In the words of the President of Austria, Heinz Fischer: “The overall goals of this initiative are equally important to developed and developing countries alike. This is what makes the initiative pertinent for all countries in the world.”

UNIDO’s focus in 2012 was largely on renewable energy based mini-grids, the promotion of innovative business models for on/off-grid areas and renewable energy for industrial applications. The Organization has adopted a three pronged approach: the deployment of renewable energy for productive uses, the promotion of low-carbon patterns of energy use in industrial applications of SMEs through renewable energy, and a strengthening of local technical capacity for the production and use of renewable energy technologies. This approach will be reflected in UNIDO’s new renewable energy strategy that is currently being finalized.

In October, the Director General signed an agreement with the Minister of Trade and Industry of Ghana on a €1.3 million project, funded by the Republic of Korea and UNIDO, to support green industrial development in Ghana and promote biogas technology and business for sustainable growth. This followed the adoption of the 2011 Renewable Energy Act by the Government of Ghana with the goal of increasing the contribution of modern renewable energy from 0.01 per cent to 10 per cent of the electricity generation mix by 2020. The proposed project involves the transfer of

biogas technology between the Republic of Korea and Ghana. It will pilot an industrial-scale biogas plant and support business and enterprise development throughout the value chain, linking farmers, energy suppliers and research institutions. The project also foresees long-term technical support to biogas companies in the country. At the signing ceremony, the Director General of UNIDO cited the main objective of the project as the provision of “a solid and technically sound framework for a broader and accelerated drive to promote biogas technologies in Ghana and the Economic Community of West African States region as a whole.” The project will be implemented in close coordination with the Regional Centre for Renewable Energy and Energy Efficiency of the Economic Community of West African States (ECOWAS), with a view to developing a regional programme on biogas technologies, with Ghana as a regional centre of excellence.

Elsewhere in Africa, UNIDO has successfully promoted renewable energy-based mini-grids in Gambia in support of the country’s rural electrification efforts. The energy sector in Gambia is characterized by limited access to modern

■ Rural communities in Zambia gained access to electricity for the first time through the installation by UNIDO of three mini-grids, powered by renewable energy sources—solar, biomass and small hydro—that can now be used for income-generating activities in targeted communities. The small hydropower plant, finished in 2012, was the largest of its kind installed by UNIDO and the first power plant commissioned by Zambia since the 1970s.

2012 also saw the completion of a 60kW solar photovoltaic plant. The project was the result of successful collaboration with the Government of Zambia, the International Centre on Small Hydro Power, the Rural Electrification Authority and Zambia Electricity Supply Corporation Ltd. It is bringing benefits to more than 25,000 people as well as a number of public institutions including rural health centres and schools by improving the social life of rural communities in Zambia and providing households and businesses with greater access to energy. The project has contributed to the achievement of MDG 1 (eradicating extreme poverty and hunger) and MDG 7 (ensuring environmental sustainability). It opened up employment opportunities not only during the construction phase but also for the skilled workers who operate the plants. The mini-grids are projected to cut down the consumption of diesel leading to a reduction of 12,500 tons of CO₂ per year for a total of 188,000 tons of CO₂ over 15 years. The project has created an environment that should encourage investment in renewable energy-based technologies and industry. UNIDO has been asked to replicate the project elsewhere in Zambia and feasibility studies on three or four small hydropower sites will begin shortly.

energy services and a high reliance on both traditional biomass fuels and imported fossil fuels for the generation of electricity. The GEF-funded project seeks to reduce greenhouse gas emissions by developing a market environment that would stimulate investments in renewable energy-based mini-grids. In just under a year since the start of the project, 900 kilowatts of renewable energy capacity has been installed and connected to the grid. UNIDO has demonstrated the technical and commercial viability of renewable energy projects and has helped strengthen the country's institutional capacity and establish a policy and legal environment that supports a renewable energy market. The project will help boost economic growth in Gambia and contribute to poverty reduction. The success of the project led the Government to draw up a new strategy for electricity and renewable energy and an action plan for the power sector.

India is another country where countless rural communities are still without access to energy. During the year under review, UNIDO launched two innovative projects, one promoting low-head micro hydropower mini-grids with technical support from Japan and the other developing business

models for promoting high temperature solar energy-based heating and cooling applications. The technology for ultra low head micro-hydro—a type of hydroelectric power that produces up to 100kW of electricity using the natural flow of water—although in its early stage of technological development, provides tremendous potential as a renewable source of energy with minimal impact on the environment.

Given the significant potential for low-head hydro-power in India,¹³ the project, with the help of technology developers from Japan, will demonstrate the feasibility of the technology while at the same time helping to build local capacity. The second project promoting the use of solar thermal power in industry is also a new initiative. UNIDO will demonstrate the high-temperature technology in various industrial applications and prepare technology information packages. A wide dissemination will help keep costs down

¹³ Low-head hydropower applications use river current or tidal flows of 20 metres or less to produce energy, dispensing with the need for a dam. Using the current of a river or the naturally occurring tidal flow to create electricity may provide a renewable energy source that will have a minimal impact on the environment.

and in turn increase the productivity of enterprises while reducing greenhouse gas emissions. Both projects also aim to provide skills and jobs to local people.

A project in operation in Cuba is helping the country to become less dependent on imported fossil fuel to meet its growing energy needs and, at the same time, reduce its greenhouse gas emissions through the widespread use of renewable energy. Cuba's Isle of Youth (Isla de la Juventud) is its second largest island with a population of around 100,000. The island's extensive pine forests and abundance of Atlantic winds, sunshine and water provide the ideal resources for renewable energy. The UNIDO project, launched in 2006, demonstrates the technical, economic and financial viability of sustainable renewable energy production in line with MDG 7 (ensuring environmental sustainability). One of the project's aims is to foster private investments through the Risk and Replication Management Fund and encourage economically viable markets, environmentally sustainable forestry management, mandatory certification standards and local manufacturing capacity for renewable energy technologies. Progress achieved so far includes the installation of a 50 kilowatt biomass plant, a 1.65 megawatt (electrical) wind

farm, four wind measurement towers to record wind data and a nursery forest plantation that will produce up to 36,000 tons of biomass per year. The bidding process for a 3.8 megawatt (thermal) biomass plant for the meat industry is ongoing. During 2012, \$2.2 million of the Risk and Replication Management Fund was fully capitalized, allowing for the signature of the loan agreements for three major renewable energy projects: a 500 kW gasification plant and two new biomass boilers for the meat processing industry.

The Organization's activities within the framework of the Secretary-General's Sustainable Energy for All initiative were highlighted at a number of international forums during the year under review. Together with the Government of Ghana, GEF, the ECOWAS Centre for Renewable Energy and Energy Efficiency and the Global Forum for Sustainable Energy, UNIDO organized a high-level energy forum in October in Accra on the theme "Paving the way for Sustainable Energy for All in West Africa through renewable energy and energy efficiency". The main outcomes of the forum included the adoption by ECOWAS Energy Ministers of resolutions on the ECOWAS policy on renewable energy, energy efficiency and small hydropower as well as the

■ "Our rivers will produce green, renewable and sustainable energy, giving us hope that economic success and national security will be ours for years to come," said the President of Sierra Leone as he and the Director General of UNIDO laid the foundation stone of a hydroplant. Located on the Bankasoka River at Port Loko, the three megawatt hydroplant was developed by UNIDO together with the Government of China and will bring immediate relief to some 8,000 households in local communities in terms of irrigation, sanitation and clean drinking water. Financed entirely by the Government of China, it will also give a boost to small and medium businesses, particularly those working with cassava, flowers,

fruit and vegetables and minerals. Other beneficiaries include a hospital in Port Loko and several schools in the area; schoolchildren will now be able to do their homework in the evening under proper lighting. Currently, traditional biomass in the form of fuel wood and charcoal for cooking accounts for an estimated 84 per cent of total energy use in Sierra Leone. The new hydroplant will help conserve forests and reduce greenhouse emissions. It will also reduce Sierra Leone's dependence on oil imports for which it pays a price it can ill afford while it is struggling to rebuild the economy.



ECOWAS Bioenergy Strategy Framework. The meeting also hosted workshops on improving energy access and reducing poverty in the region through energy efficiency, the introduction of both on-grid and decentralized off-grid renewable energy, and the introduction of clean and safe cook stoves.

Electricity production in Sierra Leone falls far short of requirements for the country's socioeconomic development. Less than 10 per cent of the population has access to electricity, a figure that is very low by both regional and international standards. In rural areas, home to the bulk of the country's population, less than one per cent of the population enjoys access to electricity. UNIDO recently completed a feasibility study for a 10 megawatt hydro project linked to Njala University in the Moyamba District. Under the \$32 million GEF-funded project, UNIDO will install a network of mini-grids that will bring electricity to the region.

Other UNIDO events that took place in 2012 in support of renewable energy in Africa included a conference in March on emerging technologies for the production of bio-fuels and chemicals from algae and the potentials they offer for developing countries; an expert group meeting on the importance of mini-grid energy systems in Africa; and a workshop on renewable energy technologies in West Africa, both held in April. All three events were hosted by the International Centre for Science and High Technology in Trieste, Italy and attended by scientists, researchers and technologists from public and private institutions and academia in developing countries and countries with economies in transition. A fourth event, also organized in cooperation with the International Centre, was a summer course held in June on renewable energies for decentralized systems that introduced supporting tools and best practices for green energy and sustainable development. Participants were largely young African students, enrolled in an international green energy master of business administration programme at the Alma Graduate School of the University of Bologna in Italy.

In May, UNIDO signed a memorandum of understanding with the Italian National Agency for New Technologies, Energy and Sustainable Economic Development to promote sustainable development through the transfer of knowledge and technology relating to renewable energy and energy efficiency to developing countries. The partnership will focus on capacity-building and technology transfer, technical and professional training and support in areas such as renewable energy and agro-industry, as well as innovative financial mechanisms to support the deployment of renewable energy

technology. The Italian National Agency will engage a number of laboratories and scientists to help improve skills and will make available its distance learning platform, ENEA E-LEARN, which provides more than 200 online courses and 300 video classes on topics such as the planning and management of renewable energy sources (solar and wind energy), eco-buildings and new technologies.

