



Report

Expert group meeting on tracking progress towards the implementation of energy-related Sustainable Development Goals in the Arab region

Summary

The expert group meeting on tracking progress towards the implementation of energy-related Sustainable Development Goals (SDGs) in the Arab region was held at the United Nations Economic and Social Commission for Western Asia (ESCWA) in Beirut, on 24 and 25 January 2017, to present the preliminary results of the regional chapter for the Arab region based on the existing data reporting mechanism in the Global Tracking Framework (GTF), and to discuss the indicators and results with regard to SDG7 and the 2030 Agenda on Sustainable Development. For the first time, United Nations regional commissions are contributing to GTF 2017 to develop a regional profile on tracking progress in energy access, doubling the share of renewable energy, and increasing the role of energy efficiency based on the Sustainable Energy for All framework.

The meeting aimed to bring the process and findings of the GTF closer to national energy policymakers and statisticians, and contribute to the ESCWA publication entitled “Arab Sustainable Energy Horizon 2030”. The meeting also addressed energy indicators, discussed methodologies and challenges, and identified discrepancies and gaps. It highlighted steps and efforts by Arab countries to achieve a sustainable energy future in line with the SDGs, showcased energy policy actions at the local level, recognized the need for climate change mitigation and adaptation plans, and discussed indicators and data shortcomings that needed to be surveyed and analysed by member States to improve climate change statistics. The meeting also focused on international organizations’ activities and methodologies in selecting data systems, and the need to improve communication and coordination with national statistical offices and between international organizations working on energy-related data and indicators.

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Introduction

1. The United Nations Economic and Social Commission for Western Asia (ESCWA), within the context of its work on sustainable energy, organized an expert group meeting on tracking progress towards the implementation of energy-related Sustainable Development Goals (SDGs) in the Arab region in Beirut, on 24 and 25 January 2017. The meeting provided input on energy data discussions to support the review of the Arab regional profile as an integrated part of the GTF 2017 report.
2. The GTF measures the Sustainable Energy for All objectives to ensure universal energy access, double the rate of improvement in energy efficiency, and double the share of renewable energy in the global energy mix by 2030. The regional customization of the GTF2017 will take place through two parallel tracks between the five United Nations regional commissions, to standardize the analysis of the report.
3. The meeting aimed to support the preparation of the ESCWA publication entitled “Arab Sustainable Energy Horizon 2030”, by exploring how Governments take action to achieve a sustainable energy future.
4. The purpose of the meeting was to strengthen the capacity of ESCWA member States to achieve integrated and sustainable management of their energy resources, so as to contribute to sustainable development in the Arab region by achieving the following objectives:
 - Understand national statistical capabilities and perspectives on energy data collection challenges,
 - Harmonize methodologies for measuring SDGs and indicators related to energy resources,
 - Identify differences and similarities between country approaches and understandings of sustainable energy today and in the future,
 - Identify key milestones, major uncertainties and risks in Arab countries and subregions with regard to achieving sustainable energy by 2030 and beyond,
 - Develop ideas for policies to support the achievement of sustainable energy by 2030 and beyond,
 - Increase the alignment of member States’ national plans with the energy-related SDGs.
5. The meeting reviewed energy indicators, and identified discrepancies in available data and differences in countries’ methodologies and adaptation. The discussion focused on the following:
 - Reviewing the primary indicators and data, and identifying trends at the regional and country levels;
 - Demonstrating the evolution of GTF indicators and their usefulness to policymakers;
 - Identifying country data, and showing how they can explain and complement GTF indicators;
 - Discussing gaps between current policies and targets set for a sustainable energy future;
 - Brainstorming policy options for a sustainable energy path.

I. TOPICS FOR DISCUSSION

6. The meeting included presentations and discussions, as summarized in the following sections organized according to the substantive sessions of the meeting.

A. ENERGY ACCESS: AFFORDABLE AND CLEAN ENERGY FOR ALL

7. The first session focused on energy access in the Arab region. The electrification levels of various regions were presented to compare the performance of the Arab region. The data related to energy access over

the tracking period 1990-2014 was discussed in terms of access to electricity and clean cooking fuel and technology.

8. The Arab region has electrification levels below Latin America, caused by poor electricity access in Mauritania, the Sudan and Yemen. Although Iraq, Lebanon the Syrian Arab Republic showed high rates of energy access, the quality was questioned because those countries faced significant daily electricity cuts compensated by private generators. Thus, the reliability and quality of electricity should be measured in addition to the electrification of the grid, highlighting that the available data was incomplete.

