

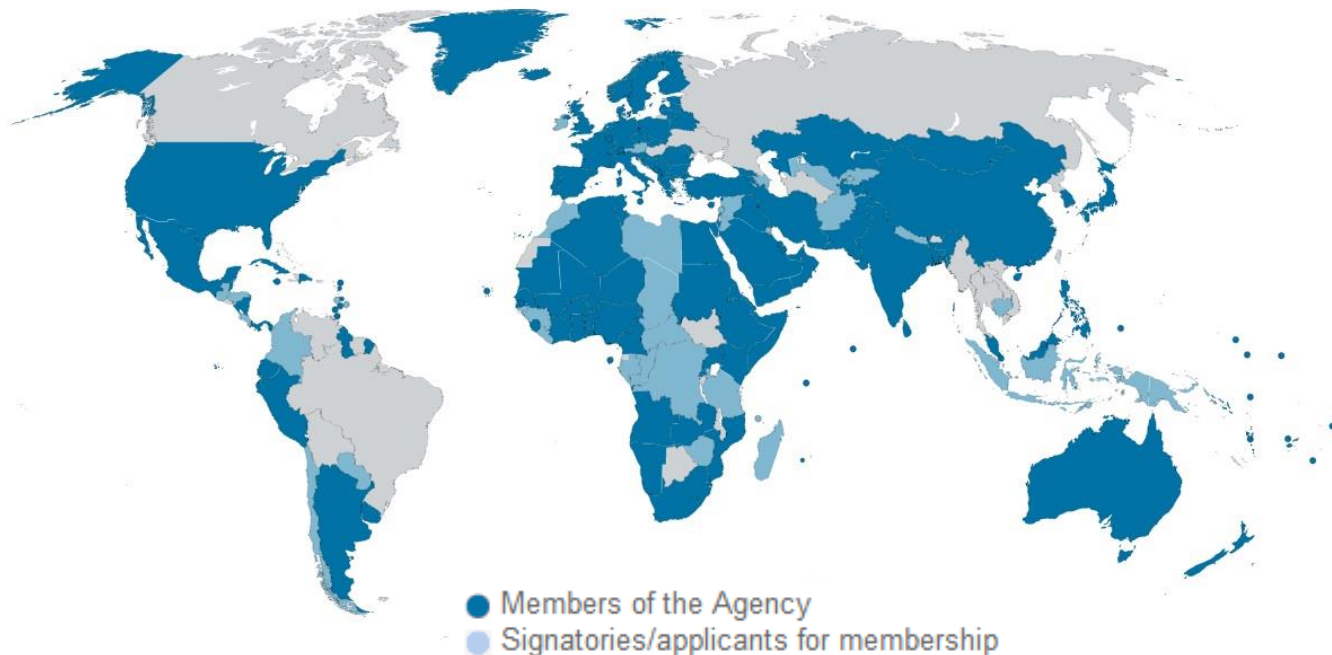
IRENA Renewable Energy Statistics Activities

Oslo City Group Meeting
Abu Dhabi, 6 May 2014

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Introduction to IRENA

- Intergovernmental renewable energy agency, headquarters in **Abu Dhabi, United Arab Emirates**. Innovation and Technology Centre in **Bonn, Germany**
- **Established:** April 2011
- **Mandate:** Bioenergy, Geothermal, Hydro, Ocean, Solar, Wind
- **Membership:** 131 Members; 38 Signatories/States in accession (as of 4 May 2014)



- One-stop-shop for renewable energy statistics
 - Energy production and consumption data as captured in energy balances
 - Power generation capacity figures for the world
- Going beyond energy statistics to capture linkages and synergies
 - Socio-economic data (e.g. jobs, economic benefits)
 - Financial/monetary data (e.g. investment dynamics, costs)
- Development of an integrated tool (Knowledge Gateway) that will capture all renewable energy data

Challenge 1: Many countries do not have the institutional and human resource capacity necessary for gathering accurate and timely renewable energy statistics

