

***Towards a Sound Narrative on Climate Policy and Green Growth***  
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## **I Changing the climate conversation**

So far, climate policy has been unable to slow down greenhouse gas emissions growth, let alone to reduce them. There is a clear and present danger that global climate policy will become an epic failure, demoralizing the organizations and the huge number of people currently willing to engage for climate policy and for global environmental causes in general. It is hard to see how this outcome could be avoided within the present framing of global climate policy. Fortunately, there are ways to reframe the climate challenge in more promising ways [1]. This requires an open conversation blending healthy skepticism with solid commitment.

Such a conversation can build on the fact that when the French mathematician Joseph Fourier in 1824 described what is today known as the greenhouse effect, a long learning process began. Until about 1980 it happened mainly in the realm of science, but meanwhile it involves important parts of global policy-making and society at large [2].

The conversation about climate change can overcome ideological divides. Avoiding dangerous climate change is a conservative goal: it springs from the awareness that moving global climate into uncharted territory is irresponsible [3]. On the other hand, progressives have embraced that goal because it is a prime example of global solidarity. The fact that in America climate policy has become controversial along party lines – blocking American leadership in global climate policy – is not due to the issue at hand.

The main learning so far has happened at the interface of science and policy: a new arena of international policy has been established, geared both to scientific research and to public opinion [4]. However, the expectations created within and outside that arena have been disappointed to a large extent.

It should not come as a surprise that with such a large, complex and novel problem as the risks of climate change, the first attempts to find a solution are not

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<sup>1</sup> This conference version is not yet to be quoted, but comments are warmly welcome to [carlo.jaeger@globalclimateforum.org](mailto:carlo.jaeger@globalclimateforum.org). It is based on the workshop “Rescuing Climate Policy”, held at Arizona State University on February 3-4, 2014. Help by Bryan Titzner is gratefully acknowledged. Responsibility for mistakes stays with the first author.

immediately successful. What is required is a patient effort to learn from successes and failures, without denying the urgency of the problem [5].

## **II Two insufficient narratives**

There are strongly contrasting views on climate change [6]. Still, among those who take the problem seriously, two narratives stand out. The climate problem was first framed as an apocalyptic narrative of pending disaster, later as a task for cost-benefit analysis. Both narratives share an emphasis on the need to establish top-down political control over a global process.

Natural scientists often tend to present anthropogenic climate change as an utterly catastrophic danger to be avoided at all cost. This image can be refined by modelling climate change with fat-tailed probability distributions that do not allow to compute an expected value [7]. A different argument focusses on the lexical structure of moral arguments: while there may be situations where one has to consider a trade-off between, say, avoiding climate catastrophe and avoiding World War III, a morally competent person will not consider a trade-off between avoiding climate catastrophe and producing less smart-phones.

While the apocalyptic narrative still captures large parts of public imagination, policy making is much more geared to the idea of balancing the costs and benefits of various policy options [8]. The fundamental structure of the problem is seen as comparing costs incurred in the present against benefits – namely the avoidance of climate damages – occurring in the future.

Both narratives emphasize the need to establish a legal structure able to control worldwide greenhouse gas emissions in a centralized manner. Presumably, this requires a strong international agreement on contentious issues [9].

The experience of global climate policy so far strongly suggests that the present framing – be it in the apocalyptic or in the cost-benefit version – does not offer a viable approach to tackle the climate challenge [10]. Three problems stand out.

First, if climate policy is solely oriented towards avoiding climate damages, it faces the problem that most of these damages are decades and even centuries away. This doesn't make them less serious in an abstract sense, but for policy purposes it has a devastating effect. It is very difficult to create and mobilize powerful advocacy coalitions for goals that lie far beyond the horizon of political accountability. Moreover, attempts to estimate those damages are clouded by large uncertainties, including about the proper discount rate to be used for intertemporal comparisons [11].

Second, in the past years there has been increasing support for the view that to avoid dangerous climate change global warming should not exceed 2 C over pre-

industrial levels. If emissions reductions are to keep global warming below that threshold with a reasonable chance of success, however, global emissions would need to peak around 2020 and then to decrease by more than 2% per year worldwide [12]. This is hardly more plausible than to expect worldwide nuclear disarmament to start by 2020.

Third, as climate policy is perceived as costly in the politically relevant short-run, international negotiations boil down to a game of burden sharing where the dominant strategy for all players is to minimize own emissions reductions (which does not exclude public declarations of how important and urgent the problem is), leading to overall paralysis regarding the key challenge of reducing emissions [13].

### **III Building blocks for a new narrative**

What is required is a climate policy narrative not about burden-sharing, but about opportunity creation [14]. This is by no means a trivial task, and it will not be settled by a few shining examples of successful businesses with small carbon footprints. For a start, it is useful to assemble some important building blocks.

