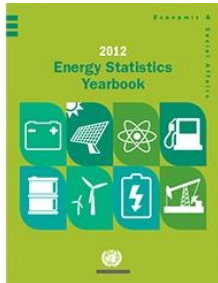


Energy Statistics Newsletter

United Nations Statistics Division (UNSD)

Number 14
September 2015

New UNSD Publications

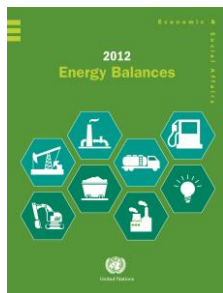


The 2012 Energy Statistics Yearbook, the 2012 Energy Balances and the 2012 Electricity Profiles are now available online at the UNSD website! To access the online publications, please visit:

<http://unstats.un.org/unsd/energy/>.

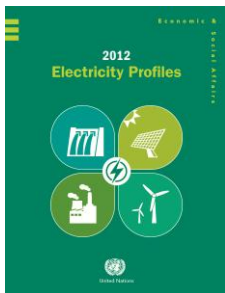
These are the first publications to

incorporate changes due to the adoption of the International Recommendations for Energy Statistics. The new recommendations introduced a number of methodological changes, which resulted in changes to the Yearbook structure and content, including changes to the summary tables at the start of the publication to follow IRES energy balance recommendations.



They are also available at the United Nations Publications website (<http://unp.un.org>).

The 2012 edition of the Energy Statistics Database containing data from 1950 to 2012 is also available at <http://unp.un.org>.



Energy Statistics data for the period 1990-2012 are available online at the UNdata portal <http://data.un.org/>.

New Chair of Oslo Group Announced

In March 2015 Mr. Ville Vertanen of Statistics Finland has taken over the function of the new chair of the Oslo City Group on Energy Statistics. He takes over from Mr. Andy Kohut of Statistics Canada, who has been the chair since 2009 and is now retired. UNSD wishes him well.

Mr. Vertanen has worked for Statistics Finland since 2003, and is currently Director of Economic and Environmental Statistics. In addition to energy he has previous experience in transport, tourism and business structure statistics.

At the previous meeting of the Oslo Group in May 2014, various working groups on topics relevant to future international energy statistics were set up, with the goal of each group reporting back to the next meeting on ideas for work in this area. The working groups cover administrative data sources, energy prices, electronic data collection, energy data dissemination and quality reviews. UNSD has set up online platforms for each of these groups to allow easy collaboration.

More details on the Oslo Group are available at <http://www.oslogroup.org/>.

Bioenergy Workshop at IRENA

The Expert Consultation on Best practices in Bioenergy Data Collection (28-30 April 2015, Abu Dhabi, United Arab Emirates) was organized by the International Renewable Energy Agency (IRENA) to discuss topics such as the classification and structure of bioenergy statistics; the design and the implementation of surveys for bioenergy data collection; the use of administrative sources; and imputation methods.

The workshop gathered around 25 participants, consisting of statisticians and analysts within the energy statistics sector from national statistical offices, ministries of energy and government departments responsible for energy statistics. Along with IRENA representatives, there were also participants from UNSD, the United Nations Economic Commission for Europe (UNECE), the United Nations Food and Agricultural Organisation (FAO), the International Energy Agency (IEA), the African Energy Commission, EUROSTAT and the World Bioenergy Association.

IRENA is currently working to improve the availability of information about renewable energy and will publish a bioenergy statistics guidebook drawing on the experiences of countries and international organizations on various approaches to data collection and dissemination.

Detailed information on the methods and procedures currently adopted in the bioenergy statistics field both at the national and international level were provided during the meeting, focusing on the purpose and scope of the statistics, the methodologies used to collect and validate the data, and

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the estimation procedures used in cases of missing data (both by countries and international organisations).

A session of the workshop was also devoted to discussing the current international classifications, how they capture the existing renewable energy products and flows, and how they can be adapted to describe some of the emerging issues and trends that will gain relevance in the near future.

More information on the workshop is available at: <http://www.irena.org/events/eventsarc.aspx?mnu=cat&PriMenuID=30&CatID=79>.

