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# IASS POLICY BRIEF 2/2015

Institute for Advanced Sustainability Studies (IASS)

Potsdam, September 2015

## The Potential of Multi-Level Global Climate Governance

Martin Jänicke, Miranda Schreurs, Klaus Töpfer



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Policy conclusions of a conference of the Environmental Policy Research Centre (FFU) at the Freie Universität Berlin and the Institute for Advanced Sustainability Sciences (IASS), based on a conference in Potsdam, Germany (8 September 2014).

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**F**or many years, the literature on global climate governance was characterised by a search for an optimal level of climate policy with a strong focus on the global level and the formation of international regimes. This was also reflected in climate politics. Even if many players had their doubts, the prevailing view was that this global problem needed a global solution. Thus, several authors and politicians stressed the importance of the global level.

More recently, the focus has shifted to local and regional contributions as well as the role of different stakeholders and economic sectors (such as the construction or the transport sector). This more “polycentric”<sup>1</sup> or multi-level<sup>2</sup> approach regards the plurality of actors and levels and the complexity of their interactions not as obstacles but rather as an opportunity for innovation, interactive learning, and the diffusion of technologies and supporting policy instruments.

Against this background, an IASS conference in September 2014 on the “global system of multi-level climate governance” explored the architecture of global climate governance. The focus was on the systemic dimension of multi-level climate governance.<sup>3</sup> The following key recommendations for encouraging multi-level global climate governance systems emerged from this conference:

■ **Message 1:** The global system of multi-level climate governance, which relies on the ‘Rio model’ of global sustainability governance, has developed its own inherent logic, dynamics and stabilisation mechanisms. It provides a strong opportunity structure for the diffusion of innovation and interactive learning, which should be used as a basis for smart climate strategies.

■ **Message 2:** Base climate policy on existing best practices at different levels and provide channels for interactive learning. Provide targeted support to lower levels of government and stimulate horizontal dynamics through benchmarking, competition, lesson-drawing, cooperation, and networking. Apply ambitious targets and credible implementation programmes and raise ambitions and targets in cases of unexpected learning effects.

■ **Message 3:** To promote climate mitigation and adaptation at all levels, we recommend translating, where possible, climate policy objectives into the language and thinking of co-benefits, particularly those that will mobilise economic interests while also protecting the natural basis of life. This broader approach should be based on a coalition of government, business and civil society actors operating at all levels of the global multi-level system of climate governance.

<sup>1</sup> Ostrom, E. (2010): *Beyond Markets and States: Polycentric Governance of Complex Economic Systems*, *American Economic Review*, vol. 100(3), 641–672.

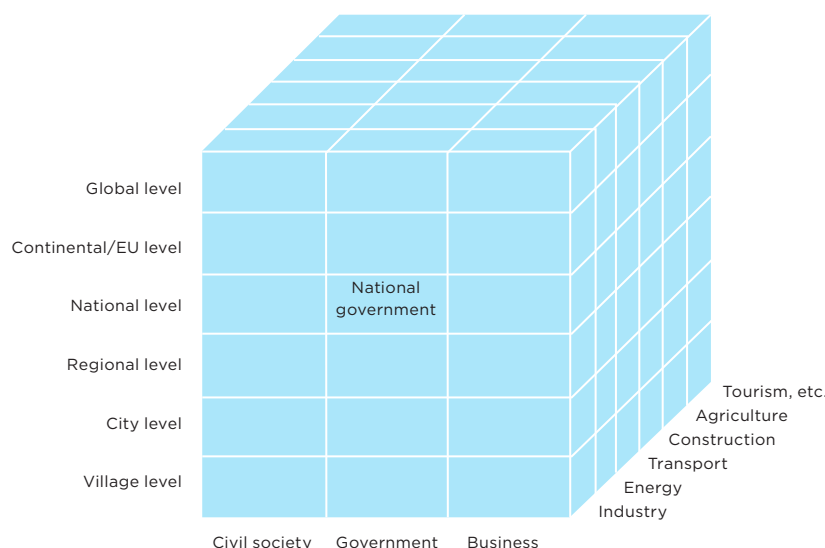
<sup>2</sup> Sovacool, B. K. (2011): *An International Comparison of Four Polycentric Approaches to Climate and Energy Governance*, *Energy Policy*, Vol. 39 (6), 3832–3844. See also: Bach, I./Flinders, M. (2004): *Multi-level Governance*, Oxford University Press, Oxford.

<sup>3</sup> Biermann, F. (2014): *Earth System Governance – World Politics in the Anthropocene*, MIT Press.

