Review of indicators for measuring OfD Program goals in Lebanon

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Executive Summary

There is an increased focus on measuring the effect of Norwegian funded development programs. Using Result Based Management (RBM) and developing a good goal hierarchy, with a well specified baseline description and indicators that can capture the change over time, are important aspects of better measurement.

Statistics Norway (SN) has experience in working with indicators and was asked by the Norwegian Oil for Development Secretariat to evaluate a set of indicators developed for a three-year cooperation project with Lebanon.

The impact level indicators proposed in the Program Document for Lebanon were primarily international indicators that are well defined and documented. These indicators show how Lebanon is doing in general and are helpful as background information for the project. Since Lebanon will not have extensive petroleum activity that has a major impact on the economy during this Program period (2015-2017), it is not likely that the Program will have much influence on these impact indicators. However, since the goals at the impact level are very general, the indicators will provide some indication about how well one is doing related to the goal. More specific indicators could be developed, but given the time and financial constraints, the best option is to simply use the present set of impact indicators – with a few minor changes and additions.

On outcome level, the originally proposed indicators were mainly too ambitious for what can be accomplished in the 3-year program period. Some were also difficult to measure. SN has, therefore, proposed a new set of indicators based on the present level of knowledge. The aim has been to cover the Program broadly and include both quantitative and qualitative indicators that together measure the success of the Program. However, as SN does not have detailed knowledge of the different aspects or activities, and partners have not yet established a baseline on all areas, adjustments will be needed. It will be up to Program partners to establish a final set of indicators based on these proposals. They also need to agree on the baseline description and set goals for each of the indicators they decide to use.

Content

Abbreviations and accronyms

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Central Administration of Statistics (Lebanon)	CAS
Center for Education Research and Development	CERD
Central Intelligence Agency of the USA	CIA
Corruption Perceptions Index	CPI
Environmental Impact Assessment	EIA
Extractive Industry Transparency Initiative	EITI
Gross Domestic Product	GDP
Greenhouse gases	GHG
Gross National Income	GNI
Human Development Index	HDI
Health, safety and Environment	HSE
International Labour Organization	ILO
International Association of Oil and Gas Producers	IOPG
International Standard Industrial Classification of All Economic Activities, Revision 4	ISIC rev 4
Memorandum of Understanding	MoU
Ministry of Energy and Water (Lebanon)	MoEW
Ministry of Environment (Lebanon)	MoE
Ministry of Finance (Lebanon)	MoF
Norwegian Coastal Administration	NCA
Norwegian Environment Agency	NEA
Non-Governmental Organisation	NGO
Norwegian Development Agency	Norad
Norwegian Petroleum Directorate	NPD
Oil for Development	OfD
Oil Tax Office (Norway)	OTO
Lebanese Petroleum Agency	PA
Petroleum Safety Authority (Norway)	PSA
Results Based Management	RBM
System of National Accounts	SNA
Statistics Norway	SN
Sustainable Oil and Gas Development in Lebanon (http://www.lpa.gov.lb/sodel.php) (http://www.lb.undp.org/content/lebanon/en/home/operations/projects/environment_and_energy/project-id---00083213---sustainable-oil-and-gas-development-in-l/)	SODEL
United Nations Development Program	UNDP
United Nations Framework Convention on Climate Change	UNFCCC
United Nations High Commissioner for Refugees	UNHCR
United Nations Population Division	UNPD
United Nations Relief and Work Agency for Palestine Refugees in the Near East	UNRWA
United Nations Statistical Division	UNSD
World Bank	WB
World Governance Index	WGI

1. Introduction

The Oil for Development (OfD) Program is supporting Lebanon in preparations for petroleum activity. A second phase is currently initiated and will run from 2015-2017. The cooperation has been described in a Program Document which specifies which areas are covered and what are the main goals. The Program specifications are based on a methodology for program management called Results Based Management (RBM)[1].

Figure 1.1: Results chain as specified by Norad.
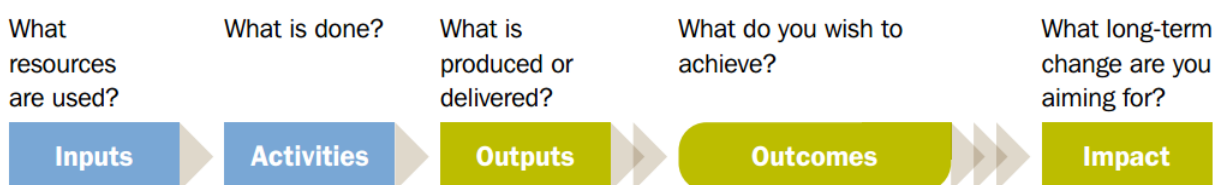
Source: http://www.norad.no/no/resultater/publikasjoner/publikasjon/_attachment/119718, page 10.

The results chain of the RBM framework is shown in Figure 1.1 and shows the different levels of activities and goals. An important aspect of assessing whether the Program activities have led to the specified goals is through the use of indicators. If well-defined and specified, the indicators will provide information about the change between Program start and Program end and by that indicate whether the measures taken have been effective or not in achieving the goals set.

Statistics Norway (SN), as a producer of data and as an actor in international development cooperation, has broad knowledge on the development and use of indicators for different purposes. SN participates in international advisory working groups for indicators covering topics, such as, sustainable development, education, environment,[2] agri-environment, health, as well as methodology development of different economic indicators.

Indicators have been identified in the Program document for Lebanon, but the OfD secretariat and partners have seen a need to review these indicators and perhaps revise them. The OfD secretariat has asked Statistics Norway (SN) for support. The assignment was:

1. Identify relevant statistics about/in Lebanon within the focus areas in the Program, including an assessment of quality and reliability.

2. Identify and assess the suitability of Program specific indicators provided in the Program document and suggest additional/alternative indicators which may strengthen results based management.

3. Given point 2, establish baseline for 2014 for indicators for which there is data (impact level) and propose how outcome indicators may be measured, including a plan for cost-effective follow-up.

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[1] http://www.norad.no/no/resultater/publikasjoner/publikasjon/_attachment/119718
[2] Hass and Palm (2012): Using the right environmental indicators: Tracking progress, raising awareness and supporting analysis http://www.norden.org/en/publications/publikationer/2012-535

2. Methodology

The Program document specifies a set of indicators at the impact and outcome levels linked to the different goals established for each level. These indicators were first evaluated and assessed according to the following questions:

- Does the indicator measure the goal set, it is relevant? What does it measure?
- Is the indicator measurable?
- What is the baseline and what is the goal?
- How will the information be collected?
    - Specification of roles and responsibilities
- Is the goal achievable in the project period?
- Does the set of indicators measure both quality and quantity of the expected change?

The indicators on impact level are mainly international indicators that are re-used for this Program and therefore easy to collect. Both the goal and indicators on impact level are of a general nature, which makes an assessment easier as petroleum related knowledge is not needed. Evaluation of present indicators, specification of baseline for 2014, as well as suggestions for additional/alternative indicators, is presented in Chapter 4.

The indicators on outcome level need to be more Program specific and are therefore more technical. We did an initial evaluation of the indicators specified based on the questions above. This resulted in some general comments on the achievability of the implicit goals set by the indicators and how to measure the change. In a meeting with the Norwegian partners, it was agreed that the original set of indicators on outcome level should be replaced. This was also confirmed by the counterpart at the Lebanese Petroleum Agency (PA). We are therefore presenting a revised
set of outcome indicators in this report.

In order to better understand what the activities and goals of this Program are, we had telephone meetings with the following agencies: Norwegian Petroleum Directorate (NPD), Norwegian Environment Agency (NEA), Norwegian Safety Authority (NSA) and Oil Tax Office (Norway) (OTO). In the meetings we asked a mixture of:

- Technical questions to better understand what kind of activities this Program includes and
- Strategic questions such as their expectations of what could be achieved within the Program period and which areas they would see as the most important to achieve. This was done to provide relevant and achievable indicators.

The findings and suggestions made in this report have been shared in draft versions with Norwegian and Lebanese partner organization contact persons, the OfD secretariat and other staff in Norad and the Norwegian Ministry of Foreign Affairs. A presentation was also made which was open to all above mentioned persons. Input and suggestions from these consultations have been included where appropriate.

The suggestion for a revised set of outcome indicators is presented in chapter 5. In agreement with the OfD secretariat we have proposed more indicators than what we believe is needed. This is to allow some flexibility when a final decision on which indicators to use is made by the Program partners. However, in Annex 1 where all indicators are presented together in one table, we have marked those that we believe would best measure how

successful the Program – these are marked with green. Those that are alternative or additional indicators are marked with yellow.

The set of indicators that are suggested are based on the present state of knowledge. As there are still many uncertainties in the project related both to baseline specifications and project implementation, the indicators should be reviewed when more information is in place. Particularly the SODEL report and the detailed activity and policy plans will help define how ambitious the indicators can be.

Establishing indicators gives focus and weight to the parts of the Program that are relevant to the indicator. For this reason, we have tried to identify the main areas of focus as seen from the Norwegian partners and establish appropriate indicators for these areas. In addition, we have identified thematic indicators for all the Norwegian partners and assumed that the key Lebanese partners are also covered by these same areas. They should be evaluated and adjusted by Program partners so that the most relevant areas are covered.

When suggesting indicators, we have indicated different levels of ambition, so that a choice or change can easily be made early in the Program. For most of the Outcome 2 indicators we suggest "A" and "B" level indicators. The "A" level indicator measures actual implementation and practical use of skills obtained. This would be the ideal focus of measurement if possible. However, as we do not know whether there will be any petroleum activity in this Program period, we have also suggested a "B" level indicator that measures whether the training provided leads to sufficient knowledge in the organization that will implement the specific activity. We have chosen to present "A" and "B" together for each activity as they are closely linked and "A" might be possible for one activity but not for another activity.

As the indicators are meant to be used as a tool and to support effective project management, it has been important to suggest indicators that do not demand too much follow up. Based on feedback and own experience, we try to suggest outcome indicators that are realistically achievable within the Program period.

In general it is important to stick with the same indicators throughout a project period so that real change over time can be measured. However, if changes in the project are necessary and the indicators become irrelevant for the new objectives, they should also be changed. Indicators should not stop a useful and necessary change in the Program.

Some indicators are relevant both on impact and outcome level, examples are transparency and gender measures. These will be described on impact level and only referred to at outcome level.

It will be important for the partners in the Program to decide who is responsible for reporting these indicators and how often. Once this is established, all other parties should make sure to send updated information that is needed for reporting on the indicators. This will need to be sent in good time before the reporting deadlines. We assume that reporting will happen at least once a year at the annual meeting, but have not specified reporting frequency in the indicators in general.

3. Statistics in/about Lebanon

The Central Administration of Statistics (CAS) is the main source of official statistics in Lebanon. CAS has the responsibility for all social and economic statistics and for the compilation of the national accounts – including the calculation of the Gross Domestic Product (GDP). The office is placed directly under the Presidency of the Council of Ministers. From the outside it is difficult to say anything definitive about the quality and impartiality of the national statistics in Lebanon. In Europe, statistical offices are regularly reviewed by international peers on key indicators such as independence, quality, relevance and objectivity. Unfortunately, no such review exists for CAS.

The World Bank carries out an annual study that evaluates the capacity of national statistical offices against a set of criteria consistent with international recommendations on areas such as "methodology", "source data" and "periodicity & timeliness." The study gives scores ranging from 0-100 on these dimensions. Although there are many shortcomings with such an indicator, it does give some indication of how the national statistical offices compare with each other. For example, in 2013, Lebanon had an overall score of 67. This is above the average of the Middle East/North-Africa-region (scored 62), but significantly lower than for instance East European/Central Asian offices (scored 81)[3].

Sources of data
Statistical offices generally have two primary sources of data:
- Surveys and censuses (where the units in focus are counted directly, but data usually are collected periodically only) and
- Administrative registers (updated continuously by register owner. Examples are population register, business register, address/housing register and tax register).

Based on what CAS publishes on its website (the English version) most of the sources for the statistics published are surveys and censuses. It appears that CAS only makes very limited use of administrative data to produce statistics – mostly used as data sources for the national accounts. The most recent surveys within social and economic statistics which have relevance for the impact indicators include:
- National Household Budget Survey in 2012 and 2004
- Living Conditions Survey 2007 and 2004
- Multiple Indicator Cluster Survey (MICS) 2009 (source of labor force statistics)

Of other publications, CAS publishes a quarterly Consumer Price Index (CPI) and has compiled and published National Accounts for 2004-2013. The figures for 2011 are revised using the newest and most detailed System of National Accounts (SNA-2008)[4] methodology. In 2014, CAS published revised National Accounts for 2004-2011 and preliminary estimates for 2012 and 2013 at current prices and at constant (chain-linked) prices.[5]

Petroleum sector statistics
Specific data for the petroleum sector on the economy, society and environment should be part of the standard set of statistics from the national statistics authorities – when this economic activity starts to happen. To be able to isolate the petroleum sector's influence in Lebanon, it may be necessary to increase the sample size of some of

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[3] For more information about the Statistical Capacity Index, see: http://datatopics.worldbank.org/statisticalcapacity/

[4] http://unstats.un.org/unsd/nationalaccount/sna2008.asp

[5] http://www.cas.gov.lb/images/PDFs/National%20Accounts/Lebanon_National_Accounts_2012_2013_Comments_&_tables.pdf

the surveys to be able to get the detail needed to track these specific petroleum sector based changes over time since more categories are typically needed and smaller geographic regions are often required to isolate the areas of the country with petroleum activity. Alternatively, if there are good administrative sources, CAS should be granted access to these. If the government wants to use national official statistics – then these additional user requirements need to be communicated to CAS and be financed.

The current detail of the national accounts in the English publication is only at an aggregated level (1-letter level of ISIC rev 4[6]). In this case the economic activity of "Extraction of crude oil and natural gas" (Division 05) and "Support activities for petroleum and natural gas extraction" (Group 091) are aggregated together with other mining and extraction activities. In the future, it may be desirable that the more detailed figures that isolate the petroleum sector are also published.

Over time one could expect to see changes in the number of people employed by the petroleum sector with increased salaries in petroleum based professions, increased housing costs, increased exports and increased Greenhouse gas emissions (including CO_2 emissions). Statistical areas that should be considered from a petroleum sector perspective could be:

- Number of employees, by classification of economic activities, and by gender
- Monthly average wages and salaries of employees of the extraction industry, by classification of occupations; by gender
- Housing price statistics – by region
- Import / export statistics – by products
- Investment by petroleum sector – by geographic area
- Emissions from the extraction/production activities: air, water, soil

Statistics with a Gender dimension
Currently the labor force, education and health statistics all have some split by gender, but the information is not extensive. The statistics for labor force may be relevant for looking at trends in employment – and changes in the future. In the coming period CAS will carry out a labour force/living conditions survey with the help of the International Labor Organisation (ILO), this survey could be a potentially important source of information, especially in establishing a current baseline. The figures published from the previous Labour Force Survey included a breakdown by gender – and could be used to track gender pay gap and employment trends using national data.

