

Green Jobs Kick-Off Workshop in the Arab States: The Lebanon Case Study

Workshop Report

Going green and promoting new jobs and skills for Arab youth

July 28-29 2011



ILO, UNDP, ESCWA

UN House, Beirut, Lebanon

Table of Contents

Abbreviations.....	2
Background to the Workshop.....	3
The Green Jobs initiative in Lebanon	3
Organization of the Workshop.....	3
Session 1: Opening Remarks.....	5
Introduction to ILO Green Jobs Programme – Presentation of key concepts and global and regional projects and activities.....	6
Session 2: Employment Potentials of the Green Economy	6
Employment and youth employment challenges in Lebanon and the Arab states	6
Opportunities for SMEs in environmental goods and services.....	6
Concrete examples of Green Jobs projects	7
Greening the energy sector in Lebanon: A policy perspective	8
Q&A and open discussion.	8
Session 3: Sectoral Assessments on Green Jobs Potentials in Lebanon.....	8
Introduction to the four assessments.....	8
Energy Sector Assessment.....	9
Construction Sector Assessment.....	9
Waste Management Sector Assessment.....	10
Agriculture and Forestry Sector Assessment.....	11
Presentation of key findings and policy recommendations	11
Working Groups.....	12
Day 1 Wrap-Up.....	12
Session 4: Green Jobs in Lebanon – Challenges and Opportunities.....	14
Employers’ Perspective	14
Trade Unions’ Perspective.....	15
Green Jobs and Just Transition: workers’ perspective.....	15
Stakeholders’ Perspectives.....	15
Recap of Working Groups’ Priority Activities & Policy Needs (Day 1) and of Stakeholder Recommendations (Day 2)	17
Concluding Remarks.....	18
Annex 1 – Agenda	19
Annex 2 – List of Participants.....	21

Abbreviations

ALI	Association of Lebanese Industrialists
ILO	International Labour Organization
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNRWA	United Nations Relief and Works Agency
UNV	United Nations Volunteers
ROAS	Regional Office for the Arab States
ESCWA	Economic and Social Commission for Western Asia
EGS	Environmental Goods & Services
OSH	Occupational Safety and Health
MoL	Ministry of Labour
MoE	Ministry of Environment
MoEW	Ministry of Energy and Water
MoA	Ministry of Agriculture
MoF	Ministry of Finance
MoEHE	Ministry of Education and Higher Education
MoET	Ministry of Economy and Trade
BdL	Banque du Liban
AUB	American University of Beirut
CAS	Central Administration of Statistics
CDR	Council for Development and Reconstruction
CGTL	General Confederation of Lebanese Workers
LCEC	Lebanon Centre for Energy Conservation
LSES	Lebanese Solar Energy Society
NGO	Non-Governmental Organization
OoE	Order of Engineers
TVET	Technical and Vocational Education and Training
LCEC	Lebanese Center for Energy Conservation
SME	Small or Medium Enterprise
EGS	Environmental Good or Service
MDG	Millennium Development Goal

Background to the Workshop

The 21st century faces two defining challenges: the first is to avert dangerous climate change and a deterioration of natural resources which would seriously jeopardize the quality of life of present and future generations. The second is to deliver social development and decent work for all. The acknowledgement that these two challenges cannot be addressed separately anymore has led to an increased awareness among international agencies, governments, employers' organizations, labour unions, environmental groups, and civil society organizations that business as usual based on the strategy "grow first, clean up later" is not economically, socially, or environmentally sustainable.

Within the realm of the ILO, this increased awareness has been reflected in the conclusions of the discussions of the 96th session of the International Labour Conference of the Director General's Report on "Decent Work for Sustainable Development" and the Green Jobs Initiative, which was launched in November 2007 in collaboration with the United Nations Environment Programme (UNEP), the International Organization of Employers, and the International Trade Union Confederation. Furthermore, in response to the financial crisis, the ILO adopted in June 2009 a Global Jobs Pact that aims at "boosting economic recovery and job creation whilst preparing for a greener, more balanced, fairer and sustainable global economy". The ILO's Green Jobs initiative seeks to reconcile goals for poverty reduction with low greenhouse gas emissions through the creation of decent work. It constitutes a response strategy to the negative effects of climate change on employment while aiming to reduce the environmental impact of enterprises and economic sectors ultimately to levels that are sustainable or involve jobs that conserve or rehabilitate the environment. Specifically, but not exclusively, this includes jobs that protect ecosystems and biodiversity; reduce energy, materials, and water consumption through high-efficiency strategies; de-carbonise the economy; and minimise or altogether avoid generation of all forms of waste and pollution.

The Green Jobs initiative in Lebanon

In Lebanon, the ILO, in collaboration with UNDP, has undertaken a study to assess the potential for green jobs in key economic sectors, namely: energy, construction, agriculture, and waste management. The sectoral assessments provide data for the current status of and potential for greening the sectors, determine the current number of existing green jobs in each sector and estimate the number of future potential green jobs that can be created if green policies relevant to the different sectors are implemented. The assessments further evaluate the needed occupational skills and retraining needs required for the creation of green jobs or the greening of existing jobs and identify other potential gaps preventing the implementation of policies related to green job creation.

Organization of the Workshop

The joint ILO-UNDP-ESCWA workshop on Green Jobs was held in Beirut, Lebanon in the UN-House on July 28-29 2011. The objectives of the workshop were to:

1. Introduce and raise awareness of green jobs with a focus on ILO's Green Jobs Programme and present key concepts and global and regional green jobs projects, activities and interventions;

2. Present and validate sectoral assessments on green jobs potentials on a technical level with tripartite constituents and stakeholders. Disseminate preliminary findings and discuss needs for further research;
3. Kick-off policy discussions and identify areas of collaboration with potential partners on supporting green jobs in Lebanon and in the Arab region with special emphasis on youth employment; and
4. Plan for follow-up activities, such as project proposals and other interventions in one or more of the studied sectors.