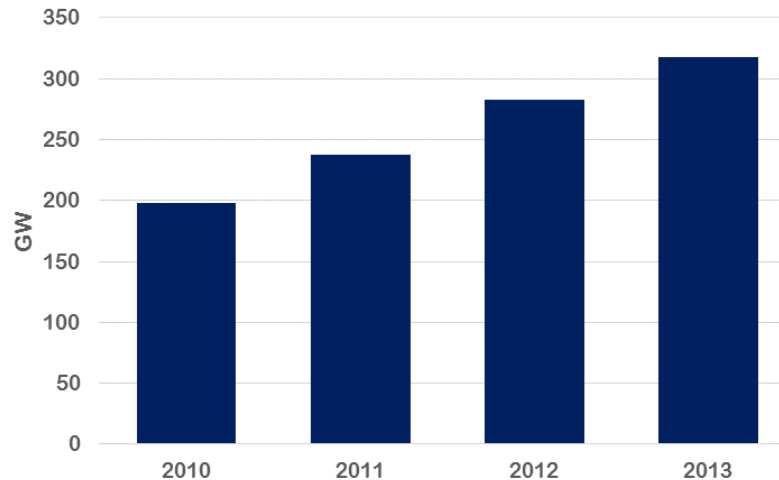
- Many actors involved in renewables results in governments often not having the full picture of renewables activities in their country
- Lack of coordination between institutions (formal/informal mandates)
- No means to collect, store and share data on renewables (project repositories)
- Lack of institutional memory and archiving/documentation processes
- Limited staff capacity on renewables statistics
- Lack of financial resources

Challenge 2: Lack of guidance that captures the emerging methodological challenges associated with renewable energy statistics

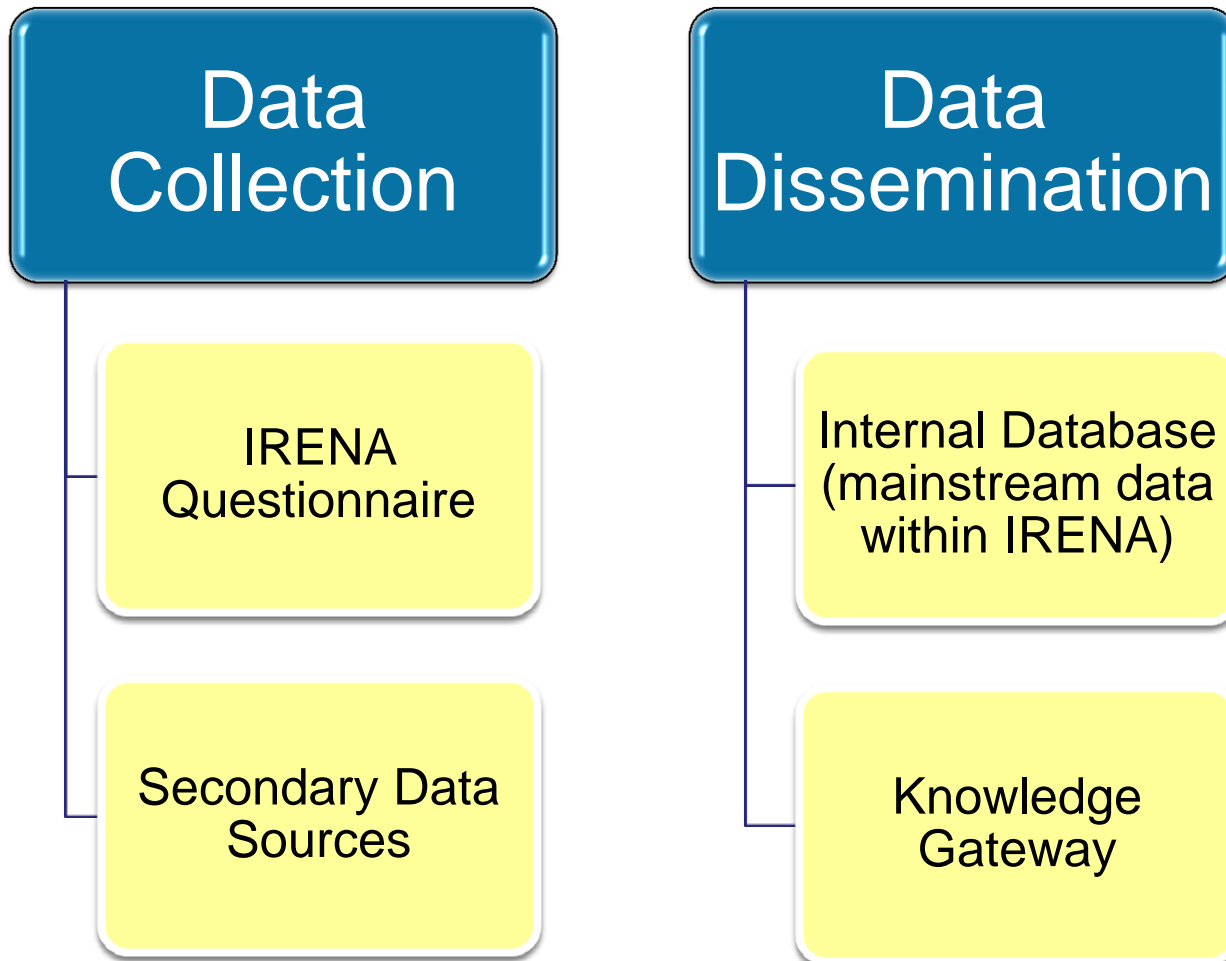
- Focus on definitions and classifications of products for better understanding of renewable energy
- A need for agreed and practical methods of estimation
- Need to explore emerging issues that will need to be captured in energy statistics and ways to capture them
- Bioenergy-specific issues
 - Uncertainty about the actual use of biomass, especially in developing countries
 - What is primary and what is secondary energy
 - Trade accounting
 - Decentralised uses are usually not captured (off-grid)

