

Sustainability and Climate Change: Interpretations and Claims by Societal Actors from Germany, India and the United States

Andreas Schmidt (andreas.schmidt@zmaw.de)
Inga Schlichting (inga.schlichting@zmaw.de)

Abstract: What does sustainable development mean and how does climate change interfere with it? Societal actors answer these questions in different ways. In this paper, we analyse the interpretations and claims of a set of German, Indian and US non-state organisations and show how varying constructions of climate change and different conceptualisations of sustainability are related to specific policy prescriptions. The diverging perspectives we found pose a major challenge for policy formulation as they complicate agreement on and support for both international and national climate and sustainability policies.

1. Relevance & Conceptual Framework

Sustainable development emerged on the societal agenda in the 1980s as a response to global environmental and social problems (WCED 1987). It is a normative concept that encompasses ecological, social and economic objectives and that ultimately calls for increasing human well-being in a way that keeps the Earth system in balance (Leiserowitz et al. 2006: 418ff).

Climate change is a complex phenomenon with numerous causes and consequences that diverge across space and time (Füssel 2010). The overwhelming majority of scientists agree that current changes in the climate system such as rising temperatures are mostly due to the accumulation of anthropogenic greenhouse gas emissions in the atmosphere (Rahmstorf 2007: 7f, Powell 2012: 24ff). According to an extensive body of research, this rise in greenhouse gas emissions may cause living conditions on Earth to deteriorate severely. A number of ecosystems are already affected today (IPCC 2007: 20). For the future, research also predicts far-reaching consequences for human living conditions: Sea level rise may threaten islands and highly populated coastal areas. The shift of climate zones may cause water and food shortages and trigger related health risks (Schneider et al. 2007: 787).

In light of these scientific insights, climate change is often discussed as an explicit indicator of the non-sustainability of present societal structures and activities. Consequently, many social actors are calling for political measures to tackle the problem – that is, to stabilise the climate system and to minimise the impacts of climate change on human (and non-human) living conditions. In other words: there is widespread agreement that climate change is a “paradigmatic sustainability problem” (Newig 2011: 119) which must be solved by making societal development sustainable. The exact meaning of this, however, is contested for several reasons:

- People make sense of factual or projected environmental changes in different ways, which leads to varying social *problem definitions* (Peters & Heinrichs 2005: 1, Kahan et al. 2012). For example, the question of what threshold of global warming is seen as problematic depends, among other factors, on the interpretation of scientific estimations and attitudes towards risks (Fisher et al. 2007: 194f, Geden 2010: 4).
- Similarly, one can have different perspectives on the *objective of sustainable development* itself. In a broad understanding, it means “to leave behind not only a healthy environment but also a healthy economy and society” (Davidson 2009: 79). But how should the different dimensions be related to each other? And which objective should be given priority? Answering these questions involves normative judgements, for example on the relative value of natural to infrastructural wealth, or about our obligations towards non-human life (Parris & Kates 2003: 581, Williams & Millington 2004: 100ff, Bonfadelli 2010: 259). These judgements are subject to social values which vary between actors.
- And lastly, even an agreement on the characteristics of the problem and on the basic objective of the societal reaction to it still does not define what *appropriate measures* to address the issue would be.

Taking this constructivist perspective as a starting point, we analyse how societal actors in Germany, India and the United States define climate change as a social problem, what concept of sustainable development they advance and what solutions they claim to be most appropriate. Decision-making on the international level – which is pivotal for climate policies – requires the agreement of all participating parties who will then ratify and implement international treaties within their national political framework (Dolšák 2009: 551f, Tilly 2011: 179). For this reason, our analysis adopts a cross-national comparative perspective. We selected Germany, India and the United States for our study as they are major players in international climate politics but still represent different negotiation blocs which are characterised by specific interests and perspectives on the topic (Kiyar 2009, UNFCCC 2011).