The Ministry of Education and Higher Education's Center for Educational Research and Development (CERD) has the responsibility for developing basic statistics on various aspects of the educational system – including educational sectors, levels and types. CERD makes annual statistical bulletins – with data available for the past 30 years. The publications are only available in Arabic but the description states that there are breakdowns by gender, age, educational cycles and educational areas.[7] These education statistics may be useful to identify the types of educational background the population has that can be useful in the petroleum sector – such as engineers.

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[6] http://unstats.un.org/unsd/cr/registry/isic-4.asp; http://unstats.un.org/unsd/demographic/sources/census/2010_phc/docs/ISIC_rev4.pdf
[7] http://www.crdp.org/en/statistics-bulletin

Technical support to CAS

CAS receives some technical support from the European Union statistical agency, Eurostat, through the ENP-South cooperation, a forum with cooperation on statistical areas such as: energy, transport, migration, employment, trade and business statistics as well as some cross-cutting sectors like quality.

Regarding the cooperation with Eurostat, a Forum for Euro-Mediterranean statisticians was set-up and there will be continued cooperation in the following areas: energy, transport, migration, social (mostly employment and unemployment statistics), trade and business statistics as well as some cross cutting topics like quality and training through working groups. CAS leads the national workgroup on Migration.

SN Comments:

In general we would recommend using official statistics from national sources. When wanting to access very specific information about a country, national statistics are often the most timely and detailed data.

In the case of Lebanon, we have only made limited suggestions for national data use for the impact indicators – i.e., the national accounts and labor force by gender statistics. This is mostly due to the use of periodic surveys – which means that the data are only available every few years. For example, the latest labor force survey data that are published in English are from 2009. When the program needs to have indicators more frequently (annually) then periodic surveys and statistics are not so useful. Of course the lack of national data in general puts the data sources used in the international indicators also into question. The lack of national data usually means that much of what is used in various indices is probably estimated or modelled by the institution that publishes the indices.

We need to point out that we have only been able to access the information that is available on the CAS and other relevant Ministries' websites that is in English. There may be a wealth of data that is only published in Arabic – and therefore needs to be identified and considered by the Lebanese partners.

4. Impact indicators

4.1. Introduction

International performance indicators/indices are increasingly used to rank or rate states on a number of areas. In 2008 the United Nations Development Program (UNDP) made an inventory and found a total of 179 indices that ranked countries according to different social, political, economic or environmental measures and the number of indicators are increasing rapidly[8]. Such indices have great advantages as they can reduce complex social events into simple numbers facilitating comparisons among units and over time that in turn can be averaged to produced standards and norms[9]. One way to apply such indices are to use them as measures of impact as one can refer to a reliable, independent international institution (such as a UN institution or an NGO) that monitors and checks progress over time. In the following we will review the 8 impact indicators that have been chosen for the OfD Lebanon project.

Applying such indices as a measure of impact immediately raises some questions in terms of what we mean by impact, cause and effect of a project, short term vs long term effect and whether the indicators capture the relevant project outcomes.

For instance, when using Gross National Income (GNI) per Capita as an indicator for measuring impact one implies a *measurable* relationship between a relatively small project and the overall Lebanese economy, an economy with an annual output of more than 50 billion US Dollars. In any given scenario it is very unlikely that such an effect can be found. Furthermore, for some of the other indicators such as education rates and life expectancy, short term causal links are difficult to established or verify.

However, when the chosen indicators are combined, they do give a comprehensive description of Lebanese society along some key economic, social and governance dimensions. Although the individual indicators, per se, cannot directly be linked to the project outcomes, the indicators point to what direction Lebanon is moving and what is the overall enabling environment for the project. We believe that (at least some of) the impact indicators can be viewed from such a perspective.

Most of the indicator rankings are relative, which means that countries can improve and make huge progress in specific areas, however if other countries improve faster, what is considered progress in absolute terms (country "score") might be labeled as decline in relative terms ("rank"). The opposite applies if the scores for country X are stable or decrease and other countries do worse – in such cases a decline can be interpreted as positive progress.

For many of the indicators we see little or no change in the country score over time, although the ranking may vary sometimes rather substantially. Often this is due to new countries being added or because there is a change in methodology. Small changes in scores might lead to huge changes in rank. For example a study of two of the chosen indicators showed that the scores ignored what can be called an inherently uncertainty of the estimates – when re-estimated with a method that captures uncertainty, the researchers found that most of the differences in

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[8] Bandura, Romina (2008) A Survey of Composite Indices Measuring Country Performance: 2008 Update. A UNDP/ODS Working Paper
http://web.undp.org/developmentstudies/docs/indices_2008_bandura.pdf

[9] See for instance Kelley, J. G. and Simmons, B. A. (2014), Politics by Number: Indicators as Social Pressure in International Relations. American Journal of Political Science

scores disappeared and recommended that rather than producing a numeric score, countries should be categorized in groups of similar performance[10].

When interpreting the figures, one also has to decide with whom they should be compared. Do we measure countries in comparison with others? Or as progress in the country itself? What are the available time series? Has there been a break in the time series? How consistent are the time series data? For a majority of the chosen indicators, longer time series are available; however additional variables are constantly added, as are the number of countries studied.

For comparisons we have included the indicator scores and rankings for Lebanon as well as scores for World or Region average where these data are available.

We have not looked extensively for alternative or additional indicators at the impact level unless the source of the indicator is from an institution that is not recognized as a neutral, internationally recognized source. The impact indicators are going to be used primarily for giving a picture of the general enabling environment and not for measuring success/failure of the program.

When alternative indicators were considered, the lack of data for Lebanon was often a problem. Since the focus is on Lebanon, the first condition for using the indicator needed to be the existence of data for Lebanon. If other topics are going to be considered and indicators for these areas are needed, a recommended starting point would be the list of indicators evaluated by UNDP.[11]

4.2 Population figures – the key denominator in many of the indicators
Total population figures is the deciding denominator in several indicators, furthermore population figures broken down by sex and age are important sub-indices for other indicators. Hence, universally agreed upon population figures would be the ideal. However, this is not the case for Lebanon; the population figures used can differ between the different institutions responsible for developing an indicator.

According to international population statistics it is recommended that a country shall carry out a population census and/or provide detailed population figures every decade. For Lebanon such numbers are hard to obtain. The last population census was carried out in 1932, and newer attempts to have a population census have not been successful.

A census of buildings was carried out by CAS in 2004. That census provided data for a sample frame for a Living conditions survey in 2007 that also aimed to give an estimate of the size of the total population. Population estimates made by different international organizations all build on the 2007 figures. However CAS itself has not produced newer population figures.

[10] See Høyland, Moene and Willumsen (2012). The tyranny of international index rankings. Journal of Development Economics who carried out a study of 'Doing Business' and the UNDP HDI.

[11] Bandura, Romina (2008) A Survey of Composite Indices Measuring Country Performance: 2008 Update. A UNDP/ODS Working Paper (http://web.undp.org/developmentstudies/docs/indices_2008_bandura.pdf)

Hence the population estimates differ depending on what year the number was developed. Another reason for the huge disparities in the numbers comes from different practices in including the various refugee populations.

As of 2nd December 2014 UN High Commissioner for Refugees (UNHCR) has registered 1.14 million refugees in Lebanon (99% from Syria). These are not included in national population figures. Furthermore the UN Relief and Work Agency for Palestine Refugees in the Near East (UNWRA) has registered 450 000 Palestinian refugees in Lebanon. These refugees are included in some population estimates, but not in others, although many have lived in Lebanon for decades.

Figure 4.1. Lebanon population figure estimates by institution[12]. Million persons
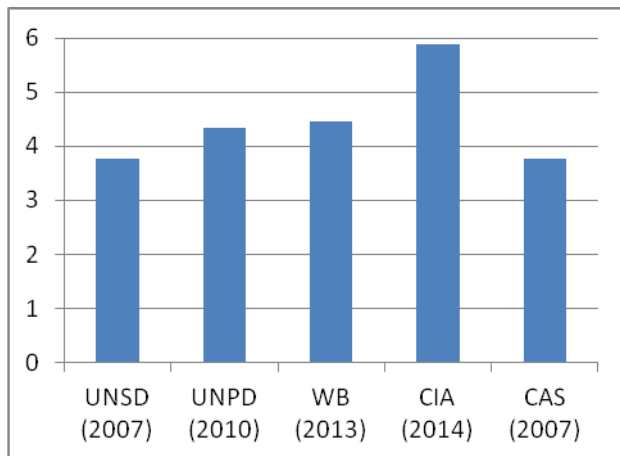
4.3 Impact Indicators

Impact Indicator 1. GNI per Capita, World Bank

GNI per capita (formerly GNP per capita) is the gross national income, converted to U.S. Dollars using the World Bank Atlas method, divided by the midyear population. The World Bank does not (officially) rank countries by GNI per Capita other than in broad categories – however many unofficial rankings exist based on these figures. In 2013 Lebanon is ranked as *Upper middle income* – higher than EU countries such as Rumania and Bulgaria. Although, GNI per capita is one of the world's leading economic indicators, a central critique of the GNI per capita measure is that it fails to reflect social aspects such as income distribution within countries as well as other dimensions such as environmental and welfare aspects. Time series for the GNI are available back to 1990 also with grouped categories for comparisons. Population figures are based on the Midyear Population from UN Population Division (UNPD).

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[12] UN(SD) last data: 3,759 Million (2007) Demographic Yearbook, UN Pop Div: 4,341 Million (2010) – also used by UNDP (midpoint estimate for 2013), WB last data: 4,467 Million (2013) Data sources : United Nations World Population Prospects, UNHCR, adjusted with Syrian refugees 2011 onwards, CAS last data: 3,759 (2007) Living Conditions Survey – specify not include Palestinian refugees, CIA Factbook: 5,882 Million (July 2014 found at: http://data.worldbank.org/indicator/NY.GNP.PCAP.PP.CD est.)

Source data can be found at: http://data.worldbank.org/indicator/NY.GNP.PCAP.PP.CD

SN comments:

The population figure depends on the definition of whom to include in the total population. For instance the economic impact of the refugee population will be included in the enumerator (economic activity), but not in the denominator of the indicator. The indicator score could decrease from 2014 and onwards due to high influx of Syrian refugees if these are included. If they are not included, this could increase the indicator because their presence leads to higher economic activity. It is important to notice that this time series is presented in current US$. This means that the change seen in this figure is due to both currency changes and actual changes. Since inflation is included, the increase is exaggerated.

Figure 4.2. GNI per Capita (current US$) 1990-2013
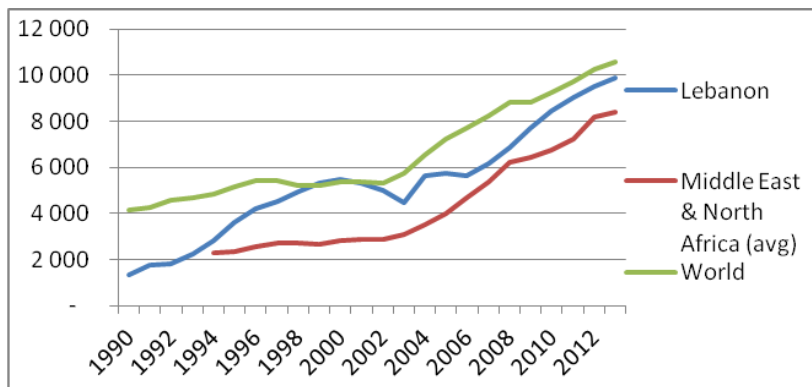
Data source: World Bank

Table 4.1. GNI per capita, Atlas method (current US$)

Country Name	2009	2010	2011	2012	2013	2 014	2 015	2 016	2 017
Lebanon	7 720	8 440	9 020	9 520	9 870				
Middle East & North Africa (avg)	6 423	6 761	7 205	8 162	8 416				
World	8 844	9 250	9 710	10 252	10 584				

Source: World Bank

National Data

CAS publishes GDP figures annually – in both current and constant (chain-linked) prices. If the trends are what is important – and not comparison with other countries – using national data would be recommended. Then the problem of the population data (GDP per capita) and the conversion to US$ can be avoided.

Figure 4.3. GDP for Lebanon. 2004-2013
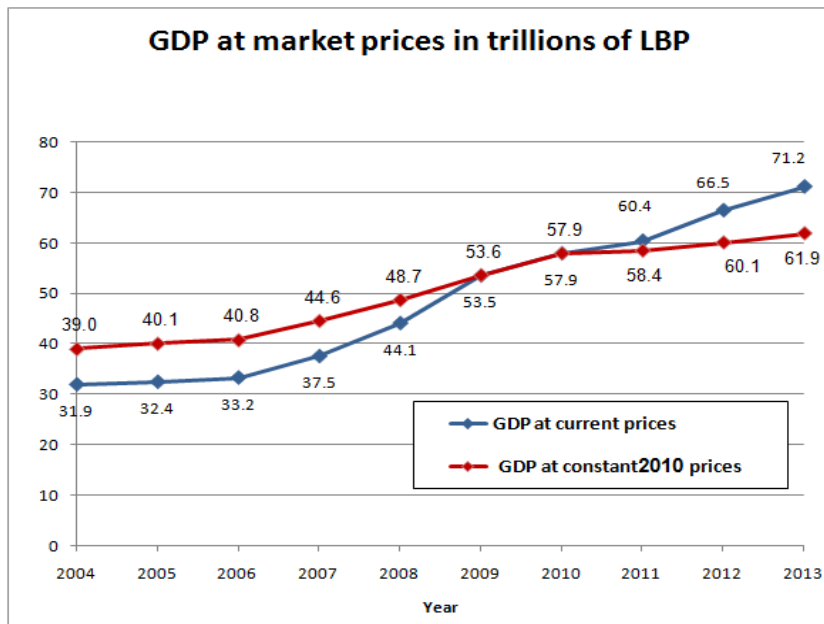
GDP at market prices in trillions of LBP

Source: http://www.cas.gov.lb/images/PDFs/National%20Accounts/Lebanon_National_Accounts_2012_2013_Comments_&_tables.pdf

Impact Indicator 2. Index of Economic Freedom

The indicator is developed by the Heritage Foundation, a conservative US policy think-tank. The indicator measures economic freedom based on 10 quantitative and qualitative factors, grouped into four broad categories of "economic freedom": Rule of Law, (property rights, freedom from corruption); Limited Government (fiscal freedom, government spending); Regulatory Efficiency (business freedom, labor freedom, monetary freedom); and Open Markets (trade freedom, investment freedom and financial freedom). Lebanon's ranking has declined significantly from the 1990s, partly because more countries have been included.

Source data can be found at: http://www.heritage.org/index/

SN comments:

The choice of indicators included in this index has been contested, as some of the indices could be labeled as more politically than scientifically motivated. For instance the methodology treats zero government spending as the benchmark (or "ideal"), and under developed countries with little government capacity receive artificially high scores. Although not a criterion in itself, it should be added that Norway scores consistently low on this index (ranks 30-50) along with other Nordic countries. In our opinion there are good, less contested, alternatives to this indicator, such as the *Ease of Doing Business* index (that covers many of the same areas but weighs them differently in the development of the composite index) developed by the World Bank as well as the Economist Intelligence Unit's *Business Environment Ranking*.

