

Available online at www.sciencedirect.com

SciVerse ScienceDirect

journal homepage: www.elsevier.com/locate/envsci

The potential role of boundary organizations in the climate regime



Eungkyoon Lee^a, Chan Su Jung^b, Myung-Kyoon Lee^{c,1,*}

^a Korea University, Seoul 136-701, South Korea

^b City University of Hong Kong, Hong Kong, Hong Kong

^c Keimyung University (Presently with the Global Green Growth Institute), Department of Environmental Planning, 1000 Sindang-dong, Dalseo-gu, Daegu 704-701, South Korea

ARTICLE INFO

Article history:

Received 2 March 2013

Received in revised form

22 July 2013

Accepted 23 July 2013

Available online 21 September 2013

Keywords:

Polycentricity

Boundary organizations

Collaborative networks

Climate change

Less developed countries

ABSTRACT

Ostrom's notion of polycentricity deepens our understanding of why collaborative networks can work better in coping with global environmental change than a monolithic system. While subscribing to her theory, we note that Ostrom's own work on climate change does not address explicitly issues of the advent of collaborative networks and extant power disparity prevalent in the international polity. The research presented here seeks to address the aforementioned concerns by employing the concept of *boundary organizations* as key to initiating and operating climate change networks among weak states. In so doing, we extend the applicability of Ostrom's approach into the arena of international environmental collaboration. Specifically, the research focuses on the activities undertaken by the UNEP Risø Center, which we identify as a boundary organization vital to the clean development mechanism. A case study reveals that boundary organizations can be a promising tool for organizing less developed countries to enter into small-scale multilateral collaboration by linking knowledge to action. A broad implication of the research for coping with collective action and global environmental challenges is the advantage of having a competent mediator that can offset the weak bargaining position of the less advantaged and provide leverage to level the playing field.

© 2013 Elsevier Ltd. All rights reserved.

1. Introduction

With growing concerns about anthropogenic threats to the earth's climate system, the international community has called for credible commitments to collaborative climate governance. Yet, despite a need for global collaboration to counter the threats, little evidence exists to indicate that corresponding actions have been carried out successfully (Sarewitz, 2010).

Theoretically speaking, this result is unsurprising in that climate is a global public good, and thereby efforts to cope with

anomalous climate change tend to confront a collective action problem. The classic theory of collective action predicts that in the absence of coercion, rational actors will not act to achieve their common interests due to the temptations of free-riding (Olson, 1965). In the context of climate governance, this translates into a claim that without an external authority enforcing rules at the global scale, bona fide reductions in carbon emissions will not be achieved (Brennan, 2009). Indeed, commentators in the above intellectual tradition argue for a mono-centric regulatory regime armed with an enforceable global treaty to resolve collective action problems pertaining

* Corresponding author. Tel.: +82 10 9530 9983; fax: +82 2 2096 9990.

E-mail addresses: elee@korea.ac.kr (E. Lee), oraenby@gmail.com (C. Su Jung), mk.lee@gggi.org (M.-K. Lee).

¹ Director, Research Division, The Global Green Growth Institute, 19F Jeongdong Bldg., 15-5 Jeong-dong, Jung-gu, Seoul 100-784, Korea. 1462-9011/\$ – see front matter © 2013 Elsevier Ltd. All rights reserved.
<http://dx.doi.org/10.1016/j.envsci.2013.07.008>

to climate governance (Meserve, 2008; Sandler, 1997; Wiener, 2007). However, rational state actors take time to conclude binding rules and this delay would foreclose the possibilities of reaching a substantial result in a timely manner (Ostrom, 2010).

In lieu of a single integrated regime, Ostrom (2010) suggests a polycentric system as an alternative approach to coping with collective action. Featuring multiple, networked governing units, the polycentric system is construed as “one where many elements are capable of making mutual adjustments for ordering their relationships with one another within a general system of rules where each element acts with independence of other elements” (Ostrom, 1999b: 57). This nested system is expected to have the advantage for participants of obtaining new knowledge through “mutual learning and adaptation of better strategies over time” (Ostrom, 2010: 552).

