Discussing ’sustainable agriculturural production’ and ’sustainable development’

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The background

This discussion is connected to the challenge of global change of climate for agricultural crop production in Western and Northern Europe, but the ideas are of a general character and could therefore be extended outside this geographical area. The strategic thinking and the strategic decisions on agriculture and the way of preparing tactical decisions have to be reconsidered everywhere.

What is the character of the global change?

The climate of the earth seems to be strongly influenced by human impact during more than one hundred years. The societies of Europe and the agriculture of Europe are now seriously challenged by the global change of climate. What will be the outcome is not clear. Scenarios indicate warmer weather more violent weather, with serious periods of drought, and the frequency of natural disasters will increase.

Controversies on the causes of global change of climate?

There is a strong concensus in scientific literature that global surface temperatures have increased in recent decades and that the trend is caused mainly by human-induced emissions of greenhouse gases.

But the climate of the earth is dependent on a complex set of boundary conditions.

The controversies connected to the causes of global change of climate have to be discussed both in political fora as well as in the communities of science.

The scope of the scenarios of future climate ought to be questioned. May in fact positive feed back mechanisms be forced into the global climate system?

We doubt that the commercial 'agricultural crop production systems' on large spatial scales and large temporal scales are 'sustainable agricultural production systems'?

The main systems for crop production, transport, storage, distribution, consumption, and treatment of waste seems to be ecologically unwise and inefficient connected to use of energy. They seems to be dependent on the smartest ways of exchanging money, not mainly dependent on ecological insights, and compassion for the environment and the future generations.

We will discuss possible local development of ’sustainable agricultural production’ and ’sustainble development’

We claim certain hypotheses, and then we look closer into some of these hypotheses.

We claim!

-The basic problems connected to creating sustainable societies are universal.

- Sustainable development of the human societies is connected to very complex phenomena/ processes not possible to model by using quantitative numerical modeling.

-It is not possible to determine any complete set of quantitative indicators for sustainability, and then merely navigate towards 'sustainability' by using a set of indicators.

-Therefore it is not possible merely by legislation (on the national level or on the European level) to attain sustainable development.

We claim!

-And therefore It is crucial some people take the ***responsibility*** of creating ‘sustainable living’ in their own society.

- And it is not possible to attain ‘sustainable development’ without ‘sustainable agricultural production’.

- We define a basic social entity taking responsibility, a household managing a 'new garden' (‘novi sad’ in the serbo-croatian language), having the potential of serving ‘sustainable development’ locally.

-A possible way of organizing a society locally, worth considering, is using cooperative entities, organized in a democratic manner.

We will discuss!

- The concept of responsibility

- The concept of a democratic organization

- Organizing a ‘new garden’ as an ensemble of cooperative entities.

- Organizing monitoring of the meteorological situation in a local region as a cooperative entity.

Responsibility

Ethymologically the concept of ‘responsibility’ is connected to the word ‘respond’, to answer.

Something is happening or has happened, and someone respond upon what is happening.

In the German language the word is ‘verantwortlich’.

In Scandinavian languages the word is ‘ansvarlig’.

Responsibility

We consider two different types of ‘responsibility’.

(a) Our actions are confined by laws and rules, and the society put ‘responsibility’ upon individuals and organizations through legislation and rules for social conduct.

(b) An individual may himself take ‘responsibility’, seeing what is happening in the world with himself and his relations.

We claim that we cannot get ‘sustainability’ merely by imposing ‘responsibility’ through legislation.

Democracy and values of democracy

We claim that democracy is the right frame for development of ‘sustainability’.

Specifically we consider democratic systems in cooperative entities and democratic systems in the organizations of a municipality.

Usually a democratic organization contains one or several boards (or committees) of representatives (each committee having a leader) and a secretariat (sometimes only one secretary).

Democracy

The responsibility and aims of an democratic organization you find in certain written documents, sometimes they are stated in paragraphs of a public law. In a democratic organization committees often are responsible for decisions, but the secretary of the committee or the secretariat of the organization also may be legally responsible. Usually decisions and statements are explained in a written document, in a written claim, in an agreement, in a note, in a letter etc.

Democracy

Values connected to decisions in a democracy are like this: The decisions are explained by arguments. The arguments should be consistent. Stakeholders (people and organizations involved) usually should have access to the documents, and receive the information in due time to be able to influence the decision. The decisions made should normally be dependent on all written material of relevance, including the objections. It is allowed to discuss the background of the decisions and the results of the decisions in media of the society.

Rules of science and democracy

The rules of scientific studies contain similar values of presentation and openness, and also scientists should have possibilities and the right of giving feedback.

In actual situations one often experience lack of consistency in arguments leading to a decision or to a scientific result. Especially it is often experienced that objections and critics are omitted and not mentioned at all. The description of a problem considered is often quite dependent on the interest of the stakeholder involved.

A ‘new garden’?

We consider a municipality and a household managing a ’new garden’ and taking responsibility for some developement of sustainable living locally. Several housholds are establishing cooperative entities, able to solve specific local challenges of production, management of resources and infrastructure. Such entities can run fresh water supplies, small harbors, local roads, energy supplies etc., as well as local production systems and local systems for distribution of goods. The members of the entities could be a mix of households, local companies, and local craftsmen.

New garden

-In the ‘new garden’ should be developed crop production and horticultural production according to the principle of recycling of minerals, contained in green waste, kitchen waste etc. Strategic ideas of sustainable farming connected to ‘agroforestry’ should be considered.

