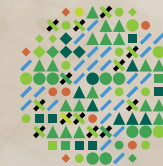




Food and Agriculture
Organization of the
United Nations

CPF Expert Workshop in support of the CPF Initiative on
strengthening the global core set of forest indicators
FAO, Rome, October 2019



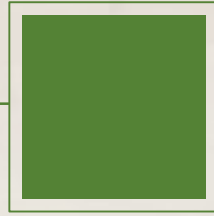
CPF
Collaborative Partnership
on Forests

WORKING GROUP 4

Wood-based energy share of total final energy consumption

Findings and proposed recommendations

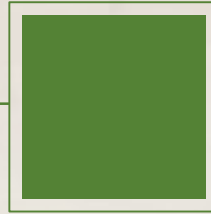
Metadata Sheet Sections



- Concepts and definitions
- Methodology
- Data Sources
- Data Availability
- Calendar
- Data providers and compilers

Metadata Sheet Section: Concepts and definitions

Findings and proposed recommendations



■ Findings

- Indicator 10 is a ratio of final consumption of energy derived from wood by total final energy consumption inclusive of energy from renewable (e.g., wood fuel) and non-renewable (e.g., fossil fuels) sources. The indicator is measured as a percentage.
- Wood energy, as the world's most important single source of renewable energy, is equally important for SDG 7 and SDG 15.2

Discussion Questions: Do you have comments on the definitions in the background paper?

■ Recommendations

-

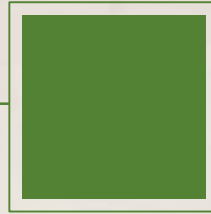
Metadata Sheet Section: **Methodology**

11:10 – 11:25 Discussion Questions

- Do you support the recommendation to compute **Indicator 10** by the use of indicator 7.2.1's methodology?
- What are the key differences between SDG indicator 7.2.1 "Renewable energy share in the total final energy consumption" and Indicator 10 "Wood based energy share of total final energy consumption"?
- Do you agree that final consumption of wood derived electricity and heat can be estimated by applying the shares of wood derived electricity/heat output in total electricity/heat output to total final electricity/heat consumption?

Metadata Sheet Section: **Methodology**

Findings and proposed recommendations



- Findings
 - Computation of ***Indicator 10: Wood-based energy in total final energy consumption*** follows the logic of SDG 7.2, indicator 7.2.1
- Recommendations
 - Proposed methodology for Indicator 10 = (Final Wood Energy Consumption + Wood-derived Electricity Consumption + Wood-derived Heat Consumption) / Total Final Energy Consumption
 - Estimate Wood-derived Electricity Consumption and Wood-derived Heat Consumption as the relative contribution of wood to electricity and heat production, respectively.

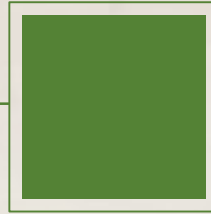
Metadata Sheet Section: **Data sources**

11:25 – 11:45 Discussion Questions

- What is your primary source of national data? If there are estimates, how are these estimates derived?
- Are we missing important criteria for selecting data providers?
- Do you agree to use IRENA for wood energy data and UNSD for more general energy data?
- Would you recommend complementing existing energy balances (e.g., from IRENA) with additional information on (e.g. pellet trade data) if data seem to be missing?
- Do you think there is a need for conversion factors revision at the international level?

Metadata Sheet Section: **Data sources**

Findings and proposed recommendations



■ Findings

- Energy balances can provide information on transformation output and final energy consumption.
- Information on wood derived electricity and heat output as well as final wood energy consumption is insufficient.
- Often wood energy is considered as an aggregate, inclusive of non-woody solid biomass.

■ Recommendations

- Use IRENA for most of data elements and UNSD for TFEC.
- To fill gaps, use FOA supply data on wood fuel and charcoal; best estimates from trade statistics; best estimates from energy statistics, e.g. solid biofuel figures will be used if no detailed wood energy data
- Use prediction models if no data are available.

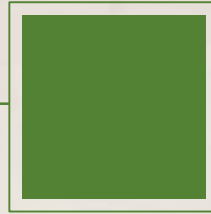
Metadata Sheet Section: **Data availability**

11:45 – 12:05 Discussion Questions

- What is the most feasible way to improve the reporting system in your country?
- Will it be possible to have one data collection tool for all countries or do we need different tools/guidelines depending on the information available in each country
- Which forest products are considered in the energy balance in your country? What detail of information is available?

Metadata Sheet Section: Data availability & calendar

Findings and proposed recommendations



■ Findings

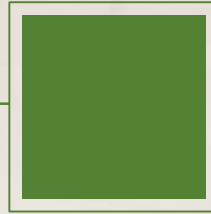
- While renewable energy statistics are improving in most countries, there are still many problems with the collection and reporting of bioenergy data especially in those countries which account for a major share of bioenergy consumption.
- Uncertainties about bioenergy in these countries has an impact on renewable energy statistics at the global level.

■ Recommendations

- Better integration across forestry and energy agencies.
- Evaluate and improve the global availability of data on efficiency and sustainability of wood fuel data.
- Bring together experts on forest products, forest resources and energy statistics at the national level.

Metadata Sheet Section: Data compliers

Findings and proposed recommendations



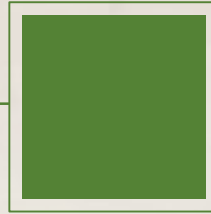
- Findings
 - Data is collected for both forest products and energy sectors. However, collaboration between stakeholders at national level can be weak.
- Recommendations
 - Initiate a task force as a forum for a working group on wood energy data, comprised of representatives from the FAO, UNECE/FAO Forestry and Timber section, International Energy Organizations, relevant biomass industry associations (e.g. World Bioenergy Association) and other international organizations (e.g. WHO).

Metadata Sheet Section: **Conclusions and Next Steps**

12:05 -12:25 Open Discussion

- Have we correctly summarized the situation?
- How best can we frame the next steps?
- What else should be included?
- What are the highest priority items?

Conclusions and proposed key next steps: 1 of 2



■ Conclusions

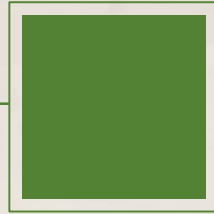
- **Indicator 10: Wood-based energy in total final energy consumption** can be estimated following the logic of SDG 7.2, indicator 7.2.1.

- The proposed equation is

(Final Wood Energy Consumption + Wood-derived Electricity Consumption + Wood-derived Heat Consumption) / Total Final Energy Consumption

- Wood-derived *Electricity Consumption* and Wood-derived Heat Consumption must be estimated as the relative contribution of wood to electricity and heat production, respectively.
- The two biggest challenges associated with calculation of Indicator 10 are (1) the availability and quality of wood energy data and (2) Need for integration between forestry and energy statistics.

Conclusions and proposed key next steps: 2 of 2



- Possible next steps
 - Initiate a task force on wood energy data.
 - Conduct a desk study to assess and improve the consistency and coherence of data across agencies.
 - Produce a dataset by gathering elements required to compute the indicator as proposed.
 - Improve the quality and availability of pellet data.
 - Review existing models for estimating wood fuel production and consumption where data are missing and provide an assessment of available methods.
 - Conduct pilot analyses for a subset of countries to assess the effectiveness of the proposed calculation methodology.
 - Conduct capacity-building at country level for targeted countries to increase data availability and quality.