

The new social contract comprises the proactive state, an active civil society, innovative business and technology, and scientific reflection and guidance. These four partners today are subject to a fundamentally new condition: the limits of the Earth system and the sheer physics of climate change mean that time is running out. Delaying solutions today will only make the problems of tomorrow and beyond all the greater, perhaps even insurmountable.

Transformation Studies

How Society and Science
React to the Limits of the Earth System
By Claus Leggewie, Dirk Messner

A new social contract

Politics is generally and justifiably considered to be the “art of the possible”. People who have a vision should go see a doctor, was super-*realpolitiker* Helmut Schmidt’s infamous verdict against utopians in

general and “nuts” in his own party. Why should things be any different today? Political pragmatists can pride themselves on having come a long way on sober consideration, compromise and relentless muddling through, not just where holding on to power is concerned but also heal-

thy development of society. Today, anyone who argues for change and transformation, or pushes for speedier decisions and a more long-term view, or for giving people more than their usual amount of say in normal times of representative democracy, needs to come up with good reasons



Claus Leggewie. Foto: Max Greve

for doing so. Dilatory politics, as the formal term for “putting things off” goes, has consensus on its side; proponents of accelerated “Durchregieren” (governing through) the scepticism regarding decisionism against them.

There are nevertheless many reasons for focussing and accelerating the political process, for a move away from the moderating state that tries to keep all interest groups happy and upset none for the sake of the ongoing power struggle and ensuing coalition tactics. The price of compromise has been discounting, delaying payments until the future and buying growth in exchange for huge amounts of debt and massive environmental damage.

The effect of this short-termism (Anthony Giddens) has been to obstruct the future. Today, there is no way around a correction of political course, and, unlike our (in many respects still half-hearted) energy revolution, it cannot be restricted to a single country; if we hope to avert the imminent danger of climate change, correction must be made simultaneously on a global scale. If, as most recently again in July 2011 in Berlin, 30 states pledge their support for the “two-degree target” (but are unable to reach a binding agreement even at the latest opportunity, the climate conference in Durban), they must follow through with a comprehensive revision of their energy and resource consumption. In effect, that means nothing less than far-reaching changes to their industrial production, patterns of consumption and way of life or, in the case of the poor countries, taking a different course of development from the beginning. We call this fundamental transition, in reference to one of the classics of social history by Karl Polányi, the *Große Transformation* – or Great Transformation.

To the unbiased observer there is clear and growing natural and scientific evidence that human economic activity and its rapid consumption of resources is placing the viability of

the planet under excessive strain. In terms of the Earth’s history, we have entered what Paul Crutzen refers to as the *anthropocene*. Since the beginnings of industrialisation, human activity has advanced to the central force on the planet. Consequently, not only climate change but also the loss of biodiversity and the emission of toxins have taken on such proportions that massive damage to the Earth system is likely. Prevention and clearance are already swallowing up huge sums, and cumulative effects may cause irreparable damage to the foundations of existence for future generations.

Many summit events prior to Berlin have underlined the fact that global warming must be limited to a maximum of two degrees. Yet the main response so far has been denial (ostrich politics), putting faith in the technological advances that will one day master the situation (geoengineering) or, if all else fails, resorting to the Chinese solution (ecodictatorship). Yet free societies must not bury their heads in the sand or naively cling to their belief in technology, or capitulate altogether. As an antidote to laissez-faire and overreaction, a new social contract seems a plausible idea: a contemporary framework for business and society that takes the physical boundaries (and also the time pressure) surrounding the threat to nature seriously and at the same time upholds, and wherever possible extends, freedoms. Even without climate change, we are certainly not living in the best of all worlds.

It is not just the threat of disaster, then, but also the free choice of an alternative for a better and fairer life worldwide that make a new *social contract* necessary. We are not talking about a real, signed and sealed contract here, but a virtual agreement between an active civil society and a proactive state. The original question of the classic social contract in the early modern period was how to justify the existence of a state power that can restrict individual

freedom. What do citizens owe one another in terms of self-restraint and solidarity, and what do they have to gain from partially surrendering their freedom to do whatever they please? Thomas Hobbes referred to the latter as the state of nature, which in his eyes – against the historical backdrop of bloody religious civil wars in Europe – equated to an animalistic war of all against all.