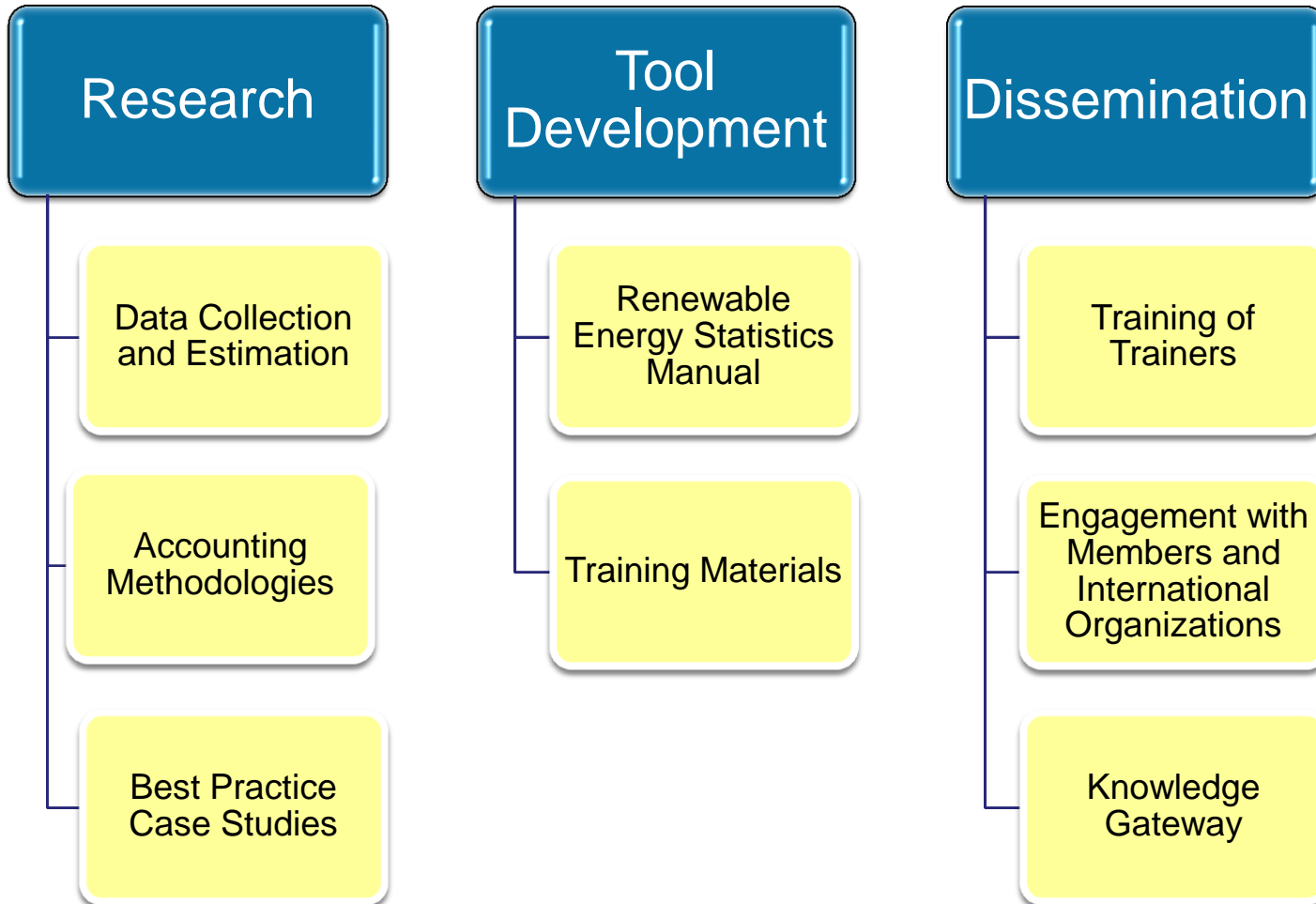
Challenge 3: The rapid evolution in renewable energy production and consumption is often not reflected timely enough in official statistics