Energy efficiency

Improving industrial energy efficiency is one of the most cost-effective ways for developing and emerging economy countries to meet their increasing energy needs with the least impact on the environment. Industrial energy efficiency addresses challenges as diverse as climate change, energy security, industrial competitiveness, human welfare and economic growth. It is projected that developing countries and transition economies will account for over 90 per cent of the global industrial energy demand growth during the period 2010-2035. To achieve the greenhouse gas emission reduction targets required to cap the rise in temperature to 2°C by 2100, new industrial energy demand and consumption must be far more efficient than at present. Industry in developing countries—in particular SMEs—shows the greatest potential for economic efficiency improvements and cost savings, both within the traditional energy-intensive sectors as well as in light industry. Increased energy efficiency in SMEs would have a positive impact in terms of lower final production costs, increased resources for investing in business development, including job creation and, ultimately, greater competitiveness.

In general, the efficiency with which industry uses its energy is well below what is technically feasible and economically viable. The International Energy Agency estimates that industry has the potential to decrease its energy intensity and emissions by up to 26 per cent and 32 per cent respectively, providing a striking 8.0 per cent and 12.4 per cent reduction in total global energy use and CO₂ emissions.

At the end of 2012, UNIDO's impressive portfolio of projects dedicated to the introduction of energy efficiency in the industries of its client countries amounted to \$120 million. Countries benefiting from UNIDO projects during the year included Burkina Faso, China, Ecuador, Egypt, India, Indonesia, Iran (Islamic Republic of), Malaysia, Philippines, Republic of Moldova, Russian Federation, South Africa,

Thailand, Turkey, Ukraine, Viet Nam and Zambia. The focus during the year was on capacity-building programmes on ISO 50001 (energy management standards) and energy system optimization. More than 1,500 companies and 400 experts received training. As a result of UNIDO interventions, two countries adopted ISO 50001 as a national energy management system standard and others are expected to follow in 2013.

The UNIDO International Centre for Hydrogen Energy Technologies in Istanbul, Turkey, made good progress in the implementation of three projects that were co-funded by the EU under its joint public-private partnership programme.

The world's first fleet of 15 hydrogen-fuelled rickshaws that can be used as cargo or passenger vehicles was launched at the Auto Expo 2012 in New Delhi in January. The \$1 million project took three years to complete and is an outstanding example of South-South cooperation. Sri Lanka and other countries have expressed an interest in the hydrogen-fuelled three-wheelers and there is no reason why the project could not be replicated in other developing countries where rickshaws are in common use.

Throughout the year, UNIDO continued to expand the scope of its partnerships with the private sector, public

■ Some rather impressive results have been achieved by a UNIDO industrial energy efficiency project in South Africa. Funded jointly by the South African Government, the United Kingdom's Department for International Development and SECO the project, launched in 2010, aims to bring about a sustainable transformation of industrial energy usage practices in South Africa. The project also aims to improve the productivity of enterprises and the competitiveness of South African industrial products and to help create and protect jobs, while at the same time reducing national greenhouse gas emissions. Industrial subsectors targeted under the project include agro-processing, chemical and liquid fuels, mechanical engineering, automotive production as well as mining and minerals processing.

The project is supporting the introduction and application of the new ISO 50001 energy management standard while employing two energy efficiency methodologies to improve South African industrial energy performance: energy management systems and energy systems optimization. The project components include assistance to the Government of South Africa in the development of an industrial energy efficiency policy framework, capacity-building and institutional strengthening for ISO 50001 introduction and operation and the training of a core group of energy engineers and practitioners. It is also involved in the promotion and piloting of energy management systems and energy systems optimization and methodologies in selected industrial enterprises.

To date, the project has conducted some 87 courses on a range of subjects for over 1,850 trainees. UNIDO training courses in energy management systems and five energy systems optimization disciplines—pumps, compressed air, fans, steam and motors—have received national professional accreditation under the South African Institution of Mechanical Engineering. The project has also enabled a number of enterprises to reduce significantly their energy consumption with only a small, and in some cases virtually zero, capital investment while still maintaining their production levels. The project has also worked with relevant South African standards bodies to put in place the necessary criteria for the introduction and operation of ISO 50001 (energy management standards).

authorities and other international organizations in the field of industrial energy efficiency. A memorandum of understanding to be signed with NL Agency—an agency within the Ministry of Economic Affairs of the Netherlands focusing on sustainability, innovation and international business and cooperation—will provide a framework for future cooperation between the two organizations in the field of sustainable economic growth .

In February, UNIDO co-organized a meeting in Warsaw on a road map for CO₂ transportation and storage solutions in preparation for the Baltic Sea Region Energy

Cooperation ministerial conference, to take place in May 2013 in Berlin. This followed the 2011 launch of the Carbon Capture and Storage Industrial Sector Roadmap by UNIDO in cooperation with the International Energy Agency.

The Director General joined the United Nations Secretary-General Ban Ki-moon at the October Global Green Growth Forum. The forum, held in Copenhagen, was established by the Government of Denmark in partnership with the Government of the Republic of Korea and developed in association with the Global Green Growth Institute as a

■ As imported fossil fuel only covers a fifth of the country's energy requirements, Burkina Faso relies largely on firewood and charcoal to meet its energy needs. Firewood is in short supply. Rapid deforestation is leading to desertification and posing concerns for rural development and biodiversity. It has also resulted in a disturbing increase in greenhouse gas emissions.

Locally brewed sorghum beer, known as dolo, is for most people in Burkina Faso an affordable alternative to bottled beer. Made from sorghum, the preparation of dolo is an important source of income for Burkinabe women in a tradition that has passed from generation to generation. There are thousands of small-scale home-based breweries and micro-enterprises throughout the country and some 4,000 in Ouagadougou alone. Breweries employing the traditional dolo cookers account for one fifth of the country's firewood consumption. Their low combustion efficiency results in longer cooking times and, as a consequence, a greater use of firewood. Although savings in the range of 45 to 60 per cent can easily be achieved by installing improved stoves, local brewers are often unaware of their advantages and the potential savings in time and costs.

A recently launched UNIDO project to promote energy efficient technologies in the beer brewing industry in Burkina Faso focuses on the large cook stoves used in breweries in the region of the Plateau Central, around the capital. Funded by GEF, the two-year project involves training, support and advice to 100 local manufacturers on the improved design of the cook stoves and quality standards to ensure optimum performance. It will arrange financing for women brewers through a local financing institution and work with women's associations that will, in turn, offer training to brewers and guarantee the microenterprises vis-à-vis the local bank.

UNIDO will promote its cluster approach to improve the business performance of the enterprises by encouraging collective efficiency, optimizing productivity and improving the employment conditions of the women brewers. It will also try to ensure the sustainability of the project by helping the country develop and implement cook stove projects that will attract financing from the carbon market. The project aims to install over 1,000 improved, energy-efficient cook stoves, train 20 master project developers on the identification and development of projects within the carbon markets, train 50 project operators on registration and monitoring requirements for carbon market projects and establish a platform for interaction between stakeholders. The project is the first of its kind executed by UNIDO in a least developed country. It will lead to an estimated annual reduction of 40,000 tons of CO₂ equivalents, lower concentrations of smoke and greenhouse gas emissions and less pressure on Burkina Faso's forests.

global public-private partnership for green growth. The forum brought together some 200 global leaders from Government, business, finance and civil society to encourage green growth and design the architecture for a green economy. One event, particularly welcomed by participants, was a strategy session on energy efficiency indicators organized by UNIDO and the Global Green Growth Institute, which launched a new public-private partnership to accelerate the dissemination of best available practices and technologies for industrial energy efficiency. Through its Green Industry Platform, UNIDO is working closely with the Institute to mobilize resources and private sector participation and to develop a biennium work programme for public-private partnership activities.

In October, UNIDO teamed up with another institution involved in sustainable energy solutions to help develop Europe's mountain regions, in particular the Carpathian Mountains of Central and Eastern Europe. The Director General of UNIDO and the President of the European Academy of Bolzano, Italy—a private centre for research and further education—signed an agreement to promote sustainable energy, energy efficiency and renewable energy, and to develop sustainable energy policies and regional partnerships.

Global energy assessment

Hailed as the most comprehensive energy assessment ever undertaken, the *Global Energy Assessment: Towards a Sustainable Future* was formally launched by the Director General of UNIDO at a side event during the United Nations Conference on Sustainable Development (Rio+20) in June. Coordinated by the International Institute for Applied Systems Analysis (IIASA), based in Laxenburg, Austria, the *Global Energy Assessment* represents the combined work of 500 leading scientists, energy experts and policymakers from all regions of the world. Together with other partners, UNIDO was closely involved in the preparation of the report, particularly those sections dealing with energy efficiency and low carbon technologies.

The report suggests a range of viable sustainable development pathways and outlines strategies and policies that support the attainment of human health and environmental sustainability goals, including those enshrined in the Sustainable Energy for All initiative. It takes a detailed look at (a) the major global challenges and their linkages to

energy; (b) the technologies and resources available for providing adequate, modern and affordable forms of energy; (c) the plausible structure of future energy systems most suited to addressing the century's challenges; and (d) the policies and measures, institutions and capacities needed to realize sustainable energy futures. Within the scope of the UNIDO project "Global Energy Assessment: developing policy tools for jointly reducing energy poverty and greenhouse gas emissions", two additional papers were produced in cooperation with IIASA: *The Next Energy Transition: Transformative Pathways, Choices and Opportunities* and *Access to Modern Energy: Assessment and Outlook for Developing and Emerging Regions*. A series of capacity-building workshops on new energy transformation pathways and tools was organized by UNIDO, GEF, IIASA and local partners in Cape Verde (March), India (April) and Armenia (June) for regional policymakers. Initially conceived as an awareness-raising effort, the workshops led to concrete follow-up actions and the development of new GEF-5 project proposals in the countries concerned.

UNIDO will draw on its considerable expertise both in industrial energy efficiency and metrology and standard certification to implement a new GEF-funded project in China. The project on energy efficiency for heat transfer equipment in the chemical and petrochemical sectors marks the first UNIDO technical cooperation project focusing on energy performance and efficiency standards for industrial equipment and at the same time sets a milestone for UNIDO as the first GEF project it was called on to implement in China.

