



**TOGETHER**  
*for a sustainable future*

## OCCASION

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# UNIDO

## IN THE ARAB REGION

### SELECTED SUCCESS STORIES



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## FOREWORD

UNIDO is fully committed to support the developing countries in the Arab Region in their efforts to upgrade their industries to enhance their competitiveness and achieve cleaner and resource efficient production.

By strengthening its partnership and collaboration with international and Arab regional development agencies, UNIDO is stimulating the cooperation of other partners in the development process, with special emphasis on South-South and triangular cooperation.

This approach reflects UNIDO's new mandate to promote **inclusive and sustainable industrial production**, which will support the efforts of the countries of the Region to achieve long-term growth and development.

**iSID** INCLUSIVE AND  
SUSTAINABLE  
INDUSTRIAL  
DEVELOPMENT



Li Yong, UNIDO Director-General

This booklet aims at providing a brief overview only for selected UNIDO projects activities in the Arab Region, in an attempt to provide a brief illustration for certain achievements and advancements among UNIDO experiences in various countries of the region, and a concrete evidence for dedication to the well being.

Recent studies have shown that in the last few years the Arab states have achieved steady economic growth, albeit with varying degrees. We are truly convinced that many Arab countries have taken many initiatives to diversify their economies as having adapted several new policies aiming at facilitating foreign direct investment inflows. Furthermore, most countries in the Gulf region have started to look beyond their reliance on their rich oil reserves and are already more than eager seeking for an active regional economic diversification strategy.

Many Arab countries realize the importance of industrial processing in terms of benefiting from further existing agricultural resources and rich minerals as well as raw materials as a great potential for heading toward defined economic diversification schemes. In the Arab spring realm, Arab countries

are still facing many challenges, several questions are raised in light of Arab countries pursuit 'today toward securing its successful presence in the current economic environment; and how can Arab countries tackle the challenge of youth employment, job creation as well as diversification mainly?

What is the role of manufacturing industries within the frame of diversifications strategy? What is the scope for an increased South-South cooperation and regional integration? What is the new role expected from both international, regional and local financial institutions in this process? These are crucial challenges; hereby, the UNIDO programme for the Arab Region is focusing its activities on strengthening cooperation with Arab countries, providing assistance to the regional institutions by promoting new initiatives and programmes for technical cooperation.

UNIDO strongly believes in the importance of creating new opportunities for the growing population, and also in increasing the youth motivation to embark upon new endeavours. The Arab programme aims at promoting and fostering wider activities of the private sector as one of the main engines of industrial development.

Further information on [www.unido.org](http://www.unido.org)

## UNIDO's vision

The main vision of UNIDO in the Arab Region is to strengthen and develop partnerships for sustainable industrial development with Arab countries through their national/regional institutions, the private sector/civil societies.

Accordingly, UNIDO has launched several programmes, country services frameworks and stand-alone projects in the Arab region. The focus so far has been on sustainable productivity growth, principally in modernizing and improving industries by upgrading the agro-industrial sectors (e.g. textiles, food, leather, fishery), diffusing technology (production management, new equipment, skills advancement, training, information technology), supporting international market access via trade

facilitation – establishing export consortia, quality control, metrology, standards and certification service.

The Arab Programme aims at strengthening its cooperation with Member States through their national and regional institutions as well as other developmental agencies, has identified and undertaken numerous country needs assessments and capacity-building programmes, in an effort to enhance industrial growth and private sector development.

These activities have proven successful to the programme's efforts in providing the resources, knowledge, skills and technology that are required to promote productive capacity.

The UNIDO programmatic approach in the Arab region focuses on the following priorities:

- to undertake country needs assessments;
- to assist & support the regional institutions by fostering new initiatives & programmes for technical cooperation

In the Arab Region, UNIDO strives to strengthen and develop partnerships for inclusive and sustainable industrial development by reaching out to national and regional institutions, the private sector and civil society:

- The Islamic Development Bank Group
- Arab Industrial Development and Mining Organization
- Gulf Cooperation Council
- Gulf Organization for Industrial Consulting
- The OPEC Fund
- The League Arab States
- Other international / regional organisations

- to provide the appropriate support and initial screening of programmes & stand-alone project conceptualisation
- to provide support for strategic orientation & supply the tools & methodologies needed to formulate technical cooperation activities.







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Business  
Investment  
&  
Technology  
Promotion

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## UNIDO support for women and youth job creation in Tunisia

### Context

Over the past four decades, Tunisia has achieved significant progress in terms of economic growth and development as well as in population planning. However, and in spite of the ambitious active labour market policy carried out in Tunisia, its unemployment rate has been persistently high, with over 14% as of 2008.

Unemployment is significantly higher in the western regions of the country, wherein youth and women have the most difficulty finding jobs. As many as 30% - 35% of these are university graduates. The Jasmin Revolution is a major evidence for significant unemployment trends.

### Strategy

Sponsored by the Government of Spain's Millennium Development Goals Achievement Fund, UNIDO, in partnership with the United Nations Development Programme (UNDP), the United Nations Labour Organization (ILO), the Food and Agriculture Organization of the United Nations (FAO) and the International Organization for Migration (IOM), initiated a joint programme to support the Government of Tunisia in its efforts to develop and enhance regional capacities in migration-prone areas, through the sustainable creation of decent jobs and the promotion of local competencies in the pilot regions of El-Kef, Gafsa and Tunis.

UNIDO plays a leading role in promoting a sound and sustainable private sector development. In particular, given the limited absorptive capacity of formal labour markets, UNIDO promotes entrepreneurship as a feasible option to create employment (especially youth employment). UNIDO operates at both institutional and enterprise levels, by strengthening the capacity of business, support infrastructure, emphasizing the importance of export and trade promotion, value chains development, and aligning the demand to the offer.

### Current Status

- Over 100 entrepreneurs from Tunis, Gafsa, and el Kef received training or coaching for enterprise creation by the UNIDO Enterprise Development and Investment Promotion Programme (EDIP) as well as in information & communication technology (ICT) under the Hewlett Packard learning initiative for entrepreneurs (LIFE) programme.
- About 73 entrepreneurs, 22% of which have started their business (total investment of 1.682 million of USD) creating jobs for some hundred participants under the EDIP Programme.
- 60 Trainers from 3 National Institutions have been trained under the EDIP Programme and 15 trainers under the HP programme in order to improve the quality of services provided to by the Institutions.
- A study presenting areas for high potential for young entrepreneurs and investors in Gafsa and Kef is expected to create an important number of decent jobs in identified areas of IT, agro-industries, renewable energies, tourism, and the automotive industry.
- A thorough analysis of the carpet value chain was conducted in Gafsa identifying ways to add value to the "tapis ras" (woven rugs), commonly woven by women.

### Impact / Outlook

As a result of the programme, youth and employment migration policies and programs will be better adapted to fit labour market trends and the specific needs of unemployed university graduates and unemployed low skilled youth in the three target regions. This should result in university graduates



having better access to decent job opportunities and engage in fruitful entrepreneurial activities. In parallel, low-skilled young men and women should have better access to employment and migration support services.

### In brief

In the framework of the Joint Programme "Engager la jeunesse tunisienne pour atteindre les OMD" funded by the UNDP Spanish MDG Achievement Fund, in the period May 2009 – May 2011 UNIDO has achieved the following results:

- South-South private sector partnership: in October 2010 at the National Conference on Entrepreneurship, a delegation of 29 entrepreneurs from Gfasa, Kef and Grand Tunis and 27 entrepreneurs from Bahrain, Lebanon and Iraq was mobilized through the UNIDO EDIP Network. During the event a conference was organized on "Youth entrepreneurship development: Challenges & Good Practices". A training session on UNIDO/HP GET IT module was organized for the Tunisian entrepreneurs".
- Capacity building for trainings of trainers using UNIDO EDIP methodology in Kef, Gafsa and Tunis. 61 beneficiaries of these trainings, mainly the representatives of local support institutions.
- Coaching: 60 entrepreneurs in 2 regions have benefitted of a Coaching program for youth launched in the regions of Gafsa & Kef on business plan preparation, business facilitation and access to finance. To date, 22% of the projects sponsored by the entrepreneurs coached are operational and 20% are under negotiations.
- Studies: A study has been completed, called "identification of business opportunities in Kef and Gfasa regions" & another study is under completion in the carpet sector in Gafsa.

## Upgrading Tunisia's industrial sector is in progress

- To prepare and adapt the industrial enterprises and their environment to the new upgrading and modernisation context, characterized by more competition, the Tunisian Government, in consultation with social partners, designed and implemented a national programme for upgrading the economy, starting by a pilot-upgrading programme with UNIDO's assistance.
- UNIDO has contributed to the country's efforts to increase productivity, reduce costs and improve quality in the manufacturing sector, making it more competitive, increasing its share in global markets, boosting exports and creating employment
- After 11 years of implementation, it can already be argued that the upgrading program has recorded significant results and has been a remarkable success.