Beauty in Numbers: The IADB's Energy Data Visualization Tool

Eduardo Rodrigues, IADB

An online database created by the Inter-American Development Bank (IDB) presents complex information about the energy landscape in Latin America and the Caribbean in ways that are accessible, intuitive, and visually compelling. To access the visualization tool and for more information, see

<http://www.iadb.org/en/topics/energy/energy-database/energy-database,19144.html>.

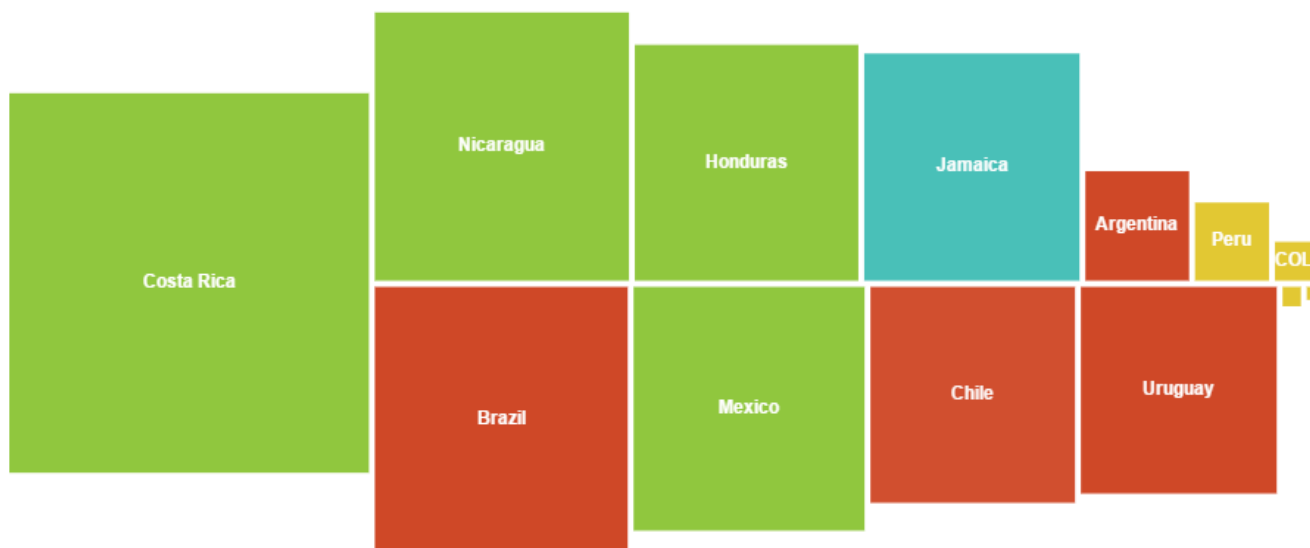
The IDB Energy Database uses interactive charts and graphs to show at a glance how countries produce and use energy and how energy markets are organized. The site's clean, simple visuals turn raw data into practical knowledge: Users can view the energy sector from different perspectives, spot historical trends, understand causes and effects, and quickly identify problems and opportunities.

The database, which debuted in 2014, was developed by an IDB team based in Washington, and the website was built by designers and programmers in Brazil, Colombia, and the United States. It was recently expanded and updated to include demographic and economic data, which allows for more nuanced comparisons. For example, it's now possible to see not just overall energy use by country, but how much energy a person uses and how much energy is needed to produce goods in a given country.

Take Figure 1, depicting solar and wind production in Latin America and the Caribbean. When viewed in absolute terms of thousands of barrels of oil equivalent per day, Brazil and Mexico dominate. But tweak that same graph to show solar and wind production *per capita*, and the story is very different (see Figure 2).

