

The Sluggishness of Politics and Nature

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Even before 11 September 2001, the American Federal Emergency Management Agency (FEMA) – of which little good has been spoken in the past days – published a list of the three most probable catastrophes threatening the US: a terrorist attack on the city of New York, a major earthquake in San Francisco and a direct hit by a hurricane on the city of New Orleans. The *Houston Chronicle* asserted in December 2001 that the hurricane is the deadliest danger. There are not many similar examples of accurate predictions. And yet there was a criminal lack of precautions taken in New Orleans.

The disastrous results of Hurricane Katrina in New Orleans and in the surrounding states are a perfect example of a failed climate policy. The failure, however, does not lie in the Bush administration's refusal to agree to the Kyoto Protocol, as German Environment Minister Trittin has claimed.

It simply makes no sense, after the catastrophic force of Hurricane Katrina, to resort to new superlatives and to claim that this extreme weather event is proof that the force and duration of tropical cyclones will increase in the future. The first order of business should not be to wonder whether Katrina is an indicator that anthropogenic global warming is the immediate cause of the devastation in New Orleans. We can do without these debates, or we can happily leave them in the hands of science.

Climate researchers should be asked, however: Assuming for a moment that the US, as well as China, Russia and India, were radically to reduce their emission of greenhouse gases to a hitherto quite improbable degree, *when* might we be able to discern the fruits of this climate policy, when will the consequences of hurricanes such as Katrina be less grave, and exactly how large will these lesser damages be? Interesting questions.

For our society and for others, however, it is much more important to ask: How can we protect ourselves in the coming decades from extremes of weather like Hurricane Katrina, heat waves, floods and other extremes; and what should a climate policy that takes just this as its goal look like? And how is it that climate policy up to now, particularly in Germany, has been almost exclusively devoted to the reduction of greenhouse gases, and thus can only comment on catastrophes like the one that occurred in New Orleans with an air of smug superiority?

In answering this question, we first come face to face with several interesting characteristics shared by environmental, education and research policy alike.

The gains or losses in these policy areas are difficult to calculate; their successes and failures become apparent, if at all, only after decades; coming generations reap their rewards or suffer from their mistakes. The voters, reinforced and fostered by politics, have a short-term memory. They will only pay for what affects them at first hand.

Environmental policy, however, like the other two policy areas, is something whose effects, in many cases, are only apparent in the long term. Because this is the case, it is at the mercy of current events. Extreme weather events wash the topic of climate policy to the surface.

And there is one more common characteristic: Environmental, research and education policy are crucial policy areas in terms of power. Anyone who can make a name for himself or herself in these areas assumes one of the better positions in the future economic and political pecking order. This is power, and power is what interests politics. How, then, do we find solutions in spite of these difficulties? Let us examine climate policy.

The consensus on climate change that has prevailed up to now and the policy measures that have been drawn from this consensus lead to a dead end. The alternative to this way of thinking is called adaptation. This entails political measures devoted – not exclusively, indeed, but certainly primarily – to the question of adapting to the expected climate changes.

What is the crucial difference? The present consensus on the cause of climate change always leads to one and the same result in terms of policy: reduce greenhouse gases, particularly emissions of carbon dioxide. CO₂ is bad. This point is stressed incessantly. This mantra has little to do with the practical problem of protecting the environment and avoiding the dangerous results of environmental changes. It does explain, however, why the measures taken up to now have been so unsuccessful. They are strategies of moderation. The proper strategy, however, as New Orleans could hardly demonstrate more clearly, is one of adaptation.

Survival by adaptation means taking precautions by means of a multitude of concrete measures, with the goal of meeting past and expected weather extremes without massive damages in the future. The Dutch reaction to the devastating storm tide in a cold winter night in 1953 is exemplary. The Thames Barrier, which prevents flooding in

London, England, is an obvious further example of the power of precautions.

Precautionary measures extend from the simplest provisions – where were the thousands of buses to evacuate poor, sick and old people from New Orleans before the storm hit? – to adaptive strategies effective in the long term; for instance, building codes, forbidding settlement in endangered areas, innovations such as intelligent dykes, the renaturalization of rivers, education and information campaigns regarding what to do in an emergency, etc.