Global Wind Energy Capacity from 2010-2013 (GWEC):



IRENA Activities: Data Collection and Dissemination





IRENA Questionnaire: Overview

- Is consistent and complements harmonised existing questionnaires (definitions of products and flows)
- Focuses on renewable energy by:
 - Disaggregating renewable energy sources
 - Aggregating non-renewable energy sources
 - Asking information on decentralised (off-grid) energy
- Is sent prefilled to the countries for easier reporting
- Aims to draw the attention on renewable energy data that other country agencies (e.g. environment ministry, agency for rural electrification, industry associations) may have so that they are included in energy accounting

IRENA Questionnaire: Categories

- Energy Supply and Consumption
- Electricity Generation (includes off-grid and CHP plants)
- Heat Production (commercial heat plants and CHP plants)
- Capacity
- Small Scale Systems (includes capacity of biogas digesters)

IRENA Questionnaire: Key Features

- Bioenergy disaggregated into 20 products (11 solids, 5 liquid, 4 gaseous)
 - Breakdown of solids captures diversity of bioenergy uses in developed countries and developing countries
- Wind disaggregated between onshore and offshore
- Aggregated flows other than inputs for electricity and heat generation and charcoal production and final energy consumption by major sector (industry, transport, residential, commercial/public services, other, non-energy use)
- Additional flows: inputs and outputs to/of off-grid electricity generation and traditional uses of biomass in the residential sector
- Collect information on small scale systems such as capacity of biogas digesters

IRENA Questionnaire: Initial reporting (1st cycle)

Solid Bioenergy Products Reported

	Detailed solid bioenergy products reported
Ecuador	Fuelwood, Bagasse
Latvia	Wood and straw pellets, Wood and straw briquettes, Fuelwood, Wood waste, Wood chips, Straw
Lithuania	Wood and straw pellets/briquettes, Other vegetal and agricultural waste
Luxembourg	Wood and straw pellets/briquettes, Fuelwood, Wood waste, Other primary solid biomass
Mauritius	Fuelwood, Bagasse
Nicaragua	Fuelwood, Wood waste, Bagasse, Other vegetal and agricultural waste
Niger	Fuelwood, Other vegetal and agricultural waste, Other primary solid biomass
Sri Lanka	Fuelwood, Bagasse, Rice husks
Swaziland	Fuelwood, Other vegetal and agricultural waste
Turkey	Wood and straw pellets/briquettes, Fuelwood, Other vegetal and agricultural waste
Uruguay	Fuelwood, Wood waste, Rice husks, Other primary solid biomass, Black liquor

- Currently in the consultation stage
- Complementary to existing manuals and guidance
- Focus on renewable energy data collection and estimation methods and will include a deep dive on bioenergy and off-grid statistics
- Will draw primarily from best practice case studies

- IRENA will also be developing training materials that can be utilised by other organizations
- IRENA welcomes feedback and case study contributions from the members of the Oslo City Group

Your Feedback

- What are the biggest challenges facing your country with regards to renewable energy statistics?
- What activities can IRENA undertake to support you in this area?
- What kind of cooperation should take place between international agencies and national statistical offices to improve the quality and profile of renewable energy statistics?

Thank you

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