Capacity-building for the implementation of multilateral environmental agreements

Montreal Protocol

Adopted twenty-five years ago in 1987, the Montreal Protocol on Substances that Deplete the Ozone Layer is the first international agreement in the history of the United Nations to have achieved universal ratification. With 197 Parties to the Protocol, it has triggered a reduction of more than 97 per cent in the global consumption and production of controlled ozone-depleting substances (ODS).



■ On the occasion of the 25th anniversary of the Montreal Protocol—one of the world’s most successful environmental agreements—a statue dedicated to protecting the ozone layer was officially unveiled at the Vienna International Centre on 21 November.

To mark that landmark occasion—which, incidentally, coincided with its twentieth anniversary as an implementing agency of the Montreal Protocol—UNIDO organized a week-long celebration at its Headquarters in Vienna in September. Featuring an art exhibition and awareness-raising activities, the event gave staff and visitors an opportunity to share the impressive record of success achieved by the Montreal Protocol over the past quarter century. A few weeks later, a statue dedicated to protecting the ozone layer was officially unveiled in the plaza of the Vienna International Centre. The 3.9 metre-high sculpture depicts the Chinese goddess Nüwa, who in Chinese mythology smelted a seven-coloured stone to block a hole in the sky, drawing an obvious analogy with the modern-day challenge of ozone depletion and climate change. It was donated by the Chinese artist and environmentalist Yuan Xikun who was designated UNEP Patron for Arts and Environment in 2010 in recognition of his social responsibility as an artist and his contribution to environmental protection.

The anniversary of the Montreal Protocol was celebrated around the world both through physical celebrations and on the web. To cite just a few examples, an authors’ reading event took place in St. Petersburg, Russian Federation. In Quezon City in the Philippines, high-school students in green and white uniforms made a human formation of the number 25 while young people in the United Arab Emirates

took part in a video competition highlighting ways in which the Montreal Protocol has helped protect life on earth. The web was also buzzing with congratulatory messages, comments and anecdotes, ranging from the White House in Washington, D.C., to an environmentally-minded sheep farmer in Dunedin, New Zealand.

UNIDO was once again ranked as the top implementing agency of the Multilateral Fund for the Implementation of the Montreal Protocol for the ninth consecutive time. The Organization is in the process of expanding the number both of its Montreal Protocol projects and beneficiary countries; it is currently running a total of 250 Montreal Protocol projects in 80 countries, funded by the Multilateral Fund and bilateral agencies. UNIDO also has five ongoing GEF projects in countries with economies in transition.

The year under review was critical for hydrochlorofluorocarbon (HCFC) phase-out management plans since the deadline for countries to freeze their HCFC consumption at the baseline level is the beginning of 2013. Currently, 96 of UNIDO’s ongoing projects under the Montreal Protocol are involved with HCFC phase-out management plans, 20 projects deal with the phase-out of methyl bromide and 35 with the phase-out of chlorofluorocarbons. UNIDO is also carrying out four demonstration projects for ozone-depleting substance disposal in China, Mexico, Nigeria and Turkey, and preparing additional demonstration projects in different regions. Montreal Protocol projects are increasingly

■ Petra Engineering Industries Co. is a locally-owned enterprise in Jordan specializing in sophisticated heating, ventilation and air conditioning equipment. Located in Amman, the company has grown rapidly since it was founded in 1987 and today has a staff of 1,500. Under a project that began in 2010, UNIDO is helping the company to phase out the use of 125 megatons of HCFC-22 and 10.8 megatons of HCFC-141b in its air-conditioning products by converting to hydrofluorocarbon refrigeration technology and cyclopentane foam blowing technology, thereby contributing to the country's obligation to freeze HCFC consumption by 2013 and reduce it by 10 per cent by 2015. The company manufactures and exports worldwide more than 60 different types of air-conditioning equipment that will be affected by the conversion: chillers, packaged air-conditioners, ducted split units, mini split units and air-handling units.

The Government of Jordan has assigned the highest priority to the project since the phase-out of HCFCs in other sectors would not ensure timely compliance on the part of Jordan with the 2013 and 2015 phase-out targets. Progress to date includes the development, redesign and manufacturing of prototypes for trials, where the latest tests on chillers and air-conditioning systems have revealed that new prototypes charged with the non-ozone-depleting alternatives generally have higher cooling capacities and increased energy efficiency than older models. The company has modified its foam-ing line with the resulting phase-out of 10.8 megatons of HCFC-141b. It has also made adjustments to the assembly line and introduced improvement to its after-sales service.

involved in the promotion of new technologies with zero ozone-depleting potential coupled with low global warming potential. UNIDO is making steady progress on a suitable scheme for accounting climate benefits from Montreal Protocol-related activities and leveraging financial support from outside the scope of the Multilateral Fund.

HCFC phase-out

During the year, new HCFC phase-out management plans were approved for Algeria, Argentina, Bahrain, Bosnia and Herzegovina, Côte d'Ivoire, Eritrea, Ethiopia, Guinea, Kuwait, Mozambique, Myanmar, Nicaragua, Niger, Saudi Arabia, Somalia, South Africa, Sudan, Turkey, Uganda, United Republic of Tanzania and Yemen. The second tranche of existing plans was approved for China, Croatia, Egypt, Guatemala, Iran (Islamic Republic of), Mexico, Morocco, Nigeria, Saint Lucia, the former Yugoslav Republic of Macedonia and Venezuela (Bolivarian Republic of).

Recently, UNIDO began work on a project to help Turkmenistan to comply with the phase-out targets for

HCFCs under the Montreal Protocol. In a staggered approach, the country will ban the import of equipment containing HCFCs and introduce quotas on imports of HCFCs, achieve a 10 per cent reduction in consumption of HCFCs by 2015 and 35 per cent by 2019. The project is coordinating and monitoring activities for the phase-out of HCFCs and ODS and strengthening legislation on controls. The work programme was finalized during the year and UNIDO hired national experts and organized a number of awareness-raising workshops for stakeholders.

One vital component of the project is the training of customs and law enforcement officers to familiarize them with the ozone issue so that they can better monitor and control imports of HCFCs and HCFC-dependent equipment. Training materials and refrigerant identification tool kits will help prevent the illegal trade of HCFCs. UNIDO will also train around 300 refrigeration technicians from Government and private institutions across the country, building on the success of previous training courses in good refrigeration practices. Recovery and recycling tools are being supplied both to the Turkmenistan Ozone Office and to service shops. Under another component of the project, UNIDO

will show laboratory staff how to test for various refrigerants through a series of lectures and practical sessions. Public awareness campaigns are being designed to inform owners of refrigeration equipment and the public at large about safer alternatives to HCFCs as well as the country's gradual reduction strategy. Campaigns will include the distribution of brochures and other information material, technical workshops, press releases and infomercials on television and in the cinema.

The obligations of the Montreal Protocol require China to reduce the production and consumption of HCFCs by 10 per cent by 2015. As the largest consumer of HCFCs, China made a landmark agreement in 2011 not only to cut significantly its consumption of HCFCs, but to introduce new technologies. To help the country achieve its targets, UNIDO is currently engaged in two projects that demonstrate a novel technology in the room air-conditioning sector. The first project involves one of China's leading consumer appliances and air-conditioning systems manufacturers, the Midea Group, with its headquarters in Guangdong Province. Under the project, 200,000 HCFC-22 based air-conditioning units are being converted to propane (HC-290), a benign, ozone- and climate-friendly natural gas that can be used as a refrigerant. This will result in the phase-out of 240 metric tons of HCFC-22, or 13.2 ozone-depleting potential tons, leading to an estimated 967,490 metric tons of CO₂ equivalent. The second project involves a subsidiary of the Midea Group, Meizhi Appliance Co. Ltd., located in Zhejiang Province, where work is in progress to convert a production line with an annual capacity of 1.8 million HCFC-22 based compressors to HC-290. This will result in a reduction of almost 8.9 million metric tons of CO₂ equivalent greenhouse gas emission. Lessons learned in both projects could have a profound influence on the production of air conditioners in China and beyond.

A similar project was in progress during the year under review in the Bolivarian Republic of Venezuela. The \$1.1 million project, financed under the Multilateral Fund for the Implementation of the Montreal Protocol, aims to reduce HCFC consumption in the refrigeration and air-conditioning servicing sector by providing training on the responsible use of HCFCs, including operation, maintenance and servicing practices in the refrigeration and air-conditioning sectors. The project also deals with containment, recovery and recycling. UNIDO has prepared the terms of reference for upgrading existing training facilities and purchased the required tools. The Government agreed to establish an

estimated baseline of 220.7 ozone-depleting potential tons as its starting point for sustained aggregate reduction in HCFC consumption. Similar projects are under way in Egypt, Eritrea, Nigeria, Pakistan and Peru.

An early, highly visual outcome of a project to help the Russian Federation reach the 2015 target set by the Montreal Protocol for the phase-out of HCFCs, was the launch of an attractive website: www.ozonoprogram.ru. As the first Russian portal dedicated to ozone issues, it offers useful information on a wide range of related topics including the country's ozone legislation and the experience of other countries in the field of HCFC phase-out. It also provides updated information on the development of the project. The main goal of the project is the direct phase-out of HCFCs—primarily HCFC-21, HCFC-22, HCFC-141b, and HCFC-142b—amounting to around 600 tons of ozone-depleting potential in the foam production and refrigeration equipment manufacturing sectors. The phase-out will also contribute to a decrease in greenhouse gas emissions by 15.6 million metric tons CO₂ equivalent. Secondly, the project will allow the transfer of innovative technologies that will modernize those industrial enterprises that use HCFCs in the production of household, medical, commercial and industrial refrigerating equipment, as well as enterprises that repair and service air-conditioning and refrigeration equipment. The introduction of these measures would allow for a further reduction in greenhouse gas emissions by about 10 million metric tons of CO₂ equivalent over five years through the decreased use of energy.