### At a Glance



<b>OVERALL GOAL:</b>	Increase job opportunities for youth in Tunisia
<b>COUNTRY:</b>	Tunisia
<b>MDGs:</b>	Goal 1: Eradicate Extreme Poverty and Hunger Goal 3: Promote Gender Equality and Empower Women
<b>THEMATIC AREA:</b>	Investment & Technology promotion
<b>DONOR:</b>	UNDP-Spain MDG Achievement Fund
<b>PARTNERS:</b>	ILO, IOM, UNDP, FAO, UNIDO and several Ministries in Tunisia

## Facing youth unemployment by shaping the spirit of entrepreneurship, Bahrain

### Context

The growing youth bulge and unemployment rates in the Middle East are indicators of a need for a sustainable solution for poverty reduction and job creation. The Investment and Technology Promotion Office (ITPO) in Bahrain in cooperation with both Bahrain and India Governments established the Arab Regional Center for Entrepreneurship and Investment Training (ARCEIT) in 2000 for the purpose of developing domestic investment through the Enterprise Development & Investment training program for Micro, Small and Medium Enterprises (MSMEs).

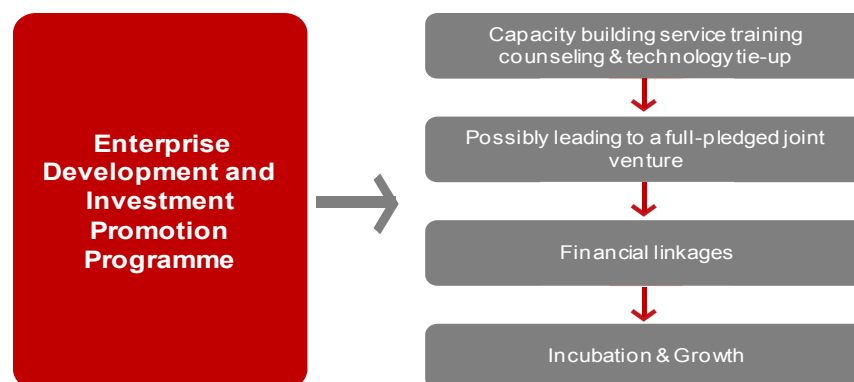
### Strategy

In 2001, it was conceptualized and implemented the Bahrain – Arab Model for Enterprise Development & Investment Promotion (EDIP). The model is a specialized program aimed at creating awareness and stimulating economic empowerment for Arab entrepreneurs. It assists entrepreneurs in starting their own businesses, helping to better attract partners and establish joint ventures. The EDIP is also a specialized programme for growth and access.

### Current Status

Since EDIP's inception in 2000, fifty-seven EDIPs have been conducted. This has resulted in assisting 2400 micro enterprises, 2000 small to medium-sized enterprises which lead to the establishment of 600 new enterprises with an estimated investment amount of \$1 billion USD, and the creation of 13,000 jobs.

In light of the daily interaction with entrepreneurs, UNIDO jointly with ARCEIT have developed a new set of tools and programs has been developed to provide business growth services to entrepreneurs. These services include technical and/or administrative support, financial support, infrastructure, market access and mentoring.



### Impact / Outlook

The overwhelming success of EDIP in Bahrain has resulted in requests from regional and international agencies to replicate the Bahrain-Arab model in various countries. EDIP is currently institutionalized in 32 countries with 49 centers around the globe. In 2009, the EDIP was named the best economic developmental program within the UN System.

### At a Glance

**OVERALL GOAL:** Poverty Reduction through Productive Activities  
**COUNTRY:** Bahrain  
**MDGs:** Goal 1: Eradicate Extreme Poverty & Hunger  
**THEMATIC AREA:** Investment & Technology promotion  
**DONOR:** Ministry of Finance -Bahrain  
**PARTNERS:** Ministry of Industry & Commerce  
Ministry of Foreign Affairs of Bahrain

## Youth entrepreneurship & Hewlett-Packard (HP) Learning Initiative (LIFE) for IT capacity building & job creation in the Arab Region

### Context

Most of the countries in the Arab region have identified youth employment issues as a top priority in their national development plans. In some countries, national action plans for youth employment have been developed, however until now some policies have not brought the expected results.

An important element of any strategy to address the high youth unemployment in the Arab region countries should be to enhance skills, especially entrepreneurship education, technical, IT and language skills.

### Strategy

Since 2008, UNIDO has been partnering with Hewlett Packard (HP) to address entrepreneurship and IT training needs in the Arab region, thereby fostering employment and the creation of enterprises. The partners implement HP's Learning Initiative for Entrepreneurs (LIFE) programme in Algeria, Egypt, Morocco, Saudi Arabia, Tunisia and UAE teaching aspiring and established entrepreneurs business skills and IT tools in the areas of marketing, operations, communications and finance. Additionally, UNIDO and HP started to create synergies between HP LIFE and UNIDO entrepreneurship programmes such as the Enterprise Development and Investment Programme (EDIP) and the Entrepreneurship Curriculum Programme (ECP).

### Current Status

In the Arab region, the UNIDO-HP partnership programme has set up 14 LIFE training centers so far in Algeria, Egypt, Morocco, Saudi Arabia, Tunisia and UAE, trained more than 1,500 students on HP LIFE and created about 300 jobs.



### Impact / Outlook

Empowering young people in Arab countries with entrepreneurship and IT skills will contribute to the development of micro and small sized enterprises. In 2012, the UNIDO-HP partnership programme will continue to support the LIFE training centers in the Arab region. The merged HP LIFE and UNIDO ECP curricula are expected in particular in African countries to help secondary school students develop a positive attitude towards entrepreneurship. The HP LIFE and UNIDO EDIP programme linkages will broaden the business and IT knowledge of entrepreneurs and help them convert their business plans into commercial ventures.

### At a Glance

<b>OVERALL GOAL:</b>	Equip unemployed and underemployed people with the required level of entrepreneurship & IT skills
<b>COUNTRIES:</b>	Algeria, Egypt, Morocco, Saudi Arabia, Tunisia, UAE
<b>MDGs:</b>	Goal 1: Eradicate extreme poverty and hunger Goal 3: Promote gender equality and empower women Goal 8: Developing a global partnership for development
<b>DONOR:</b>	Hewlett-Packard
<b>PARTNERS:</b>	HP, Micro-Enterprise Acceleration Institute (MEA-I) and local training partners

## Promoting Lebanese entrepreneurship and investment

### Context

Lebanon's small enterprises face different types of difficulties and operate in an unstable environment characterized by many factors, for instance, regional political fluctuations and local financial, legal, infrastructural, educational and cultural impediments.

Most Small and Medium Sized Enterprises (SMEs) are the heart of any country; they empower its economy, heighten its competitive position and alleviate its employment problems and in general constitute the majority of companies.

After the civil war, in Lebanon lots of families lost their businesses, some employees lost their jobs, some national companies closed and some international organizations moved to other countries.

The United Nations Industrial Development Organization (UNIDO) launched in Lebanon on the 26th of May 2010 the Enterprise Development & Investment Promotion Program(EDIP) in partnership with the Arab Regional Center for Entrepreneurship & Investment promotion Training (ARCEIT) and the Federation of the Chambers of Commerce, Industry and Agriculture in Lebanon (FCCIAL).

### Current Status

The EDIP has been funded by an Italian development fund. It has been implemented successfully in 37 countries and been brought to Lebanon to help in the economic development through job creation. EDIP has been implemented in all Lebanese regions through 4 focal points in the 4 Lebanese chambers North, Bekaa, South, Beirut & Mount Lebanon, born in mind that depending on the targeted area the awareness program had to be altered. For EDIP to be effective and efficient, joint efforts have been made with all those who can provide services to entrepreneurs, namely administrative, technical and financial support of the following counterparts: ministries, municipalities, universities, technical colleges, national and international NGOs and others.



### Impact / Outlook

UNIDO EDIP since launching

- Provided technical support to 250 businesses;
- Provided 6 training of the trainers to 200 participants from public & private sector (ministries, municipalities, universities, technical colleges, national and international NGOs & others )
- Conducted numerous awareness sessions in job creation and business development
- Co-organized a considerable number of related events, notably in 2011, the Young Entrepreneurs & Business Persons Forum 2011
- Participated in multiple related activities such as trainings, conferences and exhibitions
- Organised a Lebanese Entrepreneurs' delegation that participated in Young Entrepreneurs Forum in Tunis.

## Support for creative industries entrepreneurship in Egypt

### Context

Given the significance of Egypt's UNESCO World Heritage site to both Egypt and the world's cultural heritage, UNIDO sought to effectively ensure that the intervention on the support for creative industries entrepreneurship was fully amalgamated into the Memphite Necropolis Management Plan, as supported by Egypt's Supreme Council of Antiquities in coordination with UNESCO and its World Heritage Centre.

### Strategy

UNIDO's technical assistance focused on providing technical services and training for entrepreneurship development and supported of creative and traditionally present industries with a view towards addressing poverty alleviation and creating self-employment. This comes in line with the importance of tourism as a potentially driven sector in Egypt for job creations.



### Current Status

To ensure effective national ownership and participation at the community level, the area surrounding the Dahshur component of Memphis and its Necropolis had been incorporated so far into the scope of UNIDO's activities in the area.