The workshop was carried out over two days, and involved four separate sessions, corresponding with the four objectives listed above. The first and second sessions focused on introducing participants with the green jobs initiative and the related concepts. It also provided an overview of the global, regional, and country experiences with particular emphasis on success stories. A presentation during the first session focused on challenges and opportunities with regards to youth employment in Lebanon and the Arab region. Building on experience from other regions, the session also demonstrated how shifts to green economy can indeed create green job opportunities, particularly for young people.

The third session constituted the core of the workshop and was devoted to the sectoral assessments in Lebanon whereby the key findings, challenges, and recommendations were presented. Participants were then divided into four working groups corresponding to the four identified sectors in which they were given the chance to discuss in more details the findings and recommendations of the assessments and provide feedback and comments. Each working group then summarized the key discussions of its members and presented the main findings and recommendations.

The fourth session presented the concept of a Just Transition towards a green economy and provided the perspectives of both employers' and workers' organisations regarding key challenges in relation to the promotion of green jobs in the country. The session then built on the findings and experiences of earlier sessions and formulated concrete priority activities through open discussions with stakeholders and laid the way forward for promoting green jobs in Lebanon.

In the closing speeches the discussions and findings of the workshop were summarized.

Session 1: Opening Remarks

Introductory presentations were provided by the following to make participants more familiar with the overall Green Jobs concept, its relationship with Decent Work, and efforts to promote them:

Maurizio Bussi, *Deputy Regional Director, ILO Regional Office for Arab States*

Mr. Bussi began by thanking the members of the workshop for their participation, as well as his colleagues in UNDP and ESCWA for their contributions in preparing for the event. He noted that this kind of dialogue between environmental, economic and social dimension of development is essential for meeting the climate change challenge faced by Lebanon and the region as a whole. A central feature of this transition is to identify and implement policy measures centred on a double dividend; on the one hand protecting the environment and on the other improving social well being and creating more and better opportunities to earn a living in decent jobs.

Mr. Bussi noted some of the issues influencing Lebanon and the greater Middle Eastern region, namely striking unemployment rates, particularly amongst the youth, and grave environmental challenges derived from increasingly-felt consequences of climate change and environmental degradation. He ended by expressing his confidence that the evidence to be presented and the workshop as a whole would feed into the formulation of national policies in Lebanon and that this should contribute to shaping a new regional consensus on sustainable development that takes into account the diversified socioeconomic requirements of countries across the Arab world and the decent work needs.

Schombi Sharp, *Deputy Country Director, UNDP Lebanon*

Mr. Sharp particularly stressed Lebanon's challenges linked to high unemployment and brain drain of its labour force. He continued by highlighting that creating more green jobs opportunities would contribute to addressing both phenomena, but that policy support and capacity building would be crucial in doing so.

Roula Majdalani, *Director, Sustainable Development and Productivity Division, ESCWA*

Ms. Majdalani emphasized Lebanon's strengths, embedded in its educated, competitive youth. She insisted on the public sector's role in setting up an enabling legal and institutional framework for moving towards a greener economy at the national level. She also mentioned the private sector's responsibility in terms of financing the green economy transition and providing incentives. Finally, Ms. Majdalani expressed the hope that the meeting would contribute to developing a roadmap for greening Lebanon's economy, which could be replicated in the broader Arab region.

Introduction to ILO Green Jobs Programme – Presentation of key concepts and global and regional projects and activities

Peter Poschen, *Director, Job Creation and Sustainable Enterprise Department, ILO Geneva via video link*

Mr. Poschen highlighted the need to invest in green jobs, reducing the environmental impact of economic activities, as part of the economic transition which – if properly led – would lead to net gains. He stressed that green jobs would ultimately positively impact public health, poverty reduction and employment. He also mentioned interlinks among the latter dimensions: for example, a greener economy would suppress the need for providing energy subsidies, which in turn can be used as income transfers for the poorest. Peter Poschen referred to a number of good practices developed in other emerging economies, which he stressed could be replicated in Lebanon. He concluded by listing a number of assets present in the Lebanese economy, which could be built on, and emphasised the need to generate a global consensus around these ideas.

Session 2: Employment Potentials of the Green Economy

Employment and youth employment challenges in Lebanon and the Arab states

Mary Kwar, *Senior Skills and Employability Specialist, ILO Regional Office for the Arab States, Beirut*

Mary Kwar emphasised common MENA challenges stemming from the persistence of an informal economy and high unemployment, particularly youth unemployment and unemployment of graduates. She stressed that most graduates tended to seek job opportunities in the public sector due to higher levels of salary, benefits and job security/protection. Ms. Kwar also insisted on the need to diversify Arab economies, which would necessarily entail the creation of new skills development training strategies together with the implementation of active labour market policies better linking labour supply and labour demand. She went on recalling that national responses would have to be well informed, coherent, interlinked and targeted, while addressing several levels: the governmental level, the industrial level (i.e. chambers of industries, union confederations) and the level of individual companies. She concluded by mentioning the importance of raising awareness on environmental issues.

Opportunities for SMEs in environmental goods and services

Robert Travers, *Senior Economic Affairs Officer, ESCWA*

Mr. Travers highlighted the main environmental problems in the ESCWA region, which include water scarcity, increasing desertification, land degradation, poor waste management and pollution, negative effects of rapid population growth and the predicted negative consequences of climate change. SMEs were highlighted for their capacity to help deliver solutions to environmental problems, help build a greener economy, combat climate change and create new jobs.

Mr. Travers differentiated SMEs into three different types, traditional, renewables and new/emerging. Mr. Travers concluded by highlighting that opportunities for SMEs in environmental good and services exist especially in solar power and water conservation as well as waste management, recovery and recycling. He also stressed that SMEs can immediately start to 'go green' in response to current trends and consumer demand.

Mr. Travers highlighted the need for SMEs to invest in R&D, and to work closely with universities. He noted that governments have "a key role to play", and that stricter environmental controls in areas like waste disposal, water quality, electricity generation and air quality will stimulate demand for environmental goods and services. He called upon greater awareness and communication, as well as regulation used to stimulate demand rather than hamper enterprise.