2. Data & Methods

To reconstruct the different interpretations, we analyse issue-specific statements of collective actors, who – on the one hand – aggregate societal interests and perspectives and – on the other hand – assemble and communicate these views through the mass media, thereby affecting public opinion on the issue. Hence, we understand collective actors as amplifiers (Habermas 1992: 443) and co-engineers (Edelman 2001: 289) of the public understanding of climate change. We focus on:

1. employer organisations (umbrella organisations, sectoral associations of the energy and automobile industries),
2. trade unions (umbrella organisations, sectoral unions of the energy and automobile industries),
3. religious groups (representing the biggest denominations in the respective country),
4. environmental NGOs (both major mainstream organisations and grassroots-oriented groups),
5. libertarian groups (think tanks and organisations advocating for individual and entrepreneurial freedom).

For each category and country we conducted a literature review to identify relevant collective actors (see also Schlichting & Schmidt 2012, forthcoming 2013). Moreover, interviews with country experts and analyses of parliamentary hearings and committees on climate change were used to determine important actors. In total the sample includes 49 organisations, of which 17 are from Germany, 11 from India and 21 from the United States. For all 49 organisations we gathered issue-specific press releases, position papers and similar documents published between 2007 and 2010 through the organizations' websites. This time period was characterised by major climate negotiations on the international level, as well as by many domestic legislative actions (Gupta 2010: 646ff, Townshend et al. 2011). In cases where no documents were available through web-access, we requested the relevant material via email or telephone. In total, we analysed 363 papers using a qualitative coding and interpretation approach (Gläser & Laudel 2009: 204f). As we aimed to *reconstruct the dominant interpretations* of climate change, sustainability and political remedies, we selected which documents should be analysed by using theoretical sampling (Corbin 2003: 74). In most cases, this meant analysing all available texts. However, for some organisations which issued a high number of papers, we only analysed a limited number of texts until "saturation" was reached - that is, when no new aspects arose (Merkens 2003).

3. Results

We identified four dominant interpretations of the issue under examination, each characterised by a specific way of defining the problem, conceptualising sustainability and describing appropriate societal measures.

The first interpretation can be seen as a particularly defensive approach to climate change. Its core element is the de-problematisation of global warming. The main argumentation asserts that there is no evidence that industrial greenhouse gas emissions are causing a climatic change. Rather, rises in temperatures are attributed to natural variability. Hence, according to this

problem construction, there is no indication that the Earth system is growing off balance or is not resilient enough to cope with anthropogenic emissions. Regarding the sustainability concept, there is a clear prioritisation of the economic dimension relative to ecological or social aspects. Economic growth is seen as the sole basis of societal development, which can best be achieved through the process of unrestricted market competition. Against this backdrop, climate policies are seen as an illegitimate market intervention that does not help stabilise the climate but endangers the economy as the most crucial backbone of social wealth. Advocates of this perspective are mostly libertarian groups from the US, such as the *Competitive Enterprise Institute* or the *American Enterprise Institute*, but also some evangelical religious organizations such as the *Acton Institute* or the *Cornwall Alliance* and the Indian libertarian think tank *In Defence of Liberty*.

The second interpretative pattern recognises climate change as a societal issue but classifies it as one problem among many that all need to be addressed. This perspective reflects a rather disparate understanding of economic, ecological and social sustainability. It tends to view the ecological dimension as less relevant than the social and economic dimensions, and hardly considers reciprocal effects between ecological sustainability and social or economic goals. Against this backdrop, climate regulations are only seen as legitimate as long as they do not impede social wealth. That is, political measures should not place a strong burden on economic activities or endanger jobs. Rather, policies should stimulate investments in new technologies, which would later allow stronger emission reductions at lower costs. Concerning unavoidable climate-policy related obligations, this perspective calls for an equal sharing of costs between all industry sectors, nations and generations. Prominent sponsors of this interpretation are labour unions and industry associations in the US and Germany, particularly from fossil fuel (dependent) sectors like the coal, oil and the automobile industry.

