Challenges and Solutions, and Indicators output

FINAL MEETING ON ENERGY CONSUMPTION IN THE TRANSPORT SECTOR SURVEY AND RESULTS LAUNCHING
23-24 JULY 2015, BEIRUT, LEBANON

Prepared by Therese El Gemayel
Energy and Environment Consultant
Project coordinator

Outline

- Project overview- timeline
- Challenges and solutions- Common challenges
- Challenges and solutions- Country specific challenges
- Results and major indicators
- Data Dissemination
- Conclusion
Project overview - timeline

Energy Consumption Survey Timeline 2014-2015

Original timeline

A. Preparations
B. Data Collection
C. Data Processing
D. Data Release

Egypt


Jordan

Palestine

Challenges and solutions - Common challenges
Limited timeframe for survey implementation

Pros

- Selection of survey methodology representative of the original population
- Selection of sampling method that best serves the purpose of the survey
- Use typical weekly fuel consumption
- Use several locations to collect data: motor vehicle inspection centers, large parking, fuel stations
- Recruit large human resources to compensate for short timeframe

Cons

- Winter vs. summer consumption differences
- Space constraint due to limited administrative procedure
- Unavailability of all required vehicles

Concise survey
Cost effective
Challenges and solutions- Common challenges

Imprecision about amount and cost of monthly consumed fuel

- Imprecise estimation on amount of fuel consumed monthly
  - Hard to remember for a previous year (2014)
  - Hard to estimate the amount for one month

Respondents provided a weekly amount of consumed fuel
NSOs compared the amount and cost provided by respondents; when the difference was significant, cost of fuel was adopted to calculate amount of fuel consumed

Challenges and solutions- Common challenges

Importance of training

- Complexity of the topic- various types of fuel and various units of measurement
- Lack of in-depth knowledge by the researchers

✓ Targeted training
✓ Intensive training needed
✓ Specialized personnel to conduct training
Challenges and solutions - Country specific challenges: Egypt

- Road sector
  - Maintenance table
    - Simplified to type and cost of total maintenance
  - Type of consumed fuel
    - 2 types of fuel used
    - Reported the quantities and cost of the 2 types of fuel
- Maritime sector
  - Sectoral specificity
    - Reporting unit of fees paid per km traveled
    - Edited to hourly paid fees in EP

Challenges and solutions - Country specific challenges: Palestine

- Sample size variation
  - Time limitation
  - 20% Smaller than planned
- Researchers withdrawals
  - Complex topic
  - Short working time (1 month)
  - Personal reasons
  - Representative sample of geographical location
  - Representative sample of design strata
  - Conducted more training
  - Trained larger number than needed
National Results

- Each country will publish national statistics including:
  - At least road sector statistics
  - Energy consumption statistics
  - Energy efficiency indicators

- Publishing includes an overall report on the survey implementation and results

- Make national data available for all

List of major indicators

19 indicators

- General information
- Energy consumption
- Energy efficiency

- Vehicle distribution by governorate, gender, education level
- Distance traveled
- Quantity of Fuel consumed by type
- Cost of fuel consumed
- Transport energy share
- Energy consumed by sub-sector
- Kms/ liter
- Liters/km
- Passenger energy consumption (passenger-kilometers)
- Freight energy consumption (ton-kilometers)
List of major indicators - cont’d

10 indicators

- Transport and population
  - Motorization rate

- Transport and economy
  - Energy consumed/GDP/ct
  - Value added of transport

- Transport and environment
  - Total CO₂ emissions
  - CO₂ emissions/ct
  - CO₂ emissions/km

Data Dissemination

- Indicators can be presented in the following visual options:
  - Geographical representation of data
  - Charts and Graphs
  - Tables
Conclusion

- Benefit from lessons learned from the survey for future activities

- Indicators’ results will be used to advise on evidence-based energy policies

- Raw statistics will only be used and published by the countries

- Indicators’ results will be part of the final report of the project
Thank you!