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# The Sustainable Development Framework in Lebanon: A National Assessment



UNITED NATIONS

الأمم المتحدة

ESCWA

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Disclaimer: This initial draft was prepared in February 2015 and is intended for discussion with national stakeholders. It has not been formally edited or reviewed. The views expressed are those of the author and do not necessarily reflect the views of ESCWA, the UN Secretariat or the Lebanese Ministry of Environment.

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## Abbreviations and acronyms

ACWUA	Arab Countries Water Utilities Association	MoSA	Ministry of Social Affairs
AQRU	Air Quality Research Unit	MoYS	Ministry of Youth and Sports
ASDR	Arab Sustainable Development Report	MPA	Marine protected area
AUB	American University of Beirut	NCLW	National Commission for Lebanese Women
BdL	Banque du Liban	NGP	Non-governmental organization
CAS	Central Administration of Statistics	ODP	Ozone depletion potential
CCA	Common Country Assessment	OECD	Organization for Economic Cooperation and Development
CDIAC	Carbon Dioxide Information Analysis Center	OMSAR	Office of the Minister of State for Administrative Reforms
CDR	Council for Development and Reconstruction	OOSC	Out of school children
CI	Central Inspection	PAR	Petroleum activities regulations
CNRS	National Council for Scientific Research	PCM	Presidency of the Council of Ministers
CO <sub>2</sub>	Carbon dioxide	PPP	Public private partnership
CoM	Council of Ministers	PPP	Purchasing power parity
CSB	Civil Service Board	PV	Photovoltaic
CSO	Civil society organization	R&D	Research and development
CSR	Corporate social responsibility	SCP	Sustainable consumption and production
DESA	Department of Economic and Social Affairs	SDGs	Sustainable Development Goals
ECOSOC	Economic and Social Council	SEA	Strategic environmental assessment
EDL	Electricité du Liban	SME	Small and medium organization
EEZ	Exclusive economic zone	SODEL	Sustainable Oil and Gas Development in Lebanon
ESCO	Energy service company	UN	United Nations
ESCWA	Economic and Social Commission for Western Asia	UNDP	United Nations Development Programme
EU	European Union	UNEP	United Nations Environment Program
FAO	Food and Agriculture Organization	UNHCR	United Nations High Commissioner for Refugees
FDI	Foreign direct investment	UNISDR	United Nations Office on Disaster Risk Reduction
GBA	Greater Beirut Area	UNRWA	United Nations Relief and Works Agency
GDP	Gross domestic product	UPR	Universal Periodic Review
GEF	Global Environment Facility	US\$	United States dollars
GNI	Gross national income	USJ	Université Saint Joseph
GRI	Global Reporting Initiative	WDI	World Development Indicators
GW	Gigawatt	WTO	World Trade Organization
ha	Hectare		
HCP	Higher Council for Privatization		
ICT	Information and communication technology		
IDAL	Investment Development Authority of Lebanon		
IdF	Institut des Finances		
ILO	International Labor Organization		
kg	Kilogram		
km, km <sup>2</sup>	Kilometer, square kilometer		
kWh	Kilo-watt hours		
LCEC	Lebanese Center for Energy Conversation		
LEDO	Lebanese Environment and Development Observatory		
LL	Lebanese Lira		
LPA	Lebanese Petroleum Administration		
MCM	Million cubic meter		
MDGs	Millennium Development Goals		
MEHE	Ministry of Education and Higher Education		
MENA	Middle East and North Africa		
MoA	Ministry of Agriculture		
MoE	Ministry of Environment		
MoEW	Ministry of Energy and Water		
Mol	Means of implementation		
MoPH	Ministry of Public Health		

## I. About this report

The present report was prepared by the United Nations Economic and Social Commission for Western Asia (ESCWA) in cooperation with the Lebanese Ministry of Environment in early 2015. It is one of several national sustainable development assessments commissioned by ESCWA in selected Arab countries as inputs to the Arab Sustainable Development Report (ASDR), the prototype edition of which is expected to be published in 2015.<sup>1</sup>

In September 2015, the global community under the umbrella of the United Nations will be adopting a Post-2015 Development Agenda, which will include a set of universal Sustainable Development Goals (SDGs) that will supersede the Millennium Development Goals (MDGs). As of 2016, all countries are expected to report on progress towards the achievement of this agenda as part of a universal review process and a “country-led, national component for accountability”.<sup>2</sup> As such, the ASDR and its set of national assessments come at a timely moment to lay the grounds for subsequent regional and national-level sustainable development review and reporting efforts.

Lebanon has a long tradition of producing good analytical reports on sustainable development. Recently, a set of important national reports have been published, such as the MDG Report 2013-2014 and the National Report to Rio+20 (2012), while the bibliography section of this report lists a plethora of valuable documents. Therefore, the present document is not intended to repeat what has previously been reported. Rather, it is meant to be a concise report that provides a bird’s eye view of the sustainable development framework in Lebanon, synthesizing information rather than going in detail into any particular sector.

The added value of the report stems from the following:

- Adopting a wide and comprehensive understanding of sustainable development, and taking the themes of the SDGs as a normative framework. As noted above, this will help lay the grounds for future national progress reviews of the post-2015 agenda;
- Providing a comprehensive assessment of sectoral policies and strategy documents and highlighting gaps within Lebanon’s sustainable development policy framework. As such, the report is a first attempt at assessing how different are Lebanon’s goals and targets from the ones proposed globally within the post-2015 SDGs;
- Mapping existing sources of information (bibliography) and guiding the interested reader to further references where more information can be obtained.

The preparation of this report faced a number of challenges, including the following:

- **The absence of a national integrated development plan to be used as basis of analysis.** To go around this gap, the report delved into the multitude of sectoral strategies and plans issued over the past 10 years by different ministries. While some of these documents were

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<sup>1</sup> The Arab Sustainable Development Report is a component of ESCWA’s Rio+20 follow-up programme and is therefore tightly linked to the regional preparatory process for the Post-2015 Development Agenda. The report is led by ESCWA with contributions from UNEP and the various UN organizations active in the region, and it will form the primary input into the 2<sup>nd</sup> session of the Arab High-Level Forum on Sustainable Development to be held in Bahrain, 2-5May 2015. The report has several objectives, including the assessment of trends, progress and gaps in the implementation of sustainable development in the region as well as to strengthen the science-policy interface.

<sup>2</sup> According to the “Synthesis Report of the Secretary-General on the Post-2015 Sustainable Development Agenda” (A/69/700), a universal review process will be initiated at the national level which will inform the regional and global level reviews. The national accountability component may include a Government report, a national stakeholder report and a report compiling information and data from UN agencies and international financial institutions (para. 149).

not approved by the Council of Ministers, they are thought to be indicative of Lebanon's overall development pathway. Another challenging aspect is that information was generally unavailable regarding the level of implementation of these plans over the years, and their fate remained mostly unclear.

- **Lack of up-to-date data.** Statistics date 3-4 years back at best, with figures on poverty dating to 2004. In a situation of flux that Lebanon is undergoing, some of these figures may no longer be applicable. In addition, there are contradicting figures depending on source (for example on GDP and debt). Whenever possible, preference was given to official national statistics published by the Central Administration of Statistics (CAS).

The report is structured as follows: Section 2 provides a brief trend analysis based on a selected set of sustainable development indicators; Section 3 highlights the top sustainable development priorities for Lebanon over the next 15 years, including emerging and persistent priorities, and their reflection in the proposed 17 SDGs; Section 4 looks at Lebanon's institutional framework for sustainable development with focus on development actors, sectoral policies and the legal framework; Section 5 summarizes the key obstacles preventing the implementation of sustainable development in Lebanon; Section 6 highlights a set of "success stories" that were able to overcome the obstacles identified earlier; and Section 7 concludes with recommendations to the global post-2015 process based on national lessons learned.

#### **What's next?**

*This initial draft of the report is intended for discussion with national stakeholders. Views compiled through this consultation will help the author in finalizing the report. Sections VI and VII in particular will benefit from stakeholder inputs. It is also expected that the final version of the report will include an **Executive Summary** with key messages to policy-makers.*

## **II. Brief overview of sustainable development trends and progress made over the past two decades**

This section attempts to provide an overview of the trends that Lebanon has followed over the past two decades in terms of a selected number of indicators. Given the need to have long time series, reliance was made in this section on two global databases, namely the MDG Indicators Database<sup>3</sup> and the World Bank's World Development Indicators Database.<sup>4</sup> Indicators were selected from a large dataset based on the following criteria:

- 1- Data availability over a large number of years, in order to enable the fitting of a trend line (with the exception of poverty, as explained below);
- 2- When different indicators are available that relate to the same issue, preference was given to indicators that are part of the League of Arab States' agreed set of core Sustainable Development Indicators;
- 3- Indicators that are thematically varied and cover the various core issues of the SDGs;
- 4- Indicators that show statistically significant change over time. For example, the MDG database shows that the "Proportion of the population using improved drinking water

<sup>3</sup> <http://mdgs.un.org/unsd/mdg/Default.aspx>.

<sup>4</sup> <http://data.worldbank.org/country/lebanon>.

sources, total” and the “Proportion of the population using improved sanitation facilities, total” remained 100% over the past two decades. As such, these indicators have been omitted from the analysis, despite their importance;

- 5- Whenever the indicator was available in both the WDI and MDG databases, the data was obtained from the latter to give preference to figures produced by the government of Lebanon (although not all indicators in the MDG database are generated by governments);
- 6- For poverty only, since no data was available in neither the WDI nor the MDG databases, figures were obtained from the UNDP study on poverty. For this particular indicator, figures are particularly outdated and are probably not representative of the poverty situation today.

The graphical representation of the full statistical data is provided in Annex 1, whereas table II.1 below summarizes trends using pictorials, where a lightning sign signifies that the trend is towards the worse, a cloud sign means that there is no significant change, and a sun sign reflects improvement. For some indicators, only arrows were used to reflect an upward or downward trend, since the change cannot be qualified to be “good” or “bad” (such as for population growth for example).

Table II.1 Summary trend analysis of selected sustainable development indicators

Theme	Indicator	Trend	Remark / Caution
Population	Population growth (annual %)	↓	Large variations may suggest data inconsistency.
Population	Age dependency ratio (% of working-age population)	☀️	
Poverty	Individuals living with very low satisfaction of basic needs	☀️	Outdated data. To be interpreted with caution.
Poverty	Population living under upper poverty line (\$4/day)	☀️	Outdated data. To be interpreted with caution.
Food	Prevalence of anemia among children (% of children under 5)	☀️	
Food	Cereal yield (kg per hectare)	☀️	
Health	Life expectancy at birth, total (years)	☀️	
Health	Children under five mortality rate per 1,000 live births	☀️	
Health	Children 1 year old immunized against measles, percentage	☁️	
Health	Maternal mortality ratio per 100,000 live births	☀️	
Education	Total net enrolment ratio in primary education, both sexes	☁️	Two dips were observed in 1997 and 2006.
Education	Primary completion rate, both sexes	⚡️	The overall PCR level, however, is positive.
Education	Public spending on education, total (% of GDP)	☁️	
Gender	Seats held by women in national parliament, percentage	☀️	To be interpreted with caution. Overall level remains very low at 3% of seats (% increased in 2005 then decreased in 2009).
Gender	Labor force, female (% of total labor force)	☀️	
Water	Renewable internal freshwater resources per capita (cubic meters)	⚡️	
Energy	Electricity production from oil sources (% of total)	⚡️	
Energy	Electricity production from renewable sources (kWh)	☁️	Overall level remains very low.
Economy	GDP per capita (constant 2005 US\$)	☀️	Upward trend after 2007 attributed in large part to the construction sector.
Economy	GDP per capita growth (annual %)	☀️	Large variations from one year to another. Negative trend since 2010.

Theme	Indicator	Trend	Remark / Caution
Economy	Inflation, GDP deflator (annual %)	☀️	
Economy	Total debt service (% of GNI)	⚡	However, the trend over recent years has been positive.
Economy	Current account balance (% of GDP)	⚡	
National accounting aggregate	Adjusted net savings (% of GNI)*	☀️	To be interpreted with caution. While the overall trend is positive, indicator has been decreasing consistently since 2009.
Employment	Unemployment, total (% of total labor force)	☀️	The period 2007-2009 witnessed an important drop in unemployment rate.
Innovation	Scientific and technical journal articles	☀️	To be interpreted with caution as it does not reflect quality or impact of these articles.
Industry	Industry, value added (% of GDP)	⚡	
Cities	Urban population (% of total)	↑	
Cities	Population density (people per sq. km of land area)	⚡	
SCP	Consumption of all Ozone-Depleting Substances in ODP metric tons	☀️	
SCP	Energy use (kg oil equivalent) per \$1,000 GDP (Constant 2005 PPP \$)	☁️	Curve is bell-shaped. Level in 2010 returned to 1990 value after increase in the mid-2000's.
Climate change	Carbon dioxide emissions (CO <sub>2</sub> ), metric tons of CO <sub>2</sub> per capita (CDIAC)	⚡	Level is higher compared to other non-gulf Arab countries (e.g. Egypt, Tunisia and Jordan).
Climate change	Carbon dioxide emissions (CO <sub>2</sub> ), kg CO <sub>2</sub> per \$1 GDP (PPP) (CDIAC)	☀️	
Ecosystems	Terrestrial and marine areas protected, sq. km.	☀️	
Ecosystems	Forest area (% of land area)	☀️	Increase took place between 2000 and 2005 but is small and insufficient in absolute terms.
Mol/Finance	Debt service as percentage of exports of goods and services and net income	☀️	Data available from 2002 onward.
Mol/Finance	Tax revenue (% of GDP)	☀️	While the trend is positive, the overall level, however, is low.
Mol/Finance	Net ODA received (% of GNI)	↑	Upward trend due mainly to sharp spike in 2006 (Israel war). As indicated later in the report, most ODA goes to humanitarian issues and contributes little to development.
Mol/Technology	Mobile-cellular subscriptions per 100 inhabitants	☀️	
Mol/Technology	Internet users per 100 inhabitants	☀️	
Mol/Data	Overall level of statistical capacity (scale 0 - 100)**	☀️	Lebanon made an important improvement from around 40 to 65 over the past 10 years. However, room for improvement is still high.

Notes: SCP = Sustainable Consumption and Production; Mol = Means of Implementation; ☀️ = Positive trend; ☁️ = No change; ⚡ = Negative trend; ↑ = Upward trend; ↓ = Downward trend.

\* Adjusted net saving is derived from the standard national accounting measure of gross saving by making four adjustments: (i) consumption of fixed capital is deducted to obtain net national saving; (ii) current public expenditure on education is added to account for investment in human capital; (iii) estimates of the depletion of a variety of natural resources are deducted to reflect the decline in asset values associated with extraction and depletion; (iv) deductions are made for damages from carbon dioxide and particulate emissions. Source for this indicator: World Bank Little Green Data Books for the years 2006 to 2014.

\*\* The "overall level of statistical capacity" is a composite indicator covering three dimensions, namely statistical methodology; source data; and periodicity and timeliness (refer to the World Bank site for details).

Sources: MDG Indicators Database, World Bank World Development Indicators Database, and Lebanon's MDG report 2013-2014.

Caution must be made in the interpretation of these trends due to the following: a) inconsistencies with national data sources may affect their reliability; b) the indicators provided in table II.1 provide a **partial** picture, at best, of sustainable developments trends, as it is not practical in this report to cover all possible sustainable development indicators; and c) while a trend may generally be positive, the level (or value) of the indicator in absolute terms is inadequate. Furthermore, a major limitation of this trend analysis relates to the unavailability of comprehensive and recent data on poverty and deprivation, governance, freedoms, and levels of inequality, which as described in the remainder of this report, constitute important sustainable development challenges in Lebanon.

Based on table II.1, three general areas of concerns are apparent where Lebanon has exhibited a negative trend. The first relates to water and energy, with decreasing per capita share of water and increasing reliance on oil sources for electricity generation. The second is an increasing population density, notably in urban areas, with unsustainable consumption patterns (as seen from the increasing per capita carbon dioxide emissions). The third area of concern is of economic and financial nature and relates to debt sustainability, deficit in the balance of accounts and low value addition in industry. These areas constitute important future priorities for Lebanon and will be discussed in the subsequent sections of this report.

### **III. Sustainable development priorities in Lebanon**

In the absence of a clear vision and a single, overarching development policy document for Lebanon, the identification of the top sustainable development priorities for Lebanon over the next 15 years was approached through a review of recent authoritative national documents as listed in table III.1 below. The table provides a summary of the priorities identified in selected documents, and demonstrates that national priorities have not evolved much over the last decade. For the sake of practicality, recurring themes in the table were combined into a manageable number of top priorities. In addition, two issues of importance that have emerged over the past few years were identified, namely the Syrian refugees' crisis and the discovery of offshore petroleum reserves.

The top six sustainable priorities identified for Lebanon are the following:

- Achieve employment generating economic growth;
- Build institutional and administrative capacities and improve governance;
- Improve social protection systems for all groups and address inequalities;
- Achieve energy security;
- Develop infrastructure and sustainable cities;
- Protect natural habitats and biodiversity.

It is noteworthy that the above priorities are in line overall with the SDGs, notably with goals 7 (energy), 8 (growth and employment), 9 and 11 (infrastructure and cities), 10 (inequality), 15 (ecosystems) and 16 (institutions). However, some national particularities exist in the targets, as will be highlighted in the remainder of this section and also in section 4. It is also important to note that the issue of refugees has not been included in the SDGs, which may be considered as a critical shortfall of the agenda from the perspective of refugee-hosting countries such as Lebanon. In fact, according to UNHCR's Global Trends Report 2013,<sup>5</sup> Lebanon occupies 3<sup>rd</sup> place worldwide in terms of the number of refugees it hosts (after Pakistan and Iran) and the 1<sup>st</sup> place in terms of the ratio of refugees to population size.

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<sup>5</sup> Available at <http://www.unhcr.org/5399a14f9.html>.

Table III.1. Development priorities for Lebanon as stipulated in selected recent national documents

Document <sup>(1)</sup>	Main identified priorities <sup>(2)</sup>			
	Economic	Social	Environmental	Other
<b>Policy Statement of the National Interest Government, March 2014</b>	<ul style="list-style-type: none"> <li>- Address fiscal problems and achieving economic recovery</li> <li>- Energy, oil and gas</li> </ul>	<ul style="list-style-type: none"> <li>- Improve citizens' living standards and conditions</li> <li>- Wages and social pension</li> <li>- Syrian refugees</li> </ul>		<ul style="list-style-type: none"> <li>- Security and stability, fighting terrorism</li> <li>- Decentralization and revitalization of the state apparatus</li> </ul>
<b>Post 2015 national consultations in Lebanon: The Lebanon We Want, 2013 <sup>(3)</sup></b>	<ul style="list-style-type: none"> <li>- Inclusive growth and job creation</li> </ul>	<ul style="list-style-type: none"> <li>- Improve the quality and distribution of basic services</li> <li>- Infrastructure and public transportation</li> </ul>		<ul style="list-style-type: none"> <li>- Good governance and political reforms</li> <li>- Peace-building and conflict prevention</li> </ul>
<b>National Report to the United Nations Conference on Sustainable Development (Rio+20), 2012 <sup>(4)</sup></b>	<ul style="list-style-type: none"> <li>- Improving energy sustainability</li> </ul>	<ul style="list-style-type: none"> <li>- Creating more and better jobs</li> <li>- Producing more food with fewer resources</li> </ul>	<ul style="list-style-type: none"> <li>- Making cities more sustainable</li> <li>- Balancing water supply and demand</li> <li>- Respecting the Mediterranean Sea</li> </ul>	<ul style="list-style-type: none"> <li>- Disaster mitigation and preparedness</li> </ul>
<b>Economic and Social Reform Action Plan (2012-2015), 2012</b>	<ul style="list-style-type: none"> <li>- Public debt management, fiscal and budget reforms</li> <li>- Private sector development</li> <li>- Infrastructure rehabilitation (energy, transportation water and sanitation, telecom)</li> </ul>	<ul style="list-style-type: none"> <li>- Reform of education, pension and health insurance systems</li> <li>- Equitable social protection scheme</li> <li>- Regional and municipal development</li> </ul>	<ul style="list-style-type: none"> <li>- Solid waste management</li> <li>- Quarries</li> <li>- Reforestation</li> </ul>	<ul style="list-style-type: none"> <li>- Institutional and administrative reform (e-government, e-services, automation of records)</li> <li>- Statistical master plan</li> </ul>
<b>National Social Development Strategy, 2011</b>		<ul style="list-style-type: none"> <li>- Achieve better health</li> <li>- Strengthen social protection</li> <li>- Provide quality education</li> <li>- Improve opportunities for equitable and safe employment</li> <li>- Revitalize communities and develop the social capital</li> </ul>		
<b>Social Pact, 2010</b>		<ul style="list-style-type: none"> <li>- Strengthen social development and improve social conditions</li> <li>- Ensure quality health services to all</li> <li>- Expand social safety nets</li> <li>- Promote quality education for all</li> <li>- Provide opportunities for decent, productive and safe employment</li> </ul>	<ul style="list-style-type: none"> <li>- Protect the environment and manage natural resources</li> </ul>	<ul style="list-style-type: none"> <li>- Adopt integrated plans and development strategies across regions</li> </ul>

Document <sup>(1)</sup>	Main identified priorities <sup>(2)</sup>			
	Economic	Social	Environmental	Other
<b>Lebanon - Country partnership strategy for the period FY11-FY14, World Bank 2010</b> <sup>(5)</sup>	<ul style="list-style-type: none"> <li>- Fiscal stability and public financial management</li> <li>- Competitive business environment</li> <li>- Improve infrastructure and support local economic development</li> </ul>	<ul style="list-style-type: none"> <li>- Human capital development and social protection (including education, health, gender, social safety nets)</li> </ul>	<ul style="list-style-type: none"> <li>- Environment and waste management (item included under infrastructure)</li> </ul>	<ul style="list-style-type: none"> <li>- Build statistical capacity (item included under fiscal stability)</li> </ul>
<b>United Nations Development Assistance Framework for Lebanon 2010-2014, 2010</b> <sup>(6)</sup>	<ul style="list-style-type: none"> <li>- Socio-economic development and regional disparities reduction</li> </ul>	<ul style="list-style-type: none"> <li>- Human rights</li> <li>- Gender</li> </ul>	<ul style="list-style-type: none"> <li>- Environmental sustainability</li> </ul>	<ul style="list-style-type: none"> <li>- Democratic governance and institutional development</li> </ul>
<b>Recovery, Reconstruction, and Reform (Paper presented by the Lebanese Republic, to the International Conference for Support to Lebanon, Paris III), 2007</b>	<ul style="list-style-type: none"> <li>- Enhance growth and the competitiveness of the Lebanese economy</li> <li>- Implement a privatization program</li> <li>- Reform to fiscal and monetary policies</li> </ul>	<ul style="list-style-type: none"> <li>- Develop social safety nets to protect the most vulnerable</li> <li>- Reform to education and health sectors</li> </ul>		<ul style="list-style-type: none"> <li>- Reform state owned enterprises</li> <li>- Improve governance and transparency in public sector</li> </ul>
<b>Social Action Plan, 2007</b>		<ul style="list-style-type: none"> <li>- Reducing poverty</li> <li>- Improving access to primary education</li> <li>- Improving access to basic health care</li> <li>- Local development</li> </ul>		

Source: Compiled by ESCWA from the documents listed in column 1.

Notes:

(1) Documents in the table have been ordered by date, from the newest to the oldest.

(2) The classification of priorities into economic/ social/ environmental is done to facilitate comparison only and is not meant to disregard the tight interlinkages between these priorities.

(3) While the document is prepared by the UN Resident Coordinator Office for Lebanon, it reflects an inclusive consultation process.

(4) Noted as “aspirations for sustainable development” and included in section VI of the report.

(5) Document reflects 2009 Lebanese Government’s “Progress and Development” Policy Statement. Listed priorities reflect “areas of engagement” of the World Bank.

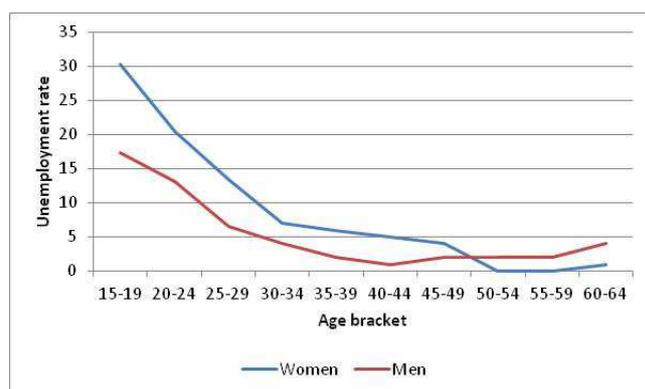
(6) The UNDAF builds on the results of the Common Country Assessment of 2007 and takes into consideration the Government’s Paris III reform programme.

## A. Achieve employment generating economic growth

The creation of job opportunities is beyond doubt a top priority for Lebanon, notably for women and youth. Equally important is the need to diversify the job market into different productive economic sectors (such as industry, agriculture, and tourism), and to distribute employment opportunities within the various regions of Lebanon, beyond Beirut and the major cities.

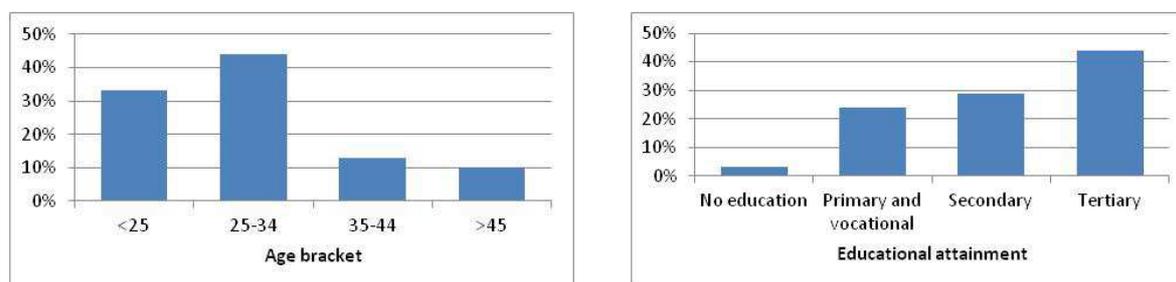
According to the latest official census, the unemployment figure in 2009 was at 6.4%, with important differences between men (5%) and women (10.4%).<sup>6</sup> As seen in figure III.1, the highest affected age bracket is the 15-24 (half of the unemployed are within the 15-24 age bracket), especially for women. Furthermore, despite high rates of tertiary education, qualified human resources find difficulty in getting employed. Indeed, unemployment rate among the educated is higher, reaching 9% for university degree holders. Returns to education that reflect earnings in relation to education levels are generally low (estimated at 9%) compared to a global average of 21%. Unemployment among the youth has fuelled the protracted problem of brain drain, which is also compounded by political instability. As depicted in figure III.2, emigrants are mostly young and educated. The large diaspora has created a heavy economic dependence on remittances, which constituted 25% of GDP in 2008, higher than foreign direct investment.

Figure III.1. Unemployment distribution by age and gender, 2009



Source: Redrawn from Central Administration of Statistics, The labour market in Lebanon, Statistics in Focus (SIF), Issue number 1, October 2011.

Figure III.2. Distribution of Lebanese emigrants by age and educational attainment (2004-2008)



Source: Redrawn from Ministry of Economy and Trade 2014, Lebanon SME Strategy: A Roadmap to 2020.

The recent influx of Syrian refugees has surpassed one million in 2014, equaling around 20% of the Lebanese population, with a large proportion being in the working age bracket. This has exacerbated unemployment rates and brought wages down especially in peripheral regions where already

<sup>6</sup> Central Administration of Statistics 2009, Multiple Indicators Cluster Survey 2009

unemployment and poverty prevail. Furthermore, Syrian refugees are willing to work for longer hours and are not covered by social benefits. For example, FAO estimated that the wages of workers in agriculture dropped by as much as 60% due to competition by refugees, while the construction and services sectors have also been affected to some extent. While some Lebanese businesses have profited from the lower labor costs, some are facing increasing competition from Syrian owned micro enterprises.<sup>7</sup>

As per the constitution, Lebanon has always adopted a liberal economic system that promotes entrepreneurship and guarantees private property. The private sector is the major contributor to the economy. The Lebanese economy depends largely on services (namely commerce, tourism and financial services), which contribute over 60% of GDP and 73% of job opportunities. However, weak investments in the productive sectors (agriculture and industry) have limited Lebanon’s economic growth and employment creation potential. Over two thirds of total investments have been made in the real estate sector, which generates a limited number of jobs that benefit mostly non-Lebanese workers (it is estimated that 9% of all workers are employed in the construction sector).<sup>8</sup> Investments have been hampered by macroeconomic imbalances that increase long term risks and accordingly raise interest rates. Lack of competitiveness has also discouraged investments in productive sectors.

