

Udo E. Simonis

Ecological Turn-around

Trends and Perspectives



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Prologue

“Who carelessly spreads the virus, endangers the life of his grand-parents. Who carelessly emits CO₂, endangers the life of his grandchildren”. With this actual parallel Hans Joachim Schellnhuber after the outbreak of the Corona Pandemic pointed out that in both cases – the Climate crisis and the Corona crisis – inter-generation fairness and mutual solidarity are asked for. Beyond that, the Pandemic articulates again the need and urgency of a global ecological turn-around:

1. The worldwide loss of biodiversity leads to a dramatic decrease of undisturbed living spaces, and to the extinction of many endemic species – the “specialists”. Survivors – respectively winners – are the so called “generalists” (like many bat species) who are the hosts of potentially dangerous Corona viruses.
2. The intensive mass animal farming with its high emissions not only accelerates climate change and the destruction of living spaces but also increases the potential of additional other viruses that are dangerous to human beings.
3. The Corona crisis also reveals that humans cannot boundlessly have mastery over nature. This recognition demands for a deeper contemplation on a more careful relation with nature, as well as the general discernment that our economic system is not autonomous but must be conceived as part of the earth ecosystem.

The Corona crisis put the whole world in a kind of quarantine, in which every indivi-

dual, every business enterprise and every state institution is confronted with the question: “How do we want to live and work in future?” The current treatment of the Corona Pandemic at least has shown, that where there is a political will, many things can quickly be changed. But at the same time it shows that protecting our natural environment and saving the climate system still do not get the same kind of priority treatment.

1. Limits to growth and ecological overshoot

Regarding the possibility of a “global ecological turn-around”, the UN Conference in Rio de Janeiro (1992) was long thought to be a milestone in environmental governance. It brought the concept of sustainable development into the debate, and led to basic international conventions on climate, biodiversity and desertification. However, in the 28 years since that conference it has not been possible – despite minor steps forward in some areas – to systematically align development paths in the world in such a way that important ecological limits are observed and strictly respected. Therefore, threatening ecological trends persist which indicate huge environmental policy challenges – at the national, the regional and the global level.

Indicators of resource use and environmental impact play a key role in describing the actual ecological situation. By introducing the terms “ecological footprint” and “ecological rucksack”, progress was made in measuring the renewable biological capacity and the natural resource use associated with production and consumption.

These indicators reveal cases of massive overstepping of boundaries, of limits to growth and ecological overshoot, both underpinning time and again the great need for a global ecological turn-around.

In view of these trends it is urgent to place the term “ecological turn-around” into the focus of policy-making, because only then will fundamental economic and social transformation processes be initiated. However, such processes present enormous policy challenges that have scarcely been reflected upon as yet in social discourse. Besides, the responses to the call for an ecological turn-around are quite diverse, not always complementary and not always harmonious.

In the following, four important studies shall be presented and discussed to shed light on the history and diversity of the arguments raised concerning the need for a “global ecological turn-around”, and be looked at for the hidden chances of implementation in the future.

2. A social contract for a “Great Transformation”

The German Advisory Council on Global Change (WBGU) in a flagship report substantiated the need for a great global transformation, requiring the conclusion of a social contract for sustainability (WBGU 2011).

A “social contract”, this hypothetical construct of classic contract theory, from Thomas Hobbes and John Locke to Jean-Jacques Rousseau, is re-interpreted by the WBGU to mean that individuals and civil society, states and the community of states, business and academia take collective responsibility for the avoidance of climate disaster and for the ecological conservation of “Planet Earth”.

A “great transformation”, the term coined by economist Karl Polanyi in his analysis of the first industrial revolution, is re-interpreted in normative terms by the WBGU: A radical transition of national economies and the global economy within specific “planetary guard rails” should prevent overshoot and the collapse of global ecosystems.

So far, so good. But some questions remain: How can a new social contract come into being? How can a great transformation be defined and get under way? The WBGU in its report presents several basic ideas about the first question, and a great many ideas about the second one...

Unsustainable situations can easily “tip over”; the new democratic movements in several countries are seen as evidence of that insight. The carbon-based world economic model is an unsustainable model because it endangers the stability of the climate system; the natural life support systems for future generations are in deep trouble. The transformation towards a low-carbon economy and society, in the view of the WBGU is therefore as much an ethical imperative as was the historic abolition of slavery and the condemnation of child labour. However, for this transformation to happen, the structural transition of economy and society must be made ecological in the most suitable way. How can such an “ecological turn-around” take place, how can it succeed?

Primarily, the WBGU advocates improving and intensifying the practised climate policy in three major transformation fields: a) energy, b) urbanisation, and c) land use.

Several “measure packets” with major strategic leverage are presented to accelerate the transformation towards a low-carbon economy and society, especially the following ones:

- “a pro-active state with extended citizen participation”,
- “global carbon pricing”,
- “promotion of renewable energies”,
- “sustainable urbanisation”,
- “climate-compatible land use”,
- “internationalisation of climate and energy policy”, and an
- “international cooperation revolution (!)”.