Figure 4.4. Index of Economic Freedom (score)
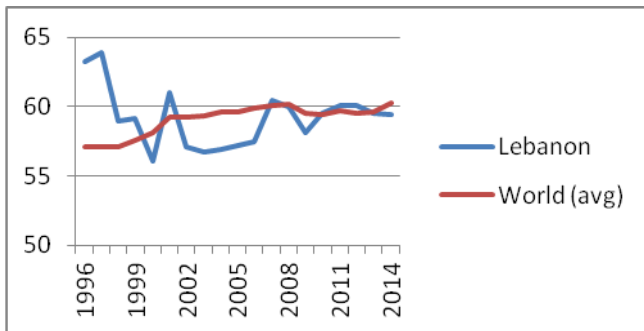
Figure 4.5. Index of Economic Freedom (rank)
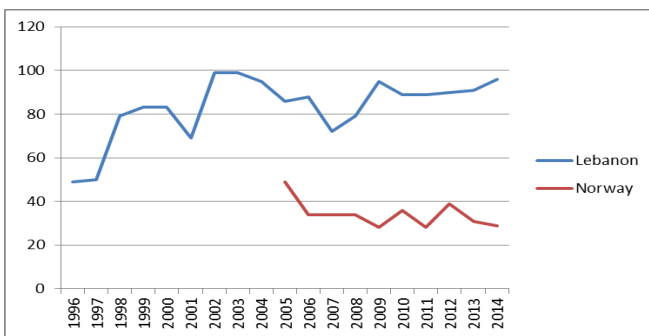
Table 4.2. Index of Economic Freedom

Lebanon, year	2010	2011	2012	2013	2014	2015	2016	2017
Score	59,5	60,1	60,1	59,5	59,4			
Rank	89	89	90	91	96			

Impact Indicator 3. Ease of Doing Business

The World Bank's *Ease of Doing Business* measures business regulations that affect domestic small and medium-size firms in 11 areas across 189 economies. Ten of these areas—starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts and resolving insolvency—are included in the distance to frontier score and ease of doing business ranking. Grouped data are not available. Ranked data are only available for 2014 and 2015 due to changes in methodology. Lebanon is ranked as number 102 in 2014. This is lower than in the Economic Freedom index (96 in 2014). The scores have been stable from 2010.

Source data can be found at: http://www.doingbusiness.org/data

SN comments:

Compared to the Economic Freedom index, this indicator is based on more "neutral" data sets such as permits, patents and rule of law. Scores on labor market openness is for instance measured but not included in the rankings.

Figure 4.6. Ease of Doing Business. Score
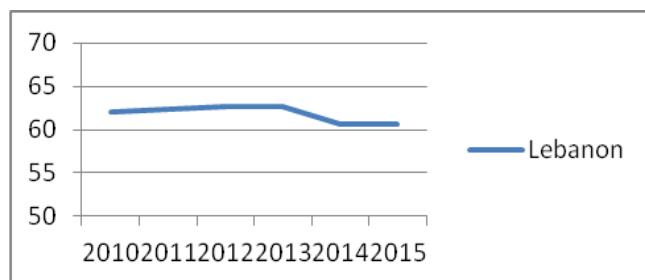
Figure 4.7. Ease of Doing Business. Rank
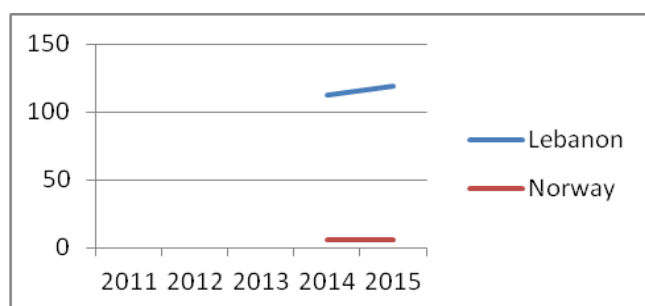
Table 4.3. Ease of Doing Business

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018
Score	61,98	62,3	62,7	62,74	60,6	60,61			
Rank	-	-	-	-	102	104			

Impact Indicator 4. Human Development Index

The Human Development Index (HDI) is a summary measure of average achievement in 3 key dimensions of human development: education, life expectancy and GNI per capita. The HDI assigns equal weight to the three dimensions of the index. It is not always clear what are the data sources on education and life expectancy as these often refer to other UN agencies and are not solely based on national data. For Lebanon the population figures are based on UN Population Division estimates. Compared with the other indicators, Lebanon ranks high on the HDI, although a small decline from 2005 is observed. Lebanon scores relatively high on all of the sub-indices.

Source data can be found at: http://hdr.undp.org/en/data

SN comments:

Although the index measures more than economic performance, the index is still highly sensitive for changes in economic output (GNI per capita) as the two other indicators (education and life expectancy) are more stable for most countries.

Figure 4.8. Human Development Index. Score
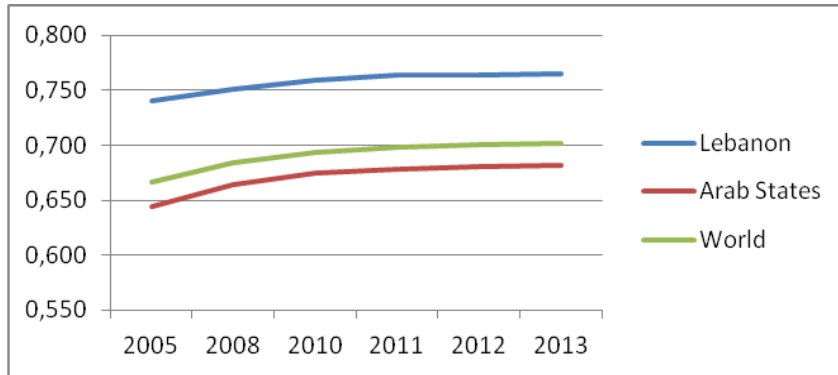
Figure 4.9. Human Development Index. Rank
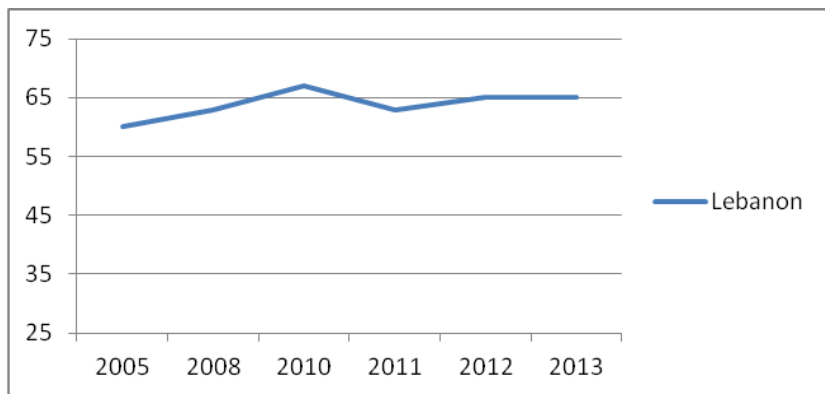
Table 4.4. HDI

Lebanon	2010	2011	2012	2013	2014	2015	2016
Score	0,759	0,764	0,764	0,765			
Rank	67	63	65	65			

Impact Indicator 5. Corruption Perception Index

The Corruption Perceptions Index (CPI) ranks countries based on how corrupt a country's public sector is perceived to be. It is a composite index, drawing on corruption-related data from 12 different expert and business surveys carried out by a variety of institutions where scores range from 0-100 (where 100 is "very clean"). The index is perceptions-based, and does not utilize other quantitative data. Transparency International also publishes the Corruption Barometer (where Lebanon is not included) which is based on direct surveys, not expert opinions.

These two indexes produce very different results for many countries. The Corruption Perceptions Index was revised in 2012 and scores before this are not directly comparable over time. In line with some of the other indicators, the CPI (only in the rankings) shows a negative development in Lebanon from around 2006 and onwards.

Source data can be found at: http://www.transparency.org/cpi2014/in_detail

SN comments:

The scores up to 2011 showed little change over time and it is uncertain how the methodological changes from 2012 onwards will affect this indicator. However since it is a composite measure consisting of several independent sources, only larger changes in perceived corruption will be captured.

Figure 4.10. Corruption Perception Index. Score
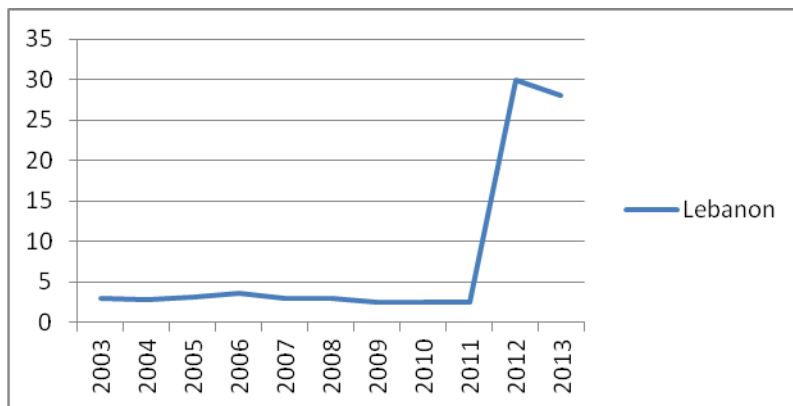
Figure 4.11. Corruption Perception Index. Rank
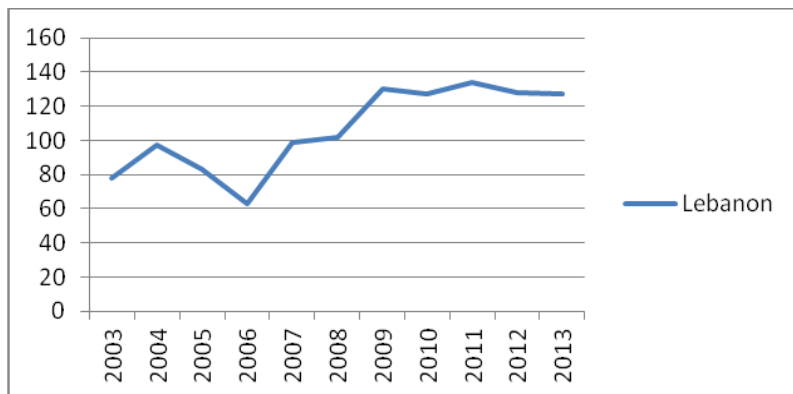
Table 4.5. Corruption Perception Index

Lebanon	2010	2011	2012	2013	2014	2015	2016	2017
Score	2,5	2,5	30	28				
Rank	127	134	128	127				

Impact Indicator 6. World Governance Indicators

The Worldwide Governance Indicators (WGI) are a research dataset summarizing the views on the quality of governance provided by a number of enterprises, citizens and experts in industrial and developing countries. The indices show the country's percentile rank on six governance indicators. Percentile ranks indicate the percentage of countries worldwide that rank lower than the indicated country, so that a higher value indicates a better governance score. In line with some of the other indicators there seems to be a less positive development on these indicators from around 2005/2006. Source data can be found at:
http://info.worldbank.org/governance/wgi/index.aspx#home

SN comments:

Many of the sub-indices for the indicator could be studied closer as they are closely linked to the project goals. It should be noted that some of the other project indicators are also used as sub-indices in the WGI. This indicator differs from the others as it only measures relative changes which means that Lebanon could improve on all the sub indicators but still decline in scores if other countries improve more (see also introduction).

Figures 4.12-4.17. Sub-indices for WGI – World Governance Indicators

Lebanon, 1996-2013
Aggregate Indicator: Control of Corruption

Lebanon, 1996-2013
Aggregate Indicator: Rule of Law
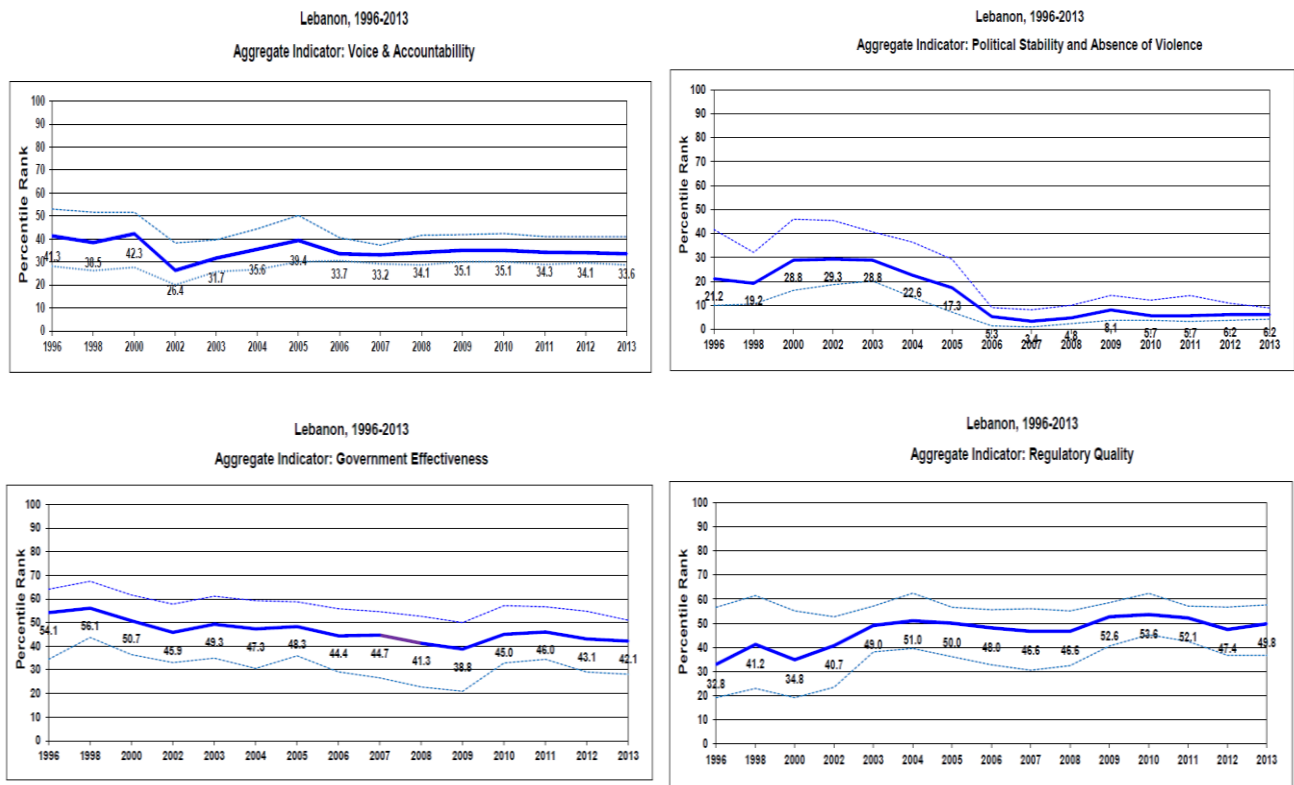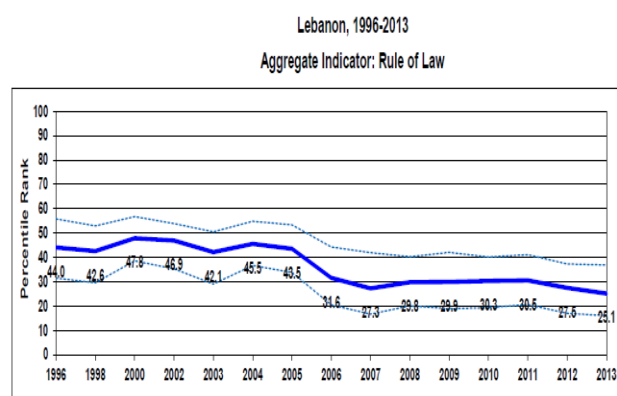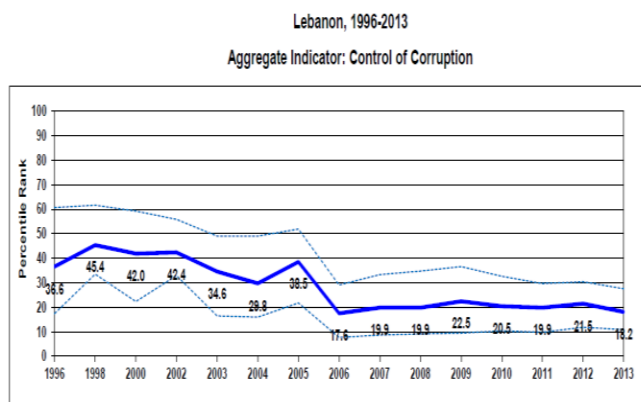
Table 4.6. World Governance Indicators