Concrete examples of Green Jobs projects

Marek Harsdorff, Economist, *Green Jobs Programme, ILO Geneva*;

Mr. Harsdorff provided concrete examples of green initiatives from different countries which provide best practices for promoting green jobs also in the Lebanese context. He began by noting that in 2009 the trade deficit in Lebanon was 21% and the high cost of importing oil (USD 3 billion/year) was adding to the deficit. Up to 75% of Lebanese heat their homes with electricity, while only 3% use solar water heaters. In China, however, there are 3,000 SMEs and 250,000 jobs in the solar water heater industry. This has not come by itself, but rather has been achieved by targeted policy at a national, provincial and city level to promote the further growth of the sector. In Brazil, equally, there are 500,000 jobs in recycling, at a value of US \$2 billion, resulting in the creation of up to 2,400 companies or cooperatives. A building rehabilitations programme in Germany created 140,000 jobs, and insulated homes to save energy and reduce adverse impacts on the environment. Organic agriculture in Uganda has increased from 28,000 farms in 2002 (exporting a total value of US \$ 3.7million) to 200,000 farms in 2008 (exporting US \$22.8 million). Finally, in the US, President Barack Obama pledged \$150billion towards creating 5 million green jobs by 2018. Policy measures to promote greening and green jobs cannot be implemented anywhere without taking into account the specific country context. However, examples from different countries show what can be achieved through targeted policies that are broadly supported.

Shaza G. Al Jondi, *UN Reform Analyst and Focal Point for Green Jobs, ILO ROAS Beirut*;

Ms. Al Jondi described the current plans for introducing the green jobs programme in the Arab States. She noted that in support of the global initiative, the ILO Regional Office for Arab States (ILO-ROAS) has initiated a number of policy and downstream green jobs initiatives that will ultimately contribute to employment creation, environmental sustainability, and poverty reduction. In Syria, it recently joined efforts with UNDP within the framework of a joint UN Programme for Community Development upscaling the MDGs, to promote green jobs in the solar energy sector through developing skills of young men from some of the country's poorest villages. In the Gaza Strip, the ILO has been working closely with UNRWA since 2009 on promoting green jobs through the construction of safe and environmentally friendly housing and livelihood opportunities to the most vulnerable populations.

Greening the energy sector in Lebanon: A policy perspective

Pierre El Khoury, *Manager, Lebanese Center for Energy Conservation*

Mr. El Khoury began by noting the near-exponential growth Yearly National Energy Bill to almost USD 4,000 million in 2009 and that electricity generation in Lebanon consumes 29.5% of imported oil. The Lebanese Center for Energy Conservation (LCEC) is working on a number of initiatives to reform and develop the energy sector and advance renewable energies in Lebanon. These initiatives include banning the import of incandescent lamps to Lebanon, the adoption of an Energy Conservation Law and the institutionalization of LCEC, and the promotion of solar and wind energy applications in the residential and commercial sectors. LCEC is further promoting the design and implementation of a national strategy for efficient public street lighting, a building Code for Lebanon and financing mechanisms and incentives as well as awareness and capacity building for advancing renewable energies.

Mr. El Khoury ended by describing the LCEC and its functions and successes, as well as the methods it used to attain such successes.

Q&A and open discussion.

Questions were taken on subjects varying from the state of the education system in Lebanon, the feasibility of the Lebanese energy target¹, the skills gap in green construction, the availability of micro-loans for green agricultural projects, and the effect of closed influence networks ('wasta') on the feasibility of greening the economy.

Session 3: Sectoral Assessments on Green Jobs Potentials in Lebanon

This session was intended to make participants better understand the employment dimension, both qualitatively and quantitatively, of green jobs in specific sectors in Lebanon, and linkages to sector-specific opportunities and barriers, and formulate suggestions on what can be done to make green jobs a reality.

Introduction to the four assessments

Shaza G. Al Jondi, *UN Reform Analyst and Focal Point for Green Jobs, ILO ROAS Beirut;*

Ms. Al Jondi set the context of the assessments before describing the structure as (1) beginning with an overview; (2) describing existing policies and legislation; (3) providing preliminary estimates of the number of potential green jobs; (4) outlining skills needs; and (5) providing policy recommendations to promote green jobs in the sector. The research methodology of the assessments began with extensive literature review along with meetings with and interviews of officials and identified stakeholders in the target sectors. The assessments utilized a combination of methods to estimate the number of direct green jobs that could be created in Lebanon in the future, including transfer of data from other studies on the subject and extrapolating data obtained from interviews.

¹ To reach 12% renewable energy by 2020

Energy Sector Assessment

Nael Aoun, UNV, UNDP

It was found that 33% of electricity demand in Lebanon is satisfied by self-generation. Government subsidies to the electric sector amount to 4% of GDP. This led to USD 2.5 billion in losses for the economy in 2009. By 2015 this amount is expected to grow to USD 9.5 billion.

It was found that air pollution cost Lebanon up to 0.7 – 1.3% of its GDP annually. At least 350 Lebanese die prematurely due to urban air pollution. Oil spills damage coastlines, escalating carcinogenic components in the food chain, and hampering the livelihoods of fishermen and workers in the tourism industry.

According to the findings of the assessment, green jobs in the energy sector in Lebanon are especially found in renewable energy technologies and energy efficiency (energy efficient consumer products, heat capture, LED, insulation etc.). Currently there are around 500 green jobs in the energy sector. By 2020 this number could potentially increase to 5,000. The increase in further green jobs opportunities in the energy sector is hindered by a lack of a comprehensive policy on renewable energies, a delay in Implementation of law 462, a lack of feed-in laws, subsidies to green technologies and ecological taxes, underdeveloped environment for green enterprise development as well as a shortage of skills on the technical and professional levels. Further barriers also include limited credit facilities for consumers and investors, a lack of awareness of green technologies, and the lack of a comprehensive policy that seeks to stimulate the manufacturing sector in Lebanon.