It is acknowledged that small and medium enterprises (SMEs) represent major employers in most countries, including in Lebanon. However, SMEs in Lebanon face a number of challenges hampering their development. The Lebanon SME strategy, prepared by the Ministry of Economy and Trade in 2014 differentiated between overarching challenges and those that affect specific levels, as shown in Table III.2 below.

Table III.2. Challenges facing SMEs in Lebanon

<b>Overarching challenges</b>	<b>At the entrepreneur level</b>	<b>At the industry level</b>
<ul style="list-style-type: none"> <li>• The growth barrier: SMEs are unable to move to the next stage of growth</li> <li>• Delayed knowledge economy and weak R&amp;D</li> <li>• SMEs unable to cope with changing business environment</li> <li>• Economic uncertainty and financial stress</li> <li>• Uncoordinated institutional setup and limited support</li> </ul>	<ul style="list-style-type: none"> <li>• The owner-manager unable to move to next level</li> <li>• Family controlled businesses with closed capital bases</li> <li>• Women entrepreneurs not achieving their potential</li> </ul>	<ul style="list-style-type: none"> <li>• Unfair competition, prevalence of exclusive agencies and oligopolies</li> <li>• Trading inefficiencies and lack of trade agreements</li> <li>• Weak legal enforcement and inefficient judicial system</li> <li>• Weak creditor protection with low recovery rates</li> <li>• Taxation applies equally to all enterprises with no incentives for SMEs</li> </ul>
<b>At the national level</b>	<b>At the enterprise level</b>	
<ul style="list-style-type: none"> <li>• Reliance on informal workforce and high fixed employment costs</li> <li>• Hurdles for foreign skilled labor and limited knowledge transfer</li> <li>• Shallow Beirut Stock Exchange with low capitalization and trading volumes</li> <li>• Poor infrastructure across the territory</li> </ul>	<ul style="list-style-type: none"> <li>• The middle management gap driven by poor talent retention</li> <li>• Capabilities, whether organizational or individual, are not developed</li> <li>• Lack of technical specialists and highly skilled workforce</li> <li>• Distorted cost of capital and weak capital bases</li> <li>• Lack of capital supply through risk-sharing equity</li> <li>• Limited investments and financial instruments</li> </ul>	<ul style="list-style-type: none"> <li>• Persisting red tape and costly processes</li> <li>• Enduring cultural stigma of failure</li> <li>• Untapped innovation potential</li> <li>• Nascent intellectual property protection system</li> <li>• Poor market research and lack of information</li> </ul>

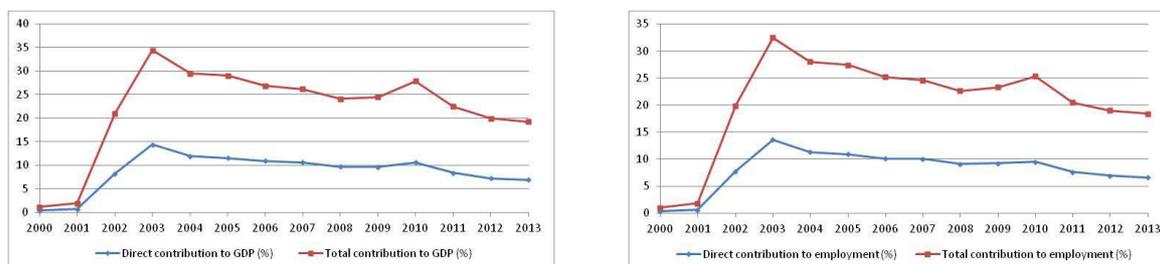
Source: Adapted from Ministry of Economy and Trade, 2014, Lebanon SME Strategy: A Roadmap to 2020

<sup>7</sup> ILO Regional Office for Arab States, 2014, Assessment of the impact of Syrian refugees in Lebanon and their employment profile.

<sup>8</sup> Ministry of Finance 2014, Lebanon Country Profile 2014.

While tourism is employment generating, in terms of both direct and indirect job creation, it is volatile by nature. Since the political environment has not been very favorable over the past decade, this has been reflected in a relatively consistent decline in the contribution of tourism to GDP and employment (See figure III.3).

Figure III.3. The contribution of tourism to GDP and employment (2000-2013)



Source: World Trade and Tourism Council as quoted in the Rural Tourism Strategy for Lebanon, 2014

The concept of “green jobs” offers win-win solutions to the dual challenge of employment and environmental protection and sustainable development. An ILO study provided a preliminary assessment of the potential for green jobs in Lebanon in four sectors, namely energy, construction, waste management and agriculture/forestry.<sup>9</sup> The report found that there is significant green job creation potential in areas such as solar water heating and organic farming. The report recognizes, however that to achieve this potential requires the application of a set of measures that combine human resource development, enforcement of environmental and employment policies and improvements to the investment climate for green businesses.

## B. Build institutional and administrative capacities and improve governance

The World Bank has identified six aggregate “Worldwide Governance Indicators” that cover: a) voice and accountability; b) political stability and absence of violence; c) government effectiveness; d) regulatory quality; e) rule of law; and f) control of corruption.<sup>10</sup> Lebanon has exhibited from 1996 to 2013 a downward trend in five of these six indicators, with regulatory quality being the only dimension where progress has effectively been achieved. It is noteworthy that in the five indicators a dip is observed in the 2005-2006 period onward.<sup>11</sup>

Addressing governance issues requires concerted action at all levels. Perhaps a first and basic requirement before any reform actions can be properly implemented and sustained, is to build an effective public sector apparatus. Indeed, the role of civil servants as agents of change cannot be underestimated.

Unfortunately, the civil service apparatus in Lebanon faces a number of constraints, many of which have become deep-rooted, requiring concerted action at different levels. The Office of the Minister of State for Administrative Reforms (OMSAR) was established after the end of the civil war in 1995 to modernize public administration and ensure that public services are delivered efficiently to all citizens at the highest level of ethics and integrity. In its latest strategy,<sup>12</sup> OMSAR listed seven key

<sup>9</sup> ILO 2011, Green Jobs Assessment in Lebanon: Synthesis Report.

<sup>10</sup> For information on these indicators, visit: [www.govindicators.org](http://www.govindicators.org).

<sup>11</sup> WGI Country Data Report for Lebanon (1996-2013), available at <http://info.worldbank.org/governance/wgi/pdf/c124.pdf>.

<sup>12</sup> OMSAR, Strategy for the Reform and Development of Public Administration in Lebanon, January 2011.

public administration challenges, and a number of goals for improving the current situation as summarized in table III.3.

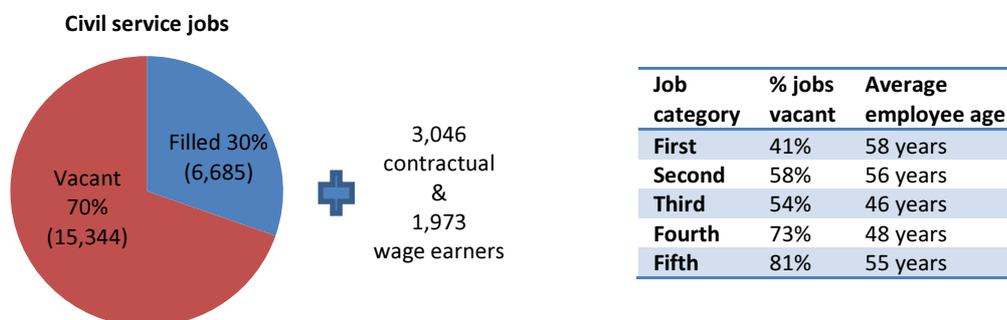
Table III.3. Key public administration challenges and proposed goals to address them

Challenges	Goals
- Weak strategic planning approaches;	- Modernize laws and regulations;
- Inadequate organizational structures, overlapping mandates and excessive centralization;	- Restructure public entities and modernize roles and mandates;
- Complex bureaucratic procedures which encourage bribery and subjectivity	- Restructure monitoring institutions;
- Lack of highly qualified and well-trained human resources (due to low wages);	- Build human capacities;
- Ineffective monitoring and accountability systems;	- Build institutional capacities and promote strategic planning;
- Poor use of ICT systems and lack of legal frameworks enabling electronic procedures;	- Promote good governance and accountability;
- Inadequate public buildings;	- Focus on serving citizens and the achievement of outcomes;
- Lack of political will to undertake the necessary reforms.	- Establish an e-government portal and promote the use of ICTs;
	- Concentrate public role to strategic functions and promote public-private partnership.

Source: OMSAR, 2011, Strategy for the Reform and Development of Public Administration in Lebanon.

According to 2010 statistics, and due to a freeze on public sector hiring, 70% of civil service jobs were vacant. This trend is expected to get worse if the freeze continues, since an important proportion of employees in all job categories are now in their fifties and are soon to retire (See figure III.4).

Figure III.4. Vacancy rate in civil service jobs and average employee rate by job category



Source: OMSAR, 2011, Strategy for the Reform and Development of Public Administration in Lebanon.

There are three main national bodies mandated to build the capacity of public administration in Lebanon, namely: a) the National Institute of Administration; b) OMSAR; and c) the Institut des Finances Basil Fuleihan (IdF) - Ministry of Finance. IdF published in 2011 a report on the training system for public administration,<sup>13</sup> which highlighted two areas of concern, namely that: a) real training needs of public employees, both immediate and strategic ones, have not been properly identified; and b) efforts among the above-mentioned institutions need to be coordinated to ensure that supply of training meets demand.

<sup>13</sup> Institut des Finances Basil Fuleihan 2011, Institutional Development Plan: Horizon 2015.

### C. Improve social protection systems for all groups and address inequalities

There are wide social disparities between regions in Lebanon, with poverty being concentrated in pockets notably in the Akkar region in the North and in the suburbs of large cities. The national poverty lines have been identified in the 2004-2005 income survey to be \$2.4 (lower line) and \$4 (upper line). According to these criteria, it was estimated that 28% of the Lebanese population were below the \$4 upper poverty line while 8% are below the \$2.4 lower line.<sup>14</sup> Almost half of the latter category lives in the North.<sup>15</sup>

The Mapping of Human Poverty and Living Conditions in Lebanon 2004, published by UNDP and the Ministry of Social Affairs in 2008, clearly showed the differences in the levels of deprivation between the central regions of Lebanon (Beirut and Mount Lebanon) and peripheral regions (North, South Bekaa and Nabatieh). Comparison was made according to 24 indicators spanning five areas, namely housing, education, water, sanitation and electricity, health and economic situation.<sup>16</sup> A recent study of poverty and deprivation in the city of Tripoli in North Lebanon confirmed that the situation has not improved over the past 10 years. Indeed, the report showed that 57% of households in the surveyed districts of Tripoli are deprived while 26% are severely deprived, with economic deprivation being the most widespread (affecting 77% of surveyed households) followed by health and housing deprivation (35% of households) then by education deprivation (25% of households).<sup>17</sup>

According to the Human Development Report of Lebanon 2008-2009, the lack of a civic personal status law and the prevalence of confessionalism reinforce inequality between social groups and may even be considered to be among its leading causes. In many instances, the inequality is effectively in terms of opportunity and quality of services, rather than quantity. The report argues that in turn, inequality is among the major causes of religious, ethnic and tribal allegiance, which fuels instability. The circle becomes a vicious one as sectarian and political conflict promote clientelism and maintain the “rights” of religious communities to civil servant appointments and ministries.<sup>18</sup>

Table III.4 highlights some of the multiple facets of discrimination and inequality between social groups in Lebanon. In particular, inequality between men and women has many dimensions. In economic terms, women receive less pay for equal jobs (particularly in high level jobs) despite better educational attainment overall, and as shown above, unemployment is higher among women. On the other hand, it is noteworthy that Lebanon has the highest proportion of elderly among the Arab countries (% of population >65 age exceeding 7%).<sup>19</sup> However, the elderly remain unprotected by the government, with 97% of all nursing homes being privately owned.<sup>20</sup>

While education and healthcare services are generally considered to be of relatively good standard, inequalities in accessing these services and disparities in terms of quality need to be addressed. In education for example, around two thirds of students attend private or subsidized private schools, while only one third of students go to public schools. Public schools are avoided due to low student

<sup>14</sup> Heba Laithy, Khalid Abu-Ismaïl and Kamal Hamdan, 2008, Poverty, Growth and Income Distribution in Lebanon (International Poverty Centre Country Study No. 13, available at <http://www.ipc-undp.org/pub/IPCCountryStudy13.pdf>)

<sup>15</sup> Lebanon - Country partnership strategy for the period FY11-FY14, World Bank 2010.

<sup>16</sup> Readers are invited to consult the elaborate study for detailed results, available at <http://www.lb.undp.org/content/dam/lebanon/docs/Poverty/Publications/Mosa%20mapping%20Book%20with%20sentence.pdf>.

<sup>17</sup> ESCWA and the Arab Urban Development Institute 2014 (Original in Arabic: مشروع دراسة الفقر الحضري في البلدان العربية، الفقر في مدينة طرابلس). The Study is based on a survey of 1500 households conducted in 2011 (Refer to study for detailed methodology).

<sup>18</sup> UNDP 2009, Lebanon 2008-2009 National Human Development Report: Toward a Citizen's State.

<sup>19</sup> ESCWA 2012, Statistical Abstract of the Arab Region, Issue No. 32.

<sup>20</sup> Lebanon National Report to the United Nations Conference on Sustainable Development (Rio+20), 2012.

achievement rates, relative weakness in foreign languages, and the absence of extracurricular activities.<sup>21</sup>

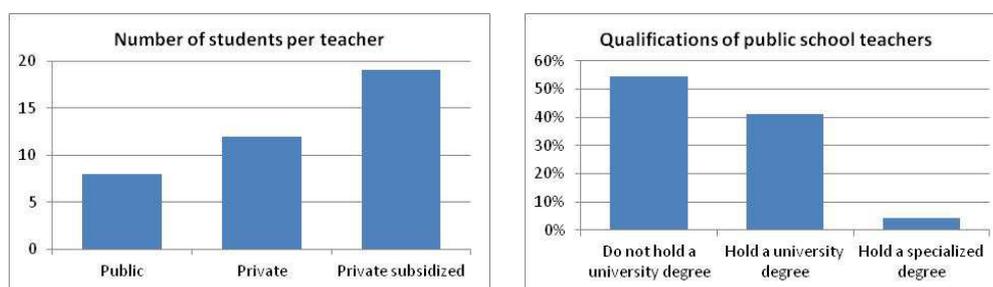
Table III.4. Multi-faceted discrimination in Lebanon

Social group	Estimated number	Facets of discrimination
<b>Prisoners</b>	7,800 prisoner	Human rights violations, overcrowding
<b>Refugees</b>	447,000 Palestinians (Jan 2014, UNRWA) 6,100 Iraqis (UNHCR 2015 projection) 860,000 Syrians (Jan 2014)	Civil rights deficits
<b>Migrant domestic workers</b>	Over 250,000 worker	Violence, lack of legal protection, indecent work conditions
<b>Persons with disability</b>	74,000 or 2% of the population (2004 data)	Education and employment opportunities
<b>Women</b>	49% of the population	Honor crimes and domestic violence, unequal pay and higher unemployment, citizenship rights
<b>Children</b>	23% of the population below 15 (the % is exhibiting a decreasing trend)	Violence
<b>Elderly</b>	10% of the population above 45 (the % is exhibiting an increasing trend)	Inadequate healthcare and pension systems
<b>Rural and peri-urban</b>	NA	Higher incidence of poverty, low quality services

Source: Compiled by authors from UNHCR (<http://www.unhcr.org/pages/49e486676.html#LEBBE>), UNRWA (<http://www.unrwa.org/where-we-work/lebanon>), ILO (<http://www.ilo.org/beirut/countries/lebanon/lang--en/index.htm>), Daily Star (<http://www.dailystar.com.lb/News/Lebanon-News/2014/Jul-04/262578-prisons-engendering-worse-offenders.ashx>), ESCWA-LAS 2014 Disability in the Arab Region, and CAS website.

Spending on public education is considered to be inefficient as the number of teachers is high but inefficiently distributed according to regions and educational subjects. The student to teacher ratio is 7.7 in public schools compared to 11.5 and 19.1 in private and subsidized private schools respectively. The qualifications of public school teachers are low with over half of them not holding a university degree (See figure III. 5).<sup>22</sup> Unfortunately, and due to the Syrian crisis, the number of out-of-school children (OOSC) in June 2014 was estimated at more than 280,000, urging the Ministry of Education to launch an initiative to reach all children in Lebanon with education.<sup>23</sup>

Figure III.5. (a) Number of students per teacher in public, private and private subsidized schools; (b) Qualifications of public school teachers



Source: Ministry of Higher Education 2010, Education Sector Development Plan (General Education): 2010-2015

<sup>21</sup> Ministry of Education and Higher Education 2010, National Education Strategy Framework and Education Sector Development Plan (General Education): 2010-2015.

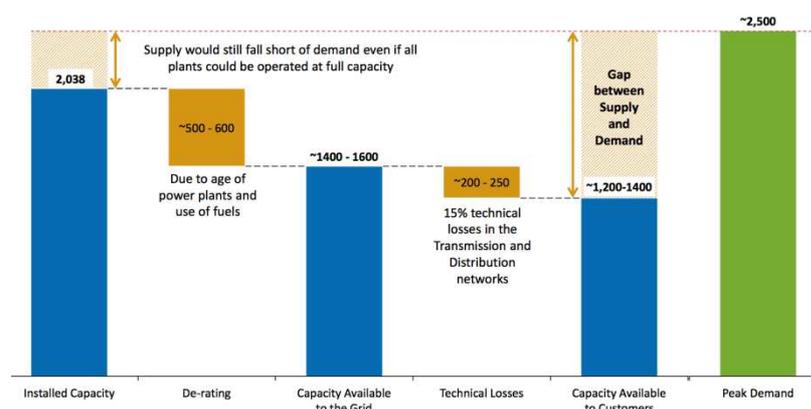
<sup>22</sup> Ibid.

<sup>23</sup> Ministry of Education and Higher Education 2014, Environmental Management Plan and Guidelines for Reaching All Children with Education in Lebanon.

## D. Achieve energy security

Ensuring reliable access to electricity for all the population in a socially just and environmentally sustainable manner is another top priority for Lebanon. Indeed, the electricity problem in Lebanon is endemic. Successive wars have damaged the full electricity supply chain from generation to transmission to distribution, while governance issues have increased financial losses in the form of uncollected power bills and illegal connections on the grid. Demand for electricity has surpassed supply by Electricite du Liban (EDL) – the public utility controlling 90% of the sector – many years ago, and the gap is worsening. Over the past few years, the import of electricity from neighboring Syria was disrupted due to the on-going crisis, and the influx of Syrian refugees has further increased demand for electricity, adding more strain to an already precarious situation. The gap between supply and demand was estimated in 2014 to be in the order of 1.2 GW (see figure III.6).<sup>24</sup> As a result, blackouts are regular, ranging from 3 hours in Beirut to 12 hours in other areas (see figure III.7), with the situation worsening during high consumption periods (cold winter and hot summer months). Dependence on private generators is high, leading to both financial and environmental impacts. Indeed, diesel generators are the main source for covering the supplemental demand of 251 MW associated with the Syrian refugees population.<sup>25</sup>

Figure III.6. Electricity gap in Lebanon



Source: Marc Ziade 2012, Technical Challenges to 24/7 electricity in Lebanon, <http://www.carboun.com/energy/technical-challenges-to-247-electricity-in-lebanon/>

Supply issues include the following: a) Ageing power plants and lack of maintenance; b) Inefficient operation, due in part to reliance on gasoil rather than natural gas; c) Sizeable losses in transmission and distribution systems; and d) Lack of monitoring and poor management.<sup>26</sup>

According to the 2010 Policy Paper for the Electricity Sector prepared by the Ministry of Energy and Water, electricity production is economically and socially inefficient. An annual deficit of US\$1.5 billion is borne by the Government while losses to the national economy, in the form of cost of energy not supplied, is estimated at more than \$2.5 billion dollars per year, paid by consumers. Losses on the system are significant, totaling about 40%, where 15% are of technical nature, 20% are non-technical losses and the remaining 5% are due to uncollected bills. The paper argues also that the applied tariff structure is not socially just as it subsidizes all users regardless of consumption or wealth. Small users have to bear similar fixed charges as large ones. The paper proposes a set of

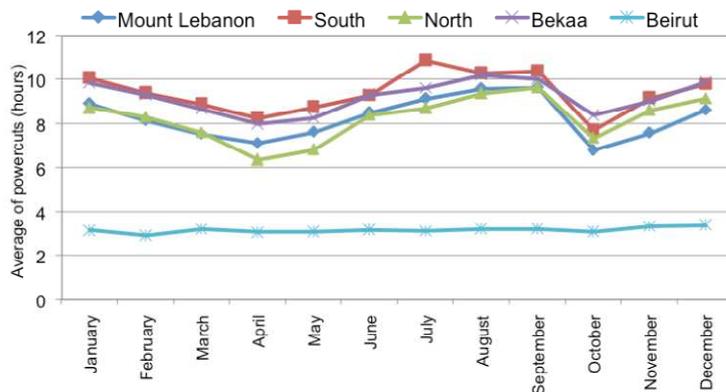
<sup>24</sup> Rami Ariss, "Power Ships" Keeping Lebanon's Grid Afloat, 24 March 2014 (<http://berc.berkeley.edu/power-ships-keeping-lebanons-grid-afloat/>).

<sup>25</sup> MOE/EU/UNDP 2014, Lebanon Environmental Assessment of the Syrian Conflict and Priority Interventions.

<sup>26</sup> Marc Ziade 2012, Technical Challenges to 24/7 electricity in Lebanon (<http://www.carboun.com/energy/technical-challenges-to-247-electricity-in-lebanon/>).

structural reforms grouped into 10 categories, to be implemented at a cost of US\$6.5 billion. The annual savings, as suggested by the paper would be considerable and the investment can be recouped quickly.<sup>27</sup> The plan was not implemented, however, due to a number of financial and political impediments.

Figure III.7. Blackout daily average in different areas of Lebanon (2010 to 2013)



Source: MOE/EU/UNDP 2014, Lebanon Environmental Assessment of the Syrian Conflict and Priority Interventions

EDL continues to face losses over the past years (US\$ 2 billion in 2013). Law 181, adopted by Parliament in October 2011, aims to enhance electricity production while diversifying energy sources. Several contracts were signed since then for: a) the construction of new power plants, b) increasing the capacity of existing plants, and c) reducing technical and non-technical losses.<sup>28</sup>

Perhaps the anticipated offshore oil and gas exploration activities will help resolve Lebanon’s energy crisis? The Lebanese community is divided between the “optimist” and the “skeptical” with regards to the economic, social and environmental impacts of oil and gas exploration in Lebanon. Optimists see great potential for foreign investments and job creation in the exploration activities and downstream industries.<sup>29</sup> Skeptical parties, on the other hand, fear a “resource curse” and worry that these assets are not treated as assets of the Lebanese people.<sup>30</sup> Some have raised concerns regarding the good governance of the sector, including the government’s capacity to negotiate contracts with oil companies and oversee their operations, enforce the law, and deal with oil-related environmental disasters.<sup>31</sup> Box III.1 summarizes the main steps undertaken so far in this important dossier.

<sup>27</sup> Ministry of Energy and Water 2010, Policy Paper for the Electricity Sector.

<sup>28</sup> Ministry of Finance 2014, Lebanon Country Profile 2014.

<sup>29</sup> See for example Nasser Hoteit, undated, The Petroleum Sector in Lebanon: History, Opportunities and Challenges.

<sup>30</sup> See for example the articles included in the fifth issue (October/November 2014) of “Assadissa”, journal published by the Institut des Finances, which discusses the correlation between oil and gas and public finance.

<sup>31</sup> See for example the preliminary study by Habib Maalouf on “The environmental and economic impacts of the oil and gas exploration option in Lebanon”, published in October 2014 with the support of Friedrich-Ebert-Stiftung Lebanon Office.

#### Box III. 1. The Lebanese gas exploration dream starts to materialize

While the idea of petroleum exploration is not new to Lebanon, a major step towards the realization of this idea was the completion in 2013 of 2D and 3D seismic surveys of Lebanon's Exclusive Economic Zone (EEZ). The surveys confirmed the potential for offshore oil and gas exploration, although the amounts of recoverable gas cannot be proven until exploration activity starts. To prepare the grounds, Offshore Petroleum Resources Law 132, adopted by parliament in August 2010, provided the legal framework for the exploration and extraction of oil and gas from Lebanon's territorial waters and EEZ. In December 2012, the Lebanese Petroleum Administration (LPA) was formed under the Ministry of Energy and Water to regulate the petroleum sector.

Law 132 stipulates, among other issues, that Lebanon reserves the right to carry out or participate in petroleum activities, and that proceeds from petroleum activities shall be placed in a sovereign fund. The subsequent Petroleum Activities Regulations (PAR) provide, among others: a) the rules governing the conduct of petroleum activities; b) the elements to be included in the Exploration and Production Agreement which is signed between the government and oil companies; and c) the general rights and duties of operators and right holders.

Sustainability issues have received attention. Article 11 of the PAR requires the government to undertake a strategic environmental assessment (SEA) before any rights are awarded. A preliminary SEA was conducted which is expected to be updated regularly as the process advances. The SEA resulted in a set of recommendations to be implemented as part of the Sustainable Oil and Gas Development in Lebanon "SODEL" project, which has two components, one on health, safety and environment and another on the use of alternative fuels in the energy and transport sectors. On the other hand, operators are required to undertake Environmental Impact Assessments for their development and production plans, as well as dismantling.

In addition to the legal framework, progress achieved so far include: a) Delimitation of 10 blocks within the Lebanon EEZ; b) completion of a pre-qualification process for the 1<sup>st</sup> round of bidding, with twelve applicants pre-qualified as right-holders operators and thirty four as right-holders non-operators.

Source: Lebanese Petroleum Administration website (<http://www.lpa.gov.lb/>).

### E. Develop infrastructure and sustainable cities

Lebanon has a high rate of urbanization compared to neighboring countries (with the exception of the Gulf countries). As Lebanese cities grow beyond their service capacity (notably Beirut), issues of infrastructure, especially water and wastewater, solid waste management, and sustainable transport become critical. These issues pose major environmental challenges including pollution of water bodies, degradation of coastal areas and poor air quality, which are highly associated with health risks. In addition, unchecked urban expansion and poor regulation and enforcement of land use and building codes in Lebanon increases disaster risks. This applies equally to large-scale risks such as earthquakes and tsunamis, and smaller-scale risks like floods, landslides and forest fires. The sustainability of cities and other areas of Lebanon depends critically on the country's ability to prevent, reduce and manage risks, in addition to the capacity to respond to crises and recover from related consequences (See box III.2).

Compared to other countries with similar level of economic development,<sup>32</sup> the status of the Lebanese infrastructure is considered to be poor. The World Bank assesses public expenditure on infrastructural development projects in Lebanon to have low returns. For example, a 2010 Public Expenditure Review of the water sector in Lebanon<sup>33</sup> shows that the level of expenditure on water, averaging 0.5 percent of GDP, is below investment requirements due to limited fiscal capacity. This is compounded by low expenditure efficiency associated with the inadequate technical, financial and commercial performance of Regional Water Authorities. Should business remain as usual, the report projects that Lebanon may face chronic water shortages by 2020.

<sup>32</sup> The World Bank categorizes Lebanon among upper middle income countries. See <http://data.worldbank.org/country/lebanon>.

<sup>33</sup> World Bank 2010, Republic of Lebanon Water Sector: Public Expenditure Review (Report No. 52024-LB).

### Box III.2 Disaster risk analysis in Lebanon

A situation analysis of disaster risk in Lebanon, conducted in 2010, provided an evaluation of available studies and data, institutional capabilities and professional expertise related to disaster risk reduction. In terms of studies and data, the study pointed to some positive aspects, notably the availability of hazard exposure and other base maps and the on-going preparation of a number of risk assessment studies. Areas of improvement included the need to follow sound methodologies, collate and validate scattered information, fill some data gaps and make data widely accessible to the research community and the public. In terms of institutional capacity, centers of expertise – public and private – were undertaking various efforts, although mandates overlapped and linkages between scientific information and policy/decision-making were unclear and needed to be tightened. Shortages in capacity and expertise were highlighted, especially in areas of geology and flood management, necessitating the development of a capacity-building strategy to rectify the situation.

