Review of Books

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ENVIRONMENT, OIL AND ENERGY - AN OVERVIEW OR A PECULIARLY GERMAN PERSPECTIVE ON POWER, MONEY AND THE BLACK GOLD?

SEO: Three books are reviewed, each centred around the topics of environment, oil and energy and published by the German government-funded *Bundeszentrale für Politische Bildung* (BPB), The Federal Centre for Political Education. The BPB's remit has for a long time been to publish books and articles on pertinent topics which would not necessarily find a commercial publisher. In this case, however, the three books are very topical in dealing with major and popular issues of our time.

Thomas Seifert and Klaus Werner's book is written in a journalistic style, with a hint of a spy thriller when oil wells are discovered, bribes are paid, the US Army moves into Saudi Arabia, or when the installations have to be protected against potential terrorist attacks. On the face of it, this contribution does not seem to have much academic value. The titling seems to be too flashy for serious consideration. And the authors seem all too prone to ramblings promoting long-discarded prejudices in a manner too simplistic even to begin to explain why oil is such an important commodity in our world. However, beyond the sketchy surface some good analysis can be found, notably as to how higher oil prices have also stimulated the search for alternative energy resources, e.g. renewable energies (21-2). That goes for the oil crises in the 1970s, but also for the peak just before the financial crisis of 2008/9. It also leads to energy saving, such as in thermal insulation of buildings or more fuel-efficient cars. The historical narrative about oil exploitation in the Middle East covers all the major events, from the six-day war in 1967 in which Israel occupied Gaza, the Sinai, East Jerusalem and the Golan Heights (47); next the oil crisis of 1973, cruelly exposing western dependency on oil, and the fact that the Europeans could neither agree with the Americans nor agree among themselves, on a common policy. Instead, everyone pursued their own national solutions (54). Next, the second oil shock in 1979, from which sprang fundamental doubts in the mantra of economic growth which eventually led to the Green movement, particularly in Germany (59).

The narrative also covers, of course, the spectre of the thirst for energy of emerging powers such as China and India (209); spectre, because of the increase in the oil price, the resultant serious impact on lifestyles and living standards in the West, and because of the environmental impact of another 2.5 billion people using the same amount of energy the West has used over past decades. Unfortunately, the authors see this as a lethal competition between major nations over scarce resources, rather than an opportunity for them to work together for a sustainable world (217). Thus this book must be classified in the category of black and white analyses such as the ones elaborated by Jeremy Rifkin, which the authors seem to hold in high regard (229). It is an intriguing thought that Rifkin put forward the idea that hydrogen could revolutionise our energy markets. The idea is that

solar panels and windmills provide the power to produce hydrogen in a hydrogen cell, which at the same time is the engine of the car in one's garage. It would certainly get around the problem of energy storage, but we are a long way from either sufficient renewable energy, hydrogen powered cars or hydrogen storage units, which could be installed in private homes (233). This idea entails decentralisation of power production and many small producers close to energy self-sufficiency in their own private home. Whether the suspicion of the author is justified that the current energy giants would use all their conspiratorial power to prevent such a revolution must remain open (234, Hennicke: 122), but it could be given a positive turn in the question of how to interest the energy giants in renewable energies (Hennicke: 128). Many problems remain with hydrogen technology, the storage problem particularly is hard to solve, which is one reason why it has not been implemented in recent years. In contrast, a more likely scenario is permanent overproduction through renewable sources, which can provide power to all users through a potent energy grid, perhaps on a European scale rather than a national one.

The second book by Hennicke and Fischdick picks up precisely this topic of renewable energy. It covers in much more detail all the possible technologies which make up the field of renewable energy today. The problem is that not all of these energies are yet competitive. Therefore, Green philosophy says that current subsidies can be justified on the basis that renewable energy will be profitable in the end. On the economic side, this covers speed of innovation, reduced energy costs, increased export opportunities and general technological progress. The environmental side almost needs no arguments in this Green philosophy because renewables manifestly reduce pollution as a major part of sustainable development (8). However, it is interesting to see the development of this Green philosophy featuring a strong economic rationale. The security aspect adds a further element in that renewable energy will decrease dependency on energy imports and thus enhance energy supply security and could well help, even, to avoid conflicts over resources (13). Further, this could curtail the monopoly of energy giants such as RWE, E.ON, EnBW or Vattenfall in Germany. These realist arguments of the second generation Green philosophy link up with their roots in the idea of the decentralisation of power production through many small producers, e.g. the already mentioned solar panel on the roof, which could today cover about two thirds of a household's energy demand (17, 37, 128). From this root springs one danger, which is an intriguing idea at the same time – self-sufficiency. Green philosophy sometimes advocates concepts of self-sufficiency not only for households and individuals but also for states. The problem with this is, however, that economic isolationism has never been beneficial – witness the fate of the Soviet Union – and therefore Green philosophy, in my opinion, must be careful to guard against advocating ideas promoting national energy self-sufficiency or even individual self-sufficiency. The positive juxtaposition is the empowerment of citizens in administering their own energy projects in their communities, while at the same time remaining connected to the energy grid (18).