A number of recommendations to promote green jobs in the energy sector were made. These included developing a comprehensive policy on renewable energies with aligned employment, skills and enterprise development policies; implementation of existing energy laws and the adoption of planned energy conservation and feed-in laws and tariffs; further incentives for renewable energies, building regulations for energy efficient standards; as well as the creation of a conducive business environment and awareness raising for advancing renewable energies in Lebanon.

Construction Sector Assessment

Issam Srour, Assistant professor, Faculty of Civil Engineering, AUB

It was noted that the construction sector is the highest-growing sector in terms of value added after market services and trade. The sector can be divided into three categories: building, heavy and industrial construction. The high level of activity is reflected by the booming real estate market. Construction is responsible for 5.6% of total employment (=91,000 workers, 2004 household survey), however, this number is considerably underestimated due to irregularity and informality of the construction workforce.

Worldwide, buildings are responsible for: 40% of total energy consumption, 24% of CO₂ emissions, 20% of water use and for generating 30% of solid waste. Although there is limited data, it is assumed that these figures are roughly similar in Lebanon, wherefore the potential for efficiency gains through green construction is considerable. Green construction aims to reduce the environmental impact of the sector, through sustainable sites, water efficiency,

energy and atmosphere, materials and resources, indoor environmental quality, and design innovation.

In estimating the number of green jobs in the construction sector, it was assumed that about 10 to 20% of costs in green construction go to green premiums, and that a USD 1 million of investment in green premiums can create up to 45 additional green jobs per year. Taking into account current estimates of investments in green projects, as well as ongoing and planned green construction projects, it was estimated that green construction can create up to 12,000 temporary green jobs during the next decade.

It was also established that there are a number of impediments to increasing the number of green jobs in the sector. These include lack of government regulation on green standards and verification, lack of national technical vocational training institutions offering green building curricula, lack of skills and education, “green washing” as well as high perceived costs. The recommendations made were to set and enforce policies that encourage green construction and overcome these impediments, as well as to regulate the current informality in the employment situation and to introduce greater financial incentives for green construction in Lebanon.

Waste Management Sector Assessment

Johan Ahlback, UNV Green Jobs, ILO ROAS, Beirut

Mr. Ahlback established that the current state of the waste management sector in Lebanon is far from ideal. While collection activities are fairly advanced when it comes to municipal solid waste, they are insufficient for wastewater, and totally lacking for hazardous waste. Currently only two-thirds of the total generated solid waste undergoes some form of treatment, while the remainder is discarded in open dumpsites or directly into nature. Moreover, wastewater treatment is insufficient and Lebanon currently lacks any effective strategy or system for dealing with most hazardous waste.

The environmental impact of the waste sector ranges from considerable greenhouse gas emissions and other pollutants to severe contamination of rivers and coastal waters. Mr. Ahlback stated that there were no conclusive studies on the effects of hazardous waste in Lebanon, but indicated that the likely impacts on public health could be severe.

Based on the findings of the assessment, some of the estimates of job numbers in waste management activities were described. Overall, up to 3,400 green jobs currently exist in the sector, the bulk of which were found in waste collection and recycling. By 2020, the number of green jobs in waste management could increase with up to 55-60%. The findings of the assessment also revealed that certain waste management practices are considerably more labour-intensive than others. For example, in treating the same amount of waste, composting tends to create ten times more jobs, and recycling up to 140 times more jobs than landfilling.

Mr. Ahlback concluded by saying that while there is a limit to how many jobs can be created as a result of greening waste management in Lebanon, there are still gains to be made in this area, especially in areas such as composting and recycling. He reiterated the lack of accommodation for hazardous waste and the lack of decent work in both formal and informal sectors of waste management is nonetheless a serious problem that needs to be addressed. He recommended (1) an integration of measures for job creation and skills

development in sectoral policy strategies, (2) greater support for SMEs in green waste management activities with growth potential, and (3) to promote decent work in waste management and work towards the progressive formalization of the entire sector.

Agriculture and Forestry Sector Assessment

Charbel Rizk, *National Manager of the Project 'Flood Risk Management and Water Harvesting for Livelihood recovery in Baalbeck-el Hermel', UNDP, and*

The assessment focused on green jobs in the agricultural and forestry sector, and especially in organic agriculture, Integrated Pest Management (IPM) and reforestation. Especially the agricultural sector and conventional agricultural methods incur considerable environmental impact in Lebanon, while the sector is also expected to be severely affected by climate change in the future.

It was noted that organic agricultural methods, as well as IPM, are increasingly being practiced in Lebanon, which can mitigate some of the environmental impacts of the sector. Currently, however, up to 50-70% of organic products in Lebanon are imported, while the high prices for organic products is acting as a major impediment for the growth of the sector.

Based on the findings of the assessment, it was estimated that currently the number of green jobs in both organic agriculture and IPM is around 700. Assuming a linear trend in organic area until 2020, the projected number of organic workers, including farming, processing labelling and trading activities is expected to increase by 130% to 1600. As for the forestry sector, the National Reforestation plan of Lebanon, adopted by the council of ministers promises to create around 15,000 temporary jobs in reforestation by 2020.

It was noted that several benefits can be gained from increasing organic agriculture in Lebanon, especially as the sector has high export potentials, is more labour intensive than conventional agricultural practices and has a positive impact on the health of both agricultural workers and consumers. In order to further advance the sector however a number of barriers need to be overcome, including prices and marketing failures, skills shortages, lack of defined targets, and a failure in nation-wide policy and strategies.