Source: UNDP Global Risk Identification Programme 2010, Disaster Risk Assessment in Lebanon: A Comprehensive Country Situation Analysis

It may be argued that the root cause behind the problems of infrastructure is largely political. For example, disagreement among political leaders regarding the role of the private sector in the provision of infrastructural services and other basic services has frequently led to implementation impasses. The solid waste management portfolio, which triggered so many back and forth discussions in the Council of Ministers, is a case in point.

In addition to the impact on the well-being of citizens, the poor quality of infrastructure services is also affecting the business environment, especially for SMEs. The World Economic Forum's Global Competitiveness Report for 2014-2015<sup>34</sup> shows that Lebanon ranks low in terms of overall infrastructure (at 2.3 value<sup>35</sup> and 140 rank), including for roads (2.8 value and 120 rank) and mobile telephone subscriptions (80.6 subscriptions/100 population and 114 rank). The situation of sea ports and airport infrastructure is better with a medium ranking compared to other Arab countries (see table III.5).

Table III.5. Lebanon's Infrastructure score and ranking compared to neighboring countries

Country	Quality of overall infrastructure		Quality of roads		Quality of port infrastructure		Quality of air transport infrastructure		Quality of electricity supply		Fixed telephone lines/100 pop.		Mobile telephone subscriptions/100 pop.	
	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank
UAE	6.4	3	6.6	1	6.5	3	6.7	2	6.6	11	22.3	50	171.9	6
Bahrain	5.6	21	5.4	22	5.7	15	5.2	39	6.2	31	21.8	53	165.9	8
Oman	5.4	25	6.0	8	5.2	33	5.1	42	6.3	20	9.7	88	154.6	18
Qatar	5.4	26	5.0	34	5.4	24	6.0	12	6.5	15	19.0	60	152.6	21
Saudi Arabia	5.2	29	5.3	26	5.0	40	5.1	41	6.2	26	16.4	70	176.5	5
Cyprus	5.2	30	5.3	24	4.9	45	5.1	43	5.5	43	30.6	36	95.2	104
Turkey	5.1	33	4.9	40	4.4	57	5.4	34	4.8	72	18.1	65	93.0	105
Jordan	4.8	48	4.1	61	4.1	72	4.8	55	5.4	49	5.2	105	141.8	31
Morocco	4.6	55	4.5	51	4.9	43	4.8	51	5.4	48	8.9	94	128.5	45
Israel	4.4	63	4.7	45	3.8	86	4.9	50	5.9	34	44.8	15	122.8	53
Kuwait	4.3	67	4.6	48	3.9	82	3.8	100	5.0	63	15.1	75	190.3	3
Tunisia	3.9	83	3.7	83	3.9	83	4.2	77	5.0	65	9.3	89	115.6	63
Algeria	3.6	102	3.1	107	2.8	117	3.0	128	4.0	91	8.0	99	102.0	91
Egypt	2.9	125	2.9	118	4.2	66	4.6	60	2.7	121	8.3	97	121.5	55
Mauritania	2.6	134	2.3	137	2.4	135	2.4	140	3.3	105	1.4	120	102.5	90
Yemen	2.5	136	2.5	131	2.6	128	2.3	141	1.5	142	4.7	107	69.0	127
<b>Lebanon</b>	<b>2.3</b>	<b>140</b>	<b>2.8</b>	<b>120</b>	<b>4.1</b>	<b>73</b>	<b>4.5</b>	<b>65</b>	<b>1.4</b>	<b>143</b>	<b>18.0</b>	<b>66</b>	<b>80.6</b>	<b>114</b>
Libya	1.9	144	2.1	142	2.6	131	2.4	139	2.8	116	12.7	82	165.0	9

Note: Value ranges from 1 (worse) to 7 (best).

Source: World Economic Forum 2014, The Global Competitiveness Report 2014–2015: Full Data Edition.

<sup>34</sup> World Economic Forum 2014, The Global Competitiveness Report 2014–2015: Full Data Edition.

<sup>35</sup> Values provided range from 1 (worse) to 7 (best).

As described in Box III.3, the influx of Syrian refugees over the past few years has had significant impact on water, wastewater and solid waste infrastructures in Lebanon, therefore exacerbating an already difficult situation.

**Box III.3. Impact of the influx of Syrian refugees on water, wastewater and solid waste**

The influx of Syrian refugees has important impacts on water, wastewater and solid waste. Increased demand for water associated with refugee population was estimated at between 33 and 53 million cubic meters (May 2014 estimate) and was expected to reach a figure between 43 and 70 million cubic meters in December 2014. Similarly, the refugee population was estimated to increase the level of wastewater generated by 8 to 14 percent, with the largest increase being in the Bekaa region. Finally, the increase of solid waste generation attributed to the refugees was estimated at 889 tons per day or 324,568 tons per year by the end of 2014. The majority of this incremental waste is expected to be thrown in open dumps, therefore increasing the risk of contamination of land, surface water and groundwater.<sup>36</sup>

Source: Ministry of Environment, UNDP and EU 2014, Lebanon Environmental Assessment of the Syrian Conflict and Priority Interventions

## 1. Water

Following one of Lebanon's driest years in recent times, summer of 2014 witnessed genuine popular concerns about water security. This exceptional situation is expected to become closer to the norm in future years due to increasing demand for water and the impacts of climate change on precipitation patterns. There are wide disparities in access to water between the different regions in Lebanon (Figure III.8). In the Beirut metropolitan area, where the majority of the Lebanese population resides, connectivity to the water distribution network is relatively high (over 90%) at reasonably low cost (flat fee of LL296,000 equivalent to less than \$200). However, intermittence of supply is the issue of concern, which average supply as low as three hours a day in the summer season. Reliance on private water supply (tankers and bottled water) is therefore common, and comes at a high cost for poorer households, raising social justice concerns. Connected customers pay as much as 65% of their total expenditure on water to private suppliers.<sup>37</sup>

Public water supply and consumption are inefficient due to lack of volumetric metering, high losses in the distribution network and inadequate bill collection. A recent survey conducted by the Ministry of Energy and Water in collaboration with UNDP revealed more than 59 thousand unlicensed private wells compared to around 21,000 licensed ones.<sup>38</sup> This over-abstraction of underground water leads to water capital depletion and seawater intrusion.

Wastewater, both domestic and industrial, is largely disposed untreated in coastal waters and rivers (92% of generated wastewater) due to a number of reasons: Around one third of households are not connected to the public sewerage network (notably outside the Beirut and mount Lebanon areas); treatment capacity is low as treatment plants are not yet operational; or works to connect the sewerage network to the treatment plants are unfinished. The World Bank estimated the cost of environmental degradation due to untreated wastewater disposal to be at 1% of GDP.<sup>39</sup>

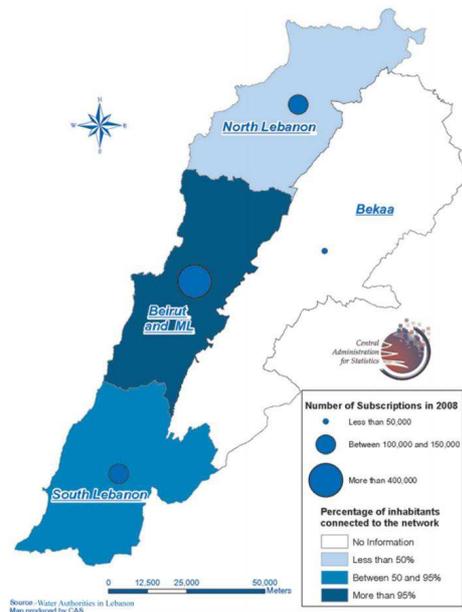
<sup>36</sup> Ministry of Environment, UNDP and EU, 2014, Lebanon Environmental Assessment of the Syrian Conflict and Priority Interventions.

<sup>37</sup> Ahmad Nizam 2011, Water Sector Reform in Lebanon and Impact on Low Income Households (presentation made at the 4th ACWUA Best Practices Conference on Water and Wastewater Utilities Reform "Changes and Challenges", Sharm El Sheikh, 7-8 December 2011.

<sup>38</sup> As quoted in Ministry of Environment, UNDP and EU 2014, Lebanon Environmental Assessment of the Syrian Conflict and Priority Interventions.

<sup>39</sup> As quoted in Lebanon's MDG Report 2013-2014.

Figure III.8. Access to water in the various regions of Lebanon, 2008



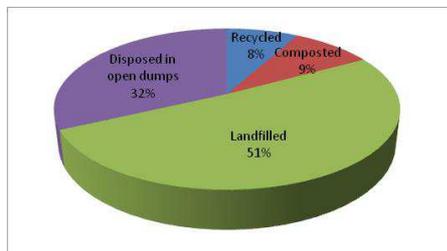
Source: Central Administration of Statistics, [http://www.cas.gov.lb/images/Maps/Water\\_Subscriptions.pdf](http://www.cas.gov.lb/images/Maps/Water_Subscriptions.pdf)

The Ministry of Energy and Water launched in 2010 the National Water Sector Strategy, which was approved by the Council of Ministers in 2012. The Strategy addresses infrastructural concerns relating to transmission, distribution and wastewater treatment, as well as management issues related to institutional, financial, legal, and environmental concerns (see Annex III for a listing of the strategic objectives listed under the Strategy). However, implementation is slow and faces many hurdles.

## 2. Solid wastes

In 2013, the national average rate of municipal solid waste generation was estimated at 1.05 kg/person/day, more than half of which is organic in nature. Unfortunately, around half of the produced waste is landfilled while a third is disposed in over 500 existing open dumps (See figure III.9). The Ministry of Environment estimated that US\$3.4 million were being ‘lost’ annually from the missed opportunity to recycle the generated waste.<sup>40</sup>

Figure III.9. Municipal solid waste treatment



Source: Ministry of Environment, UNDP and EU 2014, Lebanon Environmental Assessment of the Syrian Conflict and Priority Interventions

<sup>40</sup> Ministry of Environment, UNDP and EU 2014, Lebanon Environmental Assessment of the Syrian Conflict and Priority Interventions.

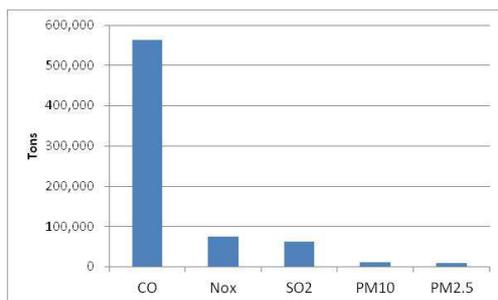
On 30 October 2014, the Council of Ministers had initially approved a number of measures to address the solid waste problem in Beirut, Mount Lebanon and the North, including a proposal to benefit from waste-to-energy opportunities. Subsequently, however, the Cabinet delayed the dossier and was unable to reach agreement on a comprehensive waste management plan.<sup>41</sup> The issue had reached a “crisis” level following repetitive civil society movements to close the Naameh landfill, which had long surpassed its maximal design capacity by five times.<sup>42</sup> This matter had been in a deadlock for many years due to political interference regarding a number of controversial points including the sites of the landfills and contracting of waste management companies. Due to inaction, as many as 760 illegal dumpsites mushroomed all over the country.<sup>43</sup> The waste management problem exemplifies the political and institutional challenges that hamper the resolution of a problem with critical social and environmental dimensions.

### 3. Transport

Given the country’s small land area and its predominantly mountainous nature, the Lebanese population is concentrated on the coast, leading to a relatively high population density (400 persons/km<sup>2</sup> in 2010). Unfortunately, master planning is lacking in 84% of the country.<sup>44</sup> As a result, coastal cities have expanded in an urban sprawl phenomenon that threatens fragile assets (natural and historic) along the narrow coastline. While a National Physical Master Plan was prepared in 2005, efforts are still needed to mainstream this plan into social development and key sectoral plans as well as regional urban planning regulations.<sup>45</sup>

With regards to transport, Lebanon boasts high road network density (111 km per 100 km<sup>2</sup>)<sup>46</sup> and per capita vehicle of 434 per 1,000 persons in 2012, ranking 17<sup>th</sup> in the world. Daily traffic flows from the Northern and Southern entrances to Beirut register a daily record of 280,000 and 110,000 vehicles respectively.<sup>47</sup> Recent completed projects have managed to ease some of the congestion. However, growth in private car ownership is not sustainable on the long term, as vehicles are a major contributor to degraded air quality around large cities, especially in older car models (see figure III.10).

Figure III.10. Total estimated anthropogenic and biogenic emissions from various sources, 2010



Source: Waked et al. 2012 as quoted in Ministry of Environment, UNDP and EU 2014, Lebanon Environmental Assessment of the Syrian Conflict and Priority Interventions.

<sup>41</sup> Daily Star, 24 December 2014, Cabinet fails to agree on waste treatment plan.

<sup>42</sup> Daily Star, 1 November 2014, Naameh landfill to be shut down by April 2015.

<sup>43</sup> Daily Star, 20 December 2014, Environment minister slams random waste dumping by municipalities.

<sup>44</sup> Ministry of Environment, UNDP and Ecodit 2011, State and Trends of the Lebanese Environment 2010.

<sup>45</sup> Lebanon National Report to Rio+20, 2012.

<sup>46</sup> Ibid.

<sup>47</sup> CDR 2013, Urban Transport Development Project Brief.

## F. Protect natural habitats and biodiversity

Land resources in Lebanon suffer from different forms of degradation, with soil erosion, salinization and contamination considered to be the three main challenges.<sup>48</sup> Land degradation in Lebanon can be attributed to both natural (mainly related to topography and lithology) and human-induced causes. The latter causes include unplanned, fast urban expansion (and associated road construction activity), inappropriate agricultural and irrigation practices and fertilizer application (leading to salinization and contamination), and quarrying activities. Due to post-war high demand for construction material, the quarrying area doubled within a period of 10 years (1996-2005) from 2,897 ha to 5,267 ha, with expansion (sometimes of illegal nature) occurring on fragile mountainous land at the expense of forests and agricultural lands.<sup>49</sup> On the other hand, urbanization, forest fires, overgrazing and abusive felling are the four main direct drivers of forest degradation and deforestation. The year 2007 was a record year in both number of fires (324 fires) and extent of the damaged area (4,197 ha).<sup>50</sup>

Lebanon's forest cover is estimated at 13% of the total land area. A joint FAO/Ministry of Agriculture assessment of 222 permanent sampling plots concluded that as much as 85% of forests in Lebanon are degraded while 14% have been impacted by fire. Warmer temperatures due to climate change are expected to endanger Lebanon's specie of national pride, the *Cedrus libani*, which has been recently added to the IUCN's Red List of Threatened Species.<sup>51</sup> On the positive side, and as of June 2014, the number of established nature reserves reached 15, with a total area amounting to approximately 2.5 percent of the Lebanese territory.<sup>52</sup>

A report on the cost of environmental degradation, undertaken in cooperation with the World Bank-METAP in 2005 attributes a 0.6% GDP loss to soil and wildlife degradation.<sup>53</sup> Environmental governance, including institutions, laws, information and statistics, research and development activity and funding, must be strengthened if the environment is to be sustainably managed.<sup>54</sup> It should be borne in mind, however, that the human induced land degradation and deforestation pressures described above are driven by underlying socio-economic, institutional and legislative forces. Therefore, environmental degradation cannot be addressed in isolation from the socio-economic context, but rather it needs to be mainstreamed and approached in an integrated manner. In particular, the impact of Syrian refugees on terrestrial ecosystems, as summarized in box III.4 cannot be approached from an environmental approach without regard to humanitarian and even political factors.

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<sup>48</sup> Ministry of Environment, UNDP and Ecodit 2011, State and Trends of the Lebanese Environment 2010.

<sup>49</sup> Darwish T. 2009, Sustainable Land Management Practices to Reverse Land Degradation in Lebanon, ESCWA paper E/ESCWA/SDPD/2009/WG.2/5.

<sup>50</sup> Ministry of Environment, UNDP and Ecodit 2011, State and Trends of the Lebanese Environment 2010.

<sup>51</sup> Ministry of Environment, GEF and UNDP 2014, Safeguarding and Restoring Lebanon's Woodland Resources Project

<sup>52</sup> Ministry of Environment, UNDP and EU 2014, Lebanon Environmental Assessment of the Syrian Conflict and Priority Interventions.

<sup>53</sup> World Bank 2011, *Republic of Lebanon Country Environmental Analysis* (Report No. 62266-LB).

<sup>54</sup> Ministry of Environment, UNDP and Ecodit 2011, State and Trends of the Lebanese Environment 2010.

#### Box III.4. Impact of the influx of Syrian refugees on terrestrial ecosystems

Due to the Syrian refugee crisis, and in response to heightened demand for housing, permits were provided by the Ministry of Interior and Municipalities for the accelerated construction of housing units that do not necessarily meet urban planning procedures and building standards. In addition, the number of informal tented settlements hosting Syrian refugees rose from 282 in June 2012 to 1,069 in April 2014. These settlements create the risk of encroachment on agricultural or environmentally sensitive areas and fragile ecosystems, in addition to the harm caused by tree felling for heating, increased surface water abstraction and inadequate septage and solid waste disposal.

Source: Ministry of Environment, UNDP and EU 2014, Lebanon Environmental Assessment of the Syrian Conflict and Priority Interventions.

To conclude this section, it should be noted that future scenarios for Lebanon remain highly unpredictable, hinging on whether the political environment – internal and external - will stabilize to allow for the implementation of planned structural reforms. In particular, developments relating to the Syrian refugees crisis will have a substantial impact on a number of variables. The Government of Lebanon implemented in late 2014 provisions limiting the entry of Syrians into Lebanon, the results of which remain unclear. In addition, whether and how the Lebanese government will succeed to put the recently discovered gas reserves to its development advantage will highly impinge on the future transformations of Lebanon.

## IV. The institutional framework for sustainable development in Lebanon

The institutional framework is understood in this section to include: a) the organizations and actors involved in sustainable development; b) the set of government policies and strategies guiding the development process; and c) the laws that govern sustainable development.

### A. Major development actors

Lebanon lacks an integrated strategic planning entity having lead responsibility for sustainable development. Instead, a number of key actors play complementary, and sometimes overlapping roles. Without underestimating the importance of the roles played by sectoral ministries, the following paragraphs describe major actors (those having overarching mandates) and their roles. The Ministry of Environment was included given the mandate granted by the Council to Ministers to the Minister of Environment to act as “National Coordinator of Sustainable Development” (COM Decision 103 dated 6/4/2006).

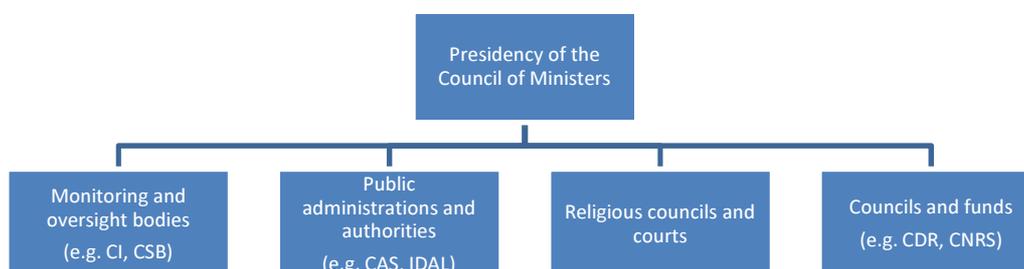
- The **Lebanese Parliament** is Lebanon’s legislative body. According to the 2014-2015 list, there were 16 parliamentary committees, including one on environment.<sup>55</sup> Due to Lebanon’s political crisis and disagreement about a new electoral law, the Lebanese Parliament unfortunately “self-extended” its term twice, in May 2013 and November 2014 (term extended to 2017). Civil society has termed this extension unconstitutional and a blow to democracy.<sup>56</sup>
- The **Council of Ministers** is Lebanon’s executive body and is responsible for enacting regulations through decisions and decrees. It is headed by the Presidency of the Council of Ministers (PCM), which oversees a number of important public bodies as shown in figure

<sup>55</sup> <https://www.lp.gov.lb/Temp/Files/ed833a61-83cd-4658-bdf7-b6c16dce1224.pdf>

<sup>56</sup> Reuters, 5 November 2014, Lebanese parliament extends own term till 2017 amid protests.

IV.1. Among these bodies, the Central Administration of Statistics is the official public institution mandated to generate, coordinate and disseminate national statistics.

Figure IV.1. Public bodies attached to the Presidency of the Council of Ministers



Note: CI = Central Inspection, CSB = Civil Service Board, CAS = Central Administration of Statistics, IDAL = Investment Development Authority of Lebanon, CDR = Council for Development and Reconstruction, CNRS = National Council for Scientific Research

Source: Compiled by authors based on <http://www.pcm.gov.lb/arabic/subpg.aspx?pageid=4211>.

- The independent **judiciary** system of judges and prosecutors enforces laws and regulations, including on environmental issues. In April 2014, law no. 251 was adopted which allows for the appointment of full-time environmental attorney generals and inspection judges in various Lebanese governorates. This constitutes an important step forward in environmental governance and accountability.
- The **Council for Development and Reconstruction** (CDR) was established in 1977 to lead reconstruction projects, succeeding the Ministry of Planning. In 2001, it was merged with other national bodies to become the single executive national agency implementing infrastructure and development projects. CDR also prepares sectoral plans (e.g. the master land use plan) that are subsequently implemented and managed by concerned ministries.<sup>57</sup>
- The **Ministry of Environment** was established in 1993 (law 216/1993). Its mandate was expanded in 2005 through law 690/2005, which promoted its role in all issues relating to the environment and sustainability of natural resources. In 2009, a decree (2275/2009) defined a new organizational structure and increased the number of staff to 182 full-timers, though current staff size remains below this number. The Ministry cooperates with a network of research institutions including the Industrial Research Institute, the Lebanese Agricultural Research Institute and the National Council for Scientific Research.<sup>58</sup>
- **Municipalities** are important local development actors having diverse responsibilities. Despite that, the 994 Lebanese municipalities face chronic shortage in finance.<sup>59</sup>

In order to ensure coordination across ministries and other concerned stakeholders on particular development-related themes such as poverty, environment, education and health, inter-ministerial committees are typically established with varying mandates and structures. For example, the Ministry of Finance lists on its website three inter-ministerial committees chaired by the Prime Minister that are responsible for following-up on the implementation of Paris III reforms in the economic, social and privatization and infrastructure domains.<sup>60</sup> The effectiveness of these committees needs to be properly assessed.

<sup>57</sup> Ministry of Finance 2014, Lebanon Country Profile 2014.

<sup>58</sup> Ministry of Environment, UNDP and Ecodit 2011, State and Trends of the Lebanese Environment 2010.

<sup>59</sup> Ibid.

<sup>60</sup> <http://www.finance.gov.lb/en-US/finance/Reforms/Pages/InterMinisterialCommitteeDocuments.aspx>

In addition to governmental bodies, **civil society organizations** are important development actors in Lebanon compared to other neighboring countries. Registered NGOs exceeded in number 6,000 organizations, although their level of dynamism and impact is very mixed.<sup>61</sup> NGOs typically participate in consultations and can to some extent influence the decision-making process.<sup>62</sup> In the environmental field alone, the Ministry of Environment estimates the presence of over 300 registered NGOs covering a broad spectrum of activities.<sup>63</sup> Some NGOs have acquired important niches such as reforestation and combating forest fires, the protection of natural reserves and organic farming.

As a country with a liberal economic system, the **private sector** plays an important role in Lebanon's economy and has the potential to become a main development partner. The Lebanese political parties are divided between opponents and proponents of private sector involvement in public services provision. Measures are being taken to increase and regulate the private sector's role, as shown in box IV.1. The box also describes initiatives by Lebanese enterprises to improve their sustainability profile.

Box IV.1. The Lebanese private sector: A development partner?

The Higher Council for Privatization was established in 2000 and is headed by the Prime Minister with four permanent members namely the ministers of Finance, Economy and Trade, Justice and Labor. Since the adoption of the privatization framework law in 2000, two sector-specific laws have been enacted by Parliament in 2002, namely in the telecommunication and the electricity sectors. According to Lebanon's Paris III paper, public-private partnership was to be promoted by allocating the private sector a bigger role in the implementation of large infrastructural projects and public service delivery. A PPP draft law is still pending Parliament approval since 2007.<sup>64</sup> In 2013, HCP launched the PPP guidelines to raise awareness about the subject.<sup>65</sup>

The concept of corporate social responsibility (CSR) is slowly gaining grounds among Lebanese enterprises. Between 2003 and 2014, 27 Lebanese entities have registers as members in the UN's Global Compact,<sup>66</sup> including companies, SMEs, Universities and NGOs. Interest in CSR reporting is still embryonic: Two companies only have since 2013 issued Global Reporting Initiative (GRI) compliant reports.<sup>67</sup>

On the other hand, Lebanese companies are interested in improving their environmental performance and engaging in the emerging environmental goods and services sector. Lebanon's Cleaner Production Center has since its establishment by the Ministry of Environment in 2002 been assisting SMEs adopt sustainable practices and industrial production modes that are resource efficient and produce less pollutants.<sup>68</sup> The Association of Lebanese Industrialists' Environment and Energy Department is also assisting industrialists through their Green Help Desk by providing training and information on green economy opportunities.<sup>69</sup>

## B. National policy interventions for sustainable development

### 1. National overarching strategy or plan for sustainable development

As stated earlier, Lebanon does not have a national overarching sustainable development vision, strategy or plan. The country lacks a national economic plan and a poverty reduction strategy (or other forms of medium-term development plans such as 5-year plans).

<sup>61</sup> Daily Star, 27 November 2014, Lebanon's civil society sector: a lost continent.

<sup>62</sup> Next Generation Democracy (2014) Middle East and North Africa – Track 1: People and Communities, Regional Trends 2000-15 and Scenarios 2015-2030.

<sup>63</sup> Ministry of Environment, UNDP and Ecodit 2011, State and Trends of the Lebanese Environment 2010.

<sup>64</sup> <http://www.hcp.gov.lb/index.asp>

<sup>65</sup> [http://www.hcp.gov.lb/pictures/pdf/News0.9128229\\_final%20guide\\_13Feb2014\\_website.pdf](http://www.hcp.gov.lb/pictures/pdf/News0.9128229_final%20guide_13Feb2014_website.pdf)

<sup>66</sup> <https://www.unglobalcompact.org/participants/search>

<sup>67</sup> The companies are Audi Bank in the financial services sector and Holcim in the construction sector. Source: Global Reporting Initiative's Sustainability Disclosure Database.

<sup>68</sup> <http://www.lebanese-cpc.net>

<sup>69</sup> The Green Help Desk was established in 2012 in cooperation with ESCWA. See <http://www.ali.org.lb/english/green.asp>.

The Lebanese Constitution, promulgated in 1926, makes no explicit reference to sustainable development. However, in its preamble, introduced by the 1990 amendment, the constitution declares that Lebanon abides by the Universal Declaration of Human Rights, and that it respects “social justice and equality of rights and duties among all citizens without discrimination”. Finally, the constitution considers the equal development among regions as a basic pillar of State unity.<sup>70</sup>

Section III of this document has provided a list of key recent policy documents providing overall guidance to development action (Table III.1). From this list, it is perhaps the “Economic and Social Reform Action Plan (2012–2015): Seven Pillars for Implementing Economic and Social Reform in Lebanon,” prepared by the Presidency of the Council of Ministers in 2012 that best summarizes current development courses adopted by the Lebanese government.

A number of global studies, including by the Organization for Economic Cooperation and Development (OECD) and the UN Department of Economic and Social Affairs (DESA), have identified a number of good practices that make a strategy or plan effective in the achievement of its aims. These good practices include: 1) Integration of economic, social and environmental pillars; 2) A long-term, inter-generational timeframe; 3) Being based on analysis and comprehensive assessments; 4) High level of vertical and horizontal coordination among institutions; 5) High participation of stakeholders; 6) Having clear and measurable goals, targets and indicators; 7) Continuous monitoring and evaluation; 8) Inclusion of adequate policy mix; and 9) Clear provisions for mobilizing the required means of Implementation.

Annex 2 attempts to assess the Economic and Social Reform Action Plan (2012–2015) against the above-mentioned criteria. The objective is not to be critical of this plan in particular, as it is understood that the Action Plan is not, and cannot be considered as, an overall and long term national sustainable development plan. The aim is only to identify and raise awareness about areas that could be improved upon in future exercises. In this regard, Annex 2 shows that areas requiring improvement mainly include the need to strengthen the science-policy interface and conduct integrated assessments to guide strategy formulation. Another area of deficiency relates to the adoption of clear, quantitative targets, which is a pre-requisite for genuine monitoring, evaluation and follow-up. In addition, it is not clear how vertical and horizontal coherence is being assured nor regarding the level of participation by different stakeholders in the strategy formulation process.