### Impact / Outlook

UNIDO assistance focused on improving the livelihoods and working conditions of the local population through targeted employment-generation activities, in particular women's and youth employment, as well as the development of locally driven Micro, Small and Medium Enterprises (MSMEs).



## Industrial strategies to enhance diversification: strategy paper for KSA vision "Industry 2020"

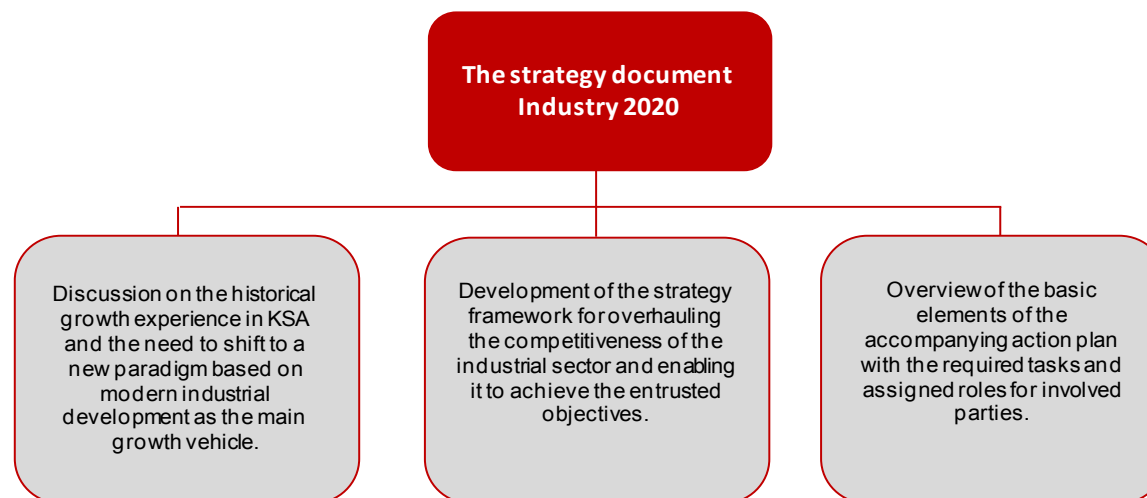
### Context

In June 2004, an integrated programme was launched with the signature of a Trust Fund Agreement between the Government of the Kingdom of Saudi Arabia and UNIDO.

### Strategy paper entitled "Industry 2020" in KSA

A special focus was given by UNIDO to the strategy paper Industry 2020 "Industrial Strategies to Enhance Diversification & Competitiveness in the Kingdom of Saudi Arabia". This strategy which aspires to develop the Saudi industry as a globally competitive industry based on innovation was finalized by the UNIDO in early 2007 and submitted to Saudi counterparts.

The strategy carried a national vision for the role of industrial sector & signifies national aspirations for the economy by the year 2020, also reflected societal ambitions aided by several studies documenting global experiences in industrial development and extensive discussions on the specificity of the Saudi economy.



## Export consortia activities in Morocco and Kuwait

### Context

Morocco has put in place, over the last few years an export promotion strategy and in this framework several Free Trade Agreements have been signed. The opening up of the Moroccan market represents a unique opportunity for Moroccan SMEs, but also a considerable threat. As it often happens SMEs are not always ready to face neither the complexities that export triggers nor the high risks involved in it.

### Strategy

To tackle some of the issues linked to export promotion involving SMEs and small producers, UNIDO has been implementing a project for the development of export consortia. This specialized model of an SME network can significantly improve SMEs export potential and reduce the costs and risks involved in penetrating foreign markets, by combining companies' market knowledge, products, human and financial resources. In Morocco, the project, funded by the Italian Government, started in 2003 and was implemented in close cooperation with the Ministry of Foreign Trade. The project strategy focuses both on training national export consortia promoters and brokers and on establishing export consortia in various sectors.



### Current Status

- In total 134 participants have been trained in export consortia development in key institutions at the national and local level.
- 21 export consortia are operational in 11 sectors and covering 8 regions of the Kingdom of Morocco.
- A website ([www.marocconsortium.com](http://www.marocconsortium.com)) is operational and regular communication on export consortia is ensured through a quarterly newsletter.
- A Moroccan Association of Export Consortia (AMCE) has been formed and has signed a partnership agreement with FEDEREXPORT, the Italian Federation of Export Consortia.

### Impact / Outlook

Export consortia development has become part of the national Moroccan strategy for promoting exports and the Moroccan Government has established a fund for export consortia promotion. The new interregional project covering Morocco and Egypt aimed at promoting the valorisation of typical regional and handicraft products.

### Strengthening Export Capacities of Manufacturing SMEs in Kuwait

The Public Authority for Industry in collaboration with UNIDO launched a project to increase the export competitiveness of Small and Medium-sized Kuwaiti companies (SMEs) from the “Chemicals, Rubber and Plastic Sector”. A competitive positioning study was prepared to analyze the export constraints faced by the sector and recommend ways to overcome them. Ten SMEs belonging to the above sector were coached to implement their own enterprise export plans and get a foothold on foreign markets as well as assess the feasibility to form an export consortium.

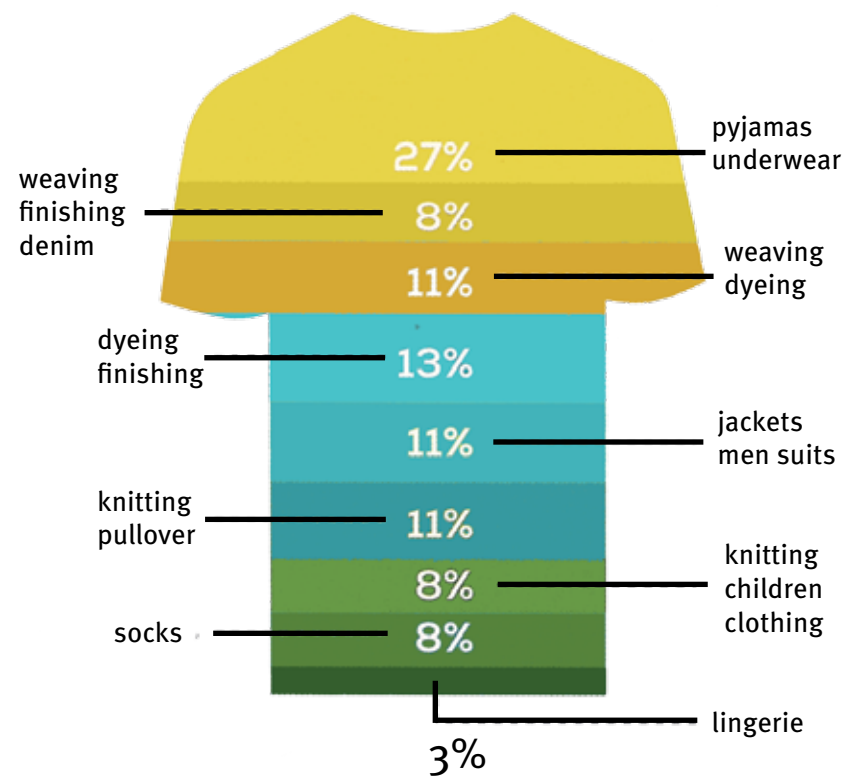
To ensure sustainability and upscaling, staff of the Kuwaiti Export Development Centre were trained to improve service provision to SMEs interested in exporting.

# MODERNIZATION PROGRAMME

In Syria, the programme developed the competitiveness of the textile value chain by enabling each enterprise to benefit from new trade opportunities.



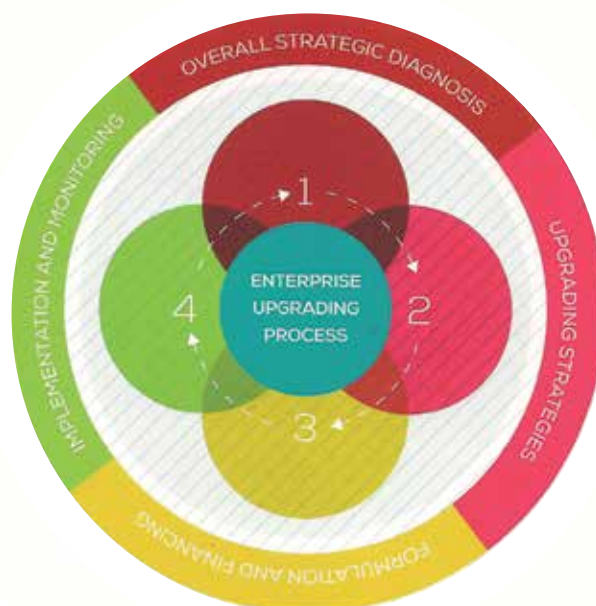
## TEXTILE SMES PER ACTIVITY



Beneficiary enterprises are able to redesign entire production lines and attract international client.

# INDUSTRIAL UPGRADING

In Tunisia, the programme increased productivity and economic diversification, reduced production costs and improved quality in the country's manufacturing sector.