Percentile Rank	2010	2011	2012	2013	2014	2015	2016
Voice and Accountability	35,1	34,3	34,1	33,6			
Political Stability and Absence of Violence	5,7	5,7	6,2	6,2			
Government Effectiveness	45,0	46,0	43,1	42,1			
Regulatory Quality	53,6	52,1	47,4	49,8			
Control of Corruption	20,5	19,9	21,5	18,2			
Rule of Law	30,3	30,5	27,5	25,1			

Impact Indicator 7. Gender Gap Index

The Global Gender Gap Report, introduced by the World Economic Forum in 2006, aims at capturing the magnitude and scope of gender-based disparities around the world. The index benchmarks national gender gaps on economic, political, education and health-based criteria and provides country rankings that allow for effective comparison across regions and income groups and over time. Lebanon ranks 135 out of 142 countries in 2014.

Source data can be found at: http://reports.weforum.org/global-gender-gap-report-2014/part-1/

SN comments:

For this indicator, a relative small change in scores has led to a large decrease in rank. Lebanon scores particularly low on number of female parliamentarians and on low female labor participation. An alternative measure could be the Gender Inequality Index (GII) produced by UNDP. This indicator includes the same variables as in the HDI (impact indicator 4) but also covers gender dimensions. Lebanon ranks noticeable higher on the GII (65 out of 149 countries in 2014). These huge differences between the two related indicators underscore the importance of understanding the data that constitutes the measure.

Figure 4.18. Gender Gap Index. Score
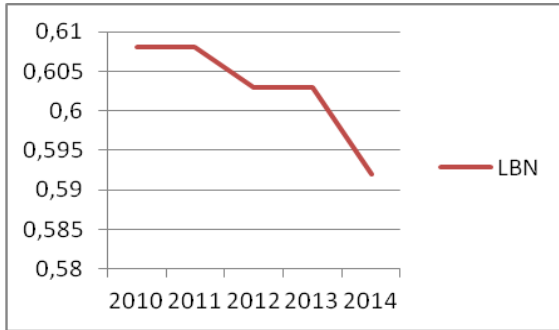
Figure 4.19. Gender Gap Index. Rank
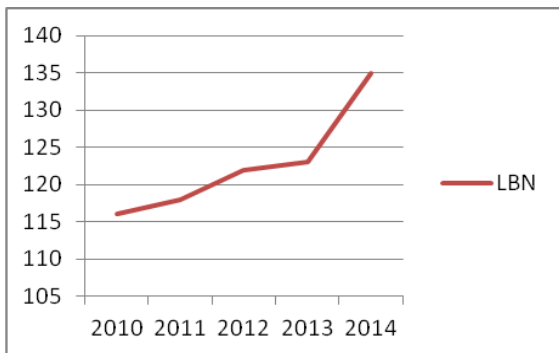
Table 4.7. Gender Gap Index Lebanon

	2010	2011	2012	2013	2014	2015	2016	2017
Score	0,608	0,608	0,603	0,603	0,592			
Rank	116	118	122	123	135			

Potential national data source:

CAS publishes results from their Labor Force Survey.[13] Included in the published results are figures for employment broken down by men and women according to occupations, according to ages. There are figures for unemployment by region. In addition, gender pay gap is calculated and is broken down by economic sectors. Although this data is only produced periodically, the Labor Force Survey can be a good source for national statistics on employment. The figures shown in the figures below are based on data from 2007. It could however be worth checking with CAS when they expect to publish more updated data.

Unfortunately there is no separate category for the petroleum sector – which would be part of the extraction industries that also include mining. As economic activity increases in the petroleum sector, it may be relevant to break out figures for that sector separately in the future.

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[13] http://www.cas.gov.lb/images/PDFs/SIF/CAS_Labour_Market_In_Lebanon_SIF1.pdf

Figure 4.20. Employment data from CAS – showing breakdowns by gender

TABLE 2: AVERAGE SALARY FOR WOMEN AND MEN BY ECONOMIC SECTORS (THOUSANDS LBP)				
	Women	Men	Lebanon	Gender pay gap %
Agriculture	[233]	295	288	21.0
Manufacturing	455	596	569	23.8
Trade	531	595	578	10.8
Transport, Post & telecom	[664]	1070	965	38.0
Services, Financial intermediation & Insurance	736	785	768	6.2
All Sectors *	660	702	690	6.0

[...] Too small for reliable estimate
. USD 1 = 1,507.5 LBP (source: Banque de Liban)
. Minimum Salary in 2007 = 300,000 LBP
* except construction

GRAPH 3: WOMEN AND MEN IN EMPLOYMENT BY SECTOR
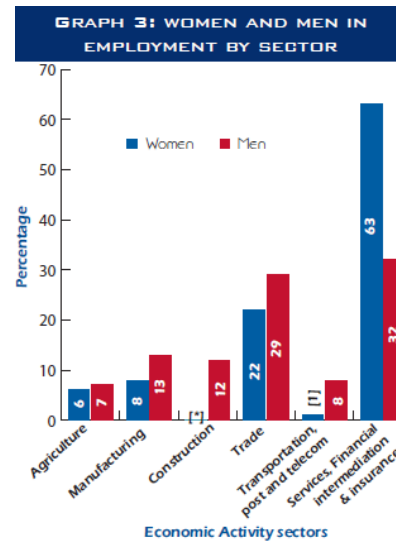
Source: http://www.cas.gov.lb/images/PDFs/SIF/CAS_Labour_Market_In_Lebanon_SIF1.pdf

Impact Indicator 8. World Press Freedom

The press freedom index that Reporters without Borders publishes every year, measures the level of freedom of information in 180 countries. The survey is based on a questionnaire that is sent to NGOs as well as independent journalists, researchers, jurists and activists. In Lebanon, a positive development in 2008/2009 has been followed by a worsening of the perception of press freedom in recent years. Although the country is only ranked as 106 in the world with a score of 32, it is still one of the most free in the Middle East Region (average 49).

Source data can be found at: http://rsf.org/index2014/en-index2014.php

SN comments:

There has been a major change in the method used to compile the index in 2013, including the use of a new questionnaire. Scores from earlier years have shown rather large year-to year changes.

Figure 4.21. World Press Freedom. Score
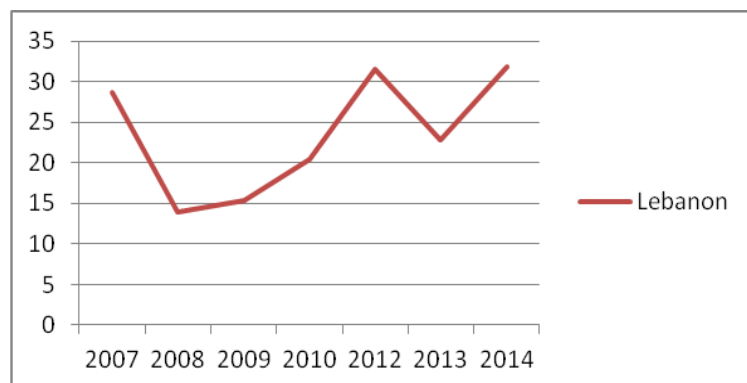
Figure 4.22. World Press Freedom. Rank
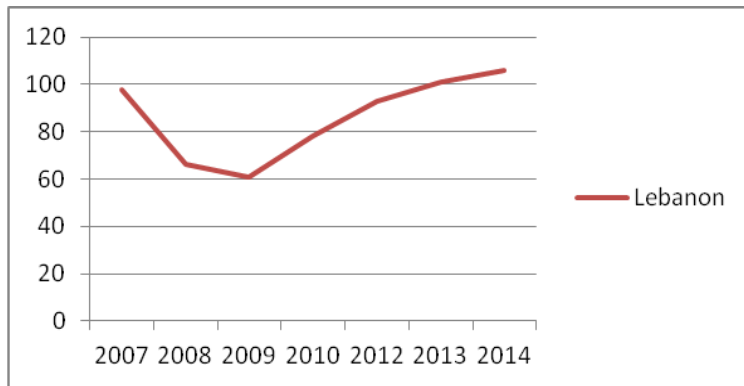
Table 4.8. World Press Freedom. Lebanon

	2010	2012	2013	2014	2015	2016	2017
Rank	78	93	101	106			
Score	20,5	31,5	22,89	31,89			

Impact Indicator 9. Proven petroleum reserves

It is too early in the Program to have this as an indicator since no oil or natural gas has been discovered. This indicator would be more appropriate in a later phase of the Program – and especially after exploratory drilling has found economically feasible oil and natural gas fields. Key output 4.2.3 will help increase the knowledge and capacity for performing these types of analyses but until exploration wells confirm the expected resources, proven reserves cannot be calculated.

4.4. Environment has been overlooked

In the current impact indicator set, there was no proposal for environmental indicators. Since the OfD Program also includes the environmental dimension, it is suggested that an environmental indicator be considered for inclusion at the impact level.

Two types of important environmental impacts of the upstream petroleum sector are air emissions and emissions to water and soil. The development of the Lebanese petroleum sector will contribute to increasing emissions to air, water and soil – increasing the greenhouse gas emissions from Lebanon and increasing the levels of water pollution in the Mediterranean. Since these types of emissions are of global and regional concern, it can be relevant to include measures of these pressures since their impact will go beyond national borders.

Although it is possible to rank and 'score' Lebanon in terms of its total greenhouse gases (GHG) or total carbon dioxide (CO_2) emissions or GHG or CO_2 emissions per capita, having a more specific petroleum sector indicator may be more relevant. One idea would be to have an indicator of efficiency – such as CO_2 or GHG emissions per unit of hydrocarbon production. Of course this would be most relevant when there is drilling and production occurring in Lebanon. Lebanon could then compare itself to the other countries – including those in the Mideast region.

Regional data are available but not country data or ranking in the report from the International Association of Oil and Gas Producers (IOPG):

http://www.iogp.org/data-series#2673469-environmental-performance-indicators

2012 report: http://www.ogp.org.uk/pubs/2012e.pdf

Figure 4.23. Emissions per kt hydrocarbon production Figure 4.24. CO$_2$ emissions per unit of production
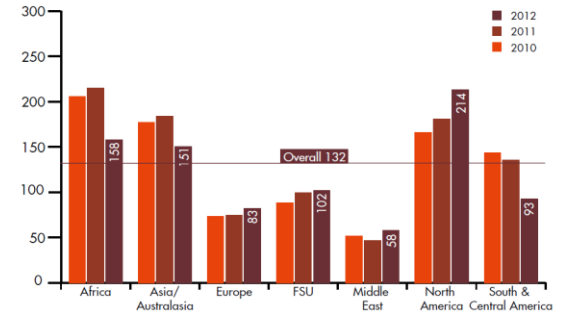
Official baseline data for Lebanon can be found from their second national communication to the United Nations Framework Convention on Climate Change (UNFCCC).[14] Data for 1994-2004 are currently available. Greenhouse gas emissions in 2004 were reported as 20,299 Gg CO$_2$-equivalents.

Figure 4.25. Trends in Greenhouse gas emissions. Lebanon. 1994-2004. By UNFCCC sectors.
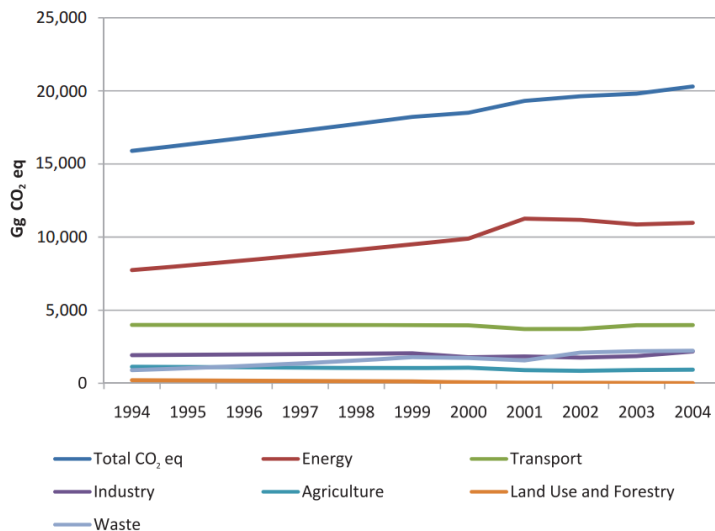
Source: http://unfccc.int/resource/docs/natc/lbnnc2.pdf, page 44.

These figures give the emissions of the country before the petroleum sector really starts developing. An increase in the levels of emissions would be expected as the petroleum sector is developed – so the total for the country

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[14] http://unfccc.int/resource/docs/natc/lbnnc2.pdf

would increase. Using the UNFCCC reporting would show total emissions from all activities in Lebanon. This would help to put this activity into a broader context – but the data is typically not very timely – here the 2004 figures were published in 2011 and there are no officially reported more current figures.

4.5 Summary

All the chosen indicators for the project are good in the sense that metadata are made available with descriptions on how the indicators are created and data compiled, however some of the indicators rely on second-hand sources that make this more time consuming. Here one relies on solid documentation of the data, not only on how the data are compiled today, but also the historic data. How good are the national statistics that in the end most of these data are based on and can they be trusted? When interpreting the development on the indicators one way to verify is to check whether there has been any update in the national statistics that these indicators are based on. For all of the eight chosen international indicators the scores/base figures are available.

