Commonalities in existing SDIs – Discussant contribution

Julie L. Hass

Statistics Norway

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TASKS from the Bureau of the Conference of European Statisticians:

- Reveal commonalities in existing indicator sets

- Identify commonalities with capital approaches

- Mandate:
  Consider other approaches to the extent the capital approach is found insufficient from a conceptual standpoint.

How to determine what is common in SDI sets? 2 possible approaches:

- Start with an established _framework_ and see if indicators correspond with framework

- Answers question:
  Is there a good relationship between the indicator set and the framework?

- Eurostat study starts with this approach and evaluates national SDIs with EU strategy themes and sub-themes (See Hass et al. 2002)

- Identifies if the EU themes are covered and what is not. What is _not_ covered is the interesting bit!

- Start with _indicators_ and see what are the themes/areas/pillars that are covered in national indicator sets.

- Leads to an understanding of what is the implicit definition of sustainable development.

- Helps to identify what nations are identifying as important to national SD which is not part of the EU strategy and SDI set.

- _Does NOT help us with what is common with capital indicators!_

Common in SDI sets?

**UNCSD
4 pillars
as starting
point for
categories**

**Eurostat study
doing similar
using EU
strategy
themes**

Table 1. Comparison of different SD indicator sets[a]

UNCSD Categories and themes	Austra-lia	Den-mark	Finland	Korea	Nether-lands	Portu-gal	Sweden	Switzer-land	United Kingdom	United States	EU struct. indic.
SOCIAL											
Equity											
Poverty		✔	✔	✔	✔	✔			✔	✔	✔
Gender Equality	✔		✔	✔	✔		✔	✔	✔		✔
Health											
Nutritional Status				✔							
Mortality	✔	✔	✔	✔	✔	✔			✔	✔	
Sanitation				✔		✔		✔			
Drinking Water		✔	✔	✔		✔			✔		
Healthcare Delivery				✔		✔			✔		
Education											
Education level	✔		✔	✔	✔	✔		✔	✔	✔	✔
Literacy						✔		✔	✔		
Housing											
Living Conditions		✔		✔	✔			✔	✔	✔	
Security											
Crime			✔	✔	✔	✔	✔		✔	✔	
Population											
Population Change	✔		✔	✔			✔		✔	✔	
ENVIRONMENTAL											
Atmosphere											
Climate Change	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Ozone Layer Depletion		✔	✔	✔		✔		✔	✔	✔	✔
Air Quality	✔		✔	✔		✔			✔	✔	✔
Land											
Agriculture	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	
Forests	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	
Desertification						✔					
Urbanization	✔	✔	✔	✔				✔	✔		
Oceans, Seas, and Coasts											
Coastal Zone	✔		✔	✔	✔	✔					
Fisheries	✔	✔	✔	✔		✔			✔	✔	
Fresh-Water											
Water Quality	✔	✔	✔	✔	✔	✔			✔	✔	
Water Quantity	✔	✔	✔	✔	✔	✔			✔	✔	
Biodiversity											
Ecosystems	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	
Species	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	
ECONOMIC											
Economic Structure											
Economic Performance	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Trade		✔		✔	✔	✔			✔	✔	✔
Financial Status	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Consumption & Production Patterns											
Material Consumption		✔	✔	✔	✔		✔		✔	✔	
Energy Use	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Waste Generation and Management		✔	✔	✔		✔	✔	✔	✔	✔	✔
Transportation		✔	✔	✔		✔	✔	✔	✔	✔	✔
INSTITUTIONAL											
Institutional Framework											
Strategic Implementation of SD		✔		✔						✔	
International Cooperation		✔				✔			✔	✔	
Institutional Capacity											
Information Access			✔	✔		✔			✔		✔
Communication and Infrastructure			✔	✔							
Science and Technology			✔	✔		✔			✔		✔
Disaster Preparedness and Response				✔					✔		

Identify commonalities with capital Norway's SDIs: Policy areas & capital

Table 1: Norwegian SD core indicator set and relations to main policy areas and components of the national wealth

	Indicators	Policy areas that the indicators shall cover	Issues						Components of the national wealth				
			Climate, ozone and long-range-transported air pollution	Bio-diversity and cultural heritage	Natural resource	Hazardous substance	Sustainable economic development	Social areas	Financial assets	Fixed assets	Human capital	Natural resource capital	Environmental capital
1	Norwegian ODA as percentage of gross national income (GNI)	Global poverty reduction					✓	✓					
2	Trade with Africa, by LDC-countries and other African countries	Global poverty reduction					✓	✓					
3	Emissions of greenhouse gases compared with the Kyoto Protocol target	Climate change	✓										✓
4	Percentage of land area where the critical load for acidification has been exceeded	Acidification	✓	✓	✓							✓	✓
5	Population trends of nesting wild birds	Terrestrial ecosystems		✓	✓							✓	✓
6	Percentage of rivers and lakes with clearly good ecological status	Fresh water ecosystems		✓	✓							✓	✓
7	Percentage of localities (coastal waters) with clearly good ecological status	Coastal ecosystems		✓	✓							✓	✓
8	Standards of maintenance of protected buildings	Cultural heritage		✓						✓			
9	Energy use per unit GDP	Efficiency of resource use			✓		✓			✓		✓	✓
10	Recommended quota, TAC actually set and catches of Northeast Arctic cod.	Management of renewable resources			✓		✓					✓	
11	Irreversible losses in biologically productive areas	Productive areas		✓	✓							✓	✓
12	Household consumption of hazardous substances	Hazardous substances				✓					✓		✓
13	Net national income per capita, by sources of income	Sources of income			✓		✓		✓	✓	✓	✓	✓
14	Petroleum adjusted savings	Sustainable consumption					✓	✓	✓	✓			

Some other thoughts about capital indicators

- When is an indicator a 'capital' indicator? (§10 in WP10)
  - When it measures a stock? When it measures a flow?