All in all, this seems to be a “major coup”. The WBGU report, no doubt, is full of thought-provoking ideas and manifold recommendations for action. But what is lacking? Above all, an idea of how the work performed by scientists can reach not only the governments, the elites and decision-makers, but also society at large, the Germans, the Europeans, the global citizens, so that it can truly be initiated: the much needed “great transformation”.

3. Ecological turn-around – anywhere?

The German JAHRBUCH ÖKOLOGIE (ecology yearbook) took a different, more pragmatic approach to the question (Wende überall? 2012). Whether a profound transformation of economy and society – an ecological turn-around – is possible and probable is narrowed down with a

strong hypothesis: There will be some pioneers, but also many laggards and a high number of dunces.

This compelling “triple image” emerged when analysing the latest developments in Germany (and probably many other countries), be it in the sectors of energy, transport and mobility, agriculture and food, business and academia, as well as concerning the issues of awareness and culture, i.e. of changing people’s hearts and minds. A comparison of the current turn-around dynamics reveals certain similarities but also major differences.

Phasing out, switching and moving – these are the central topics of the debate (at least in Germany): phasing out nuclear power and brown coal; switching to cleaner and softer technologies; moving to renewable energies: solar, wind, water, biomass, geothermal energy.

The 2011 resolution by the German government and parliament to *phase out* nuclear power by the year 2022, and the 2019 resolution to *phase out* coal by the year 2038 met with approval from civil society.

Switching is being successfully promoted by setting new technical standards, however is still hindered by the vested interests many companies have in retaining their economic power.

Moving to renewable energies is met with enormous approval by numerous new actors (particularly in the fields of solar, wind and geothermal energy), by many municipalities and cooperatives (especially wind and biomass), and by millions of homeowners and tenants who have taken action themselves (in photovoltaics).

In contrast to the energy sector, nothing similar has been occurring so far in the *transport* sector, which led to postulate a new, different strategy, the “mobility turn-around”, i.e. the necessary merger of energy and transport activities.

In spite of a number of successes in the organic and fair trade segment, the *agriculture* and *food* sectors turn out to be highly resistant to necessary ecological change.

Although it was impossible to detect an ecological turn-around in the *economy* as a whole, in recent years very many companies demonstrated how sustainability-oriented entrepreneurship could look like and be installed.

The question concerning the ecological turn-around in *academia* resulted in a strong philippic against the antiquated disciplinary structures

and interests which have stifled transformative ecological research and education, or only enabled it to thrive in a number of institutes but not in the university system at large.

Pioneers, laggards and dunces thus is the prevalent pattern when considering the development of various sectors and areas in Germany (and probably in many other countries) – it is the answer to the question concerning status and dynamics of the “ecological turn-around” at the national level.

No doubt, the answer would likely be similar when contemplating the question of the ecological turn-around at the global level; but here, the basic questions are asked in a different way.

4. Global environment outlook

The GLOBAL ENVIRONMENT OUTLOOK by the United Nations Environment Programme (GEO 5) described the status and trends of the various segments of the global ecology (UNEP 2012). There has been further deterioration, rather than improvement in the majority of the ecological segments considered in the extensive study. This especially, when compared with GEO 4, and to an even greater extent compared with GEO 1.

This deterioration is the case for globally relevant emissions (in particular CO₂ emissions) and global resource utilisation in general, for renewable resources (above all fisheries) and for non-renewable resources (such as metals) in particular, which have reached a historic maximum, leading to overuse and overshoot.

The basic pattern of a global overload of the ecosystems and an overuse of resources has been confirmed by the United Nations’ INTERNATIONAL RESOURCE PANEL. In an initial report (IRP 2011), individual attempts of decoupling resource consumption and environmental impacts from the gross domestic product (GDP) were identified, but no appreciable, let alone impressive, achievements could be found.

Over the past 100 years, the global extraction of building materials has increased by a factor of 34, that of iron and minerals by a factor of 27, that of fossil fuels by a factor of 12, and the use of biomass by a factor of 3,6. This expansion of the consumption of natural materials and their use for industrial production has led to considerable ecological contamination and destruction: to air pollution, climate change, soil degradation, water shortage and a loss of biodiversity, to name

just a few effects. Only an absolute decoupling of the use of these materials from the GDP could help protect resources and relieve the strain on the natural environment.

Although some elements of a decoupling strategy were identified in the two industrial countries (Germany and Japan) investigated in detail in the study (IRP 2011), only very modest successes were discernible. In the two case studies on developing countries (China and South Africa), there was neither a strategy nor any measurable success found regarding resource decoupling and impact decoupling.