The idea of polycentricity deepens our understanding of why collaborative networks can work better in coping with global environmental challenges than a monolithic system. However, there remain two concerns not clearly addressed in Ostrom’s own work on climate change. First, while the literature hypothesizes on the effectiveness of multilayer networks across local, provincial and national decision-making groups, it does not discuss explicitly how international collaboration emerges in the first place (Mansbridge, 2014). Since it is more difficult for meaningful collaboration to take place in the international arena than in domestic settings (Oye, 1986), it is of great theoretical concern to explain the advent of climate collaboration among sovereign states. Second, the literature pays little attention to the reality of world politics wherein power disparity limits weak states’ willingness, opportunity and capability to engage in international climate collaboration. Without adequate attention to the workings of unequal power in the international arena, there is little prospect of coming up with a solution to the problem of climate change.

The research presented here seeks to address the aforementioned concerns by employing the concept of *boundary organizations* as key to initiating and operating a climate change network among weak states. Coined by sociologists of science and technology, the term boundary organization refers to an institution that lies on the interface or boundary between the science and policy communities (Guston, 2001). While the original theory was developed to explain how scientists’ strategic behavior maintains the boundaries of the science community against threats to its cognitive authority (Gieryn, 1983), an evolving picture drawn from this line of research illustrates boundary organizations’ potential to facilitate multilateral collaboration by linking knowledge to action (Clark et al., 2011; Guston, 2005; Lejano and Ingram, 2009; Lemos and Morehouse, 2005; Schneider, 2009). Drawing upon theoretical insights from this recent stream of the research on boundary organizations, we extend the applicability of Ostrom’s approach into the arena of international environmental collaboration.

Specifically, this research applies the boundary organization thesis to the analysis of a successful climate change network with particular focus on the activities undertaken by the UNEP Risø Center (URC), which we identify as a boundary organization vital to the clean development mechanism

(CDM). CDM was promulgated under the 1997 Kyoto Protocol to promote international collaboration through developed countries’ investment in low-carbon practices, transfer of relevant technologies to the developing world, and obtaining of carbon credits in return. As we shall see below, 11 less developed countries (LDCs)² traditionally marginalized in the global climate politics formed a network under the auspices of URC and implemented carbon projects previously unavailable to them.

What is puzzling about the above case is the driving logic of those LDCs for engaging in carbon reduction activities in the first place. Indeed, nearly all developing countries suspected that the current global climate policies including CDM might end up with the preferential capture of benefits by developed countries (Patt, 2010; Thompson, 2006). Thus, they have opposed carbon projects proposed by developed countries and international organizations (Lejano et al., 2010). Given the favorable outcomes under such unfavorable circumstances, the case deserves scholarly attention and requires explanations of what has happened on the ground.

As a preview of this research, we argue the following. First, although diplomatic efforts to propel a mono-centric regulatory regime may be futile, crafting smaller scale collaborative networks is feasible and likely to be more effective (Keohane and Victor, 2011; Ostrom, 2010). A boundary organization is a promising tool for organizing LDCs to enter into small-scale multilateral collaboration. Second, boundary organizations can serve this role by influencing the willingness, opportunity and capability of LDCs to act together through active outreach to stakeholders and provision of action-oriented knowledge for decision-making (Boezeman et al., 2013; Lemos and Morehouse, 2005). Third, all boundary organizations may not necessarily bring about desired outcomes. For successful collaborative arrangements, they should have a set of key qualities: ability to create boundary objects, a leadership overcoming role-strain, relational proximity, and responsive neutrality. The corresponding rationales and evidence for the above arguments are presented in the remainder.

2. Theoretical underpinnings

The experience with the climate regime over the past two decades reveals that progress for the governing of climate change has stalled (Sarewitz, 2010). In the first half of this section, we identify hidden barriers to participation of LDCs in international climate collaboration. In the second half, we

² The list of these countries includes Southeast Asia (Cambodia, the Philippines and Vietnam), Latin America (Bolivia, Ecuador and Guatemala), North Africa (Egypt and Morocco), and Sub-Saharan Africa (Cote d’Ivoire, Mozambique, and Uganda). As a club-like coalition group, they may also play a role as one center within a broader global system. For further discussion, see Keohane and Victor’s (2011) notion of the regime complex for climate change.

³ The terms ‘role-strain’ and ‘responsive neutrality’ come from Parker and Crona (2012) and Fung (2003), respectively.

Download English Version:

<https://daneshyari.com/en/article/1053600>

Download Persian Version:

<https://daneshyari.com/article/1053600>

[Daneshyari.com](https://daneshyari.com)