In contrast to barbarism, the social contract appeared radical at the time because it no longer saw people as part of a cosmic, religious or corporative order, but entrusted them with establishing and securing human coexistence. Political power was derived from the contract-like consensus of free and equal subjects. They were able to remain free OF the will and imposition of others, including the state to which they assigned the monopoly on power, and thereby also became free TO autonomously determine their own will. This is the basis of modern societies to this day.

It is not possible for us here to go into the minutiae of the various forms of contractualism as discussed by its main thinkers in Thomas Hobbes’ *Leviathan*, Jean-Jacques Rousseau’s *Contrat Social*, John Locke’s “ownership society” or Immanuel Kant’s critique of the “citizen’s band” (*Bürgerbund*). A rough distinction can be made between the statist line, which carries the risk of allowing state apparatus to become overpowerful, the radical democratic line of the *volonté générale*, which threatens to develop into a civil dictatorship of virtue, and the possessive individualistic line, which places emphasis on the rational egoist and utility maximiser and overlooks the actual gap between weak and strong. Separated from the state, the project for the “klassenlose Bürgergesellschaft mittlerer Existenzen” (“classless civil society of middle existences”), as the historian Lothar Gall calls it, turned out in the class society based on the division of labour to be utopia; only a social

state could enable the fair distribution of collective gains.

Market liberalism, with its excessive criticism of the social state and naïve belief in the ability of free markets to organise themselves, has been left behind by this knowledge, just as it fails to provide a satisfactory political answer to the ecological issues. Today, individual autonomy must be tied up with the supra-individual and transnational solidarity obligations associated with global interdependence and the reasonable demand for sustainability. At first glance both appear restrictive, yet they are ultimately aimed at preserving individual and collective freedom. The great political liberal Ralf Dahrendorf stressed more clearly than others the need for and chance of a global civil society, and he was also bolder in criticising the closed-mindedness of the neoliberals and casino capitalism. These prospects are strengthened by a broad global *change in values* and the growing numbers of self-assured pioneers of change in private firms, public administrations and non-government organisations.

For many political philosophers, the Contrat Social is a concept of only

historical interest. Here too Dahrendorf was more consistent: in it, he saw civil societies under an enduring, dynamically changing obligation: “allen die Grundfreiheiten, möglichst vielen offene Grenzen der Entfaltung, den schöpferischen Neuerern ein Klima der Ermutigung” (“fundamental freedoms for all, an open framework in which to develop for as many as possible, and a climate of encouragement for creative innovators”). Following this lead, the new social contract for us today means that every individual takes ecological responsibility willingly and within their means to avoid exacerbating the consumption of resources and gives the state a mandate to intervene in a regulatory manner to preserve global collective goods; in return, the individual receives all the more scope for political involvement and participation. This, incidentally, is precisely what makes innovation and, according to Dahrendorf, the “Öffnung verharzter Volkswirtschaften” (“opening up of rigid national economies”) possible. It is evident that this legitimisation creates exactly the opposite of an ecodictatorship. By freely choosing to impose limits on ourselves, we benefit from an open future and greater solidarity in a global civil society.

Self-restraint as a means of preventing dangerous climate change and other damage to the Earth system is not revolutionary in the history of ideas. People are, as the broadly implemented smoking ban and tentative attempts to put on a “debt brake” show,

every bit capable of controlling their first-order volitions (in other words, their short-term preferences) with “second-order volitions” (which relate reflexively to their desires and self-interests) and enter into appropriate forms of cooperation to do so. In this way, they have a preventive effect on possible preferences and/or their development in future. “Second-order volitions” place the availability of resources and the options for future generations above spontaneous desires and self-interests. Individual consumers cannot do this alone. It takes a boldly proactive state, an innovative private sector and financial institutions working together with *consumer citizens*, who make up a network of change agents capable of action, to achieve political identity and autonomy of action.

The politics of sustainability: five open questions

What does this type of social contract mean in concrete terms? In its report published in April 2011, the German Advisory Council on Global Change (WBGU)¹ highlighted corridors of action through which the transition into a more sustainable and climate compatible economy is viable. Business and science, parties and international organisations responded positively to the initiative, with the exception of a few conspiracy theorists accusing even the High Level Panel on Global Sustainability of the United Nations, currently preparing the 2012 Environment and Development Conference in Rio, of aiming to establish an ecodictatorship of Orwellian proportions and the domination of science. The accusation that a green virtue committee is resolutely working on the deindustrialisation of Germany, and the end of democracy with it, is equally far-fetched.

