Indicator 7.2.1

Indicator Name, Target and Goal

Indicator 7.2.1 Renewable energy share in the total final energy consumption

Target 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix

Goal 7 Ensure access to affordable, reliable, sustainable and modern energy for all

Definition and Rationale

○ Definition

The renewable energy share in total primary energy supply is the percentage of primary supply of energy that is derived from renewable resources.

○ Concepts

Renewable energy supply includes supply of energy derived from: solar, wind, biomass, geothermal, hydro and waste. Total primary energy supply is calculated as total energy that is required for a country, including transmission and distribution losses derived from the energy conversion.

Comments with regard to specific renewable energy resources:

- Solar energy includes PV cell power generation and solar heat use
- Biomass energy includes woods, waste woods, liquid biomass (bioethanol and biodiesel), black liquor, gas biomass and other biomass.
- Geothermal energy includes geothermal power generation and thermal use of geothermal energy

○ Rationale and Interpretation:

The target “By 2030, increase substantially the share of renewable energy in the global energy mix” impacts all three dimensions of sustainable development. Renewable energy technologies represent a major element in strategies for greening economies everywhere in the world and for tackling the critical global problem of climate change. A number of definitions of renewable energy exist; what they have in common is highlighting as renewable all forms of energy that their consumption does not deplete their

availability in the future. These include solar, wind, hydro, geothermal and biomass (in the case of biomass, which can be depleted, sources of biomass can be replaced within a short to medium-term frame). Promoting these renewables, sustainable and domestic resources, and increasing the amount and the share of renewable energy supply contribute ensure of reliable energy resources in terms of energy security.

Data Sources and Collection Method

Agency for Natural Resources and Energy, "Comprehensive Energy Statistics of Japan"

Method of Computation and Other Methodological Considerations

○ Computation Method

The percentage of renewable energy in the total primary energy supply (TPES) is calculated as follows:

$$P_{RE} = \frac{EP_{RE}}{EP_{Total}} \times 100$$

where,

EP_{RE} is the energy supply from all renewable sources (petajoules); and

EP_{Total} is the total primary energy supply (petajoules).

This indicator is based on the development of comprehensive energy statistics across supply and demand for all energy sources – statistics used to produce a national energy balance. Once a national energy balance is developed, the indicator can be calculated by dividing supply of energy from all renewable sources by total primary energy supply. Renewable energy supply is derived from the data in the Comprehensive Energy Statistics of Japan of Agency for Natural Resources and Energy.

○ Comments and limitations

The self-consumption of household photovoltaic is estimated from electricity sales in the light of the share of the sales of surplus electricity.

Data Disaggregation

N/A

References

Agency for Natural Resources and Energy, “Comprehensive Energy Statistics of Japan”

http://www.enecho.meti.go.jp/statistics/total_energy/results.html#headline1

Custodian Ministries of Data

Agency for Natural Resources and Energy, Ministry of Economy, Trade and Industry

Custodian Ministries of Related Policies

Cabinet Office

International Organizations

United Nations Statistics Division (UNSD), International Energy Agency (IEA), International Renewable Energy Agency (IRENA)