



### **In Recognition**

Address for Prof. Dr. Elinor Ostrom, speaker of the Berlin Climate Lecture 2010  
*by Prof. Dr. Ottmar Edenhofer, TU Berlin, 22 June 2010*

President,  
Ms. Poczka,  
Mr. Hatakka,  
Ladies and Gentlemen,  
Dear Professor Ostrom,

The Climate Summit in Copenhagen in December last year was at least disappointing. Many negotiators, many heads of state hoped that they could bring home a more satisfying result. It has turned out that reaching international cooperation is much more complicated and much more time-consuming than many observers anticipated. In pursuance of their self-interest, nation states seem to have an incentive to continually increase their use of the atmosphere, eventually deeply disturbing this precious ecological system. Professor Ostrom, you have shown under what conditions the 'Tragedy of the Commons' can be transformed into a 'Drama of the Commons' where people learn their proper roles and accept their responsibilities, in short, where self-government can establish institutions that enable communities to manage such resources remarkably well. In one of your books, you argue that managing the global commons remains a drama because neither is a happy-end guaranteed nor is humankind doomed to fail. Managing the global commons requires knowledge and insights from scientists. It also requires wise and bold statecraft.

It is not obvious how your observations and explanations, which are grounded in extensive empirical analyses of local and regional commons, can be applied to the global commons like the atmosphere. But in recent papers you have argued that your insights about successful common pool resource management can indeed be applied to the climate problem. Even if some people might disagree with your conclusions, the way how you formulated these insights helps us to better understand the challenges of global cooperation. Let me highlight this point along three questions: 1) Who owns the atmosphere? 2) Is global cooperation feasible? 3) What can we do as individuals and communities?

Who owns the atmosphere?

The scarce resource of the 21<sup>st</sup> century is not oil, gas or coal. It is the disposal space for greenhouse gases in the atmosphere. The implementation of any meaningful climate target implies that the cumulative amount of carbon released into the atmosphere is smaller than the amount of carbon still stored underground. In other words, the owners of fossil resources will have to be convinced to leave a large share of their assets unused. The climate rent arises then from imposing a CO<sub>2</sub> tax on burning fossil fuels or auctioning off emissions permits according to the scarce disposal space in the atmosphere. This implies that the scarcity rent of the fossil resource owners will be transformed into a climate rent. Admittedly, it is open to debate how the climate rent will be distributed: It might be used to compensate the owners of coal, oil and gas for their expropriation losses. It might be used to redistribute wealth to the world's poor or it might be used to increase the tax income of fiscal authorities. In any case, there is little doubt that the rightful owner of the climate rent is humankind as a whole.

Many economists and political scientists who have understood the importance of the rent mechanism are tempted to believe that the management of the global commons requires some kind of a 'world government' or 'Green Leviathan'. Elinor Ostrom reminds us that it is highly unlikely that such an institution with global coercive powers will eventually emerge. Instead of a Green Leviathan, Professor Ostrom has proposed to create an Earth Atmospheric Trust. This institution does not mainly rely on power but – as the name indicates – on trust. Trust between stakeholders is a notion which Ostrom found to be essential for the successful management of common pool resources at the local level. At the global level, where frequently alternating representatives pursue fragmented national interests, trust between decision-makers is more difficult to build up and to maintain. A trust, in organisational terms, is a legal mechanism used to protect and manage assets on behalf of specific beneficiaries. The Earth Atmospheric Trust would manage the global carbon budget on behalf of current and future generations. Its tasks could include auctioning off emission permits in line with the global and the national carbon budget, managing the transition path over time and dispersing the climate rent to all people in form of annual per capita payments. The idea is intriguing for several reasons – but is it realistic?

Is global cooperation feasible?

Scholars of international affairs and game theorists have always argued that it is hard to set in place stringent international environmental agreements and institutions because of the multitude of actors and the impossibility of face-to-face interactions. Indeed, it seems that nation states are trapped in a social dilemma. Any kind of cooperation, any coalition of the willing is threatened by free riders who benefit when others abate while they continue to emit greenhouse gases. To a certain extent, Copenhagen has confirmed the paradox of international environmental agreements: The higher the level of ambition of proposals, the lower is the likelihood that a global consensus can be reached. Along these lines,

pessimists argue that any future international climate agreement will be weak in terms of emission reduction goals and enforcement mechanisms. According to conventional theory, global cooperation seems infeasible.