The third interpretation considers climate change to be the symptom of a global market failure. Greenhouse gas emissions are seen as a by-product of modern industry that negatively impacts the eco-system without taking responsibility for their externalities. With regard to sustainability, this viewpoint portrays the economic and ecological pillar as central to societal well-being and demands that political authorities enact regulations to keep these pillars in balance. Hence, the main argument reads that the external costs of industrial activity, namely the consequences of heat-trapping emissions, need to be internalised into the market system by means of political regulation. This would not only help sustain the eco-system but would also generate optimal conditions for welfare increases also benefitting future generations. In terms of international burden sharing, this perspective argues that climate

regulations, in order to be effective and efficient and to create a competitive level playing field, need to oblige all emitting economies. In all three countries, advocates of this perspective are mostly industry associations, as well as German libertarian think tanks like the *Initiative Neue Soziale Marktwirtschaft*.

Finally, the fourth interpretation portrays climate change as a severe societal issue and a major challenge for all people. It puts a special focus on the consequences of climate change for ecological and social systems, particularly for poor people and developing countries, which have contributed the least to the problem. Concerning causal responsibility, climate change is seen as a result of the carbon-intensive model of societal development in the industrialised world. This viewpoint conceptualises ecological and social sustainability as the central objectives of societal development, setting the space for economic activity and its purpose in society. These two pillars of social wealth are viewed as currently being overloaded by the burden of economic growth, which is why political regulation is needed. In light of this, tackling climate change is depicted as an issue of global and intergenerational justice: To protect the innocent and vulnerable, polluters are demanded to accept responsibility and to commit to both radical emission reductions and funding for adaptation measures in developing countries. Some actors sharing this viewpoint also postulate overcoming the capitalist system itself, which is considered to be inevitably geared at achieving endless economic growth and the absorption of irreplaceable natural resources (Schmidt 2012: 83ff). Sponsors of this viewpoint are mostly environmental organisations such as *Greenpeace* or the *WWF*, some religious groups like churches, as well as some labour unions and green business associations like the German *Bundesverband Erneuerbare Energie*.

4. Cross-national Comparison & Discussion

Our short outline demonstrates that perspectives vary considerably with regards to why climate change is a problem, what objectives and principles climate policies should follow and how political measures should be designed accordingly. Apart from differences between the various actor groups, we can also see cross-national peculiarities:

In the United States, the spectrum of relevant positions is particularly heterogeneous: all four interpretations find backing from important societal actors. The debate as to whether climate change is a problem at all is obviously on-going – although climate sceptical positions seem to have lost standing in comparison with the 1990's and early 2000's (Schlichting forthcoming 2013). During our period of investigation, most industry associations and also labour unions focussed on the global character of climate change

and the necessity of finding solutions that do not harm or disadvantage the American economy. Sustainability in this perspective above all means economic growth and protection of jobs – ecological objectives are comparatively subordinate. In contrast, environmental organisations, and the Catholic and Evangelical Lutheran churches approach the issue from the opposite direction. They perceive climate change as a major societal problem and push for ecologically effective, globally and intergenerationally equitable policies in order to achieve the prioritised social and environmental sustainability objectives. Hence, perspectives of different US actors on sustainability policies in the context of climate change appear hardly compatible.

In our German sample, we did not find any de-problematising positions and most actors seem to agree that climate change is a problem of high societal priority. The discussions revolve mainly around the question of the extent to which Germany and the European Union should assume a pioneering role in climate protection: a strong coalition of religious and environmental organisations, some labour unions and the renewable energy association demand, on the basis of mainly moral arguments, the unconditional and independent pursuit of climate protection. Business associations, libertarian organisations and some labour unions, in contrast, question whether unilateral approaches make sense ecologically and assert that a global framework is needed in order to prevent “carbon leakage” and competitive disadvantages. Both perspectives have in common a concern for the ecological limits of societal development. Sustainability is therefore seen to necessitate a sharp decarbonisation of economic production which then should serve societal development both in Germany and in developing countries.

The position of Indian actors – with the exception of *In Defence of Liberty* – is characterised by a comparatively stronger concern for the negative impacts of climate change in their own country. This widespread concern does not, however, translate into a clear-cut position on sustainability and climate policies. Sustainable development is, on the one hand, understood to mean the economic catch-up of the Global South – in this perspective, India and other developing countries would have the right to temporarily prioritise economic and social development while the North has to take on the responsibility for climate action alone. On the other hand, Hindu-religious, environmental and left-wing labour organisations emphasise that humans are part of the ecosystem and need to take care of its balance – thus, the responsible behaviour of every person, as well as national policies reflecting ecological sustainability, are demanded.