9. Data trends on access to clean cooking technologies showed consistent growth. Despite an improvement of 86 per cent in access to clean cooking fuels in the Arab region, Mauritania, the Sudan and Yemen were still suffering from low rates compared to the rest of the region. Data for Yemen showed that around 50 per cent of its population did not have access to clean fuel technologies, while 20 per cent of the Sudanese population was using cooking fuel and technology.

10. The main deficit was caused by a lack of access in rural areas, compared with the urban share. The data presented identified a significant rural-urban division in countries facing electrification access. Therefore, the area where persons live in the least developed countries (LDCs) determines whether they have access to electricity.

11. Mauritania's challenge is to connect a small population living in a vast land to the main grid. This case was defended by presenting its 2030 strategy goals that focus on using more natural gas in electricity generation, developing the telecommunication sector, and decentralizing the electricity sector. Even though Mauritania is facing electricity access deficits, the country has been exporting its electricity to neighbouring Mali and Senegal.

12. The role of renewable energy is significant in Mauritania, given the potential of solar and wind resources. International organizations, foreign entities and the private sector are assisting the Government in developing its renewable energy potential to cover the country's needs, and identify small grids potential.

13. Libya is facing reliability and quality problems in generating electricity. Shortages range from 19 hours to 40 hours, mainly owing to the country's instability. However, data received of Libya are neither consistent nor reliable.

14. The Sudan is improving its electrification problem resulting from continuous conflict, making it hard to cover demand and to collect accurate data.

15. Participants highlighted the need to disaggregate data, increase collaboration between international organizations and local authorities by exchanging data, and stimulate bilateral and multilateral debates and methodologies rather than relying on modelling and estimates. They also considered the definition of indicators, since 'having electricity' has different meanings depending on location; it is therefore recommended to identify the fundamentals of energy access calculations. The electrification rate (number of hours of electricity supply per day) is a key factor in energy access calculation. The exchange of success stories and case studies increases transparency on electricity costs, and price mechanisms, and performing qualitative surveys assists in categorizing the type of indicators needed.

B. ENERGY EFFICIENCY: RESPONSIBLE CONSUMPTION AND SUSTAINABLE GROWTH

16. The session was opened with an overview of energy efficiency and energy intensity indicators, portraying the situation in the Arab region and comparing it to global rates. The region showed a disappointing improvement in energy efficiency rates.

17. Participants agreed that a disaggregation of energy intensity by sector was very important, and led to more accurate analysis and estimation of sectoral energy consumption. The energy intensity decomposition

analysis identified a shift to the service sector in countries like Tunisia, but a questionable identical energy efficiency rate for Algeria and Morocco - two different economies in North Africa. The Gulf Cooperation Council (GCC) economy is energy intensive owing to its reliance on energy-related revenues, and the Mashreq region also showed a disappointing improvement. The energy intensity rate for the Syrian Arab Republic has increased because of political factors and the civil war that has been ongoing since 2011. Palestine has also witnessed higher rates. Lebanon's energy intensity rate is questionable, as private generator consumption was not included in the surveys.

18. It was clarified that the LDCs, namely Mauritania, the Sudan and Yemen, have low energy efficiency levels caused by security issues.

19. Egypt has had to deal with an increase in energy demand, a subsidised energy bill and a reduction in energy supply, leading to drastic efforts in the industrial sector and standardized household equipment. Since 2004, Tunisia has been a pioneer in energy efficiency in the Arab region, focusing on the industrial, transport and tertiary sectors. It has established a public fund to provide financial incentives for energy efficiency action. Libya is trying to deal with security turmoil and oil smuggling, while Iraq relies on private highly pollutant generators to cover electricity shortages. Lebanon's efforts have not materialized because of the large influx of Syrian refugees that drastically increased the demand for energy, and because 40 per cent of energy consumption is caused by the transport sector. Bahrain, a fossil fuel based economy, showed the highest rate of energy intensity in the region.

20. Participants questioned the energy intensity calculations identified in GTF. Some participants said that some of the indicators presented were not based on modelling or external sources, but rather on official figures sent by local authorities. They argue that energy efficiency and energy intensity data should be collected at the local level, especially in countries with set objectives and laws related to energy efficiency. Economic measurements were also discussed, with some countries using public-private partnerships and others adopting the GDP indicator.

