Not just another energy workshop!

"A World We Want" within the boundaries of planet earth: Finding a common and scientific fact-based language for the energy transition

A Workshop held by ENSSER

Location: ENSSER office, Marienstrasse 19/20, Berlin
Date: Wednesday, 13 December 2017, 9:00 to 17:00
By invitation only

Purpose

During the past decades and especially after the collapse of the Soviet Union, several powerful civil society movements started to expose the uncontrolled and now globalised private market system as being at the heart of our social and environmental crises. Those movements, often supported by a large number of scientists, have successfully identified many of the dangers of the current 'business as usual' (BAU) economic growth model for the wellbeing of current and future generations. Among those are regional or global movements related to social justice, peace movements, environmental protection groups (where some focus is put on the global CO_2 problem) and politically motivated groups who investigate sustainable social and economic alternatives.

Certainly the efforts from many scientists, at least since the 1992 UN conference in RIO, and not only about the dangers from the growing atmospheric CO_2 concentration, have contributed indisputable facts showing that many of the underlying problems have a simple and uncomfortable origin. Among those identified causes one finds the excessive per capita energy and resource use and the associated waste products in the highly developed industrialised countries [1]. These facts point directly to our unsustainable way of life in Western Europe and it is thus in our own interest and responsibility to work on alternatives to our current wasteful system.

In addition, scientists have collected enough evidence to demonstrate that global fossil fuel energy consumption must be reduced by about 80% during the next decades, if the dangers of irreversible environmental damage shall be reduced. Unfortunately, and despite countless high level political conferences and signed agreements (not only around the UN), we have so far failed to even discuss alternatives to this BAU scenario. As a result, not only have the annual CO_2 emissions increased dramatically, but essentially all the other identified risks of our unsustainable way of life have grown to critical levels.

Several social justice movements, often supported by social scientists and especially economists, on the other hand, point out that a large increase in the per capita energy use of about 6/7 of the global population is needed if poverty related problems shall be reduced according to the methods used by the economies of the richer OECD countries.

As currently no CO_2-free energy technology exists which can address poverty and environmental problems at the same time, the development of an abstract and undefined "Green Economy" is proposed for the distant future.For this, new scientific breakthroughs leading to yet unknown wonder technologies are required before changes can be demanded. The consequence of such attitudes is that the ongoing environmental and social destruction is justified: it is suggested that there is no alternative as long as those breakthroughs have not been achieved.

Many scientists refuse such approaches and argue that sound policies must be based on what is known today and that the created problems cannot be solved with the same methods that created the problems. It should be clear that those issues are connected and that a real

development towards a sustainable way of life is urgently needed.

Why do we need to fill the knowledge gap about energy usage and energy resources for a transition towards a sustainable and socially acceptable and possible future way of life?

A generally accepted fact is that our planet has a finite size with finite amounts of energy resources, which are required for the current industrial globalised way of life. Yet, the existing public data are known to be very limited in accuracy and are often potentially manipulated and/or obscured by interests of governments or private companies.

Despite the importance to have more accurate resource data, not only on oil and gas, very little publicly funded research is done within the natural science departments of universities or research institutions. At most, some of the research is done within some economic departments. In this economically inspired research, the need to determine the finite amount of resources more accurately, is usually replaced with vague statements about potential resource problems which in theory can always be solved, if only sufficient amounts of money can be allocated to either buy the required resources elsewhere or with some new not yet existing technologies.

This missing research work in natural sciences is in contrast to the fact that at least some publicly funded research exists for environmental threats from human activities. Examples are research projects about air and water pollution and the problems related to the CO_2 emissions. However, the energy problem with its resource questions is mostly investigated by a few more or less industry independent scientists with a background in natural, environmental and social sciences and with little coordination. Their work and results about the coming resource limitations are usually in strong contradiction with the current economic growth forever dogma of our now global industrial culture. Unfortunately so far, scientists working on resource constraints have in general not yet found a common language to exchange their findings with those colleagues working on environmental problems.

We are convinced that the scale of the existing and rapidly growing problems of our unsustainable way of life requires that energy resource constraints are included in the debate on the required changes for a "development towards sustainability" on the global scale. Therefore, we want to encourage scientists who accept their social and environmental responsibilities and who are working on resource, environmental and social problems, to find a common language and thus help social movements to achieve a transition into a sustainable and liveable future within the limits of the natural boundaries.

The purpose of this workshop, therefore, is not to formulate an alternative socio-economic model, but to provide a common and scientific fact-based language for the required energy transition. Our intention is to follow up this workshop with a larger public conference on the topic.

Set-up

We thus propose to organise meetings where scientists working on different aspects of our unsustainable way of life find a common language in such a way that they can share their particular knowledge and identify the remaining knowledge gaps. The results should be documented in such a way that other scientists and especially young scientists can join the efforts to close the remaining knowledge gaps and that civil society can include the constraints from natural boundaries in the struggle to find a transition from our global destructive direction towards a more sustainable system during the next decades.

We believe that these efforts must be enriched by students from natural and social sciences, the next generation of scientists, who already contribute in various ways to those discussions. In particular we would like to stimulate ideas which will initiate an atmosphere where more senior scientists work together with interested students. We believe that such new collaborations are important for the success of those workshops and that they may also lead to

interesting and important Master- and PhD thesis projects.

In this first workshop the focus will be on questions about the excessive per capita electric energy and oil consumption in Western Europe, which not only results in unacceptably high per capita CO_2 emissions but also in growing energy resource imports and destructive competitions with other regions of the planet.

During this first one day workshop, we expect that the participants exchange and document the existing knowledge about the current energy use in Western Europe and the associated uncertainties during the next decades. With the few energy resources remaining in Western Europe, important topics must obviously be the resource and social situations in the countries where the oil, gas, coal and uranium are coming from.

For this first meeting we propose to focus on three topics:

• Limits and problems of the current and near future energy and electric energy system for our current way of life in Western Europe. (Speaker: Dr. Werner Zittel)

• How do natural science and socially acceptable boundary conditions determine regional and global possibilities for "A Sustainable Future We Want"? (Speaker: Prof. Dr. Jürgen Scheffran, Inst. of Geography, Center for Earth System Research and Sustainability (CEN), Universität Hamburg)

• How fast do we, in Western Europe, need to change our unsustainable use of oil and electric energy and our way of life, either because of limited regional and global energy resources and their extraction or because of the environmental damages created?
(Speaker: Dr. Michael Dittmar, ETHZ, ENSSER and CSS)

After detailed introductory talks and discussions of the three topics, three working groups will address the areas within the above topics which are not yet accurately enough known and where more work is required. The workshop will be completed with a plenary meeting where the conclusions of the working groups will be presented. It is planned that the findings will eventually be presented as a publication. This publication in turn will provide the starting point of the public follow-up conference we envisage.

Participation

• By invitation only. Please register with Lucas Wirl: lwirl@ensser.org
• We would like to ask all participants to fund their own travelling and accommodation. If there are no financial means, we aim to provide a small budget of subsidies for these costs. Please also contact Lucas Wirl on this issue.

References

[1] See the "Scientist Statement: World Scientist's Warning to Humanity" (1992) at http://www.ucsusa.org/about/1992-world-scientists.html#.WPnTVjebRXs.
[2] "A World We Want" campaign was launched around 2012 by the United Nations, in order to replace "Millennium Goals" with a new program for the period 2015-2030. https://www.worldwewant2030.org/post2015-about, but sustainability boundary conditions were essentially excluded from the debate.