We recommend that the indicator scores are used directly – rather than using the actual rankings - as the latter only measures the relative progress in a country. In many cases a study of how a country scores over time will give a more realistic picture of actual progress on the given indicators. Still, for many of the indicators we see little or no change in scores over time (one reason for this is the absence of updated national data), though the ranking may vary (often because new countries are added or there is a change in methodology).

Some of the examples show that depending on the choice of indicator one can produce widely different results for the same phenomena. For instance, is Lebanon one of the world's worst countries in terms of gender equality as indicator 7 implies – or is it rather a country scoring well above average (as the gender dimensions of the HDI shows)?

It should be noted that when reviewing figures for 2015-2017 one cannot simply add two more years to the data sets since the figures for many of the indicators are revised annually. This makes it difficult to create consistent time series since earlier recorded data also need to be updated.

Table 4.9.Summary Table of Indicators for measuring progress at impact level

Indicators	Institution	Rank	Score	Available Time Series	Comparison (world, regional, country)
01 GNI per Capita	World Bank	1-213	Abs. figure	1990-2013	w, r, c
Alt: GDP	*CAS*	-	*Abs. figure*	*2004-2013*	
02 Index of Economic Freedom	Heritage Foundation	1-177	0-100 - avg. of four categories	1996-2014	c
03 Ease of Doing Business	World Bank	1-189	DTF Score from 0-100	2010-2015	c and subnational
04 Human Development Index	UNDP	1-187	0-100	2005-2013	w, r, c
05 Corruption Perception Index	Transparency International	1-177	0-100	2003-2013*	C
06 World Governance Indicators	World Bank	Percentile rank among 215 countries	-2,5 - 2,5	1996-2013	r, c
07 Gender Gap Index	World Economic Forum	1-142	0,00-1,00	2010-2014	C
08 World Press Freedom	Reporters Without Borders	1-180	0-100	2002-2014	C
09 Proven Petroleum Reserves	National data needed			None	
10 Environmental Indicators	UNFCCC	-	Abs. figure	1994-2004	-

5. Outcome indicators

5.1.   Introduction

The Results management guide states in the introduction; "outcomes represent the most important result-level in results management. You and your partner should stay focused on what ultimately matters: the effects of the intervention on people and systems."[15]

Selecting indicators that measure the effect the Program has on the people and systems is therefore important. According to the Program Document for the Oil for Development (OfD) Program Phase 2 in Lebanon, the following 3 Outcomes and related indicators are presented. Associated with each Outcome there are a number of Key Outputs (as defined in the Program Document, see Annex 3):

Outcome	Outcome Indicators
Outcome 1. Lebanon establish a strategic, legal and fiscal framework for managing the petroleum sector	1. Number of Program outputs developed and delivered in accordance with annual work plans
Outcome 2. The government entities carry out their assigned roles and responsibilities in accordance with the strategic and legal framework in the petroleum sector.	2. Number of contracts and agreements successfully negotiated 3. Number of Plans for Development and Operation reviewed and approved 4. Number of petroleum related incidents with negative impact on the environment 5. Number of petroleum related Environmental Impact Assessments reviewed 6. Petroleum revenues captured by the state
Outcome 3. Accountability and transparency in the petroleum sector is strong.	7. EITI compliance in oil and gas achieved 8. Number of public consultations conducted 9. Civil society organizations, media and public oversight institutions have the space and competence to hold the government accountable 10. Ranking in Transparency International Corruption Perception Index improved

In general we noted that there are strong interdependences between Outcome 1 and Outcome 2. Basically, Outcome 2 is the implementation of the strategic and legal framework that is established in Outcome 1. There is also a dependency on petroleum sector activities occurring during the Program period – such as licensing rounds occurring – before it is possible to get an understanding whether the procedures and cooperation agreements that are to be established are working as expected. Otherwise only simulations or exercises can be run but testing actual work situations may not be possible.

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[15] http://www.norad.no/no/resultater/publikasjoner/publikasjon/_attachment/119718

The Norwegian partner institutions pointed out that many of the activities needed for most of the Outcome 2 indicators and some of the Outcome 3 indicators are most likely not going to occur during the current 3-year project period. It is not possible to measure things that are not occurring – therefore it is important to identify the activities that will be occurring during the 3-year project phase. The level of ambition was also considered too high – so developing more realistic indicators was also pointed out.

Since most of the Outcome 2 and 3 indicators were not applicable to this Program period or were considered to be too ambitious, it was decided to start from the beginning – using the 3 Outcomes as the main constraint to a new analysis. The outputs were examined from a number of different angles to try to identify more applicable Outcome indicators. The outputs were grouped by the institutions involved in the activities, by the various topics, and by the timing / interdependencies. In the telephone interviews with the Norwegian partner institutions a description of the main activities of the Program was also developed.

After working with several different combinations and permutations of the various groupings, we concluded that many of the indicators needed to incorporate two dimensions, having a topic aspect with an institutional dimension.

A number of recurrent themes arose during the discussions with the Norwegian Program partners. These included the importance of the SODEL report, the lack of detailed activity plans with associated milestones, the lack of knowledge of the Lebanese partner institutions, the uncertainty regarding the exploration licensing round, whether there would be actual work activities where newly learned skills could be applied or whether the training would only have theoretical exercises. The SODEL report is expected to describe the baseline and to set the premises for developing the inter-institutional cooperation framework, as well as influence the activity planning.

Based on this information, it appears that we can only provide some suggestions regarding the revision of the outcome indicators – which will need to be finalized when more information is available – from the SODEL report and the detailed activity plans.

In the following we will suggest more indicators than what is strictly necessary. The reason we are doing this is because there is still a good deal of uncertainty related to the main focus of the Program and also with how far one will get in the Program period. To have a balanced set of indicators, some indicators will be more important than others. In Annex 1, we list all the suggested indicators. Those that are flagged green we would highly recommend to include, while those with a yellow flag are more optional in our opinion. That being said, we are not part of the Program implementation and the final decision should therefore be made by the Program partners.

5.2. Outcome 1: Lebanon establish a strategic, legal and fiscal framework for managing the petroleum sector

Outcome 1 is focusing on the establishment of a framework, and although the quality of this framework is of importance, it is easier to measure this when implementing or using the framework. Outcome 2 focuses on the implementation of these frameworks – so quality will be considered in relation to Outcome 2. Four indicators are being proposed for Outcome 1.

Suggested Indicator 1.1: **Number of Program outputs developed and delivered in accordance with long term plans and annual work plans**

Linking deliverables up to planning documents is useful for several reasons. One reason is that it gives an additional incentive to develop the plans. Another reason is that it makes the counting of documents relevant to what is needed and agreed. In order to connect the indicator more closely with the longer term perspective, we suggest to not only count outputs by annual work plans, but also plans that cover the full Program period. Although partners usually have the longer term perspective in mind when developing annual plans, developing a plan for the whole project period typically leads to a better common understanding of the direction for the project. It can also visualize the interdependencies between different outputs.

Which kind of long term plan will be developed is up to the partners (e.g. policy plans, milestone plans or Gant diagrams). What is important is establishing specific deadlines for certain activities and outputs and that the plan shows the interdependencies between various outputs.

After discussions with the Norwegian partners, it was emphasized that there are two main stages: (i) developing the legal and regulatory framework and (ii) developing the methodology for implementation and use of the frameworks. In order to see the progress in both of these stages, we suggest splitting the outputs in two:

1.1.i. Legal and regulatory framework in place in all relevant areas
The contacts in the Norwegian partner institutions emphasized that it is crucial to have a good legal and regulatory framework as a basis for all further activities. The baseline is expected to be described in the SODEL report and the goal, that means how many laws/regulations that are expected to be developed, needs to be specified by partners once the SODEL report is available. These legal and regulatory frameworks will potentially have a breakdown by topic – such as HSE, exploration, production, emergency preparedness, revenue collection, revenue management, etc.

1.1.ii. Documentation and supervisory methodology for legal and regulatory implementation in place
As laws and regulations need to be implemented, documentation and methodology on how to operationalize these laws will also be important.

Indicator 1.1.: Number of Program outputs developed and delivered in accordance with long term plans and annual work plans.				
	Baseline Number existing, start of Program	Number started, at reporting time	Number finalized, at reporting time	Goal
i. Laws and regulations	0	X	M	All*
ii. Methodology / systems	0	Y	N	All*

*Number for goal, i.e. "all" needs to be determined as part of the baseline evaluation.

Example of how the Indicator for Outcome 1 could be developed:
The indicator will only record the main stages of Program outputs, but the information will need to be collected at a more detailed level and then aggregated to the indicator.

There needs to be two types of things measured, (i) laws and regulations, and (ii) Supervisory methodologies / systems development. Which kind of document will be used as a basis for reporting or filling in the indicator is not important. It is however important that each output, that means each law, regulation or methodology, has its own line. The development of each of the activities is monitored. The indicator is then the sum of the activities started and finished – but aggregated by categories i and ii.

Below we have shown how a milestones plan can be used to summarize the number of outputs achieved. We assume that there will be one document for each topic area or by organizations involved. The example below is cross topic and just meant as an example of how this can fill in to the indicator.

As has been mentioned before, it is important that is agreed from the beginning who will be responsible for following up the reporting work and that this person/organization receives needed information in time from the partners.

Example only! Milestones Plan for 1.1.i. Laws and regulations	Planned Start	Planned End	Date Started	Date finalized
1. Health and safety regulation for petroleum sector in place	Mar-15	Dec-15	Mar-15	Jan-16
2. Environmental regulation for petroleum sector in place	Apr-15	June-16	June-15	
3. Law on recovering resource rents (covering payment of fees, taxes, royalties, etc.) in place	Jun-15	June-16	Aug-15	
Sum			3	1
Milestone Plan for 1.1.ii. Supervisory Methodology / Systems development				
1. System and guidelines for implementing Health and Safety regulations are developed and in place	Apr-15	Sept-17	Apr-15	
2. System and guidelines for implementing Environmental regulations	Jun-16	Jun-17		
3. Financial auditing mechanisms developed	Oct-15	Mar-17	Oct-15	
4. Emergency preparedness and response system developed	Oct-16	Dec-17		
5. HSE data system developed	Jun-16	Dec-18		
Sum			2	0

Partners might feel that counting all outputs is a demanding and time consuming task. Therefore an alternative approach can be to select some key outputs that are crucial for further development and examine only those.

Suggested Indicator 1.2: **Perceived quality of a selected number (defined) of laws & regulations and supervisory methodologies / systems / guidelines that are evaluated to be "adequate" or better.**
Another approach would be to select a specific number of laws & regulations and methodologies & systems and evaluate them in terms of their quality. The evaluation would need to be done by experts from the Norwegian partner institutions or by a third party. This may involve additional costs since someone would have to review and evaluate each of the chosen regulations and guides unless the Norwegian partners have to do this anyway as part of the Program.

Indicator 1.2: Perceived quality of a selected number (defined) of laws &regulations and supervisory methodologies / systems / guidelines that are evaluated to be "adequate" or better.				
Baseline	Needs Improvement	Adequate quality	Good quality	Goal – "Adequate" or better Quality
0	M (=3 in example)	N (=1)	P (=1)	Y (All)

Example only! Selected laws & regulations and methodologies & systems:	Needs improvement	Adequate Quality	Good Quality
Laws and regulations			
1. Health and safety regulation for petroleum sector	x		
Supervisory Methodology / Systems development			
2. System and guidelines for implementing Health and Safety regulations are developed and in place		x	
3. System and guidelines for implementing Environmental regulations			X
4. Financial auditing mechanisms developed	x		
5. Emergency preparedness and response system developed	x		
SUM	3	1	1

Suggested Indicator 1.3: **Share of agreements needed, that specify roles and responsibilities between institutions, developed and signed**

Based on our own experience from Norway and in partner countries, we know how important it is to clarify roles and responsibilities in order to work in unambiguous, successful and efficient ways. Laws and regulations specify roles and responsibilities to some extent, but typically the details need to be worked out between the relevant governmental institutions. The need for such cooperation agreements was confirmed by the Norwegian implementing agencies. What kind of agreements these should be will depend on Lebanese practice. In Norway the agreements were signed at a very high level and were very formal.

Although there might be some prior agreements/arrangements/understandings between the Lebanese agencies involved, the petroleum sector is a new activity and it needs additional specifications – especially regarding roles and responsibilities. We therefore assume that the baseline at this time is 0. Following the Program document, there are mainly 4 Government agencies involved: PA, MoF, MoE and MoEW but there is also the Marine and potentially other institutions. In the activity plan for output 4.1.3 there are additional stakeholders named – giving a total of 14 potential institutions or upwards of 200 potential bilateral and even more multi-lateral agreements. Which cooperation agreements or other types of formal arrangments/MoUs are needed should be determined as soon as possible and then this should be established as the goal.

Since these cooperation agreements are expected to be in place fairly soon, we would suggest that it should be a goal to achieve this in the first half of the Program period if possible.

Even though important in general, the indicator is specifically linked to outputs 4.1.2 and 4.1.3. Based on experience, clearer specification of roles will usually also lead to better cooperation as there is less disagreement regarding who should do what.

Indicator 1.3: Share of agreements needed, which specify roles and responsibilities between / among institutions, that are developed and signed.			
Baseline	Share developed	Share signed	Goal
0	C (Example = 3/5)	D (Example = 1/5)	1 (5/5)

Example only! Bi- or multi-lateral agreements between/among Lebanese institutions	**Agreement developed (date)**	**Agreement signed (date)**
Bi-lateral agreements needed between institutions		
1. PA and MoEnvironment	Jan 2015	Feb 2015
2. PA and MoEnergy and Water	May 2015	-
3. PA and MoDefense	-	-
Multi-lateral agreements needed among institutions		
4. Ministries of Environment, Finance, Labour, Defence, Energy&Water	Oct 2015	-
5. Ministries of Energy&Water, Public health, Public Works, Agriculture Industry, Economy, Interior, Telecom, Disaster Management Team	-	-
SUM	3	1

Suggested Indicator 1.4: **Share of female employees at PA and key other partner institutions**

Having an indicator for each of the main outputs signals the importance of that area. Gender mainstreaming (Output 4.1.4) has not been assigned an indicator in the original program document. On a general level this is covered at the impact level with the gender index. But that index is very general and does not focus specifically on the petroleum sector. Since the OfD program will focus mostly on gender mainstreaming in the petroleum sector, we are suggesting that a more specific indicator be used.

How this information is collected will depend on the systems in the Lebanese government institutions. In some countries there are administrative systems covering the needed employment parameters that can provide this information easily, while in others this information needs to be gathered manually.

It might be possible to get sector specific information from the labor force survey which is conducted periodically by CAS. In that case it is important to make sure that there will be a second survey towards the end of the Program period.

If data needs to be gathered manually, collecting information for this indicator can probably be linked with gathering information for suggested indicator 2.7 which is covering staffing levels and trained staff in the main petroleum sector related government ministries/agencies/entities.

