



THE SLOVENIAN  
NATIONAL  
STATISTICS

TRUSTWORTHY  
AND  
USER-ORIENTED

## Session II: ENVIRONMENTAL SUSTAINABILITY

**Chair:**

Pedro Díaz Muñoz  
Eurostat

**Discussant:**

Genovefa Ružič  
Statistical Office of Slovenia

## Five papers

1. **German** Federal **Ministry** for the Environment,  
Frank Hönerbach, Jörg Mayer-Ries,  
About Political and Statistical **Needs** and Opportunities to  
Strengthen the Global Principle of Sustainable Development
2. CBS **Netherlands**, Rutger Hoekstra, Jan Pieter Smith:  
A brief introduction to the **measurement** of progress of societies at  
Statistics Netherlands
3. FSO **Switzerland**,  
Jana Wachtel, Anne-Marie Mayerat Demarne, Andre de Montmollin:  
**Visual aggregation** of the Swiss Sustainable Development Indicators  
System
4. **Destatis**, Michael Kuhn, Regina Hoffmann-Müller:  
Sustainable Development **indicators** in Germany and linkages to  
Stiglitz/Sen
5. SCB **Sweden**, Anders Wadeskog:  
The Swedish web-based household budget **simulation module**

## German Federal Ministry for the Environment

- User perspective – policy-makers can not wait for the final and all-including truth.
  - It raises a question of **timeliness** but also of **rapid reaction** to needs.
  - It emphasised that existing information of all information **providers** has to be used.

## Statistics as a support

- International, national and sub-national powerful **strategies** for green growth...need measurement systems which are able to quantify and qualify the objectives of these strategies:
  - the **present** state and
  - the success of policies towards the future - **monitoring**.
- **Statistics** has to play an important role - **measuring** is an instrument to support policy.

## Communication

- Non-statisticians are often not in the position to assess the information correctly and effectively,
  - closer and fairer **partnership between statistics, science and policy** is needed.
- Keep statistics **simple** to reach as many people as possible.
- **Composite indicators** are more a communication instrument.
- **Subjective indicators** useful only in strong relationship with objective statistics.

## The Netherlands

- Three dimensions of progress:
  - Measurement / monitoring: indicator set,
  - Communication,
  - Policy.

## Measurement

- Progress should be measured using **three separate dashboards**:
  - Quality of life - the welfare or wellbeing of life of the **present** generation.
  - Capital - the opportunities of **future** generations to pursue their welfare goals.
  - The **international** dimension - impact of the Netherlands (via consumption/imports) on the sustainability of other countries.

## Communication

- **15-30 indicators** per dashboard – detailed information.
- **The messages** for the dashboards have to be **simplified**:
  - “composite” indicators are not currently feasible,
  - other alternatives are now being seriously considered and developed.



## Switzerland

- Visual aggregation method called **Dashboard** to synthesise the information of its sustainable development indicators system containing 75 indicators (MONET).
  - Aggregated by means of the evaluation of their **trend**;
  - **Access** to each indicator is provided.
- To overcome the gap **between** scepticism towards **composite indicators** and the growing need for **summarized answers** to complex questions.

## Evaluation of the indicators

- The aim of the evaluation of the indicators is to **synthesise their message**.
- The indicators are evaluated **based on their long-term trend** and not on their last absolute value of the time series (since 1987 or later),
  - **no weighting** choices are made.
- The evaluation of each indicator is **communicated by traffic light symbols** (green, red, yellow).



