



Project of energy conservation indicators in the southern Mediterranean countries

Third workshop Plan Bleu Sophia Antipolis, 6 - 7 October 2011



Workshop Minutes

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I - Context:

The design, the implementation or the monitoring of any energy conservation policy in a country, at the national or sectoral level, require relevant indicators reflecting the reality of the socio-economic activities' energy performances.

In addition, for the developing countries in general and those of the southern shore of the Mediterranean sea in particular, the implementation of information systems for energy conservation indicators and those corresponding to the greenhouse gas emissions, is a key condition not only for the development of NAMAs in the framework of the current negotiations on climate change, but also for the National Energy Efficiency Action Plans, that are under development as part of the Arab Energy Efficiency Directive, at the electricity's final consumers level and approved by the Council of Ministers in charge of electricity of the League of Arab States, in November 2010. Energy conservation indicators are essential for these plans' follow-up and assessment.

For this reason the Plan Bleu (www.planbleu.org), in partnership with RCREEE, (www.rcreee.org), launched this work on 10 MENA region and south Mediterranean countries, namely: Morocco, Algeria, Egypt, Lebanon, Syria, Jordan, Libya, Palestine, Tunisia and Yemen.

The main objective of this work is to develop energy efficiency indicators and to interpret them for the whole region. The indicators will be, as far as possible, similar to those developed in the European Union countries. For this purpose, an Excel database will be prepared and completed by national experts selected in the various partner countries.

This work is consistent with one of Plan Bleu' main objectives: to define and document, using indicators, the monitoring framework of energy efficiency in the Mediterranean area. This objective complies with the mandate given by the Barcelona's Convention Contracting Parties to Plan Bleu

This project contributes also in the joint activities between RCREEE and MED-ENEC concerning the National Energy Efficiency Action Plans development and the future of the energy conservation measures implementation and follow-up.

The implementation of this project is based on 10 national experts contributions, designed by the Plan Bleu, whose primary mission is collecting data and developing indicators in each target country, in close collaboration with the focal points of RCREEE.

The national experts and focal points will form the core of an Energy Indicators Network, initiated by this project. This network will ensure the continuity in the EE indicators calculation, the use of the best practices for developing the energy efficiency in the area and the evaluation of energy efficiency policies. This is essential for the development of Energy Efficiency in the region, as initiated by the above mentioned Arab EE Guidelines.

The 10 national experts and the 10 focal points will form the workgroup of the project. Regional coordination of the project will be ensured by Dr. Rafik Missaoui, from Alcor.

The project aims to reinforce national experts and RCREEE's focal points on energy efficiency indicators calculation and assessment of energy efficiency policy and measures. It is organized as follows:

1. Kick-off workshop with the 10 national experts and the 10 focal points from national institutes and structures in charge of energy statistics (Tunis, January, 6-7, 2011).
2. Preparation of an Excel database (February 2011).
3. Data collection by national experts and focal points in each country
4. Helpdesk and hot line for the national expert by the regional coordinator.
5. A second, mid-term workshop for assistance to the teams and workgroup, (Cairo on 6-7 April 2011)
6. The third workshop for the validation of data and indicators calculation (Plan Bleu-Sophia Antipolis, on 6-7 October, 2011).
7. Creation, if possible, of a web database in order to easily consult elaborated data and indicators
8. Organization of a final seminar concluding the finalized results of the works for the benefit of decision-makers in the region.

This document is the minute of the third workshop organized in Sophia-Antipolis (France) on 6 & 7 October 2011.

II - General presentation of the third workshop

II.1 Participants :

- Plan Bleu Officer in charge : Hugues Ravenel
- RCREEE Representative: Amel Bida
- Plan Bleu Representative: Ferdinand Costes
- MED-ENEC Representative project: Florentine Visser
- National Experts (see attached list)
- Focal Points of RCREEE or their alternates (see attached list)

II.2 Workshop's Opening and introduction

The third workshop on the "energy conservation indicators in the southern Mediterranean countries and MENA region's project led by Plan Bleu, in partnership with the Regional Centre for Renewable Energy and Energy Efficiency (RCREEE) and the MED-ENEC project, was held in Sophia Antipolis on 6 and 7 October 2011.