## 2. Sectoral policies and strategies

Various Lebanese ministries have formulated over the course of the past ten years policy or strategy documents that have guided their actions in support of sustainable development. It is important to analyze these documents to see how much they are supportive of the achievement of the Sustainable Development Goals that have been globally proposed as part of the anticipated post-2015 development Agenda,<sup>71</sup> and identify major gaps.

Table IV.1 provides an inventory of sectoral policies/strategies issued by different ministries since 2005 onward. The table provides a preliminary assessment of these documents according to the following five basic governance principles: 1) Status of endorsement by the Council of Ministers as a sign of political will; 2) Availability on the Internet, as a minimum sign of transparency and fulfillment of the public’s right to information; 3) How much these documents are based on scientific

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<sup>70</sup> The Lebanese Constitution Promulgated May 23, 1926 with its Amendments, available at: <http://www.presidency.gov.lb/English/LebaneseSystem/Documents/Lebanese%20Constitution.pdf>

<sup>71</sup> The SDG proposal as prepared by the Open Working Group may be accessed at: <https://sustainabledevelopment.un.org/sdgsproposal>.

assessments, as a sign of the strength of the science-policy interface; 4) Whether a participatory approach was used in the elaboration of the document; and 5) The level of integration of the pillars of sustainable development. This assessment is complemented in Annex 3 by a comparison of the goals and targets listed in these documents against the Sustainable Development Goals.

Based on Table IV.1 and Annex 3, the following preliminary observations can be made:

- Most documents have been prepared with the active support of UN-agencies or other development actors;
- Not all policies are published online, which raises issues of transparency and accountability to the people;
- Some of the policies are short term (few years), reflecting a tendency for ministries to “start anew” with each new government, rather than building on previous work;
- Few of the documents get approved by the Council of Ministers. For those who do, the status of implementation remains unclear as Ministries do not typically publish progress reports;
- Attention is increasingly being provided to the issue of participation. Most documents refer to some sort of consultative process involving different stakeholders;
- Assessing the science-policy interface requires deeper analysis. While most of the documents do refer to, or summarize the results of, studies that have guided the formulation of the document, the depth of these studies and quality of the evidence they provide is unclear;
- Some documents have been revised and re-issued, which is a healthy sign of monitoring and follow-up;
- Only few of the documents have time-bound, quantitative objectives with identified costs;
- There are a number of identified policy gaps (issues for which no policy appears to have been issued over the past 10 years), notably: Environment policy, food security policy, trade policy, industrial policy and climate change policy.<sup>72</sup>

On the environment side, a National Environmental Action Plan was drafted in 2005 by the Ministry of Environment but never completed or published. The National Action Programme to Combat Desertification (Ministry of Agriculture, 2003), the National Biodiversity Strategy and Action Plan (Ministry of Environment, 1998), and the National Reforestation Plan (Ministry of Environment, 2001) were developed mainly in compliance with the requirements of being members in the Rio conventions. However, these plans, along with others such as the National Strategy for Forest Fires (Ministry of Environment, 2009) could have provided a good basis for a comprehensive environmental policy that builds on the synergies between the different topics. Clearly, some of these documents are now outdated and require updating.

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<sup>72</sup> The Ministry of Industry prepared in 2007 a detailed study of the industrial sector. Unfortunately, this study but was not translated into a strategy.

Table IV.1. Sectoral strategies or policy documents issued since 2005 and their compliance with basic governance principles

Name of document*	Date	Responsible Ministry	CoM approval	Published document?	Science-policy interface	Participatory approach	Integration of SD pillars
<b>National Physical Master Plan of the Lebanese Territory</b>	2005	Council for Development and Reconstruction	Decree 2366/2009	CDR website	Based on mapping of vocations, assets and constraints	This is mostly an expert report, as participatory approach not mentioned	An integrated plan based on 3 criteria: Unity of the country, balanced development, and rationalization of resource use
<b>National Human Rights Plan 2013-2019</b>	2013	Human Rights Parliamentary Committee	?	Lebanese Parliament website	Based on UN human rights legal instruments, 23 background papers and Lebanon's Universal Periodic Review document of 2010	Participatory approach between government and non-government entities as well as experts and international organizations	The plan spans human rights under 21 subjects and is well integrated
<b>Strategy for advancing the agricultural sector, Work program 2010-2014<sup>73</sup></b>	2009	Ministry of Agriculture (MoA)	?	MoA website	Based on comprehensive agricultural statistics 2010 (with FAO)	Not mentioned	The strategy explicitly addresses the economic, social and environmental facets of agriculture
<b>Lebanon SME Strategy: A Roadmap to 2020</b>	2014	Ministry of Economy and Trade	?	UNDP website	Based on an assessment of SMEs and the entrepreneurship ecosystem in Lebanon	Wide consultative process including workshops and expert groups	Only a brief reference to SME opportunities in the green economy
<b>National Education Strategy Framework and Education Sector Development Plan (General Education): 2010-2015</b>	2010	Ministry of Education and Higher Education (MEHE)	?	MEHE website	Based on latest statistical information on the sector.	Not mentioned	Socio-economic and governance aspects are well addressed, while environmental aspect is weak
<b>Policy Paper for the Electricity Sector</b>	2010	Ministry of Energy and Water (MoEW)	?	MoEW website	Based on a number of studies about the sector (though document refers to discrepancies between these studies)	Collaboratively prepared with all concerned parties, internal or external, constitutional and political	The paper looks into shifts to cleaner fuels and RE. Social aspect are addressed albeit at a secondary level
<b>National Water Sector Strategy</b>	2010	Ministry of Energy and Water (MoEW)	Decision no. 2 dated 9/3/2012	MoEW website	Based on a baseline study of the water sector infrastructure and management, and demand/supply forecasts	Not mentioned	Comprehensive strategy covering environmental, economic and governance issues. Water as a right for everybody
<b>The National Energy Efficiency Action Plan for Lebanon 2011-2015</b>	2011	Ministry of Energy and Water/ Lebanese Center for Energy Conservation (LCEC)	Decision no. 26 dated 10/11/2011	LCEC website	Based on assessments of the current situation and the outcomes of various projects	10 revisions of the document by more than 80 national and regional experts and consultants	The plan looks into shifts to cleaner energy sources and energy efficiency, while social aspect not evident

<sup>73</sup> Original Arabic (إستراتيجية النهوض بالقطاع الزراعي، برنامج عمل ٢٠١٠-٢٠١٤).

Name of document*	Date	Responsible Ministry	CoM approval	Published document?	Science-policy interface	Participatory approach	Integration of SD pillars
<b>Solid Waste Management Plan for Beirut, Mount Lebanon and the North</b>	2014	Ministry of Environment	Decision No. 46 dated 30/10/2014 – Still under negotiation	No	?	?	?
<b>Marine Protected Areas Strategy</b>	2012	Ministry of Environment	No	IUCN website	Based on a literature scientific assessment of biodiversity values and surveyed through field trips	Not mentioned	While the document has a strong environmental focus, it addresses alternative socio-economic activities in marine protected areas
<b>National Strategy for Forest Fire Management in Lebanon<sup>74</sup></b>	2009	Ministry of Environment	Decision No. 52 dated 13/5/2009	No	Based on a mapping of forest fires and an analysis of their causes	National working group was formed involving local key players	The strategy acknowledges that socio-economic causes contribute to fires and the impact of fires on communities
<b>Ministry of Public Health Strategic Plan</b>	2007	Ministry of Public Health (MoPH)	?	MoPH website	Based on a review of the health context and the progress achieved in health reform	Not mentioned	The plan has a strong social focus, with care to contain health costs. Environmental aspects not addressed
<b>National Social Development Strategy of Lebanon</b>	2011	Ministry of Social Affairs	No	No	Based on an in-depth assessment of historical social policy and the national development context	The Strategy was elaborated by an inter-ministerial committee and involved wide consultations	The strategy has a strong social focus
<b>Social Action Plan: Toward Strengthening Social Safety Nets and Access to Basic Social Services</b>	2007	Ministry of Social Affairs	?	PCM's Rebuild Lebanon website	Based on a review of poverty related research	Not mentioned	Focus solely on social safety nets
<b>Rural Tourism Strategy for Lebanon</b>	2014	Ministry of Tourism	?	Beyond Beirut website	Based on a rural tourism value chain assessment	Prepared through a series of interviews, workshops and focus group discussions (more than 150 stakeholders)	Rural tourism is approached from an integrated economic, social and environmental perspective
<b>Strategy of the Lebanese Ministry of Youth and Sports 2010-2020<sup>75</sup></b>	2010	Ministry of Youth and Sports (MoYS)	?	MoYS website	Not mentioned	Not mentioned	Limited in scope to sports and scouting
<b>Lebanese Youth Policy<sup>76</sup></b>	2012	Ministry of Youth and Sports (MoYS)/ Youth Forum for Youth Policy	Yes (3 April 2012)	MoYS website	Not mentioned	Wide consultations including 14 workshops in different regions of Lebanon and 5 expert roundtables in 2009	Integrates youth issues in various sectors

<sup>74</sup> Original in Arabic (الإستراتيجية الوطنية لإدارة حرائق الغابات في لبنان).

<sup>75</sup> Original in Arabic (استراتيجية وزارة الشباب والرياضة ٢٠١٠-٢٠٢٠).

<sup>76</sup> Original in Arabic (وثيقة السياسة الشبابية في لبنان).

Name of document*	Date	Responsible Ministry	CoM approval	Published document?	Science-policy interface	Participatory approach	Integration of SD pillars
<b>National Strategy for Women in Lebanon 2011-2021</b> <sup>77</sup>	2010	National Commission for Lebanese Women (NCLW)	Yes (12 June 2012)	NCLW website	Strategy refers to outcomes of different studies. However these studies are not cited.	Consultations with public and non-governmental institutions	The strategy addresses an integrated set of women issues in various fields.
<b>Science, Technology and Innovation Policy</b>	2006 (reviewed in 2009)	National Council of Scientific Research	?	CNRS website	Based on a study of socio-economic challenges facing Lebanon and how to address them.	Prepared with the involvement of the Lebanese scientific community and international experts	Looks at how science, technology and innovation can address societal problems in Lebanon, including environmental ones
<b>Strategy for the Reform and Development of Public Administration</b> <sup>78</sup>	2011	Office of the Minister of State for Administrative Reform (OMSAR)	?	OMSAR website	Based on studies conducted by OMSAR	No. Prepared by a working group consisting of senior administrative and academic leaders, specialists and IT experts	Topic is cross-cutting by nature.
<b>High Level E-Government Strategy Document</b>	2007	Office of the Minister of State for Administrative Reform (OMSAR)	?	OMSAR website	Not mentioned	Inputs by different stakeholders, government and non-government	Focus on both citizens and business needs
<b>Statement of ICT Government Policy</b>	2011	Presidency of the Council of Ministers (PCM)	?	PCM's National ICT Strategy Coordination Unit website	Not mentioned	Not mentioned	Focus on both citizens and business needs
<b>Vision for the Development of the Regions of Lebanon</b> <sup>79</sup>	2009	Presidency of the Council of Ministers (PCM)	?	PCM website	Based on a review of public investment programmes and the Mapping of Human Poverty and Living Conditions in Lebanon (UNDP and MoSA 2004)	Not mentioned	The proposed action plan covers the various SD pillars.

\* Policy documents are ordered by responsible ministry then by date.

Note: CoM = Council of Ministers; (?) means that information was not available or not confirmed.

Sources: Compiled by the authors from the documents in column 1.

<sup>77</sup> Revision of the 1996 National Strategy for Women's Affairs prepared by the National Commission for Lebanese Women, which was established in 1996 under the Presidency of the Council of Ministers.

<sup>78</sup> An update to a similar strategy prepared by OMSAR in 2001.

<sup>79</sup> Original in Arabic, titled: ورقة عمل مقدمة من رئاسة مجلس الوزراء حول رؤية لإنماء المناطق اللبنانية

## C. Laws governing sustainable development

### 1. Ratification of global and regional agreements

Lebanon has ratified many international treaties, notably the core treaties relating to human rights, as can be seen in table IV.2. However, more efforts are needed to ratify all human rights treaties (including those that were only signed) and their optional protocols, such as the conventions relating to enforced disappearance, migrant workers and persons with disabilities. In addition, where ratification did take place, implementation has overall been weak. For example, many draft laws to improve human rights' situation remain stalled.<sup>80</sup> The Human Rights Council's Universal Periodic Review (UPR) that Lebanon underwent in 2010 identified 41 recommendations that received the support of Lebanon, 28 recommendations that were considered to be implemented or in the process of implementation, while 40 others did not receive national support or were rejected and 14 were to be re-examined by Lebanon at a later stage.<sup>81</sup> One of the recommendations receiving support is the strengthening of the institutional framework for human rights, including through the establishment of a national human rights institution in accordance with the Paris Principles. Another flagged area of weakness relates to reporting by Lebanon to treaty bodies, since some reports were overdue for years. The report to the Committee on Economic, Social and Cultural Rights, for example, is overdue since 1995.<sup>82</sup>

Table IV.2. Signature and ratification by Lebanon of core international human rights treaties

Treaty	Signature Date	Ratification or Accession(a) Date
International Convention on the Elimination of All Forms of Racial Discrimination*		12 Nov 1971 (a)
International Covenant on Civil and Political Rights		03 Nov 1972 (a)
International Covenant on Economic, Social and Cultural Rights		03 Nov 1972 (a)
Convention on the Rights of the Child	26 Jan 1990	14 May 1991
Optional Protocol to the Convention on the Rights of the Child on the involvement of children in armed conflict	11 Feb 2002	
Optional Protocol to the Convention on the Rights of the Child on the sale of children child prostitution and child pornography	10 Oct 2001	08 Nov 2004
Convention against Torture and Other Cruel Inhuman or Degrading Treatment or Punishment		05 Oct 2000 (a)
Convention on the Elimination of All Forms of Discrimination against Women*		16 Apr 1997 (a)
Optional Protocol of the Convention against Torture		22 Dec 2008 (a)
International Convention for the Protection of All Persons from Enforced Disappearance	06 Feb 2007	
Convention on the Rights of Persons with Disabilities	14 Jun 2007	

\* Ratified with reservation.

Source: [http://tbinternet.ohchr.org/\\_layouts/TreatyBodyExternal/Treaty.aspx](http://tbinternet.ohchr.org/_layouts/TreatyBodyExternal/Treaty.aspx)

On the other hand, multilateral environmental agreements and trade and investment agreements have also been signed as listed in tables IV.3 and IV.4, noting that these are not exhaustive lists. Lebanon has initiated procedures for accession to the WTO in 1999 and a working party has been established, and economic and legislative reforms required for conformity to WTO requirements are underway.

Benefit to Lebanon from the signature of trade and investment agreements requires a detailed analysis which is beyond the scope of this report. Just to give a preliminary indication, exports to the

<sup>80</sup> Human Rights Watch, World Report 2013, Lebanon chapter (<http://www.hrw.org/world-report/2013/country-chapters/lebanon>).

<sup>81</sup> Human Rights Council 2011, Report of the Working Group on the Universal Periodic Review - Lebanon (A/HRC/16/18).

<sup>82</sup> Compilation prepared by OHCHR and submitted to the Human Rights Council (A/HRC/WG.6/9/LBN/2).

EU – one of the leading trade partners for Lebanon - over the past 10 years have fluctuated between a lowest of €217 million in 2005 and a highest of €412 million in 2011. In 2013, exports to the EU consisted mainly of fuels and mining products (22.8%), agriculture products (22.6%) and chemicals (13.4%).<sup>83</sup> Lebanon can improve its export potential only if it improves the quality of its products and abides by global environmental standards adopted in the EU and other important markets. For example, a study conducted by UNEP<sup>84</sup> estimated that phasing out methyl bromide and use of alternatives in the production of vegetables and fruits would be environmentally beneficial and improve Lebanon’s compliance with the Montreal Protocol, to which it is a member. Economically speaking, methyl bromide substitution will come at an additional cost; however this cost may be recouped as it will become possible for Lebanese agricultural products to enter EU and other markets (see success story on methyl bromide substitution in section VI).

Table IV.3. Ratification by Lebanon of main multilateral environmental agreements

Treaty	Signature	Ratification
<b>Agreement on the Conservation of African-Eurasian Migratory Waterbirds</b>		01 Jan 2002
<b>Convention for the Protection of the Mediterranean Sea Against Pollution (Barcelona Convention)</b>		08 Nov 1977
<b>++ Prevention and Emergency Protocol</b>		01 Jan 1978
<b>++ Specially Protected Areas Protocol</b>		01 Jan 1995
<b>Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal</b>	22 Mar 1989	21 Dec 1994
<b>Convention on Biological Diversity</b>	12 Jun 1992	15 Dec 1994
<b>++ Cartagena Protocol on Biosafety</b>		06 Feb 2013 (a)
<b>Convention on International Trade in Endangered Species</b>		26 May 2013
<b>International Treaty on Plant Genetic Resources for Food and Agriculture</b>		01 Jan 2002
<b>Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade</b>		13 Nov 2006 (a)
<b>Stockholm Convention on Persistent Organic Pollutants</b>	23 May 2001	03 Jan 2003
<b>UN Watercourses Convention</b>		25 May 1999 (a)
<b>United Nations Convention to Combat Desertification</b>	14 Oct 1994	16 May 1996
<b>United Nations Framework Convention on Climate Change</b>	12 Jun 1992	15 Dec, 1994
<b>++ Kyoto Protocol</b>		13 Nov 2006 (a)
<b>Vienna Convention for the Protection of the Ozone Layer</b>		30 Mar 1993 (a)
<b>++ Montreal Protocol on Substances that Deplete the Ozone Layer</b>		31 Mar 1993 (a)
<b>World Heritage Convention</b>		01 Jan 1983

Note : (a) = accession; Source: <http://www.informea.org/countries/LBN/membership/>.

Table IV.4. Lebanon’s trade and investment agreements

Agreement	Date	Benefit
<b>Euro-Mediterranean Partnership Initiative</b>	2003	Lebanese industrial and most agricultural products enjoy free access to the EU market (within the limits of tariff quotas)
<b>Free Trade Agreement with the European Free Trade Association</b>	2004	Lebanese industrial exports enjoy free access to Switzerland, Liechtenstein, Norway, and Iceland
<b>Greater Arab Free Trade Area</b>	2005	Exemption of tariffs on all agricultural and industrial goods traded between the 17 Arab member countries
<b>Bilateral Free Trade Agreements</b>	Multiple	With Egypt, Iraq, Kuwait, Syria, and the UAE
<b>Bilateral Agreements for the Promotion and Protection of Investments</b>	Multiple	54 agreements provide a fair and equitable treatment on a non-discriminatory basis, and a full protection and security of foreign investments in both countries
<b>Double Taxation Agreements</b>	Multiple	32 agreements promote the exchange of goods and services, the inflow of capital, and technology by preventing double taxation and fiscal evasion

Source: Investment Development Authority of Lebanon (IDAL)

<sup>83</sup> European Union 2013, Trade in goods with Lebanon, available at: [http://trade.ec.europa.eu/doclib/docs/2006/september/tradoc\\_113412.pdf](http://trade.ec.europa.eu/doclib/docs/2006/september/tradoc_113412.pdf).

<sup>84</sup> UNEP 2005, Effects of trade liberalization on agriculture in Lebanon with special focus on products where methyl bromide is used.

## 2. Milestone laws promoting environmental sustainability

Lebanon has taken serious steps, especially since early nineties, to improve the legal framework related to environmental sustainability. An important effort to diagnose the status of environmental legislations in Lebanon was undertaken by the Ministry of Environment and its partners in 2004.<sup>85</sup> It would be valuable now, more than 10 years later, to update this work and assess whether legislative gaps have effectively been closed.

Table IV.5 below lists a few laws and decrees that are considered to be milestones in promoting environmental governance, protection and natural resource management, noting that this is far from being an exhaustive list. Among the challenges, however, are the slow pace of enacting decrees to implement these laws (sometimes taking as much as 10 years or more to issue the decrees), as well as the institutional capacity to monitor and enforce. For example, important decrees that are still waiting to be enacted include the establishment of a National Environmental Council and National Environmental Fund (as per law 444/2002, which constitutes the overarching legal instrument for environmental protection).<sup>86</sup>

Table IV.5. Milestone laws and decrees promoting environmental sustainability

Theme	Reference no. and year	Role
<b>Environmental governance</b>	Law 216/1993	Establishment of the Ministry of Environment
	Law 444/2002	Overarching legal instrument for environmental protection
	Law 690/2005	Mandate of the Ministry of Environment and its organizational structure
	Decree 2275/2009	Organization of the units under the Ministry of Environment, their mandate and staffing
	Decree 8633/2012	Specify the projects that require Environmental Impact Assessments
	Decree 8213/2012	Require all policies, plans, programmes and investments affecting large areas or complete sectors to undergo Strategic Environmental Assessments
	Decree 8471/2012	Require specific industrial establishments to obtain certification of environmental compliance (to be renewed every 3 years).
	Law 251/2014	Appointment of full-time environmental attorney-generals and inspection judges
	Various laws and decrees	Ratification of multilateral environmental agreements
	<b>Water</b>	Law 221/2000 Law 241/2000
<b>Air quality</b>	Law 341/2001	Reduce air pollution from the transport sector
	Decision 8/1 of 2001	Define environmental limit value for stack emissions and effluent discharge from different establishments
<b>Forests</b>	Law 558/1996	Protection of forests
	Law 92/2010	Ban land use of burnt forest to discourage acts of arson
<b>Land</b>	Decree 2366/2009	Approve the National Land Use Master Plan
<b>Quarries</b>	Decree 8803/2002	Regulate the quarries sector to limit their environmental impacts
<b>Solid waste</b>	Decree 13389/2004	Categorize health care waste and set guidelines for its management
<b>Energy</b>	Law 132/2010	Regulate offshore oil and gas exploration activities
<b>Natural reserves</b>	Various laws and decrees	Establishment of natural reserves in different locations on the Lebanese territory

Source: Ministry of Environment, UNDP and Ecodit 2011, State and Trends of the Lebanese Environment 2010.

<sup>85</sup> Ministry of Environment 2004, State of the Environmental Legislation Development and Application System in Lebanon (Original in Arabic وضع نظام استصدار التشريعات البيئية وتطبيقها في لبنان).

<sup>86</sup> Ministry of Environment, UNDP and Ecodit 2011, State and Trends of the Lebanese Environment 2010.

## V. Key national barriers to sustainable development

A number of gaps and obstacles of different nature continue to hinder the implementation of sustainable development in Lebanon. While many of these have already been alluded to in earlier sections of this report, the following paragraphs provide a systematic review of the main barriers and gaps related to the ‘means of implementation.’<sup>87</sup> As such, barriers have been categorized into institutional, political, financial and information-related groups.

### A. Institutional barriers

As indicated earlier in this report, an overarching national vision and plan for sustainable development in Lebanon is lacking. Instead, a piecemeal, sector-based approach largely characterizes development action. At certain times, action starts at the sub-sector level without having a sector level umbrella (e.g. support to certain agricultural sub-sectors without having an agriculture policy governing the overall sector). Furthermore, recurrent conflicts and persistent state of instability has translated into emergency mode operation favoring recovery over long-term strategic planning.<sup>88</sup>

On the positive side, more recent policy documents such as those listed in section III of this report, have exhibited higher levels of integration of the pillars of sustainable development. In particular, the social development aspect has regained prominence in political discourse, with the 2007 Paris III document and the Social Action Plan being clear indicators of this paradigm shift. However, the environmental and governance pillars have somehow remained outside the sphere of economic and social policy documents and are less frequently addressed in an explicit way. This should not in itself be considered a bad sign *if* these cross-cutting issues are properly mainstreamed across the other pillars.

Section III.B presented the challenge facing public administration institutions in terms of being under-staffed and under-resourced. A recruitment freeze and high staff turnover due to low wages and dissatisfaction with the system have resulted in public institutions that are unable to attract and retain highly qualified employees. For example, the Ministry of Environment should have 182 full-timers while now it only has 60. Its budget share amounted in 2008 to 0.04% of the total government expenditures.<sup>89</sup> Bilateral cooperation projects have to some extent filled this gap. However, these projects cannot be sustained over the long term and do not necessarily preserve institutional memory.

Corruption, lack of transparency and impunity affect development in many ways. Transparency International has ranked Lebanon 136 among 175 countries in terms of the corruption perception index, with a score of 27/100. While this report was being prepared, a food safety scandal was unraveled that reflected the extent of fraud, violations of the law and lack of coordination between ministries responsible for food safety in Lebanon.<sup>90</sup> A low score was also provided by Transparency International in terms of the control of corruption, which reflects perceptions of the extent to which public power is exercised for private gain. In terms of budget openness, Lebanon received an Open

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<sup>87</sup> The notion of ‘means of implementation’ was coined since the first Rio conference in 1992, and refers to the interdependent mix of financial resources, technology, capacity-building, and the national enabling environment required to implement sustainable development in developing countries.

<sup>88</sup> ESCWA 2011, Review and Assessment of Capacity for Sustainable Development in Lebanon.

<sup>89</sup> Ministry of Environment 2008, Emerging Markets in the Environmental Sector: Goods and Services Overview.

<sup>90</sup> Daily Star, 27 November 2014, Lebanon to boost ministerial coordination over food safety.

Budget Index score of 32 over 100, which reflects low availability of budget documents and low level of data comprehensiveness contained in them.<sup>91</sup>

Table III.4 provides a snapshot of the multi-faceted discrimination in Lebanon. The absence of a unified civil personal status code discriminates between citizens depending on religion (e.g. minimum age for marriage, inheritance) and gender (e.g. right to nationality). Furthermore, the unavailability of a universal social protection system translates into discrimination against persons with disability and the elderly. Discrimination in government policy regarding the development of different regions in Lebanon has intensified inequality between the capital city and peripheral regions. Finally, political considerations have translated into discrimination against Palestinian refugees, such as restrictions on work and ownership of property.

Finally, there cannot be proper planning, monitoring, follow-up and accountability without adequate statistical data collection. Lebanon's statistical capacity has been improving as was shown in section II on trends, however there is much more that can be done. The Lebanese Environment and Development Observatory (LEDO)<sup>92</sup> made a good start by identifying back in 2000 a set of indicators covering the various pillars of sustainable development. However, this good effort was discontinued. There is a need for a statistical master plan to coordinate data collection between the different parties, and to increase data disclosure and accessibility. Also, the understaffing of statistical departments in various ministries need to be addressed.

## **B. Political barriers**

Political instability has unfortunately characterized Lebanon since the mid seventies, with studies attributing the country's political history to a combination of internal (notably sectarianism and lack of accountability) and external (relationships with neighbors) factors.<sup>93</sup> A prolonged civil war (1975-1990) was followed by decades of sectarian tensions and intermittent conflicts including three wars with Israel (1996, 1999, and 2006). The assassination of Prime Minister Rafik Hariri in February 2005 represented a turning point in Lebanon's political scene as it divided the country into two political camps. More recently, the specter of terrorism has increased, due in part to spillover effects from the war in Syria.

The impact of political instability on the Lebanese economy is devastating. For example, the economic cost of Israel's 2006 war on Lebanon was estimated by the World Bank to be at \$2.8 billion in direct losses and much higher indirect losses (See Box V.1). Recent political volatility led to a dip in real GDP growth rate from 10% in 2009 to an estimated 1.5% in 2013.<sup>94</sup>

In addition to the economic effects, impacts on overall government performance, planning and policy implementation are equally significant. Indeed, Lebanon faces difficulties in forming and maintaining a regular government, holding parliamentary elections, and electing a president. The electoral law changed nine times over the course of thirteen parliamentary elections since independence, in an effort to ensure that existing leaders and power structure is maintained.<sup>95</sup> In May 2014, the presidential term of Michel Sleiman expired. However, lack of agreement between the political blocks has prevented the election of a successor.

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<sup>91</sup> <http://www.transparency.org/country#LBN>

<sup>92</sup> <http://www.moe.gov.lb/ledo/index.html>

<sup>93</sup> ESCWA, 2007, The Rebuilding and Revival of Lebanon: A Policy Paper with Initiatives (E/ESCWA/ECRI/2007/2/Rev.1).

<sup>94</sup> Lebanon MDG report 2013-2014.

<sup>95</sup> UNDP 2009, Lebanon 2008-2009 National Human Development Report: Toward a Citizen's State.

