UPPSALA UNIVERSITET

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A sustainable global food system

Workshop | Actors and Strategies for Change 2016

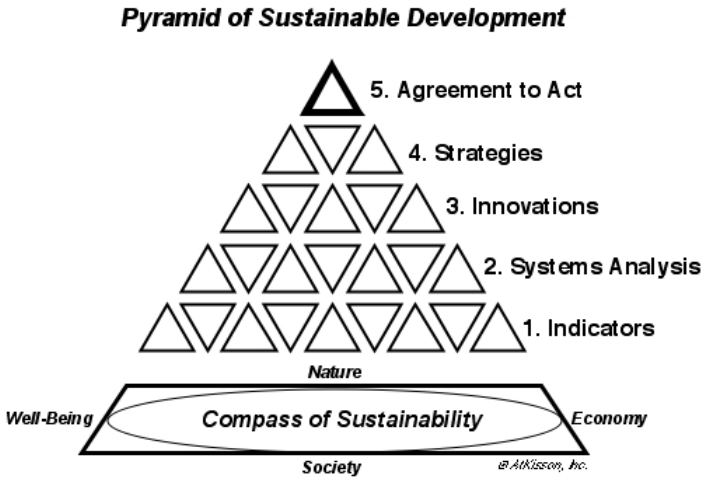
Part I

The Challenge:

Current global food system is unsustainable in many ways. How can it become more sustainable? This is your challenge! We will use the VISIS Pyramid as a tool to develop possible solutions for sustainability.

During the three remaining sessions of Module I (Jan 25th – Feb 8th) we'll go through the process of building a VISIS pyramid, based on the design by the AtKisson Group. You will work in your transdisciplinary groups. Building the pyramid consists of five steps or "Levels," as well as a "Level 0," which involves laying the conceptual foundation, establishing the goal of the exercise, and preparing for the process. The five Levels are:

Level 0: Preparing the Ground — establishing vision, definitions, and starting points
Level 1: Developing *Indicators* — the basis for knowledge of current trends and conditions
Level 2: Mapping *Systems* — understanding how trends and conditions interact with each other
Level 3: Selecting *Innovations* — identifying new ideas that can make positive changes at leverage points in the system.
Level 4: Creating *Strategies* — making plans for introducing and implementing innovations in effective ways
Level 5: Making *Agreements* — arriving at a consensus and preparing to take action



Here's another way to look at it:

Sustainability Challenge:
Sustainable global food system

Develop the indicators

Indicators are clear and measurable trends that tell us important information about the challenge we are working with. They give us information about what is happening by answering questions such as "how fast?", "how much?", "how many" or "how often"? Well-known indicators you are used to hearing about are Gross Domestic Product (GDP), unemployment rate or temperature rise in the atmosphere (often used as a proxy for climate change). Examples of relevant indicators for the global food system could be malnutrition or annual food production in tons**. Good indicators are relevant, understandable, measurable, and have a direction.** (For example "culture" is not a useful indicator because it is too unspecific – what kind of culture are talking about? Does increase in "culture" contribute positively to sustainability or not? Try to be more specific so that you know how a change in your indicator impacts the system as a whole).

Literature

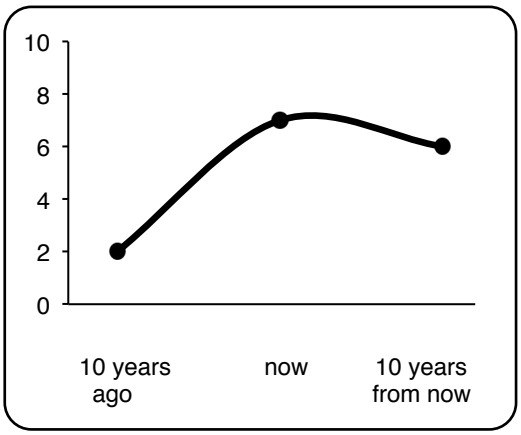
We have selected a number of articles that relate to global and food and sustainability that can be found on the course website (www.cemus.uu.se/asc) with the reading for module I. Use this literature to help you find information about the global food system and what indicators you should choose.

In preparation for next week's class, you will in your groups:

Apply your knowledge and what you have learned from the literature to brainstorm indicators that are relevant for your compass point. Prioritise them and pick 5-6 indicators that you feel are most important. Answer the following questions, using the excel form we created (IndicatorForm.xlsx):

- What does the indicator tell us? Why is it important?
- What is the trend of the indicator (in which direction is moving? Is it getting better or worse according to the ideal goal?)
- If possible, show the source where you have found information about the indicator.

Here is an example of what that may look like:

INDICATOR: Malnutrition		**Trend**
What does this indicator tell us? Why is it a useful indicator? *Levels of malnutrition tells us to what extent people are getting the necessary nutrients that their body needs. Often malnutrition is linked to limited access to food, or that the food is lacking in quality. However, it does not say whether malnutrition is caused by low levels of food production, the poor quality of food, natural disasters, war and conflict or other problems such as food distribution. Still, it can give a good indication as to whether enough nutritional food of is being produced.*		**0=Completely unsustainable and 10=completely sustainable** 
DATA AND MEASUREMENTS		Use data to draw a general trend of the indicator over time. If data is not available, make an educated guess.

