

A large flock of birds, possibly terns, is captured in mid-flight against a clear blue sky. The birds are arranged in a loose V-shape, with the lead birds on the left and the flock trailing off to the right. Below the birds, a dark, sandy beach meets the ocean. The water is a deep blue, and a small white wave is visible near the shore. The overall scene is bright and clear, with a strong sense of movement and direction.

POLYCENTRICITY

INNOVATIONS IN CLIMATE GOVERNANCE

WHY POLYCENTRIC CLIMATE GOVERNANCE?

Climate change governance has been over 30 years in the making, but it remains a significant work in progress.

This brochure summarizes the main findings of a large international project (INOGOV - Innovations in Climate Governance), that has - for the very first time - explored what is actually gained by thinking about and enacting climate governance as an evolving *polycentric* system.

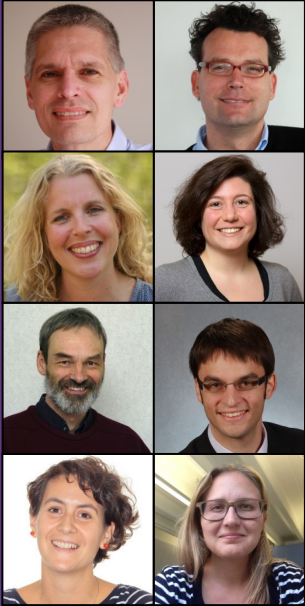
Initially, people assumed that states and international organisations, such as the United Nations Framework Convention on Climate Change (UNFCCC), would perform the key governance functions. But it is increasingly apparent that many other actors – cities, charities, private companies, universities and faith organisations – are becoming much more directly involved.

Nobel Prize winner *Elinor Ostrom* has been amongst those arguing that these 'new' forms of governing are not simply necessary, but are already crystallizing around, below and alongside the UNFCCC.

Her message is positive and extremely policy relevant: not every aspect of governance has to be designed by government negotiators in the UNFCCC. New forms will emerge spontaneously, producing a more dispersed pattern which she described as *polycentric*.

Polycentric ideas are also well worth examining because they directly challenge accepted modes of academic thinking, such as the division between international, national, and sub-national action.

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Clockwise from top
Andy Jordan, Dave Huitema, Jale
Tosun, Jonas Schoenefeld, Clare
Shelton, Johanna Forster, Mikael
Hildén, Elin Lerum Boasson

WHAT IS POLYCENTRIC GOVERNANCE?

Polycentric governance systems are those in which political authority is dispersed amongst a range of bodies that operate in overlapping jurisdictions which are not in a hierarchical relationship to one another.

The logical opposite of a polycentric system is a monocentric one which has formalised structures and common strategies - such as the European Union.

Whilst some argue that the Kyoto Protocol was an example of a monocentric approach, our conclusion is that this was not the case. However, the Paris Agreement which superseded the Kyoto Protocol, is now stimulating greater polycentricity.

To understand polycentric climate governance, this booklet outlines five key propositions drawn from polycentric theory and explores how well they explain the rapidly changing landscape of climate governance:

- 1) Local action
- 2) Mutual adjustment
- 3) Experimentation
- 4) Trust
- 5) Overarching rules

Elinor Ostrom defined polycentric systems as those that ***“have multiple governing authorities at different scales rather than a monocentric unit. Each unit...exercises considerable independence to make norms and rules within a specific domain.”***

Elinor Ostrom was a political economist who won the Nobel Prize for Economics in 2009 for her analysis of governance of the environment.



Ostrom, E. (2010) Polycentric systems for coping with collective action and global environmental change. *Global Environmental Change*, 20(4), 550–557.

KEY MOMENTS IN CLIMATE GOVERNANCE

1992 Rio Summit

Explicit recognition of the role cities and local communities play in climate action

1994 UNFCCC into force

154 countries signed the UNFCCC at the Rio Convention in 1992

1997 Kyoto Protocol

More than 150 countries sign up to the Kyoto Protocol to regulate emissions

2003 EU Emissions Trading System

The first international Greenhouse Gas emissions trading schemes

2005 C40 Cities Climate Leadership Group

2008 Covenant of Mayors of Climate and Energy

2009 G20 Fossil Fuel Subsidies Agreement

Pledge to phase out inefficient fossil fuel subsidies that encourage wasteful consumption

2014 Voluntary Commitment System

Convenes businesses, NGOs and subnational governments and uses persuasion and recognition to elicit climate action commitments

2015 The Paris Agreement

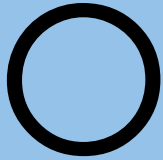
International agreement by UNFCCC sets adaptation on the same level as mitigation, and includes new stock take and transparency measures

Examples of Polycentricity

- More national policies – now over 1700 in total
- City level networks – The Covenant of Mayors for Climate and Energy
- Policy instruments that span borders – interlinked emissions trading systems
- Private sector commitments – the Science-Based Targets Initiative
- Transnational initiatives – the Carbon Disclosure Project (CDP)
- Civil society activities – the global divestment movement
- The UN Paris Agreement – 'pledge-and-review' process of national actions (NDCs)

1. LOCAL ACTION

Governance initiatives are likely to take off and prosper at a local level, through processes of self-organisation.



strom hypothesised that actors will come up with their own innovative solutions to secure co-benefits such as improved human health, lower energy costs and better local air quality.

