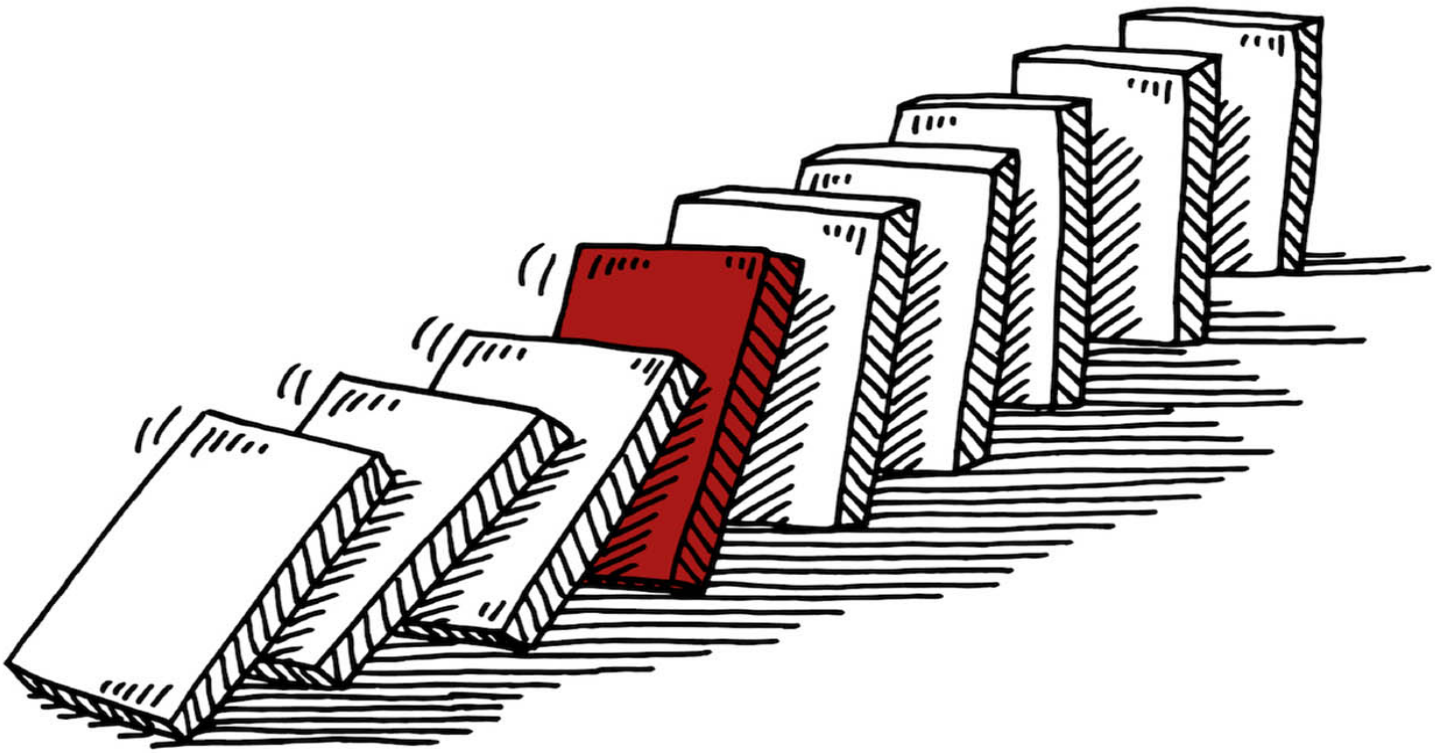
FABIAN BRUNNER

CLIMATE CHANGE
A LAW OF NATURE



The promise of the energy transition
and its failure in practice

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Set, design & layout Markus Vahlefeld
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sepio
Brünner Str. 8
04209 Leipzig

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Preface

There is scarcely a topic that unites people as closely as the development of the climate in which we live. However, this is where the complexity of the topic already starts. Is there really ONE global climate or do we have several different climate zones throughout the world? What is the difference between weather and climate? How much change in the basic situation of the global climate can be considered to be a natural process? Currently, the phenomenon of global warming, frequently referred to as climate change, is among the top items on the political agenda in many countries of the Western world. Global climate change was a central topic for the first time at the G8 summit held in Heiligendamm, Germany in 2007.[1] The high degree of sensitivity with which average global temperature reacts to the smallest changes in atmospheric greenhouse gas concentrations is now defined as a central challenge in public discussions.

Anthropogenic emissions (i.e. emissions caused by human beings) are regarded as the cause of the increase in the atmospheric carbon dioxide concentration. In public discussion, the increase in the average global temperature of about one degree Celsius since the advent of industrialization and the perceptible rise in the atmospheric carbon dioxide concentration observed over the same period when comparing the pre-industrial age and the present day has become the key parameter in public discussions. In this context, the loss of the polar ice caps, the melting of glaciers, rising sea levels and an increase in the frequency of extreme weather events are often seen as visible signs of climate change. Many people in the Western world believe that temperature change must be limited to 2 degrees Celsius (or 1.5 degrees Celsius)[2] as the essential response of humanity to this situation. Frequently, the introduction of restrictive political measures is seen as indispensable in this context.