However, as Ostrom and others point out, there might nevertheless be an opportunity to manage the global commons according to self-organizing governance. Nation states might agree on legally binding agreements where they delegate parts of their sovereignty to international institutions which are based on mutual trust and mutual benefits. And indeed, there are some promising options to enhance the prospect for international cooperation: Issue-linking with joint research and development activities, coordinated growth policies, trade incentives like CO<sub>2</sub>-tariffs or a more clever design of the Clean Development Mechanism can be explored. Nevertheless, thinking about the international level is only a necessary condition for successful climate policy. And as Ostrom points out, it is by no means sufficient. The polycentric approach to governance comprises all relevant levels within and between nation states.

What can we do as individuals and communities?

Elinor Ostrom proposes an approach where the slogan “think globally, act locally” gains a very precise meaning: Municipalities and small communities already have good reasons to reduce emissions even in absence of an enforceable global climate policy regime. One might highlight measures the City of Berlin is taking in order to save energy and perhaps even money. With regard to the global emissions outcome, however, many economists consider these efforts as useless or even dysfunctional. They argue that emission reductions at the local level will be overcompensated by domestic and international economic growth and energy demand. However, as Ostrom points out, local efforts can be seen as preparatory steps which facilitate the achievement of an international environmental agreement: The internalization of co-benefits at the local level reduces the domestic mitigation costs which then increase the likelihood of an international climate agreement. Within Ostrom’s polycentric approach, the local level has a vital role to play.

In this context, Elinor Ostrom also reminds us of the power of democracy. When I studied your work on institutions, I was strongly reminded of the legacy of your countryman, the American philosopher John Dewey. And I was quite excited when I came across a paper your husband and collaborator Vincent Ostrom published three decades ago explicitly referring to the work of John Dewey. In his perspective, democracy is not reduced to a voting mechanism or a formal procedure to aggregate pre-existing preferences. It is perceived as a decentralized learning and searching process which is unique to democratic government. Even if a global climate regime was feasible with binding emission constraints for every country, it would not substitute for community action. A world government could maybe command, control or punish – but it could not force people to learn and to experiment with new ideas and perspectives. According to Elinor Ostrom, the capability of social learning is the most important

advantage of democratic government which at first glance looks complex, chaotic and at times myopic.

A tale coming true

Professor Ostrom, you will explain your polycentric approach to climate governance much better than I could do. Instead of explaining it, I intend to close with a little 'fairy-tale' I told the audience at last year's Climate Lecture that was delivered by Nicholas Stern. Some of you might remember it.

There were ten people walking through the desert. Two of them have already used half of the water available. The whole group became eventually aware that water is a scarce resource. The two heavy drinkers proposed that the rest of the water should be shared equally among the ten; a proposal which provoked conflict among the group members. There were also two economists present. The first one argued that he cannot help much because there is no room for a Pareto-improving policy. Instead, this purely distributional problem should be left to philosophers. Unfortunately, philosophers were not accompanying the trip through the desert. Instead they were writing marvelous essays why it is not a good idea to walk through a desert with a limited amount of water with a group of ten people.

The second economist argued that it does not make any sense to start a conflict over water because that will result in everybody's sure death. Instead, so he argued, should the two people who have already benefited from the water go ahead and try to find the next oasis. Now, they all hoped that the exploration team would come back soon with the right directions to the nearest oasis. They also hoped that the water there is sufficient so that everybody can walk even beyond the desert to a place where water is no longer a scarce resource.

Last year, the problem with my little story was that it was just that: an imaginative story. However, since the last Climate Lecture the world made some remarkable progress. The place of progress was not Copenhagen, as many hoped for, but Stockholm. No longer does the second, more optimistic economist only exist in my fairy-tale. Instead, she received the Nobel Memorial Prize and is here with us today. Professor Ostrom, you have shown the world under what conditions the 'Tragedy of the Commons' can be turned into a 'Drama of the Commons'. And you are exploring ways how these insights might be applied to climate change. This is why the Technische Universität Berlin invited you to hold this year's Berlin Climate Lecture. I am very happy that you have accepted our invitation. Ladies and Gentlemen, please welcome with me Elinor Ostrom.