Figure 1: Solar and Wind Production Comparison in kboe/day, 2012



Figure 2: Solar & Wind Production Comparison in boe/person per year, 2012

The IDB Energy Database includes eight different types of charts and graphs to depict quantitative information in the following categories:

- Energy Matrix
- Energy Production Comparison
- Energy Comparison (including exports, imports, supply, consumption, and transformation)
- Energy Sources and Flows over Time
- Electricity Generation and Losses by Source
- Final Consumption by Sector over Time
- Final Consumption by Sector and Source
- Electricity Matrix

Users can view images by country or by region. The database includes the IDB's borrowing countries in

Latin America and the Caribbean (plus Cuba, which is not a member), as well as its non-borrowing member countries around the world¹. Regional groupings enable comparisons between different parts of the Americas as well as with Europe or the world as a whole.

For example, a look at the electricity matrix (showing inputs and outputs) in the Latin American and Caribbean region shows the dominance of natural gas (30 percent) and hydropower (28 percent). The solid box in the middle of Figure 3 shows the amount of electricity generated, while the striped box just below it shows the amount of energy lost during the production and transformation process. Comparing that with the electricity matrix in the United States (Figure 4), which is heavily dependent on coal, we see a much greater transformation loss for the United States:

¹ For a full list of borrowing and non-borrowing members, see <http://www.iadb.org/en/about-us/how-the-inter-american-development-bank-is-organized,5998.html>

Figure 3: Electricity Matrix by Source in the Latin American and Caribbean Region, 2012

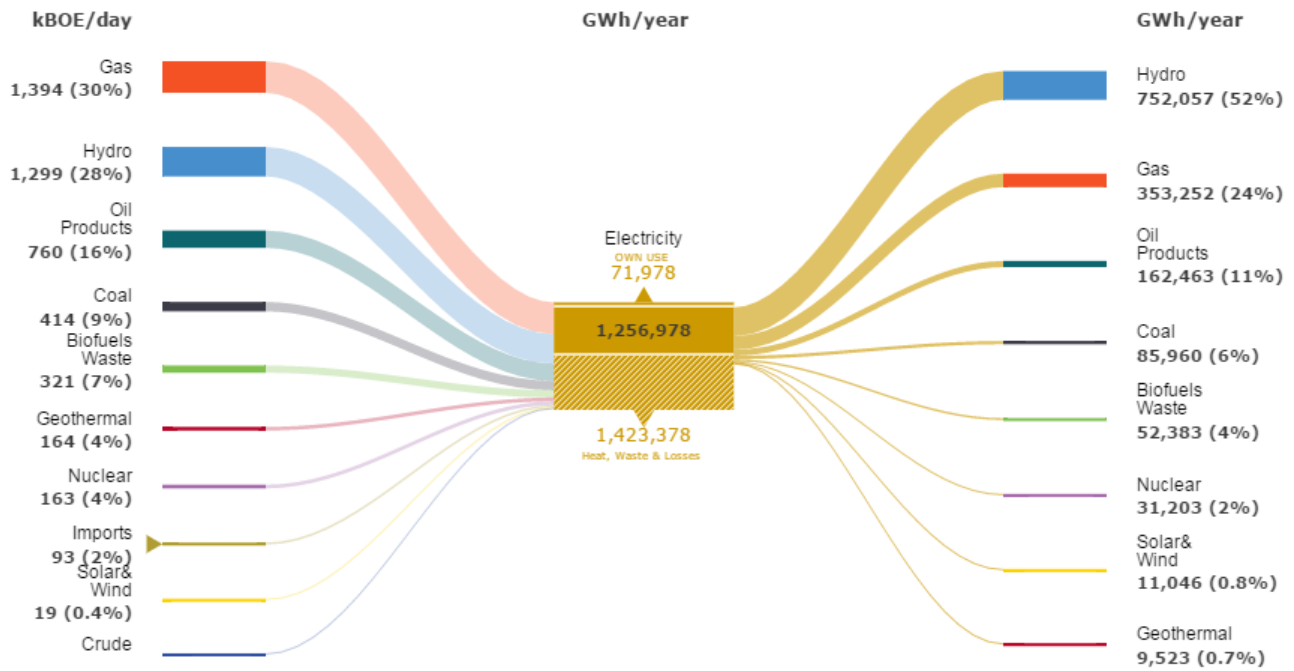
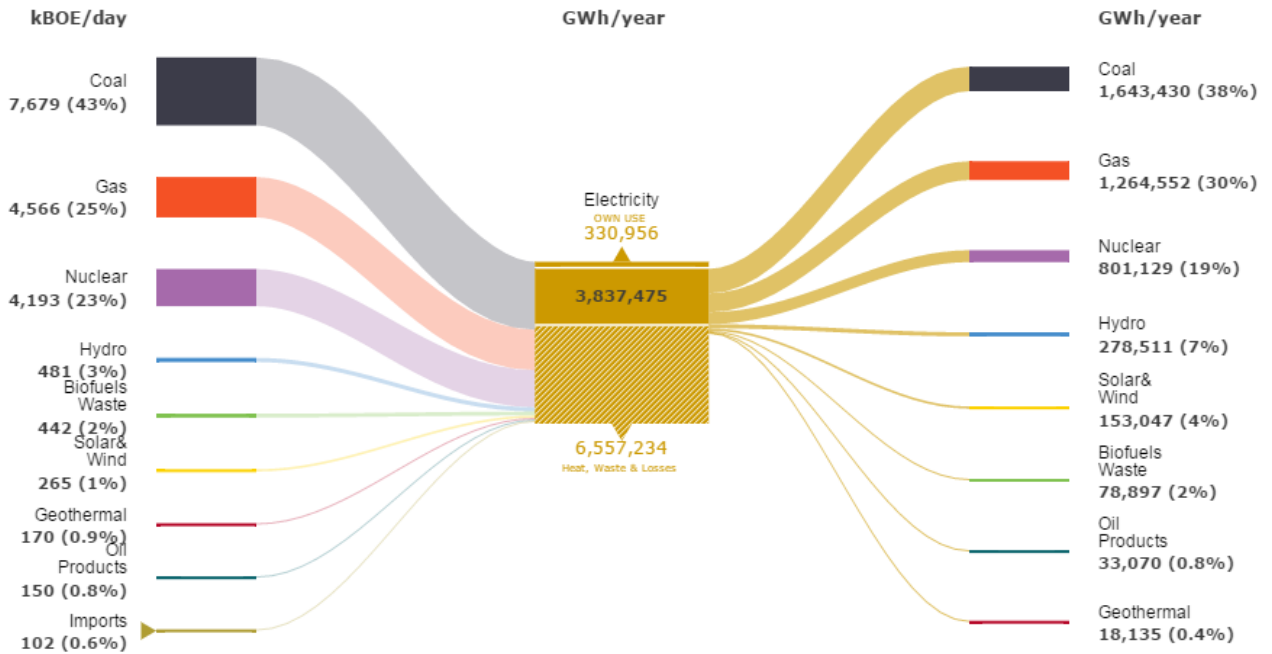


