ADEME

Agence de l'Environnement et de la Maîtrise de l'Energie

Transfer of "Top-down energy saving calculation method" to emerging countries: concrete results and implementation process

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Odyssee

Outline

1. Introduction : a growing demand in emerging countries to implement TD evaluation methods
2. The ADEME's experience on EEIs in emerging countries
3. The TD methodology :EEIs What are they?, How to implement them?
4. Quantitative and qualitative criteria to assess TD implementation
5. Conclusion:

A growing demand in emerging countries to implement Top-Down evaluation methods

- **Dilemna : More policies implemented at world level and in each country. However slowing down of energy efficiency impact in the recent years (WEC-ADEME survey 2013).**
- **More energy efficiency targets (needs of tracking)**
- **More energy efficiency action plan to be monitored including in BRICS**
- **Reporting rules at UNFCCC may change after COP21 (similar for all countries)**
- **Some reluctance for CO2 indicators and benchmark**

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The TD methods or indicators-based methodology for evaluating energy efficiency : a classification of EEI

Type	Level
1. Energy intensities	by sector & sub sector
2. Adjusted intensities	final and industry
3. Specific energy consumption	by sub sector & end-use
4. Benchmarked specific energy consumption	steel, cement, paper, heating, cooling
5. Energy efficiency indices	final and by sector
6. Energy savings	final, by sector and sub sectors
7. Indicators of diffusion	by sector
8. CO_2 intensities and specific emissions	by sector & sub sector
9. Financial/strategic indicators	Macro level
10. Indicators for NEEAP	By measure type

Characteristics of some ADEME's projects on implementing energy efficiency indicators

	ODYSSEE	BIEE	MEDENER
Number of countries	29 EU	18 LAC	5 Northen, 4 Southern Mediterranean countries,
Period	1992-2015	2011-?	2012-2014
Sponsor	EU (75%); agencies (25%)	UN; GIZ; ADEME	ADEME
Funded team	Yes	No (In kind)	No (In kind)
Governance	EE agencies	Government	National EE agencies
Data collectors	National team	National team	National Team
Number times series	1500	700	700
Indicators number	200	100	100
Quality check	Yes (automatic and manual)	Yes (automatic and manual)	Yes (automatic and manual)
In country assistance	No	Important (local assistance)	Important
Reporting	National team	National team	National Team
Dissemination	Important (ADEME, National)	Light but high level	Yes national reports

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The ADEME's guideline to implement EEIs in DCs

Step 1 : K.O.M for **motivation and getting confidence** between partners

Step 2 : TC develops a **Country/region-specific data template**

Step 3: TC perform a first **training** workshop on data collection needs

Step 4 : NT **perform data collection**

Step 5: First **data check** by the TC, reports on data gaps

Step 6 : Second training workshop on **data collection improvement**

Step 7 : **In country assistance** or job training

Step 8: 3rd training on interpretation and reporting on EEIs

Step 9: **Reporting** by NT

Step 10: Reporting **quality check** (TC)

Step 11: Final reporting and preparation of the dissemination material (NT)

Step 12: **Benchmark** analysis (TC)

Step 13 : Final **regional meeting on exchange of results**

Step 14: **National dissemination** seminar

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Possible further works on EEIs

If sufficient funding is available, the methodology could be enlarged :

- **Development of national energy efficiency data base with an interactive internet tool.**
- **Development of a methodology to monitor the NEEAP implementation. It may require additional indicators.**
- **Development of more advanced indicators requiring an additional effort on data collection.**
- **Development of friendly dissemination materials or statistical indicators books.**