However, although there is widely accepted global agreement among the nations that excessive global warming would entail severe negative consequences for humanity and that appropriate action must be taken to prevent it, there is generally no clear international consensus[3] on the questions arising directly in this context, for example questions as to the correct, appropriate reaction to climate change, responsible action or the handling of the resulting costs. On one hand, the various international climate protection agreements have created global awareness; on the other hand, the specific measures taken by individual nation states are very different from each other and range from the use of so-called renewable energies (it would be more appropriate to call them volatile energies) via research and development programs to directives and laws or even, in some cases, no reaction at all.[4]
Furthermore, even though the international treaties on climate change

(such as the Kyoto Protocol or the Paris Accord) have been ratified by many countries, a large number of the signatories did not derive any consequences from ratification. In many cases, emissions were not effectively limited; infringements have rarely been punished. Furthermore, some countries with high anthropogenic emissions do not share the basic hypotheses of the climate accords and have therefore not adopted the limits stated in them. Even in countries which act in the spirit of the climate accords, the efforts undertaken are often scarcely sufficient to meet their voluntary undertakings. As a result, the trend of increasing global carbon dioxide emissions has continued unabated. Nowadays, the climate protection efforts of politicians in the Western world often face conflicts that simply cannot be resolved. On one hand, we have the wishes of the general public, encouraged by politicians, for comprehensive climate protection and indeed protection of the basis of their existence. On the other

hand, there are problems with acceptance among the general public as regards the affordability of energy and the security of energy supplies (the social and economic component). These aspects, which are mutually interdependent, cannot be optimized at the expense of the other aspect in each case and also offer little prospect of political credit. What politician can score with the topic of security of supply? The conflict between these two objectives always calls for decisions and the assignment of priorities to the primary objective to be pursued in each case.

The situation is exacerbated by the fact that questions concerning the climate call for interdisciplinary answers which are highly complex in some cases. Despite this complexity, the media and politicians nevertheless often react with highly simplified answers which do not do justice to the topic. It is therefore time for worldwide climate protection efforts to be revisited. This is the objective of this book. Germany can be considered a

blueprint and is the ideal point of reference of this book. The country is embedded in the European context and has shown itself to be particularly committed to climate protection. No other country has embarked – under the heading of “energy transition” (Energiewende in German) – with such enthusiasm on such a comprehensive energy industry experiment with an open outcome for its own economy. Scarcely any other country is so convinced that its own approach is right as to use their exemplary character and the encouragement of imitation by other countries as a justification for its national climate protection measures.[5]

In 2021, climate protection, which can really only be effective at the global level [6] even came to be considered as a human right in Germany. In future, German citizens therefore have a constitutional right to climate protection. In the spring of 2021, Germany’s highest court issued a judgment complaining that the German government’s Climate Protection Act only

stated targets for the reduction of emissions up to 2030 and did not state any requirements for the subsequent period. The failure to continue emission reduction targets from 2031 onwards was considered to be a violation of constitutional rights. In contrast, as regards the extremely far-reaching climate protection measures resulting from its judgment, which would impinge on the freedoms of German citizens, the court did not see any violation of constitutional rights.[7] The Federal Constitutional Court has therefore adopted a political position on climate protection and has also shown the high priority of this topic for German society. Moreover, the very broadly formulated judgment of the Federal Constitutional Court has given the German state comprehensive justification to initiate, or even the duty to initiate in the name of climate protection appropriate energy industry measures to achieve the temperature target stated in the Paris climate agreement (limiting global

warming to less than 2 degrees Celsius). This judgment will therefore fundamentally restrict the leeway available to future German governments for shaping legislation, a new development in German history which has remained unique throughout the world to date. It is true that the judgment also refers to the leeway available for shaping legislation but it also basically creates a duty under the German constitution which can be enforced by litigation. The consequences for the country are currently unforeseeable. From a present-day perspective, it is both inefficient and ineffective to wish to lay down binding national annual carbon dioxide emission limits for future generations. The next few years will simply bring too many economic and technical changes and innovations for it to be possible to lay down binding limits of this type. There is even a risk that the judgment of the Federal Constitutional Court will prevent reached or at least seriously impede certain innovative development paths.

Quite apart from these considerations, the judgment by Germany’s highest court ignores the global character of global warming. In 2021, the German share in worldwide carbon dioxide emissions is less than 2 percent. China, the USA and India together reached about 50 percent. If Germany achieves the goals of the Paris climate agreement, this will therefore be of secondary importance for the global climate. However, if the development potential of future generations is to be determined to this extent and the freedoms enjoyed by citizens are to be restricted so severely, it will be essential for the citizens of a democracy or their elected representatives to be able to revisit objectives and to reach other conclusions on the measures to be taken and the priorities to be assigned in the light of new findings.
Furthermore, public discussions in Germany have largely ignored the price to be paid for this focus on climate protection. For example, it must be mentioned that electric power and the

affordability of electric power are among the key competition factors for an industrial country and that the total cost of supplying electricity from renewable sources is especially high (at least in the present situation). Similarly, the rejection by an entire nation of conventional power generation using fossil fuels (coal, gas, nuclear fuel) of the type practiced throughout the world is an experiment which still has an open outcome, at least as regards security of supply. Furthermore, the changeover to energy supplies based solely on renewable energy sources for covering power demand will call for many times more generating capacity compared with conventional technology; land use for power generation will therefore also be considerably higher. Another factor to be considered is the possibility that the production, construction, operation, dismantling and disposal of wind turbines and solar panels will or at least may also have a negative impact on plants and animals.

It is certainly legitimate for a country to pursue the ideal of a decarbonized society but it should be made transparent that this goal is more than “just” climate protection and will cost considerably more than the famous ice cream cone mentioned by Jürgen Trittin, then German Environment Minister, on July 30, 2004: “Supporting renewable energies will still cost an average household just 1 euro a month - the price of an ice-cream cone.“[8] This will be all the more important if the German energy transition becomes a European climate protection program, the “Green Deal”, especially as a result of German efforts. It is at least disingenuous to present the energy transition and the Green Deal as a highly promising way for the German economy or the European continent to achieve climate neutrality without sacrificing prosperity to any significant extent.[9]

The real stress test for the energy transition will be to meet the electric power demand of Germany or Europe reliably and in a cost-optimized way