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Indicators and Accounting Frameworks for Sustainable Development Polices

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June 2004

There are three main approaches to SD:

- **The three-pillars approach**
  - No single focus of sustainability, but all systems must be simultaneously sustainable

- **The ecological approach**
  - Each system is part of a more global system and economic and social spheres are subordinated to the ecological one

- **The capital approach**
  - Broadens the economic concept of capital to social and environmental dimensions

There are at least three approaches to measure SD:

- Stand-alone indicators

- Integrated national accounts and indicators

- Other accounting aggregates

Stand-alone indicators

- UN Commission for SD

- National sets

- OECD initiative

- EU structural indicators

- Recent Eurostat initiative

See OECD (2002) for a review

Integrated national accounts and indicators

- Economic accounts (Input-output)

- Integrated Environmental and Economic Accounts (NAMEA, etc.)

- Social Accounting Matrixes (labour accounts, income distribution, etc.)

Other accounting aggregates

- Genuine saving

- Material flows

- Biophysical accounts

The OECD Seminar on accounting frameworks. What did we learn?

- State of the art in accounting frameworks

- Strengths and weaknesses of various approaches

- Analytical/statistical issues

- Institutional issues

- Statistical policy recommendations for:
  - National statistical authorities
  - International organisations

"State of the art" (1)

- There is a general tendency to extend "classical" national accounts schemes to new domains

- There are already several good practices, more numerous and advanced than I expected

- These developments are not well known at international level and/or widely recognised as able to provide concrete tools for evaluating SD trends and policies

"State of the art" (2)

- National accounts based framework (E+S+E) can be developed following various ways

- Its implementation is feasible, even though costly, but the degree of flexibility is not homogeneous across domains

- This approach is less costly if well designed from the beginning

- Good examples are available for the integration of two dimensions, almost nothing for the integration of all three dimensions

"State of the art" (3)

- National accounting frameworks were not developed having SD in mind. Therefore:

  - Can they be used for this purpose?

  - Are they performing better than other approaches (indicators/other frameworks)?

  - Are they able to meet user needs?

  - Are they cost-efficient?

A rough "quality profile"

	National accounts and indic.	Other accounting aggregates	Stand-alone indicators
Relevance	++	++	+++
Accuracy	+++	+	++
Credibility	+++	+	++
Timeliness	++	++	+++
Accessibility	++	+++	++
Interpretability	++	++	++
Coherence	+++	+	+
Cost-efficiency	+	++	++

The relevance issue

	Individual ministry	Prime minister	Public opinion
National accounts and indicators	+	+++	+
Other ac. framew.	+	++	+++
Headline ind.	+	++	+++
Stand alone ind.	+++	+	+

Therefore, the way in which institutions for SD are organised is relevant for the development and the use of statistical tools

"Statistical issues"

- The quality of Input-output tables is not satisfactory, even in several OECD countries
- Difficult measurement of monetary values for natural resources (strong hypotheses)
- Sensitivity analysis is necessary for assessing measurement risks
- Measurement of stocks is necessary for several purposes, but there is a lack of reliable data, even in several OECD countries
- Measurement difficulties deriving from globalisation processes (int. trade, migrations, etc.)
- Time series are necessary

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"Statistical issues for EAMs"

- Coherence between basic statistics and NA concepts and classifications

- Linkage between physical and monetary units

- The quality of NA type data heavily depends on the importance attached to the environmental factor (administrative sources, accounting systems in enterprises, etc.)

- Specific issues have to be addressed by each country and at international level (implementation of the SEEA)

- Labels are important and perhaps should be reconsidered

"Statistical issues for SAMs"

- Very flexible, but not yet designed for SD analyses

- The choice of the classification is crucial: risks associated to the use of several classifications (age, income, education, etc.) to be comprehensive

- Lack of different sources on the same phenomenon risks to largely reduce the accuracy of disaggregated estimates

- Role of "non market" goods and services have to be taken into consideration (time?)

- Evaluation of human and social capital (distribution of assets)

"Statistical/analytical issues" (1)

- Clarifications needed about the theoretical framework adopted: conflicting approaches can led to conflicting messages

- In some cases, the role of subjective perceptions has to be evaluated

- Data availability can influence analytical developments and policy conclusions

- Interlink-type model for SD?

- Models based on NA data are necessary to explain behaviours and predict future tendencies

"Statistical/analytical issues" (2)

- Better integration between statistical and analytical experts for developing models based on accounting frameworks related to SD issues: explaining trends, analysing causes, simulating policies

- IO-type models and general equilibrium-type models are complementary

- Linkage between SD frameworks and indicators must be reinforced (analytical soundness)

- Improvement of analysis/statistics on subsidies

Institutional issues

- The institutional framework is crucial for the development of statistics, both at national and international level. In fact, the institutional environment influences:
  - Consensus on targets and instruments
  - Clarification of respective roles
  - Development of a conceptual framework
  - Financial support
  - Impact on the public opinion
  - Role of NSOs vs. other bodies
- Involvement of statisticians is an asset
- Risks of providing too many "supply driven" data

Statistical policy recommendations for national authorities (1)

- Launch a discussion for preparing a "strategic view on statistics for SD"

  - Technical issues;

  - Organisational issues;

  - Communication issues;

  - Relationships with government and parliament;

  - Relationships with the rest of the NSS.

- SD is about long term. Therefore, medium-long term investments have to be planned, but a roadmap with concrete deliverables has to be established

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Statistical policy recommendations for national authorities (2)

- Clarify the role of national accountants and other sectoral statisticians

- Maximise interactions with other NSOs, both at technical and strategic level

- NSOs has to promote and be involved in modelling and analysis activities, in partnership with academics and research institutes

- Are statisticians late? No, because there is increasing need of coherence and simplification that must be addressed together by analysts and statisticians

Statistical policy recommendations for international authorities (1)

- **Improve the co-ordination between IOs on:**
  - Technical issues:
    - Conceptual issues in EA and SA
    - Linkages between different dimensions
    - Linkages between AF and indicators
    - Design a strategy for developing a full integrated NA-type framework for SD
    - International programme for collecting AF data for SD
  - Dialogue with policy makers;
  - Dialogue with natural and social scientists;
  - Dialogue with analysts;
  - Communication initiatives;

Statistical policy recommendations for international authorities (2)

- ● A possible role for the OECD:
  - – Technical issues (development of accounting frameworks especially devoted to SD)
  - – Dialogue with policy makers;
  - – Dialogue with natural and social scientists;
  - – Dialogue with analysts;
  - – Communication initiatives;

Main lessons:

1) The state of the art is more advanced than expected
2) There are still several statistical and analytical issues to be addressed, both at national and international level
3) The culture of "integration" has to be reinforced, both at technical and political level
4) The role of NSOs should be reinforced
5) IOs can play a crucial role in promoting a better measurement of SD