

2017 SE4All Global Tracking Framework

UNECE Profile and Regional Chapter

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Overview: Sustainable Energy for All

SE4All's 3 indicators:

- 1) Ensure universal access to modern energy services
- 2) Double the global rate of improvement in energy efficiency
- 3) Double the share of renewable energy in the global energy mix

Partners for 2017 (3rd) edition:

- Lead: SE4All, World Bank, International Energy Agency (data provider)
- 5 UN Regional Commissions

Publications:

- 3rd GTF report: Progress towards Sustainable Energy 2017
- Five regional profiles for the GTF report
- Five extended regional reports prepared by the five RCs

Regional Profile within GTF report

- **Highlights of GTF results at regional / sub-regional level; identification of trends that explain the results**
 - Energy efficiency
 - Renewable energy
 - Energy access – electrification and clean cooking
 - Issues of importance to the regions
- **Highlight of most important alternative data sources**
- **Other important drivers**

Regional Chapter: UNECE region

- **Beyond the GTF data: Drivers for (sub-)regional issues and trends**
 - Interpretation and trends emerging from the SE4All indicators
 - Nexus areas: Water, land, climate, agriculture
 - Links to SDG7, other SDGs and broader development agenda
- **Towards sustainable energy: Other drivers of energy policy**
 - Exploration of additional indicators:
 - Quality of life and service culture, carbon intensity of energy sector
 - Fossil fuels
 - Energy security
 - Energy infrastructure, regional cooperation and trade
 - Investments and financing
 - Heating and cooling
- **Outlook: Potentials, policies and prospects**
 - Projections and potentials
 - Policy and technology approaches

Shortcomings of SE4All indicators I

SE4All indicators:

- Ongoing fast transformation of traditional energy infrastructure, globally
- Tension between SDGs and between energy, climate and access
- Trend towards service culture, quality of life and low-carbon energy sector
- Main indicator: Carbon intensity of the energy sector
- Renewable energy consumption versus Renewable energy supply
- Energy efficiency - energy productivity
- Energy access: Consideration of physical access only

Shortcomings of SE4All indicators II

Lack of information:

- Missing link with the greater development agenda (e.g. other SDGs) – context??
- Data quality, access and comparability in all aspects of energy supply and demand across UNECE region
- Global – regional – local data mismatch - further disaggregation required
- No consideration of nexus topics and disruptive factors such as water, land, food, etc.
- Lack of significant cross-cutting aspects such as infrastructure development, energy trade and connectivity, financing and investment

...to paint a more comprehensive picture of „sustainable energy“

Indicators to Track Sustainable Energy I

Renewable Energy: Existing SE4All indicator:

- Renewable energy consumption (EJ), by source, traditional versus modern, share in overall consumption
- Renewable energy supply, share in overall consumption
- Share of renewable energy in electricity supply
- Capacity additions
- Modernisation of grid structure, off-grid, on-grid development, grid connections
- % of self-production of households

Energy Efficiency: Existing SE4All indicator:

- Energy intensity, by sector (industry, agriculture, services), annual change in intensity, annual growth rate
- Total energy supply and GDP (decoupling)
- Energy productivity

Energy Access: Existing SE4All indicator:

- Share of population with access to electricity (electrification)
- Financial access: Affordability
- Quality of service / reliability of access

Indicators to Track Sustainable Energy II

Climate:

- Carbon emissions of the energy sector
- Carbon intensity of the energy sector
- Per capita carbon emissions from the energy sector

Fossil fuels:

- Share of fossil fuels in total primary energy supply (TPES), by source
- Methane emissions from source to use; extractive industries
- Grid infrastructure
- Emergence of new business models for utilities

Energy security:

- Energy self-sufficiency
- Trade and regional cooperation

Indicators to Track Sustainable Energy III

Financing and Investments:

- Investment flows in new / upgrading of existing infrastructure (FDI, public and private financing)
- New financing models with different risk parameters
- Required financing to expand renewable energy and other low-carbon technologies across all countries

Others:

- Energy consumption per capita
- Total final energy consumption by sector (industry, transport, buildings, other, non-energy use)
- Heating and cooling in Total Final Consumption
- Regional cooperation, connectivity and trade
- Transport
- Shifting power generation models (off-grid, mini-grid, net-metering, etc.)
- Price trends for renewable energy deployment
- Grid and system technology developments

Recommendations

- Develop indicators to reflect carbon intensity of the energy sector (renewable energy uptake is not an indicator of progress)
- Combine SE4All considerations with SDGs and set priorities for action
- Increase data collection and quality processes for energy across UNECE region and collaborate with partners (IEA etc.)
- Develop capacity building mechanisms for UNECE countries related to energy data
- Include energy data in UNECE statistics
- Partner across UNECE for better data and statistics in nexus areas
- Determine country focal points
- Let's not forget other climate related factors, e.g. methane (GHG potential!!)
- Develop and disseminate universal approach to MRV methane emissions; combine surveys and reporting mechanisms in order to increase MRV efficiency and capabilities
- This takes time – do not rush....

Thank you

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