Accommodation and precaution – in other word, adaptive measures – are essentially easier politically to enforce and to legitimize. And they have one enormous advantage compared to all strategies of moderation, whose success may (or may not) become apparent in the distant future: Adaptive processes have a relatively brief planning interval. When solutions to a problem must be found by means of innovations in science and technology, they can be produced much more easily if they are conceived as adaptive measures. The knowledge-based economy makes possible something that was long unimaginable: the reconciliation of ecological and economic aims. If, for example, the traditional objectives of entrepreneurial trade – that is, maximizing returns – are to be retained in the future, the resources of the old economy will be handled more sparingly, more efficiently and more productively. Accommodations will be made. The dynamic of social transformation has expanded, and so too have the opportunities to adapt to novelties and to dangers.

Adaptive strategies also allow several goals at once to be achieved more easily: improving quality of life, reducing social inequity and increasing political participation are not mutually exclusive. The risks and dangers associated with uncertainties – new technology, for instance – are fewer in the case of adaptive measures. Adaptive processes can become the motor of what we call sustainable management. Adaptation can lead to the reduction of greenhouse gases, because adaptation and moderation are not mutually exclusive. However: reduction does not necessarily lead to adaptation. Any form of sustainability is local.

We must learn to think in a new way. Nature is sluggish. The modest, politically enforceable forms of moderating greenhouse gases discussed up to now have hardly any influence on climate change, despite claims to the contrary. The reduction in emissions of greenhouse gases needed to “stop” climate change amounts to about 70 percent.

How such a reduction is to be achieved without ignoring the hopes and expectations of more than 80 percent of the world’s population is not

currently a topic of discussion. If these contradictions are resolved by stressing what is feasible, then it quickly becomes evident: the majority of politically realistic measures tend in any case to be adaptive strategies.

These strategies describe what is possible. One only has to consider the warnings that climate change will result in catastrophic famines and epidemics. In other words, it is health that is at stake here. But personal modes of behavior are much more crucial determinants of health than climatic conditions. And people can influence their own behavior more easily and sustainably than any attempt purposefully to change the global climate. Adaptation, then, means giving every individual the chance to be able to react to changes.

And yet: the fear of catastrophes, prompted by extreme weather events, is used to win public support for plans of moderation. This, however, is a very dubious strategy. In politically relevant timeframes, the measures of moderation propagated by science and sanctioned by policy have no effect on the probability and the force of extreme events. Thus it is imaginable that the public will rebel against the burdens imposed on it. The climatic dynamic demands politically enforceable adaptive strategies that will remain stable over much longer time periods. This degree of consistency can hardly be reached on the basis of fear of extreme events.

Paradoxically, the fact is: to the extent that our knowledge about the part human activity plays in global warming improves and expands, the opportunities in modern societies to negotiate sustainable and planned reductions of greenhouse gases actually diminish – to say nothing of the question of who should cover the costs and how the benefit should be divided.

Adaptation, by contrast, works. Precautionary and preventative measures are effective in preventing fatalities from heat, for example. While a tragedy occurred in Chicago in mid-July 1995, with more than 700 “heat deaths,” in the same summer the so-called “hot weather health warning watch system” saved the lives of about 300 people in the city of Philadelphia. The occurrence of extremely high temperatures in Philadelphia in 1993 and 1994 prompted the development of an efficient warning system and social networks that benefited the elderly and other persons at risk. What does this mean? In reality, it was the isolation of elderly people in Chicago who did not know how to help themselves, or the poverty (and thus also: helplessness), which was much worse in this region ten years ago, that led to the high number of fatalities.

This is also the chief factor at the global scale: Anyone who battles poverty creates the basic conditions to ensure that climate change will not entail the catastrophes that politicians continue to invoke in promoting moderation. Adaptation means: disseminating knowledge and creating new opportunities. Wherever people are completely at the mercy of changes, there will always be catastrophes – including those caused by climate change.

An environmental policy that has comprehended this would truly be of lasting effect. And enforceable. It would prevent another New Orleans from happening.

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