To sum up, it seems difficult to draft climate and sustainability policies that find widespread support. With regards to an internationally-coordinated approach, we see the greatest challenge in reconciling concern for carbon and

job leakage caused by non-global climate regulations on the one hand, with the fear of obstructed catch-up development caused by regulations including the developing countries on the other hand. Against this backdrop, incentive-based approaches to foster ecological modernisation and technology transfer may, for the meantime, be a pragmatic way forward that slowly reduces the carbon dependency of societal well-being and thus changes, in the medium to long term, the underlying conflict structures. It is also conceivable, however, that change will realise itself in a more abrupt manner – for example due to drastic events that shift the influence of the different positions and their advocates.

5. Bibliography

- Bonfadelli, Heinz (2010): Environmental Sustainability as Challenge for Media and Journalism. In: Gross, Matthias & Harald Heinrichs (Eds.): *Environmental Sociology*. Dordrecht: Springer Netherlands. 257-278.
- Corbin, Juliet (2003): Grounded Theory. In: Bohnsack, Ralf, Winfried Marotzki & Michael Meuser (Eds.): *Hauptbegriffe Qualitative Sozialforschung*. Opladen: Leske + Budrich. 70-75.
- Davidson, Marc D. (2009): Acceptable Risk to Future Generations. In: Asveld, Lotte & Sabine Roeser (Eds.): *The Ethics of Technological Risk*. London: earthscan. 77-91.
- Dolšak, Nives (2009): Climate Change Policy Implementation: A Cross-Sectional Analysis. In: *Review of Policy Research* 26/5. 551-570.
- Edelman, Marc (2001): Social Movements: Changing Paradigms and Forms of Politics. In: *Annual Review of Anthropology* 30/1. 285-317.
- Fisher, Brian, Nebojsa Nakicenovic, Knut Alfsen, Jan Corfee Morlot, Francisco de la Chesnaye, Jean-Charles Hourcade, Kejun Jiang, Mikiko Kainuma, Emilio La Rovere, Anna Matysek, Ashish Rana, Keywan Riahi, Richard Richels, Steven Rose, Detlef van Vuuren & Rachel Warren (2007): Issues related to mitigation in the long-term context. In: Metz, Bert, Ogunlade Davidson, Peter Bosch, Rutu Dave & Leo Meyer (Eds.): *Climate Change 2007*. Cambridge: Cambridge University Press. 169-250.
- Füssel, Hans-Martin (2010): How inequitable is the global distribution of responsibility, capability, and vulnerability to climate change: A comprehensive indicator-based assessment. In: *Global Environmental Change-Human and Policy Dimensions* 20/4. 597-611.
- Geden, Oliver (2010): Abkehr vom 2-Grad-Ziel. SWP-Arbeitspapier. Berlin: Stiftung Wissenschaft und Politik.
- Gläser, Jochen & Grit Laudel (2009): Experteninterviews und qualitative Inhaltsanalyse als Instrumente rekonstruierender Untersuchungen. Wiesbaden: VS Verlag.
- Gupta, Joyeeta (2010): A History of International Climate Change Policy. In: *Wiley Interdisciplinary Reviews: Climate Change* 1/5. 636-653.
- Habermas, Jürgen (1992): Faktizität und Geltung. Frankfurt am Main: Suhrkamp.
- IPCC (2007): *Klimaänderung 2007: Zusammenfassungen für politische Entscheidungsträger*. http://www.bmu.de/files/pdfs/allgemein/application/pdf/ipcc_entscheidungstraeger_gesamt.pdf (Retrieved: 10/5/2010).
- Kahan, Dan M, Ellen Peters, Maggie Wittlin, Paul Slovic, Lisa L. Ouellette, Donald Braman & Gregory Mandel (2012): The polarizing impact of science literacy and numeracy on perceived climate change risks. In: *Nature Climate Change* 2/10. 732-735.
- Kiyar, Dagmar (2009): Internationale Klimapolitik. Ein komplexes Feld mit vielschichtigen Akteuren. <http://www.bpb.de/themen/6N9GLL.html> (Retrieved: 10/5/2010).
- Leiserowitz, Anthony A, Robert W. Kates & Thomas M. Parris (2006): Sustainability Values, Attitudes, and Behaviors. In: *Annual Review of Environment and Resources* 31/1. 413-444.
- Merkens, Hans (2003): Auswahlverfahren, Sampling, Fallkonstruktion. In: Flick, Uwe, Ernst von Kardorff & Ines Steinke (Eds.): *Qualitative Forschung*. Reinbek bei Hamburg: Rowohlt. 286-299.