## Overall Strategic Diagnosis

The overall diagnosis of an SME consists of 5 steps:

- Analysis of external sources of competitiveness
- Analysis of product markets & strategic positioning
- Diagnosis of managerial skills & social aspects
- Diagnosis of technical capacities and quality, including energy efficiency & environmental issues
- Financial diagnosis

## Upgrading Strategies

At the completion of the diagnosis phase, the upgrading plan is agreed with the SME management to define priority remedial actions. Strategies are selected in accordance with comparative advantages & the development vision and goal of a beneficiary enterprise.

## Formulation & Financing

Upgrading plans describe the required intervention in terms of adoption of new technologies, renewal of production equipment, introduction of IT systems, management capacity building & quality improvements. The upgrading plans are formulated in a bankable format (business plan/feasibility study) that enables SMEs to approach financing institutions in an expeditious manner.

## Implementation & Monitoring

Implementation of upgrading plans is carried out by teams of highly specialized international & national experts providing on-site technical assistance. These interventions are undertaken in different time intervals to allow for a learning process and to ensure that the technical assistance is assimilated at the SME level, and that the desired results are produced.

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# Agribusiness Development

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## The Iraq date palm sector rehabilitation

### Context

Although Iraq was second in raw and processed date exports in 1950s, decades of sanctions and war that followed had severely detrimental effects on Iraqi date processing facilities, machinery and human resources, a matter leading to Iraq being have to ship raw dates to other countries in the region for processing. Let alone employment opportunities was lost due to this shift, since a ton of raw dates cost merely one-sixteenth of a ton of processed dates, it caused a significant loss of revenue. To note that Iraq has a comparative advantage when it comes to dates.

### Strategy

To remedy this shift, UNIDO has partnered with the Iraqi Dates Processing and Marketing Company (IDPMC), the market leader in the Iraqi date sector. The company owns and operates eight date processing plants in various governorates of Iraq. Focusing on the largest processing facility owned by the IDPMC, which is situated in Baghdad, UNIDO assisted the company through three key activities: capacity-building, rehabilitation and technology transfer.

### Impact / Outlook

Today, IDPMC has the capacity to export processed dates to the USA and Europe. The factory has a capacity of mechanically processing up to 20 tons per day. IDPMC now are working toward rehabilitating other factories to increase their capacity and decrease exporting raw date.



### At a glance

**OVERALL GOALS:** Capability of entrepreneurs and staff in the date processing sector enhanced  
Selected date storage, packaging and processing facilities improved and enabled to act as models for the specific region.  
Products of selected pilot enterprises meet international requirements.  
New forms of cooperation along the value chain started  
Preparation for the establishment of a date marketing organization

**THEMATIC AREA:** Agro-Industrial development  
**DONOR:** UNDG Iraq Trust Fund  
**PARTNERS:** Ministry of Agriculture and Ministry of Trade

## Recovery and livelihoods projects in Lebanon

### Context

A large part of the civilian infrastructure and industry of Lebanon was destroyed during the 2006 war. While most of the country was affected, specially the southern suburbs of Beirut, the Bekaa Valley and some other Northern areas, paid the highest price in lost lives and ruined livelihoods. Overall, the country has relied so far on imports to cover its food needs.

### Strategy

At the request of the Government of Lebanon, UNIDO launched a project in 2007 to help rebuild Lebanon's agro-industries, and thus restore livelihoods. The project aimed at rehabilitating war-affected enterprises, which in turn would create jobs. Direct technical assistance was provided to war-damaged Small and Medium-sized Enterprises (SMEs) in the southern suburbs of Beirut, the Bekaa Valley and in particular other rural areas of southern Lebanon. In its initial phase, 103 enterprises received assistance. Assistance included restoration work, new machinery and technical/managerial training. The new machinery provided owners a renewed sense of pride in their profession, and has led them to adopt new production techniques for better quality products. Some enterprises have also introduced new office and human resource management techniques as well as safety-related improvements to increase health at the workplace.

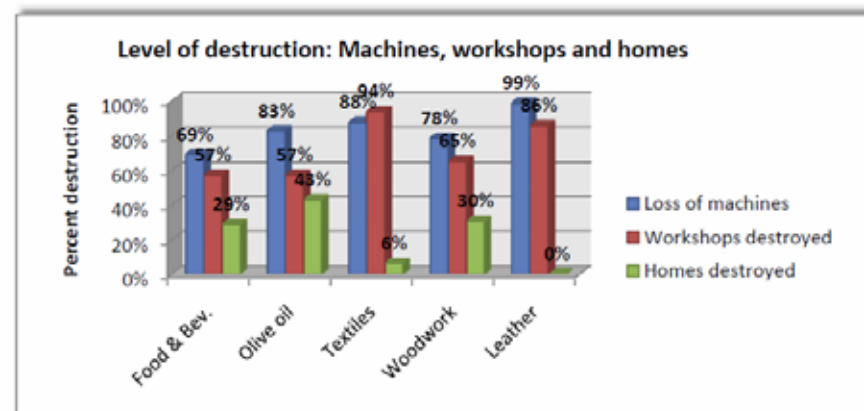
UNIDO's capacity-building, which targeted entrepreneurs, government counterparts, representatives of business associations and university students, included also direct training in the use of UNIDO's Computer Model for Feasibility Analysis and Reporting (COMFAR), business counselling, business management, good manufacturing practices and Hazard Analysis and Critical Control Points.

### Current Status

- an estimated total of 103 agro-enterprises fully restored & operational
- around 1300 new jobs created
- improved food security and health in households.

### Impact / Outlook

Today, the enterprises have been able to resume production, re-employ staff and generate new jobs. The livelihoods of the employees and their families, including extended family members, have been restored and food security is no longer a major concern. Thus, UNIDO has achieved its main objective to restore war-damaged enterprises from five agro-industrial sectors in the most war-affected regions of Lebanon. In 2009, the project's evaluation concluded on an exceptional performance that provided tangible and visible support. A second phase is now being implemented to further strengthen the capacities of the beneficiaries and to ensure sustainability.



### At a glance

**OVERALL GOALS:** Increased market access for Lebanese products  
**COUNTRY:** Lebanon  
**MDGs:** Goal 1: Eradicate Extreme Poverty and Hunger  
**THEMATIC AREA:** Poverty Reduction through Productive Activities  
**DONOR:** Lebanon Recovery Fund (LRF)  
**PARTNERS:** Government of Lebanon relevant ministries

## Rehabilitation of the Iraqi specialized institute for engineering industries (SIEI)

### Context

This UNIDO project intended to assist Iraq in its endeavours for the reconstruction of its economic infrastructure. It particularly provided support for the rehabilitation of the Specialized Institute for Engineering Industries (SIEI), which due to the war and subsequent sanctions has suffered extensive damage.

### Strategy

Assistance provided rebuilding of the capacity of the SIEI to assist the Iraqi industries with the application of national standards and adaptation of international standards to their needs. The project will provide assistance in:

- training a substantial number of SIEI managerial and technical staff on standardization, quality assurance & conformity assessment
- acquiring appropriate instrumentation, equipment and reference materials for its testing/calibration laboratories
- initiating testing and other product quality assurance activities for the local manufacturing industry, service sector & consumers.

### Current Status

- Twenty-one technical and administrative/management skills upgrading training courses have been conducted outside and inside Iraq with a total of 121 beneficiaries (65 men & 56 women).
- Thirty two equipments for testing production workshop have been ordered (partly delivered) New laboratories Furniture delivered and installed.
- Commencement of the Construction work for extension of the laboratories building.
- Progress on selected laboratories international accreditation is on-going.
- Establishment of Environmental Management System is on-going.
- Establishment of a technical Library (furniture, books, It equipments) is on-going. Issued the Laboratory services specific promotional technical brochures. English & Arabic versions.

### Impact / Outlook

The SIEI project enhanced the capacity of the SIEI/Ministry of Industry to respond to the needs of the manufacturing industry, service sector and consumers and facilitated industrial development in Iraq.



### At a glance

**OVERALL GOALS:** Support the rehabilitation of the SIEI

**MDGs:** Goal 3: Promote Gender Equality and Empower Women  
Goal 7: Ensure environmental sustainability.  
Goal 8: Develop a global partnership for development

**THEMATIC AREA:** Agro-industrial development

**DONOR:** UNDG-ITF, Italian Government

**PARTNERS:** Ministry of Industry and Minerals



## Potential olive and argan oil production in Morocco

### Context

The olive tree represents the most important part of Moroccan tree crops. Olive oil entrepreneurs in Chefchaouen produced olive oil using a traditional and old method.

The Argan tree is known as the “Tree of Life” to the Berbers for its nutritive, cosmetic & medicinal properties. It is a unique and niche product of Morocco and it is grown and processed only in the South-West of the Country.