## The home page

- <http://www.bfs.admin.ch/bfs/portal/de/index/themen/21/02/dashboard/02.html>

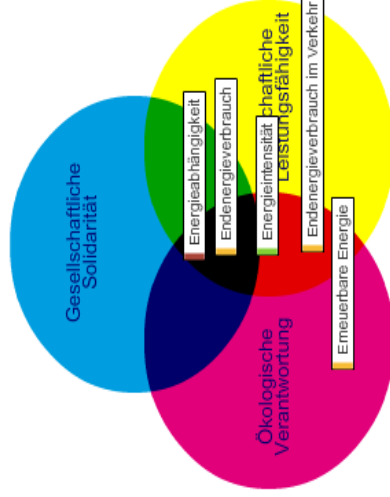
[Seite drucken](#)

Panorama
<b>Indikatorsystem MONET</b>
Indikatoren und Postulate
Bedeutung der Symbole
Globale Dimension der Nachhaltigen Entwicklung
<b>Cockpit</b>
Einführung
<b>Cockpit</b>
KLARTEXT Kartenspiel
Newskarten
Reporterkarten
Unterricht
Indikatoren auf regionaler Ebene
Cercle Indicateurs
Weitere Indikatorsysteme
Internationale Indikatorsysteme
Analysen
Ökologischer Fussabdruck
Zum Nachschlagen
Medienmitteilungen
Newsletter
Publikationen
Statistisches Lexikon
Statistische Grundlagen
Erhebungen, Quellen
Definitionen
Visualisierung von Indikatoren
<b>Alle anzeigen</b>

## Strategie Nachhaltige Entwicklung des Bundesrats - Cockpit

### 2 Energie

Heute stammen rund 80 Prozent des weltweiten Energiebedarfs aus nicht erneuerbaren Quellen – eine grosse Belastung für Umwelt und Klima sowie eine mögliche Gefährdung bei der Versorgung von zukünftigen Generationen. Die Wende in Richtung Nachhaltigkeit gelingt nur, wenn wir Energie effizienter nutzen und sparsamer damit umgehen.



■ Negativ   ■ Neutral   ■ Positiv

Startseite
<b>Schlüsselausforderungen</b>
1 Klimawandel und Naturgefahren
2 Energie
3 Raumentwicklung und Verkehr
4 Wirtschaft, Produktion und Konsum
5 Nutzung natürlicher Ressourcen
6 Soz. Zusammenhalt, Demografie, Migration
7 Gesundheit, Sport und Bewegungsförderung
8 Glob. Entwicklungs- und Umweltausforderungen
<b>Transversale Themenfelder</b>
9 Finanzpolitik
10 Bildung, Forschung, Innovation
11 Kultur
Gesamtbild

- Indikatoren **MONET**
- Indikatoren und Postulate
- Bedeutung der Symbole
- Globale Dimension der Nachhaltigen Entwicklung
- Cockpit**
- Einführung
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- KLARTEXT Kartenspiel
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#### Indikatoren:

- ▶ Endenergieverbrauch
- ▶ Erneuerbare Energie
- ▶ Energieabhängigkeit
- ▶ Energieintensität
- ▶ Endenergieverbrauch im Verkehr



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- Gesamtbild

**Indikatoren**

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**Alle anzeigen**

**Strategie Nachhaltige Entwicklung des Bundesrats - Cockpit**



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Gesamtbild

## Germany, Destatis

- Every two years since 2006 releases an **Indicator Report** on SD:
  - 4 policy areas, 21 themes, set of 35 single indicators:
    - One graph with time series;
    - Descriptive text;
    - The evaluation is a simple forward calculation of the past years with reference to the given targets-**weather symbols**.
  - Monitoring of **progress or deficits** of the sustainability strategy.
  - **Professional advice** to the political board in respect of further development and the design of indicators.

## Indicator Report

- <http://www.destatis.de/jetspeed/portal/cms/Sites/destatis/Internet/DE/Content/Publikationen/Fachveroeffentlichungen/UmweltoekonomischeGesamtrechnungen/Indikatorenbericht2010,property=file.pdf>