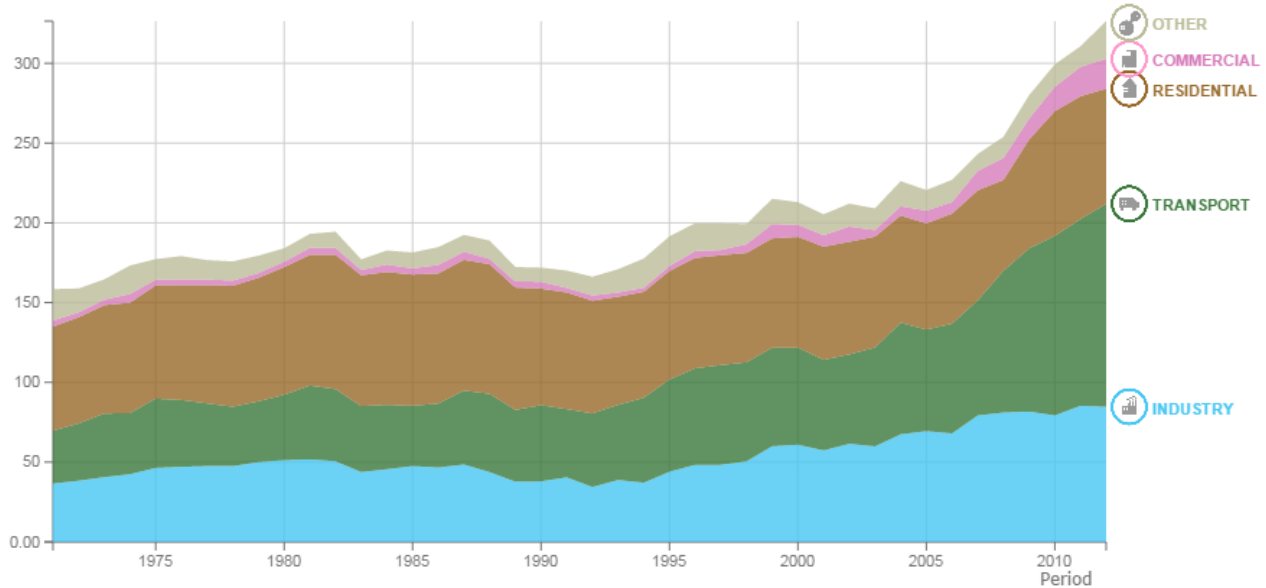
Figure 4: Electricity Matrix by Source for the United States, 2012



