

Sustainable Development Indicators, Objectives and Scenarios

– Summary of the discussions

This document presents a summary of the contributions made by the discussants and of the questions raised by the audience during the seminar on *Sustainable Development Indicators, Objectives and Scenarios* of March 3, 2010. It also summarizes the answers given by the speakers and introduces some preliminary conclusions drawn by the Task Force on Sustainable Development (TFSD) after the seminar.

1 Part 1 of the seminar: Sustainable development indicators and objectives

1.1 Introduction to the discussion on *Indicators for measuring and fostering sustainable development* by L. DE GIMEL

The main remarks of Mr. de Gimel, discussant of the first part of the seminar, can be summarized as follows.

- The vision on sustainable development underlying the dashboard is not clear.
- Shouldn't a composite environmental indicator be included? The ecological footprint is basically only a carbon footprint with intrinsic weaknesses regarding issues like international trade and technological development.
- Caution is needed with the composite indicator on monitoring the implementation of federal sustainable development actions. Basically, an improvement of this indicator does not necessarily reflect a sustainable development result and the use of this indicator as a key performance indicator may lead to a fragmentation of actions and sprinkling.
- How did a shared vision emerge (among stakeholders) to define this set of sustainable development indicators? Who defined this list?
- Each indicator of the dashboard gives a rather one-dimensional view, giving rather a juxtaposition of several issues instead of providing linkages.
- How should the time needed for change be taken into account?
- Several other issues (e.g. education, health at work) should be taken into account as well.
- A stronger articulation between national goals and international goals on the one hand, and national versus regional / local goals on the other hand may be desirable.
- What comes next (updates, communications, policy following up...)?

1.2 Questions by the audience

WWF – The conclusion is that there is little progress to sustainable development and little improvement in the state of the resources. What we need is a change in behaviour and an efficient use of natural resources. We need a clear vision and clear targets. We need to know where we are and what we want. This can't be done only by experts but needs the implication of civil society, because we need a common understanding of our world. Indicators have an alerting role but in the case of environment there are many very complex issues that must be tackled at the same time. Therefore, we should avoid the risk of having a long list of indicators that is not very useful for decision-makers.

N. Gouzée – Behind this question, there is the question of the ecological footprint.

Court of Audit – I have a rather technical question. The indicators give a lot of data, but is there a study of the relationships between these indicators? Is there a system behind them? This is important to assess whether it is possible (or not) to have positive evolutions in all these indicators.

L. Soete – On the response side there is no focus on the outcome behind indicators such as R&D expenditures and other financial indicators, for example, patents for green technologies. It is more relevant and precise to look at R&D outcome instead of looking at R&D expenditures.

VODO – The report gives insight in a lot of indicators and the conclusion is that there is no progress to sustainable development. How are these conclusions taken into account by politics?

N. Gouzée – Behind this question, there is the question of the adoption of the third Federal Plan on Sustainable Development which should provide an answer on this.

Tractebel – The conclusion is that there is no progress to sustainable development and this conclusion is from before the financial crisis. What is the conclusion with the data from after the crisis? I would expect a catastrophe. How are stakeholders taken into account in the process of elaborating this list? Their implication can make this list more consistent.

N. Gouzée – That is the question of stakeholders participation to the decision-making process on sustainable development policy and of the best moments to do take into account their participation in the learning cycle.

1.3 Answers by the speakers and further discussion

N. Zuinen – Response indicators are very important because policy makers can directly influence them, although their influence on the other indicators (Driving forces, Pressures, State of capitals) can't be measured. In Eurostat there is a debate about the R&D expenditures indicator that is confronted with indicators on technological progress. But they choose to maintain the R&D expenditures indicator, because otherwise one has to follow up too many indicators on the different types of technology patterns.

The objectives in our 5th Report are only political objectives already adopted in existing sustainable development strategies. This means that the issues of the table are not limited to the issues of the present sustainable development strategies. The problem of meat consumption e.g. has no objective but is taken in the table because it is very important to alert about this issue. The list addresses more issues than the Plans on Sustainable Development.

J. Pauwels – I would like to address some of the issues raised by Mr. de Gimel. The HDI is important for developing countries, but can also be used by developed countries in their development cooperation policy.

Composite environmental indicators: there is a danger of composite indicators because a lot of information will be lost and very different trends can't be made visible. Composite indicators can hide very different stories, but they can be interesting for communication purposes, to draw the attention of the public on these issues.

SD vision behind the table: all the objectives used in the strategic table come from sustainable development strategies. The revision of the act of 1997 in 2010 foresees the development of a vision, objectives and indicators, with a participatory process behind this development. This is the future step in the Belgian policy work in the learning cycle, where stakeholders' views will be further expressed.

N. Gouzée – The relevance of the aggregated implementation indicator can be discussed, but another representative of the Court of Audit we met last week in the SWEF (Société Wallonne de l'Évaluation et de la Prospective), for instance, told us that he was happy about this indicator that aggregates information about the follow-up of the implementation of policies. The problem you raise about the difference between little and huge measures is important, but there is also a need to improve and implement policy planning in general. Therefore follow-up indicators are needed to know at least if what is announced by the numerous thematic policy plans is being implemented or not.

Indicators for alert and indicators to measure the policy response to these alerts are not pursuing the same goals. The link between an envisaged measure and the evolution of living conditions can be evaluated *ex ante*. This is done by the Federal Planning Bureau in other departments than the Task Force on Sustainable Development. But an *ex post* evaluation of the impact of measures taken is a different question on which we are very cautious. About the possibility of positive evolution of all these indicators, the scenarios discussed in the second half of the afternoon bring at least elements of answers.