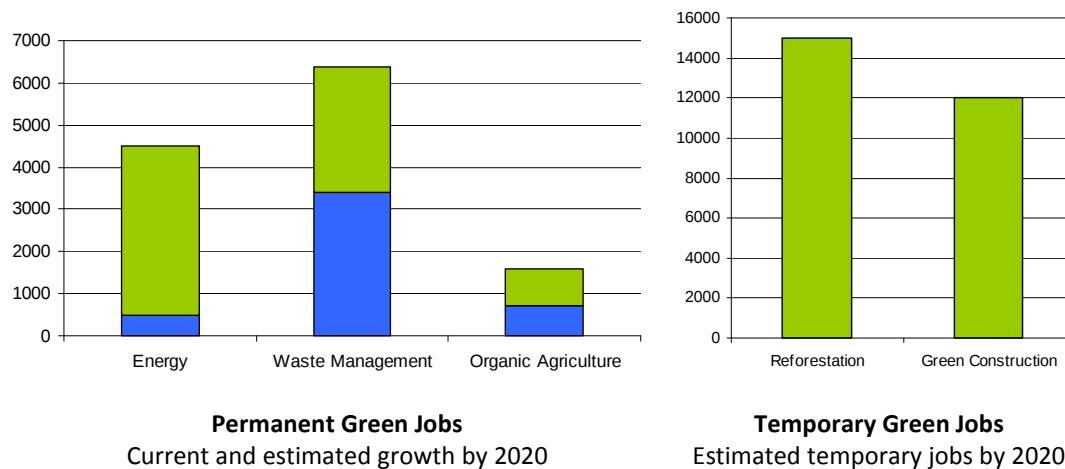
The recommendations put forward included a national employment and environment policy to promote organic farming and reforestation, capacity building, education and training in organic agriculture and IPM, adoption of the National Standards for Organic Farming by the GoL, National awareness and marketing campaign on the health and environmental benefits of organic products, as well as promotion of eco-tourism in Lebanon's forests.

Presentation of key findings and policy recommendations

Shaza G. Al Jondi, *UN Reform Analyst and Focal Point for Green Jobs, ILO ROAS Beirut;*

In closing the session Ms. Al Jondi summarized the key findings of the assessments. Overall, in all the studied sectors, a total of about 4,500 permanent green jobs are currently thought to exist in Lebanon. Based on the findings of the four sectoral assessments, this number could increase to over 12,000 green jobs by the year 2020, especially in the energy, waste management and agricultural sectors. Additionally, if green policies are enacted, up to

27,000 temporary green jobs during the coming decade could also be created in reforestation and green construction.



Ms. Al Jondi pointed out that although the potential for green jobs in Lebanon is considerable, an enabling environment needs to be created to further advance the green jobs agenda. In relation to this, and based on the findings of the four assessments, five policy recommendations were given:

1. Follow-up studies to build on current research and close data gaps, as well as to assess decent work, occupational safety and health, informality and minimum wage; green jobs must be decent, and meet core standards set by the ILO.
2. The need for greater dialogue and forums on green jobs, such as this workshop.
3. To set and enforce policies that encourages green economy and promotes green jobs.
4. The need for further financial investments, for example low interest loans and green enterprise support, training for entrepreneurs and the use of eco-taxes to fund such support.
5. Closing the skills gap.

Working Groups

The participants were divided into four working groups according to the different assessed sectors to validate research findings and identify priority activities and policy needs, before presenting their findings. (A summary of the findings of these working groups can be found in Section 4.)

Day 1 Wrap-Up

Léa Moubayed, Programme Associate, ILO Regional Office for the Arab States

Ms. Moubayed noted five elements important to achieving an economy that addressed social and environmental concerns that had emerged from the overall and working group discussions:

- (1) **Public policy support.** A comprehensive, enabling, accountable and enforceable institutional and legal framework; active labour market policies to ensure the matching

of green labour supply and demand; a solid labour market information system; all of them underpinned by a strong political will and coherent governance approach.

- (2) **Private sector support.** The encouraging of the funding of green initiatives, the provision of financial incentives to mitigate perceived high costs linked to green initiatives; and the generation of green processes that could benefit from regional and international knowledge transfers.
- (3) **Capacity building and training.** Going green will require major changes in the consumption and production patterns affecting enterprises, labour demand, and ultimately labour supply through evolving skills development strategies. Ms. Moubayed emphasized that such strategies are not to be seen as an isolated component, and that there is a need to engage in the development of education and training platforms involving different stakeholders: on the one hand, she explained, the government should promote the development of a relevant, adapted education and training strategy, justified by the hundreds to thousands of green jobs to be potentially created by 2020 and requiring new professional and technical/vocational skills; on the other hand, the private sector could liaise with universities and TVET institutes, participate in creating or updating green curricula as well as in R&D, so as to create win-win exchanges and partnerships in education, training and ultimately employment.
- (4) **Social Dialogue.** Dialogue between the ILO's traditional constituents of government, workers and employers, as well as the broader civil society, was mentioned as a crucial step in order to negotiate this transition, mitigate potential negative impacts, and reach a consensus on how to optimize the many advantages of moving towards a greener economy, including closing the gap in terms of informal economy failures and decent work deficits and generating more opportunities for decent work.
- (5) **Awareness raising.** Ms. Moubayed highlighted the importance of educating and sensitizing the public as a whole, and mentioned strategies such as introducing segmented advertising campaigns amongst other public awareness programmes.

Ms. Moubayed concluded by recalling that the studies presented constituted a good starting point, yet that further research would be needed – mainly to generate more accurate data, go deeper in the analysis and enhance knowledge on existing greening potentials in other economic sectors. She also stressed Lebanon's highly educated population and clear economic strengths in areas such as services as an asset that could offset its uncertain political stability. She concluded by thanking participants for their participation and inputs towards creating a roadmap for greening Lebanon (and possibly the wider Arab region) and engaging its youth in decent green jobs.

Session 4: Green Jobs in Lebanon – Challenges and Opportunities

This session was intended to enable participants to build on the findings and experiences of earlier sessions, formulate concrete priority activities, follow-up interventions as well as constructive and coherent ideas for a future policy agenda roadmap promoting green jobs in Lebanon.

Employers' Perspective

Rana Tabcharani Salida, Head and Project Manager, Environment and Energy Department, Association of Lebanese Industrialists

Mrs. Tabcharani Salida focused on the industrialist's perspective, describing ALI as an NGO that creates and maintains a favourable environment for growth and development by representing the manufacturing industry of Lebanon.

She noted that in 2007 there were 83,000 workers amidst 4,000 industries, a figure which had climbed to 100,000 by 2011 and stated that "in general, almost all enterprises and jobs can be made 'green'". Promoting green jobs in Lebanon could bring opportunities to the employer but equally faces several challenges. These include a lack of adequate government actions, weak dialogue among governments, employers and workers, a lack of collaboration between businesses, labour and education, deficiency of training and skill development by new education, as well as shortages of adequately skilled workers, installers and trainers.