### Strategy

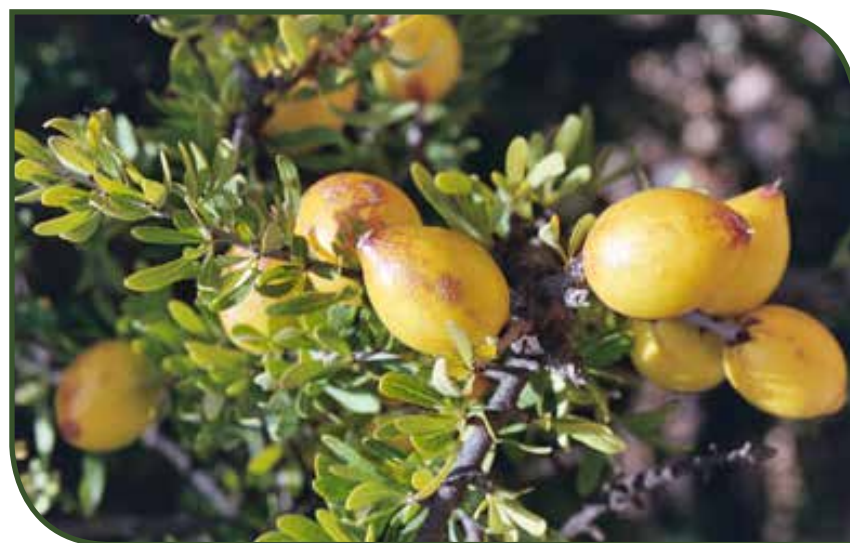
In order to address this poor production processes, UNIDO assisted in:

- improving the technology through a mechanical olive oil production to enable women producers to harvest olive
- providing capacity building for producing safe and good quality oil
- providing control methodologies for ensuring a better level of acidity, and therefore produce safe and good quality oil that is suitable for international markets.

Argan oil represents the main source of income for the women of south-western Morocco. Many of them have established cooperatives that process and bottle the Argan oil.

### Impact / Outlook

- Three hundred twenty women and fifty four men trained
- Production increased ten times and productivity doubled
- The women started production-diversification and production of more value added products from olive oil (soap, creams, etc.)
- Supporting the establishment of a system of traceability for the products of olive oil.



*"The Argan tree is known as the Tree of Life for its nutritive, cosmetic and medicinal properties"*

### At a glance

With UNIDO's technical assistance near forty of these cooperatives have created four different export consortia:

- Development of a corporate image and implemented joint promotional tools (websites, brochures, etc.)
- Active participation in national and international trade fairs
- International certification e.g. the organic certification
- Establishment of network and links with international markets
- Organization of trainings and capacity building and introduction of good manufacturing practices, management & marketing.

## Sudan entrepreneurship and pro-poor vocational training centres (VTCs)

### Context

UNIDO's role in assisting the Government and the private sector in Sudan is in addressing the demands for job creation and innovations in the vocational and skills development sector. The technical, managerial and technology-related assistance provided through an EU-funded large scale development cooperation project with Khartoum State has yielded a number of concrete results which is giving the country an edge for developing their industrial human resources base for job creation and economic development.

### Strategy

Considering the project objectives of the VTCs, a significant share of young urban poor, particularly women, in Khartoum State has improved skills for employability schema and entrepreneurial activities, and the achievements of the project are quite significant.

### Current Status

This project laid the foundation for a new system of vocational-technical training in Sudan, with a milestone for industrial training approaches using up-to-date equipment and IT approaches to prepare youngsters for helping Sudan to modernize its economy. Technical assistance has been provided for the following sectors: construction, automotive, auto body, heavy equipment, ICT and electronics, metal and engineering, machining, refrigeration and air cooling, footwear and leather, hotel and food catering, as well as health, social and community care.

### Impact / Outlook

A total of 96 managers and administrative staff for the VTCs were trained in several professional areas, including Human Resources Management, with a total of at least 175 highly skilled trainers.

The Khartoum State has established a Council for Vocational Training and Technical Education, aimed at ensuring the sustainability of the project after its completion.



# Human security



## Post-crisis interventions: helping people to help themselves

The fate of recovery efforts in post-crisis situations is largely determined by the degree of success in making the transition from the initial stage of emergency aid to rehabilitation and reconstruction and ultimately to development. Peace building based on reconciliation and the restoration of law and order is another crucial factor, a goal that can best be pursued in tandem with the endeavours to improve living standards and economic opportunities.

The United Nations Industrial Development Organization (UNIDO) is assisting its national partners in mobilizing and applying the means necessary to meet these challenges. Fine-tuned over the past ten years by successive United Nations General Assembly resolutions, UNIDO's mandate for post-crisis interventions is "to secure, restore and develop productive capacities through mitigating risks, threats and vulnerabilities in livelihoods and productive activities."

## Rural entrepreneurship: the business of off-farm recovery

Most rural inhabitants depend for their livelihood on small-scale food-crop agriculture, fishery, pastoral animal husbandry, and wage labour on plantations and ranches. However, increasingly smaller parcels of land, low agricultural productivity, volatile weather conditions and soil erosion compel many rural families to seek additional sources of income. Rural non-farm productive activities can contribute significantly to wealth creation and the well-being of rural communities.

Moreover, in crisis-affected communities, the widespread demand for basic services and processed products allows the providers of such services and products to regain their economic self-sufficiency faster than their fellow villagers who rely exclusively on tending crops and keeping livestock.



# Post-crisis interventions

## UNIDO Potential interventions in Iraq

UNIDO's Investment Promotion in Iraq (IPI) Project, – a young, ambitious and hardworking Iraqi – had a small business but few business opportunities. With IPI's help, business, and life have changed.

Like many young entrepreneurs in Iraq this, young entrepreneur wanted to start a business where there was a market need. Seeing a shortage in agricultural maintenance services in the city, he started a small repair workshop of 30 square metres for agricultural machinery; with only six employees and annual revenue of USD 50,000.

It was not until he joined the business courses at the Enterprise Development Centre (EDC) – a joint initiative between UNIDO's IPI project and the Chamber of Commerce in Nassiriya – that his vision and his business started to expand. At EDC training courses in Thi-Qar, Anwar was able to hone his skills in business management, time management, customer service, marketing and finance. The Swedish Transport Academy, in collaboration with UNIDO had supplied much-needed skilled mechanics to the Iraqi sectors of logistics, manufacturing, and industrial maintenance of heavy machinery such as trucks, engines and agricultural equipment, was established by the United Nations Industrial Development Organization (UNIDO) and

Scania, a leading manufacturer of trucks, buses and engines. Unemployment remains a serious problem in Iraq, especially for young people, while the lack of skilled Iraqi labor is stalling the development of industry and the economy as a whole. "This academy is a first of its kind in Iraq and the region," The first round of training started with some 160 students attending the three-months mechanical training courses. The Academy is aiming for a target of nearly 400 graduates each year.

Assessment of Laboratory Infrastructure and Existing Quality System Arrangements. The present project intends to assist Iraq in its endeavors for the reconstruction of its economic infrastructure. It particularly provides support for the rehabilitation of the Specialized Institute for Engineering Industries (SIEI), which due to the war and subsequent sanctions has suffered extensive damage.

The National Investment Commission (NIC) in Iraq with the support of UNIDO is getting ready to adopt the 'COMFAR' computer program to evaluate the feasibility of investment projects submitted to the commission. The commission describes it as a "digital process that is adopted in most of the developed countries". An NIC official source said that this program is prepared by the United Nations Industrial Development Organization (UNIDO) in order to help in evaluating the feasibility of investment projects.



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# Trade Capacity Building

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## Packaging and Labelling makes the difference for Lebanon MACLE Project

### Context

Lebanese industrial manufacturing includes highly diversified ranges of food products. Yet with the stringent requirements on labelling and packaging that are being placed in market destinations, Lebanese exporters have been facing a considerable number of technical barriers to trade. Thus, UNIDO's assistance was in coordination with relevant ministries to set up a project on Market Access and Compliance for Lebanese Export (MACLE) with a focus on packaging and labeling.

### Strategy

UNIDO, with the support of the Lebanon's Government, established LibanPack, the Lebanese Packaging Center within the framework of UNIDO's MACLE Project funded by Switzerland. LibanPack is a non-profit private association representing stakeholders over the whole packaging and industrial chain in Lebanon. It stands as a national central point for all economic operators concerned with packaging.

### Current Status

LibanPack achieved the following:

- A total of 80 Lebanese companies from the industrial & agriculture sector were supported in improving their packaging and labeling strategies
- Market sale and export of Lebanese products supported by LibanPack increased
- LibanPack prepared a directory on the existing Lebanese Packaging & labeling industries
- LibanPack is a member of the WPO World Packaging Organization since June 2009. LibanPack also signed twinning agreements with the French and Tunisian Packaging Centers
- LibanPack established a packaging technical committee where so far 15 new Lebanese standards on packaging have been issued
- LibanPack created a bridge between the young generation

of future graphic designers & industrial engineers and industrialists through the organization of the so-called "Lebanon Student StarPack Contest".

### Impact / Outlook

With the support of the UNIDO-MACLE project, LibanPack has been a platform for responding to the growing concerns of industrialists to ensure access to international markets through better packaging and labeling. As a reward for LibanPack's achievements, the Swiss donors are expected to support LibanPack for the center to reach its self-sustainable status.