The workshop opened with the speech of Mr. Hugues Ravenel, head of strategic unit and one of Plan Bleu's officers in charge. He introduced Ferdinand Costes, the successor of Habib El Andaloussi, and two Plan Bleu's experts: Nathalie Rousset (environmental economist) and Jean Pierre Giraud (indicators and information systems expert) the two latter were observers to the workshop

Hugues Ravenel invited participants to work in a Collaborative Constructive and Creative (3 C) spirit. He pointed out that this work is part of a larger work on energy initiated within Plan Bleu: studies on water and energy interactions, "breakdown" scenario conception, employment impacts study... The theme discussed on this workshop relates to current Mediterranean issues. For that reason Mr. Ravenel invited the participants to together think about organizing a final seminar in order to raise the decision-makers' and stakeholders' awareness, as well as to unlock the existing blockages.

Amel Bida, project leader from RCREEE, thanked, from her side and on behalf of Eng Samir Hassan (Executive Director of RCREEE), Henri Luc Thibault and Habib El Andaloussi, previous Executive Director and Energy Programme Officer at Plan Bleu, for their efforts in initiating the project and guaranteeing its success.

She pointed out that indicators are important tools for assessing and adjusting energy efficiency policies. They will contribute to reach the objectives, especially those recommended by the League of Arab States in its officially announced Arab Electricity Efficiency Guidelines (November 2010).

And she also mentioned the direct link between EE indicators, NAMAs and NEEAPs and emphasized on the necessary quality and reliability of collected data in order to elaborate, in the best possible way, national and regional reports.

Furthermore, she also reminded the project's specific goals and the works schedule, with a summary of the stages completed prior to this workshop.

This short brief was necessary to update participants who did not attend the previous two workshops:

- National Experts from Libya (**Dr Mohamed Ali Ekhlal**) and Palestine (**Mr Mohannad Aqel**)
- Focal Points from Lebanon (**Eng Rani Al Achkar**) and Palestine (**Eng Falah Demiry**),

III - Workshop's Objective and contents

After the country presentations by Plan Bleu's National Experts and RCREEE's Focal Points, Dr. Rafik Missaoui, encouraged participants to freely comment and make suggestions throughout the workshop, as part of the informal nature of the workshop.

Hence, the workshop included the following aspects:

- Finalization of the data collection and their integration in Excel sheets
- Validation of the first results
- Assistance to experts for national report drafting
- Presentation of preliminary benchmark

The workshop was declined in three phases :

- Presentation of the results by country
- Preliminary comparison of results

- Help desk with the regional coordination for the experts

III.1 National experts presentations

The national experts presented their results, in a provided format, as follows:

- Data collection progress
- Presentation of selected macro and sectoral indicators
- Feedback and recommendations from completed work and ways to ensure sustainability of the skills and results achieved.

A summary of national experts and focal points presentations on the data collection completed in cooperation with the focal points, is presented in the following table:

Pays	Experts	Data collected					
		Energy data		Socio Economic data		Environmental data	
		number*	Progress status	number*	Progress status	number *	Progress status
Algeria	Fatiha Gharbi	440/460	95	510/540	94	49/49	100
Palestine	Mohanad Aqel	280 /322	87	245/378	65	21/56	37
Jordan	Walid Shahin	297/322	92	305/378	81	56/56	100
Morocco	Med Hmamouchi	400/460	87	420/540	77	10/70	14
Lebanon	Ghassan Dhib	210/322	65	119/378	31	35/49	71
Syria	Ali M.Kordab	273/322	85	315/378	83	49/49	100
Tunisia	HBH & RM	440/460	96	327/540	61	70/70	100
Yemen	Ali MedAl Ashwal	238/322	74	217 /378	67.4	28/49	57

* : number of data collected is variable according to years concerned : 2000 to 2009 or 2003 to 2009. Number of data is also depending on the reality of sectors in each country

III.2 Discussions and comments:

The following preliminary conclusions can be made based on the country presentations and group discussion by the national experts and focal points:

- A **satisfying overall progress** in data collection
- The accomplished work showed a **good understanding and handling of data and indicators, demonstrating the capacity-building** objective of the project.