Mrs. Tabcharani Salida noted that ALI could play a key role in facilitating the achievement of green jobs, by promoting green production and green alternatives, encouraging continued research and development and the diffusion of green technologies as well as through its contacts with the international community. ALI could also play a central role by acting as a medium between government and employers, organizing green skills trainings and workshops, collaborating in setting an information and expertise centre in Lebanon, as well as acting as a guide in clear education and career pathways for students and job seekers.

The overall recommendations from an employers' perspective to promote green jobs in Lebanon included government commitment and regulations implementation, industrial zones with "proper infrastructure", business incentives, partnership agreements between developed and developing worlds, including international assistance and funding, as well as genuine public-private partnerships. Furthermore, new skills standards for the industries to identify current and future workforce needs of a specific industry and curricula development for manufacturing and biotechnology industries to have skilled workers were also noted as essential for advancing the green jobs agenda in Lebanon.

Trade Unions' Perspective

Ismail Badran, *Media consultant to the General Confederation of Lebanese Workers, CGTL*

Mr. Badran began by examining the concept of a 'green job' and attempts to define it. He noted that we do not value the environment much in Lebanon, and this shows, from waste mountains in Saida to the ports of Beirut and environmentally-unfriendly power plants. Mr. Badran explored the roots of this destructive approach, and argued that it was down to the desire for quick profit.

Mr. Badran cited a lack of political will and political interest as an impediment to changing this mentality, arguing that socioeconomic change requires political change first. He added that this destructive tendency is seen across the Arab world. He further argues that the unilateral decision-making system where people are governed and do not have self-determination ties in with this pattern in environmental destruction. Unless political will exists, talks will come to nothing. He added that ESCWA should provide a forum for greater dialogue.

Green Jobs and Just Transition: workers' perspective

Mansour Omeira, *Labour Economist, ILO Regional Office for Arab States, Beirut*

Mr. Omeira described the concept of 'Just Transition', arguing that while the environment matters, concern for it cannot come at the cost of workers and social rights. He noted that this was a discussion that was ongoing in other countries, such as Canada, and gave the specific example of mining; if we move to an economy with less carbon consumption, the number of miners could be reduced. Such a state of affairs would therefore require retraining and protection for workers. Furthermore, it was added that waste collectors may be in 'green jobs', but Mr. Omeira raised the question as to whether they can be considered to be employed in 'decent work'.

Mr. Omeira further raised the questions of how to classify production for self-consumption, or the volunteer sector. He stressed the importance of knowledge and expertise and the role of education and training.

Stakeholders' Perspectives

Representatives from the following Ministries and organizations gave brief speeches presenting their perspectives. The following summaries are not in strict chronological order.

Ministry of Energy

The energy policy paper needs to be implemented and aligned with a skills development strategy. Such a skills strategy could include spending on R&D and universities and on the job training possibilities such as 6 month accumulative courses. Renewable energy curricula need to be designed and included into national vocational training institutions. Pilot or demonstration projects could be thought of which might include special tax and import treatment such as in dedicated economic zones. Enterprise development in renewable energy needs to be supported. Law 462 or other laws that opens the energy market for private companies need to be enforced. A task team under the Green Jobs working group

might be created to enable concrete planning and social dialogue. Such a team would be tasked with awareness-raising on the energy policy paper, energy efficiency measures and net metering initiative which will be launched in September 2011.

Ministry of Economy

The SME unit is especially keen in supporting Green jobs notably in rural areas and could become the enterprise pillar for Green Jobs. A green enterprise development strategy and policy paper might be developed.

Ministry of Education

Green curricula and skills for green jobs need to be developed and included into vocational training. A pilot with the ILO in which 800 workers in South Lebanon were trained can be up-scaled with targeted skills training for green jobs. Existing educative TV and radio programmes that target schools on 10 different channels can also be utilized for awareness-raising and sensitization on green jobs. A partnership could be thought of to produce films, documentaries and public awareness spots on specific topics relating to green jobs. Existing training on environment and sustainable development in schools could further also be upgraded to include focus on green jobs, also integrating an orientation day on green jobs.

Ministry of Environment

The representative of the MoE noted the existence of Law 444 that already guided environmental concerns in Lebanon. Similar to the energy policy paper, this law needs to be amended and aligned with skills training in various sectors such as rating and auditing of the LRS standard (which is similar to the LEED standard in Green building) and assessing of environmental impacts (EIA). Jobs in waste and recycling need to be made more attractive through training and awareness on profitability and decency. Existing environmental decrees for industry need to be enforced and economic instruments such as the polluters pays principals developed and investments be enabled through low or zero-interest loans. Awareness on the need for functioning waste management in both urban and rural areas need to be raised. Village and community based waste treatment and separation at source practices should be introduced. Coordination with local level governments initiated.

Ministry of Agriculture

While currently farmers and agricultural workers do not fall into the national social security scheme a coordinated effort is needed to provide further incentives for agricultural take-up in the field of organic agriculture. A skills training policy in Agriculture is needed with specific focus on organic agriculture. Existing vocational training which is supported by the ILO should include organic agricultural curricula based on experience from all over Lebanon. Prices of organic products, while very high in Lebanon, need to be brought down to increase demand. Marketing of organic products need to improve.

Ministry of Finance

Existing tax exemptions given for green companies and green technology for up to 10 years need to become widely known and marketed. This can be achieved through coordination with the Ministry of Economy and Education. A project financed by UNEP and implemented by the Ministry of Finance and its Institute de Finance aims at building capacity of civil

servants in the area of sustainable public procurement. The project is implemented in 14 countries and a national focal point exists in the Ministry in Lebanon. The project could be expanded in scope to include procurement which prioritizes green jobs for youth.