21. Participants questioned that Iraq and Lebanon had the same levels energy intensity levels. Bahrain expressed reservations about having the most energy intensive economy, and questioned the origin of the data. Palestine also objected to the GTF data, stating that it had achieved the first-phase energy efficiency targets set in its national energy efficiency action plan. Egypt achieved stable electricity consumption between 2015 and 2016 by cutting electricity consumption per capita by 15 per cent, while Mauritania assigned a unit to monitor energy efficacy performance in public institutions.

22. The World Bank representative clarified that the GTF2017 was based on 2014 data, and new updates would be published after the current release. The ESCWA representative confirmed that all information on plans and achievements since 2014 would be considered in the narrative of the GTF 2017 regional report.

23. Participants also questioned the use of total energy intensity as a proxy for energy efficiency. Many argued that it could only relate a small part of the energy efficiency story in a country. The total GDP and total primary energy supply parts of the total energy intensity equation depend on many factors not related to energy efficiency, including the following:

- Changes in international oil prices for oil exporting countries, since oil revenues represent a substantial share of GDP;
- Changes in international prices for other goods and raw materials exported by a country;
- Changes in economic structures (moving from energy intensive to non-energy intensive economic activities) or slowdown/increase of economic activities;
- Changes in climatic conditions affecting energy consumption (heating, cooling, etc.).

24. The experiences of various countries emphasized the importance of adopting energy efficiency programmes and policies, standardizing the energy efficiency calculation, setting ambitious targets, enacting energy efficiency legislation, focusing efforts on all sectors, and giving a bigger role to energy service companies. Energy efficiency is also related to pricing, demand management, regulations and awareness. Egypt, Iraq, Jordan Palestine and Tunisia undertake regular industry surveys.

25. Energy efficiency is not an instantaneous or short-term effect; it should be tracked over a five-year period to accurately measure the impact of energy efficiency programmes and policies. Clear definitions and calculation methodologies are needed for the different parameters used in calculating energy indicators.

C. RENEWABLE ENERGY: SUPPORTING ECONOMIC GROWTH AND CLIMATE ACTION

26. The session opened with an assessment of renewable energy in the Arab region. A global comparison shows that the Arab region has the lowest share of renewable energy globally, despite abundant solar and wind resources, and the availability of financial resources. Biomass is the dominant renewable energy source in the Arab region.

27. Renewable energy consumption can be analysed through technology. Morocco has some of the best wind conditions and generates electricity at cheap competitive costs, although rural areas still rely on biomass. Algeria, Iraq and the Syrian Arab Republic use hydropower. Data for Mauritania is incomplete.

28. Participants considered the increase in demand for energy in the Arab region, causing a downward trend in renewable energy consumption as a share of total energy consumption, although renewable energy capacity was increasing in nominal terms, because of increased affordability and cheaper technology, reliability, sustainable energy and the Paris Agreement.

29. Participants shared some of the challenges related to deploying renewable energy in their respective countries. A lack of legislation and political will, financing issues and upfront capital costs, bureaucracy, lengthy procedures, grid capacity limitations and weak infrastructure were key issues weakening the renewable energy trend. The Sudan identified international sanctions as a main hindrance to the transfer and rapid development of renewable energy technology. Experts highlighted the benefits that renewable, and its role in job creation, sustainable development, regional coordination and best practice exchange.

30. The representative of the United Nations Statistical Division highlighted the challenges it was facing in collecting renewable energy data, because of unstable coordination at the national level, partial data sent by some member States, variances between indicator definitions between countries, and the high cost of statistical surveys. Some participants said that United Nations surveys were complex and time consuming.

31. The ensuing discussion highlighted countries' concerns. Representatives of energy and statistics agencies were requested to share their statistics for comparison and discussion. Gaps and discrepancies were caused by estimations and projection models, owing to a lack of accurate data.

D. CLIMATE CHANGE MITIGATION IN THE ARAB REGION

32. A compilation of statistics and indicators in the Arab region was presented, addressing the emissions, adaptation, mitigation, drivers and impact of climate change. The proposed set of indicators was discussed and linked to the SDGs, especially SDG13.

33. The ensuing discussions focused on encouraging national efforts to develop climate change statistics and cooperation amongst national statistics offices in the region. Energy and non-energy related indicators were deemed practical and standardized, but required careful modification to not crowd the statistical system.

34. Experiences in advancing climate change mitigation were shared by Arab oil-producing countries, highlighting the importance of fossil fuels for their economy and sustainability. Fossil fuel dependent nations considered the help needed to identify climate change indicators, and develop local expertise to measure climate change effects on countries and the region.

35. Participants discussed ways to standardize Climate Change indicators, since they differed between countries. GCC countries questioned that fossil fuels were the main drivers of climate change. The definitions of climate change indicators between countries we also discussed.