The changing landscape of climate governance suggests that more non-state actors are making a rational calculation to act against climate change. They are not waiting to be told what to do by an external authority; they are, it seems, taking matters into their own hands.

However....

It is unclear why actors are acting in this way. Is it out of moral concerns, a desire to forestall or shape new regulation, reap financial rewards or address energy security? Further research is needed to understand their motivations to act.

Not all actors have the capacity or indeed the motivation to act locally. Much depends on the presence of special actors — policy entrepreneurs, leaders or orchestrators — who drive climate action forwards. But if so much rides on such a small number of critical actors, how robust are polycentric systems?

Local action has undoubtedly generated many new forms of governance. But many look rather similar and together they do not (yet) add up to an economy-wide process of decarbonisation.

2. MUTUAL ADJUSTMENT

Actors are likely to freely develop collaborations with one another, which over time produce more trusting relationships.

Polycentric theory suggests that actors will interact with one another in a spontaneous and bottom-up manner.

INOGOV has discovered that climate governance actors have 'mutually adjusted' in ways that have helped to plug gaps in the UNFCCC framework.

However.....

More research is needed to explain how and why units and domains interact with one another. For example, how do national actors use the negotiation of new international agreements to push for stronger national policies?

The extent to which actors participate in a transnational initiative appears to be strongly affected by prevailing national policy frameworks. But do strong national policies encourage national actors to engage transnationally? Or do transnational initiatives give national actors a means to enhance national action?

In theory, the incentive for international actors to defect should also create an incentive for non-state actors to collectively invest in ways to monitor one another's activities. But this is not happening at a large scale in practice.

3. EXPERIMENTATION

The willingness and capacity to experiment is likely to facilitate governance innovation, which in turn leads to learning about what works best.



Ostrom believed that a polycentric approach allows - even encourages - actors within domains to experiment with a range of approaches. By experimenting, they are able to ascertain what works in particular settings, facilitating upscaling and innovation

INOGOV has revealed that many actors are indeed engaging in policy experiments, particularly in urban areas.

However....

Much depends on how narrowly one defines 'an experiment'. If experimentation refers to new governing devices, the world is awash with experiments. But if it is defined as a controlled process of reality checking, then the extent of experimentation is probably much less than Ostrom predicted.

Evaluating experiments has proven to be methodologically difficult and politically unattractive, thus limiting the scope for scaling up the most promising initiatives.

Experimentation may not always be positive: some relates to direct experiments with the climate system using climate engineering. At present these experiments operate in legal grey areas.

4. TRUST

Units are likely to freely and spontaneously develop collaborations with one another, which over time produce more trusting relationships.

Climate change is often regarded as a wicked problem which states struggle to govern because of high uncertainty and low trust.

However, Ostrom argued that trust is more likely in a polycentric setting, because of actors' ability to interact directly with one another.

INOGOV has uncovered much evidence of collective self-organisation born of trust.

However.....

Research has also uncovered evidence of conflicting priorities and approaches. For example, funding conflicts are emerging between different cities and regions on how to adapt to climate change in a synchronised way.

In principle, many different interactions are possible: individual initiatives may complement one another without interacting; they may merge; they may compete and conflict; or one may actively replace other types. These forms of interaction should form the basis for a new programme of research informed by polycentric theory.

Ostrom also argued that trusting relationships are much more likely to emerge when there are common systems of monitoring. However, very few of the new forms of governing appear to be that well monitored.

5. OVERARCHING RULES

Local initiatives are likely to work best when bound by a set of overarching rules that enshrine the broader goals to be achieved and allow any conflicts to be satisfactorily resolved.

By definition, polycentric systems do not have a central authority. But Ostrom referred to the rule of law, and a set of 'overarching rules' which provide a means to settle disputes between individual actors, and thus prevent any one or any thing from dominating.

INOGOV has revealed that the UNFCCC is a key source of significant rules, norms and values; it clearly defines the broad goals of climate governance which in turn provide a clear signal to investors. As most countries participate in the UNFCCC, its claims to legitimacy enjoy strong authority.

However....

While the UNFCCC's rules may be 'overarching', their enforceability is quite limited.

There are many examples of 'overarching rules' at the national level, but many take the form of framework laws (and hence tend not to be enforceable). They are also quite limited, in the sense that they are restricted to specific territories, such as particular states and issues.