Between March and October, UNIDO ran 10 regional network meetings of national ozone officers in different parts of the world. March saw the convening of two meetings: one in Dominica of the subregional network of national ozone officers of the English-speaking Caribbean and Haiti, and the second, in Kyrgyzstan, of the Europe and Central Asia network. The thematic regional meeting on the phase-out of HCFCs in foam system houses was held in Jordan in May, followed by a joint meeting of the South Asia and South-East Asia networks of ozone officers in Bhutan. An English-speaking network of ozone officers in Africa met in Zambia, also in May, while a meeting of the Mexico, Central America, South America and Spanish-speaking Caribbean networks of ozone officers met in Chile in July. September saw a regional workshop on codes and standards of products and services with ozone-depleting substances and a regional workshop on the role of new media in raising environmental awareness and the follow-up meeting of the West Asia network of

ozone officers, all of which took place in Saudi Arabia. A joint meeting of the ozone officers network of English-speaking and French-speaking Africa was held in Djibouti in late September at the same time as a similar meeting for Latin America and the Caribbean convened in Panama. The following month, ozone officers from South Asia and South-East Asia and the Pacific met in Thailand.

Methyl bromide phase-out

Another area where UNIDO has enabled countries to meet their obligations under the Montreal Protocol is in the removal of methyl bromide. Over 20 developing countries have benefited from the Organization's expertise in developing and implementing methyl bromide demonstration and phase-out projects and UNIDO has trained more than 150,000 farmers in different countries in the use of non-chemical alternatives such as solar treatments, bio fumigation and steam.

The schedule for the total phase-out of methyl bromide for controlled uses is set for the beginning of 2015. UNIDO has been concentrating on those areas where methyl bromide is still employed as a soil fumigant as well in the post-harvest treatment of grain and perishable commodities. A new technical cooperation project was approved for Kenya in 2012 to help in the final elimination of methyl bromide in post-harvest operations, while a project in Argentina is helping to halt the use of methyl bromide in the cultivation of strawberries, flowers and protected vegetables, using steam pasteurization as an alternative. A demonstration of the new technology proved so successful that it has been extended throughout the country. In Zambia, UNIDO is aiming for the total phase-out of methyl bromide in tobacco, cut flowers, horticulture and post-harvest applications, while in Algeria and Tunisia it involves date processing plants. Following a positive assessment, the results will be disseminated to other date producer countries.

Horticulture is the only sector where methyl bromide is used in Libya and the Government is prepared to discontinue



■ A recent evaluation of UNIDO's work in the area of persistent organic pollutants (POPs) concluded that "UNIDO played a critical role in assisting countries in completing their National Implementation Plans (NIPs), which included establishing foundational capacities for Government, initial inventories and raising the awareness of policymakers. UNIDO has built on NIPs to develop over 30 post-NIP demonstration and investment projects. These projects have been based on country priorities as outlined in the NIPs. UNIDO has also played, and continues to play, a key role in transferring non-combustion technologies to developing countries to enable them to treat and safely destroy POPs".

its use long before the 2015 deadline provided it can count on outside assistance. After a careful study of available alternatives and depending on the type of crop and farmer, farmers in Libya opted for soil solarization in combination with low doses of chemicals and biofumigation, production in a soilless culture and the use of grafting. In 2005, UNIDO was asked to assist a number of farmers' cooperatives, a faculty of agriculture and a national research institute in tackling the issue of methyl bromide use in the cultivation of cucumbers, peppers, tomatoes and other produce. The resulting investment project, with a bilateral contribution from the Government of Spain, was endorsed by the responsible body for the implementation of the Montreal Protocol in Libya. The project is being implemented by UNIDO, in coordination with the appropriate Libyan authorities. During the armed conflict in 2011, work on the project was interrupted but could resume in 2012 despite a number of logistic hurdles. Equipment was delivered and UNIDO provided specialized training to 1,000 farmers and 300 technicians on the proposed alternative techniques. UNIDO now intends to run a two-day training of trainers course. The project should lead to the complete phase-out of methyl bromide in the horticultural sector in Libya. Remaining activities will be completed in 2013.

A recently completed project in Morocco allowed the country to phase out 106.2 ozone depletion potential tons of methyl bromide currently used by growers to fumigate 200 hectares of green beans and some 100 hectares of cucurbits to avoid nematodes, melon necrotic spot virus and fungi. The addition of high-grade compost to enrich the soil was identified as an ideal environment-friendly alternative that could be applied in a wide range of agricultural situations. Grafting was also selected as an appropriate alternative technology for melons. Other options chosen for green beans were bio-fumigation plus solarization for the first cycle, soilless substrates for the second cycle and chemicals for the third cycle. These technologies have been tested by growers in Morocco and are in wide use in a number of countries. Morocco is scheduled to achieve a complete phase-out of methyl bromide by the end of the year.

Stockholm Convention

UNIDO has been involved since the mid-1990s in efforts to address environmental and human health threats posed by persistent organic pollutants (POPs) and, more generally,

chemical pollution. As a result of both accidental and deliberate releases into the environment, POPs are widely distributed over all continents, including areas such as the Arctic and Antarctic where their presence bears witness to the ability of POPs to travel relentlessly from one part of the globe to another.

When the Stockholm Convention on Persistent Organic Pollutants came into force in 2004, it identified 12 of the world's most pernicious chemicals based on their persistence in the environment, their bioaccumulation and the extensive harm they could pose far from their source.¹⁴ At the same time, the Parties to the Convention recognized that there were other chemicals that could pose similar risks to human health and the environment and agreed on a process by which persistent toxic compounds could be reviewed and added to the Convention, provided they met certain criteria for persistence and transboundary threats. The first set of nine new chemicals to be added to the Convention was agreed in 2009; a further chemical was added in 2011.

The process of reviewing and updating National Implementation Plans (NIPs) as new chemicals are added to the list can be challenging for countries that lack the requisite technical capacity. UNIDO has the expertise to help countries update their NIPs. As of December, requests have been received from 40 countries of which 12 NIP updates have been approved,¹⁵ 24 are currently pending with GEF¹⁶ and 4 have still to be submitted (Gabon, Rwanda, Sri Lanka and Tunisia).

UNIDO's initial target was to assist countries in developing NIPs, a mandatory requirement for all Parties to the Convention. Since the completion of NIPs, the emphasis switched in 2007 to helping countries to develop and implement post-NIP projects. These projects have focused on institutional capacity-building to enforce the phase-out and sound management of chemicals as well as investment in phase-out technologies. UNIDO has also been working with its client countries to introduce BAT and BEP in waste and industrial processing in order to reduce unintentionally formed POPs. Although the majority of the post-NIP projects are under

¹⁴ The original 12 annexed chemicals are aldrin, chlordane, dieldrin, endrin, heptachlor, hexachlorobenzene (HCB), mirex, toxaphene, polychlorinated biphenyls (PCB), DDT, dioxins and furans.

¹⁵ Algeria, Armenia, Bosnia and Herzegovina, Indonesia, Mongolia, Philippines, Serbia, Sudan, the former Yugoslav Republic of Macedonia, Togo, Turkey and United Republic of Tanzania.

¹⁶ Burkina Faso, Bolivia (Plurinational State of), Central African Republic, Costa Rica, Democratic Republic of the Congo, Ecuador, Ethiopia, Guinea, Honduras, Jordan, Lao People's Democratic Republic, Lesotho, Liberia, Maldives, Mexico, Mozambique, Myanmar, Nepal, Nigeria, Sao Tome and Principe, Seychelles, Swaziland, Tajikistan and Zambia.

■ Peru ratified the Stockholm Convention in 2005 and submitted its National Implementation Plan on POPs. Although the production of PCB was banned by the Convention in 2001 for its carcinogenic properties, its widespread industrial use over decades means that it is still present in equipment today. The Stockholm Convention set a goal of 2025 for phasing out the use of equipment containing PCBs—transformers, capacitors or other receptacles containing liquid stocks—and the treatment and elimination of the recovered PCBs by 2028.

In 2010, UNIDO embarked on a project to help Peru meet these deadlines. The overall objective of the project is to establish environmentally sound management practices for PCBs and increase the phase-out and disposal of equipment and wastes containing PCBs, with a particular focus on electrical utilities and principal users of electricity. The project covers support to build up regulatory infrastructure, training in PCB inspection, analysis, treatment and elimination, technology transfer, strengthening national and local institutions and public information and awareness-raising.

An inventory of 10,000 transformers is well advanced with 97 per cent of sampling and 27 per cent of laboratory analysis completed at the end of the year. As part of the project, UNIDO has provided equipment and supplies to the National Laboratory of DIGESA—the technical and regulatory body of Peru’s Ministry of Health and the national counterpart—for the analysis of samples obtained through the inventory. A draft national regulation on PCBs is under discussion with stakeholders before it is submitted for national approval. Four regional workshops introduced the project to targeted national and local authorities and electrical companies and provided an overview of the health and environmental hazards posed by PCBs as well as the legal framework for their removal. The legal framework forms part of the synergies sought with another ongoing GEF project implemented by UNEP in Chile and Peru on best practices for PCB management in the mining sector of Latin America.

implementation, UNIDO has a strong pipeline of post-NIP projects that are currently being developed.

During 2012, UNIDO was actively involved in drawing up guidance documents to assist countries in tackling the newly listed chemicals as part of a GEF-funded project carried out in collaboration with the United Nations Institute for Training and Research. The NIP guidance documents for new POPs under the Stockholm Convention include: guidance for the inventory of perfluorooctane sulfonic acid and related listed chemicals as well as BAT and BEP for their use, and guidance for the inventory of polybrominated diphenyl ethers as well as BAT and BEP for the recycling and waste disposal of articles containing polybrominated diphenyl ethers. The documents were developed in response to Parties’ requests for information on POPs that are widely used for industrial purposes.

UNIDO saw the successful conclusion of a number of projects in 2012 to help countries meet their obligations

under the Stockholm Convention. As a result of a two-year UNIDO project, Armenia was able to greatly reduce the use and releases of polychlorinated biphenyls (PCBs) and POPs in pesticides, protecting both the environment and the health of its population. UNIDO met all targets foreseen for the project, laying the ground for global implementation of the Stockholm Convention.

In Mongolia and the former Yugoslav Republic of Macedonia, UNIDO completed the transfer and commissioning of PCB treatment technology as well as the training of national host company workers. In Morocco, a list was completed of 2,486 transformers where contamination with PCB is suspected and a laboratory commissioned to establish the degree of contamination has made progress on the analysis of samples. An ongoing project in China on the environmentally sound management and disposal of obsolete POP pesticides and other POP wastes is on track and promises to yield encouraging results in the near future.

