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## TRANSGOVERNMENTAL NETWORKS

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As the study of global environmental governance has moved beyond a focus on **regimes** scholars have sought to understand the alternative ways in which governance is undertaken and coordinated transnationally. Transnational governance is undertaken not only through **private regimes** and **partnerships** of **business and corporations** and **nongovernmental organizations**, but also through networks of state-based actors that operate transnationally—transgovernmental networks.

Although work on transnational networks began to be explored in the 1990s, it has only been over the past decade that it has grown to be a major theme within the study of global environmental governance (GEG). This research has found that traditional transgovernmental networks consisting of interactions between national level state authorities have limited reach in this domain. Bäckstrand (2008: 91) finds that transgovernmental networks gathering the specialized agencies of national governments in the climate change domain were "represented by voluntary agreements between governments involving cooperation for clean technology, renewable energy, clean coal and carbon sequestration" (see Climate change regime). Analysis by Bulkeley et al. (2014) also found such networks were relatively rare in the transnational climate governance arena. This suggests that, at least in the climate change domain, such networks of nation-state-based actors are either to be found only in regimes or that transgovernmental networks of this type are relatively rare, with collaboration usually involving other nonstate actors and generating a more heterodox landscape of transnational governance.

While originally developed to analyze national level governmental agencies and their transboundary activities, the term "transgovernmental" can also be applied to those networks that have been formed between subnational state-based agencies (Bäckstrand 2008) (see **Scale**). Since the early 1990s, researchers have documented a growing number of transnational networks organized by and orchestrated through subnational tiers of government—regions and municipalities—that have mobilized in response to climate change (see Cities and Regional governance) (Betsill and Bulkeley 2006; Kern and Bulkeley 2009). Such transgovernmental networks are regarded as important in mobilizing subnational responses because they have provided a sense of collective purpose, political support, access to knowledge, and the sharing of best practice. In some cases, transgovernmental networks have also offered a means through which specific policies and tools are developed and deployed, and access to financial resources secured. During the past two decades, the number of such networks has grown and their membership has diversified. At the same time, networks have sought to distinguish themselves from one another while also coordinating their actions. The result is a complex "ecology" of transgovernmental networks at work within and between cities and regions. While these networks have predominantly emerged in the climate change domain, the broad way in which climate change is approached has meant that a number of urban development challenges-from poverty and development to air pollution, transportation, and energy security—are now being governed not only locally and nationally, but transnationally through the work of transgovernmental networks.

In the climate change domain transgovernmental activity is therefore often the result of cooperation between local and subnational governments and not necessarily arising from cooperation between nation-states. This form of transnational governance appears to be on the decline as alternative private and hybrid forms proliferate. In their comprehensive analysis, Roger et al. (2017) find that while transgovernmental arrangements dominated the transnational governance of climate change until 1998, since that time their role has been reduced such that they now make up only 14% of the total of transnational governance arrangements. Although transnational governance has yet to be developed to the same extent in other issue areas of environmental governance, the trend appears to point in the same direction with new initiatives and governance arrangements most often involving either networks of subnational and local actors or the participation of private and civil society organizations. The role and power of