  - Is it simply a matter of time? Short-term vs. Long-term?

  - If it is called a 'capital' indicator?

  - If indicators are selected based on the idea of capital?

- What are the differences between the capital approach and the pillar approach?

- Capital:
  - Financial
  - Real (produced)
  - Natural and environmental
  - Human
  - Social

- UN Pillars:
  - Economic
  - Environmental
  - Social
  - Institutional

When is capital insufficient from a conceptual standpoint?

- Sum of national wealth over all nations does not necessarily lead to a sustainable world.

- Capital from a national perspective does not automatically include a global perspective. Depends on how 'capital' is defined in the system. National wealth – limit national boundary.

- EU calls it the "external dimension" others refer to contributing to the reduction of global poverty?

- In Norway included trade and aid to Less Developed Countries – but this did not naturally emerge from the idea of capital, was included as a theme to be included as stipulated from the political process (nor cultural heritage)

Annotated outline – roughly speaking I

- Intro to topic – goal of this chapter

- Comparision of existing themes included in SDI sets (table? In appendix? Refer to the 2 Julie Hass papers of OECD countries and Eurostat paper?) highlighting what are the most commonly included indicator themes

- List over common types of indicator units (percentage, per GDP, per capita, physical units, monetary units, index, difference to goal, etc)

- Relationship of indicator list to "frameworks" / strategy / policy documents (from Eurostat study)

-

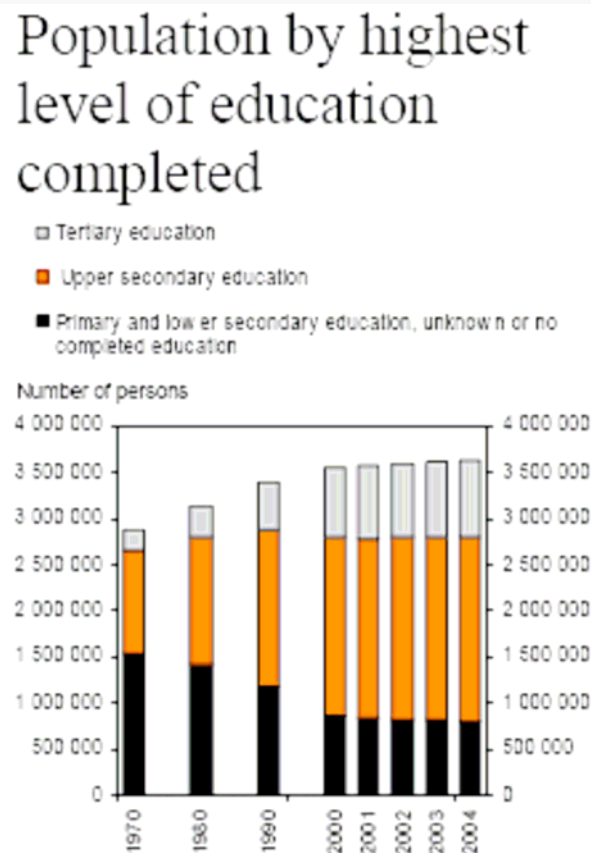# Annotated outline – roughly speaking   II

- Identify commonalities between these two approaches
  How to do this?
  Identify characteristics of capital indicators vs non-capital
  indicators to help identify commonalities?

- When is the capital approach weak/not adequate?
  - External dimension including global poverty
  - Not responding to political needs/priorities
    (SD is a social construct not a scientific/economic definition)

Key Question in §10:
When is an indicator a 'capital' indicator?

- Answer: when it measures 'capital'
  Answer: when it is called a capital indicator
  Answer: when it is long term (vs short term)

- How do you measure capital?

1. Measure stock? – yes!

2. Measure flows? Can a flow measurement also be considered a capital indicator?

   – maybe?

   – Yes! (ref. R. Smith wp 9)

- Critique to capital indicators:

  – not responsive to changes

  – only see change over long time periods

Norway's SDI set part of – human capital Education level of population

Population by highest level of education completed

□ Tertiary education
■ Upper secondary education
■ Primary and lower secondary education, unknown or no completed education

- Measures the stock

- Assumption behind is that higher levels of education are desirable in the population

- Looks at the present situation, not future oriented

- Not sensitive to annual changes, takes a long time to see changes

- Could a flow measurement be better?

Are flow indicators 'capital' indicators?

- Instead of population by highest level of education…
What about…

    Entry and exit rates from different educational levels?

- Advantages:
  - More future oriented
  - More sensitive to annual changes
- Would this still be a 'capital' indicator? Yes?

- Example 2: Climate change
- Stock/state: Global temperature, Flow: GHG emissions
- Example 3: Acidification
- Stock/State: Lakes in good condition, Flow: Acidification emissions