Banque du Liban

Several green funding options with preferential loans are offered by the Banque du Liban. In the energy sector the credit facility for renewable energy projects NEERA (circular 236) is implemented with LCEC and the Ministry of Energy. Further a green circular that also involves commercial banks in all sectors exist. Currently, work is in progress to issue a circular on electronic waste. These green funding programs need to be made widely known, integrated and coordinated with sectoral initiatives in Construction, Agriculture, Energy and Waste Management.

Ministry of Labour

A larger representation and broadening of the dialogue including media presence, municipalities, NGO's and Orders of Engineers should be aimed at. Coordination with regard to the preparation for Rio+20 should be sought.

Other Green Jobs related activities

UNIDO's work on green roofing and electronic waste should be aligned with other initiatives in the construction and waste sector. YMCA conducts studies to assess green infrastructure in all Ministries. Results could further inform stakeholders. An Internet platform and knowledge sharing with other countries would be desirable. Employers and Workers while supporting the concept of Green Jobs stress the importance of social justice and just transition.

The ILO then asked the Ministries to provide concrete comments on the sectoral assessments. It was agreed that a four week deadline would suffice, thus giving participants till the 25th of August.

Recap of Working Groups' Priority Activities & Policy Needs (Day 1) and of Stakeholder Recommendations (Day 2)

Marek Harsdorff, Economist, *Green Jobs Programme, ILO Geneva*;

Mr. Harsdorff structured his speech around the four key areas earlier identified in the workshop.

Mr. Harsdorff stated that the **waste** working party prioritised focusing on solid waste and formalising jobs and increasing regulation in this area. The **construction** working party highlighted the need to get NGO's more involved with other stakeholders from the very beginning of the process. A call for guidelines and definitions (of a 'green' building, for example), were mentioned, as was the need for greater awareness, legislation and financial incentives. Regarding **agriculture**, the focus was on reducing the price of organic products, achieving more effective marketing and raising public awareness, and finally on skills training. With respect to **energy**, Mr. Harsdorff reminded the panel of the point made by the energy working party, that an energy policy already exists in Lebanon, but it remains unclear as to whether the 12% target is achievable – or even something that can be surpassed?

Furthermore, the party recommended enforcing labour law 462 or other laws that allow for selling electricity back to the grid, a forum for social dialogue, awareness raising, energy efficient measures, a net metering programme, a skills development strategy, research and development (and greater university involvement), employment training and vocational training into national TVET, the promotion of pilot or demonstration projects (and perhaps economic special zones), and greater enterprise development.

Concluding Remarks

Maurizio Bussi, *Deputy Regional Director, ILO Regional Office for Arab States*

Mr. Bussi began by thanking the participants for their contributions to this UN-wide initiative that was held in partnership with UNDP, UNEP, UNESCWA and the ILO. He stressed the importance of policy coherence and political resolve. The importance of monitoring the success of initiatives, and defining the standards by which efforts would be held to account was noted. He highlighted the skills gap that must be closed as certified and well-trained experts are required in these areas. Skills need to be synchronised with the emerging needs of a growing job market and supply. Mr. Bussi also noted the importance of making this argument to the public through raising awareness of the benefits. Paying a premium can only work if the argument is made economically (organic products, were mentioned as an example). Furthermore, media and donors must be engaged with, as must policy-makers in parliament.

Roula Majdalani, *Director, Sustainable Development and Productivity Division, ESCWA*

Ms. Majdalani began by stating that she looks forward to building on the progress made in this workshop towards creating a better bargaining position in Lebanon and the wider area. This can be addressed from numerous areas; sustainability, climate change, carbon use, and green jobs creation.

Ms. Majdalani stressed that the four sectors reviewed in this workshop were key sectors, and the focus on job creation was important. She pledged support for ILO in this endeavour, adding that ESCWA is ready to “take the next step” and provide support.

Annex 1 – Agenda

Since the agenda was only used as a guide, there were occasional deviations.

DAY 1: 28 July 2011

8.30-9.00	REGISTRATION
9.00-10:00	<u>Session 1: Opening Remarks</u> <i>Sessions 1 and 2 are meant to make participants more familiar with the overall Green Jobs concept, its relationship with Decent Work, and efforts to promote them.</i> - Maurizio Bussi, Deputy Regional Director, ILO Regional Office for Arab States (ROAS) - Robert Watkins, Resident Representative, UNDP Lebanon - Roula Majdalani, Director, Sustainable Development and Productivity Division, ESCWA - Introduction to ILO Green Jobs Programme: presentation of key concepts and global and regional projects and activities/Peter Poschen, Director, Job Creation and Sustainable Enterprise Department, ILO Geneva via video link - Overview of the agenda for day 1/Shaza G. Al Jondi, UN Reform Analyst and Focal Point for Green Jobs, ILO ROAS, Beirut
10:00 – 10:20	COFFEE BREAK
10:20-11:40	<u>Session 2: Employment Potentials of the Green Economy</u> - Employment and youth employment challenges in the Arab states and in Lebanon/Mary Kawar, Senior Skills and Employability Specialist, ILO Regional Office for Arab States, Beirut - Opportunities for SMEs in environmental goods and services/Robert Travers, Senior Economic Affairs Officer, ESCWA - Concrete examples of Green Jobs projects/Marek Harsdorff, Economist, Green Jobs Programme, ILO Geneva; Shaza G. Al Jondi; Rashid Al Ruzzi, Construction Specialist, ILO Gaza (via video link) - Greening the energy sector in Lebanon: A Policy perspective/Rani Al Ashkar, Project Engineer, LCEC - Q&A and open discussion
11:40-13:00	<u>Session 3: Sectoral Assessments on Green Jobs Potentials in Lebanon</u> <i>This session is meant to 1) make participants better understand the employment dimension, both qualitatively and quantitatively, of green jobs in specific sectors in Lebanon, and linkages to sector-specific opportunities and barriers, and 2) formulate suggestions on what can be done to make green jobs a reality.</i> - Introduction to the four assessments/Shaza G Al Jondi - Energy/Charbel Rizk, National Manager of the Projet "Flood Risk Management and Water Harvesting for Livelihood recovery in Baalback-el Hermel", UNDP and Nael Aoun, UNV, UNDP - Construction/Issam Srour, Assistant Professor, Faculty of Civil Engineering, AUB, Ghassan Chebab, Assistant Professor, Faculty of Civil Engineering, AUB and Nabil Abdo, Labour Economics Consultant - Waste Management /Johan Ahlback, UNV Green Jobs, ILO ROAS - Agriculture/Charbel Rizk and Nael Aoun - Presentation of key assessments policy recommendations/Shaza G Al Jondi
13:00-14:15	LUNCH BREAK
14:15 – 16:30	<u>Session 3 continued: Sectoral Working Group Discussions and Prioritization of Needs</u> - The participants are divided into 4 workings groups according to the different assessed sectors