Another project in China involves the management of medical waste in different regions of the country. The aim of the project is to upgrade incineration equipment and air pollution control systems to the BAT level and replace outdated facilities with alternative, non-incineration techniques that avoid the release of POPs. The socio-economic, geographical and cultural diversity of the country means that BAT and BEP needs to take into account the specialization of the medical institutions, the type of treatment and disposal facilities and the availability of appropriate infrastructure.

UNIDO is currently working on a new project in India to introduce biological and botanical pesticides and other alternatives to the insecticide dichlorodiphenyltrichloroethane, better known as DDT as a first step in the elimination of dependency on DDT. This will in turn ensure food safety, improve livelihoods and protect both human health and the environment. Undertaken in cooperation with UNEP and the Government of India, the GEF-funded project will demonstrate cost-effective, socially acceptable and environmentally sustainable alternatives to DDT and other pollutants.

Most of Africa's least developed countries (LDCs) have ratified the Stockholm Convention and prepared their NIPs.

They have by and large established preliminary inventories of POPs and identified technical, regulatory and institutional barriers to the implementation of the Stockholm Convention. Three UNIDO projects in member countries of the Common Market for Eastern and Southern Africa, ECOWAS and the Southern African Development Community are helping the countries concerned to put their NIPs into practice. In Eastern and Southern Africa, a number of meetings and workshops have taken place over the past two years, culminating in a training of trainers course in May on textile dyeing and finishing in Kampala, Uganda, and on the management of contaminated sites in Addis Ababa in August. For members countries of ECOWAS, the project started in 2011. Planning began on a project to address the open burning of wastes and contaminated sites management.

As a complement to the above projects, UNIDO set up a regional BAT/BEP forum for Africa during the first half of 2012 to serve as an informal platform to share data and information. The Forum was officially launched during the 14th Ordinary Session of the African Ministerial Conference on the Environment, held in September in Arusha, United Republic of Tanzania.



The tools to improve livelihoods

Solid, evidence-based analysis provides the foundation for sound advice, which in turn translates into appropriate industrial strategies and policies for developing countries and economies in transition. With the right policies, a country can diversify its productive capacity and improve the contribution of industry to the achievement of both local and global development goals. Through its analytical and policy advisory services, UNIDO provides Member States with the tools required to shape appropriate industrial strategies and policies.

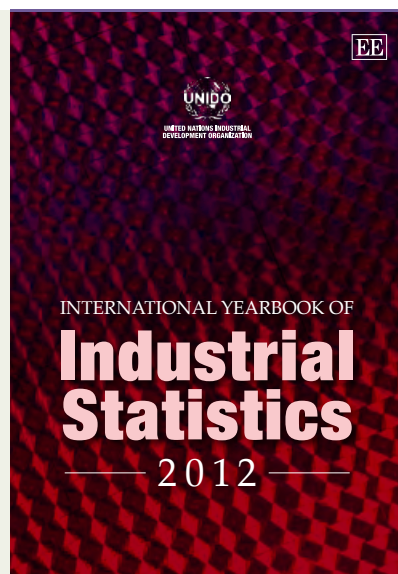
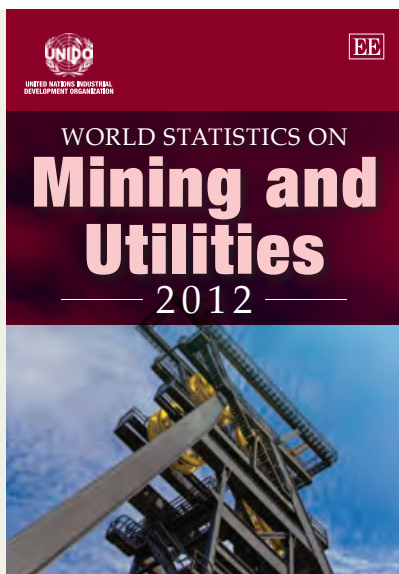
UNIDO conducts applied research and evidence-based analysis of economic growth and industrial structural change and disseminates its findings within the Organization and to the development practitioners' community. On this basis, it advocates the importance of accelerated industrial development and improved industrial competitiveness as instruments to reduce poverty and contribute to inclusive and sustainable development.

Activities in this area include the regular compilation of statistics specific to industrial development, the publication of major action-oriented knowledge products such as the Organization's flagship *Industrial Development Report*, and the provision of applied training through the UNIDO Institute for Capacity Development. The intellectual contribution of UNIDO to industrial development is used as the basis for its technical cooperation activities.

Statistics

Accurate, high quality statistics are crucial to UNIDO in its efforts to support sustainable industrial development in its client countries, particularly when it comes to undertaking strategic research and providing policy advice. Over the past few years, UNIDO has greatly expanded its statistical activities in terms of both coverage and frequency of data production. Two years ago, it started publishing statistics on mining and quarrying, electricity, gas and water supply and in 2012, released the second edition of *World Statistics on Mining and Utilities*, published and distributed by Edward Elgar Publishing. UNIDO also produced quarterly reports on current world manufacturing trends and presented the mid-year estimates of projected annual growth figures by different country groups.

Access to UNIDO data will become significantly more user-friendly next year with the introduction of a consolidated statistical data warehouse and the necessary tools for automated and efficient data dissemination; these tools are currently under development and will be completed in the first half of 2013. At that time, users will be able to download data directly from the Organization's website instead of ordering a CD-ROM, something that will undoubtedly increase the number of



UNIDO data users worldwide. The maintenance of the data will be integrated in the statistical production process and will follow the regular life cycle.

Throughout the year, UNIDO continued to collect data on major indicators of industrial activity and distributed its statistical products worldwide. Data collection was undertaken in cooperation with the Organisation for Economic Co-operation and Development (OECD). UNIDO has the international mandate from the United Nations Statistical Commission for the collection, compilation and global dissemination of industrial statistics. Country data received from National Statistical Offices were validated and supplemented with UNIDO estimates and improved in terms of their international comparability. Statistical tables for recent years were compiled and presented in the *International Yearbook of Industrial Statistics 2012*. In addition to the *International Yearbook* and the *World Statistics on Mining and Utilities* mentioned above, UNIDO released two CD-ROMs providing key industrial statistics on 127 manufacturing sectors as well as data on their production, foreign trade and domestic consumption. A full list of statistical products released in 2012 is given in appendix L.

The International Standard Industrial Classification of All Economic Activities (ISIC) was promulgated by the

United Nations Statistics Division to classify economic data. It is a basic tool, used both nationally and internationally, for studying economic phenomena, fostering international comparability of data and promoting the development of sound national statistical systems. Revisions to ISIC are undertaken periodically to account for new and emerging products or industries and to reflect changes in the organization of production, often resulting from technological innovations. UNIDO continued its effort in 2012 to introduce ISIC Revision 4 and so far more than 50 countries report in ISIC Revision 4 and time series starting in 2008 are available in the database. The country data are published by reported classification, but the data stored on CD-ROM are converted, if necessary, to a single classification of ISIC revision in order to maintain the comparability of historical time series. UNIDO has been progressively implementing international standards on statistical data and metadata exchange, as recommended by the United Nations Statistics Commission, which is currently being used to develop the UNIDO data warehouse (see above).

A project to enhance the relevance of the Competitive Industrial Performance index as a visibility and strategic advocacy tool for UNIDO and policy advice instrument to its Member States is nearing completion. The project is

■ UNIDO's *International Yearbook of Industrial Statistics* is the only publication that offers economists, planners, policy-makers and business people an overview of global manufacturing trends. Data contained in the *Yearbook* can be used to analyse patterns of growth and related long-term trends, structural change and industrial performance in individual industries. It provides statistics on employment patterns, wages, consumption and gross output and other key indicators. The 2012 *Yearbook* describes a slowdown in manufacturing production during 2011 despite expectations of a recovery of the world manufacturing based on the positive growth trends in 2010. Later estimates published by UNIDO from the quarterly reports have indicated that manufacturing growth rates have decelerated worldwide. While the first recession hit industrialized countries harder, the second recession has affected industrialized and developing countries equally. The impact of financial instability in Europe made itself felt in developing countries through commodity trade, remittances and capital investment. Starting in 2011, there has been a reduction in manufacturing growth rates in major developing and emerging industrial economies including Brazil, China and India. Nevertheless, the *Yearbook* highlights the rise of Brazil, Russia, India, China and South Africa (BRICS) as an important group of emerging world manufacturers. The BRICS countries produced more than one fifth of world manufacturing value added (MVA) and the grouping's average annual MVA growth rate was estimated at 8.5 per cent over the last decade.

validating the index and its constituent indicators as measures of industrial performance and analysing the methodological soundness of their aggregation into a single index number, based on the statistical databases maintained by UNIDO. To mark the tenth anniversary of the publication of the index, UNIDO decided to issue it as a stand-alone publication instead of part of its flagship *Industrial Development Report* where it has been systematically used to assess the ability of countries to produce and export manufactured goods competitively. This move will draw greater attention to the index and enhance the Organization's visibility as a policymaking tool.

The detailed methodological work was presented to an expert group meeting on competitive performance indices and country classification in March that was attended by economists and statisticians from other international data-producing agencies including the Economic Commission for Europe, the United Nations Conference on Trade and Development, the Food and Agriculture Organization of the United Nations, OECD, the World Bank and the Asian Development Bank. Experts included economist Ha-Joon Chang from the University of Cambridge, Michael Landesmann from the Vienna Institute for International Economic Studies, Eoin O'Sullivan from the Institute for

Manufacturing, University of Cambridge and Michael Peneder from the Austrian Institute of Economic Research. While the 2012 issue of the publication aims at revalidating the theoretical foundations of the index, future publications will explore a broader range of dimensions related to industrial performance. The publication is expected to be completed in March 2013.

Cooperation is a sine qua non in the field of industrial statistics. Throughout 2012, the Organization maintained close contact with National Statistical Offices as well as statistical divisions within ministries of industry. It was invited to visit the National Statistical Offices of Ecuador, Gabon, Oman, Russian Federation and Thailand where it provided advice, helped formulate technical cooperation projects and participated in fact-finding missions for ongoing industrial statistical programmes. In November, UNIDO received a delegation from Mexico's National Institute of Statistics and Geography to discuss bilateral cooperation on industrial statistical data exchange as well as issues of coordination of statistical activities.

