Expert Consultation on Best Practices in Bioenergy Data Collection
28-30 April 2015, IRENA Headquarters, Masdar City, Abu Dhabi, United Arab Emirates

Time	Session
28th April, 2015	
9.30am - 10.30am	**1. Introduction** i. Welcoming remarks *(Henning Wuester, Director Knowledge, Policy and Finance Centre, IRENA)* ii. Introduction to IRENA's work in statistics *(Samah Elsayed, IRENA)* iii. Introduction to Resource platform *(Nicolas Fichaux/Stephanie Weckend, IRENA)* iv. Purpose of the consultation and discussion of the issues that participants feel are important and should be covered in the consultation and guidebook.
10.30am - 11.15am	**2. Drivers for improving bioenergy statistics** i. Roundtable discussion of the most important uses of bioenergy statistics and areas for improvement.
11.15am - 11.30am	**Coffee break**
11.30am - 1.00pm	**3. Data collection challenges** i. Presentations: • Bioenergy data collection challenges *(Bharadwaj Kummamuru Venkata, World Bioenergy Association)* • The Joint Wood Energy Enquiry – structure, challenges and results *(Florian Steirer, United Nations Economic Commission for Europe)* ii. Group discussion on the main challenges and barriers to bioenergy data collection and estimation (including technical/methodological; human resources; institutional; and financial challenges).
1.00pm - 2.00pm	**Lunch**
2.00pm - 3.30pm	**4. Collection of data from enterprises (industry, commercial, agriculture and forestry) using surveys and other methods** i. Presentations highlighting various experiences with surveys to collect bioenergy production and consumption data from enterprises. • Biofuel consumption in industries – tricky fields need comprehensive solutions *(Wolfgang Bittermann, Statistics Austria)* • Bioenergy data collection from enterprises in China, with a focus on biogas statistics *(Liu Jiandong/Wang Wei, China National Renewable Energy Centre)*

	• Collection of data from surveys of enterprises in Swaziland *(Thabile Nkosi, Ministry of Natural Resources and Energy, Swaziland)* • Data collection from agroprocessors *(Shunichi Nakada, IRENA)* • Collection of data from surveys of enterprises in Latvia *(Liga Melko, Central Statistical Bureau, Latvia)*
3.30pm - 3.45pm	**Coffee break**
3.45pm - 5.00pm	**4. Collection of data from enterprises (industry, commercial, agriculture and forestry) using surveys and other methods** *continued…* ii. Discussion on how survey content and processes can be improved to collect better bioenergy statistics
7.00pm	**Welcome dinner** Al Raha Beach Hotel, Al Mass Restaurant
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9.30am - 11.00am	**5. Household energy surveys** i. Presentations highlighting various country experiences with using household surveys to collect bioenergy statistics, including the sampling frameworks and survey instruments used. • The new UK household wood energy survey *(Julian Prime, Department of Energy and Climate Change, United Kingdom)* • Household energy surveys in Ghana *(Salifu Addo, Energy Commission, Ghana)* • Household (bio)energy consumption in Austria – a survey based modelling exercise *(Wolfgang Bittermann, Statistics Austria)* • Household energy surveys in Uganda *(Ian Kisawuzi, Ministry of Energy and Mineral Development, Uganda)* • Household energy surveys in Swaziland *(Robert Fakudze, Central Bureau of Statistics, Swaziland)*
11.00am - 11.15am	**Coffee break**
11.15am - 12.30pm	**5. Household energy surveys** *continued…* ii. Discussion of how household survey content and processes can be improved to collect better bioenergy statistics.
12.30pm - 1.30pm	**Lunch**
1.30pm - 3.45pm	**6. Use of administrative data and other data sources** i. Presentations highlighting various experiences in utilizing existing data sources such as administrative data, trade statistics and other existing surveys and sources (e.g. national censuses, industry surveys, etc.) to collect bioenergy statistics. • Use of administrative data in the UK (with a focus on the Renewable Heat Incentive scheme) *(Julian Prime, Department of Energy and Climate Change, United Kingdom)* • Use of administrative data in Malaysia *(Zaharin Zulkifli, Energy Commission, Malaysia)*

	• An overview of FAO's experience with woodfuel data collection *(Zuzhang Xia, FAO)* ii. Discussion of how administrative data can be best utilized to capture bioenergy use. Topics to be discussed to include: • Experiences in registering and collecting administrative data directly from renewable energy service providers. • Use of administrative data sources such as census and national industry surveys to collect data or develop sampling frameworks. • Use of existing administrative data collection processes designed for other purposes to gather bioenergy information.
3.45pm - 4.00pm	**Coffee break**
4.00pm - 5.00pm	**7. Synthesis of data collection best practices and lessons learned** i. Group discussion to draw out the key practices from the data collection presentations in areas such as sampling frameworks, coverage, timeliness, efficiency, cost-effectiveness etc.
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9.30am - 11.00am	**8. Bioenergy imputation methods** i. Presentations describing the various imputation techniques and models used to estimate missing data. • Bioenergy imputation methods of the International Energy Agency *(Duncan Millard, International Energy Agency)* • Bioenergy imputation methods of the African Energy Commission *(Abdoulaye Oueddo, African Energy Commission)* • Bioenergy imputation methods and validation procedures of the United Nations Statistics Division *(Costanza Giovannelli, United Nations Statistics Division)* • FAO's estimation of fuelwood numbers *(Adrian Whiteman)*
11.00am - 11.15am	**Coffee break**
11.15am - 1.00pm	**8. Bioenergy imputation methods** *continued…* ii. Discussion of the advantages and disadvantages of different approaches. How can these methods be improved? What is the minimal input data required for estimation purposes? What type of other factors are needed (e.g. estimates of technology conversion efficiency etc.)? Is there common agreement on different assumptions (e.g. conversion factors) used in bioenergy statistics?
1.00pm - 2.00pm	**Lunch**
2.00pm - 3.45pm	**9. Emerging bioenergy data collection needs** *Session moderated by Duncan Millard, IEA*

	i. Presentations describing some of the emerging issues and trends that will need to be tracked in the future.
	    • Classification of renewable energy products and services. Are they fit for the future? *(Adrian Whiteman, IRENA)*
	    • Emerging bioenergy data collection needs *(Marek Sturc, Eurostat)*
	
	ii. Roundtable discussion of some of the emerging technologies, trends and issues that will need to be better captured in bioenergy statistics in the future. Are the various definitions and accounting conventions used by countries and international organizations, including the classification of energy products, services and capacity data and measurement conventions fit for purpose? How may these be accommodated in national data reporting templates and international statistical systems such as the HS, ISIC, SNA, CPC, etc.?

3.45pm - 4.00pm	**Coffee break**
4.00pm - 5.00pm	**10. Summary of discussions and next steps**