It goes without saying that in this kind of context, nuclear energy is on its way out (24). The energy solution of the future, hence, is energy efficiency plus renewable energy (25). One recent addition to this Green philosophy is the installation of solar parks in northern Africa. The appeal, again, stems mainly from wild ideas of the kind that Morocco alone could cover the world energy demand from solar power (47). However, there are serious doubts about the viability of such an option, e.g. cost of installation, transport and perhaps most importantly, political stability before and after such a huge investment. In the context of the climate change debate, all such projects with renewable energy sound very attractive. It is, however, important to realise that all of them still depend on public subsidies (93) – of course it was pointed out that fossil and nuclear technology also received huge subsidies in the early stages of their development and sometimes even up and until today (132). There are two ways to achieve economic viability of renewables: on the one hand by speeding up the introduction of renewables; on the other, by phasing out fossil fuels. In both scenarios, energy will become more expensive before it becomes cheaper again, when renewables will have reached their maturity. However, regarding the issue of sustainability, the changeover to renewables clearly

leads in the right direction. Energy efficiency and energy saving must come as a second leg of such an energy strategy (108). The financial and political steering capabilities are essential for the promotion of this process. Green philosophy often falls into the trap of renationalisation of politics (112, 122), while it is evident that the nation states cannot possibly solve environmental or energy problems in a satisfactory manner by themselves. We are more likely to find the solution in reasonably efficient international organisations such as the EU. It is fortunate that in this book the European potential for pushing energy and environmental policy forward is recognised, for example, in EU directives on energy efficiency and energy provider services (125).

The third book that of Dietrich Jörn Weder, is a summary of the major environmental threats and preservation potentials from a distinctly German perspective. It is by no means cutting-edge academic thinking, but it is nevertheless an excellent starting point for those who wish to approach topics such as environmental protection, sustainability and the tough choices humanity will have to face in the future. It serves the widest possible audience because it covers topics of general interest, such as species' extinction (Ch. 2), deforestation (Ch. 3) or water pollution (Ch. 4), but at the same time, it gives a detailed overview of early German environmental legislation, for example. The book starts out with a chapter on climate change and the potential destruction resulting from it. In some passages it is, perhaps, a little apocalyptic, but through that it drives home the serious threat we face (8-16). After the previously mentioned chapters, it covers the explosion of world population, which is at the root of the problem of sustainability (59-70). After the Brundtland Report of 1987, the connection between depletion of resources, on the one hand, and unsustainable population growth, on the other has disappeared into oblivion. This might be because the link is not direct, that is the carbon footprint of the countries with large populations or strong population growth, e.g. China, bears no comparison with what Western industrialised countries consume. However, if we are seriously thinking about sustainability in terms of guaranteeing the survival of humanity, then controlling population growth seems to be just as necessary as a substantial decrease of carbon emissions.

After this comes a very good and detailed introduction to German environmental policy, which got under way in the 1970s, promoted by Chancellor Willy Brandt (83). As usual in the beginning, environmental policy was geared towards alleviating the worst environmental repercussions of industrial production, such as from the heavy industry in the Ruhr. The German population quickly picked up on the importance of environmental protection: by 1972, two thirds of the German population considered this an important issue (84). Distrust of nuclear power was added in the 1970s and became the consensus after the nuclear meltdown at Chernobyl in 1986 (85). From that point onwards, the nuclear industry fought a rear-guard battle in order to protect its huge financial investments, but the atom had lost its appeal as an energy source for the future. That is also the year when Germany as a latecomer established a ministry for environment and reactor security (87) - in Britain an environment ministry was established in the early 1970s. After dealing with issues of recycling and the German ecotax, taxing energy while reducing taxation of labour, this chapter lists the main European environmental laws, from the directive on drinking water in 1980 to the emissions trading scheme of 2002 or the car recycling directive from 2000 (92).

The next chapter on sustainability covers topics such as urbanisation and the steady growth of the road network (98), which is continuously diminishing areas of natural habitats (103). This leads to the usual Green commitment to communal transport, such as buses and trains (104) and also the usual slight imbalance against individual traffic (106-7). Critically, one might say that individual mobility is an essential element of modern society, and might even be a tenet of the fundamental value of freedom itself. Hence, the objective cannot be combating individual traffic, but to introduce technologies which make such traffic environment friendly, such as in hydrogen cells (105). It must also be said that mobility is an essential element of European integration and globalisation and has taken us beyond nationalism and isolation. Here the pressure really is on how this traffic can be

made sustainable, for example, if the hydrogen cell cannot yet be applied to individual cars and households, because it is too dangerous or too difficult, it might well be worthwhile thinking about hydrogen aircraft where one has specialists working with the engines in a reflectively controlled environment.

The final quote by Ernst Ulrich von Weizäcker makes a telling prediction for the future: 'We are entering the century of the environment, regardless of whether we want to or not. In these times, everyone who calls himself a realist will have to justify his actions as a contribution to sustainability and environmental protection'[i] (137).

These three books together constitute a really good entry into the topic of energy & environment, for practitioners, academics or students of the subject. Clearly the focus here is on Germany, but there is a wider perspective which includes Europe and the world.

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[i] My translation

BIBLIOGRAPHIC INFORMATION

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