At the request of the Ministry of Economy, Trade, Industry and Tourism of Gabon, UNIDO is currently developing a project to strengthen the country's industrial statistics system. This will allow Gabon to produce internationally

comparable data on structural business statistics (for example, employment or value-added) and key short-term indicators including quarterly index numbers of production for industry. Under the project, UNIDO will conduct an industrial census and set up a business register. High-quality statistics will benefit data users in governmental agencies in formulating and monitoring industrial development strategies, the private sector in identifying dynamic sectors and business opportunities and research institutions in better understanding the process of industrialization.

UNIDO has been a key partner in international statistical activities. It participated in the annual session of the United Nations Statistics Commission and the meeting of the Inter-agency Expert Group on Millennium Development Goals (MDG) Indicators at the United Nations headquarters in February. As a member of the Committee for the Coordination of Statistical Activities of international organizations, it presented a joint paper on international coordination of statistical activities together with the International Telecommunication Union. UNIDO is also a prominent member of several of the Committee's task groups and other international committees. In its session in February, the United Nations Statistics Commission formed an expert committee known as the Ulaanbaatar City Group on statistics for economies based on natural resources, jointly led by the national statistics offices of Australia and Mongolia. The first meeting was held in August in Ulaanbaatar, with the participation of UNIDO as part of the steering committee. The Organization also attended the annual session of the OECD Committee on Statistics and the biennial session of the Committee on Statistics of the Economic and Social Commission for Asia and the Pacific. In May, it took part in a meeting organized by the Economic Commission for Europe on climate change related statistics for producers and users that took place in Geneva, Switzerland. In September, it attended a United Nations workshop on Business Registers for developing countries that took place in Washington, D.C.

In cooperation with the United Nations Statistics Division, the Economic and Social Commission for Western Asia and the Gulf Organization for Industrial Consulting, UNIDO held a regional four-day workshop in Doha in May on industrial statistics and classification. The main topics covered by the workshop, which targeted member countries of the Gulf Cooperation Council, were the role of industrial statistics, new recommendations for industrial statistics, ISIC Revision 4 and the use of administrative data for statistical purposes. It was followed in September and again in

December by two workshops that form part of an advanced training programme on analytical frameworks, and statistical information to support policy analysis. The workshops also included a review of the methodology used to measure the competitiveness of national manufacturing sectors, statistical indicators of industrial performance as well as the implementation of these concepts using various databases. The training programme, conducted in Doha by UNIDO and the Gulf Cooperation Council, was designed for specialists from Government and semi-governmental sectors including ministries of commerce and economy, central banks, customs and other depositories of statistics.

Statisticians and economists from 12 French-speaking, largely least developed countries of sub-Saharan Africa, received training from UNIDO in December that will enable them to develop their own technical cooperation projects in the field of statistics. During a regional workshop held in Yaoundé on the basic concepts, methods and analysis of industrial statistics, participants, most of whom were attached to their respective national statistics offices or relevant ministries, were brought up-to-date with the recent revisions in international recommendations and classification standards. An additional module was offered on the measurement of industrial performance.

A recently launched project in the United Republic of Tanzania aims to enhance the capacity of industrial statistics both on the mainland and the island of Zanzibar. So far, UNIDO has held training sessions for industrial statisticians, put a system in place to conduct annual industrial surveys producing internationally comparable industrial statistics and produced industrial performance indicators for evidence-based industrial policymaking. At the end of the project, the country's National Bureau of Statistics will be in a position to conduct regular annual industrial surveys, maintain and disseminate the data and construct related indicators for policymaking requirements.

Research and policy

In a resolution adopted late in 2011,¹⁷ the fourteenth session of the General Conference requested the Director General to “adopt, within existing UNIDO resources, activities aimed at strengthening the role of UNIDO in the provision of

¹⁷ General Conference Resolution GC.14/Res.1 “UNIDO activities in the field of industrial policy with a view to promoting social inclusion”.

“The [African] Group commends the efforts

of the Organization aimed at strengthening its activities in the areas of strategic research and policy advice, and urges the organization to continue to provide its services and support to Member States in this important field.”

Statement by the African Group to the fortieth session of the Industrial Development Board

advice and orientation to developing countries in the field of industrial strategies and policy”. In February the Director General established a research and policy advice group that officially assumed its function in April and started delivering its outputs in line with the General Conference directives. Its activities during the year included policy advice services to Member States and related research in the form of studies, reports, workshops and inputs to conferences, using both its own human and financial resources and within the framework of UNIDO’s technical cooperation projects, as detailed below.

Research

The research activities of UNIDO were conceptualized as tools to strengthen the capacity of UNIDO to identify best practices to promote economic diversification, competitiveness and structural change in its client countries, while ensuring the environmental sustainability of their industrial sectors and contributing to social inclusion.

Economic diversification

Even if commodity prices remain stable for some years to come, their long-term volatility obliges low and middle-income countries that are often highly dependent on the production of primary commodities, to diversify their economic structures through the strengthening of their industrial and knowledge-intensive sectors. There are, however,

numerous pitfalls on the road to industrial diversification through the use of resource rents that are often lost in inefficient investments. The key challenge facing resource-rich developing countries is the formulation of appropriate policies and strategies to support dynamic and sustainable industrial competences.

Dependency on a narrow range of primary products continues to characterize African economies, where a single commodity accounts for more than 50 per cent of export revenues in over 20 countries. To address this issue, UNIDO and the African Union Commission organized a two-day conference on strategies to promote economic diversification in Africa, with a focus on investment in the agribusiness and pharmaceutical sectors. Taking place in Addis Ababa in June, the conference promoted investment collaboration between African companies and companies from developed and emerging economies and provided a forum for business-to-business linkages among stakeholders, particularly private sector companies. The ultimate goal was to bring together companies operating in the agribusiness and pharmaceutical sectors in Africa with a view to agreeing on specific and practical measures to promote economic diversification. It was held in preparation for the African Union Summit in July on the theme “Boosting intra-African trade”. A special session on economic diversification provided an opportunity for representatives from the public and private sectors as well as academia to share their experience and knowledge of policies that are applicable to low and middle-income economies in Africa.

During the conference, UNIDO introduced a newly published working paper on *Economic Diversification Strategies*:

A Key Driver in Africa's New Industrial Revolution that looks at the challenges and opportunities facing African countries in their quest for a more diversified economy relying less on the export of unprocessed commodities. A more comprehensive report under the title *Promoting Industrial Diversification in Resource Intensive Economies—The Experiences of Sub-Saharan Africa and Central Asia Regions*, published in June examines the scope for backward integration for countries exporting commodities, especially mineral ores.

In April, UNIDO published a working paper entitled *Unraveling Manufacturing Development: The Role of Comparative Advantage, Productivity Growth and Country-specific Conditions*. The study analyses the evolving patterns of manufacturing industries in developing countries and corresponding changes in productivity. This was followed in May by a working paper in the same series on *Economic Diversification Strategies: A Key Driver in Africa's New Industrial Revolution*.

In December, UNIDO issued a working paper that weighed up the respective advantages of diversification versus specialization as alternative strategies for economic development, both in terms of production and exports. Another paper, entitled *Pro-employment Manufacturing Development in Large Countries* examined the patterns of manufacturing employment and suggested the development trajectories that support the promotion of manufacturing employment and slow the pace of employment decline during the mature stage of industrialization.

Competitiveness

UNIDO started work in 2012 on the development of a policy advice project in South Africa. The pilot project will support South Africa's Department of Trade and Industry in setting up a monitoring and evaluation framework for the country's freshly launched Manufacturing Competitiveness Enhancement Programme. The aim of the Programme is to provide incentives to manufacturers that will improve their competitiveness and ensure job retention. The new Programme will be able to draw on UNIDO's unique blend of expertise in monitoring and evaluating support programmes to industrial small and medium enterprises (SMEs) as well as in assessing their industrial competitiveness. The pilot project, to be funded by the Department of Trade and Industry, will be implemented in 2013.

The adoption of a 15-year perspective plan that

recognizes industry as the main driver of socio-economic transformation, confirms the importance the Government of the United Republic of Tanzania attaches to industrialization as the principal catalyst to transform the economy, generate sustainable growth and reduce poverty. As part of a policy capacity-building project, UNIDO worked with the Ministry of Industry and Trade and the President's Office Planning Commission on the *Tanzania Industrial Competitiveness Report 2012*. The report sheds light on the industrial performance in the country, analyses key challenges and opportunities for industry and provides concrete policy recommendations for industrial development. UNIDO also developed a survey-based analysis of the current situation of industrial skills in the country. The conceptual framework and the research findings will be consolidated in a broader industrial policy tool kit on industrial skills, to be published early in 2013.

With a fast moving economy, Viet Nam needs to align its industrial strategies and policies with new challenges. UNIDO is currently engaged in a One UN-funded project to create national capacity within the recently merged Ministry of Industry and Trade in Viet Nam in order to drive the industrial policy process. Under the project, UNIDO provided training to young professional staff in industrial diagnosis, sectoral analysis of competitiveness and value chain analysis, with a strong focus on trade competitiveness. A core group of participants were assigned to a dedicated Industrial Competitiveness Group within the new ministry to monitor industrial and trade performance on a permanent basis. One of the first achievements of the group was the publication of the *Viet Nam Industrial Competitiveness Report 2011* in a joint effort with UNIDO. Building on UNIDO's well-established methodology, the report focuses on the manufacturing sector to assist policymakers in identifying key areas of intervention to boost industrial competitiveness. It compares Viet Nam's industrial performance to that of other countries in the region and sheds light on strategic paths to deepen the industrialization process. Other results achieved by the project to date include a better understanding among senior government officials of the drivers of industrial competitiveness, particularly the role of skills creation.

In April, policymakers from relevant ministries in Viet Nam received executive training at the UNIDO Institute for Capacity Development (see below). Further training on UNIDO's sectoral competitiveness and value chain analysis was offered in Hoi An, Viet Nam, in July to members of the

Industrial Competitiveness Group and representatives from the public sector. The training focused on agro-industry value chains such as coffee and rice as well as the fishing industry value chain, including fish and shrimps. The same month, UNIDO organized a seminar on experiences to enhance the quality of the vocational training system for industry and trade in Viet Nam, in collaboration with the Ministry of Industry and Trade. The aim of the seminar was to contribute to the current debate on the status of the vocational training system in Viet Nam, to present the challenges that lie ahead, and to learn from good international practices. The sustainability of the Industrial Competitiveness Group will be addressed during a second phase of the project and through further capacity-building.