#### Box V.1. Israel's 2006 war on Lebanon

On 12 July 2006, Israel launched a 34-day war on Lebanon, which left a tremendous mark of destruction. Areas that were notably hit included the South of Lebanon and the southern suburbs of Beirut, although other locations were also affected. The human toll was high with around 1,100 deaths (the majority being civilians including women and children), 4,400 injured and over one million displaced persons. The physical infrastructure was systematically targeted with the destruction of 30,000 homes, 100 bridges and many factories and critical facilities. The economic cost of the war was estimated by the World Bank to be at \$2.8 billion in direct losses and much higher indirect losses in the form of losses to the economy and increased stress on public finances, exacerbating the country's already precarious fiscal situation. The spill of 15,000 tons of oil into the Mediterranean Sea resulting from the bombing of the Jiyeh power plant constituted an environmental disaster that affected the full Lebanese coastline and extended to Syria (see section VI for a description of the response efforts to this catastrophe). The UN General Assembly voted in December 2014, with an overwhelming majority, for a resolution requesting Israel to allocate to the Government of Lebanon the sum of \$856.4 million in compensation for this ecological disaster (Resolution A/RES/69/212).

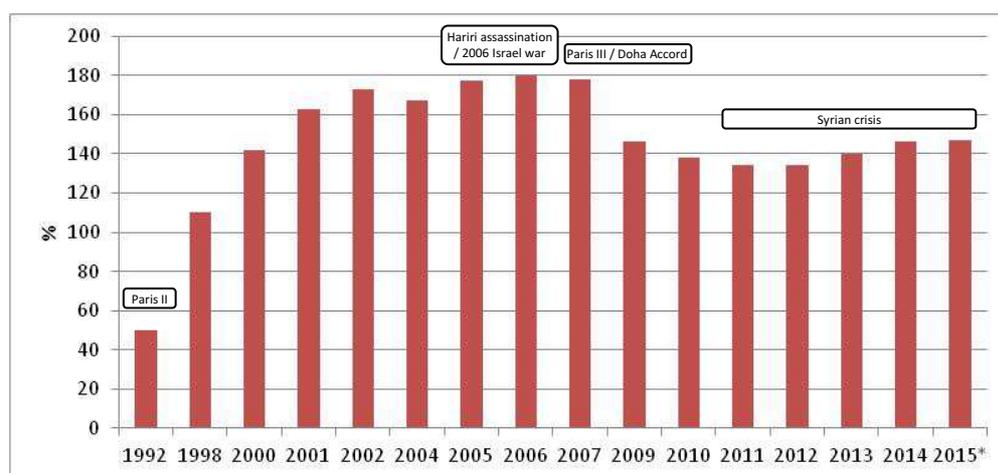
As the geographic areas hit by the war coincided largely with under-developed areas of Lebanon, a major challenge – and indeed an opportunity – was to ensure that reconstruction efforts led to tangible sustainable development gains in terms of addressing poverty and unemployment. Indeed, the Government of Lebanon put forward at the 3<sup>rd</sup> donor conference in Paris an ambitious plan of structural reform measures and in return, donors pledged support totaling \$7.6 billion. The significant amounts of aid received has put the Lebanese government to test in terms of participatory governance and transparency as well as its capacity for coordinated action with donors, beneficiaries and various development actors for better aid effectiveness.

Sources: Human Rights Watch, 2007, *Why They Died: Civilian Casualties in Lebanon during the 2006 War*; World Bank, 2010, *Lebanon - Country partnership strategy for the period FY11-FY14*. Washington, DC: World Bank; ESCWA, 2007, *The Rebuilding and Revival of Lebanon: A Policy Paper with Initiatives (E/ESCWA/ECRI/2007/2/Rev.1)*.

### C. Financial barriers

The Lebanese civil war (1975-1990) caused extensive physical damage that was estimated at \$25 billion.<sup>96</sup> Following the end of the civil war, the government of Lebanon had to borrow funds to reconstruct, at high interest rates. Interest payments eroded revenues leading to significant fiscal deficits. Public debt as percentage of GDP escalated from 50% in 1992 to 180% in 2006, forcing Lebanon to adopt austerity measures as part of IMF transfer conditionalities. Government efforts in 2007 to curtail the debt burden succeeded in lowering the ratio to 146% in 2009 and it currently lingers at around 140% (See figure V.1).

Figure V.1. Public debt as % of GDP



\* Forecast

Sources: 1992, 1998, 2004-2007 data: CCA 2007; 2000-2002: Paris II; 2009-2013 data: MDG report; 2014-2015: Report by the International Institute of Finance (as quoted by Elias Sakr, Daily Star 14 October, IIF says Lebanon's debt-to-GDP ratio to hit 146 pct in 2014)

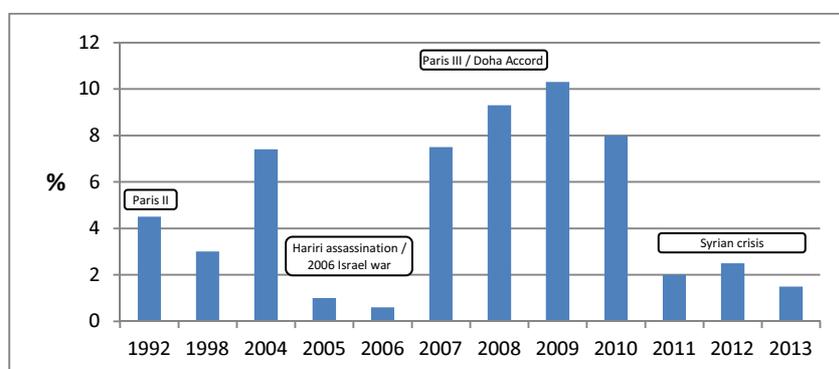
<sup>96</sup> Lebanese Government 2007, *Recovery, Reconstruction, and Reform* (paper presented to the Paris III conference).

Recently, a cost of living pay increase for the public sector, agreed in 2012, was estimated to translate into a yearly increase in government expenditure amounting to US\$564 million. This will add to the country's chronic budget deficit. Demands for salary scale increases for the public sector employees continued in 2014 with several demonstrations, notably by public school teachers.

Under unfavorable political and institutional conditions, the private sector, which contributes to 80% of Lebanon's GDP becomes paralyzed. Indeed, the real GDP growth rate plummeted in 2013 to around 1.5% (See figure V.2). Adopted in 2012, the increase in minimum wages for the private sector from LL 500,000 to LL 675,000 (around \$450) put additional pressure on business owners.<sup>97</sup>

Lebanon is largely an importing country, with trade balance deficit exhibiting a steady increase over the years. The Syrian crisis put additional restrictions on exports as Lebanon lost a main trading route. As a result, exports decreased from \$405 million in 2013 to \$244 million in 2014, while the trade deficit increased from \$16.797 billion in 2012 to \$17.292 billion in 2013.<sup>98</sup>

Figure V.2. Real GDP growth rate



Sources: 1992-2005 data: UN Common Country Assessment for Lebanon 2007; 2006-2008 data: Presidency of the Council of Ministers 2012, Economic Accounts of Lebanon 1997-2010; 2009-2013 data: Lebanon MDG Report 2013-2014.

Remittances constitute an important source of income for Lebanon. In 2014, Lebanon received \$7.7 billion, coming second in place in the Middle East and North Africa region after Egypt, and occupying 18<sup>th</sup> position globally. In addition, Lebanon occupies the top position in the region and 13<sup>th</sup> position globally in terms of remittances as a percentage of GDP, which equaled 17% in 2013. Remittances are witnessing a strong yearly growth rate of 1.6%.<sup>99</sup> While the impact of remittances on poverty alleviation in Lebanon is probably sizeable, further research is needed to assess whether these remittances are being channeled into the formal sector in a way to allow their investment into public uses.

In terms of foreign direct investment (FDI), instability in the past few years have translated into a decreasing FDI trend, with FDI dropping from around \$5 billion in 2010 to slightly less than \$3 billion in 2013. Despite the drop, FDI in 2013 accounted for over 6% of GDP, topping other countries in the MENA region in relative terms. The biggest share of FDI comes from European countries (45%) and Arab countries (31%). FDI is invested mostly in trade/retail (31%), tourism (17%), services (16%) and construction (11%), therefore contributing to sizeable share of employment in Lebanon.<sup>100</sup> An

<sup>97</sup> Ministry of Finance 2014, Lebanon Country Profile 2014.

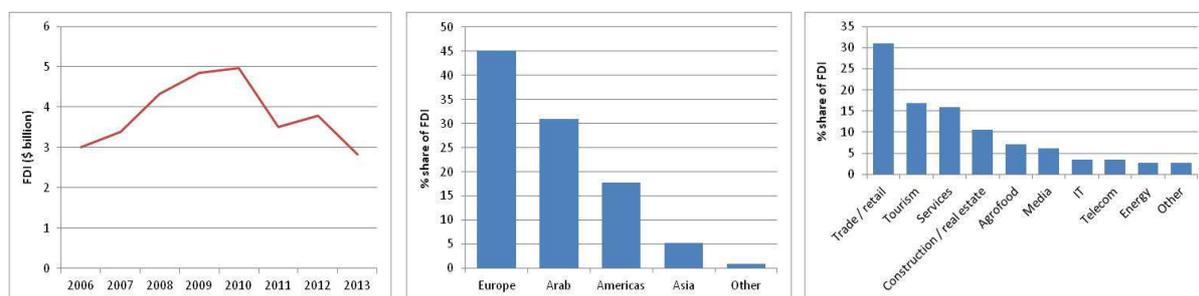
<sup>98</sup> Lebanese Customs Department as reported in Daily Star, 28 February 2014, Lebanon's trade deficit widens by 31 percent.

<sup>99</sup> Byblos Bank 2014, Lebanon This Week Issue 373.

<sup>100</sup> Investment Development Authority of Lebanon (IDAL) FDI data page, ([http://investinlebanon.gov.lb/en/lebanon\\_at\\_a\\_glance/foreign\\_direct\\_investments](http://investinlebanon.gov.lb/en/lebanon_at_a_glance/foreign_direct_investments)).

emerging positive trend relates to FDI investments that have started to take place in productive and high value added sectors such as ICT. Figure V.3 provides details on FDI trend and structure in 2013.

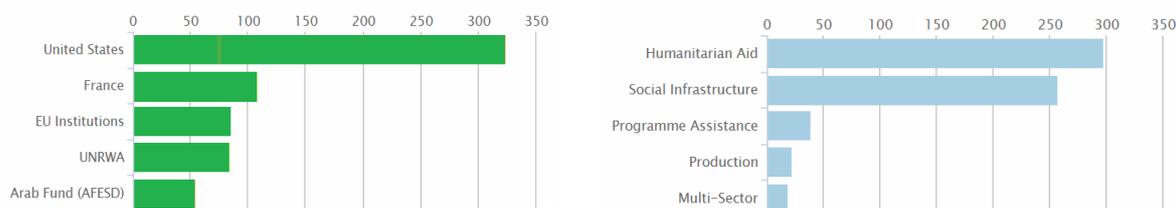
Figure V.3. (a) FDI trend; (b) FDI structure by investor in 2013; (c) FDI structure by sector in 2013



Source: Investment Development Authority of Lebanon (IDAL) FDI data page, (<http://investinlebanon.gov.lb/en/lebanon-at-a-glance/foreign-direct-investments>).

In 2013, Lebanon received a total of \$626 million in official development assistance (ODA), which amounted to 1.39% of its GNI. The United States was the top donor in that year (more than \$300 million). However, and as shown in figure V.4, around \$400 million went to humanitarian aid (associated with the Syrian crisis) and assistance to Palestinian refugees (through UNRWA).<sup>101</sup> Despite the big need for this kind of assistance (more of it is needed in fact), figures reflect that the contribution of ODA to development in Lebanon is fairly insignificant.

Figure V.4. (a) ODA by donor; (b) ODA by sector, 2013



Source: Redrawn from the OECD website, <http://www.compareyourcountry.org/aid-statistics?cr=undefined&lg=en&page=11>.

#### D. Untapped scientific and technological capacity

Lebanon has no ministry for science and technology (S&T). The function of formulating a national S&T policy was assigned to the National Council for Scientific Research (CNRS), which is also responsible for policy implementation and research production. A science, technology and innovation policy was drawn by CNRS in 2006 and subsequently updated in 2009.

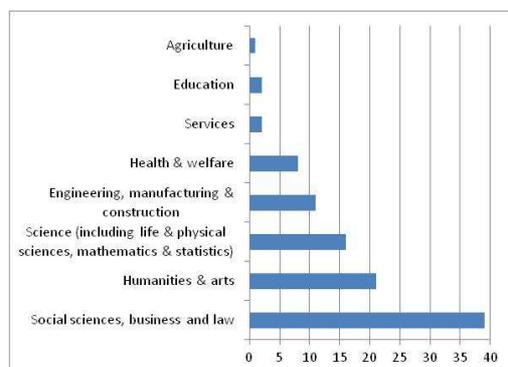
CNRS is underfunded. According to the 1962 law establishing the CNRS, the public budget allocated to scientific research was supposed to equal 1% of GDP. While the Council's total budget increased over the years (with fluctuations), the 1% target never materialized. A study<sup>102</sup> estimates the R&D spending to be at 0.22% of GDP, and the number of full-time equivalent researchers to be at 200 R&D staff for one million people, both of these figures being below regional averages.

<sup>101</sup> OECD Aid Statistics, available at <http://www.oecd.org/dac/stats/data.htm>.

<sup>102</sup> Jacques Gaillard 2007, Evaluation of Scientific, Technology and Innovation Capabilities in Lebanon.

The past decade has witnessed the proliferation of private universities (38 universities in 2009), though the Lebanese University remains the top one in term of number of students (more than 100,000 students of the total of 180,000 university students attend the Lebanese University).<sup>103</sup> Given the high rate of youth unemployment and immigration, it is legitimate to question whether the higher education system is meeting market demand. Figure V.5 shows a relatively low preference of students for sciences and engineering compared to other disciplines.

Figure V.5. Fields of education in Lebanon by ISCED\* (2009 - 2010)



\* International Standard Classification of Education

Source: Education in Lebanon, Statistics in Focus (SIF), Central Administration of Statistics, Lebanon, Issue number 3, April 2012.

Only a few of the private universities in Lebanon have S&T faculties or undertake research. Where research is undertaken, the incentive system (promotion of university professors) skews research activities to the publication of papers in peer-reviewed journals rather than encouraging research to address societal problems or industry needs. Hence, the research-industry link is effectively broken as can be shown by a 2014 CNRS survey<sup>104</sup> that showed low reliance of industry on university research. At the same time research conducted in the private sector in Lebanon is considered to be limited.<sup>105</sup>

## VI. Innovative practices or success stories in overcoming key obstacles to sustainable development

This section presents a few case studies that are considered to be innovative sustainable development success stories in Lebanon. Other success stories abound, however, and we invite reviewers of this draft version of the report to propose more good cases. Preference in the selection of the cases is given to projects that were successfully implemented and have stood the test time (in contrast to projects that seem to start well but are later discontinued). Another important criterion is the level integration of the pillars of sustainable development, as we look for projects that serve the triple bottom line, economic, social and environmental. A scorecard for each case indicates why it was considered a success.

<sup>103</sup> Education in Lebanon, Statistics in Focus (SIF), Central Administration of Statistics, Lebanon, Issue number 3, April 2012.

<sup>104</sup> CNRS and World Bank 2014, Innovation Survey within the Industrial Sector of Lebanon.

<sup>105</sup> Rafik Hariri University and ESCWA 2014, Revisiting the purpose of scientific research to better impact development in the Arab world.

## A. Banque du Liban's environmental loans

Banque du Liban (BdL) launched in 2010 its green finance initiative as detailed in circular 236.<sup>106</sup> The core concept is that by exempting banks from part of the required reserve requirement, these banks can make available to businesses low-cost loans that can help them finance environmentally friendly projects with medium to long term maturities.

Starting initially with energy-related projects, support was extended to non-energy projects, and covers new and existing projects. Productive projects such as organic farming and eco-tourism are also eligible for funding.

Demand for these loans has been increasing, and loans to the green building sector alone have exceeded \$100 million. The Governor of BdL hopes that such projects can help reduce Lebanon's oil bill amounting to \$6 billion per year by 10-20%. The environmental sector is estimated to generate 2-3% of GDP, with positive spill-over effects on other sectors such as tourism.<sup>107</sup>

### **Scorecard: BdL environmental loans**

- ✓ Environmental benefits are achieved while getting the economy moving, improving balance of payment and creating employment;
- ✓ Responds to government policy: financing the national energy efficiency and renewable energy plan;
- ✓ Cooperation between the public and private sectors.

## B. Tannourine Cedar Forest Nature Reserve

Tannourine Nature Reserve was established according to law no. 9 of 1999 and hosts one of the biggest and densest cedar forests in Lebanon.<sup>108</sup> Located in the northern part of the Mount Lebanon range, the reserve is managed by a local Committee in cooperation with the Ministry of the Environment.

In addition to the cedars, the reserve hosts a number of important birds and mammals. The Society for the Protection of Nature in Lebanon reports 15 species of soaring birds breeding and migrating over the site, including species that are regionally rare.<sup>109</sup> Hiking and other touristic activities are managed in the reserve in a way to protect the biodiversity.

### **Scorecard: Tannourine Cedar Nature Reserve**

- ✓ Sustained since 1999;
- ✓ Protection of the *Cedrus libani* and other important Lebanese flora and fauna;
- ✓ Cooperation between the government (Ministry of Environment) and a local committee;
- ✓ Environmental resources protected while creating source of income generation through tourism.

## C. Methyl bromide substitution

In compliance with the Montreal Protocol, Lebanon embarked on a project to phase out the use of methyl bromide in agriculture before 2015. Methyl bromide is an ozone depleting substance that is used extensively in greenhouse farming as a fumigant to control a wide spectrum of pests.

<sup>106</sup> Circular 236 dated 25/11/2010, Reserve Requirements, <http://www.bdl.gov.lb/circulars/download/370/ar>.

<sup>107</sup> Annahar, 2 July 2014, Launching the Green Roof: Saleme encourages banks to give green loans (original in Arabic).

<sup>108</sup> Tannourine Nature Reserve website, <http://www.arztannourine.org/>.

<sup>109</sup> Society for the Protection of Nature in Lebanon website, <http://www.spnl.org/ibas-kbas/tannourine-cedars-nature-reserve/>.

Led by the Ministry of Environment, this on-going project started in 1999 in cooperation with UNEP and subsequently expanded its scope through additional cooperation with UNIDO. The objective was to demonstrate the technical and economic viability of alternatives to methyl bromide, train local farmers on the correct use of these alternatives, and progressively eliminate the use of the chemical.<sup>110</sup>

Three main agricultural sectors were selected, namely vegetables, cut flowers and strawberries. A national geodatabase was built that includes information on greenhouse producers in various regions in Lebanon. The database by itself is an important achievement of the project as it provides useful information for the implementation of future projects in support of the sector. The database containing over 3,000 sites and is freely available online.<sup>111</sup>

**Scorecard: Methyl bromide substitution**

- ✓ Triple benefits: environmental (ozone protection), economic (access to agricultural markets) and social (better health);
- ✓ Generation of geodatabase that is useful beyond the project;
- ✓ Sustained since 1999.

#### D. Oil spill response

In July 2006, Israel bombed the Jiyeh power plant (south Lebanon), causing 15,000 tons of heavy fuel oil to spill into the Mediterranean Sea. A cooperative oil spill response under the leadership of the Ministry of Environment was initiated to contain the crisis while making the best use of available resources – governmental and NGOs (local and international).<sup>112</sup>

The first priority consisted in capturing and removing free floating mobile oil to prevent pollution of new sites, notably sensitive ecosystems and culturally important sites. Operations were executed until March 2007 and covered around 70 sites. Donors assisted through the provision of aid material and technical assistance including training on the use of response and treatment equipment. This equipment was later deposited with the Ministry of National Defense and Ministry of Interior and Municipalities to put that equipment to good use if needed in the future. Once this initial phase was completed, a longer-term phase was initiated to clean up the oil slick from 30 identified sites, an operation that extended into 2009. An additional challenge related to the management of the collected oil spill waste, which had to be treated and/or stored under safe conditions.

**Scorecard: Oil spill response**

- ✓ Cooperation between government (different actors) and NGOs;
- ✓ Build the capacity of national actors to enable future response to other national emergencies;
- ✓ International condemnation of the act through the United Nations.

Operations were executed until March 2007 and covered around 70 sites. Donors assisted through the provision of aid material and technical assistance including training on the use of response and treatment equipment. This equipment was later deposited with the Ministry of National Defense and Ministry of Interior and Municipalities to put that equipment to good use if needed in the future. Once this initial phase was completed, a longer-term phase was initiated to clean up the oil slick from 30 identified sites, an operation that extended into 2009. An additional challenge related to the management of the collected oil spill waste, which had to be treated and/or stored under safe conditions.

The act was internationally condemned and four United Nations General Assembly resolutions were issued to date that require Israel to compensate Lebanon for this great loss. The last resolution issued in December 2014 put the compensation at \$856.4 million.

<sup>110</sup> <http://www.moe.gov.lb/mebr/geodatabase/download/UNDP-MeBr%20Project.pdf>.

<sup>111</sup> Database can be searched at <http://www.moe.gov.lb/mebr/geodatabase/list.asp>.

<sup>112</sup> <http://www.moe.gov.lb/oilspill2006/index.htm>.

## E. Healthcare waste management

Lebanon was estimated in 1998 to produce more than 5,000 tons of infectious medical waste each year, in addition to 20,000 tons of non-risk waste.<sup>113</sup> The inappropriate disposal of such waste can lead to serious air, water and soil pollution through the release of dioxins, mercury and other pollutants. Different technologies are possible such as autoclaving and incineration.

The main legislative text governing the management of healthcare waste in Lebanon is decree 8006 dated 11/06/2002, which was subsequently amended through decree 13389, dated 30/09/2004. The decree classifies medical waste into different categories and requires that medical waste be treated prior to disposal. In order to help healthcare facilities to comply with government legislation, the Ministry of Environment published in 2002 the “Environmental Auditing Manual for Hospitals”.<sup>114</sup>

### **Scorecard: Healthcare waste management**

- ✓ Strong enforcement and continuous follow-up by the Ministry of Environment leading to gradual increase in compliance levels;
- ✓ Creation of a network of medical waste management service providers;
- ✓ Capacity building of healthcare personnel and public environmental awareness campaign.

Treatment of medical waste can be costly for healthcare facilities and is better performed cooperatively. Further to the issuance of the above decrees, some large hospitals established their own treatment units, while others relied on regional centers managed by NGOs or other local bodies. As a result of close follow-up by the Ministry and issuance of “notices”, the compliance rate increased “slowly but surely”, exceeding 50% of hospitals (64% of the total infectious medical waste) in 2008.<sup>115</sup>

## F. Air quality monitoring

National air quality monitoring started in 2003 through an effort by the Université Saint Joseph (USJ) with the Municipality of Beirut, and was limited at the time to ambient air quality in Beirut. Twenty-three monitoring stations for sampling and analyzing gaseous and particulate phase air pollutants were originally installed. The project was expanded in 2008 to cover the Greater Beirut Area, in partnership with the American University of Beirut (AUB). AUB and USJ under the umbrella of the Lebanese National Council for Scientific Research (CNRS) established the Air Quality Research Unit (AQRU) to study air pollutant levels in GBA and their transformations in the atmosphere.<sup>116</sup>

### **Scorecard: Air quality monitoring**

- ✓ Strengthens the science-policy interface;
- ✓ Expanding geographic scope over the years;
- ✓ Multi-disciplinary cooperation between the public sector and research and academic institutions;
- ✓ Increased public awareness through transparency of results.

Subsequently, the geographic scope was expanded outside GBA as more partners joined the network (e.g. Tripoli Environment and Development Observatory and University of Balamand, which monitor the industrial area of Chekka). The Air Quality Index was developed and is frequently updated for the Hadath, Beirut, Zahleh, Sidon, and Baalbek regions with plans to expand to other

<sup>113</sup> SWEEP-Net 2010, Country Report on the Solid Waste Management in Lebanon.

<sup>114</sup> Ibid.

<sup>115</sup> Ministry of Environment website, <http://www.moe.gov.lb/Mobile/Sectors/Land/Sub-Sectors/Sub-Sectors-Details.aspx?id=15&lang=en-US>.

<sup>116</sup> Ministry of Environment, UNDP and Ecodit 2011, State and Trends of the Lebanese Environment 2010.

regions in the future. The public can check the status of the index (“Camil the Chameleon”) through the Environmental Resources Monitoring in Lebanon website.<sup>117</sup> Current cooperation efforts with USJ and the Italian Government are seeking to build capacity in the assessment of the cumulative impact of new projects on air quality using Ensemble Air Quality Modeling.<sup>118</sup>

## G. National poverty targeting

As part of the comprehensive social reforms that the Government of Lebanon committed to in the Paris III paper, the Ministry of Social Affairs launched the National Poverty Targeting Program (NPTP). NPTP aims to assist the poorest Lebanese families in an equitable and transparent way, with eligibility being determined according to a rigorous methodology.

The adopted mechanism, called Proxy Means Testing (PMT), assesses the family’s level of poverty using a multi means testing methodology. A set of 62 indicators that are the most correlated to the social, economic situation of the family were selected as basis for determining the household’s welfare, and a questionnaire was designed accordingly. Income is not used due to its inadequacy and problems with reporting it in an accurate manner. Approved families benefit from:

a) full health coverage to all family members; b) coverage of the cost of chronic diseases medication; c) free registration in public schools; d) free public school books; and e) Discount of LL20,000 on the electricity bill.

### **Scorecard: National poverty targeting**

- ✓ Responds to an approved government policy;
- ✓ Uses a transparent and equitable methodology that adheres to worldwide norms;
- ✓ Rationalizes the use of limited government resources;
- ✓ Poorest families benefit from social, educational, and health benefits;
- ✓ Builds the capacity of ministry personnel and develops an integrated information system.

An information system was set up that links 98 centers, and 400 social workers were trained on the methodology. Families apply in any of the 98 centers and receive the visit of a social worker that fills the questionnaire. Families are assigned a poverty score according to a mathematical formula. In the first phase of the project (2011-2012), 57,000 Lebanese families applied for support, and the programme is on-going.<sup>119</sup>

## VII. Lessons learned and recommendations for national implementation of the post-2015 development agenda

This section is to be completed based on the outcomes of the multi-stakeholder consultation. The idea is to outline how the international community - through a supportive global partnership and within the context of the post-2015 agenda and the SDGs - can help Lebanon to overcome some of the obstacles or barriers to sustainable development that are beyond its national means. The below paragraphs provide a starting point and are based on published documentation.

The national report to Rio+20 provided in its last section a set of four recommendations to the Conference. These can be summarized as follows:

<sup>117</sup> <http://erml.moe.gov.lb/>.

<sup>118</sup> The Ministry of Environment’s Achievements in 2014.

<sup>119</sup> Website of the National Poverty Targeting Program, <http://www.nptp-mosa.com/>.

- Reform to global economic system: Lebanon called for changing the business model to reduce disparities between countries, ease the debt burden on developing countries to expand fiscal space;
- Reform to the global institutional framework for sustainable development: Lebanon called for the reform of UNEP and ECOSOC for further integration of the pillars of sustainable development;
- Establish a global environmental court: The court would be well placed to examine deliberate environmental crimes, such as the one committed by Israel against Lebanon in 2006, and which caused the worst recorded oil spill in the east Mediterranean.
- Reaffirm the Palestinian right of return: Palestinian refugees live in unsustainable conditions and their return to their homeland is the responsibility of the global community.

The Lebanon MDG Report 2013-2014 acknowledges that only a few of the MDG targets will be achieved by the 2015 deadline. It pointed specifically to the need to protect achievements made so far by addressing the Syrian refugee crisis through a “development-oriented approach”, though the MDGs did not include a refugee-specific target.

Among the lessons learned from the Lebanese MDGs experience relate to the need to resolve methodological differences in the production of data and maintain periodicity of reports. Furthermore, more benefit could have been achieved from the MDGs at the policy-making level if the global goals and targets had been tailored to the national context and needs. Finally, the report highlights the importance of strengthening monitoring and evaluation processes by clarifying and reinforcing accountability mechanisms to ensure effective implementation.

Other ideas that could be put forward by Lebanon to the inter-governmental process on the post-2015 agenda can be inspired by the recommendations included in the joint Arab paper submitted to the meeting of the Arab Council of Social Affairs Ministers in October 2014, and in which the representative of Lebanon was a member. The paper stresses among others the importance of fighting terrorism, providing means of implementation, and supporting the right to development (See box VII.1 for details).