### At a glance

**OVERALL GOAL:** Improve market access and compliance for Lebanese exports through better packaging and labeling  
**MDGs:** Goal 8: Develop a Global Partnership for Development  
**THEMATIC AREA:** Trade Capacity Building  
**DONOR:** Swiss State Secretariat for Economic Affairs (SECO)  
**PARTNERS:** Association of Lebanese Industries, Ministry of Economy

# South-South Approach

## Egypt ETRACE

### Context

Today, the Egyptian agro-industrial sector accounts almost for 20% of the country's total exports, most of which are exported to the European Union (EU).

Due to different harvest periods, Egyptian farmers are able to offer a wide range of produce without competing with farmers in European countries. However, because of their lack of traceability compliance and quality control systems, Egyptian exporters have been faced with trade barriers.

### Strategy

UNIDO established the Egyptian Traceability Centre for Agro-Industrial exports (ETRACE), which was funded under an Italian-Egyptian Debt-for-Development Swap programme. Through financial and technical assistance, ETRACE aims at making Egyptian agro-industrial export safer, more competitive and compliant with stringent market standards and regulations.

Much attention was paid to training national experts so that they, in turn, could help Egyptian producers in the development and implementation of traceability schemes, especially conformity to international quality and safety standards.

### Current Status

ETRACE mainly achieved the following:

- 45,000 farms, and almost 5 million people, were targeted by the project
- 1,500 persons trained, including 52 trainers
- 90 out of 200 packing houses, which account for approximately 85 per cent of total exports, were trained.

Traceability systems have helped Egyptian exporters to:

- timely overcome barriers to trade, ensure continuity of exports and minimize risks for businesses and employees
- improve management of the food supply chain

- reduce recall expenses
- mitigate contagious diseases and protect food chains
- increase demand and competitiveness of Egyptian products
- attract new foreign direct investments in the agro-industrial sector.

### Impact / Outlook

ETRACE has had a substantial impact on the development of Egypt's agro-industrial sector; it is now the Egyptian "Agriculture and Agro-Industrial Technology Centre", which is directly affiliated to the Technology Development Sector of the Ministry of Trade and Industry.



### At a glance

**OVERALL GOAL:** Traceability of Egyptian food products  
**MDGs:** Goal 8: Develop a Global Partnership for Development  
**THEMATIC AREA:** Trade Capacity-Building  
**DONOR:** Italian-Egyptian Debt-for-Development Swap Programme  
**PARTNERS:** Italian Development Cooperation, Egyptian Ministry of Trade



## Technical, educational and vocational training centre to support the Palestinian marble and stone sector

### Context

Demand for stone and marble workers in the West Bank has increased in recent years due to rapid growth in local construction. The Palestinian stone-cutting industry has traditionally been made up of small, family-owned enterprises and it is characterized by high productivity. Average annual sales per employee are approximately five times the average productivity of other Palestinian industrial sectors. Yet productivity per Palestinian worker is only 10% of that of an European worker.



To support the sector in West bank, UNIDO has been promoting the establishment of a Vocational Training Center which will focus on enhancing competencies and capabilities of junior students.

### Strategy

The overall objective of the project is to support the Palestinian Marble and Stone (M&S) sector to become more efficient, competitive, sustainable and value added through:

- establishing and strengthening a Technical, Vocational and Educational Training Center (TVET) in its mandate related to capacity building, institutional networking, curricula certification, information/data collection and dissemination
- strengthening the services of the Marble Association in favour of its members through technology services, market intelligence and human resources

- supporting the private sector through upgrading entrepreneurial expertise in technical, administrative and managerial terms.

### Current Status

The established Technical, Educational and Vocational Training (TVET) Centre consists of three components: educational facilities, testing centre, and a technical unit. The TVET will be able to train between 40 to 50 young students per year over a two year vocational training course. Benefits will also be available to the local SMEs sector.

### Impact / Outlook

The attendance of the TVET courses enables students to be more readily employed and more competent in assuming productive responsibility in a sector that is of vital economic importance for the whole Palestine country.

### At a glance

**OVERALL GOAL:** To support the Palestinian M&S sector to become more efficient, competitive, sustainable and value added

**MDGs:** Goal 1: Poverty Reduction through Productive Activities  
Goal 3: Promote Gender Equality and Empower women  
Goal 8: In cooperation with the private sector, make available benefits of new technologies.

**THEMATIC AREA:** Capacity building in the M&S sector

**DONOR:** Italian Government

**PARTNERS:** Palestinian Ministry of National Economy and other institutes and marble and stone associations

## Aid for Trade Initiative & Enhanced Integrated Framework, Yemen

The Diagnostic Trade Integration Study (DTIS) conducted in 2002 reveals that Yemen's formal trade and regulatory regime is not the main obstacle to international trade and investment. Yemen is expected to adapt its productive sector to be in the position to gain access to and compete on the international markets on the basis of the locally produced goods and services which conform to the international norms and standards.

UNIDO's proposal will tackle some of the above challenges through a comprehensive programme that addresses such issues as strengthening regulatory and institutional capacities, capacity building in SPS/TBT, as well as improving productivity and competitiveness in priority sectors. In line with the trade policy of the Government of Yemen, the following areas of intervention have been discussed with EIF stakeholders and business representatives in Yemen:

- Quality improvement in agricultural products, in particular papaya and mango
- Artisan crafts especially wood and leather
- Mineral resources, in particular marble, granite and ornamental stones.

The lessons learned from these products will be used to expand the programme to other priority sectors of Yemen's economy.





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# Environmental Management

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Lebanese Cleaner Production Center

المركز اللبناني للإنتاج الأنظف

To Ensure sustainable industrial development in Lebanon

## Context

The Lebanese government has developed a national strategy in line with the three constitutional pillars of sustainable development: environment, society and economy. The Lebanese Ministry of Environment's efforts to promote cleaner production were crowned with success by the establishment in 2002 of the Lebanese Cleaner Production Centre (LCPC). This initiative took place when UNIDO prepared its Integrated Programme for Lebanon in early 2000.

## Strategy

The vision of the LCPC is to become recognized nationally and regionally as the leading technical centre for the promotion of sustainable industrial production modes, focusing on cleaner production and the transfer of Cleaner and Environmentally Sound Technologies (ESTs).

The mission of the LCPC is to assist the national industries, especially SMEs, in the adoption of sustainable production modes through the application of cleaner production and the transfer of cleaner and environmentally sound technologies, following a holistic and sectoral approach.

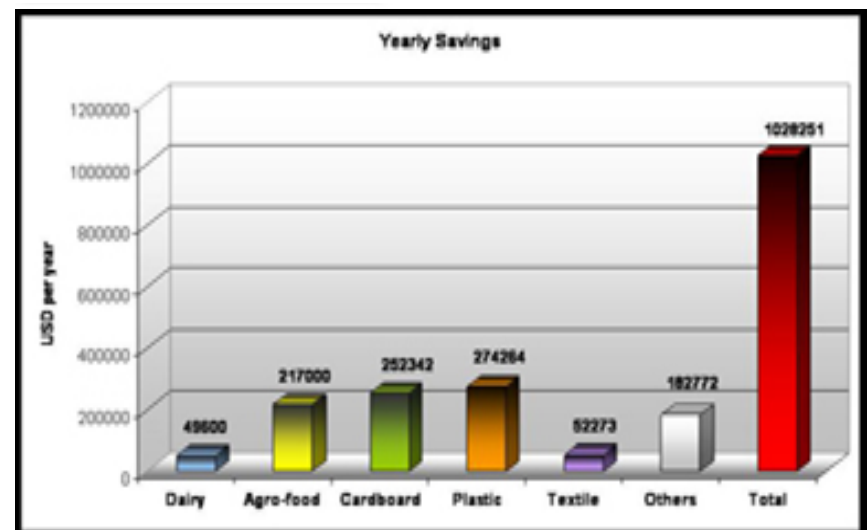
## Current Status

Since its establishment the LCPC has:

- organized and implemented more than 147 events & targeted around 2500 participants
- collaborated with 38 SME's in Lebanon
- graduated 30 cleaner production experts
- published factsheets and success stories.

## Impact / Outlook

- LCPC is now well recognized as the centre of excellence for CP in Lebanon
- LCPC is part of the UNIDO/UNEP Resource Efficient and Cleaner Production (RECP) Global Network which comprises National Cleaner Production Centres (NCPC) in 41 countries
- LCPC is now the representative of West Asia Countries in the RECP Executive Committee.



Yearly Savings achieved by implementing CP options in different industrial sectors in Lebanon

## Egypt National Cleaner Production Centre

### Context

The Egypt National Cleaner Production Centre (ENCPC) was established in 2005 by UNIDO in close cooperation with the Ministry of Foreign Trade and Industry (MIFT). The ENCPC is an integral part of the Egypt's Industrial Council for Technology and Innovation (ICTI).

Furthermore, the ENCPC is part of UNIDO/UNEP National Cleaner Production Centers (NCPCs) and the National Cleaner Production Programmes (NCPPs) network. The centre acts as a vehicle for promoting green technologies transfer and innovation for the Egyptian Industry. The ENCPC provides technical assistance for technology transfer in the fields of resource efficiency, industrial waste valorization in addition to energy efficiency and renewable energy applications.