Structural change

Work began in 2012 on the preparation of the next issue of the *Industrial Development Report*, to be published in December 2013. The topic of the *2013 Industrial Development Report* is sustainable industrial development: structural change and employment generation. An internal multi-disciplinary editorial board will finalize the annotated outline of the report and monitor the drafting process that involves both external senior consultants and an internal writing team, drawn from different units of the Organization. The first author's workshop was held in November.

In August, UNIDO teamed up with the United Nations University-Maastricht Economic Research Institute on Innovation and Technology (UNU-MERIT) to hold a workshop in Vienna on lessons to be learned from the industrialization processes of the world's leading emerging economies. The ways in which the BRICS countries—Brazil, Russia, India, China and South Africa—have managed to achieve sustained economic growth and poverty reduction through the structural transformation of their manufacturing industry can serve as a model for developing countries hoping to replicate their success and for industrialized countries seeking to regain economic dynamism.

So far, the international community has not delved very deeply into the reasons behind the growth of BRICS or the policy lessons that can be drawn from it. This lacuna is currently being addressed by the two organizations in the preparation of a major report to be published in 2013. In the report, UNIDO and UNU-MERIT will focus on the issues of structural change, sustainable industrial

development, employment and poverty. The August workshop, at which international experts commissioned to work on the report joined representatives of Government, international organizations and academia, served as a preparatory meeting on the report. A booklet presenting the result of the workshop, entitled *Structural Change, Poverty Reduction and Industrial Policy in the BRICS*, was introduced at a side event during the fortieth session of the Industrial Development Board in November on the experience of BRICS in achieving competitiveness, innovation and job creation for sustainable industrial development. UNIDO and UNU-MERIT are also conducting a joint PhD programme on structural change and industrialization.

Under the UNIDO Challenge Fund initiative, which promotes cross-organizational strategic research, the Organization's research and policy group teamed up with the UNIDO Offices in Egypt and Tunisia to prepare a report on youth productive employment through entrepreneurship development in the Arab region. The report includes a comprehensive mapping of the initiatives under way in the two countries in the area of youth entrepreneurship as well as a number of strategic recommendations for UNIDO's own work in the future.

January saw the launch of the *Industrial Development Report 2011* under the title of *Industrial Energy Efficiency for Sustainable Wealth Creation: Capturing environmental, economic and social dividends*. The official launch of the report took place in Abu Dhabi in January as a side event to the World Future Energy Summit 2012, followed by similar events in different cities over the period January to August (For further information, see *Annual Report 2011*).

Policy

The policy advisory services that UNIDO offers its client countries fall into four broad categories: the review of draft industrial strategy and policy documents, capacity-building initiatives, analytical inputs for the formulation of policies and assessment of the impact of policy.

During the year under review, policy advisory services were provided to Colombia, Côte d'Ivoire, Egypt, Gambia, Indonesia, Sierra Leone, United Republic of Tanzania and Viet Nam as well to sub-regional entities such as the Southern African Development Community. UNIDO explored a number of innovative funding modalities to enhance its responsiveness to the needs and priorities of its

Member States which led to a faster deployment of UNIDO staff or international consultants and to a more effective tapping of local funding resources such as the One UN Fund or national funding modalities.

UNIDO is currently engaged in a research project to provide policy recommendations to the governing body of the Association of Southeast Asian Nations (ASEAN) to help the region accomplish its long-term sustainable development goals. The “Pathways to Green Growth in ASEAN Countries” is a joint initiative with the Economic Research Institute for ASEAN and East Asia and the Institute of Developing Economies-Japan External Trade Organization. The output of the joint research will be transferred to the policy organs of ASEAN in the form of policy recommendations. The research project seeks to develop a methodology to use environmental and social criteria in order to assess the sustainability options of industries with high economic growth potential.

UNIDO attended the 27th session of the Intergovernmental Committee of Experts organized by the United Nations Economic Commission for Africa in Rabat in March where the Organization took part in a round table discussion on “Unleashing Africa’s potential as a pole of growth in the world: the role of North Africa”. The UNIDO address on the challenge of diversification in North Africa looked at diversification and structural change in a global context, highlighted the specific features of North Africa in terms of diversification and suggested ways forward for more significant diversification in the region. It was followed by a question and answer session where representatives from Algeria, Egypt, Libya, Mauritania, Morocco, Sudan and Tunisia had an opportunity to share their experiences in the area of diversification policy and objectives.

In May, UNIDO took part in an international conference to mark the 60th anniversary of the Brazilian Development Bank on “Industrial Policies in the New Century: A dialogue between Latin America and the World”. Organized by UNIDO and the Bank in collaboration with the Economic Commission for Latin America and the Caribbean (ECLAC), the Brazilian Ministry of Development, Industry and Foreign Trade and the Brazilian Agency for Industrial Development, the conference fostered a policy dialogue between researchers, representatives of international organizations and business leaders with government officials from Latin America and beyond. The conference responded to requests by Member States to identify services and activities that target middle-income countries as well as services related more directly to industrial policy advice.

The following month, one of the side events at the United Nations Conference on Sustainable Development (Rio+20), held in June in Rio de Janeiro, Brazil, was a round table organized by UNIDO entitled “Do We Need a Green Industrial Policy?”. Organized in cooperation with ECLAC, the World Bank, the German Development Institute and the Brazilian Ministry of Development, Industry and Foreign Trade, the event focused on industrial policy for greening growth, and specifically on how to widen the scope of traditional industrial policy to incorporate environmental objectives that make industrial development not only economically and socially, but also environmentally, sustainable. The event drew attention to the findings and policy recommendations on industrial energy efficiency included in UNIDO’s *Industrial Development Report 2011* (see above).

An international round table on “New Thinking on Industrial Policy: Implications for Africa” took place in Pretoria in July. Organized by UNIDO, the World Bank, the International Economic Association and South Africa’s Department of Economic Development, the round table looked at industrial development patterns, methodologies that assist in the identification of industries with growth potential and the design and implementation of industrial policies applicable for the African continent. A session was dedicated to a UNIDO presentation on its country experiences and perspectives covering Mauritius, Singapore and South Africa as well as Africa as a whole. The round table was an opportunity for UNIDO to showcase its work on patterns of industrial structural change and its application to industrial policymaking.

UNIDO participated in a two-day forum in Conakry in September, organized under the patronage of the President of Guinea, to look at ways to diversify the country’s economy. The forum discussed industrial development strategies in Guinea, based on successful economic diversification experiments in other countries. A presentation by UNIDO on the topic “Promoting private sector investments: Perspectives for Guinea” stressed the importance of industrial development as a path for employment generation and poverty reduction in the country.

UNIDO was invited to participate in the OECD regional consultation on preparations for the OECD publication *Perspectives on Global Development 2013* that took place in Dakar in September during a conference on “How to Make African Economic Lions: Tapping Africa’s Growth and Poverty Reduction Potentials” (see also chapter 2).

Perspectives on Global Development is OECD's flagship publication on development topics and the 2013 issue addresses the challenges and opportunities that the new global scenario and shifting wealth are opening for productive activities in developing countries. UNIDO's contribution focused on the potential for the emergence of manufacturing activities in developing countries and the role played by industrial policy.

In a joint initiative with the German international cooperation agency GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit), UNIDO organized a two-day workshop on green structural and industrial policy in Viet Nam that opened in Hanoi at the end of October. Substantive presentations were delivered on the role of capacity-building for industrial policy design as well as on the role of public-private dialogue as a prerequisite for a participatory policy process. UNIDO shared its experience of green industrial policy.

At the invitation of the Director General, former World Bank Chief Economist Justin Lin briefed the UNIDO Member States on the latest trends in industrial policy as exemplified by the rise of China, and the wide-ranging implications for developing countries and economies in transition. While in Vienna, Mr. Lin also took part in a series of

presentations for the Austrian public that were co-organized by UNIDO with the Austrian National Bank and the Austrian Research Foundation for International Development.

UNIDO Institute for Capacity Development

Unlike traditional institutes, the UNIDO Institute for Capacity Development has no extended physical facilities. To achieve a multiplier effect in its efforts and to reach out to a broader audience, special attention is paid to online resources and e-learning services. The UNIDO Institute's website (<http://institute.unido.org>) describes its main functions and activities and displays a large collection of UNIDO best practices. It presents numerous learning resources: books, reports, manuals, guidelines and web portals, all developed by UNIDO. The website also hosts the Institute's e-learning platform that is used to support training activities conducted by the Institute as well as by other UNIDO branches and units.

A summer course on "Green Industry: Moving towards the Industry of the Future" was organized by UNIDO in association with the Central European University in Budapest.

“The [Asia and Pacific] Group welcomes the establishment of the UNIDO Institute for Capacity Development as one of the Organization's main instruments for building capacities in Member States for the design and effective management of the industrial development process... This will not only help in producing better human resources for the Member States but will also help strengthen the imparting of training and capacity-building in developing countries.”

Statement of the Asia and Pacific Group at the fortieth session of the Industrial Development Board

The course provided 110 young policymakers, professionals, practitioners and students of resource-efficient and cleaner production with the opportunity to reflect together with UNIDO experts and renowned scholars on strategies for the successful implementation of green industry. Participants were asked to analyse new policies, laws and regulations and to find innovative new ways to commercialize green industry products and services. They were assisted in outlining platforms for the promotion and dissemination of resource-efficient and clean production methods and economically viable, socially equitable and environmentally sustainable

technologies. A round table debate held during the course brought together representatives of Hungarian and international non-governmental organizations.

The course consisted of a preliminary one-month e-learning course followed by two-weeks of in-residence training in Budapest. The e-learning component of the course included a number of readings, moderated online discussions and an online test. Based on the content of the course, participants also identified an example from their jurisdiction or organization that they subsequently developed into a short case study. This component served two functions: firstly it was



SUMMER COURSE ON “GREEN INDUSTRY: MOVING TOWARDS THE INDUSTRY OF THE FUTURE”

“I really appreciated the mix of people. There were political scientists, economists and public relations specialists. They raised questions that I myself often do not think of.”

Charlotte, a chemist from the Philippines

“One of the most enlightening lectures was on the Montreal Protocol on Substances that Deplete the Ozone Layer...world development should not favour wealthy countries at the expense of poor ones.”