36. Participants tackled the importance of climate change spending, which should be divided equally on mitigation and adaptation, especially since the rise of the Mediterranean Sea level would lead to the disappearance of many Mediterranean cities.

E. SUSTAINABLE ENERGY POLICIES AND INVESTMENTS

37. The session opened with presentations from various countries on their respective energy situation, policies, objectives, legislative improvements, and renewable energy and energy efficiency laws. Representatives of ESCWA member States shared their renewable energy situation and activities, including solar and wind atlas, targets of their *national energy efficiency action plans*, their 2030 vision and the introduction of public-private partnership mechanisms.

38. The Sudan has embarked on restructuring the electricity sector and encouraging renewable energy. Lebanon has developed a sustainable energy strategy 2015-2020, and is working on allowing the private sector to generate electricity from renewable energy projects. Tunisia's ANME has been monitoring, developing and implementing renewable energy and energy efficiency programmes since 2004. Egypt has developed a vision to become an electrical interconnection hub.

F. DATA COLLECTION CHALLENGES AND VALIDATION

39. Participants from international organizations deliberated on the current situation of data collection, dissemination tools, information sources, challenges, capacity-building, achievements, the benefits of their activities, best practices, their methodologies, indicators' definitions, and the way forward.

40. This was followed by a discussion on the confidentiality of data, a lack of cooperation between statistical offices and other departments, technical issues, capacity-building, and cooperation between local authorities and international organization. They said that different government entities produced energy data and published separate reports, using various indicator descriptions and definitions.

41. The session concluded that differences in indicator values may be attributed to different basic sources or secondary (estimated) data. Estimated data were often necessary to complete the energy picture, like energy balances, but a clear or agreed methodology does not always exist for this. Missing data breakdowns often led to miscalculations.

42. The representative of ESCWA stressed the need to further improve collaboration and coordination among various international organizations working on energy data collection, and to foster collective efforts on the harmonization of methodologies and SDG7 indicators to support countries in monitoring their progress towards SDG7.

II. CLOSING SESSION

43. The meeting sessions were closed by encouraging participants from the energy and statistics fields to cooperate to enhance data precision, and identify discrepancies in data availability and collection in their respective countries. This would assist ESCWA and international organizations in developing access

indicators, reflecting the quality of energy access and energy efficiency levels. Energy efficiency improvements would assist oil importing countries in reducing their energy bills, and oil exporting countries in increasing their traded volumes of oil and gas. Participants acknowledged that international organizations were always ready to assist, especially since success at the local level would lead to mutually beneficial achievements.

III. ORGANIZATION OF WORK

A. VENUE AND DATE

44. The expert group meeting on tracking progress towards the implementation of energy-related SDGs in the Arab region was held in Beirut, on 24 and 25 January 2017.

B. OPENING

45. The meeting was formally opened by Ms. Roula Majdalani, Director of the ESCWA Sustainable Development Policies Division, and Mr. Juraj Riecan, Director of the ESCWA Statistics Division.

C. PARTICIPANTS

46. The workshop was attended by 35 participants, including members of the ESCWA Committee on Energy and the ESCWA Committee on Statistics or their delegated representatives. Furthermore, stakeholders representing energy ministries and private sector, and representatives from specialized Arab and international organizations contributed to the deliberations and enriched the discussion and exchange of ideas.

D. AGENDA

47. Presentations and discussions were made over six sessions. The agenda of the meeting was presented as follows:

- (a) Opening statements;
- (b) Energy access: affordable and clean energy for all;
- (c) Energy efficiency: responsible consumption and sustainable growth;
- (d) Renewable energy- supporting economic growth and climate action;
- (e) Climate change mitigation in the Arab region;
- (f) Sustainable energy policy and investment;
- (g) Practical Challenges: Data Collection and Validation;
- (h) Closing session.

E. EVALUATION

48. An evaluation questionnaire was distributed to assess the relevance, effectiveness and impact of the training workshop. A total of 20 participants responded to the questionnaire, with 100 per cent of respondents rating the meeting quality as good to excellent, and 94 per cent stating that the expected objectives of the meeting had been satisfactorily met. A total of 39 per cent considered the preparation as excellent, while 50 per cent rated it as good. The evaluation demonstrated that the workshop succeeded in reaching expected objectives in terms of: relevance of expertise to the meeting's topic, exchange of information and experience among participants, providing an opportunity to establish new useful contacts, and providing useful inputs to complete the ESCWA study and future work.

Annex*

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