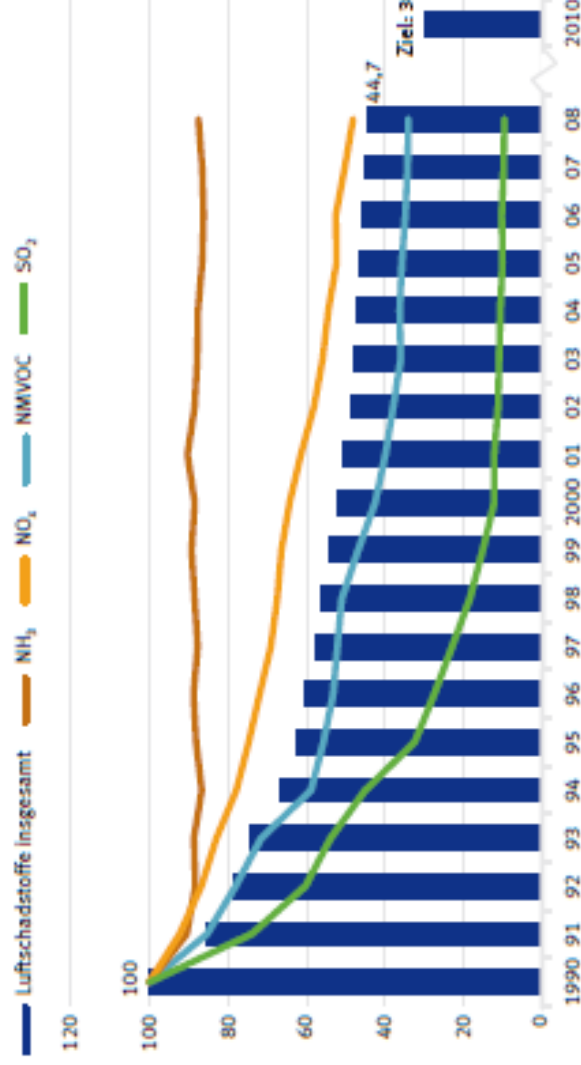
## II. Lebensqualität

### Luftqualität

Gesunde Umwelt erhalten



Schadstoffbelastung der Luft  
Index 1990 = 100



Schwefeldioxid (SO<sub>2</sub>), Stickstoffdioxide (NO<sub>x</sub>), Ammoniak (NH<sub>3</sub>) und flüchtige organische Verbindungen (NMVOC), gemittelter Index der Messzahlen.

Quelle: Umweltbundesamt

### 13 Schadstoffbelastung der Luft

Im Schutz der menschlichen Gesundheit hatte der Umweltschutz seinen Ausgangspunkt. Erkrankungen der Atemwege waren schon früh mit Luftschadstoffen in Zusammenhang gebracht worden. Zunächst konzentrierten sich daraufhin die Schutzmaßnahmen auf eine Verringerung der Schadstoffemissionen. Luftverunreinigungen beeinträchtigen aber auch Ökosysteme und Artenvielfalt, insbesondere durch Versauerung und Überdüngung (Eutrophierung) der Böden. Die in Deutschland freigesetzten Emissionen konnten seit den 1980er Jahren durch den Einbau von Entschwefelungs- und Entstickungsanlagen in Kraftwerken und die Verbreitung der Katalysatortechnik in Ottomotoren erheblich reduziert werden. Dennoch sind weitere Anstrengungen erforderlich. Im Indikator „Schadstoffbelastung der Luft“ der nationalen Nachhaltigkeitsstrategie der Bundesregierung sind vier wesentliche Schadstoffe zusammengefasst. Es handelt sich um Schwefeldioxid (SO<sub>2</sub>), Stickstoffoxide (NO<sub>x</sub>), Ammoniak (NH<sub>3</sub>) und die

## Indicator Report

- Nearly fulfils the requirements of the 11<sup>th</sup> and 12<sup>th</sup> recommendation of Stiglitz/Sen:
  - Set of manageable indicators **directly linked** to political targets;
  - The selection of indicators is **not based on the idea of capital approach**.

## Sweden

- **Simple simulation model** showing the relationship between a household budget structure and the amount of CO<sub>2</sub> generated.
- **On the basis** of environmental accounts, IOT internal and external modelling efforts and analysis.

## The aim of the model

- Household expenditure module should be **used in three ways:**
  - The pedagogical part,
  - The action part,
  - The statistical part, “us and them” part – additional data from HBS.
- Web page produces quick results that can produce **aha-experiences** and **fuel discussions** on the relationship between household expenditure and environmental pressures.