Birhan, an economist from Ethiopia

delivered as stand-alone training to promote a basic understanding of key issues behind green industry. In addition, it helped to ensure the development of a common terminology and grounding in green industry, resource efficiency and related concepts for participants of the in-residence part of the course. Twenty-five candidates were selected for the second component of the course based on the online discussion forums and a multiple-choice test as well as the relevance and quality of their case studies.

The two-week residential component consisted of a dynamic mix of lecture-based and participatory methods,

customized to meet the needs of an advanced interdisciplinary programme. The delivery of the programme was supported by information tools, case studies, a discussion forum and a shared virtual workspace. Participants produced five case studies where they combined their earlier knowledge and experience with the freshly learned concepts and tools to develop a green industry strategy or a transition plan for a region, organization, company or sector.

Feedback from participants confirmed that the course had contributed substantially to their professional development. By the end of the year, they had already produced a number

“Chemical leasing will change the parameters for the optimization of chemical products so that they are more environmentally friendly.”

Sophanna, a cleaner production specialist from Cambodia

“Given the geographical background of participants, it was an enriching experience to learn from each other so that strategies from very different contexts could be shared. Through this process participants gained a coherent perspective about the opportunities and challenges of Green Industry and thus discussions during the face-to-face part started at a higher level. It allowed us to get down to the issues right away.”

Riad, a university lecturer from Mauritius

“I have already applied the experience I acquired from the course: I just pitched to my editor a story about the waste management system of my country, Georgia. Before I begin writing, I’ll certainly have to go through the materials handed out during lectures.”

Tsira, a journalist from Georgia

of papers and articles referring to UNIDO and made practical use of the knowledge they acquired throughout the course. They were confronted with a range of issues related to green industry and learned about alternative approaches to industrial growth and development. Since the target group consisted of young professionals and researchers, many of whom were from developing countries, a positive impact on the development of their home countries towards more sustainable, green growth can be expected.

Strong interest in the course led to an agreement between UNIDO and the Central European University to join the University of Applied Sciences and Arts Northwestern Switzerland in organizing a second course in the summer of 2013, with additional financial support from Switzerland's State Secretariat of Economic Affairs.

At the request of the Ministry of Industry and Trade of Viet Nam, the UNIDO Institute for Capacity Development hosted an executive training course in April for 20 senior officials from different ministries of Viet Nam. The programme covered topics such as industrial competitiveness analysis and institutional capacity-building, the formulation of industrial policies, strategies towards increased energy efficiency and cleaner production as well as standards and regulations on industrial environmental management. Participants learned about UNIDO's methodologies and practices, designed for the advancement of industrial competitiveness, in a number of workshops and visited local best-practice companies.

Knowledge networks

Globalization has forced developing countries to devise new strategies for achieving economic growth and sustainable development. Industrial development is no longer the monopoly of large institutions; flexible multi-stakeholder networks—in particular knowledge and policy networks—are playing an increasingly vital role in the attainment of development goals, in particular sustainable and economic development targets.

In 2011, UNIDO launched the Networks for Prosperity initiative, funded by the Government of Spain through the MDG Achievement Fund, to facilitate the access of developing countries to global knowledge sources taking into account their development needs and policy requirements. With the Leuven Centre for Global Governance Studies as its academic partner, UNIDO is seeking to foster a broader

understanding of network governance and the influence of knowledge in development processes through in-depth research and analysis, rather than the creation of a particular knowledge platform or network. It encourages existing networks to improve their performance through a better understanding of the complex managerial and developmental options in network governance, and recommends the establishment of new networks where none exist.

The initiative first involved twelve pilot countries: Bolivia (Plurinational State of), Costa Rica, Cuba, Dominican Republic, Egypt, El Salvador, Ethiopia, Panama, Peru, Serbia, Turkey and Viet Nam. Building on the success of the first phase of the initiative, completed in 2011, UNIDO extended the outreach in 2012 to additional countries and development partners. UNIDO launched its report *Networks for Prosperity: connecting development knowledge beyond 2015* in Vienna in November during the Global South-South Development Expo (see also chapter 2). The report focuses on the emerging post-2015 development agenda and the need for a stronger engagement on the part of middle-income countries in the global development process. It further expands the understanding of how networks function in theory and in practice, and builds on the premise that globalization means that the world's economies cannot grow in isolation but require an ever increasing level of domestic and international connectedness and integration. The latest report was based on the finding of the first report of the series, published in 2011 and entitled *Networks for Prosperity: Achieving Development Goals Through Knowledge Sharing*.

Over the past years, the Networks for Prosperity initiative has developed a comprehensive view of the relevance of knowledge networks in the context of economic development programmes, and how they can be used as a tool for improving policy effectiveness and economic governance. It has inspired and facilitated the creation of knowledge networks and has opened opportunities for increased economic policy-relevant knowledge networking among developing countries. At the same time, the UNIDO Connectedness Index¹⁸ has quantified the correlation between the degree of connectivity of a country and its governmental effectiveness, industrial development and economic development, thus advancing the globally available academic thinking and

¹⁸ The top 10 performers in the 2012 *Connectedness Index* are Switzerland, Sweden, Denmark, Netherlands, Belgium, Finland, Singapore, Ireland, Canada and the United States.

discourse on the relevance of knowledge networks in development. In 2013, the Networks for Prosperity initiative aims to inspire further the discussions on the trends and scenarios in a possible post-2015 development agenda, and facilitate the establishment and improvement of related network governance structures for knowledge sharing, including among middle-income countries. Costa Rica has offered to host a high-level conference for middle-income countries on the theme “Networks for Prosperity” in June 2013.

Another related knowledge networking activity of UNIDO, the Green Industry Platform, was launched in June at Rio+20, in collaboration with the United Nations Environment Programme (UNEP), details of which are given in chapter 4.

Under its Business Partnership Programme, UNIDO strengthened its cooperation with the private sector during the year. It also extended its collaboration to a number of additional business partners, including Japan’s AEON Group, that align business strategies, operations and supply chains with sustainable development outcomes in specific technical cooperation projects. A growing trend is the establishment of tripartite partnerships between UNIDO, a private corporation and a bilateral development agency. Recent examples include the cooperation with Scania and Sida of Sweden; Samsung Corporation and KOICA of the Republic of Korea; and Hewlett Packard Corporation and USAID of the United States. The programme builds

multi-stakeholder partnerships to ensure effective and sustainable results in reducing poverty and advancing environmental sustainability through industrial development solutions and approaches. This is covered in greater detail in chapter 2.

Other UNIDO knowledge networking and knowledge sharing activities include the UNIDO Institute for Capacity Development (see above); the Industrial Knowledge Bank (see chapter 1); the Global Network for Resource Efficient and Cleaner Production, which aims to improve the resource productivity and the environmental performance of businesses and other organizations in developing and transition countries (see chapter 4); the Global Laboratory Network, a web-based portal of UNIDO and the World Association of Industrial and Technological Research Organizations to support testing laboratories in certifying that commodities and products meet the technical requirements and quality standards of importing countries; the Africa Investment Promotion Agency Network, a platform that allows African investment promotion agencies to discuss and design investment promotion strategies; and the Observatory for Renewable Energy in Latin America and the Caribbean, a regional programme that aims to promote renewable energy in the region and to enhance investments in this area in order to increase energy access and encourage the integration of renewable energy technologies in industrial processes.

Abbreviations

3ADI	African Agribusiness and Agro-industries Development Initiative	LDC	Least developed country
ACP	African, Caribbean and Pacific [Group of States]	MDG	Millennium Development Goal
AIDMO	Arab Industrial Development and Mining Organization	MDG-F	Millennium Development Goals Achievement Fund
ASEAN	Association of Southeast Asian Nations	MSME	Micro, small and medium enterprise
BAT	Best available technique	MVA	Manufacturing value added
BEP	Best environmental practice	NCPC	National Cleaner Production Centre
BRICS	Brazil, Russia, India, China and South Africa	NIP	National implementation plan
BSCI	Business Social Compliance Initiative	Norad	Norwegian Agency for Development Cooperation
CSR	Corporate social responsibility	ODS	Ozone-depleting substance
ECLAC	Economic Commission for Latin America and the Caribbean	OECD	Organisation for Economic Co-operation and Development
ECOWAS	Economic Community of West African States	PCB	Polychlorinated biphenyl
EIF	Enhanced Integrated Framework	POPs	Persistent organic pollutants
ERP	Enterprise resource planning	REAP	Responsible Entrepreneurs Achievement Programme
EU	European Union	RECP	Resource efficient and cleaner production
FAO	Food and Agriculture Organization of the United Nations	SDG	Sustainable development goal
GEF	Global Environment Facility	SECO	State Secretariat for Economic Affairs [of Switzerland]
GFSI	Global Food Safety Initiative	Sida	Swedish International Development Cooperation Agency
HCFC	Hydrochlorofluorocarbon	SME	Small and medium enterprise
IAEA	International Atomic Energy Agency	TEST	Transfer of environmentally sound technology
IAF	International Accreditation Forum	UEMOA	West African Economic and Monetary Union [WAEMU]
ICS	International Centre for Science and High Technology	UNCTAD	United Nations Conference on Trade and Development
IFAD	International Fund for Agricultural Development	UNDG	United Nations Development Group
IIASA	International Institute for Applied Systems Analysis	UNDP	United Nations Development Programme
ILO	International Labour Organization	UNEP	United Nations Environment Programme
ISIC	International Standard Industrial Classification of All Economic Activities	UNESCO	United Nations Educational, Scientific and Cultural Organization
ISO	International Organization of Standardization	UNFPA	United Nations Population Fund
ITPO	Investment and Technology Promotion Office	UNHCR	Office of the United Nations High Commissioner for Refugees
ITU	International Telecommunication Union	UNICEF	United Nations Children's Fund

UNU-MERIT	United Nations University-Maastricht Economic and Social Research Institute on Innovation and Technology	WHO	World Health Organization
		WIPO	World Intellectual Property Organization
WFP	World Food Programme	WTO	World Trade Organization

» **UNIDO aspires to reduce poverty** through sustainable industrial development. We want every country to have the opportunity to grow a flourishing productive sector, to increase their participation in international trade and to safeguard their environment. *(From UNIDO's mission statement)*



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