Tiny system for growing vegetables

Efficient cold composting, also useful for composting fecal matter

Small smokehouse for smoking fish

New garden as a system for reference for ‘sustainable agriculture’?

The 'new garden' probably can be used as a reference system for 'sustainable agriculture' - on the lowest level - also by developing indicators like ‘use of energy for each commodity connected to production, consumption, and destruction of waste’, ‘CO_2 account for each commodity’, ‘output of waste, content of waste, and fate of waste for each commodity’, and ‘input of labor – man-hours- invested for each commodity’, ‘water use for each agricultural commodity’, etc.

New garden – and responsibility in the surrounding municipality

The household of the ‘new garden’ also should take responsibility connected to the surrounding local area, and the household can monitor the fate of waste produced inside the municipality, or in the local area of the municipality.

Monitoring meteorology in a municipality

For the timing of our actions, and the tactics to be chosen for actions connected to the agricultural production, as well as the strategies to be chosen for putting up settlements and crowing crops, for maintaing transport, and so on, knowledge about weather phenomena, and the climate is very important. Further more a multitude of phenomena taking place in the nature are dependent on weather and climate.

Also the fate of our waste, the leakage from landfill into the air and the water is dependent on the weather.

Monitoring meteorology

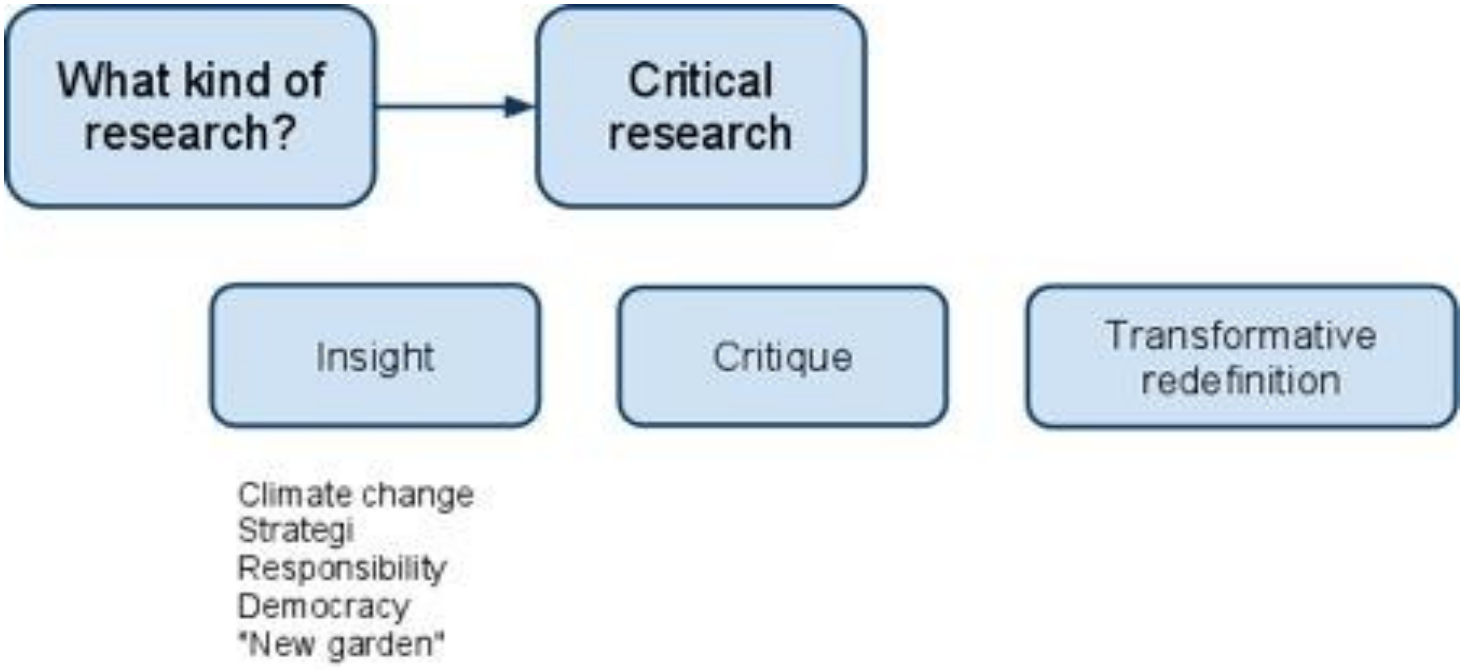
Monitoring the meteorological situation in the municipality or in a local region of the municipality could be organized as a cooperative entity, as well as organizing systematic use of weather forecasts available.

How to be prepared locally on severe weather incidents?

In Norway we find meteorological data on the web, both measurements as well as weather forecasts.

Is it possible to use advanced system for administration of meteorological data in local contexts? We can try to do this?

What kind of future research?



Figur laget av Janis.

Some questions when ending this speech!

Why do we consider defending our cultural and tribal heritage as our ‘ultimate’ responsibility?

Is this type of conduct merely a sub-ordination of our culture?

In this speech it is claimed that we cannot get ‘sustainability’ by merely imposing ‘responsibility’ through sub-ordination/ legislation?

But can we actually reach a level of compassion if we achieve insight?

And what will be the outcome of passionate people cooperating?

Photograph: Bernhard Muehr
www.wolkenatlas.de, institute for Meteorology and Climate Research, University of Karlsruhe, Germany