- The **lack of data in specific sub-sectors**, especially transportation sector
- A **significant difference** of results for indicators **between importing and exporting countries**.
- **Palestine remains a special case** due to the political context
- A **trend towards increased energy dependence**, even for exporting countries
- A **reduction of primary and Final Energy Intensity** for most countries.
- **Some indicators show an increase of energy consumption**, in particular **electric consumption per capita**. This indicator has to be linked to the load curve trend and especially peak load management.
- The **indicators analysis is complex** due to the particular context of each country, especially for economic indicators (GDP) that are sensitive to inflation and currencies variations.
- Recurring problems of statistical data partially reflecting the consumptions and energy needs, as well as their sectoral affectation (for example, fuel consumption datas for generating sets allocated to transportation sector)
- A climate correction should be considered in later phases for both trend development and regional comparison.
- Indicators are, for some countries, linked with economic trends such as energy prices and economic growth.
- For some countries, the indicators seem to present the impact of energy efficiency policy on indicators for 2000-2009
- There is a consensus on the necessity to create dedicated information systems – for a formalized and organized sustainable data collection with statistical agencies – within the countries and to strengthen the sectoral and sub sectoral surveys.

IV - Preliminary benchmark:

A preliminary benchmark between countries was presented by Dr. Rafik Missaoui in order to identify trends. This also proved the complexity of the comparison of EE Indicators on both country and regional level, a range of criteria need to be considered before drawing conclusions and this range is specific per country.

This first benchmark is not a ranking but a reflection and interpretation exercise of the actual results.

The benchmark aims for the following indicators:

- **Energy dependence:** trends is toward an increased energy dependence. Importing Countries are becoming more dependant, previously exporting country are transforming in to importing country (Egypt and Syria) and even exporting countries (like Algeria) show a reduction of indepency.
- **Primary energy consumption :** Upward trend with Average Annual Growth Rate from 2 to 10% according to countries
- **Primary and final energy intensity – 2009:** most countries show a reduction of final and primary energy intensity. As a reminder, GDP is calculated with year 2000 as a reference in constant price and in dollars. A ranking is difficult due to the multiple economic structures concerned (for example tertiary sector vs. industrial sector, etc).

The link between the drop of energy intensity and impact of energy efficiency plans cannot be concluded in general, therefore a more accurate work has to be conducted sector by sector.

- **Consumptions and specific emissions for the residential sector:** A first benchmark regarding energetic consumption and emissions per m² (kWh/m²/year and tCO₂/m²/an) was realized in order to have some order of magnitude and to compare with existing data and international standards. These data are actually unclear and even inaccurate due to the lack of reliable statistics on the residential sector, in particular the area per housing. More work is needed in this sector for instance along a bottom up approach.

- **Theoretical Energy bill / GDP :**

This parameter is a view of countries' vulnerability to energy price on international market. For exporting countries, this vulnerability is tempered by the benefits resulting from the of energy prices' increase on international market.

- **Indicators Graphic Presentation**

Multi spatial presentations would be needed in order to visualize the variations effect of each parameter composing an indicator.

V - Conclusion and main decisions

- Participants stressed the purpose and the need of indicators for raising awareness among decision-makers. The countries' vulnerability to international markets is a crucial threat if there is no drop of energy intensity. That's why energy efficiency must be a central point in energy policy and a strategic choice for decision-makers.
- Methodology for calculation of the public subsidy to conventional energy: Dr. Rafik Missaoui reminded the methodology chosen for the energy sector's subsidies calculation. The "theoretical" subsidy to conventional energy is basically the difference between the energy bill and the revenue of energy sales on the local market. This definition must be taken with precaution, because there are fundamental differences between energy exporter and importer countries. To be precise, it would be more appropriate to talk about economic opportunity or equivalent international price/cost, for exporting countries (some exporting countries use the term "product worth", or lost opportunity cost). This methodology needs to be adjusted to achieve good results. Dr. Missaoui invited experts to think about choices, especially on electricity. Presented costs in the study are actually combustible costs, labor costs, and multiple depreciations. It is suggested to keep the combustible part in the part of electricity price. This cost is variable according to countries and requires a percentage by default (part of combustible in the electricity price).
- Help desk was useful for certain participants to actualize the data and to correct some indicators. Libyan representative showed his commitment in collecting the data and documenting the calculation tool so to overcome the delay due to political events in Libya.

To conclude, Amel Bida reminded the perspectives of the project:

RCREEE: Implementation of a regional database on energetic efficiency indicators

MEDENEC: Building sector and Construction energetic performances data collection

Member countries: Implementation of local information systems in order to generate and follow indicators

Thus, the workshop ended by thanking all the participants for their efforts on this framework and by inviting the countries experts to prepare the national reports within two weeks. This deadline will allow ALCOR to verify the results and standardize the contents in view of drafting a regional report, which would be discussed with the participants.

VI - ANNEX

- I) Workshop program
- II) List of participants