# 1. Multi-level global governance: an invention of the 1992 Rio Summit

Climate policy is formed in a global system of multi-level and multi-sectoral governance. The United Nations Conference on Environment and Development (the 'Earth Summit') held in Rio de Janeiro, Brazil in 1992 codified these concepts in the Agenda 21 and the Rio Principles. The ambition of the Rio *governance* approach was to go beyond *government* action and mobilise the broadest possible spectrum of political, economic and civil society actors across policies, sectors and policy levels of the global system. Multi-level governance was the consequence of assuming that sustainability needs to be global and therefore requires the intermediate levels of the global political system, with each level having its own responsibilities, chal-

lenges, opportunities and horizontal dynamics (e.g. peer-to-peer lesson-drawing or competition). The 'Rio model' was the first governance model for a global transformation to sustainable development.<sup>4</sup> This system was successful in the diffusion of the Agenda 21 process, at least in terms of agenda setting and policy formulation. Ten years after the Rio conference, 6,400 local Agenda 21 processes had been started.<sup>5</sup> This was the first test of a global sustainability strategy that included the lowest level of local communities. However, there was a lack of implementation and far too few relevant changes in economic structures and outcomes. For a long time, the business sector played no significant part in most Agenda 21 programmes.



**Fig 1:** The 'Rio model' of multi-level/multi-sectoral sustainability governance

**Source:** Jänicke, 2013

<sup>4</sup> Meuleman, L. (ed.) (2013): *Transgovernance. Advancing Sustainability Governance*, Springer, Berlin.

<sup>5</sup> UNDP/OECD (2002): *Sustainable Development Strategies - A Resource Book*, Paris, New York.

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Climate policy has used a similar model of multi-level and multi-sectoral governance. Yet efforts to address climate change have been more successful than Agenda 21 processes. The increasingly global success story of renewable energies is a prominent example. In this case, relevant economic interests could be mobilised at all levels of the global governance system. As part of the policy agenda of national governments and cities alike, green economy strategies also seem to have used this model successfully. But the system of global multi-level climate governance still appears to be the most advanced system and has by now its own inherent logic and dynamics. This system is characterised not only by inherent change dynamics but also by inherent elements of stability or robustness. For ex-

ample, when a national or sub-national pioneer of climate governance that led in the past no longer leads, the baton may be passed on to another national or sub-national pioneer.<sup>6</sup> The global climate governance system has been so firmly established that it seems to be increasingly irreversible. The number of countries where climate policies are enshrined in legislation has doubled since 2007. The rise and strength of new interests in support of climate action may be a further indicator of the increased stability of the system.<sup>7</sup> The new, more climate friendly interest base will, however, only become the mainstream if the actors that support the status quo are definitively weakened. This battle is not yet over.

## 2. Multi-level governance as an opportunity structure for the diffusion of innovation

Climate policy has revealed the remarkable potential of global multi-level governance for technical and political innovation, diffusion, and interactive learning across levels and sectors. Peer-to-peer learning and lesson-drawing from pioneer countries (or provinces and cities) has become a strong factor of diffusion. National and international networks have stimulated 'horizontal' peer-to-peer learning. The upscaling of best practice (innovation) at lower levels by higher levels is another strong factor behind greater diffusion. Vertical policy interventions by higher levels have induced horizontal dynamics and so on. Moreover, the high speed of diffusion has often induced secondary innovation, reducing costs and improving technologies such as renewable energy or energy-saving solutions.

Thus the system of multi-level and multi-actor governance provides an opportunity structure for innovation and the diffusion of climate friendly technologies as well as policies that support the markets for such technologies. The system and its communication structure enable demonstration effects for pioneer countries, provinces and cities. This opportunity structure can be used to promote ambitious and effective climate action. Smart policies can even accelerate change.<sup>8</sup>

<sup>6</sup> Schreurs, M. (2013): Regionalism and Environmental Governance, in: Falkner, R. (ed.): *The Handbook of Global Climate and Environment Policy*, First Edition. Wiley-Blackwell, Hoboken, N.J., 358-374.

<sup>7</sup> Patashnik, E. M. (2008): *Reforms at risk: what happens after major changes are enacted*, Princeton University Press, Princeton, N.J.

<sup>8</sup> Jänicke, M. (2013): Accelerators of Global Energy Transition: Horizontal and Vertical Reinforcement in Multi-Level Climate Governance, Institute for Advanced Sustainability Studies (IASS), Working Paper, December 2013.

### 3. Economic co-benefits: from burden sharing to opportunity sharing

A smart climate policy can give rise to many possible co-benefits for society and the economy. They offer us the opportunity to translate climate policy objectives into a broad variety of interests. The IPCC has presented 18 such potential co-benefits,<sup>9</sup> a figure far

beyond the former ‘double dividend’. Economic co-benefits have been highly important in mobilising business actors at all levels of the multi-level system of global climate policy.