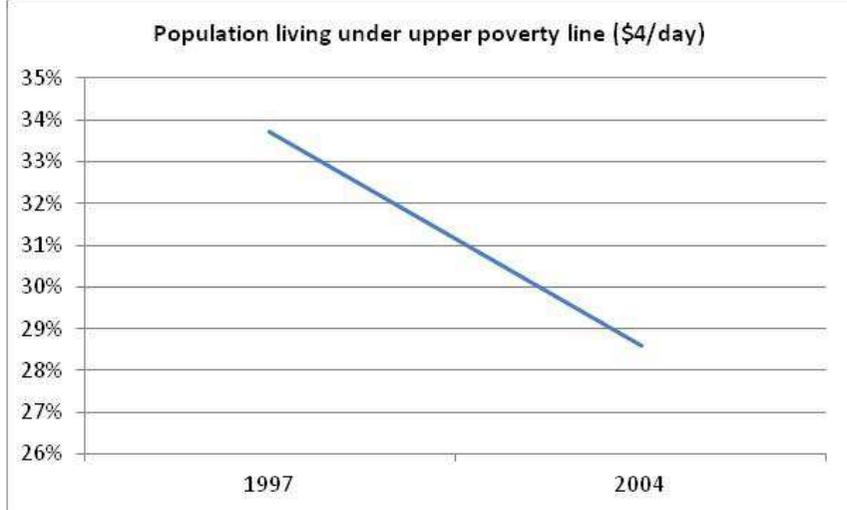
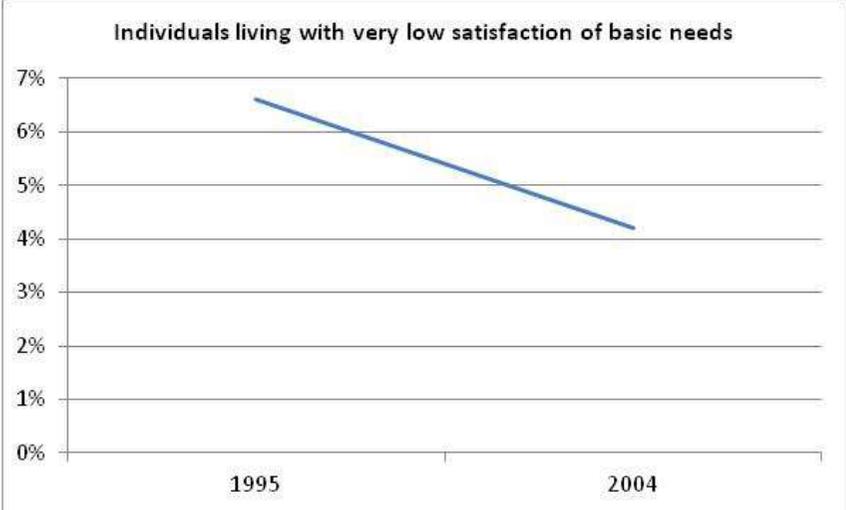
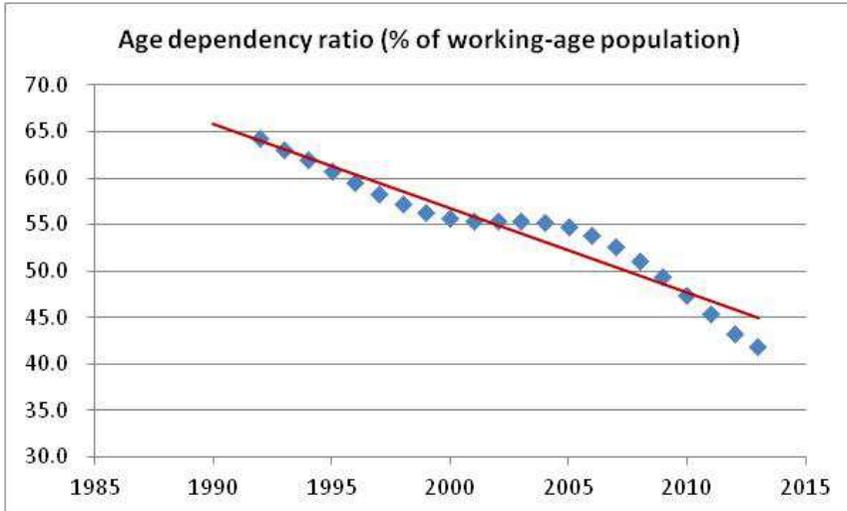
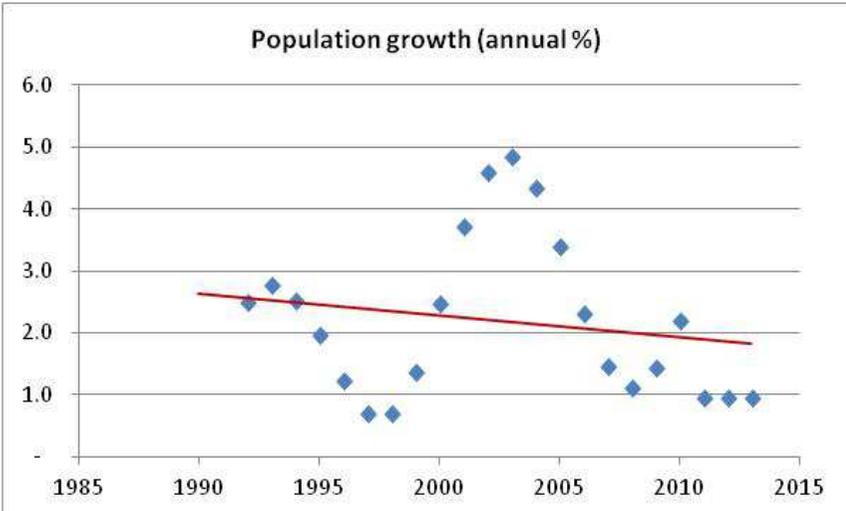
#### Box VII.1. Recommendations regarding the Post-2015 Development Agenda

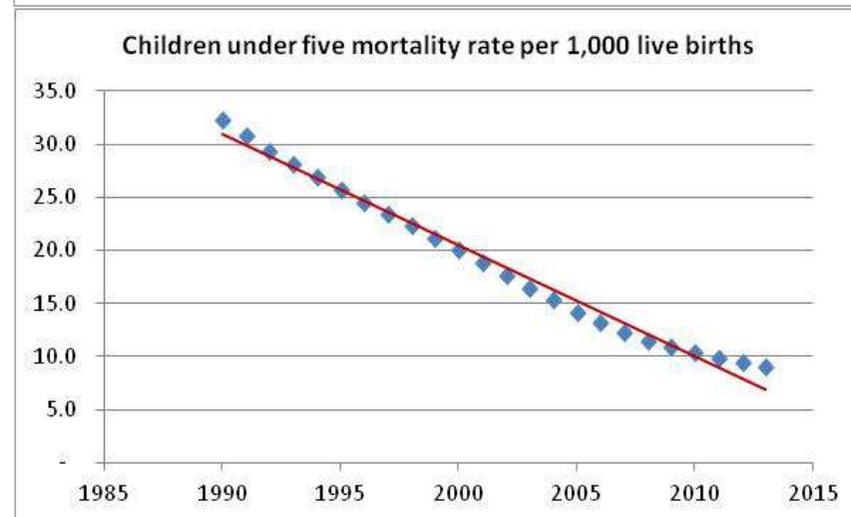
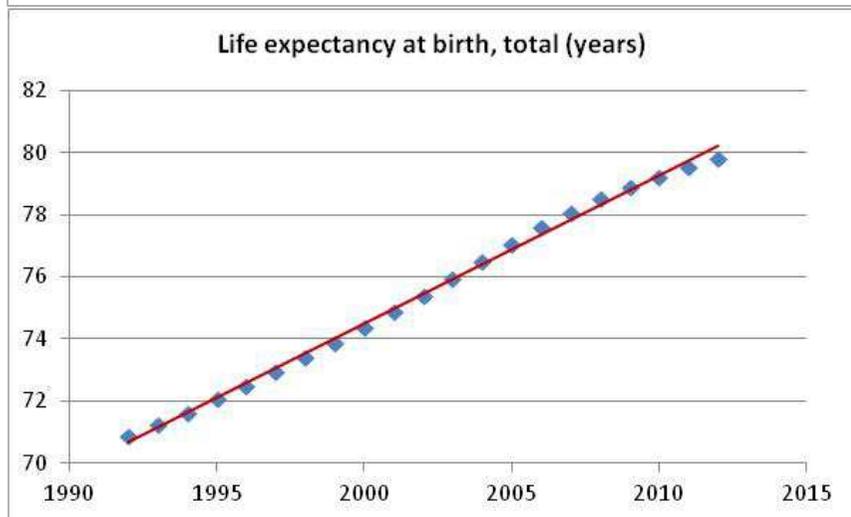
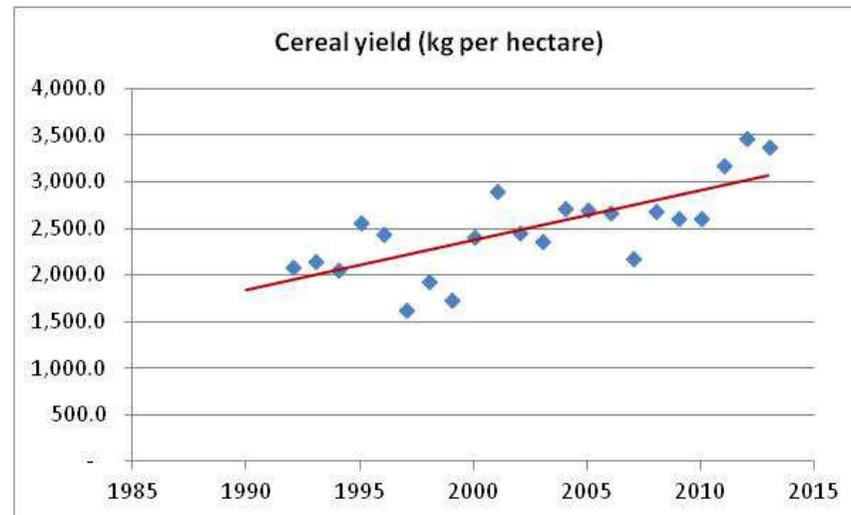
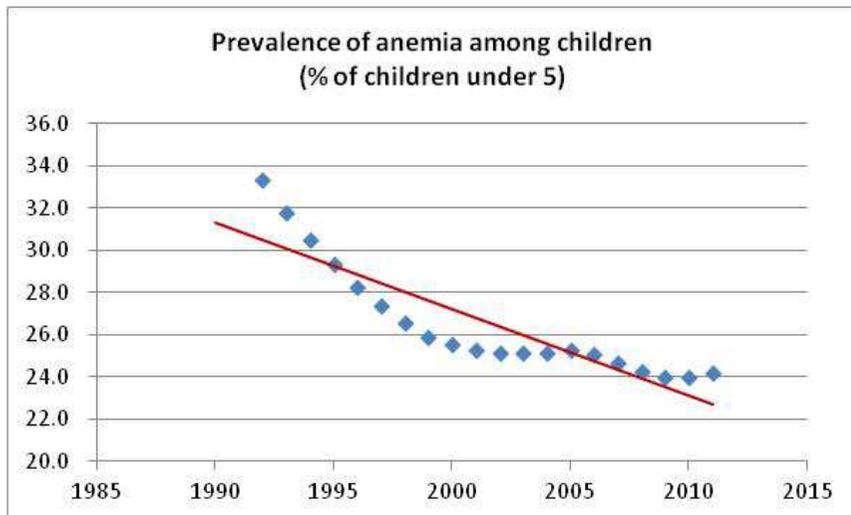
A paper prepared by a group of Arab country representatives, including Lebanon, and submitted to the meeting of the Arab Social Ministers Council made a number of recommendations regarding the Sustainable Development Goals and other components of the Post-2015 Development Agenda. Some of these were based on comments made by the Arab Group in New York. Recommendations included the following:

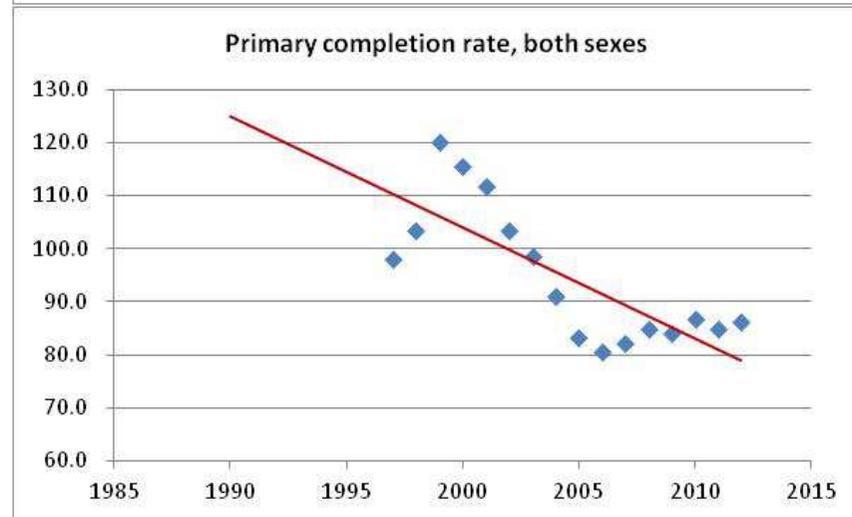
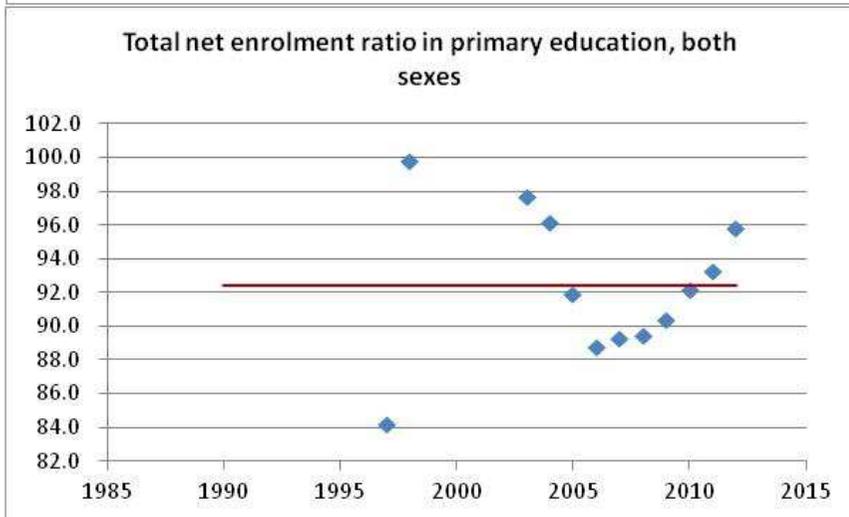
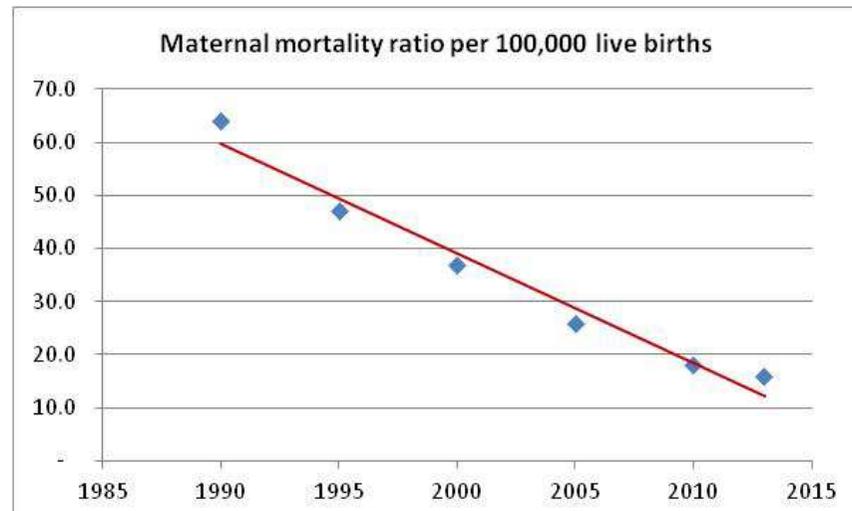
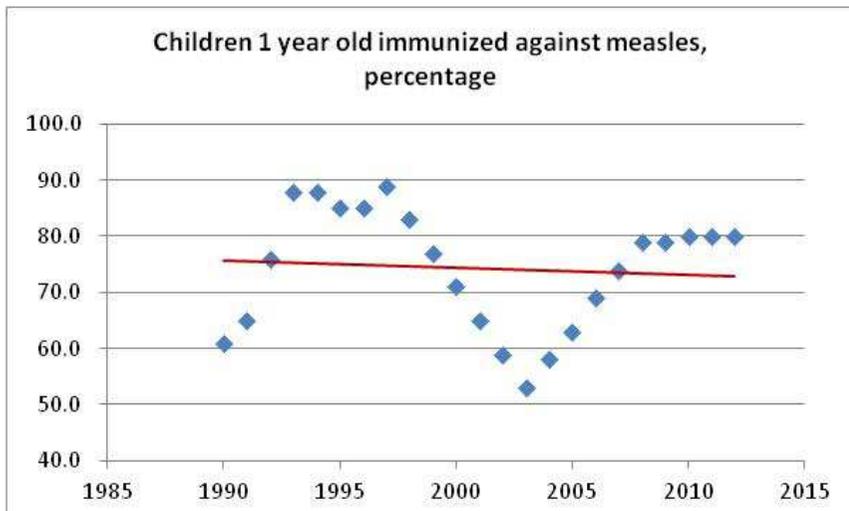
- Have a universal agenda for all countries while offering flexibility in the formulation of regional and national targets that suit the particularities and priorities of the member countries, and stressing on the importance of policy space;
- Include, both in the declaration and in goal 16, the issue of the eradication of all forms of occupation and foreign domination;
- Stress on the commitment by all countries to international laws;
- Promote international efforts to combat terrorism by addressing its root causes;
- Stress on the political-institutional dimension and the cultural dimension as pillars of sustainable development (in addition to the environmental, economic and social pillars);
- Separate the goal on institutions from the goal on peace and security;
- Expand the scope of the Principle of Common but Differentiated Responsibilities beyond environmental issues;
- Have a separate goal on the global partnership for development including fair economic and trade systems, debt relief for developing countries and removal of aid conditionalities;
- Balance the roles of development actors, including government, civil society and the private sector;
- Stress on the right to development;
- Integrate the population and demographic dimensions within the agenda, as well as issues of youth, women, elderly and persons with disabilities;
- Separate the means of implementation from global partnership and clarify the responsibilities of national governments, international organizations, as well as joint responsibilities

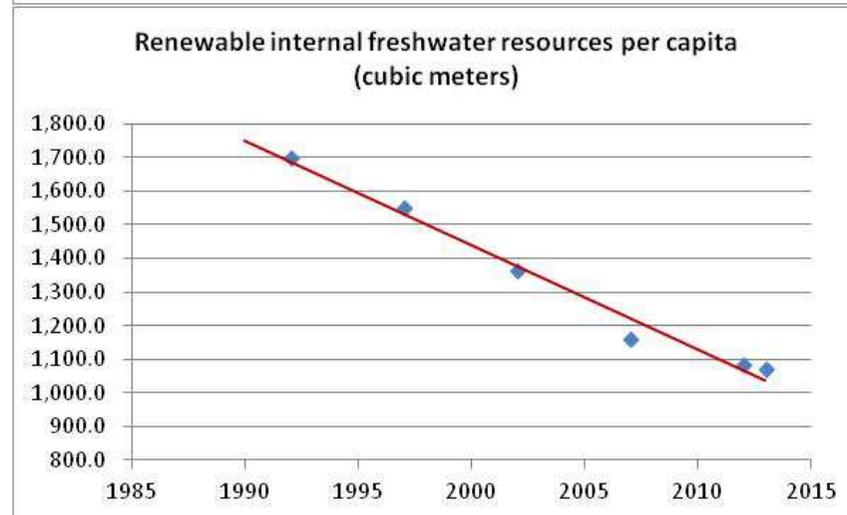
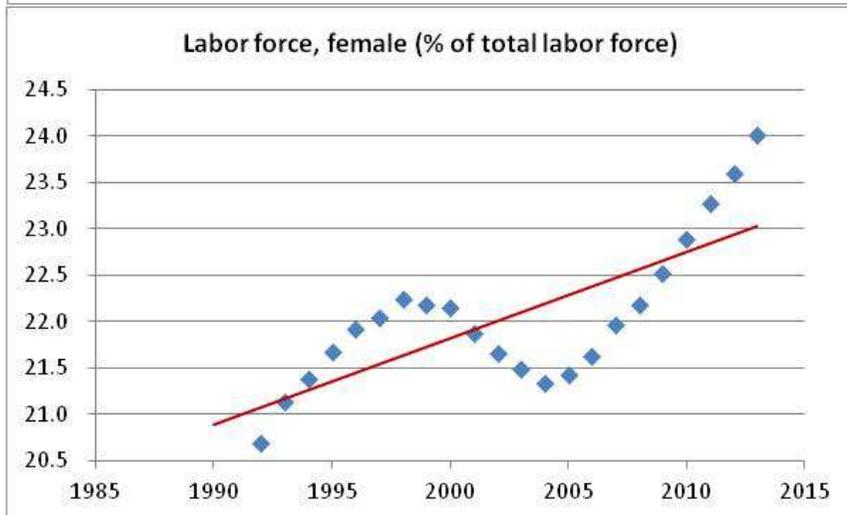
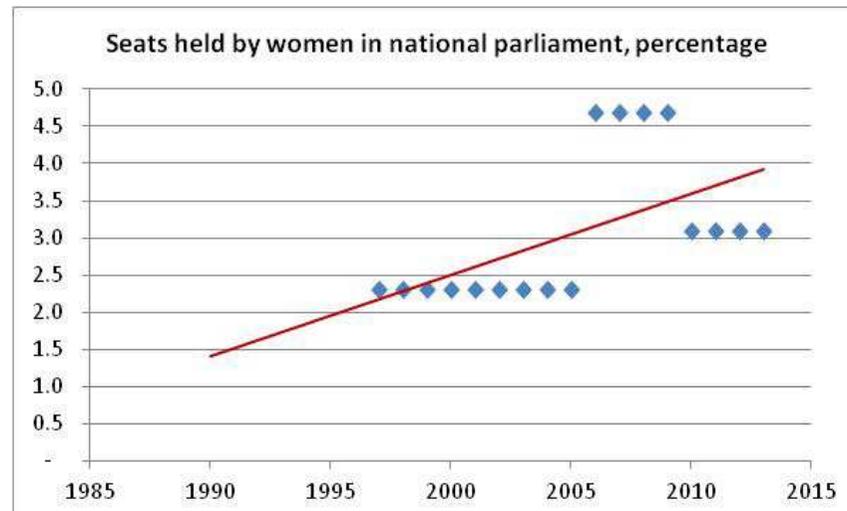
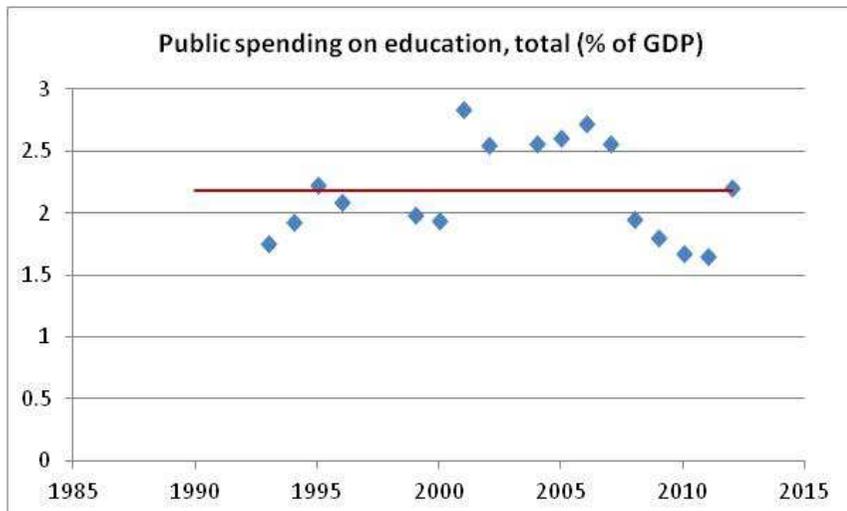
Source: SDGs and Post-2015: Analytical paper and recommendations, paper submitted by representatives of Egypt, Algeria, Saudi Arabia, Sudan, Jordan and Lebanon to the meeting of the Arab Council of Social Affairs Ministers on Arab Post-2015 Development Goals, held in Sharm El Sheikh, 27-28 October 2014 (original in Arabic ورقة ٢٠١٥ وأجندة ما بعد ٢٠١٥ ورقة ٢٠١٥). (تحليلية وتوصيات صادرة عن اجتماع كبار المسؤولين شرم الشيخ ٢٧-٢٨ أكتوبر ٢٠١٤).