### Strategy

The ENCPC is covering the following topics of activities:

- Resource efficiency and cleaner production (chemicals, water, raw material and energy)
- Energy efficiency and industrial application of renewable energy
- Industrial waste management & waste recycling
- Environmentally sound technology (EST) transfers and innovation.

### Success Stories from the ENCPC

- Case1: Supporting the Egyptian Companies to Comply with REACH
- Case 2: Inventory, Safeguarding and Managing of Persistent Organic Pollutants (POPs) in Egypt
- Case 3: Assessment and Capacity Building in Chemicals and Chemicals Waste Management in Egypt- Quick Start Project
- Case 4: Energy Efficiency Audit for GBG Company
- Case 5: Case Study on Industrial Application of Slag from Iron Steel in Road Construction at El EZZ Steels and Rebars Company
- Case6: Rehabilitation, commissioning and testing of Dust Collectors at the Egyptian Ferroalloys Co. (EFACO)



## Resource Efficient and Cleaner Production (RECP) Programme in the Arab Region

- After the United Nations Conference on Environment and Development (UNCED) in Rio in 1992, the United Nations Industrial Development Organization (UNIDO) and the United Nations Environment Programme (UNEP) both set off to pilot preventive environmental strategies in key developing countries. Upon their successful completion, UNIDO and UNEP jointly launched a programme to establish National Cleaner Production Centres (NCPCs). The first batch of eight NCPCs was established during 1994-1995.
- The NCPCs were established to deliver services to business, government and other stakeholders in their home country and to assist them with the implementation of Cleaner Production methods, practices, policies and technologies. With principal support from the Governments of Switzerland and Austria and contributions from other donors (including Norway, Italy, Slovenia, Czech Republic, Spain, Denmark and The Netherlands) UNIDO and UNEP have expanded the Programme to 47 developing and transition countries. The programme was comprehensively evaluated by an independent evaluation team with extensive input and guidance from directors, key staff and other stakeholders of the NCPCs, donor representatives and the UNIDO and UNEP programme management units. This confirmed success of the NCPC programme in putting CP on the agenda of business and government, training professional staff, implementation of low and intermediate technology options in assisted enterprises and policy change and technology transfer in selected countries and sectors.
- A key feature of the RECP Net will be knowledge management. UNIDO is currently implementing a project on the set-up of a regional Knowledge Management System (KMS) on Resource Efficient and Cleaner Production in the Middle East and North Africa region. It is foreseen that a regional knowledge management system (KMS) will contribute to creating a vibrant community of practitioners among the NCPCs and other network members. RECP-Net and its regional affiliates thereby became key partners for the implementation and delivery of international environment and sustainable development commitments. This supports the agenda of the Commission for Sustainable Development in Sustainable Consumption and Production. It also facilitates the transfer, innovation and dissemination of low carbon technologies, a key challenge under the Framework Convention on Climate Change.



## Green industry for the Mediterranean Region

### Context

The Mediterranean Sea has been subject to a considerable pollution level and many enterprises of the region use more materials and energy than their production processes require. At the same time, these enterprises continue to use obsolete, inefficient technologies, which fail to comply with environmental standards. If given the right solutions, these enterprises will reduce their impact on the environment and increase their competitiveness on the local and international markets.

### Strategy

From 2001 to 2004, UNIDO successfully executed its Danube Transfer of Environmentally Sound Technologies (TEST) project in five countries of the Danube basin. The project was designed to address pollution from land-based industrial activities. In 2009, UNIDO initiated the MED-TEST project applying the same strategy to the Mediterranean region. UNIDO offers assistance to Egypt, Morocco and Tunisia in adopting environmentally-sound technologies.

UNIDO emphasized training and capacity-building. Technical site reviews and Cleaner Production (CP) potential assessment were completed for 70 enterprises in the three countries. Over 40 companies will obtain direct assistance in the implementation of cleaner and environmentally-friendly technologies.

### Current Status

- National capacities built and hands-on experience gained by local experts on TEST integrated approach
- Economic benefits and sustainability of TEST demonstrated
- Existing processes optimized
- Initiatives to be replicated in other countries of the Mediterranean region
- Reduced pollution discharges into the Mediterranean Sea

### Impact / Outlook

So far, local industries have responded positively and expressed interest in joining the project, also on a cost-sharing basis. Enterprises understood that their participation in the project will reduce their impact on the environment while at the same time increase their competitiveness.

Overall, MED-TEST has been integrated into a larger Mediterranean Action Plan led by the United Nations Environment Programme (UNEP) and the World Bank.



### At a glance

<b>OVERALL GOAL:</b>	Greening industries along the Mediterranean Sea
<b>MDGs:</b>	Goal 7: Ensure Environmental Sustainability
<b>THEMATIC AREA:</b>	Environment and Energy
<b>DONOR:</b>	Government of Italy, Global Environment Facility (GEF), other donors and UNIDO
<b>PARTNERS:</b>	Moroccan Cleaner Production Centre, Egyptian Cleaner production Centre, Tunisian Consortium of Technical Centres



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# Energy & Climate Change

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## Promoting low-carbon technologies in Egypt cooling and heating applications

### Context

The Egyptian Government is translating its response to the global and national energy and climate change issues by putting in place appropriate strategies and action plans. The Egyptian energy strategy sets the target for renewable energy share in the energy mix to be 20% of the generated electricity by 2020, including a 12% contribution from wind energy. The strategy targets also a 50% of the electricity generation capacity to be from renewable energy by 2050, for which electricity demand is projected to reach 120 GW. Solar energy is one of the viable options for replacing the conventional fossil fuels. It is abundant in Egypt with average annual global solar incidence is between 1900-2600 kwh/m<sup>2</sup>/year from the north to south of Egypt, and average annual direct solar incidence is between 1970-3200 kwh/m<sup>2</sup>/year.

### Strategy

The project overall objective is to develop the market environment for increasing the share of renewable energy in the energy used in Egypt, and thereby avoid GHG emissions.

The project will demonstrate proven technologies, such as solar thermal cooling to replace conventional energy sources for air conditioning and heating and renewable energy based mini grids for community services, irrigation and post harvest processing in desert settlements.

In parallel, the project will create the market environment in terms of policies and financial mechanisms, as well as local manufacturing of renewable energy systems.



### Expected Outputs

- Energy use and potential green house gas (GHG) avoidance assessed in large building and tourism industry.
- Energy demand and potential GHG avoidance assessed selected desert settlements away from the Nile valley and Delta.
- Barriers to the adoption of the low carbon technologies for cooling, warm water production.
- Technologies reviewed and selected.
- Preliminary design of technical, financial requirements and bidding documents for energy facilities prepared.
- The facilities installed tested, commissioned and operated for a period to be determined by the subcontractor.
- Operational experience realized through the pilot project(s).
- Support the replication and the scaling up and contributing to mitigating Co<sub>2</sub> emissions in close partnership with the local private sector & multinationals.
- Capacity at the institutional and market level built.
- Awareness of stakeholders raised.
- Conducive policy promoted and its adoption recommended.
- Innovative financing mechanism conceived to support local manufacturers and renewable energy end users.
- Partnerships between local industries, international centers of excellences and technology suppliers promoted for the purpose of technology transfer.
- Business advocacy services to the local renewable energy manufacturers in the areas of technology transfer, production and market links provided.
- The need for imported fuels reduced and contributing to national energy security.

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# Montreal Protocol

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## Recovery and refrigerants recycling for Algeria

### Context

The Montreal Protocol sought the complete phase out of chlorofluorocarbons (CFCs) by 2010 for all developing and transition countries. The total phase out entails a ban on production, trade and consumption of CFCs in all manufacturing sectors, be it refrigeration, foam, solvents and aerosols.



Upon the request of the Government of Algeria, UNIDO developed a Refrigerant Management Plan in cooperation with the Algerian National Ozone Unit, which entailed training in good refrigerant management practices for technicians, training for customs officers and the National Ozone Unit (NOU) in monitoring and controlling Ozone Depleting Substances (ODS), and finally the establishment of the national refrigerant recovery and recycling network.

### Strategy

The objective in establishing the recovery and recycling network is to ensure obsolete ODS-containing equipment is decommissioned in an appropriate manner, to prevent refrigerants from being vented into the atmosphere during repair and maintenance activities on refrigeration and air-conditioning appliances and to ensure recycled CFC is available to service equipment that have not reached their end-of-life.

### Current Status

Hands-on training was provided on the operation and maintenance of the recovery and recycling (R&R) equipment. 358 technicians were taught how to recover the refrigerant from various refrigeration and air-conditioning units. The National Ozone Unit, in cooperation with UNIDO, designed a database to follow up and monitor daily R&R activities.

### Impact / Outlook

The installation of the R&R database allows the National Ozone Unit to monitor the amounts of refrigerant recovered, quantities of recycled refrigerant stored at recycling centers, the quality of the recycled refrigerant as well as pricing when these are resold into the market, allowing them to effectively evaluate the efficiency of the R&R network in place. With an operating R&R network in the country, this can be extended to other refrigerants, such as HCFCs, hydrochlorofluorocarbons, the current focus of the Montreal Protocol.