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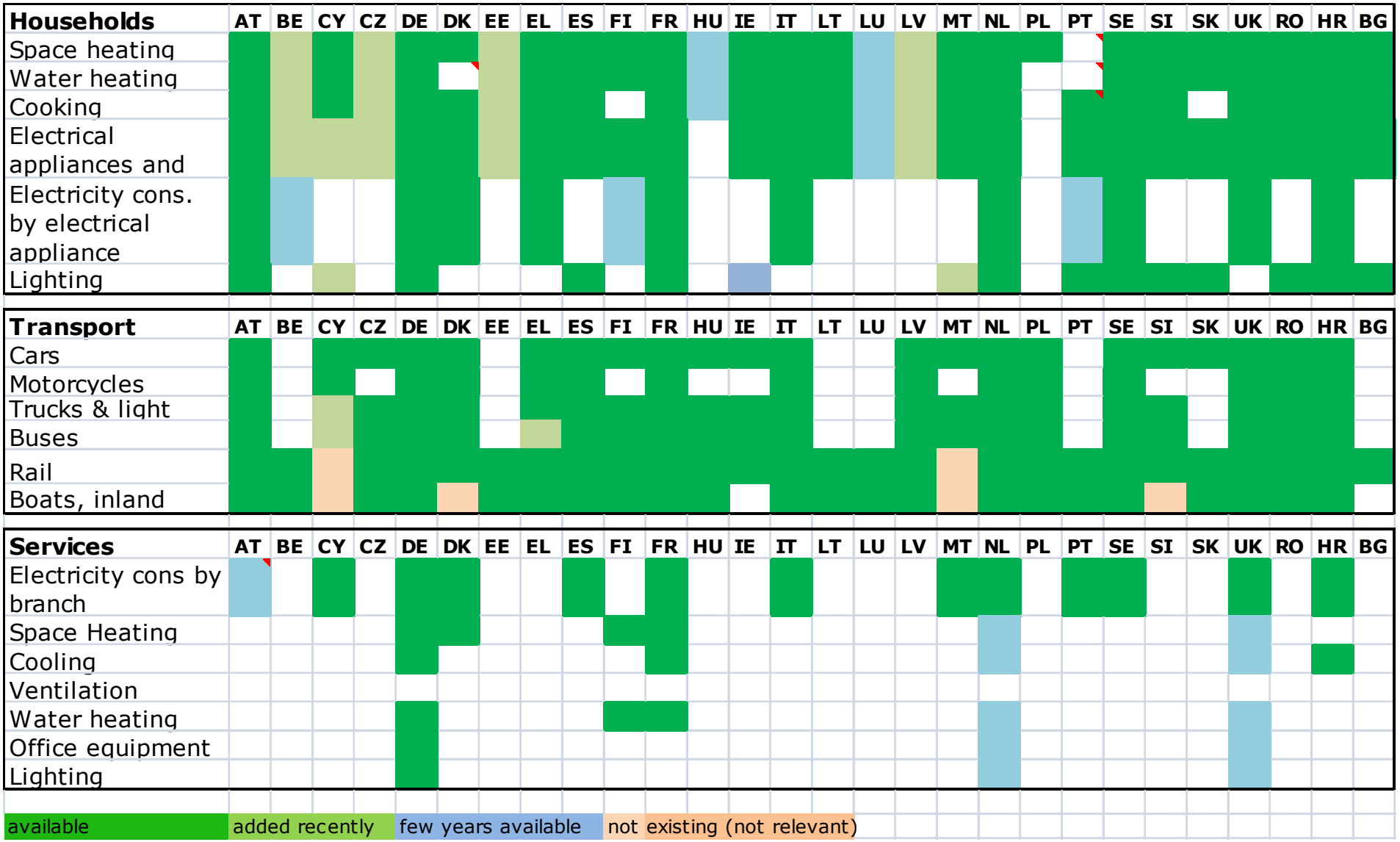
Quantitative Criteria to assess the success of a methodological transfer (1/2)

1. The number and length of time series effectively collected to perform the indicators
2. The number of indicators obtained
3. The coverage for end-use sectors and parts thereof.

Country	Macro-economic data (GDP, VA etc;)	Energy consumption data	Industry	Households	Services	Transport
Algeria	100%	100%	100%	95% (b)	98%	100%
Morocco	100% (a)	90%	100%	95%	100%	95%
Tunisia	100%	100%	100%	95%	98%	90% (c)
Lebanon	100%	100%	98%	98%	98%	100%

End-use data avaibility in MS (ODYSSEE)



Many countries still with important data gap for households consumption by end-use, transport consumption by mode and in services

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Quantitative Criteria to assess the success of a methodological transfer (3/3)

	Energy intensity	Energy intensity of mining	Energy intensity by industry branch	Energy intensity at constant structure	S.c. ciment (toe/t)	S.c. paper (toe/t)	S.c. steel (toe/t)
Argentina	☺	☹	☹	☹	☹	☹	☹
Bolivia	☺	☹	☹	☹	☹	☹	☹
Brazil	☺	☺	☺ (few missing)	☹	☺	☺	☺
Chile	☺	☺	☹	☹	☺	☺	☹
Costa Rica	☺	☹	☺	☺	☹	☹	☹
Dominican Republic	☺	☹	☹	☹	☹	☹	☹
Ecuador	☺	☹	☹	☹	☹	☹	☹
El Salvador	☺	☺	☺	☺	☺	☹	☹
Mexico	☺	☺	☺	☺	☺	☺	☺
Nicaragua	☺	☹	☹	☹	☹	☹	☹
Panama	☺	☹	☹	☹	☹	☹	☹
Paraguay	☺	☹	☺	☺	☹	☹	☹
Peru	☹	☹	☹	☹	☹	☹	☹
Uruguay	☺	☹	☺	☺	☹	☹	☹

Indicators marked in red: included in the data mapper

☺ Indicator available ☹ Missing data to calculate indicator

The issue of data Quality: to organise a sustainable framework for data providers

Qualitative criteria

1. Structure of the consortium of participants Centralised (WEC, IPEEC) versus Decentralised data collection (IEA, ODYSSEE, BIEE, MEDENER)
2. The type of organiser/coordinator/sponsor : International donors, Agencies, researchers
3. The level of funding: Do we have to finance NTs?
4. The nature of the NTs (Government, agencies, statisticians, analyst) ?)
5. The importance of training
6. The importance of routine workshops
7. The institutional framework
8. The level of in-country assistance
9. The acceptance of non official data
10. The willingness to disseminate the results
11. The need to maintain an EE data base
12. The human factors

Conclusion : Yes we can transfer TD methods in Dcs

1. Based on on-field practice, TD methods **can be successfully transfered** in DCs
2. **Quantitative analysis** demonstrates that the data coverage currently achieved in DCs is generally **slightly lower** in reference with the common practice in OECD countries.
3. DCs practices can meet the average standard of TD through new surveys and extra **capacity buildings**
4. ADEME's methodology of TD implementation can be a "**guideline**" for practitioners to be adapted along national context.

Conclusion : Yes we can transfer TD methods in Dcs

5. The success also depends on the **acceptance and the voluntarism of DCs** to overcome the reluctance to provide data and to participate to benchmark .
6. More exchanges of practices between DCs to gain confidence
7. To overcome the staff turnover in DCs, create a data base
8. The increasing number of P&Ms in DCs will push TD methods requirements

Thank you for your attention

For more information

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