Whether this indicator should be prioritized or not will depend on how easy the information can be collected and how important having an indicator for gender mainstreaming that is sector specific.

Indicator 1.4: Share of female employees above clerical positions at PA and key other partner institutions		
Baseline	As per reporting time	Goal
?	y/z	? 0.5?

Example only!	Number of Female employees in petroleum relevant units	…Of which are above clerical positions	Total number of employees in petroleum relevant units
PA			
1. Strategic Planning Department	A	a	M
2. Technical and Engineering Department	B	b	N
3. Geology and Geophysics Department	C	c	O
4. Legal Affairs Department	D	d	P
5. Economic and Financial Department	E	e	Q
6. Quality, Health, Safety and Environment Department	F	f	R
MoE	G	g	S
MoEW	H	h	T
MoF	I	i	U
SUM	X	y	Z

5.3.   Outcome 2: The government entities carry out their assigned roles and responsibilities in accordance with the strategic and legal framework in the petroleum sector

While Outcome 1 focused more on having the various legal and regulatory frameworks in place, Outcome 2 focuses on the implementation and use of the tools developed. Perhaps more important, this outcome focuses on capacity building and changed behavior in the organizations. Although not always easy to measure, we have tried to include measures of quality as much as possible.

All the representatives of the Norwegian partner institutions stressed the importance of capacity building during this Program phase. In addition to capacity building, this outcome also measures the quality of the documents to be developed as part of the activities and outputs related to Outcome 1. For this reason, the number of proposed indicators is highest for Outcome 2.

Due to uncertainties in the program, we will suggest two "levels" of indicators;
    A: that assumes that there will be real case implementation and use of skills learned; or
    B: where only training and preparation is possible.

In both cases trying to get a feel for the knowledge level and capacity of the institutions and people working in them will be key.

It will be up to the Program partners to decide whether only one or both should be used. We would recommend going for "A" if there is a good chance of implementing or using the new knowledge provided during training. If there is a doubt whether there will be opportunities for applying the training in practice, then the default would be to use indicator "B", and if implementation does happen, "A" can be measured in addition.

As explained in the introduction of this chapter, we have tried to cover as many aspects of the Program as possible and have asked Norwegian partners what they believe will be the most important areas of cooperation based on their present knowledge. Based on this, we have identified the following subjects:

- Resource estimation (NPD)
- Data management (NPD)
- Environmental Impact Assessments (NEA)
- Safety and emergency preparedness (PSA and NCA)
- Financial control including revenues (OTO)

Since the activities of the Program may be adjusted based on the information in the SODEL report, revising the different focus areas of the indicators should be considered. As the Program is modified, so should the related indicators be reviewed and modified accordingly.

As mentioned above, in the case where there will be no practical experience and no "real" outputs, information about capacity building needs to be collected in another way. We suggest using training evaluations as a proxy to obtain information about knowledge and capacity of individuals where implementation will not start in the Program period. There are some shortcomings with this approach as it does not measure actual knowledge of employees and organizations at the beginning and the end of the Program period. Neither does it take into account the general level of knowledge among staff and in the population. It measures primarily the effect of the trainings provided and is therefore closely linked with the activities of the Program.

Possible approaches that we have considered:

1. Level of satisfaction with training provided among participants (this gives information related to the course but not necessarily about the knowledge of the participants. It is our understanding that this will be done anyway for each of the training courses);
2. Self-evaluation: how confident participants feel in doing their job before and after training (before and after course – can be culture dependent since some cultures tend to overestimate their abilities, and others underestimate)
3. Evaluation of attendee's skills by trainers: Trainers write evaluation of perceived capacity and knowledge of participants (Trainers evaluate after the course – this may be difficult if there are many attendees at the course. Instead request a general impression from the trainer in the mission report about the attendees – in rough categories with numbers of attendees with – good, medium, no clue – understanding of the material presented).
4. Evaluation of skills through questionnaires: technical questions asked that can be linked to level of knowledge after training – for example, 5 or 6 multiple choice questions as part of the course evaluation questionnaire at end of the course.
5. Just count number of people attending the courses (Will not provide any information about skills obtained).

We would recommend a combination of 1 and 4 above, and where 3 is added if possible. This will give an understanding of the level of satisfaction and relevance of the course and a snap-shot of knowledge obtained. It is maybe not the most sophisticated approach, but easy to evaluate and cost-effective: We understand that an

evaluation form will be part of all trainings and skill related questions can easily be added to the evaluation, or as a separate form (assuming that there is no other testing or evaluation done in the training). The questions would need to be developed by the trainer and scored by the trainer – with a limited number of questions it should not add too much extra to the work of the trainer. Going through the questionnaires and noting down the number of responses for each category should not take much time either. In addition to providing information for the indicator, these evaluations can be helpful in developing better trainings in subsequent years.

With this approach, measurement will only be possible right after training, whether or not the knowledge will be forgotten before implementation starts is not measured. An approach that takes this aspect more into account might be considered for later programs.

Alternatively, information of the skills level could be evaluated either by the trainers in their mission reports (approach 3 above) and/or by the Program partners before each annual meeting. In these cases, it would be helpful if evaluation categories were predefined (for example excellent, adequate and poor skills/knowledge) and key criteria for the evaluation were agreed upon in advance. Exactly who would be doing this evaluation would also be important to define – and if possible keep consistent over the project period.

This type of evaluation is subjective by definition and can be highly influenced by the persons doing the evaluation. If carried out in an organized way, for example in relation to mission reports and annual meetings, it might be a cost effective approach and provide useful information to both the OfD program and the national institutions themselves. A similar approach to institutional evaluation has been used for the OfD Program in Ghana.

At the institutional level we suggest to measure capacity through a combination of number of staff working with petroleum related issues and the share of those that were trained during the Program period that are still working at the agency at the end of the Program period. (This would mean also approach 5 is used.) This will require that the lists of participants attending each of the trainings be kept – and that these persons be located at the end of the project period – to identify whether they are still working in the petroleum related government institutions or not. If this turns out to be too time consuming, a general estimate by Program partners could also be an option.

With this approach the knowledge of staff that has not been to trainings is not measured. Employees could have prior knowledge from other places or they have attended other trainings. Internal exchange of knowledge might also be common. Measuring this through formal tests and evaluations is too time consuming and also beyond the Program. This type of assessment might be perceived as too intrusive by the staff – or as controlling their work. If it is important to capture general knowledge levels, the subjective assessment by Partners of capacity of staff (suggested as alternative approach above) can be extended to all staff, not only those trained through the Program.

In the following section, we will first provide an introduction to the indicator then the two different indicator levels, "A" and "B", will be presented – the "B" indicator will most likely need to be the one used, but it may be possible to replace it with the "A" indicator if there is licensing and exploration activities during the Program period.

Suggested Indicator 2.1: **Resource estimation**

One of the few areas where the Norwegian-Lebanese cooperation has already started focuses on resource estimation. Lebanon apparently has some data about their resources but the methodology to estimate the size of the resources needs additional development and training. The NPD has a great deal of experience in this type of work and has developed a model that is usually used for these kinds of estimations. One way of training Lebanese experts in this methodology will be to select a small area and the NPD and PA will work together to make the resource estimation for this pilot area.

Through this learning-by-doing practical example, it is expected that the PA employees will then have the knowledge so that they can make similar analyses and estimations for other areas. A measure of whether the trained PA employees do indeed understand how to do this would be whether they can carry out analyses or estimations for other areas by themselves (without help from NPD or others). However, since it is uncertain whether the training in applying the resource estimation model will be applied to other areas, we also propose an alternative indicator where only training will be provided.

Indicator 2.1.A: PA has carried out (and published the results of) a resource estimation of a number of potential oil development areas using the NPD methodology/model by themselves (without outside help).				
Baseline	As per reporting time, Number of analyses started	Number of analyses completed	Number of analyses published	Goal
None	X (example = 3)	Y (example = 2)	Y (example = 1)	Z (all?)

Example only! **Resource estimation analyses**	**Date started**	**Date finalized**	**Date published**
Area 1	Mar-16	Dec-16	Feb-17
Area 2	Apr-16	Jan-17	
Area 3	Jun-16		
Sum	3	2	1

Indicator 2.1.B: The responsible agency (PA) has an adequate number of trained staff with knowledge to carry out a resource estimation of an area, under the supervision of Norwegian experts.			
Baseline	Total number of course attendees	At end of trainings, number of course attendees exhibiting «knowledge»	Goal
Number – none?	Number of persons	Number of persons answering 80% or better on course questionnaire	Number of knowledgeable staff needed to do this at PA

Again, we would recommend a questionnaire at the end of the trainings that would have a course evaluation but that also some testing of knowledge was also included in the questionnaire. In addition, the mission report from the trainer should give some general evaluation of participants.

BOX: The "B" indicators.

For the indicators 2.1 to 2.6 we have proposed two levels of indicators as explained earlier. The "B" level indicator is the one we propose to use when only training is possible in the Program period. As we have proposed a similar way of measuring them, we are presenting a possible way of collecting information needed for all of them here.

Baseline and goal: A first step is to identify as soon as possible how many people already have the specific skill or knowledge (baseline) and how many the agency believes will be necessary (goal). Especially the estimation of how many will be needed is important and can help inform trainers on how many should be trained.

Measuring knowledge after training: We have earlier recommended measuring the skills and knowledge after training using a questionnaire. Here is a rough suggestion for which general questions could be included:
On a scale from 1 to 5 where 5 is best:
  i.   How pleased/satisfied are you with the training provided?
  ii.   How relevant was the training for your day to day job?
  iii. Was the training provided sufficient for carrying out your job in this field?

In addition, 5 multiple choice questions should be asked that help identify whether the participants have gained the relevant/needed knowledge.

Whether a participant has gained "sufficient knowledge" or not would then be a combination of self-evaluation and testing. We would suggest that the threshold for "sufficient knowledge" is:
  -   The participant has rated the training (point ii. and iii.) as 4 or better
  -   The participant has answered at least 4 of 5 multiple choice questions correctly.

Each questionnaire could then easily be evaluated and the number of persons that "passed" would be entered in the indicator.

It is important to keep the evaluation form free of individual information to ensure confidentiality and this should also be pointed out before asking participants to fill in the form to increase the chance of answering truthfully.

There are some shortcomings to this approach. One is that it only measures knowledge after training and not over time. If there is little activity in the period that follows, the obtained skills could be forgotten. As our impression is that the general level of knowledge in Lebanon is high however, we do not see this as a big problem.

An alternative approach is to only use evaluations by trainers. If the self-evaluation and feedback to trainers is not seen as so important in this context and if trainers are comfortable with such an evaluation, they could give a rough estimate of how many of the participants are assumed to have the needed knowledge.

Suggested Indicator Area 2.2: **Environmental Impact Assessment**

Once applications for licenses or other types of activities are submitted, the government officials will need to evaluate them. Part of the evaluation process will involve reviewing the Environmental Impact Assessments (EIA) that are required as part of the application for starting operations. Having the proper knowledge and capacity to do this work within the time periods allowed under the regulations/laws will be important for the Lebanese authorities.

The time periods allowed for the EIA reviews will need to be determined as part of the measurement of this indicator.

If there are no licensing rounds during the project period, there will be no need to make EIA reviews – in that case, only training and capacity will be possible to measure.

Indicator 2.2.A: Share of EIAs that have been reviewed within the *timeframe set by Lebanese law*.					
Baseline	Number registered	Number reviewed	Number reviewed within time limit	Share as per reporting time	Goal
0	3	2	1	Y (example 1/2)	1

The following is a suggestion for how to obtain data for 2.2.A:

For each EIA submitted, there will be a submission date. The submission date will most likely also determine the deadline for the review. A type of score card would be needed, where each EIA submission is recorded with the date of submission, and the deadline for review is also determined and recorded. When the EIA has been reviewed, the date for the completion of the review will also need to be recorded. From this information, the share of EIAs reviewed within the specified deadline can be determined. These types of administrative records should be in place – so hopefully obtaining this information will not add additional administrative burden.

Example only! **For Indicator 2.2.A EIAs**	**Date received**	**Deadline for review**	**Date started**	**Date review finalized**	**Deadline met**
EIA from Company 1	03Mar-16	03Jun-16	15Mar-16	23Jun-16	No
EIA from Company 2	08Apr-16	08Jul-16	10Apr-16	04Jul-16	Yes
EIA from Company 3	15Dec-16	15Mar-17			
Sum	3			2	1 of 2

Indicator 2.2.B: PA/MoE staff has the competence and capacity to review submitted EIAs within the *timeframe set by Lebanese law*.			
Baseline	Number attending trainings	Number showing competence after the trainings	Goal
None or very few	X	Y	Number of competent staff needed to do this at PA/MoE

Suggested Indicator Area 2.3 and 2.4: **Health, Safety and Environment/Emergency preparedness and response**

Although currently there are no activities which require HSE supervision or emergency preparedness and response, once licenses for exploration are issued, the exploration wells will start to be drilled. This activity will

then require that the Lebanese authorities have the competence and capacity for HSE inspections and respond to potential accidents and emergencies if something goes wrong.

Although we are proposing two type A indicators for this area, from the current situation when the licensing rounds keep being postponed, it is most likely that the type B indicators will be the most applicable for the project period.

Indicator 2.3.A: Share of planned HSE audits/inspections to enforce HSE procedures that have been completed.					
Baseline	Planned HSE audits / inspections	Number of HSE audits/inspections started	Number of HSE audits/ inspections completed	Share completed at time of reporting	Goal
0	A	B	C	Y (example C/A)	1

Indicator 2.3.B: PA/MoE staff has the competence and capacity for conducting HSE audits/inspections.			
Baseline	Number attending trainings	Number showing competence after the trainings	Goal
None or very few	X	Y	Number of competent staff needed to do this at PA/MoE

Indicators for Emergency Response:

Indicator 2.4.A: The Lebanese marine has held an Emergency Response Exercise which has been considered adequate for the risks identified.				
Baseline	Date exercise planned	Date exercise performed	Evaluation of exercise: Needs improvement / Adequate / Good	Goal
None	xx.xx.20xx	xx.xx.20xx		Exercise completed and evaluation was judged as "adequate" or better

Indicator 2.4.B: The Lebanese marine has the competence and capacity (human resources) for emergency response – including oil spill contingency plans.			
Baseline	Number attending trainings	Number showing competence after the trainings	Goal
None or very few	X	Y	Number of competent staff needed to do this in the Marine

Number of staff attending the trainings, plus the course evaluation questionnaire with some knowledge evaluation will also be needed. In addition, the evaluation of the trainer from the mission report will also help to evaluate 'competence' levels.

Suggested Indicator Area 2.5: **Financial resource management**
There are a number of different aspects to this Program area. On the one hand, there is the national taxation system that determines how the resource rent will be collected from the oil companies. This includes the use of licensing fees, royalties and various types of taxes. On the other hand, there is the function of auditing and

collecting the revenues that are due to the government. Both of these are important but the focus during this phase of the Program will mostly be on the monitoring and auditing function.

Since there is very little activity – with perhaps the only revenues being licensing fees – again, increasing the competence of staff will most likely be the main activity.