These polemics can only come as a surprise to anyone who has not taken the trouble to read the WBGU report carefully. It explicitly talks



about more civil participation, a green economic upturn and the freedom of the individual in his or her responsibility for the environment and the future. However, the point of scientific guidance on political and social issues is to initiate a broad and open debate on political order in society and politics that also addresses justified concerns about the proposed route.

Six questions arise in this context: if, as is usual at times of transition, the state takes on a proactive role and intervenes in market activity, how can overregulation and long-term subsidisation be avoided? If a sustainability strategy implies making considerable corrections to our general mobility, nutritional and space utilisation behaviour, how is it then possible to preserve individual rights and achieve wide approval? Should climate change be perceived as normatively unacceptable; and, if so, are high-carbon development strategies as unacceptable as slavery and child labour? As individual states are clearly unable to prevent the loss of biodiversity on their own, what should be done to achieve worldwide climate and environmental protection beyond national boundaries – and how can Germany be prevented from losing its way on a special path of its own? Knowing that the energy revolution furthermore requires a massive amount of advance investment, does that not harm the competitiveness of German companies and the labour and housing markets? And finally: if science has evidence of damage to the Earth system and predicts that it will continue, how do politics and society deal with the remaining insecurities?

1. *The role of politics:* climate change is, as the British economist Nicholas Stern pointedly put it in his report, the expression of capital market failure, and for that reason the state must intervene in a corrective capacity. Unlike the energy revolution (“Energiewende I”) of Germany’s black-yellow coalition in 2010, which attempted to keep

everybody happy by combining entry into renewable energy with extending the service life of nuclear power stations and continuing fossil fuel generation, a proactive state sets priorities and makes clear statements. This has nothing remotely to do with ecodictatorship; there is no planning illusion or over-optimism where governance is concerned, and contrary to the objections, there is a favouring of market-friendly instruments such as emissions trading.

In transitional periods, climate compatible policies – as ordoliberalism teaches – can only be initiated and enframed by the state: who would argue “in the name of freedom” for leaving reorganisation of the energy markets to the energy companies themselves? Safety barriers to protect the limits of the Earth system, clear and reliable rules for companies, incentives for climate compatible operation and innovation, but above all internalising the harmful effects of economic activity on the ecosystem in prices – this is a framework in which companies and consumers alike can find the most efficient solutions for themselves. Unlike in its long-term subsidisation of coal and nuclear power, in the foreseeable future the state should and will step back from its initiating role.

Our free version of the social contract is egalitarian and horizontal. In this case, governance does not take place through the interplay between orders and obedience, which requires a clearly asymmetrical division of power, but through the mutual conviction of contractual partners on an equal footing. As far as the control centre “state” is concerned, desired effects are achieved less by the said state imposing power on subjects than by cooperating, moderating and negotiating in the “shadow of hierarchy”. This form of *persuasive politics* naturally remains “soft governance”, in other words a way of exerting power. Agents set out to achieve something (e.g. more climate protection), but that does

not happen by governing from above and in rigid institutional relationships; it rather remains dependent on context, the meaning of a specific situation, and the response of the addressees. The essential means of this kind of control are linguistic and discursive; in other words, good arguments and distinct symbols, which are less strategic than consensus-oriented and create communicative rather than coercive power.

2. *Individual freedom:* the proactive state does not represent just a lapse into regulatory politics, because it emphatically supports and strengthens the rights of citizens and consumers to have their say and participate in the planning and construction of a climate and environment compatible infrastructure. Freedoms may only be infringed if danger is imminent and after sensibly weighing up the interests. Science is now describing very plausibly how a continuation of present resource and emission-intensive levels of growth will do irreversible damage to the ecosystem. If the risks of inaction are as immense as widespread water shortage, melting of the Greenland ice sheet and rising sea levels, the principle of prevention must be applied in the same way as for health risks. If the damage caused by overloading the Earth system by far outweighs the cost of avoiding it, there are already good economic reasons for preventive action, and the special interests of particularly climate-damaging industries must defer to them.