## Web page

- <http://www.mirdata.scb.se/MIRS3/Model.aspx>



Reference Unit  
 All households

Estimate Unit  
 All households

Scope  
 Domestic

Unit  
 SEK per household

Consumption 2006

	Purpose	Reference	Estimate	%	Fix
1	Food	41 529	41 529	100	<input type="checkbox"/>
2	Alcoholic beverages	6 939	6 939	100	<input type="checkbox"/>
3	Tobacco	5 351	5 351	100	<input type="checkbox"/>
4	Clothing materials	855	855	100	<input type="checkbox"/>
5	Garments, repairs	13 727	13 727	100	<input type="checkbox"/>
6	Footwear	2 633	2 633	100	<input type="checkbox"/>
7	Imputed rentals for housing	71 544	71 544	100	<input type="checkbox"/>
8	Maintenance and repair of the	1 502	1 502	100	<input type="checkbox"/>
9	Electricity/Gas	12 939	12 939	100	<input type="checkbox"/>
10	District heating	4 351	4 351	100	<input type="checkbox"/>
11	Liquid fuels	1 339	1 339	100	<input type="checkbox"/>
12	Solid fuels	645	645	100	<input type="checkbox"/>
13	Furniture, repairs	6 932	6 932	100	<input type="checkbox"/>
14	Household textiles	2 097	2 097	100	<input type="checkbox"/>
15	Household appliances	1 414	1 414	100	<input type="checkbox"/>
16	Household utensils	2 036	2 036	100	<input type="checkbox"/>

CO2 Emissions(Kg) 2006

Reference	Estimate	Difference	Diff %	
<b>Type</b>				
1	Mobile	Indirect 1 465	Direct 2 454	Sum 3 919
2	Stationary	1 556	352	1 907
3	Bio	1 835	1 055	2 890
4	Process	165	43	208
5	Sum fossil	3 186	2 849	6 034

## Conclusions / Issues for discussion

1. All papers underline the importance and challenges of the **cooperation with the government** – policy makers.
2. **Partnership** between statistics, science and policy; NSIs are not the only providers of data, **division of work** is needed.
3. A lot has been done on the measurement, **further work on communication, new analysis, better use of existing data**.
4. **Dashboard** - between the huge number of indicators and one single composite indicator.
5. Each national indicator set is based on the SD Strategy in each MS. Challenge - to reach **coherent national and European/international** framework?

## Questions for Germany

1. Approach oriented towards complementing GDP in a set of SD indicators - “**New Welfare Index**” is mentioned. Could you give some more explanation on this research project; its achievements? Also the relationship between the policy-makers and Destatis (their respective roles). The process for changing indicators. Communication to the public. (Ministry)
2. The selection of indicators in Germany is not based on the idea of capital approach; however, **capital approach** could serve as a guiding principle to select and structure indicators for SD whenever it makes sense – could you clarify this? (Destatis)



### Questions for The Netherlands:

- Some indicators on the list are based on a framework (national and satellite accounts), but some of them are provided by other means - specially **subjective indicators** (e.g. satisfaction with green areas); how are these data provided, how are they interpreted regarding the objective indicators? To what proportion the indicators provided are derived from a framework?

### Questions for Switzerland:

- There are **different options of the evaluation** of the indicators (trend, state evaluation, combination). This issue is also discussed by the Expert Group on Indicator-based Assessment; in which directions are these discussions going? Are policy makers actually demanding a change of the evaluation?
- The Dashboard contains **75 indicators**. This may be considered too many (some studies **limit to 20** the number that could be handled for monitoring). Is there a pressure to reconsider the number?

## Questions for Sweden

1. How often is this web page used? Is it understandable enough to permit households to make appropriate conclusions? Has it already had the **impact on the public debate** (in media, policy actions)?
2. A lot of methodological and IT work seems to have been done for the development, using a large amount of information from different domains. Is it feasible that this model and tool are **implemented in other NSI?**