Indicator 2.5.A: Share of companies that have been audited with respect to their tax, royalties and fee payments and liabilities due to the government according to the applicable regulations.		
Baseline	As per reporting time	Goal
0	Y (between 0 and 1)	1

If during the program period, only licensing fees are due and these fees are paid before the license is issued, then perhaps this indicator is moot, since no additional controls (or audits) are needed.

If no revenues are being generated, then the focus of the indicator becomes the training of staff for doing audits of petroleum companies.

Indicator 2.5.B: The Ministry of Finance(?) has the competence and capacity to conduct audits on petroleum companies			
Baseline	Number attending trainings	Number showing competence after the trainings	Goal
None or very few	X	Y	Number of competent staff needed to do this in the MoFinance

Number of staff attending the trainings, plus the course evaluation questionnaire with some knowledge evaluation will also be needed. In addition, the evaluation of the trainer from the mission report will also help to evaluate 'competence' levels.

Suggested Indicator Area 2.6: Data management related to resource mapping
Related to resource estimation is the need for data management of all of the different types of data that support analysis for finding and estimating petroleum reserves. Archiving of information and converting different types of data into modern formats are also needed.

Output 4.2.3 stipulates that data will be published regularly. The publishing of data is a way of identifying a level of transparency and accountability so that this indicator also provides insight relevant to Outcome 3.

Indicator 2.6.A: Data management system related to resource mapping is in place and actual resource data is made available to appropriate stakeholders.		
Baseline	As per reporting time	Goal
No database	?	Key resource data available online

Indicator 2.6.B: Number of staff that knows how to enter and handle data in the data management system once system and data become available.			
Baseline	Number attending trainings	Number showing competence after the trainings	Goal
None or very few	*X*	*Y*	*Number of trained staff needed to handle system*

The "B" alternative is not only dependent on holding trainings, but it is also dependent on having a data management system that can be used in the training. If a system is in place before trainings are given, reformulating the indicator is recommended.

The next 2 indicators are not related to a specific thematic area, but suggest ways of measuring the overall capacity at the main Lebanese Government institutions involved in the petroleum sector. If additional institutions are identified, they should be added.

*Suggested Indicator 2.7***: Share of trained staff working with petroleum related issues at Government institutions**
Based on experience from projects in other countries, we know that many Government employees move to the private sector once they have more skills. This could also happen in Lebanon and if this happens, securing sufficient competence in the Government institutions will be challenging.

We therefore suggest measuring the share of those trained during the Program that are working with petroleum related issues or in the relevant division at the Government institutions. Reasons for tracking these staff is that staff might leave the organization for better payment/opportunities elsewhere and sometimes people are moved to other parts of an organization without good reasons. Having an indicator that looks at the general turnover might also increase the chance of keeping staff in the divisions that are working with petroleum related activities.

Since this exercise demands some counting, it could be an option to only count this at the end of the Program period – although annual figures may be of interest to management.

Keeping lists of participants in the various trainings, and their current position in their government institution would be very helpful. Locating these individuals – and determining their employment status at a later point in time will also be needed. Hopefully this can be done using employee lists from the various institutions (assuming these are kept up-to-date – an alternative is to match telephone contact lists). Alternatively, if it is time consuming to collect in this way, an overall estimate may be provided.

Instead of looking at staff in general, it is also an option to specify specific skills or titles. For example, one could count the number of engineers or some other job title.

	Baseline	End of project period			Goal
	Total staff working on petroleum issues	Total trained staff working on petroleum issues	Total staff working on petroleum issues	Share of trained staff	
PA				Y (between 0 and 1)	1
MoE				Y (between 0 and 1)	1
MoEW				Y (between 0 and 1)	1
MoF				Y (between 0 and 1)	1

Indicator 2.7: Share of trained staff working with petroleum related issues in the main Government institutions involved in the petroleum sector

Suggested Indicator 2.8: Number of people that need to review/approve a document before it is released

One thing that influences efficiency of administrative procedures, and therefore also the number of staff needed, is how many people need to be involved before a document can be officially sent out. An example is how many need to be involved in the EIA review before a decision can be returned to the oil companies.

Process mapping is often used to help figure out who needs to do what and in what sequence, in order for a certain result to be obtained. Typically an 'approval' or 'rejection' of an application of some type is used to identify if the systems and procedures being set up are understood and efficient.

This might be part of the systems development of the Program and could be used as an indicator – it may be that a specific process that administrations have to cooperate to complete or perhaps each institution would chose a process (such as an EIA review) to map and improve as part of the Program.

On the other hand, although this could be a good indicator for efficiency of a bureaucracy, government institutions may not be willing to share this type of information. This type of exercise can take time and resources to do – and therefore might not be cost effective unless it is already part of the work on the administrative systems development work.

An alternative, less specific, but simpler approach is to just use the Government effectiveness index which is part of the World Governance Indicator (as briefly explained under impact indicator 6)

Indicator 2.8: Number of people (or steps) required to review/approve a document before it is released

Institution + process/document	Baseline – current number of steps/people needed	Number of steps/people needed - As per reporting time	Goal – proposed improvement
PA -	A		Less than A
MoE – EIA review	B		Less than B
MoEW -	C		Less than C
MoF – Calculation and collection of royalties or license fees	D		Less than D

5.4.   Outcome 3: Accountability and transparency in the petroleum sector is strong

Although not as closely linked as Outcomes 1 and 2, this outcome does depend on the other two outcomes. With better regulations and tools that are shared with the public, an important aspect of accountability and transparency would be in place.

However, at the present stage, there are still many details that need to be clarified, and it is therefore too early to recommend very specific indicators for this outcome.

***Indicator suggestion 3.1*: International indicators re-used**

Although international indicators are measuring transparency and accountability for Lebanon as a whole, they are cost effective and easy to use. We therefore suggest using the Voice and Accountability component of the World Governance indicator. It is also possible to select only one or select several of the individual indicators that feed into the Voice and Accountability index. Unfortunately, none of these sub-components focus on the petroleum industry in particular – so using the overall indicator would be easiest.

Indicator 3.1: Score of Voice and Accountability index (from the World Governance Indicator)		
Baseline	As per reporting time	Goal
33,6	(only annual updates)	?

***Suggested Indicator 3.2*: Lebanon has carried out all four sign-up steps for EITI membership and handed in an application to EITI**

The Extraction Industry Transparency Initiative (EITI) is a global standard. One of the main ideas of the EITI standard is to ensure full disclosure of taxes and other payments made by the extractive industry to governments. EITI publishes a report with this information which allows citizens to see how much the government is receiving.

Lebanon is not yet part of the EITI, and although not specifically stated in the Program document, it is an implicit goal. In order to become a member, Lebanon has to carry out 4 steps before they can apply for membership. If they are accepted, a validation will be carried out.

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4 steps to become an EITI candidate country

As outlined in the EITI Standard, a country intending to implement the EITI is required to undertake the following four "sign-up" steps to become an EITI Candidate:

1.1 The government is required to issue an unequivocal public statement of its intention to implement the EITI.

1.2 The government is required to appoint a senior individual to lead the implementation of the EITI.

1.3 The government is required to commit to work with civil society and companies, and establish a multi-stakeholder group to oversee the implementation of the EITI.

1.4 The multi-stakeholder group is required to maintain a current workplan, fully costed and aligned with the reporting and Validation deadlines established by the EITI Board.

When a country considers it has met these four requirements, it may submit a Candidature Application to the EITI Board. If the Board finds that the requirements have been successfully met, the country will become an EITI Candidate country.

Source: https://eiti.org/eiti/implementation/signup

Since there are many parties that need to be involved in this process and the evaluation processes can take time, it is uncertain how far Lebanon can get in this process within the Program period. In order to get a better understanding, the OfD secretariat has been in contact with EITI in order to check how far Lebanon can expect to get. According to the EITI secretariat, if there are no major delays, it is possible to have the application approved within the Program period. We therefore suggest this as the final goal. However, as there are several steps, and each step has value in itself, we suggest an indicator that shows the progress step by step. A cross (or a date) will indicate how far along Lebanon has come in the process.

Indicator 3.2: Lebanon has carried out all four sign-up steps for EITI membership and submitted an application to EITI.						
Baseline	Step 1	Step 2	Step 3	Step 4	Application sent	Application approved
O						

***Suggested suggestion 3.3*: Number of visits at PA websites that provide public information as specified in sub-indicators**

The Program document outputs indicate that the following information should be shared at the PA (or others) website:

- 4.2.3: Plans and systems for resource mapping, management and supervision…System for publishing data regularly online developed…
- 4.2.5: Ethical guidelines/code of conduct/integrity principles for the PA developed and published online
- 4.3.1: Procedures on access to information developed and published on the website of the PA
- 4.3.2: Procedures for public consultation of stakeholders…published online.
- 4.3.7: A simple, comprehensive guide to the petroleum sector governance structure and summary of key legislation developed and published online.

That all this information is shared is a goal in itself, but it is even more important that the public is aware that the information is available. We therefore suggest counting the number of visits to the webpages that contain this information once they are published.

This would demand a counting function at those web pages that are relevant (not the PA website as such) and might cost a little to have installed. However, once installed, it demands no resources and is therefore a very cost-effective indicator.

Since some of these goals are also linked to drilling or extraction activity, or the availability of data, it might be an option to limit the indicator to those outputs that are general information documents. This would also reduce the reporting burden.

Indicator 3.3: Number of visits ("hits") to PA websites that provide public information as specified in the following sub-indicators:			
	Baseline	As per reporting time	Goal
i. Petroleum data that are published online	*0*	*?*	*Increasing number of hits*
ii. Ethical guidelines	*0*		
iii. Procedures on access to information	*0*		
iv. Procedures for public consultations	*0*		
v. Guide to petroleum sector governance structure	*0*		
vi. Summary of key legislation	*0*		

Suggested Indicator 3.4: Opportunity to voice an opinion or 'have a say' in the decisions of the government agencies involved in the petroleum sector.

Public hearings, information meetings and other types of public consultations are an important part of an open government and transparency. In this indicator we would like to capture information about whether these types of meetings are perceived by participants as a chance to give their views and whether they felt listened to.

We would suggest some type of "smiley face" counter outside the meeting rooms where participants can give their immediate feed-back to the meeting. It would be important to have a headcount so the number of participants in each meeting is known, or even better a list of participants. This can be seen as a measure of how well the Government interacts with civil society as a higher number shows that civil society has been informed and believes that their attendance makes a difference. It can also be useful to know which organisations were present.

Indicator 3.4: There are opportunity to voice an opinion or 'have a say' in the decisions of the government agencies involved in the petroleum sector						
Baseline	Total number of meetings	Total number of participants in all meetings	Number of meetings with majority giving ☹	Number of meetings with majority giving ☺	Number of meetings with majority giving ☺	Goal
						75% of meetings with majority rating ☺

5.5.   Conclusions / advice on Outcome indicators

In this chapter we have suggested a new set of indicators for the outcome level. It has been important for us to cover the Program broadly and include indicators that measure both the quantity and quality aspects. Since there still is much uncertainty both on the baseline and what kind of goals can be set, there will still be need for adjustments once the program activities become clear. We have tried to take the uncertainty into account by suggesting a varied set of indicators. Program partners should then choose those indicators that seem most relevant. It has been important for us to include some flexibility in order to allow the program experts make the final decisions.

A very important next step is to define the baseline and set a concrete goal for each indicator once it is clear which ones will be used. Ideally this should be done by partners together in relation to the annual meeting planned in February 2015. If there still is background information missing, a new deadline should be set.

6. Conclusion

In this report we have evaluated the impact and outcome level indicators for a three-year cooperation project between Lebanon and Norway focusing on the development of the petroleum sector. On an impact level we mainly suggest to keep the present set of indicators with a few changes and additions. On the outcome level, after feedback from Program partners, we have suggested a revised set of indicators. It has been our aim to propose a set of indicators that broadly measures the effect and success of the Program.

At the same time, we have had a focus on proposing indicators that are relatively easy to collect and do not demand too many resources to follow up. This is also related to the flexibility we have included in the present proposed indicator set: As we do not know all the details, Program partners can further assess which indicators they think are most relevant and possible to collect – or revise them to make them fit the program activities, outputs and outcomes.

Since the indicators should be used and reported regularly throughout the Program period, it is important to define who will be responsible for collecting and processing the data needed. Deadlines both for those that should provide input and for intermediate and final reports should be set as soon as possible if this is not linked to annual meetings.

Annex 1: Table of indicators with baseline

This annex provides an overview over all the different indicators proposed for the Lebanon Program. Detailed description of each indicator can be found in the full report, but a very short and general explanatory text is included here for each level of indicators.

IMPACT Indicators

For the impact indicators we have included the source and baseline information. It is however up to the partners to determine the goal.

	IMPACT: *The goal of the Program in Lebanon is to ensure the sustainable management of petroleum resources which safeguards the needs for present and future generations in Lebanon.*					
	Indicator	**Source**	**Baseline**			**Goal (?)**
			Year (latest available)	**Rank**	**Score**	
1	GDP per capita per year (current USD)	World Bank	2013	Upper middle income	9 870 *(current US $)*	?
	GDP (current and constant)	CAS	2013	-	Current: 61.9 trillion LBP Constant: 71.2 trillion LBP	
2	Index of Economic Freedom	Heritage Foundation	2014	96	59,4	?
3	Ease of doing business	World Bank	2015	104	60,61	?
4	Human Development Index	UNDP	2013	65	0,765	?
5	Corruption perception Index	Transparency International	2013	127	28	?
6	World Governance Indicators 1. Voice and accountability 2. Political stability 3. Government effectiveness 4. Regulatory quality 5. Control of corruption 6. Rule of law	World Bank	2013	*(prcntile rank)* 33,6 6,2 42,1 49,8 18,2 25,1		?
7	Gender Gap Index	World Economic Forum	2014	135	0,592	?
8	World Press Freedom Index	Reporters Without Borders	2014	106	31,89	?
9	Proven petroleum reserves					
10	*Environmental Indicators –* *1. Air emissions (CO_2 or GHGs) per tonne HC produced/extracted* *2. Water (or soil) emissions per tonne HC produced/extracted*					

1. http://data.worldbank.org/indicator/NY.GNP.PCAP.PP.CD
   http://www.cas.gov.lb/index.php/national-accounts
2. http://www.heritage.org/index/
3. http://www.doingbusiness.org/data
4. http://hdr.undp.org/en/data
5. http://www.transparency.org/cpi2014/in_detail
6. http://info.worldbank.org/governance/wgi/index.aspx#home
7. http://reports.weforum.org/global-gender-gap-report-2014/part-1/
8. http://rsf.org/index2014/en-index2014.php

OUTCOME indicators

In the following all outcome indicators are presented. As we in most cases do not know the baseline, this has not been defined and needs to be specified by Program partners once the final set of indicators is agreed upon. Goals should also be set for those indicators as soon as possible.