- Newig, Jens (2011): Climate Change as an Element of Sustainability Communication. In: Godemann, Jasmin & Gerd Michelsen (Eds.): Sustainability Communication. Dordrecht: Springer Science+Business. 119-128.
- Parris, Thomas M. & Robert W. Kates (2003): Characterizing and Measuring Sustainable Development. In: Annual Review of Environment and Resources 28/1. 559-586.
- Peters, Hans P. & Harald Heinrichs (2005): Öffentliche Kommunikation über Klimawandel und Sturmflutrisiken. Jülich: Forschungszentrum Jülich.
- Powell, James L. (2012): The Inquisition of Climate Science: Columbia University Press.
- Rahmstorf, Stefan (2007): Klimawandel - einige Fakten. In: Aus Politik und Zeitgeschichte 47. 7-13.
- Schlichting, Inga (2013): Strategic Framing of Climate Change by Industry Actors: A Meta-analysis. In: Environmental Communication 7/4. 493-511.
- Schlichting, Inga & Andreas Schmidt (2012): Strategische Deutungen des Klimawandels. In: Forschungsjournal Soziale Bewegungen 25/2. 29-41.
- Schlichting, Inga & Andreas Schmidt (2013): Nachhaltigkeit und Klimawandel. Strategische Frames von Unternehmen, politischen Akteuren und zivilgesellschaftlichen Organisationen. In: Nielsen, Martin, Iris Rittenhofer, Marianne Grove Ditlevsen, Sophie Esmann Andersen & Irene Pollach (Eds.): Nachhaltigkeit in der Wirtschaftskommunikation. Wiesbaden: Springer VS.
- Schmidt, Andreas (2012): Bewegungen, Gegenbewegungen, NGOs: Klimakommunikation zivilgesellschaftlicher Akteure. In: Neverla, Irene & Mike S. Schäfer (Eds.): Das Medien-Klima. Wiesbaden: Springer VS. 69-94.
- Schneider, Stephen H, Serguei Semenov, Anand Patwardhan, Ian Burton, Chris H. Magadza, Michael Oppenheimer, A. Barrie Pittock, Atiq Rahman, Joel B. Smith, Avelino Suarez & Farhana Yamin (2007): Assessing key vulnerabilities and the risk from climate change. In: Parry, Martin, Osvaldo Canziani, Jean Palutikof, Paul van der Linden & Clair Hanson (Eds.): Climate Change 2007. Cambridge: Cambridge University Press. 779-810.
- Tilly, Jan (2011): Soziale Konstruktion von Wirklichkeit in Deutschland und den USA in der Klimadebatte. In: Müller, Markus M. (Ed.): Casebook internationale Politik. Wiesbaden: VS Verlag für Sozialwissenschaften. 178-192.
- Townshend, Terry, Sam Fankhauser, Adam Matthews, Clément Feger, Jin Liu & Narciso Thais (2011): GLOBE Climate Legislation Study. GLOBE International; Grantham Research Institute on Climate Change and the Environment.
- UNFCCC (2011): Party Groupings. http://unfccc.int/parties_and_observers/parties/negotiating_groups/items/2714.php (Retrieved: 23/4/2012).
- WCED (1987): Report of the World Commission on Environment and Development: Our Common Future: United Nations.
- Williams, Colin C. & Andrew C. Millington (2004): The diverse and contested meanings of sustainable development. In: Geographical Journal 170/2. 99-104.

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