The database also enables users to make comparisons over time. For example, Figure 5 shows how energy use has increased in Peru over the past few decades, particularly in the transport sector. The same graph

expressed in units of GDP (figure 6) can indicate how energy intensity (measured in terms of energy per GDP) has decreased over time.

Figure 5: Final Consumption by Sector in Peru 1971-2012, kboe/day



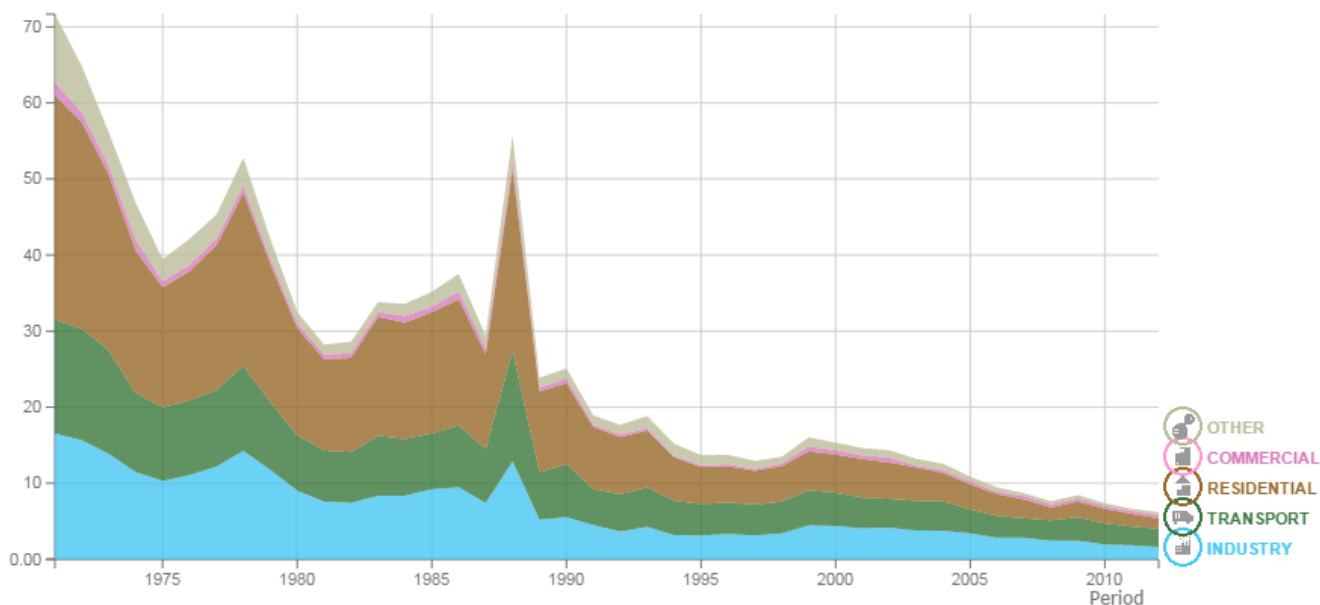
The IDB Energy Database draws on population and GDP statistics from the World Bank and energy information published annually by the International Energy Agency (IEA) since 1971. In the case of countries or regions not covered by the IEA, the IDB gathered and published the data for a specific year, from a range of sources, relying mostly on United Nations statistics. These data will be updated in the future.