3. *Moral grounds* also have a role to play, as the economic activity and lifestyle of the planet’s present inhabitants restricts the choices available to future generations. “Freedom” – as we have said – is not only a valuable commodity today, and we must be careful not to limit the future options of our successors through negligence. In other words, we must and can define boundaries and establish rules in order to protect the Earth system and open up new scope for economic and social

activity, and not run with our eyes wide open into an ecological dead-end. Emission limits, a price on pollution, energy efficiency targets, building ecological protection zones and agreements on responsible consumption are necessary. Does this cross the boundary to a deprivation of freedom? In his recently published writing on the principles of moral revolutions (such as the abolition of slavery and child labour), the Ghanaian philosopher Anthony Appiah expresses his surprise at so much historical amnesia.

For the great Enlightenment thinkers like John Locke, Immanuel Kant and Adam Smith, one thing was quite clear: “Der freie Wille ist kein Wille, der durch nichts geleitet wird, sondern ein Wille, der sich von Gründen leiten lässt.” (“Free will is not a will that is guided by nothing, but a will that is guided by reasons.”). A transformation strategy can by no means be based on force and executed top-down; it is – as we envisage the new social contract – dependent on the conviction, involvement and input of consumers, tenants and citizens. The industrial revolution placed people under enormous material pressure and required them to make adjustments without ever being consulted. A mature civil society should not find it difficult, then, to accept sensible reasons for an individual change of behaviour and to refrain from endangering collective goods with a not-in-my-backyard (NIMBY) attitude. Studies on the global change in values show that such thoughts are widely shared, and pioneers of sustainability can work as role models to reduce the gap between knowledge and behaviour.

4. *Global cooperation:* the German government has been accused of taking its own separate national route by phasing out nuclear power. If that is questionable given the clear change in outlook in many countries, it is even more so the case with regard

to the special position on entry into renewable energy. In countries such as South Korea, China, India and Mexico too, the change towards climate compatibility has been accelerated post-Fukushima and can be supported particularly in the poorest countries by global emissions trading². Nevertheless, the concern remains that Germany’s pushing ahead could prove counterproductive by encouraging others – the USA above all – to do nothing. It is a fact that the climate problem can only be solved if the global “high-carbon economy” is largely decarbonised by the middle of the century.

The world is hungry for and in need of energy, particularly in the emerging and developing countries; Asia above all is seeing rapid advances in urbanisation and space utilisation, and coal continues to be in huge supply and massively subsidised. Changing course under these circumstances thus represents a task of gigantic proportions. In view of the weakness of the UN system to implement and follow up the Kyoto agreements, sub-global climate partnerships must be developed for this purpose. The EU could lead the way in this context; the WBGU shows that the green transformation will be cheaper if it operates from the beginning on a European scale. Partnerships with rapidly growing emerging countries on energy efficiency research or to train engineers in resource efficiency, stepping up energy partnerships with North and Sub-Saharan Africa, all these things create new markets and prevent energy-intensive sectors drifting into countries with poor environmental standards. Urban, research and university networks can become motors of green innovation.

The weakness of global governance always begins with the reluctance of nations to consider the global dimension of their actions. It would be a step in the right direction if ten percent of all German ministerial employees were non-European, but a strategic approach in German

and European foreign policy needs to go much further. Even in the G 20 there has been little discussion to date on the transition to sustainability. And yet this is precisely where we think the key to solving the financial crisis and the north-south divide lies. It is not excessive to call these human responsibilities to mind; it is pure realism, and the certainty that without a higher level of international cooperation, reaching the limits of the Earth system will culminate in worldwide conflict.

5. *Who should foot the bill?* The cost of the transformation will be considerable, but in the end it should not be more than three or four percent of the gross domestic product of a rich industrial nation like Germany and of global gross national product. The anticipated benefits of energy security and preventing environmental damage can realistically be offset against that sum – indicating that precisely in Germany the energy revolution will pay off in the medium term. It is purely polemic to evoke the spectre of exploding costs and deindustrialisation. More accurately, this change of direction is likely to help Germany secure its long-term position as an export country and send out new entrepreneurial signals. Our impression is that engineers, technicians, skilled workers and entrepreneurs welcome these challenges and new markets. The impetus for the labour market should also be substantial, meaning that the transformation will also be socially compatible. Ensuring that the same applies to upgrading the energy efficiency of existing buildings and that the cost is not passed unilaterally to tenants is incidentally another task of the proactive state.

6. *The role of scientific expertise:* it is a particular feature of global warming that the grave consequences of climate change will not become apparent until around 2030, but by that time it will be too late to prevent them. We must therefore use our understanding and scientific knowledge to take action today.



