BOOK REVIEW/COMPTE RENDU

Nico Stehr and **Hans von Storch**, *Climate and Society: Climate as Resource*, *Climate as Risk*. Singapore: World Scientific Publishing, 2010, 141 pp. + vii. \$US 60.00 hardcover (ISBN-13 978-981-4280-53-2).

the natural climate creates one of the most important general conditions for our existence" (p. 1) is the indisputable opening sentence of this short book. Climate and Society begins with a résumé of thinking about climate over the centuries. Next it examines how climate, as a construction of nature without human interference, is both a resource and a limiting condition for humans, depicting this in terms of "society and humans as a climate construct" (p. 46). It explores climate as a variable phenomenon, hence also as hazard and risk. The authors claim that anthropogenic climate change, far from being novel, was always present. Their central arguments are that i) adapting to global warming should be favoured over preventing it, ii) the media are one-sided and biased against global warming deniers and mitigation opponents, and iii) scientists should not present warnings in the media. They end with a "Zeppelin Manifesto on Climate Protection" based on these arguments.

Written by a social scientist (Stehr) and a natural scientist (von Storch), the book informs natural scientists about the social context of their findings. It teaches social scientists that not everything important for society can be reduced to a social construction, in particular climate and risk, which are nature's constructions. Thinking about climate is influenced not only by socio-cultural factors, but also by its physical experience.

The authors distinguish between "climate as a scientific system" and "climate as a social construct," the latter referring to non-scientific representations of climate by the media, etc. They argue that conceptions of anthropogenic climate change held by lay people result from sensationalized media reports using exaggeration to increase circulation and millennial pronouncements by fundamentalist preachers. The book describes notions of anthropogenic climate changes from the fourteenth century spread by religious leaders and medieval witches: "To this list of alleged climate catastrophes must be added, of course, global warming due to anthropogenic emissions of such greenhouse gases as carbon dioxide, methane or CFCs" in today's world (p. 111). Environmental movements

are denounced for exaggerating anthropogenic climate catastrophe, as are climate scientists seeking research funding and "the pleasure of seeing oneself in the media spotlight" (p. 102).

Stehr and von Storch argue that "climate policy is not a reaction to climate change, but rather a reaction to the expectation of a climate change" (p. 119). That is usually correct, but it works both ways. Lack of mitigation results from failure to expect climate change. Research has documented that disasters occur when expectations of safety are based on extrapolations from present well-being and indications of change are dismissed.

The authors contend that the greenhouse effect is not a new environmental threat. They describe debate a century ago about climate change, which subsequently disappeared from the scientific and public agenda. This misleading comparison confuses global warming caused by fossil-fuel based human activities, which is new, with debate over climate change, which is not. Finding a scientist who was wrong a century ago has no bearing on whether the vast majority of scientists are wrong today in concluding that human activities now cause global warming and should be mitigated.

The book offers no convincing evidence that the media are one-sided in favour of mitigating climate change. It points to cases of media interpretation of heat waves as indicative of global warming, but ignores media interpretations of cold snaps as contradicting global warming. Rex Murphy regularly uses cold snaps to propagate his anti-global-warming message in Canada's media. Michael Crichton sold millions of books depicting global warming as an unfounded "state of fear." Talk shows, tabloids and the business sections of media are full of anti-mitigation rhetoric. The National Post ran a series about all the climate change denying scientists it could find, but only discovered a couple of dozen. The David Suzukis and Tim Flannerys argue in the media that global warming should be mitigated, but the Fred Singers and Bjorn Lomborgs are there claiming the contrary. The former are much more representative of scientific conclusions than the latter. The book suggests that scientists should not warn the public of danger. Yet there already is a tendency by consensus scientists to stick to publishing in research journals rather than responding in the media to the minority opinions of contrarian scientists. An additional chill on public intellectuals would hardly be precautionary.

"Modern society perceives climate essentially through a socially constituted filter" (p. 128). However, there are competing filters in the media. The most important indicator of dominance are practices that ensue. In Scandanavian countries the mitigation filter may prevail, but

hitherto in North America the anti-mitigation filter dominates. The fossil-fuel lobby is a far more powerful filter than the Pembina Institute.

Defining precaution primarily in terms of adaptation, as do the authors, is reckless. If a bathtub is overflowing, then adapt by mopping up, but don't neglect to turn off the tap. It is not precautionary to denigrate turning off the tap that enables carbon to flow from the ground into the atmosphere. That could cause the biosphere to be tipped into a less favorable state for humans where future adaptation may be impossible.

The Zeppelin Manifesto asserts that "adaptation as a precautionary measure is relatively easy to implement and to legitimize in political terms" (p. 133). This is clearly wrong. Groups that refuse mitigation also reject adaptation because both require increased taxes and government regulations. When poor countries ask wealthy ones to help finance their adaptation, their request is ignored. Bangladesh has immediate concerns of protection from storm surges, as the book indicates, but it also has long term needs of preventing oceans from rising and making storm surges worse. The pine beetle infestation destroying British Columbia forests because of the absence of cold weather is a foretaste of how difficult and costly adaptation will be.

Most reports have been cautious about attributing present disasters to climate change because we are still at its beginning. What is worrisome is the catastrophic potential in a century as the atmosphere heats up, oceans rise and become more acidic, drought and insect infestations increase, wildfires become more serious, and positive feedback loops are encountered.

The book contains errors of fact and interpretation, and unsubstantiated assertions. It depicts Sherbrooke and Shawinigan as "neighboring places" (pp. 21-2), urban and rural, to show the warming effect of cities. However Shawinigan, a city of 52,000 people, is 143 kms north of Sherbrooke. This likely has more climatic consequences than its lower population size. Most importantly, the book's graph shows temperatures rising at both locations during the twentieth century. The authors claim "there is no plausible scientific argument for such a meltdown [of polar ice caps]" (p. 100), which must be embarrassing now that the North Pole ice cap is visibly melting from scientifically confirmed global warming. The book confidently asserts without any supporting evidence that "the anticipated changes will not occur by leaps and bounds, but will be gradual" (p. 86). Studies have shown that some major climate changes occurred in a leap of mere decades. International planning in the form of the Montreal Protocol succeeded in mitigating ozone-layer depletion; nevertheless the authors gratuitously presume that "any subsequent process based on this hegemonic planning mentality will serve no purpose" (133).

This little book is wrong in all of its central arguments.

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