India’s Energy Data Management

MEREDYDD EVANS
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Current energy data system in India

Two examples of challenges and opportunities:
- Biomass
- Coal

Energy Dashboard and future improvements
Dozens of ministries and agencies maintain energy data today

Data collected, but not disseminated
- Only Ministry of Statistics and Programme Implementation (MoSPI) and Central Electricity Authority (CEA) are required to disseminate
- Non-sensitive data not shared publicly
- Many data sets are collected for administrative use

Lack of coordination among data collection agencies

Source: Prayas, 2014. An Assessment of Energy Data Management in India
Problems in Current Energy Data System

- **Insufficient consumption data**
  - Harder to collect (biomass use, space heating/cooling, appliance use, unorganized sector)
  - Not primary focus of energy-related ministries / agencies
  - Energy consumption data collected as part of other surveys
  - Many gaps

- **Supply data relatively better but this is a room for improvement**
  - Not sufficiently compiled and cross-checked, data gaps, duplication
  - Various surveys ask similar questions

- **Ease of access and timeline**
  - No single place to find energy data
  - Dissemination in PDF format
  - Some reports released with 1.5-2 year lag (administrative delays)
NITI Aayog and USAID convened studies on data availability, gaps, international best practices, and options for improving data.

Interagency Working Groups on Energy Supply and Energy Demand.

Capacity building: webinars, seminars, study tours and visiting scholars to learn about methodologies, institutional issues, authorities, etc.

Work on specific data issues: oil and gas, coal data, biomass, buildings.

New institutional approaches under consideration.
Traditional Biomass Data

- Large share of total energy use, especially in buildings
- No actual surveys on traditional biomass use
- Estimates today vary

[Diagram showing IEA estimates for different years and sources: Sinha et al, IEA, FAO, Bhattacharya et al, Ahmed, Fernandes et al, IESS, FAO, IEA, FAO, IEA. The years range from 1991 to 2013. The categories include total IEA, total other, Ag residues, dung, and firewood.]
Traditional Biomass Data

But traditional biomass is important to understand future trends (and to pollution today)

Share of biomass in the residential sector energy mix

Biomass use in the residential sector will remain substantial by mid-century

Results from GCAM 4.4. reference scenario

India – projection, all other countries – historical data
Coal Data

- **Coal for power**
  - 44% of the primary energy mix
  - 77% of power generation

- **Coal Controller’s Organisation (CCO):** coal dispatches to power plants
- **Coal Electricity Authority (CEA):** actual coal receipts by power plants

Better coordination has helped in reducing discrepancies in coal data.
Energy Data Dashboard

- Developed for NITI Aayog by Prayas Energy Group
- Simplifies access to energy data
- Enables easy downloading of data into convenient spread-sheet formats
- Available at [http://www.indiaenergy.gov.in/edm](http://www.indiaenergy.gov.in/edm)

![Energy Data Dashboard Image](image-url)
Conclusions

- Improving energy data is critically important for India

- India has made significant progress but many challenges remain

- Benefits of continued improvements:
  - Better understanding of trends, given India’s large growth potential
  - Clearer information for decisionmaking
  - Improved action on sustainability and energy security