In addition to the quantitative data, the site includes visual depictions of qualitative information compiled by the IDB on selected countries. This includes an institutional overview that shows at a glance which public and private players are involved in different segments of the country's energy sector. A timeline, meanwhile, charts major developments in the energy sector and includes links to new legislation.

The IDB Energy Database has been in the making for several years. For the IDB—a Washington, D.C.-based multilateral financial institution—the challenge was to take the comprehensive energy information available on

Latin America and the Caribbean and turn it into something people could understand and use. All the visuals can be easily incorporated into presentations or shared on social media. For a project aiming for simplicity of use, the development of the database had many moving parts. The data visualization aspect was conceived and implemented by the VisArt Group, a collaborative effort between two research labs at the Federal University of Rio de Janeiro. A Colombian company called EBFactor did the overall website design and programming. Another company in the Washington area, 3 Round Stones, provides support for the data-sharing platform being used. Funding for the project came from Canada. Please note that for all data shown in the tool and the graphs shown here, the source is IDB calculations based on IEA data and other sources. Population and GDP data are from the World Bank.

<http://www.iadb.org/en/topics/energy/energy-database>.

Figure 6: Final Consumption by Sector in Peru 1971-2012, boe/\$10,000 GDP per year

Recent JODI Meetings

The 12th International **JODI Conference** was held in New Delhi, India from 8-10 April 2015. The Conference was generously hosted by the Government of India, and gathered some 90 delegates representing 25 countries/economies, as well as energy data experts, market analysts from international organisations, financial sector, media, and the industry at large. The conference, which coincided with the 10th anniversary of the release of JODI-Oil and the 1st anniversary of JODI-Gas, was the first such event in which the two data transparency initiatives were discussed jointly.

The Conference convened stakeholders which included energy companies that collect the source data, the national administrations responsible for JODI data reporting, the JODI Partners responsible for collating and checking the data quality, and the data users (analysts and reporters) that monitor market trends and disseminate JODI data through their analysis to a wider audience. By bringing all of these stakeholders together, the conference aimed at enhancement of communication and cooperation among them. The conference identified actions for further improvement of JODI, such as the enhancement of the quality of JODI data, a review of data reporting mechanisms, and a strengthening of capacity building efforts. More information can be found at <https://www.jodidata.org/events/12th-international-jodi-conference>.

The 10th Regional JODI Training Workshop was held from 23-25 November 2014 in Doha, Qatar. The Workshop was hosted by the Gas Exporting Countries Forum with the support of attending partners, namely the IEA, the International Energy Forum (IEF), the Organisation of Petroleum Exporting Countries (OPEC), the Gas Exporting Countries Forum (GECF) and UNSD. The objective of the workshop was to enhance JODI Oil data quality and continue to strengthen JODI Gas, which was publically-launched in May 2014 at the 14th International Energy Forum Ministerial in Moscow. The Workshop gathered some 25 participants from 20 countries, mainly from the Sub-Saharan Africa region, who are in charge of hydrocarbon data collection at national administrations and who participate in the collection and dissemination of JODI data. The JODI World Database has already expanded to include submitted data for Niger and The Gambia as a result of this workshop.

Another three-day regional training workshop on JODI was hosted by the **Energy Community Secretariat** in Vienna from 23-25 March 2015, and coordinated by the IEF with the support of the attending JODI Partners, namely the IEA, EUROSTAT, GECF, OPEC and UNSD.. The objective of the workshop was to enhance JODI-Oil & JODI-Gas data quality within the Energy Community member countries of South-Eastern Europe, represented by around 35 participants from 14 countries from the Energy Community

Contracting Parties and EU Member States. The workshop offered an opportunity for participants to gain knowledge of JODI definitions and data quality assessment techniques for filling in JODI questionnaires from leading experts of the JODI partner organizations. Countries that are already participating in the JODI shared their experiences on data collection practices and concerns related to data validation. Part of the workshop was dedicated to a hands-on training in compiling JODI oil and gas questionnaires, including assessments of real-life data. The workshop has already resulted in better data from the Former Yugoslav Republic of Macedonia and Montenegro, and new data from Bosnia Herzegovina and Moldova.