POLYCENTRICITY POST-PARIS

World leaders adopted the Paris Agreement at the 2015 climate summit in Paris.

The Agreement is important because it not only underlined the ongoing trend to greater polycentricity, but also *facilitated further polycentric action that spans borders and levels of governance.*

It established a more bottom-up system of governance through which states pledge to make emission reductions, then gradually increase them as part of a process of ongoing review and assessment. These processes may allow civil society actors to exert greater leverage on their governments to increase emission reductions.

As such, the UNFCCC is revealing that it can adjust to the emergence of greater polycentricity. It has even established an online portal for non-state and subnational actors to register their emission reduction commitments (the Non-state Actor Zone for Climate Action). Two 'high-level champions' will also encourage further action by non-state and subnational actors.

Meanwhile, the new 'net zero emissions' goal enshrined in the Agreement may provide a new anchor for transnational action aimed at accelerating long term decarbonisation.

But while the rules embodied in the Agreement are 'overarching' their enforceability is limited: any failure by a state to honour its 'nationally determined contribution' will not itself constitute a breach of international law.

More work has to be done to ensure that the new five yearly stocktakes lead to increasing ambition that genuinely builds trust.

Nations Unies Conférence sur les Changements Climatiques

COP21/CMP11

Paris, France



Laurence Tubiana, COP 21/CMP 11 Presidency; UNFCCC Executive Secretary Christiana Figueres; UN Secretary-General Ban Ki-moon; COP 21/CMP 11 President Laurent Fabius, Foreign Minister, France; and President François Hollande, France, celebrating the adoption of the Paris Agreement on December 12, 2015.
PHOTO: Flickr/UNclimatechange

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WANT TO LEARN MORE?

AN OPEN ACCESS BOOK: GOVERNING CLIMATE CHANGE: POLYCENTRICITY IN ACTION?

This book provides the first systematic test of the ability of polycentric thinking to explain and enhance societal attempts to govern climate change. Bringing together contributions from some of the world's foremost experts, it explores when, how and why climate governance became more polycentric, and offers a sober and clear-sighted assessment of the ability of polycentric theory and practice to address one of the world's greatest political challenges.

ACADEMIC ARTICLES

INOGOV has produced many articles and journal special issues critically exploring the various propositions of polycentric theory, including:

- innovations and innovation processes
- policy entrepreneurs and entrepreneurship
- greenhouse gas emissions trading systems
- policy experiments
- the (dis)proportionality of policy responses

BLOGS AND OTHER RESOURCES

For further information and links to all of the above, go to: www.inogov.eu

Or go to [ResearchGate](https://www.researchgate.net) and search for INOGOV – or 'Innovations in Climate Governance and Policy'.

MASSIVE OPEN ONLINE COURSE (MOOC)

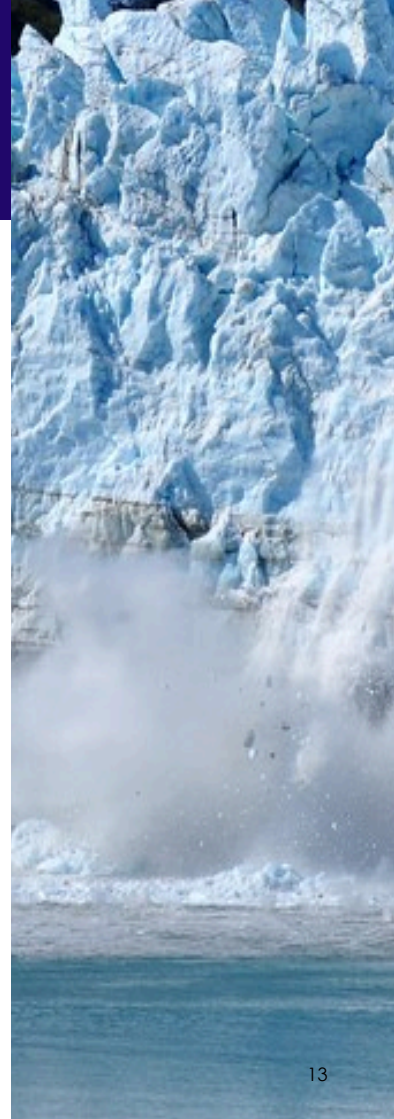
GOVERNING CLIMATE CHANGE: POLYCENTRICITY IN ACTION?

This MOOC, run by the Open University of the Netherlands, focuses on the emergence of polycentric climate governance. It explains how and why these newer forms of governing emerged and how they interact and/or link with one another.

These questions are addressed from a plurality of theoretical and methodological perspectives. A series of texts and videos from leading international scholars are coupled with small assignments to acquaint students with key concepts, approaches and findings.

The MOOC and the Open Access book are designed to support one another to help students understand polycentric climate governance much more fully.

The MOOC is freely accessible to anyone online at: www.inogov.eu





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