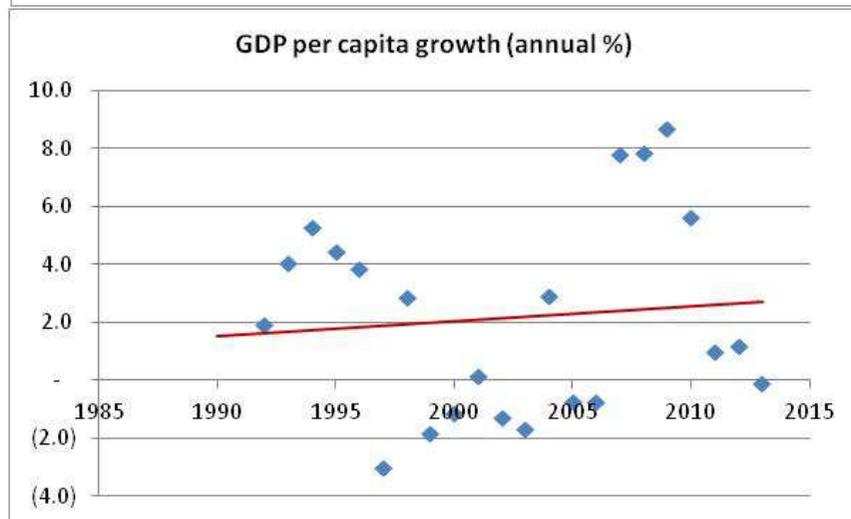
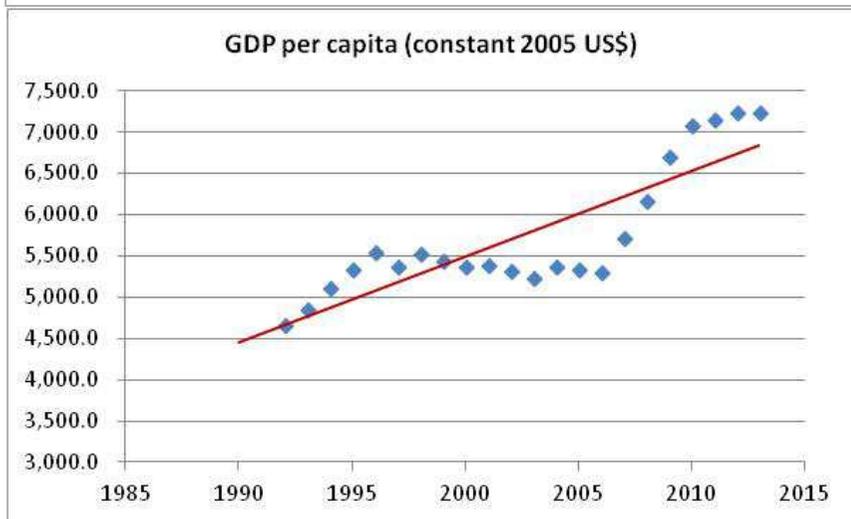
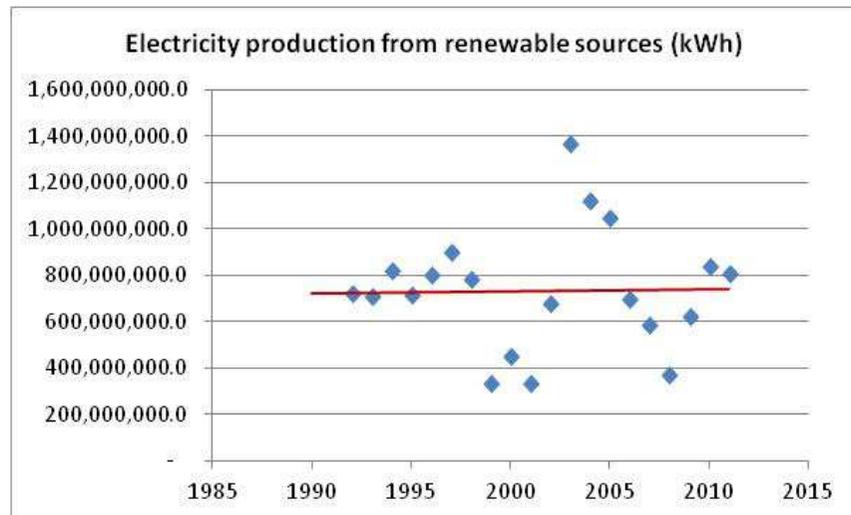
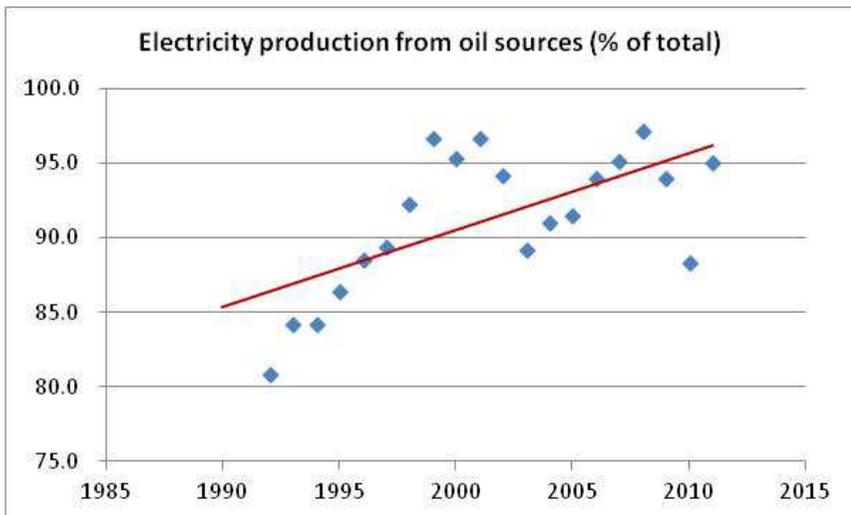
# Annex 1. Sustainable development graphical trend analysis

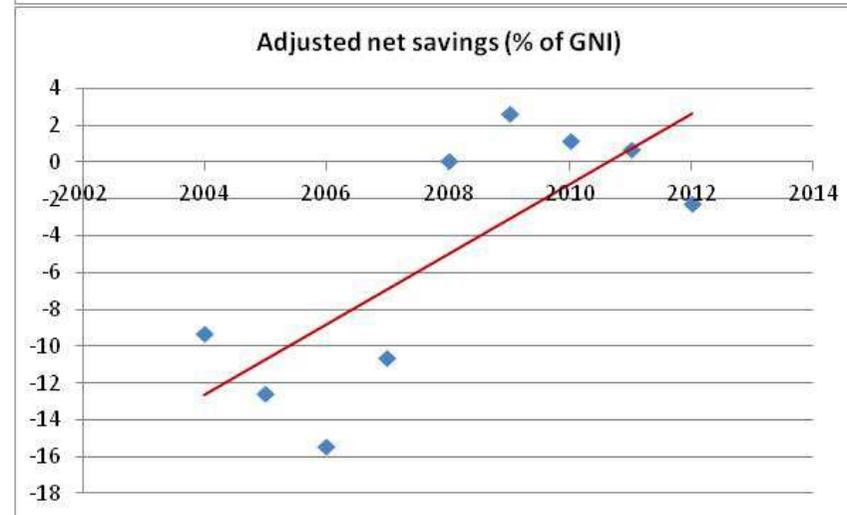
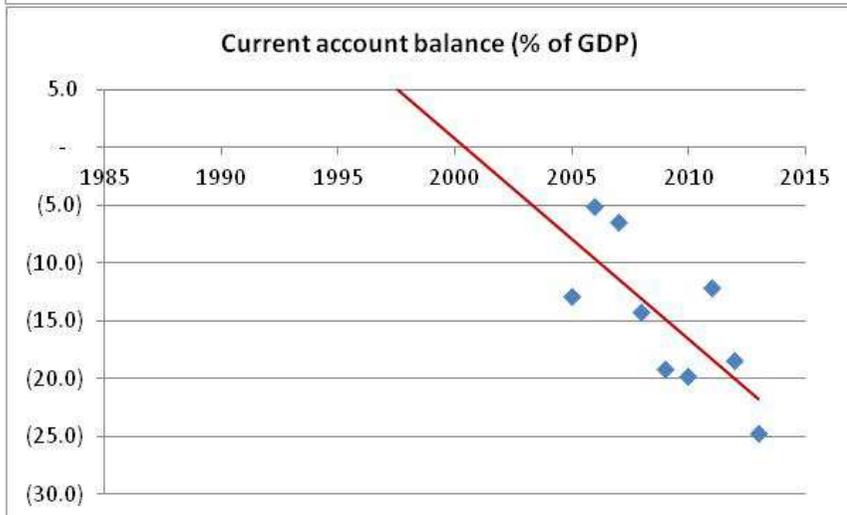
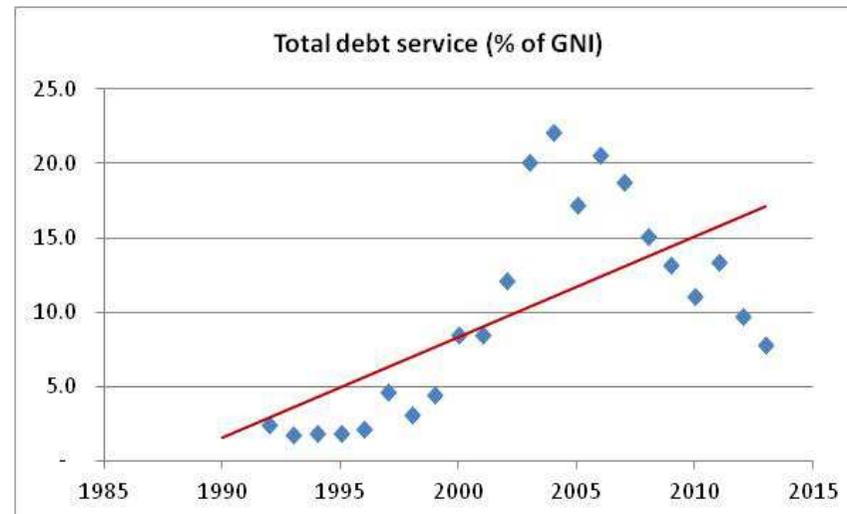
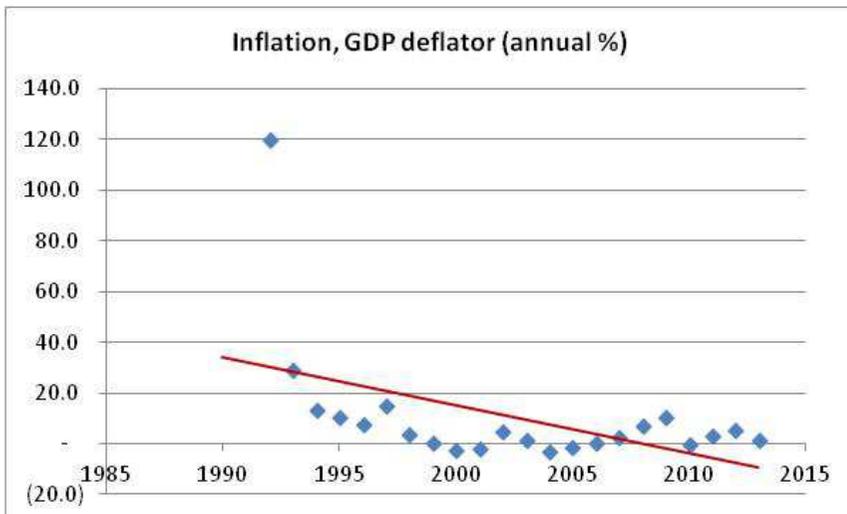


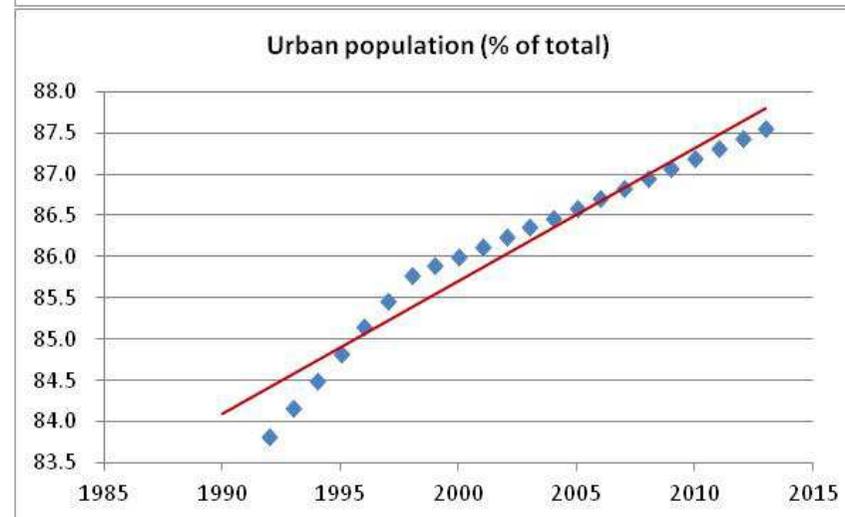
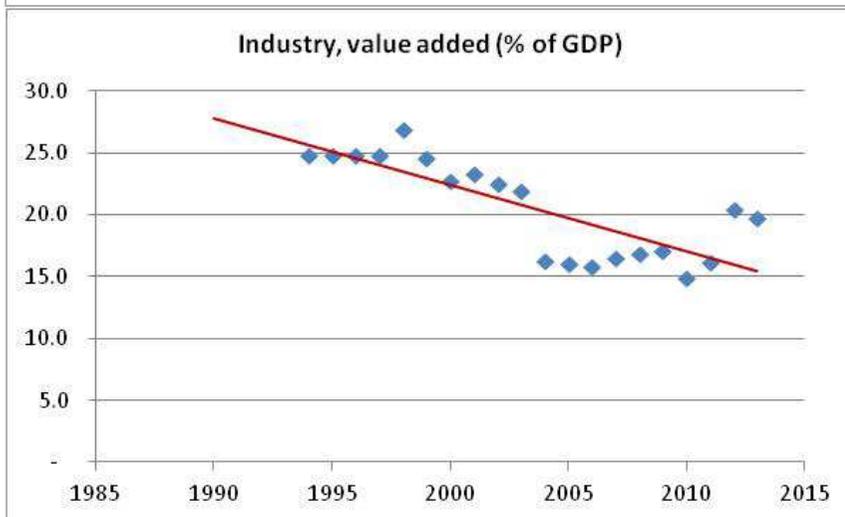
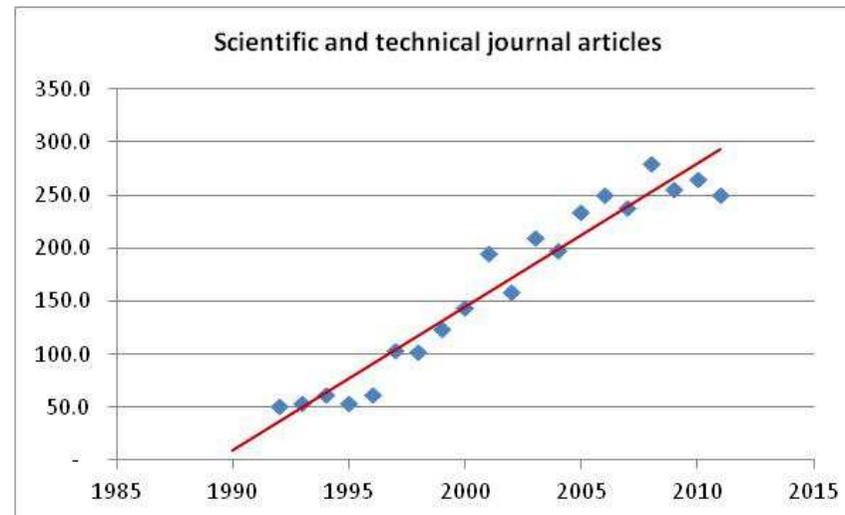
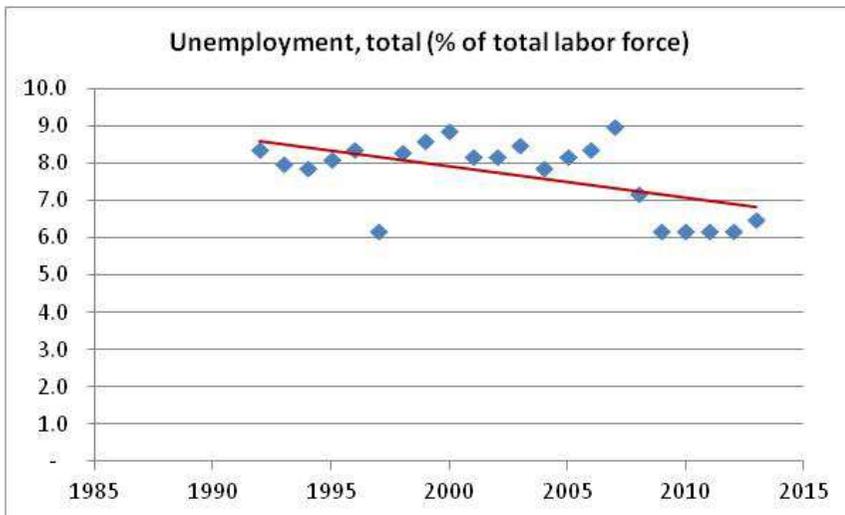


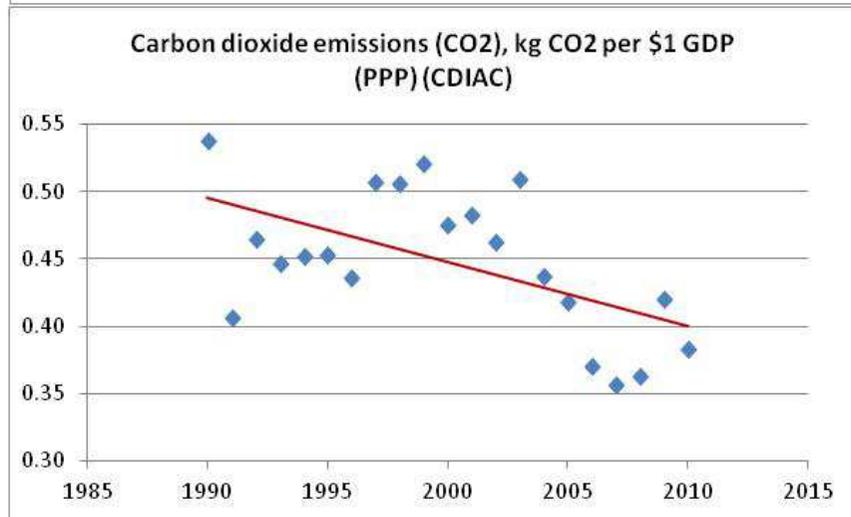
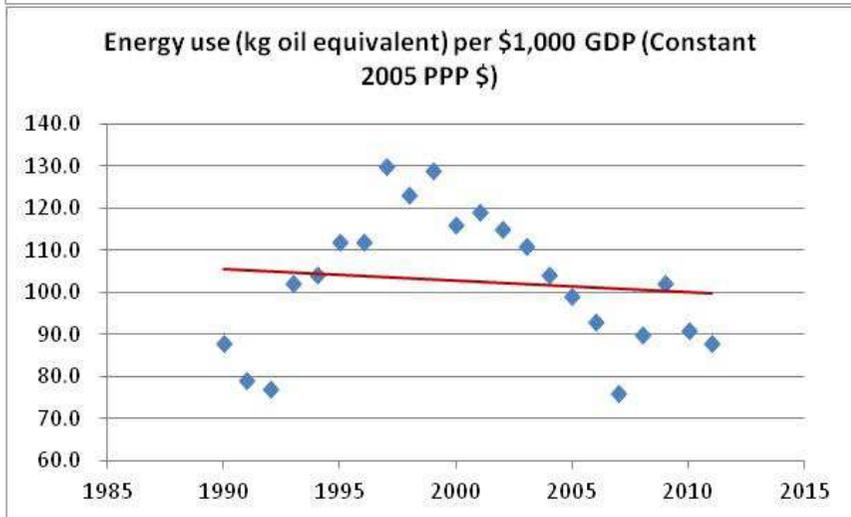
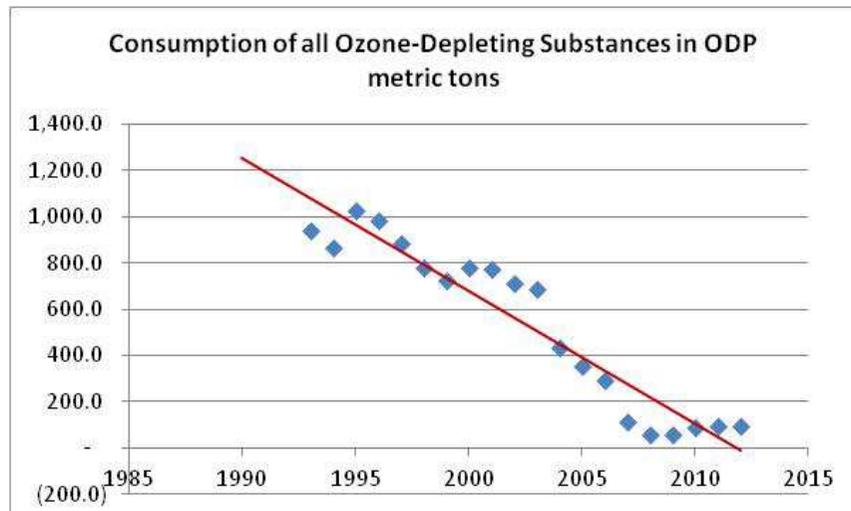
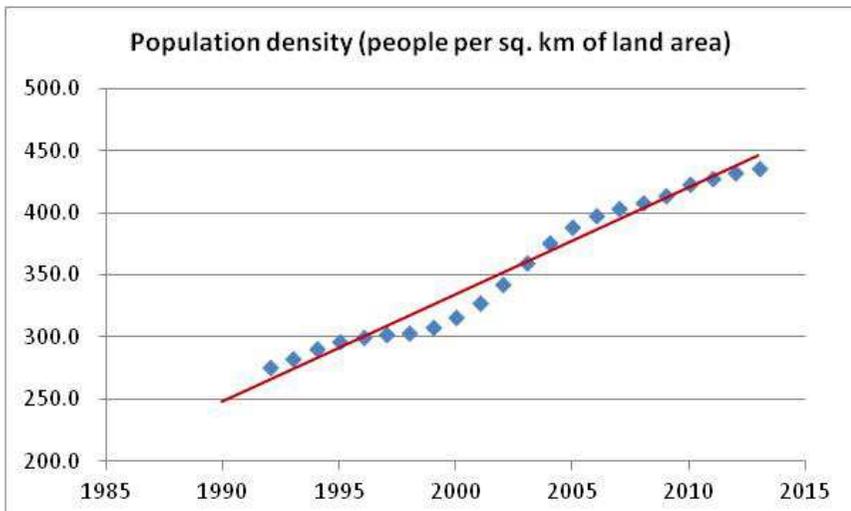


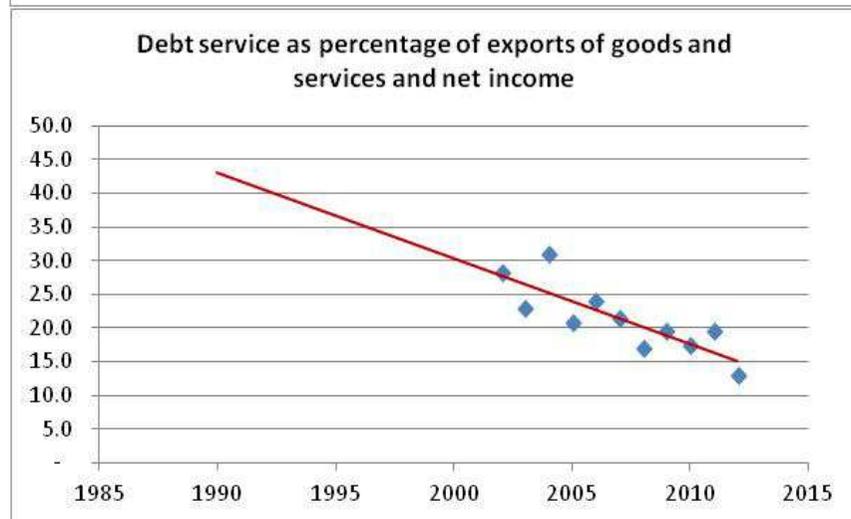
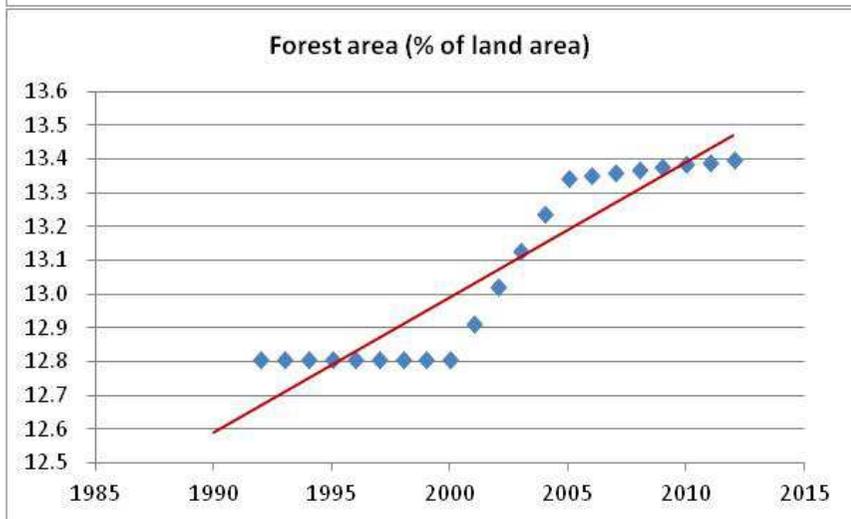
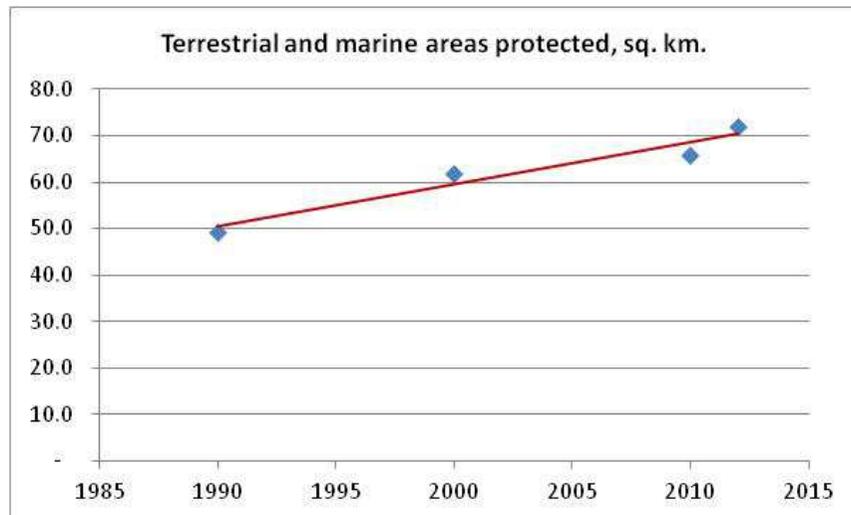
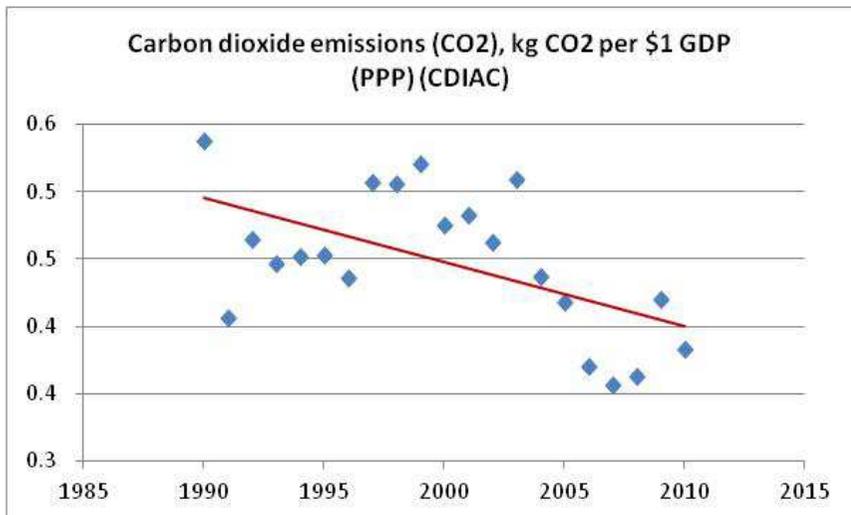


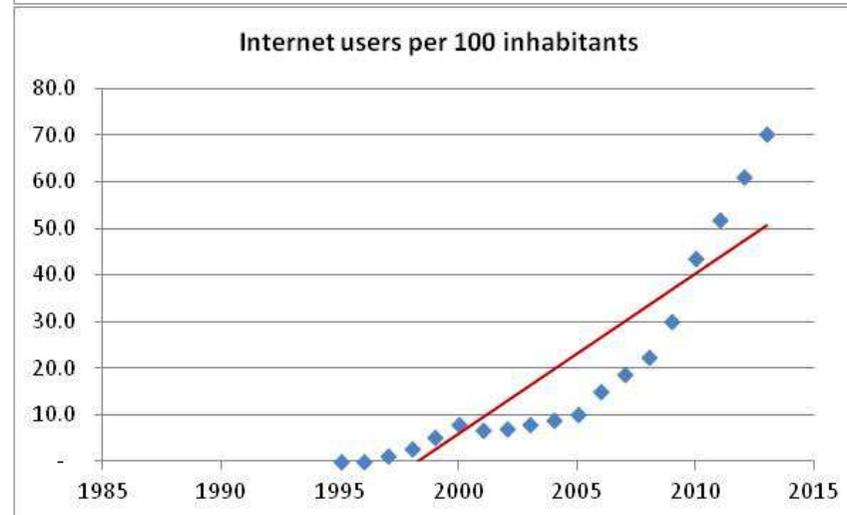
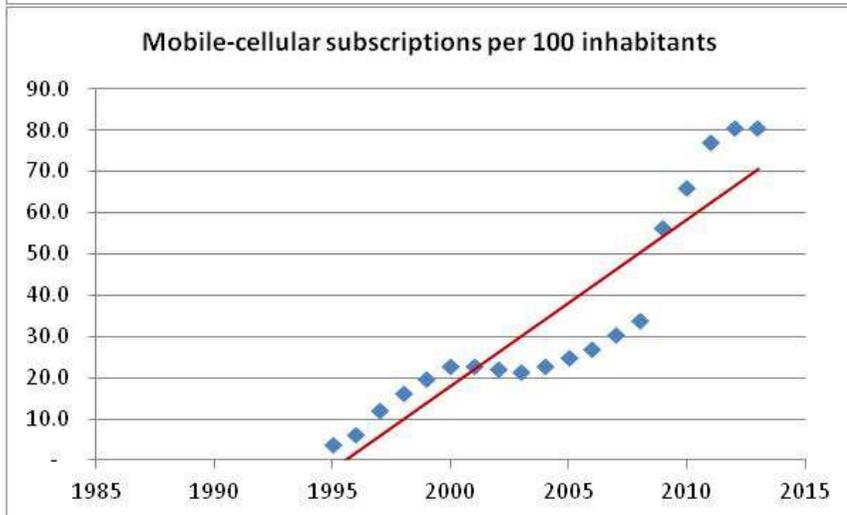
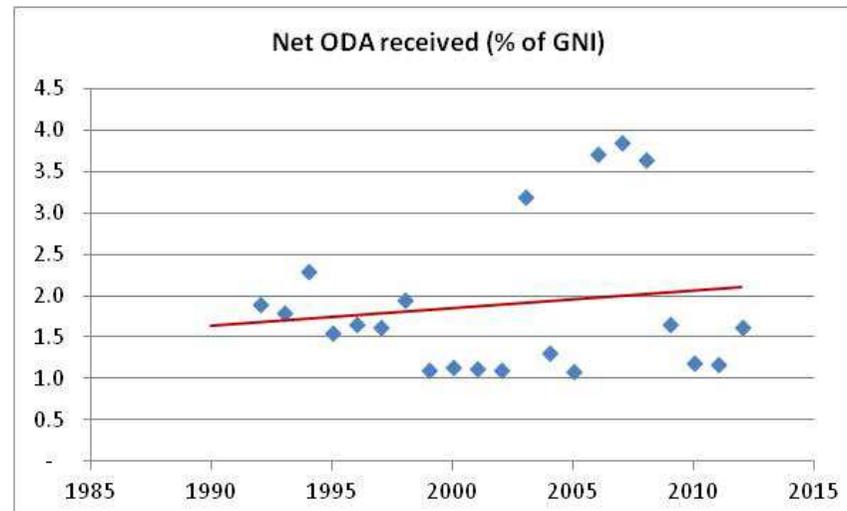
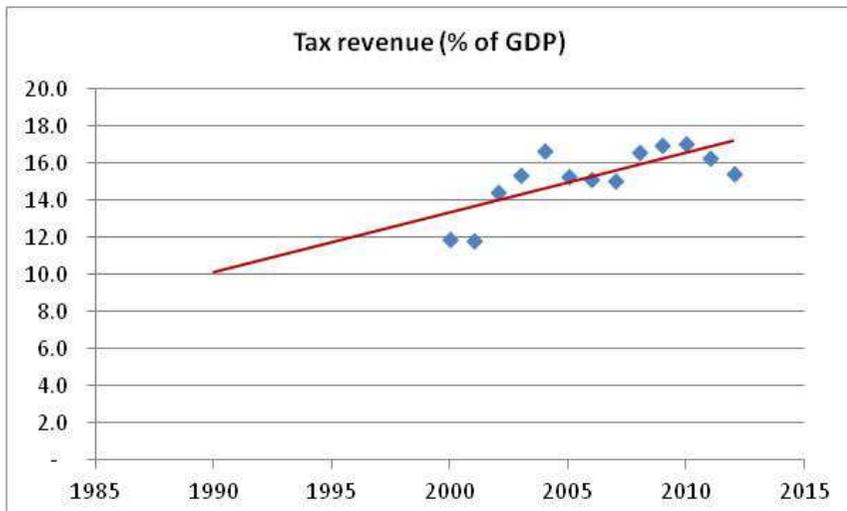


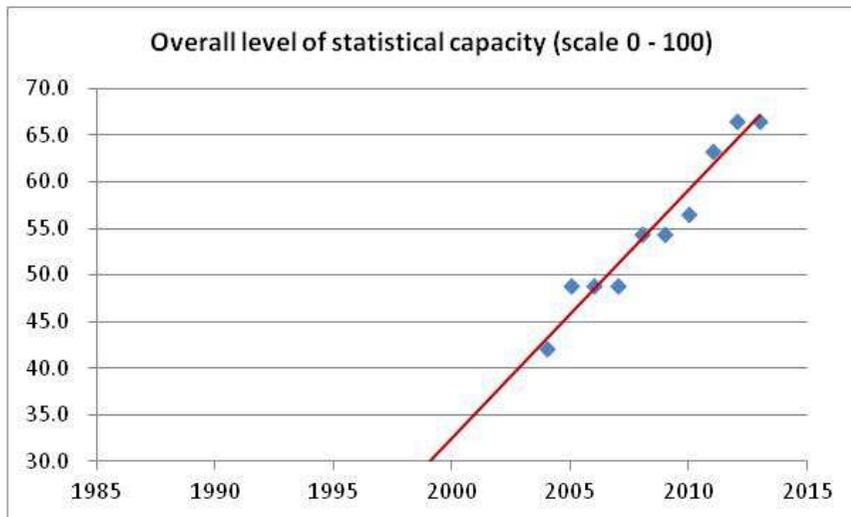












## Annex 2. Evaluation of Lebanon’s Economic and Social Reform Action Plan (2012-2015) against good practices

The following table provides a framework for a *preliminary* evaluation of Lebanon’s Economic and Social Reform Action Plan (2012-2015) against eight good practice elements listed in column 1 and their related criteria.<sup>120</sup> A score of a qualitative nature is provided in column 3, while the last column includes relevant information and a justification for the score given. The score was provided based on the information available in the document itself, and *may not reflect the full picture*.