Effect of mitigation measures on additional objectives or concerns		
Economic	Social	Environmental
Energy security (7.9, 8.7, 9.7, 10.8, 11.13.6, 12.8)	Health impact (e.g., via air quality and noise) (5.7, 7.9, 8.7, 9.7, 10.8, 11.7, 11.13.6, 12.8)	Ecosystem impact (e.g., via air pollution) (7.9, 8.7, 9.7, 10.8, 11.7, 11.13.6/7, 12.8)
Employment Impact (7.9, 8.7, 9.7, 10.8, 11.7, 11.13.6)	Energy/mobility access (7.9, 8.7, 9.7, 11.13.6, 12.4)	Land use competition (7.9, 8.7, 10.8, 11.7, 11.13.6/7)
New Business opportunity/economic activity (7.9, 11.7, 11.13.6)	(Fuel) Poverty alleviation (7.9, 8.7, 9.7, 11.7, 11.13.6)	Water use/quality (7.9, 9.7, 10.8, 11.7, 11.13.6)
Productivity/competitiveness (8.7, 9.7, 10.9, 11.13.6)	Food security (7.9, 11.7, 11.13.6/7)	Biodiversity conservation (7.9, 9.7, 11.7, 11.13.6)
Technological spillover/innovation (7.9, 8.7, 10.8, 11.3, 11.13.6)	Impact on local conflicts (7.9, 10.8, 11.7, 11.13.6)	Urban heat island effect (9.7, 12.8)
	Safety/disaster resilience (7.9, 8.7, 9.7, 10.8, 12.8)	Resource/material use impact (7.9, 8.7, 10.8, 12.8)
	Gender impact (7.9, 9.7, 11.7, 11.13.6)	

**Fig 2:** Co-benefits of climate mitigation (IPCC 2014)

The numbers in brackets refer to chapters of the cited IPCC 2014 report.

If climate policy focuses on the economic and non-economic co-benefits identified by the IPCC in 2014, it will be able to connect climate policy objectives with a broad interest base. Each of those co-benefits

has the potential to unleash transformation processes that could not be tapped into from a narrow climate perspective.

<sup>9</sup> IPCC: *Climate Change 2014: Mitigation of Climate Change*, Cambridge University Press, New York.

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## 4. The growing importance of the sub-national level

Although there have been many hurdles to developing a strong climate policy globally, there are also signs of progress if one embeds global climate policy within a multi-level perspective. Various climate policies have moved from the sub-national to the national, European and global levels, integrating the best practices and policy innovations of lower levels. This was supported by strong top-down influences. It seems that the process of global climate negotiations, with its push for more ambition, has been at least a catalyst for this dynamic process.

In the past decade, the importance of the sub-national levels of provinces and cities/local communities has also been increasing. One indicator of this is the growing membership and the increased influence of international networks of regions and cities (e.g. ICLEI, C40, Covenants of Mayors, or the Network of Regional Governments for Sustainable Development). National networks of sub-national actors are also playing an increasingly important role. Examples include the Solar Cities in India, the Low-Carbon Eco-Cities in China, and the “100% Renewable Energy” network in Germany.

States and regions have taken remarkable initiatives. The nine US states that are part of the Regional Greenhouse Gas Initiative (RGGI) reduced their CO<sub>2</sub> cap by 45% in 2014 (EIA, 2 March 2014); twelve Chinese provinces are planning to reduce their CO<sub>2</sub> emissions by 1.3 billion tonnes by 2020; and Scotland plans to have 100% green power by 2020.

In the REN21 2014 Global Status Report, the role of cities has been described as follows: “Thousands of cities and towns worldwide have policies, plans, and targets to advance renewable energy, often outpacing ambitions of national legislation. [...] City and local governments acted to reduce emissions, support and create local industry, relieve grid capacity stress, and achieve security of supply. [...] Cities seek to share and scale up best practices. [...] In turn, national governments often observe sub-national actions and consider using successful programmes as blueprints for national policies. [...] Increased coordination among local, state and national government is opening the door for municipalities to further accelerate the uptake of renewable energy and stimulate rapid market transformation.”<sup>10</sup>

<sup>10</sup> REN21 (2014): *Renewable Energy. Global Status Report 2014*, Paris.

## 5. The case of the EU

The EU system of multi-level climate governance is the most advanced regional sub-system of the global system of climate governance. It is unique among multi-level systems in other regions of the world (NAFTA, African Union, ASEAN, or UNASUR). The most important difference lies in the fact that the EU has developed a multitude of often highly effective roles for itself in climate governance. The EU has the institutional power to formulate and implement ambitious policies. There are institutional mechanisms to upscale and harmonise the climate policy innovations of lower levels. The harmonisation of any member state's policy innovations under the Common Market often follows the "more stringent protective measure" clause of the Treaty on the Functioning of the European Union (art. 193).<sup>11</sup> Thus, the British emissions trading system and the German policy approach to supporting renewable energies were subsequently adopted by the EU and hence introduced in other member states. A strong institutional potential also exists at *regional and local level*, which is strengthened by the "principle of subsidiarity". The EU has induced strong horizontal dynamics at lower levels, for example, by launching the Covenants of Mayors. This

broad network has now amassed more than 6,000 members (including non-EU members). They have introduced more than 4,000 "Sustainable Energy Action Plans" (2014) with agreements to achieve greenhouse gas reductions of 28% on average by 2020.