*The openness of the future.* The world economy is one of the most complex systems we know of, and it is far from having one optimal trajectory [15]. By reasonable standards, however, some trajectories are better than others. E.g., the trajectory along which in the past decades billions of people have been able to escape poverty is preferable to the trajectory of the preceding centuries where poverty was overcome only for a small part of human population. Climate policy needs to foster trajectories where poverty alleviation goes along with emissions reduction.

*Turning obstacles into resources.* At the beginning of the modern era, the Dutch economy was clearly at a disadvantage compared with, say, Denmark, because it had to incur additional efforts to develop an economy below sea-level. However, as a side-effect these efforts produced a remarkably effective culture of collective action, turning the challenge into a new resource [16]. Similarly, a community that decides to tackle the climate challenge may gain new resources by doing so, being at the local or global level. On the other hand, a schematic reliance on price signals as sufficient policy instruments risks missing the learning capabilities present in the real economy [17].

*The idea of green growth.* Inspired by discussions at the World Economic Forum, the Republic of Korea proposed the idea of green growth at a ministerial meeting for Asia and the Pacific in 2005. More than 50 national governments endorsed it. Korea propagated the idea further, and meanwhile it has been endorsed by the the OECD, the World Bank, and others [18]. Obviously, the green growth idea can help to gain support for ambitious climate policy from business and political elites. However, green growth oriented climate policies require careful consideration of the processes that are supposed to make them effective.

*Options for catch-up growth.* In the traditional growth model of Western style economies, pollution comes first, cleaning-up follows later. Countries catching up with highly industrialized nations tend to follow that pattern, but they don't have to. They can draw on wider arrays of technologies and social rules [19]. With different patterns of social organization, different ways to allocate resources become optimal [20]. There is no reason why mindless imitation of a traditional growth model should yield better catch-up growth than a conscious search for patterns of green growth.

*Options at the technological frontier.* Highly industrialized countries can grow in different directions, too [21]. Typewriters did not disappear from offices because of a shortage of paper, but because new branches of professional specialization – computer scientists etc. – emerged in the social division of labor. Advances in the technological frontier of the world economy usually go along with greater sophistication in the division of labor. Green growth offers major opportunities in this regard, not only in the energy sector, but also in many other fields, in particular at the interface of urban systems and information technology.

*A meaningful solution space.* By now hardly anybody familiar with climate negotiations and industrial dynamics expect emissions to decline fast enough for global warming to stay below a 2 C increase above pre-industrial levels. But in the course of the 21<sup>st</sup> century it will be possible to capture greenhouse gases from the atmosphere, e.g. by growing plants and increasing global topsoil, or by chemical means and underground storage. This is not a panacea, because additional greenhouse gases already stored in the oceans mean that to neutralize 1 t of carbon in the atmosphere, about 2 t have to be extracted [22]. Therefore, a reasonable global climate policy will combine emissions reductions with negative emissions, thereby allowing for a credible global climate policy.

#### **IV Complex governance for a complex problem**

The governance structure of global climate policy is still very much shaped by the image of a group of herdsmen overgrazing their common pasture because no external authority constrains their individual self-interest. An external authority, it seems, has to internalize external effects for markets to work properly. Actual research about communities dealing with this kind of problems suggests a different approach: polycentric governance [23]. Complex networks of distributed control can successfully manage village pastures as well as the worldwide web. Polycentric government seems especially suited for situations where many states need to get their act together, as in global climate policy [24]. As a world government is not in sight and probably not even desirable, this may even be the only feasible approach.

In a broader perspective, moving from an emphasis on burden sharing to one of opportunity creation offers many options for a more complex governance structure

of global climate policy. If some agents see an opportunity where others see none, the former can form a club with voluntary participation. Such clubs may involve a number of states, but also non-state actors and in particular transnational organizations, ranging from environmental NGOs and city alliances to industry organizations and professional associations.

Focusing on opportunity creation can make the thorny issue of fairness and equity somewhat more tractable. Already in view of mitigation and adaptation it has been shown that more than one framing of justice matters to people [25]. Still other framings may come into play in view of green growth. Explicitly addressing the fairness implications of various green growth strategies will be a key component of polycentric governance in global climate policy.

However, re-framing global climate policy in a perspective of opportunity creation requires overcoming a major dilemma. Key actors are reluctant to embrace green growth strategies until they see evidence that such strategies work. But as long as these strategies are not embraced by key actors, evidence for their success will be hard to find. What is needed, then, is a two-pronged approach. On the one hand, incremental steps can generate evidence where this seems most promising; on the other hand, understanding positive examples as well as learning from failures can trigger more initiatives generating more evidence. And by combining credible successes with an understanding of key processes bringing them about, a convincing narrative for global climate policy can emerge.

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