Scores are interpreted as follows:

- Score A = all of the requirements of the criteria are fully met;
- Score B = all the requirements of the criteria are satisfactorily met, although some further improvements are desirable;
- Score C = some requirements of the criterion have been satisfactorily or fully met, but others have not yet been satisfactorily met;
- Score D = few of the requirements of the criterion have, as yet, been satisfactorily met.

Good Practice	Criteria	Score	Description/details/justification
1. Policy Integration	<b>1a. Integration:</b> strategy is based on a comprehensive and integrated analysis of economic, social and environmental issues, which clarifies links between the three spheres, resolves conflicts between them where practicable, and negotiates appropriate trade-offs where conflicts remain and optimises potential synergies.	C	Reforms cover the economic, social and environmental spheres. However, no attempt is made at identifying linkages or trade-offs.
	<b>1b. Social and poverty issues:</b> strategy integrates poverty eradication, gender issues and the short- and long-term needs of disadvantaged and marginalised groups into economic policy.	C	Poverty is addressed and consideration is given to rural development. However, gender equality and support to the disadvantaged and marginalized groups is weak.
	<b>1c. Environmental and resource issues:</b> strategy integrates the maintenance of sustainable levels of resource use and the control of pollution to maintain a healthy environment into economic policy.	B	Environmental and natural resource issues are included in the strategy. However the level of integration into other pillars can be improved.
	<b>1d. International commitments:</b> Measures are in place to ensure compliance with international agreements which the country has entered into, on environmental and social issues.	D	No reference is made in the document to such commitments.
2. Inter-generational timeframe	<b>2a. Long-term vision and consensus:</b> strategy is based on a long-term vision for the country’s development, which is consistent with the country’s capabilities, allows for short- and medium-term necessities, and has wide political and stakeholder support.	C	No such long-term vision exists. Short and medium necessities identified through a “citizen’s priority” survey are captured.

<sup>120</sup> Good practices drawn from: OECD, 2001; UNDESA, 2002; OECD, 2006; UNDESA, 2012; Cherp et al., 2004.

Good Practice	Criteria	Score	Description/details/justification
3. Analysis and assessments	<b>3a. Analysis and information:</b> strategy based on a comprehensive analysis of the present situation and of forecasted trends and risks, using reliable information and high-quality data on changing environmental, social and economic conditions.	D	No information is provided in this regard.
	<b>3b. Integrated assessment:</b> strategy used integrated assessment tools and models to identify the environmental, economic and social costs/benefits and tradeoffs/synergies of policy and strategy options.	D	No information is provided in this regard.
4. Coordination and institutions	<b>4a. High level political commitment:</b> strategy has high-level government commitment (i.e. head of state) and a strong institution or group of institutions is spearheading the process (e.g. office of head of state, central planning or finance ministry).	B	The plan corresponds to the government's ministerial declaration for 2011 and is spearheaded by the Presidency of the Council of Ministers.
	<b>4b. Horizontal coherence:</b> full range of relevant government departments and agencies involved in formulating and implementing strategy, with adequate mechanism (e.g. committee) for coordination.	D	No information is provided in this regard.
	<b>4c. Vertical coherence:</b> local and regional authorities involved in developing strategy, with relevant delivery aspects devolved to sub-national levels.	D	No information is provided in this regard.
	<b>4d. Responsibilities for implementation:</b> Responsibility for implementing strategies is clearly assigned to bodies with the appropriate authority.	A	The executing agency is identified for each deliverable in the reform matrix
5. Stakeholder participation	<b>5a. Involvement of stakeholders:</b> the country's processes of strategic planning, implementation, monitoring and review include the participation of stakeholders, including government, decentralised authorities, elected bodies, non-governmental and private sector institutions and marginalised groups.	D	Document does not refer to any process of consultation or participatory approach.
	<b>5b. Transparency and accountability:</b> the management of the country's strategic planning processes is transparent, with accountability for decisions made.	C	No accountability mechanism or measures have been specified.
	<b>5c. Communication and public awareness:</b> measures are taken to increase public awareness of sustainable development, to communicate relevant information, and to encourage the development of stakeholder involvement in the strategic planning process.	C	The plan is published on the internet with possibility to ask for more information through e-mail. However, much more can be done to raise awareness and increase public involvement.
6. Goals, targets and indicators	<b>6a. Realistic goals:</b> strategy articulates clear and realistic long-term goals, in line with national circumstances and priorities as well as international development goals.	B	The goals are more short to medium term (by nature of document which covers 4 years)
	<b>6b. Targets and indicators:</b> have been defined for key strategic economic, social and environmental objectives, with indicators through which they can be monitored.	D	No quantitative targets or indicators are specified.
7. Monitoring and evaluation	<b>7a. Monitoring and feedback:</b> systems are in place for monitoring the implementation of strategies and the achievement of their defined objectives, for recording the results, and for reviewing their effectiveness as strategies for sustainable development, with effective mechanisms for feedback and revision within the planning process.	D	Document does not refer to any monitoring and feedback processes. No progress reports were issued.
8. Policy coverage	<b>8a. Adequate policy mix:</b> strategy includes a range of different types of policy measures, including regulatory policies, economic instruments, fiscal incentives and public financing or PPPs.	A	The proposed deliverables are varied between regulatory, institutional and filed projects.

Good Practice	Criteria	Score	Description/details/justification
9. Means of Implementation	<b>9a. Budgetary provision:</b> strategy clearly articulates costs and budgetary requirements and is integrated into the budget process with clear linkages to sources of funding, such that plans have the financial resources to achieve their objectives.	A	Outlays from the national budget are specified for each deliverable in the reform matrix.
	<b>9b. Capacity for implementation:</b> strategy includes realistic mechanisms to develop the capacity required to implement it.	D	Capacity for implementation is not mentioned in document.
	<b>9c. International support and partnerships:</b> process is co-ordinated with donor or other assistance programmes, the private sector and civil society, with clear articulation of priorities and opportunities for assistance, cooperation and partnerships.	C	The document specifies where financing through donors will be required. However, it is not clear whether this is based on existing donor assistance projects.

## Annex 3. Evaluation of national goals against the SDGs

The following table provides framework for providing a summary of national sustainable development goals and targets compared against the set of 17 global SDGs proposed by the Open Working Group. In the absence of an overarching policy document, national goals listed in column 2 have been extracted from the various documents included in table IV.1 of this report. As some of these documents have not been approved by the Council of Ministers, they are provided **on an indicative basis only** to highlight the country's overall development course. Where quantitative targets have been provided (in rare cases), they were included in column 3. Gaps are marked NA (Not available).

Proposed global SDGs	National goals	National targets
<i>Goal 1: End poverty in all its forms everywhere</i>	<p><b><u>National Social Development Strategy of Lebanon, 2011</u></b></p> <ol style="list-style-type: none"> <li>1. Strengthen social protection through a pension scheme, unemployment fund, disability insurance fund, and eliminate discrimination in protection schemes</li> <li>2. Provide livelihood assistance to vulnerable households</li> <li>3. Protect marginalized groups notably women and children (including institutionalized children and children at risk) and people with disability</li> <li>4. Empower the Ministry of Social Affairs to effectively lead the social sector and strengthen the governance and institutional capacity of the National Social Security Fund</li> </ol> <p><b><u>Social Action Plan: Toward Strengthening Social Safety Nets and Access to Basic Social Services (2007)</u></b></p> <ol style="list-style-type: none"> <li>1. Reduce poverty, including through cash transfers to poorest households and eradicating child labor</li> <li>2. Improve access to primary education and prevent drop-outs</li> <li>3. Improve access to basic health care</li> <li>4. Promote small scheme local development projects</li> </ol>	<p><b><u>Social Action Plan: Toward Strengthening Social Safety Nets and Access to Basic Social Services (2007)</u></b></p> <p>Cash assistance amounting to \$600/annum to poorest households (increasing to \$800/annum for female headed households)</p>
<i>Goal 2: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture</i>	<p><b><u>Agricultural Development Strategy: Work Plan 2010-2014 (2009)</u></b></p> <ol style="list-style-type: none"> <li>1. Reform the legislative framework</li> <li>2. Improve the role of the Ministry of Agriculture and promote coordination with public and private sectors</li> <li>3. Develop agricultural infrastructure and improve the efficiency of natural resource use</li> <li>4. Activation of agricultural extension services</li> <li>5. Activation of monitoring of agricultural activities including forestry, hunting and fishing</li> <li>6. Enhance production chains and improve quality, marketing and exports</li> <li>7. Develop programs to support SMEs</li> <li>8. Conserve natural resources and regulate the use of marginal and grazing lands.</li> </ol>	NA

Proposed global SDGs	National goals	National targets
<i>Goal 3: Ensure healthy lives and promote well-being for all at all ages</i>	<p><b><u>Ministry of Public Health Strategic Plan, 2007</u></b></p> <ol style="list-style-type: none"> <li>1. Improve the health indicators and reduce regional discrepancies</li> <li>2. Improve the overall quality of health service delivery</li> <li>3. Sustain health care financing reform</li> <li>4. Provide cost effective and safe drugs and rationalize their consumption and prescription</li> <li>5. Strengthen the MOH preventive programs</li> </ol> <p><b><u>National Social Development Strategy of Lebanon, 2011</u></b></p> <ol style="list-style-type: none"> <li>1. Work toward ensuring health coverage for all and unification of health insurance schemes</li> <li>2. Promote cost effectiveness in the health sector</li> <li>3. Regulate the registration and pricing of drugs, promote the use of generic drugs and enforce ethical guidelines in the drug market</li> <li>4. Regulate the quality of in-patient and ambulatory health care services</li> <li>5. Strengthen the regulatory and policy-making role of the Ministry of Public Health</li> </ol>	NA
<i>Goal 4: Ensure inclusive and equitable quality education and promote life-long opportunities for all</i>	<p><b><u>Education Sector Development Plan (General Education): 2010-2015</u></b></p> <ol style="list-style-type: none"> <li>1. Education Available on the Basis of Equal Opportunity</li> <li>2. Quality Education that Contributes to Building A Knowledge Society</li> <li>3. Education that Contributes to Social Integration</li> <li>4. Education that Contributes to Economic Development</li> <li>5. Governance of Education</li> </ol>	<p><b><u>Education Sector Development Plan (General Education): 2010-2015</u></b></p> <ol style="list-style-type: none"> <li>1. Increase the level of net enrollment: <ul style="list-style-type: none"> <li>- in elementary education to 98%</li> <li>- in intermediate education to 90%</li> <li>- in secondary education to 65%</li> </ul> </li> </ol>
<i>Goal 5: Achieve gender equality and empower all women and girls</i>	<p><b><u>National Strategy for Women in Lebanon 2011-2021</u></b></p> <ol style="list-style-type: none"> <li>1. Achieve citizenship to its fullest potential on the basis of full and unconditional equality between men and women in rights and duties in legal texts, as well as in all fields of practice</li> <li>2. Promote opportunities for girls and women in the areas of education and training</li> <li>3. Achieve full equality between men and women in health care through the provision of health services and care for girls and women, including reproductive-health care</li> <li>4. Combat poverty among women, and give special attention to the eradication of poverty in general</li> <li>5. Promote the participation of women in the economic sector</li> <li>6. Achieve full and unconditional equality between men and women in all fields and sectors and in decision-making positions</li> <li>7. Combat all forms of violence affecting girls and women in all areas</li> <li>8. Eradicate stereotyping of women in local culture and in such media forms as radio, television and advertising</li> <li>9. Enhance the contribution of women to environmental protection</li> <li>10. Strengthen the capacity of institutions concerned with women's issues at the national level, and reinforce the partnership between NCLW and public-sector departments and CSOs</li> <li>11. Protect girls and women in situations of emergency, armed conflict, war and natural disaster</li> <li>12. Introduce gender mainstreaming in all fields</li> </ol>	<p><b><u>Quantitative targets included in the implementation plan 2013-2016</u></b></p> <ol style="list-style-type: none"> <li>1. Electoral laws: 30% of seats minimum in parliament and local councils</li> <li>2. Improve participation of women in economic and political life, including in political parties and the media (30% of leading positions minimum)</li> </ol>

Proposed global SDGs	National goals	National targets
<i>Goal 6: Ensure availability and sustainable management of water and sanitation for all</i>	<p><b><u>National Water Sector Strategy (2012)</u></b></p> <ol style="list-style-type: none"> <li>1. Maximize the potential and improve the quality of surface water resources</li> <li>2. Improve management and protection of groundwater resources</li> <li>3. Fulfill deficits through groundwater and/or surface storage according to potential and availability per region</li> <li>4. Ensure proper and continuous access to high quality water supply</li> <li>5. Increase coverage of wastewater collection networks and treatment capacities</li> <li>6. Optimize current wastewater treatment processes</li> <li>7. Support a full implementation of the water sector reform</li> <li>8. Improve on capital spending responsibilities</li> <li>9. Improve the management of the irrigation sector</li> <li>10. Introduce and implement new tariff strategies</li> <li>11. Promote private sector participation</li> <li>12. Gradually achieve O&amp;M and then full cost-recovery</li> <li>13. Enhance and modernize the legal setup</li> <li>14. Enforce a regulatory regime</li> <li>15. Achieve advanced climate change knowledge</li> <li>16. Improve water quality, flood mitigation and protection of recharge zones</li> <li>17. Implement awareness and conservation campaigns</li> </ol>	<p><b><u>National Water Sector Strategy (2012)</u></b>: By 2020,</p> <ol style="list-style-type: none"> <li>1. Additional 64 MCM of surface water resources</li> <li>2. Artificial recharge of groundwater aquifers (up to 200 MCM at an initial stage)</li> <li>3. Surface storage - dams and hill lakes (additional 670MCM static/880MCM dynamic in identified sites)</li> <li>4. Water supply transmission (2,800 km) and storage tanks (191,000 m3)</li> <li>5. Water supply distribution (9,600 km) and customer metering (1 million water meters)</li> <li>6. Irrigation rehabilitation and expansion (additional 30,000 ha during 2011-2020 to reach 60,000 ha by 2035)</li> <li>7. Wastewater collection (80% by 2015 and 95% in 2020) and treatment (30% by end 2012, 80% by 2015 and 95% in 2020)</li> </ol>
<i>Goal 7: Ensure access to affordable, reliable, sustainable, and modern energy for all</i>	<p><b><u>Policy Paper for the Electricity Sector (2011)</u></b></p> <ol style="list-style-type: none"> <li>1. Increase generation capacity</li> <li>2. Reduce transmission losses</li> <li>3. Improve distribution services and bill collection</li> <li>4. Diversify fuel mix</li> <li>5. Promote renewable energy</li> <li>6. Improve energy efficiency</li> <li>7. Review tariff structure</li> <li>8. Set norms and standards for the provision of electric services</li> <li>9. Corporatize EdL</li> <li>10. Improve the legal framework</li> </ol> <p><b><u>National Energy Efficiency Action Plan (2012)</u></b></p> <ol style="list-style-type: none"> <li>1. Ban the import of incandescent lamps to Lebanon</li> <li>2. Adopt the energy conservation law and institutionalization of the Lebanese Center for Energy Conservation (LCEC) as the national energy agency for Lebanon</li> <li>3. Promote decentralized power generation by PV and wind applications in the residential and commercial sectors</li> <li>4. Solar water heaters for buildings and institutions</li> <li>5. Design and implement a national strategy for efficient and economic public street lighting in</li> </ol>	<p><b><u>Policy Paper for the Electricity Sector (2011)</u></b></p> <ol style="list-style-type: none"> <li>1. Capacity targets: 4,000 MW by 2014 and 5,000 MW thereafter (including 40 MW from hydro, 60-100 MW from wind and 15-25 MW from waste to energy)</li> <li>2. Energy mix targets: 2/3 natural gas, 12% renewable energy: 12% by 2020</li> <li>3. Energy efficiency targets: save a minimum of 5% of the total demand</li> </ol> <p><b><u>National Energy Efficiency Action Plan (2012)</u></b></p> <ol style="list-style-type: none"> <li>1. Ban the import of incandescent lamps by 2012</li> <li>2. Wind and solar PV capacity of 50 to 100 MW by 2015</li> <li>3. 190,000 m<sup>2</sup> of solar water heater collectors by 2014</li> </ol>

Proposed global SDGs	National goals	National targets
	<p>Lebanon</p> <ul style="list-style-type: none"> <li>6. Electricity generation from wind power</li> <li>7. Electricity generation from solar energy</li> <li>8. Hydro power for electricity generation</li> <li>9. Geothermal, waste to energy, and other technologies</li> <li>10. Building code for Lebanon</li> <li>11. Financing mechanisms and incentives</li> <li>12. Awareness and capacity building</li> <li>13. Paving the way for energy audit and ESCO business</li> <li>14. Promote energy efficient equipment</li> </ul>	
<p><i>Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all</i></p>	<p><b><u>National Social Development Strategy of Lebanon, 2011</u></b></p> <ul style="list-style-type: none"> <li>1. Strengthen the relationship between wages and the standard cost of living</li> <li>2. Encourage and enforce formalization of enterprises and workers</li> <li>3. Ensure a safe work environment</li> <li>4. Ensure continuous on the job improvement of labor force skills</li> <li>5. Work toward strengthening job security</li> <li>6. Reduce inequalities in work opportunities, including between Lebanese and non-Lebanese workers</li> <li>7. Empower and ensure the independence of labor unions and strengthen labor market institutions</li> </ul> <p><b><u>First national youth strategy (2012)</u></b></p> <ul style="list-style-type: none"> <li>1. Improve the chances of youth participation in the job market, including through better information</li> <li>2. Develop and employment policy</li> <li>3. Improve workforce mobility</li> <li>4. Improve working conditions, with focus on the problems faced by young people</li> </ul> <p><b><u>Lebanon SME Strategy: A Roadmap to 2020 (2014)</u></b></p> <ul style="list-style-type: none"> <li>1. Develop business leaders</li> <li>2. Facilitate the right funding</li> <li>3. Improve access to markets</li> <li>4. Enhance capabilities and innovation capacity</li> <li>5. Develop a conducive business environment and national environment</li> <li>6. Ensure coherence and effective coordination</li> </ul> <p><b><u>Rural Tourism Strategy for Lebanon, 2014</u></b></p> <ul style="list-style-type: none"> <li>1. Increase consumer awareness and the visibility of rural tourism destinations, products and</li> </ul>	<p>NA</p>

Proposed global SDGs	National goals	National targets
	<ul style="list-style-type: none"> <li>services domestically and internationally</li> <li>2. Institutionalize rural tourism at the level of the local communities</li> <li>3. Improve and enforce conservation and protection of the environmental, cultural, historical, agricultural heritage of rural areas</li> <li>4. Diversify, modernize and improve quality of rural destinations, products and services</li> <li>5. Improve policies, legislation, and regulation of the rural tourism sector and enforcement of laws across the value chain</li> <li>6. Improve information and data collection and management to support sound planning</li> <li>7. Develop the culture of rural tourism among the young generation and in the education system</li> <li>8. Improve domestic and international business linkages and networking</li> </ul>	
<i>Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation</i>	<p><b><u>Science, Technology and Innovation Policy for Lebanon (2009)</u></b></p> <ul style="list-style-type: none"> <li>1. Implement 13 research programmes targeting strategic priorities in: a) basic sciences, industry and engineering; b) environment and agriculture; c) health and medical sciences</li> <li>2. Improving the research environment</li> <li>3. Develop the information and communication infrastructure</li> <li>4. Linking academia and research centers to the private sector, public agencies, NGOs and society at large</li> <li>5. Strengthen data collection and the role of CNRS</li> <li>6. Strengthen national and international partnerships</li> </ul>	NA
<i>Goal 10: Reduce inequality within and among countries</i>	<p><b><u>Vision for the Development of Regions of Lebanon (2009)</u></b></p> <ul style="list-style-type: none"> <li>1. “Soft” enablers, including reform to the legal and institutional frameworks incentivizing investments in regions</li> <li>2. “Hard” enablers, including public infrastructural investments in the regions</li> <li>3. Social enablers, including investments in health and education in the regions</li> <li>4. Implementation of “catalyst” projects that boost local economies and promote small and medium investments by the private sector</li> </ul>	NA
<i>Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable</i>	<p><b><u>National Physical Master Plan (2009)<sup>121</sup></u></b></p> <ul style="list-style-type: none"> <li>1. Structure the territory around the major urban centers;</li> <li>2. Link all regions to national economic development;</li> <li>3. Distribute major public facilities in an effective and integrated manner;</li> <li>4. Unite the territory with an efficient and developed transportation network;</li> <li>5. Ensure a quality urban development that respects the characteristics of each region;</li> <li>6. Highlight and benefit from the natural wealth of the country;</li> <li>7. Exploit water resources sustainably;</li> <li>8. Resolve efficiently the problems of quarries, wastewater and solid wastes</li> </ul>	NA

<sup>121</sup> Major guidelines (rather than goals) of the plan. Source: Presentation made by Mr. Sami Feghali (CDR) during the Expert Group Meeting on Bridging the Urban Divide in the ESCWA region: Towards Inclusive Cities, organized by ESCWA in Beirut, 25-26 November 2010.

Proposed global SDGs	National goals	National targets
Goal 12: Ensure sustainable consumption and production patterns	NA	NA
Goal 13: Take urgent action to combat climate change and its impact	NA	NA
Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development	<b>Lebanon's Marine Protected Area Strategy, 2012</b> 1. Strengthening institutional capacity and Marine Protected Areas (MPAs) management. 2. Contributing through MPAs to resource management and sustainable development. 3. Developing scientific research in MPAs	NA
Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	<b>National Strategy for Forest Fire Management in Lebanon, 2009</b> 1. Disseminate information and build capacity in forest fire management and forest restoration; 2. Develop effective fire prevention measures and build environmental and social resilience 3. Provide concerned parties with the needed equipment to fight fires and ensure readiness 4. Extinguish fires rapidly and prevent expansion of burning area 5. Support communities who suffered losses from the fire and restore the affected forest area	<b>National Strategy for Forest Fire Management in Lebanon, 2009</b> Extinguish fire within 20 minutes
Goal 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	<b>Strategy for the Reform and Development of Public Administration in Lebanon (2011)</b> 1. Modernize laws and regulations; 2. Restructure public entities and modernize roles and mandates; 3. Restructure monitoring institutions; 4. Build human capacities; 5. Build institutional capacities and promote strategic planning; 6. Promote good governance and accountability; 7. Focus on serving citizens and the achievement of outcomes; 8. Establish an e-government portal and promote the use of ICTs; 9. Concentrate public role to strategic functions and promote public-private partnership.  <b>National Human Rights Plan 2013-2019</b> 1. Rights and freedoms related to justice 2. Civic and political rights and freedoms  <b>National Social Development Strategy of Lebanon, 2011</b> 1. Preserve and promote cultural heritage as an essential resource in national development 2. Reinforce a Lebanese identity shared by all citizens 3. Create and promote shared public spaces 4. Empower the youth of Lebanon 5. Strengthen judicial independence	NA

Proposed global SDGs	National goals	National targets
	<p><b><u>High Level E-Government Strategy Document, 2007</u></b></p> <ol style="list-style-type: none"> <li>1. e-Reform –improve the overall efficiency of government and achieve significant cost savings</li> <li>2. e-Citizen –deliver services to the citizen in a fast, reliable and easy to understand and use service</li> <li>3. e-Business –provide integrated services to the business community and make it easier for the private sector to do business with government</li> <li>4. e-Community –promote regional development, targeting disadvantaged citizens</li> </ol>	
<i>Goal 17: Strengthen the means of implementation and revitalise the global partnership for sustainable development</i>	(see subsections of this goal below)	(see subsections of this goal below)
<i>Goal 17: Finance</i>	NA	NA
<i>Goal 17: Technology</i>	<p><b><u>Statement of ICT Government Policy (2011)</u></b></p> <ol style="list-style-type: none"> <li>1. Increase investment in government owned ICT undertakings and infrastructure and facilitate investments by the private sector.</li> <li>2. Supply citizens and business with full range of modern telecommunication services</li> <li>3. Adopt an enabling legal framework</li> <li>4. Implement e-government</li> <li>5. Encourage private equity and venture capital involvement</li> <li>6. Stimulate the use of IT by consumers and small businesses</li> <li>7. Develop human capital</li> <li>8. Measure the digital economy</li> <li>9. Improve governance of the ICT sector</li> </ol>	<p><b><u>Statement of ICT Government Policy (2011)</u></b></p> <p>By 2015:</p> <ol style="list-style-type: none"> <li>1. Increase GDP due to ICT contribution across all sectors by 2%</li> <li>2. Fixed line penetration to households is to exceed 92%</li> <li>3. Fixed broadband subscribers to exceed 300,000</li> <li>4. Mobile penetration to population to exceed 100%</li> <li>5. Mobile broadband to reach around 25% of the total mobile customer base</li> <li>6. Broadband speeds for home users at more than 10Mbit/s and business users at 100Mbit/s</li> </ol>
<i>Goal 17: Capacity building</i>	NA	NA
<i>Goal 17: Trade</i>	NA	NA
<i>Goal 17: Systemic Issues – Policy and institutional coherence</i>	NA	NA
<i>Goal 17: Systemic Issues – Multi-stakeholder partnerships</i>	NA	NA
<i>Goal 17: Systemic issues – Data, monitoring and accountability</i>	NA	NA

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