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Where can you find data on your indicator and what does it tell you?
Unicef Statistics (data.unicef.org) "Levels and trends in child malnutrition" 2015, tells us that, while the world has seen a considerate decline in child stunting (the failure to grow, both physically and cognitively, due to chronic or recurrent malnutrition), there is a slow but steady global increase of child overweight. It also tells us that low income and lower-middle-income households account for almost all stunted children in the world. Malnutrition is thus showing a trend of being increasingly connected to poverty.

For next class (February 1st), complete the following:
Read the relevant literature (everyone doesn't have to read everything, of course). Brainstorm indicators that are relevant for your compass point. Choose 5-6 indicators and briefly describe them by filling in the form "IndicatorsForm.xlsx". Download the form from the "Examination and assignments" section of the course website. You can read more about indicators and the different compass points below.
The indicators will be the basis of next week's pyramid workshop with Jakob Grandin. Each group will begin by presenting their indicators (2–3 minutes per group, so no PowerPoints) before we move on to the next level of the pyramid.
Send your completed IndicatorForm to asc@csduppsala.uu.se and jakob.grandin@csduppsala.uu.se by 12.00 Monday, February 1st .

A General Introduction to Indicators

Indicators are *data*, or measurements, presented in a form that anyone can understand. They provide objective information about the systems with which we interact, so that we make well-informed decisions about *how* to interact with them. A well-known example is the temperature of your body. A healthy body system has a temperature of 37 C / 98.6 F. Lower or higher temperatures signal that something in the system of your body might be going wrong, and that that you might have to take action — see a doctor, get some rest — to avoid system collapse.

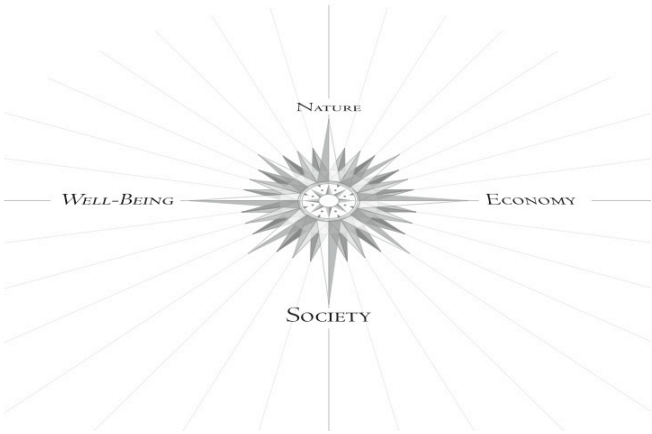
Indicators are especially useful when they provide us information about systems that are otherwise invisible. A good example is the fuel or battery-level gauge in a car: without an indicator, you would have no idea how much farther the car can go, before it needs to be tanked up or charged up. In general, indicators communicate status, sound alarms, or announce success. They make better and smarter decisions possible.

What is an indicator of *sustainability*?

Indicators of sustainability are clear and compelling measures of key trends in any large-scale system — such as a company, community, school or university — covering that system's economy,

environmental impact, social health, and effect on human wellbeing. Sustainability indicators tell us whether these trends are taking us in ways that are desirable and that can keep going, or whether we are headed into a dead end or over a cliff. When our indicators tell us that developments are not sustainable, then we know we must change course.

Nature (N): The underlying health and management of ecosystems, bio-geo-physical cycles natural resources. Examples include water quality and availability, threats to climate, resource consumption and availability, pollution loads, and other emissions.



Economy (E): The productivity, efficiency, and effectiveness of human efforts to create value. The economic dimension is often in described in terms of money, but also includes fundamental issues such as labor, technology, and innovation.

Society (S): "Society" refers to the *collective* dimension of human life, such as the health of government, social systems, and institutions. Other examples societal (or social) concerns include overall safety, trust, equity and justice.

Wellbeing (W): Wellbeing refers to the *individual* level of human life, and includes factors that we all experience personally: health, happiness, freedom from discrimination, and the opportunity to fulfill our aspirations and enjoy a high quality of life.

Frequently Asked Question: What is the difference between "Society" and "Well-being"?

Answer: Society concerns the larger social *systems* — how we organize ourselves into institutional, cultural, political, and organizational patterns. The health of these things can usually be measured objectively. Well-being concerns the individual and *personal* dimension of human life — our health, happiness, and quality of life. Many of these things are experienced *subjectively* (though increasingly, even happiness can be objectively measured).

Examples:
In a community, the quality of a school *system* falls under the Society compass point, while the *level of education* attained by people is related to their Wellbeing. Obviously, both relate to the Economic health of a community, and both have an impact on the community's stewardship of Nature. These are linkages among the Compass Points, and begin to illustrate why systems thinking is so important to sustainability.

In a company, the quality of the *management team and workforce* falls under the Society Compass Point, because these are collective, structural issues; while *worker access to training* comes under the heading of Wellbeing, because it most closely relates to that worker's capacity to develop individually. Again, the overlaps and systemic linkages among the Compass Points are obvious to see.