Since we do not have the detailed Program information and there still is much uncertainty, we have proposed a broader set of indicators than what we believe is necessary. It will be up to partners to decide which ones will be used. In order to cover the project broadly and measure both quality and quantity aspects, we have, however, defined a set that we recommend using. Those indicators are marked green in the left box, while those we think of as additional or alternative indicators are marked yellow.

For outcome 2, where we have linked indicators to implementation of different activities, we have proposed a set of indicators: level "A" indicators if implementation is possible and level "B" indicators if implementation and use of skills is not possible. Since implementation would be the ideal, these are the indicators we have marked green, while the others are marked yellow.

Outcome 1: *Lebanon establish a strategic, legal and fiscal framework for managing the petroleum sector*		
Indicator	**Baseline**	**Goal (?)**
1.1. Number of Program outputs developed and delivered in accordance with long term plans and annual work plans.		
1.2. Perceived quality of a selected number (defined) of laws &regulations and supervisory methodologies / systems / guidelines that are evaluated to be "adequate" or better.		
1.3. Share of agreements needed, which specify roles and responsibilities between / among institutions, that are developed and signed.		
1.4. Share of female employees above clerical positions at PA and key other partner institutions		

	Indicator	Baseline	Goal (?)
Outcome 2: *The Government entities carry out their assigned roles and responsibilities in accordance with the strategic and legal framework in the petroleum sector.*			
🟩	*2.1.A:* PA has carried out (and published the results of) a resource estimation of a number of potential oil development areas using the NPD methodology/model by themselves (without outside help).		
🟨	*2.1.B:* The responsible agency (PA) has an adequate number of trained staff with knowledge to carry out a resource estimation of an area, under the supervision of Norwegian experts.		
🟩	*2.2.A:* Share of EIAs that have been reviewed within the *timeframe set by Lebanese law*.		
🟨	*2.2.B:* PA/MoE staff has the competence and capacity to review submitted EIAs within the *timeframe set by Lebanese law*.		
🟩	*2.3.A:* Share of planned HSE audits/inspections to enforce HSE procedures that have been completed.		
🟨	*2.3.B:* PA/MoE staff has the competence and capacity for conducting HSE audits/inspections.		
🟩	*2.4.A:* The Lebanese marine has held an Emergency Response Exercise which has been considered adequate for the risks identified.		
🟨	*2.4.B:*. The Lebanese marine has the competence and capacity (human resources) for emergency response – including oil spill contingency plans.		
🟩	*2.5.A:* Share of companies that have been audited with respect to their tax, royalties and fee payments and liabilities due to the government according to the applicable regulations.		
🟨	*2.5.B:* Ministry of Finance(?) has the competence and capacity to conduct audits on petroleum companies.		
🟩	*2.6.A:* Data management system related to resource mapping is in place and actual resource data is made available to appropriate stakeholders.		
🟨	*2.6.B:* Number of staff that knows how to enter and handle data in the data management system once system and data become available.		
🟩	*2.7:* Share of trained staff working with petroleum related issues in the main Government institutions involved in the petroleum sector.		
🟨	*2.8:* Number of people (or steps) required to review/approve a document before it is released.		

	Indicator	Baseline	Goal (?)
Outcome 3: *Accountability and transparency in the petroleum sector is strong.*			
🟨	*3.1:* Score of Voice and Accountability index (from the World Governance Indicator)		
🟩	*3.2:* Lebanon has carried out all four sign-up steps for EITI membership and handed in an application to EITI.		
🟩	*3.3:* Number of visits at PA websites that provide public information as specified in sub-indicators		
🟩	*3.4:* There are opportunity to voice an opinion or 'have a say' in the decisions of the government agencies involved in the petroleum sector		

Annex 2: All outcome indicators suggested:

In this annex all outcome indicators are presented more detailed, but without explanatory text.

OUTCOME 1:

Indicator 1.1.: Number of Program outputs developed and delivered in accordance with long term and annual work plans.				
	Baseline Number existing, start of Program	Number started, at reporting time	Number finalized, at reporting time	Goal
A. Laws and regulations	0	X	M	All*
B. Methodology / systems	0	Y	N	All*

*Number for goal, i.e. "all" needs to be determined as part of the baseline evaluation.

Indicator 1.2: Perceived quality of a selected number (defined) of laws &regulations and supervisory methodologies / systems / guidelines that are evaluated to be "adequate" or better.				
Baseline	Needs Improvement	Adequate quality	Good quality	Goal – "Adequate" or better Quality
0	M (=3 in example)	N (=1)	P (=1)	Y (All)

Indicator 1.3: Share of agreements needed, which specify roles and responsibilities between / among institutions, that are developed and signed.			
Baseline	Share developed	Share signed	Goal
0	C (Example = 3/5)	D (Example = 1/5)	1 (5/5)

Indicator 1.4: Share of female employees above clerical positions at PA and key other partner institutions		
Baseline	As per reporting time	Goal
?	y/Z	0.5 (What is realistic? 0.2?)

OUTCOME 2:

Indicator 2.1.A: PA has carried out (and published the results of) a resource estimation of a number of potential oil development areas using the NPD methodology/model by themselves (without outside help).				
Baseline	As per reporting time, Number of analyses started	Number of analyses completed	Number of analyses published	Goal
None	X (example = 3)	Y (example = 2)	Y (example = 1)	Z (all?)

Indicator 2.1.B: The responsible agency (PA) has an adequate number of trained staff with knowledge to carry out a resource estimation of an area, under the supervision of Norwegian experts.			
Baseline	Total number of course attendees	At end of trainings, number of course attendees exhibiting «knowledge»	Goal
Number – none?	Number of persons	Number of persons answering 80% or better on course questionnaire	Number of knowledgeable staff needed to do this at PA

Indicator 2.2.A: Share of EIAs that have been reviewed within *timeframe set by Lebanese law*.					
Baseline	Number registered	Number reviewed	Number reviewed within time limit	Share as per reporting time	Goal
0	3	2	1	Y (example 1/2)	1

Indicator 2.2.B: PA/MoE staff has the competence and capacity to review submitted EIAs within the *timeframe set by Lebanese law.*			
Baseline	Number attending trainings	Number showing competence after the trainings	Goal
None or very few	X	Y	Number of competent staff needed to do this at PA/MoE

Indicator 2.3.A: Share of planned HSE audits/inspections to enforce HSE procedures that have been completed.					
Baseline	Planned HSE audits / inspections	Number of HSE audits/inspections started	Number of HSE audits/inspections completed	Share completed at time of reporting	Goal
0	A	B	C	Y (example C/A)	1

Indicator 2.3.B: PA/MoE staff has the competence and capacity for conducting HSE audits/inspections.			
Baseline	Number attending trainings	Number showing competence after the trainings	Goal
None or very few	X	Y	Number of competent staff needed to do this at PA/MoE

Indicator 2.4.A: The Lebanese marine has held an Emergency Response Exercise which has been considered adequate for the risks identified.				
Baseline	Date exercise planned	Date exercise performed	Evaluation of exercise: Needs improvement / Adequate / Good	Goal
None	xx.xx.20xx	xx.xx.20xx		Exercise completed and evaluation was judged as "adequate" or better

Indicator 2.4.B: The Lebanese marine has the competence and capacity (human resources) for emergency response – including oil spill contingency plans.			
Baseline	Number attending trainings	Number showing competence after the trainings	Goal
None or very few	X	Y	Number of competent staff needed to do this in the Marine

Indicator 2.5.A: Share of companies that have been audited with respect to their tax, royalties and fee payments and liabilities due to the government according to the applicable regulations.		
Baseline	As per reporting time	Goal
0	Y (between 0 and 1)	1

Indicator 2.5.B: Ministry of Finance(?) has the competence and capacity to conduct audits on petroleum companies.			
Baseline	Number attending trainings	Number showing competence after the trainings	Goal
None or very few	X	Y	Number of competent staff needed to do this in the MoFinance

Indicator 2.6.A: Data management system related to resource mapping is in place and actual resource data is made available to appropriate stakeholders.		
Baseline	As per reporting time	Goal
No database	?	Key resource data available online

Indicator 2.6.B: Number of staff that knows how to enter and handle data in the data management system once system and data become available.			
Baseline	Number attending trainings	Number showing competence after the trainings	Goal
None or very few	X	Y	Number of trained staff needed to handle system

Indicator 2.7: Share of trained staff working with petroleum related issues in the main Government institutions involved in the petroleum sector					
	Baseline	End of project period			Goal
	Total staff working on petroleum issues	Total trained staff working on petroleum issues	Total staff working on petroleum issues	Share of trained staff	
PA				Y (between 0 and 1)	1
MoE				Y (between 0 and 1)	1
MoEW				Y (between 0 and 1)	1
MoF				Y (between 0 and 1)	1

Indicator 2.8: Number of people (or steps) required to review/approve a document before it is released			
Institution + process/document	Baseline – current number of steps/people needed	Number of steps/people needed - As per reporting time	Goal – proposed improvement
PA -	A		Less than A
MoE – EIA review	B		Less than B
MoEW -	C		Less than C
MoF – Calculation and collection of royalties or license fees	D		Less than D

OUTCOME 3:

Indicator 3.1: Score of Voice and Accountability index (from the World Governance Indicator)		
Baseline	As per reporting time	Goal
33,6	*(only annual updates)*	?

Indicator 3.2: Lebanon has carried out all four sign-up steps for EITI membership and submitted an application to EITI.						
Baseline	Step 1	Step 2	Step 3	Step 4	Application sent	Application approved
0						

Indicator 3.3: Number of visits at PA websites that provide public information as specified in the following sub-indicators:			
	Baseline	As per reporting time	Goal
i. Petroleum data that are published online	0	?	*Increasing number of hits*
ii. Ethical guidelines	0		
iii. Procedures on access to information	0		
iv. Procedures for public consultations	0		
v. Guide to petroleum sector governance structure	0		
vi. Summary of key legislation	0		

Indicator 3.4: There are opportunity to voice an opinion or 'have a say' in the decisions of the government agencies involved in the petroleum sector					
Baseline	Total number of meetings	Number of meetings with majority giving ☹	Number of meetings with majority giving 😐	Number of meetings with majority giving ☺	Goal
					75% of meetings with majority rating ☺

Annex 3: Goal hierarchy with indicators from the Final Program document

IMPACT

The goal of the Program in Lebanon is to ensure the sustainable management of petroleum resources which safeguards the needs for present and future generations in Lebanon.

Indicator	Baseline June 2014	Source
GDP per capita per year (current USD)	9 705 USD (2012)	World Bank
Index of Economic Freedom rank	96 of 178 (2013	Heritage Foundation
Ease of doing business rank	111 of 189 (2013)	World Bank
Human Development Index rank	72 of 186 (2013)	United Nations Development Program
Corruption Perception Index rank	127 of 177 (2013)	Transparency International
World Governance Indicators 7. Voice and accountability 8. Political stability 9. Government effectiveness 10. Regulatory quality 11. Rule of law 12. Control of corruption	Percentile Rank (2013) 1. 34,6 2. 6,3 3. 43,1 4. 47,4 5. 27,5 6. 21,5	World Bank
Gender Gap Index rank	123 of 133 (2013)	World Economic Forum
World Press Freedom Index rank	106 of 180 (2013)	Reporters Without Boarders
Proven petroleum reserves	Seismic data indicate potential, but currently no discoveries	Lebanese Government

OUTCOME

Outcome 1: Lebanon establish a strategic, legal and fiscal framework for managing the petroleum sector	INDICATOR • Number of Program outputs developed and delivered in accordance with annual work plans

S/N	Key outputs
4.1.1	National short, medium and long-term plans for developing the upstream petroleum sector based on scenarios formulated
4.1.2	A stakeholder mapping study identifying gaps and overlaps in roles and responsibilities in the petroleum administration is completed, including recommendations and action plans
4.1.3	Procedures for cooperation between the PA and the MoEW, MoF and the MoE in place
4.1.4	A plan for gender mainstreaming in the petroleum sector developed
4.1.5	Health, Safety and Environmental (HSE) policies, regulations, standards and guidelines developed and applied
4.1.6	An adequate system for emergency preparedness and response developed
4.1.7	A system for building needed HSE data developed
4.1.8	Options, international best practices and experiences to manage the expected revenues of the petroleum sector analysed and documented
4.1.9	Appropriate management, accounting and auditing mechanisms that meet international standards established
4.1.10	An appropriate supervisory framework for monitoring and supervising petroleum exploration and production Programs developed

Outcome 2:	INDICATOR
The government entities carry out their assigned roles and responsibilities in accordance with the strategic and legal framework in the petroleum sector	• Number of contracts and agreements successfully negotiated • Number of Plans for Development and Operation reviewed and approved • Number of petroleum related incidents with negative impact on the environment • Number of petroleum related Environmental Impact Assessments reviewed • Petroleum revenues captured by the state

S/N	Key outputs
4.2.1	PA quality management system developed and capacity to implement it strengthened
4.2.2	Technical support and training in contract management including the EPA and other contracts provided and internal guidelines developed
4.2.3	Plans and systems for resource mapping, management and supervision in line with international best practices developed and training to implement it provided. System for publishing data regularly online developed, with due consideration of applicable rules for confidentiality.
4.2.4	Designing the data center architecture, and providing the appropriate rules, methods and techniques in order to build a professional archiving structure
4.2.5	Ethical guidelines/code of conduct/integrity principles for the PA developed and published online
4.2.6	Financial control and auditing systems developed and training to implement them provided, and technical support for cost control delivered
4.2.7	Enhancing the capacity for assessing, auditing, monitoring, collecting and reporting oil and gas revenues
4.2.8	Training related to environmental assessments reviews and monitoring in the oil and gas sector provided
4.2.9	Training in enforcing HSE procedures, reviewing HSE plans and conducting audits/inspections delivered
4.2.10	Training in emergency preparedness and response (including oil spill contingency plans) provided.
4.2.11	Training in negotiation skills provided (in relation to EPAs as well as legal, commercial, and financial aspects) and internal guidelines developed
4.2.12	Technical assistance to the MoF for taxation and auditing of oil and gas companies.
4.2.13	Training in petroleum resource management for key staff in the PA, MoEW, MoE, MoF and other related governmental institutions delivered. Training needs identified and action plan developed

Outcome 3: Accountability and transparency in the petroleum sector is strong	INDICATOR • EITI compliance in oil and gas achieved • Number of public consultations conducted • Civil society organisations, media and public oversight institutions have the space and competence to hold the government accountable • Ranking in Transparency International Corruption Perception Index improved

S/N	Key outputs
4.3.1	Procedures on access to information developed and published on the website of the PA
4.3.2	Procedures for public consultation of stakeholders in the development of strategies, plans and legal framework and for sharing data and regular reporting is developed and published online
4.3.3	Communication strategy for the PA and related tools developed and relevant training provided
4.3.4	Training on good governance, transparency and anti-corruption issues relevant to the petroleum sector for decision makers (such as politicians, parliamentarians) provided
4.3.5	Training on petroleum resource management for civil society actors (including non-governmental organisations) provided
4.3.6	Training on petroleum resource management for national media provided
4.3.7	A simple, comprehensive guide to the petroleum sector governance structure and a summary of key legislation developed and published online.