This is why research and education play such an important role in the transformation process. The WBGU argues in this context not, for example, for a “Gelehrtenrepublik” (“republic of scholars”), but for science to play an active role in the process of social self-enlightenment. Politics must make the decisions, but the changes in direction must be carried by society and legitimated by voters.

Science provides a service, but it should also be aware of its burden of responsibility. Are we asking the right questions? Are we working together in future-oriented networks? How can the scientific disciplines cooperate more effectively to contribute to the climate compatible transformation of society? Does science communicate its findings and the limits of its knowledge to society in an appropriate manner? In this respect science is under a major obligation and must constantly walk the line between scientific freedom and application. The WBGU’s proposed combination of transformation research (a new discipline that explores transitory processes towards sustainability in order to draw conclusions on the major drivers and causal relationships of such transformation processes) and transformative research (research that actively advances transformation, focussing on specific innovations in relevant sectors) could be a good starting point for discussion in this context.

The new social contract comprises the proactive state, an active civil society, innovative business and technology, and scientific reflection and guidance. These four partners today are subject to a fundamentally new condition: the limits of the Earth system and the sheer physics of climate change mean that time is running out. Delaying solutions today will only make the problems of tomorrow and beyond all the greater, perhaps even insurmountable. This shakes the foundations of the Modern Age, which are based on open horizons that include time for

scientific thought, dilatory, compromising politics, lengthy processes of trial and error in business and technology, and the “other concerns” of private individuals. Referring to this time frame for the transformation should not be mistaken for alarmism. If we want to learn and achieve anything, we must take it on board.

Zusammenfassung

Die Autoren argumentieren, dass der Übergang zu einer klimaverträglichen (Welt-)Wirtschaft eine „Große Transformation“ darstellt, die Wirtschaft und Gesellschaft vor umfassende Herausforderungen stellt. Diese Transformation geht über technologische Innovationen weit hinaus. Ein neuer Gesellschaftsvertrag muss entstehen. In einer solchen gedachten Übereinkunft verpflichten sich Individuen, zivilgesellschaftliche Gruppen, Unternehmen, Wissenschaft und Staaten, Verantwortung für den Schutz der natürlichen Lebensgrundlagen und die Erhaltung globaler Gemeinschaftsgüter zu übernehmen. Auf dem Weg zu einem Gesellschaftsvertrag für Nachhaltigkeit gilt es insbesondere fünf Fragen zu klären, die kontrovers diskutiert werden. Welche Rolle spielt die Politik im Transformationsprozess? Gefährdet die Transformation individuelle Freiheiten? Impliziert die Transformation einen Normen- und Wertewandel? Welche neuen Muster internationaler Kooperation können die Transformation beschleunigen? Wer zahlt für die Transformation und wie könnte eine gerechte Lastenteilung aussehen?

Notes

- 1) The authors of this article were members of this advisory council.
- 2) cf. WBGU 2009

References

- German Advisory Council on Global Change (WBGU) (2011): *World in Transition. A Social Contract for Sustainability*, Berlin (www.wbgu.de).
- German Advisory Council on Global Change (WBGU) (2009): *Solving the Climate Dilemma – the Budget Approach*, Berlin.

The Authors

Claus Leggewie, Director of the Institute for Advanced Study in the Humanities – Kulturwissenschaftliches Institut (Essen), Member of the German Advisory Council on Global Change, Professor of Political Science at the University of Duisburg-Essen. Recent publication: *Mut statt Wut. Aufbruch in eine neue Demokratie*, Hamburg 2011.

Dirk Messner, Director of the German Development Institute, Vice Chair of the German Advisory Council on Global Change, Professor of Political Science at the University of Duisburg-Essen. Recent publication: *Power Shifts and Global Governance. Challenges from South and North*, London 2011 (ed. with Ashwani Kumar).

DuEPublico

Duisburg-Essen Publications online

UNIVERSITÄT
DUISBURG
ESSEN

Offen im Denken

ub | universitäts
bibliothek

This text is made available via DuEPublico, the institutional repository of the University of Duisburg-Essen. This version may eventually differ from another version distributed by a commercial publisher.

DOI: 10.17185/duepublico/73886

URN: urn:nbn:de:hbz:464-20210204-102503-0

All rights reserved.