The conclusion for this chapter is clear: the industrialised countries as well as the emerging and developing countries continue to be on a collision course with the natural environment; there cannot (yet) be any talk of a remarkable or drastic ecological turn-around. There are many reasons for this state of affairs, such as lagging people's environmental awareness and their short-term economic interests, but also, and perhaps above all, a policy that is (as yet) unable to really cope with global environmental challenges.

5. Global governance

Despite the numerous conferences held and the many international treaties signed since the 1972 UN Stockholm Conference on the Human Environment – i.e. over the past 48 years – it is apparent that the institutions and mechanisms by which humans and states govern their relationship with the natural environment are utterly insufficient.

The evidence of this allegation could be detected at the United Nations Conference in Rio de Janeiro in June 2012 (“Rio+20”).

Two central themes had been placed on its agenda: “green economy in the context of sustainable development and poverty eradication”, and an “institutional framework for sustainable development”. The United Nations Environment Programme (UNEP) had worked hard on these topics, giving experts from developing and industrialised countries two years to contemplate on a solid concept. The result was a report containing a compromise in terms of both language and content: the “green economy” was understood as a method of production that “increases well-being and leads to more social justice, while simultaneously reducing environmental risks and ecological scarcities.”

It was not a bad starting point for an “ecological turn-around”, as well as for a “global social contract” and a “great transformation”, one might think. But the realities were far from such optimism...

At the conference, these definitions were not seriously brought up for discussion to flesh out or compare terms, but was loaded with all kinds of prejudices – as it still is nowadays. It seems that we no longer live in times of rational discourse; the political mood is poisoned, and mutual international trust got largely lost.

The international community of states did however agree to support the concept of the “green economy” in Rio. This agreement was made despite fierce opposition from large sections of the fossil-based industrial economy, as well as from sections of civil society, who saw (or wanted to see) in it a kind of neo-colonialism, greenwashing, protectionism, or the conditionality of financial support. According to the outcome document of the conference (Paragraph 56), “green economy should be used as an important tool – in accordance with national circumstances”.

“Green economy”, in this way, does not concern the goal of minimising resource use and eliminating pollutant emissions, of reducing the use of energy and lowering per capita carbon emissions – as one could have defined it – but is supposed to be a tool! And this tool is to generate further quantitative economic growth. Economic growth may help alleviate the poverty that persists in the world to this day, but what will such an enforced growth strategy mean for the global ecosystems and the natural resources?

All the same might be remarked about the institutional issues: According to the document, UNEP is to be strengthened and enhanced; but it will not be transformed into a specialised agency of the United Nations – like the WHO, the ILO or the FAO. This potential political innovation was blocked at Rio 2012, by the USA in particular, but also by Canada, Russia and Japan.

The UN General Assembly now can decide on universal membership in UNEP and on better financing of the programme. The possibilities UNEP has to assume environmental policy coordination tasks and to act as an early warning system against deteriorating environmental problems may to some extent be improved. But UNEP in this way will definitely not gain the competences necessary for effective global en-

vironmental policy – and there will be no promotion of a basic parity between economic and ecological interests in this world.

Considering the reasons for the international community of states' structural *incapacity* to act effectively, which emerged again and again in regard to environmental and sustainability issues, three major governance problems are discernible:

1. The horizon of the G8 and the G20 meetings has increasingly become narrowed down to short-term crisis management.
2. The US government is no longer capable of taking on a rational leading role due to ideological blockades. Europe, which ought to take on this role, is not (yet) sufficiently coherent from an environmental policy perspective.
3. The geostrategic repositioning of the world – waning powers in the West, rising powers in the East – acts as an impediment to the globally necessary integration of the environment and sustainability issues, of environmental protection and sustainable development.

The WBGU succinctly summed up this striking predicament following Rio 2012 in the following words: “The result is an international crisis of leadership and confidence, a G-Zero World in which no leading power effectively is taking the initiative and no coalitions capable of taking action are emerging.”

6. Outlook: Environmental collapse or planetary cooperation

In view of these dangerous trends, one is reminded of Jared Diamond, who systematically has analysed the historic collapse of societies. His book “Collapse” revolves around the question why people and societies do stupid things. Diamond answers this question with a theory of four stages of disastrous decision-making processes:

1. It could be that a society fails to anticipate a problem;
2. a society does not want to perceive the problem;
3. a society may perceive the problem, but does not make any serious effort to solve it;
4. the elites of a society close themselves to the consequences of their actions, hampering transformation and accelerating the collapse.

Diamond, however, is cautious about the question of transferring knowledge on historical cases

of collapse to the present epoch. After all, there are differences between the past and the present – not just concerning the problems themselves, but also concerning the reactions to them. His remaining optimism rests on the modern possibilities of communication. Unlike in the past, he says, we are now capable of learning from other societies that are distant in terms of space and time. He does not say that we should, no, he believes that we will (!) decide in favour of using this unique advantage.

In order to strategically back up such structural optimism, the WBGU in its report strongly advocated better planetary collaboration in the future – and called for no less than a “revolution in international cooperation” to achieve it.

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