	to validate research findings and identify priority activities and policy needs - Working group presentations to plenary - Selection of priority activities and policy needs (participants vote on preferred priority actions to be further developed during the 3rd session) - Day 1 Wrap Up Facilitators: ILO Green Jobs Team (HQ and ROAS), focal points from UNDP, ESCWA
--	--

DAY 2: July 29, 2011

9:00-10:50	<u>Session 4: Green Jobs in Lebanon - Challenges and Opportunities</u> <i>This session is meant to enable participants to build on the findings and experiences of earlier sessions and formulate 1) concrete priority activities and follow up interventions and 2) a constructive and coherent policy agenda, both to promote green jobs in Lebanon.</i> - Constituents' experiences a. Employers' Perspective/Rana Tabcharani, Head and Project Manager, Environment & Energy Department, Association of Lebanese Industrialists b. Trade Unions Perspective: • Green Jobs and Just Transition: workers' perspective/Mansour Omeira, Labour Economist, ILO Regional Office for Arab States, Beirut • Ismail Badran, Media consultant to the General Confederation of Lebanese Workers, CGTL - Recap of working group priority activities and policy needs as identified through voting from day 1/Marek Harsdorff - Working group discussions a. 1 working group will focus on formulating a strategic policy agenda to promote green jobs in Lebanon, incorporating the identified policy needs b. 2 technical working groups will further develop the identified priority activities (1 working group for each priority initiative) and discuss concrete ways of implementation, strategies for intervention and involvement of relevant stakeholders for promoting green jobs
10:50-11:20	COFFEE BREAK
11:20-12:10	<u>Session 4, continued</u> - Working group presentations to plenary (presentation of the two priority concepts and policy agenda) - Closing of workshop: conclusion and way forward/Maurizio Bussi and Roula Majdalani

Annex 2 – List of Participants

In order to ensure high-quality discussions and concrete outputs in the workshop national policy-level and technical experts and stakeholders from a range of different sectors with linkages to green jobs, vocational training centres and private enterprises as well as specialists from relevant UN agencies and other international and local organisations were invited. The total estimated number of participants in the workshop was 60.

The following were present at the workshop:

Name	Representing
Mr. Joseph Abi Samra	Ministry of Public Works and Transport
Ms. Hayat Nader	Ministry of Finance
Eng. Sana Al Sairawan	Ministry of Environment
Ms. Paty Farah	Ministry of Environment
Dr. Sayed bou Diab	Ministry of Industry
Mr. Marwan Khaddaj	Ministry of Labour
Mr. Razi Al Haj	Ministry of Economy and Trade
Eng. May Mezher	Ministry of Agriculture
Mr. Ziad El Zein	Ministry of Energy and Water
Eng. Rani El-Ashkar	Ministry of Energy and Water
Dr. Riyad Dakroub	Ministry of Education and Higher Education
Mr. Bilal Korkut	Council for Development & Reconstruction
Ms. Helena Haddad	Banque Du Liban
Ms. Giulia Ubaldelli	Italian Cooperation
Mr. Jacopo Monzini	Italian Cooperation
Mr. Najib Sa'ab	Arab Forum for Environment and Development
Ms. Ibtissam Jouni	Central Administration of Statistics
Mr. Thomas Kontogeorgos	UN Interim Force in Lebanon (UNIFIL)
Ms. Rana Tabcharani Saliba	Association of Lebanese Industrialists
Ms. Urte Luetzen	GIZ
Mr. Fareed Bushehri	United Nations Environment Programme
Mr. Ali Abou Taam	National Employment Office
Mr. Elie Berberi	National Employment Office
Dr. Samir Traboulsi	Lebanese Green Buildings Council
Mr. Charbel Rizk	UNDP
Ms. Jihan Seoud	UNDP
Mr. Nael Aoun	UNDP/UNV
Mr. Issam Srour	AUB
Mr. Oussama Ghoneim	Centre for Research & Pedagogical Development
Ms. Rana Abdallah	Centre for Research & Pedagogical Development
Mr. Schombi Sharp	UNDP
Ms. Rita El Hage	TERRE Liban Association
Mr. Joseph Awad	YMCA
Mrs. Maria Assi	YMCA
Ms. Nada Sabra	UNIDO

Mr. Ghassan Chehab	AUB
Mr. Ismail Badran	Consultant/CGTL
Mr. Hasan Fakih	CGTL
Ms. Solange Matta-Saodé	ESCWA
Ms. Roula Majdalani	ESCWA
Mr. Riccardo Mesiano	ESCWA
Mr. Robert Travers	ESCWA
Mr. Marek Harsdorff	ILO – Geneva
Mr. Johan Ahlback	ILO/RO-Beirut
Mr. Mansour Omeria	ILO/RO-Beirut
Ms. Noura Kamel	ILO/RO-Beirut
Ms. Lea Moubayed	ILO/RO-Beirut
Mr. Assaad ElDor	ILO/RO-Beirut
Ms. Reem Askar	ILO/RO-Beirut
Ms. Mary Kawar	ILO/RO-Beirut
Ms. Rasha Tabbara	ILO/RO-Beirut
Ms. Joumana Karamé	ILO/RO-Beirut
Ms. Noura Kamel	ILO/RO-Beirut
Mr. Juan Zober de Francisco	ILO/RO-Beirut
Mr. Stephen Hall	ILO - Geneva