The multi-level dynamics of the EU can be described as a success in terms of goal attainment and governance. There is also a high share of climate-related investment. However, the persistent lock-in in unsustainable structures has been criticised: the coal interests in some European countries, including Germany, are cited as an example. And, of course, alongside tendencies towards acceleration in Europe there are also tendencies towards a 'slowdown'. The present economic situation cannot be ignored. Political leadership will remain important.<sup>12</sup> Due to the lack of political leadership and ambition in its present climate policy, the EU has been characterised as a "leaderless leader".<sup>13</sup> This paradox is the result of the strength and persistence of multi-level climate governance in Europe: weak political leadership in Brussels is being compensated by 'multi-level reinforcement' of climate governance in other parts of the system.

<sup>11</sup> Callies, Ch./Hey, Ch. (2013): Renewable Energy Policy in the European Union: A Contribution to Meeting International Climate Protection Goals? In: Ruppel, O. C./Roschmann, Ch./Ruppel-Schlichting, K. (eds): *Climate Change: International Law and Global Governance*, Vol. II, Nomos, Baden-Baden.

<sup>12</sup> Wurzel, R. K. W./Connelly, J. (2011): *The European Union as a Leader in International Climate Change Politics*, Routledge/UACES Contemporary European Studies, London and New York.

<sup>13</sup> Jordan, A., van Asselt, H., Berkhout, F., Huitema, D. and Rayner T. (2012): Understanding the Paradoxes of Multi-Level Governing: Climate Change in the European Union, *Global Environmental Politics* 12(2), 43–66.



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## 6. Key Messages

■ **Message 1:** The global system of multi-level climate governance, which relies on the 'Rio model' of global sustainability governance, has developed its own inherent logic, dynamics and stabilisation mechanisms. It provides a strong opportunity structure for the diffusion of innovation and interactive learning, which should be used as a basis for smart climate strategies.

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■ **Message 4:** Multi-level climate governance has been able to mobilise economic interests for climate friendly technologies down to the local level. Therefore it is essential to give targeted support to climate friendly, sustainable R&D initiatives and use the lead market mechanism where possible. Climate policy has to apply technological approaches and should be targeted to fostering technological change. This approach has been the most dominant and effective so far.<sup>14</sup>

<sup>14</sup> IPCC (2014): *Climate Change 2014: Mitigation of Climate Change*, Chapter 15.6. (FN 10).

■ **Message 5:** Although technological approaches are very important, climate policy must also go further to address non-technical aspects. These include the protection of greenhouse gas emission sinks. Other changes to infrastructure, lifestyles, norms, and institutions are also required.

■ **Message 6:** The EU is a unique multi-level system with comparably strong institutions and specific potentials at all levels. To activate the unique opportunities in the EU system of multi-level climate governance, European political leadership must be strengthened. Raising the EU's level of ambition is a prerequisite for clean energy innovation, which is the most important economic co-benefit of climate governance.

■ **Message 7:** National governments – as both individual and collective actors – generally have the largest capacities and should therefore lead with ambitious climate policies. National leadership necessitates involvement in a wide variety of networks. Competition within and between states can promote climate progress.

■ **Message 8:** The growing importance of sub-national levels was observed in recent years. In this context it is necessary for the EU and its member states to provide targeted support to lower levels of government and private low-carbon investment. ■





## Institute for Advanced Sustainability Studies (IASS) e. V.

Founded in 2009, the IASS is an international, interdisciplinary hybrid between a research institute and a think tank, located in Potsdam, Germany. The publicly funded institute promotes research and dialogue between science, politics and society on developing pathways to global sustainability. The IASS focuses on topics such as sustainability governance and economics, new technologies for energy production and resource utilisation, and Earth System challenges like climate change, air pollution, and soil management.

### IASS Policy Brief 2/2015 September 2015

Institute for Advanced Sustainability Studies Potsdam (IASS) e. V.

**Editing:**

Corina Weber and Anne Boden

**Address:**

Berliner Strasse 130  
14467 Potsdam  
Germany  
Phone 0049 331-28822-340  
[www.iass-potsdam.de](http://www.iass-potsdam.de)

**e-mail:**

[media@iass-potsdam.de](mailto:media@iass-potsdam.de)

DOI: 10.2312/iass.2015.021

ISSN: 2196-9221