Solvay – We have been looking at this picture of a painting (last slide of L. de Gimel) for a few minutes and I want to ask how you would summarize it in two lines. This is impossible. Also sustainable development can't be summarized in one or two indicators. The problem is that you need to educate policy-makers and consumers that we must live with this complexity and it's a real challenge to face this complexity.

L. de Gimel – One picture can be seen as a whole even if it is composed of many different things.

2 Part 2 of the seminar: Sustainable development objectives and scenarios

2.1 Introduction to the discussion on *Scenarios for a sustainable development in 2050* by L. SOETE

The main remarks of Mr. Soete, discussant of the second part of the seminar, can be summarized as follows.

- Policy recommendations are too vague and ignore a discussion of their effectiveness and opportunity costs.
- The TransGovern model is a grey box. Relationships between its elements should be made explicit and endogenous, e.g. in a sectoral input-output model.
- Too many assumptions (and consequences of assumptions) are left implicit.
- The feasibility and (cost) efficiency of transition paths (e.g. regarding the energy subsystem) should be assessed as well.
- The individual ecological footprint could be considered as a policy device (e.g. stock markets to trade surpluses on ecological footprint).
- Different aspects of the scenarios should be assessed within a welfare analysis as well.

- It should be assessed whether transition paths are convex or concave instead of sigmoid. The transition path should be endogenously determined, based on choices made.
- The consequences of income inequality on consumption patterns and their impact should be assessed more thoroughly.

2.2 Questions by the audience

SOS Faim – I have two questions. (1) Why do we focus only on two scenarios instead of three or four? Including more scenarios would help us to look at a world where we find a mixture of increased international cooperation and national sovereignty. (2) In 2050, according to the Pyramid scenario, multinational corporations control the food distribution, while in Mosaic food is distributed by local shops. Why do you assume these differences between both scenarios? Where does this come from?

M. Englert – I'm wondering what the interaction could be between accounting our GDP and issues of sustainable development. Not only would it be possible that we consume less. Also the quality of products change (e.g. emissions from cars) and the question is how we could measure the value of these quality improvements in prices. Perhaps we could learn from hedonic pricing estimations¹.

WWF – I have a remark: the financial system, and more specifically the way in which risks are assessed by the financial system, should be clarified in both scenarios.

2.3 Answers by the speakers and further discussion

A. Henry @ SOS Faim – Time constraints prevented us from developing more than two scenarios.

A. Henry @ L. Soete – TransGovern is not an econometric model. It is only a conceptual model that helps us to clarify the interactions between different components of sustainable development. I agree that it would be fascinating to develop an econometric model based on this, e.g. an input-output model, but we should not underestimate its complexity. I am wondering, however, how the long-term vision and the very important structural changes that go with this can be integrated in this type of model. Also the question on sigmoid paths (whether these paths are actually concave or convex) is interesting to address. The backcasting exercises in the Netherlands are indeed very interesting, but our ambition is clearly not to be so detailed.

N. Gouzée – I share the wish of Mr. Soete to have more integration between this work on sustainable development and the economic tools developed in the FPB. But what is done here is not only working on an economic vision. These two scenarios are based on a participatory exercise with sixteen experts coming from several very different disciplines. In Mosaic the multilateral policy networks function as they do today and there is more local work at the level of countries, while in Pyramid these networks play a greater role. It would be much better to have more scenarios but in political debates these two have the advantage to show that there is already a lot of room for improvement in our own country. This is a very important message, also towards the stakeholders. Nevertheless, our wish is to be more coherent with models like e.g. MALTESE, to assess linkages between ageing and the sustainability of our public finance.

L. Soete @ A. Henry – I thought that the scenarios were based on an econometric model, also because the FPB has a lot of data about energy, for instance, to do so.

¹ *Hedonic pricing* is an econometric tool where a hedonic pricing equation is used to explain variations in prices of goods and services on the basis of their characteristics. This methodology is used, among many other applications, to estimate the willingness-to-pay for product attributes like low emissions (for cars) and good isolation (for houses).

L. Soete @ M. Englert – The question of Mr. Englert is fundamental. Today there are discussions about the green economy, Europe 2020, etc., and everybody assumes that this will result in economic growth and employment. There are no studies about quality improvements versus emission reductions that make a link with the willingness to pay for these attributes.

L. Soete @ N. Gouzée – The two analysed systems are food and energy, but, besides sustainable development, ageing is also an important problem. It fits perfectly with what is done here. They are all parts of the same group of long-term development issues which also includes investment in science and technology. During the last decades, decision makers focused on increasing our technological efficiency. Nobody looked at the direction of these efficiency gains, however. This issue was already raised in a 1962 book, co-authored by Kenneth Arrow, written in a context of the race to the moon.

3 Preliminary conclusions

After the seminar, the Task Force on Sustainable Development (TFSD) formulated four preliminary conclusions.

- The further refinement of the TFSD work is an ever-lasting responsibility.
- The TFSD has to communicate clearly about its legal mandate, about its sustainable development specific character and its limitations.
- The TFSD has to find a *lingua franca* to communicate better about the value added of its work towards monodisciplinary scholars (particularly scholars in economics).
- The TFSD has to strengthen the link between its work on indicators and on a long-term vision on sustainable development.