### At a glance

<b>OVERALL GOAL:</b>	Establishing a recovery and recycling scheme for refrigerants controlled under the Montreal Protocol
<b>COUNTRY:</b>	Algeria
<b>MDGs:</b>	Goal 7: Ensure environmental stability
<b>THEMATIC AREA:</b>	Montreal Protocol – Energy and Environment
<b>DONOR:</b>	Multilateral Fund for the Implementation of the Montreal Protocol
<b>PARTNERS:</b>	National Ozone Unit, Ministry of Environment

## Phase-out of Methyl Bromide used for soil fumigation for Moroccan tomato production

### Context

In Morocco, large numbers of farmers earn their livelihood by growing fresh fruits and vegetables such as tomatoes. However, methyl bromide, an efficient pesticide used by Moroccan farmers, needed to be phased out due to its high ozone depleting potential in line with Morocco's commitments under the Montreal Protocol on Substances that Deplete the Ozone Layer. Thus, a major UNIDO environmental project was carried out over the past decade in Morocco allowing the country to be in compliance with the Montreal Protocol.

### Strategy

The project was funded utterly by the Multilateral Fund for the Implementation of the Montreal Protocol and implemented by UNIDO in close cooperation with the Moroccan Government and the Moroccan Association of Fruit and Vegetable Producers and Exporters (APEFEL). UNIDO helped the Moroccan Government set up a Technology Transfer Centre. This is an applied research and demonstration centre, run by APEFEL, where farmers see alternative technologies at work.

### Current Status

UNIDO achieved the following:

- 650 ODP tonnes (ozone depleting potential) of methyl bromide was phased out
- the Technology Transfer Centre was established in Agadir giving space to horticultural experiments, research and international cooperation
- several trainings, study-tours and workshops were carried out with the participation of international experts.

### Impact / Outlook

In line with the Montreal Protocol obligations, the project helped the Moroccan counterpart to eliminate methyl bromide from numerous tomato cultivations in

the country, according to the European Union's deadline by 2010. It delivered the largest contribution to Morocco's first major achievement in meeting its Montreal Protocol commitments; by 2003, Morocco met its "freeze obligation" in the use of ozone depleting substances. The project was extended well beyond its initial five-year duration until 2011 and led to a remarkable success: by the end of 2009, tomato cultivation in Morocco fully contributed its share to meeting the country's commitments under the Montreal Protocol.

The Technology Transfer Centre helped disseminate project benefits and has lately engaged in developing links to similar research institutions in several countries.



### At a glance

<b>OVERALL GOAL:</b>	Compliance of Morocco with the Montreal Protocol on substances that deplete the Ozone
<b>MDGs:</b>	Goal 7: Ensure environmental sustainability Goal 8: Develop a global partnership for development
<b>THEMATIC AREA:</b>	Environment and Energy
<b>DONOR:</b>	Multilateral Fund for the Implementation of the Montreal Protocol
<b>PARTNERS:</b>	Moroccan Ministry of Industry, Association Marocaine des Producteurs et Producteurs Exportateurs de Fruits et Legumes (APEFEL)

## Phase-out of HCFCs in the Arab Region

### Context

The first stage of the Montreal Protocol entails an hydrochlorofluorocarbon (HCFC) consumption freeze by 2013 and a 10% reduction in consumption from the baseline by 2015 for non-LVC (low-volume-consuming) countries. The national phase-out plans, known as HCFC Phase-out Management Plans (HPMPs) differ from country to country in the region.

### Strategy

UNIDO is assisting several countries in the region to develop strategies for the first stage of the HCFC phase-out schedule, namely Algeria, Bahrain, Egypt, Iraq, Jordan, Kuwait, Libya, Morocco, Oman, Qatar, Saudi Arabia, Sudan, Syria, Tunisia and Yemen. UNIDO also assists countries in complying with their obligations under global environmental conventions such as the Stockholm Convention, the Montreal Protocol and other relevant treaties.

In cooperation with the respective National Ozone Units and UNEP, UNIDO has been developing HCFC Phase-out Management Plans, HPMPs, since 2008. To complement the HPMP, individual investment projects have been developed for the conversion of production lines in the manufacturing sectors. The impact of these projects in terms of HCFC phase-out is intended to help countries achieve the freeze deadline, as the anticipated growth in HCFC consumption in 2013 and beyond is mitigated.

### Current Status

Ten individual HCFC phase-out projects are being implemented across the region to ensure countries meet the consumption-freeze schedule: Algeria (1), Egypt (3), Jordan (1), Morocco (1), Saudi Arabia (2), Sudan (1) and Syria (1). 8 out of 15 HPMPs being developed with UNIDO in the region have been submitted to the Executive Committee for approval.

### Impact / Outlook

At this moment, there is a concern for some countries regarding HCFC alternatives for the refrigeration sector, in particular suitable alternatives for refrigerants charged to air-conditioning units.

In the Gulf countries specifically, where the ambient temperatures are very high, there are no immediate alternatives available, taking into account that these have to have zero-ODP and low Global Warming Potential (low-GWP) properties. However, new gases are currently being tested and look promising. Countries have an obligation to the Montreal Protocol to reach their compliance targets, but phase-out has to be carried out such that companies do not compromise their production levels and current market share.



### At a glance

<b>OVERALL GOAL:</b>	Compliance with the first stage of the HCFC phase-out schedule of the Montreal Protocol
<b>MDGs:</b>	Goal 7: Ensure environmental sustainability
<b>THEMATIC AREA:</b>	Montreal Protocol – Environment and Energy
<b>DONOR:</b>	Multilateral Fund for the Implementation of the Montreal Protocol
<b>PARTNERS:</b>	National Ozone Unit, Ministry of Environment and UNEP

## UNIDO General Conference, 15th session, Lima, Peru, 2 to 6 December 2013 Lima Declaration

The General Conference of the United Nations Industrial Development Organization (UNIDO), which was held in the capital of Peru, adopted a new Lima Declaration that charts the Organization's development priorities for the coming years and places special emphasis on inclusive and sustainable industrial development.

“While integrating in a balanced way all three dimensions of sustainable development – economic, social and environmental – we believe that the effective measures towards inclusive and sustainable industrial development should encompass enhancing productive capacities in a way that supports the structural transformation of the economy; encourages economic growth and

the creation of decent jobs; enhances productivity and development, transfer and absorption of technology on mutually agreed terms; and supports related research and development,” states the document, that representatives of UNIDO's Member States taking part in the five-day event adopted.

The declaration stresses the relevance of **inclusive and sustainable industrial development** as the basis for sustained economic growth and, while respecting the processes established by the UN General Assembly, encourages appropriate consideration of the issue in the elaboration of the post-2015 development agenda.



“From the Istanbul programme of action to the world we want in 2015 and beyond: Implementing the UNIDO operational strategy” was the theme of the Least Developed Countries (LDCs) Ministerial Conference held in Lima.

The two-day event brought together more than 250 participants, including ministers from LDCs in charge of industry, representatives of relevant UN agencies, regional economic commissions, emerging countries’ institutions, donors and private sector entities. The event has helped promoting the implementation of partnerships that has brought sustainable live-lihoods and inclusive welfare for LDC’s citizens. It seeked to leverage various potentialities and mechanisms available in the domain of private sector and SMEs development, productive capacity building, trade and employment. In cooperation with Brazil, the Russian Federation, India, China and South Africa (BRICS) and other emerging countries, the event has also helped implementing the UNIDO LDC Operational Strategy 2012-2020.



“This conference has brought us a step closer towards the implementation of the Istanbul programme of action endorsed in May 2011 at the Fourth United Nations Conference on LDCs in Istanbul, Turkey,” said LI Yong, Director General of UNIDO.

He added that, since 2000, the world has made great strides in alleviating poverty but much more still remains to be done. “Some 1.3 billion people are still struggling for food and shelter, and most of them are unfortunately from the Least Developed Countries. My conviction is that poverty eradication should remain the central imperative. Therefore, a radical shift in development strategies and partnerships should be considered as the top priority for LDCs to make a significant leap forward,” said Director General Li.

Support for the Least Developed Countries will continue to be a main priority of UNIDO and the Organization will adapt itself in offering quality services to its Member States in a tailored and balanced way.” “The conference will encourage emerging as well as traditional donor countries to develop strategies to support the effective implementation of the UNIDO LDC Operational Strategy by 2015 and beyond, promote the critical role of South-South cooperation in the LDC development efforts, and actively engage countries in the implementation of the UNIDO LDC Strategy,” said Li.

The Ministerial Conference included sessions on “The role of BRICS and other emerging economies for inclusive sustainable growth of LDCs” and “South-South industrial cooperation: The role of southern enterprises in Least Developed Countries”.

The conference has also provided an opportunity to explore the role of the women in the overall agriculture value chain approach in the Least Developed Countries. A session has been dedicated to the specific role of women in LDCs under the theme: “Converting commodities into products: the role of women in LDCs”.







Vienna International Centre, P.O. Box 300, 1400 Vienna, Austria

Telephone: +431 26026-0, Fax: +431 26926-69

E-mail: [unido@unido.org](mailto:unido@unido.org), Internet: <http://www.unido.org>