Arabic Translation of IRES

As part of their project on improving energy statistics and balances within their region, The UN Economic and Social Commission for West Asia (ESCWA) prepared a draft version of the Arabic translation of the International Recommendations for Energy Statistics. This version can now be viewed and downloaded at <http://unstats.un.org/unsd/energy/ires/>.

Workshop on Measuring the Green Economy

As part of the UN Development Account project *Supporting Developing Countries Measure Progress towards Achieving a Green Economy*, UNSD organised two regional training workshops, for Latin American countries in Peru 21-24 April 2015, and for Asian countries in Viet Nam 5-8 May 2015.

The Project's overall objective is to improve the capacity of national statistical offices in developing countries to compile official statistics that inform policy makers on green economy issues, and allow measuring progress towards a green economy, based on a comprehensive set of economic and environmental indicators. The objective of these two workshops was to train participants on the statistical fundamentals of selected Green Economy Indicators and its underlying statistics, in order to strengthen national statistical capacities to produce and sustain these indicators.

Four main statistical domains or areas were covered: the environment, agriculture, energy statistics, and statistics on new themes related to the Green Economy.

UNSD's energy representative presented most of the energy topics in 5 presentations, namely:

- a. Introduction to energy statistics and balances;
- b. Renewable energy statistics and green economy indicators;
- c. Statistics on emissions from energy;
- d. Energy efficiency indicators; and
- e. Other energy-related green economy indicators.

The presentations and subsequent discussion were well received by participants. In particular the topic on energy efficiency raised the interest of participants. UNSD made good progress in communicating with the countries and establishing better contacts with both countries and international organisations present at the workshop, which it is hoped will lead to better questionnaire data and a stronger harmonisation of work.

UNSD will follow-up on separate technical assistance missions to the pilot countries and, according to the project's outline/schedule, proceed to the next phase of the project accordingly. UNSD will also continue its efforts in providing support to the pilot countries, as well as the non-pilot countries, as especially the latter can gain significantly from the experience sharing and knowledge spillovers from the pilot countries.

Workshop on Mainstreaming Energy Sustainable Development Goals

To support the post-2015 development agenda, the Division for Sustainable Development in partnership with the UN Statistics Division, UN-Energy, Sustainable Energy for All, the World Bank and the International Energy Agency organized a workshop on capacity development for "**Mainstreaming Energy Sustainable Development Goals (SDGs), Targets and Indicators into Statistical Programmes of Selected Latin American Countries.**"

The three-day workshop took place in Panama City 4-6 February 2015. Participating countries were Brazil, Costa Rica, Cuba, Ecuador, Guatemala and Panama. There were 34 workshop participants, who were informed about the UN Post-2015 Development Agenda, the proposal for a dedicated Sustainable Development Goal (SDG) and corresponding targets on energy, and the leading international efforts on energy statistics and indicators. The workshop provided an opportunity to discuss the status of national statistical programmes and the challenges and advantages for adopting and adapting the global energy SDGs, targets and indicators at the national level. The

participants made national presentations and discussed strengths and common challenges they face in the collection of data and in the implementation of national and international statistical commitments and programmes.

Many participants expressed their appreciation for this capacity development event which provided a valuable setting for the exchange of statistical knowledge and lessons learned at the global, regional and national level, and many asked for future international support and more capacity building activities on collecting and processing data for energy statistics and for building better information systems. DSD is planning the implementation of similar capacity development workshops for developing countries in Asia and Africa.

The agenda of the meeting is available at <https://sustainabledevelopment.un.org/content/documents/5482Agenda%20WorkshopPanama9Jan%202015.pdf>.

Editorial Notes

The Energy Statistics newsletter is a bi-annual publication, prepared by the Industrial and Energy Statistics Section of the United Nations Statistics Division, Department of Economic and Social Affairs.

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