



China's Water-Energy Nexus

Inconvenient geographies create challenges for China related to both water and energy, postdoctoral research fellow Scott Moore said in a seminar on Monday April 1 related to the water-energy nexus in China's Yellow River Basin.

Moore outlined the complex interactions between central and local governments in the regulation of water use among upstream and downstream portions of the Yellow River, where water stress is so significant that, in the 1990s, there were repeated periods in which the river did not reach the ocean. Energy production—especially coal is driving a huge increase in industrial water use in the Yellow River Basin, a change in demand that is not necessarily reflected in provincial water allocations.

In theory, Moore explained, the Chinese central government has extensive rights to set water policy, but in practice, it has limited enforcement resources.

In this context, Moore found that sub-national and provincial level governments are key players in the politics around water allocation in the Yellow River basin. Although we may often think about water usage in sectoral terms (energy, agriculture, urban use, etc.) Moore's research showed that actual water allocations are made by negotiations among different regions, balancing their economic interests.

Further complicating the problem is the fact that provinces often succeed in ignoring official allocations. When this happens, or when other water-related conflicts arise, there is no established mechanism for resolving conflicts among provinces, with the result that they tend to be either ignored or elevated to the highest level of the central government.

The resulting dilemmas, Moore suggested, are likely only to increase as China develops new water-intensive energy resources like shale gas. They may to some extent be mitigated by China's ambitious infrastructure plans for transporting water and energy, but in the absence of a strong legal system to deal with competing claims, these infrastructure projects may not resolve China's difficulties in managing scarce water and energy resources.

Moore spoke as part of the Energy Policy Seminar Series, which is jointly sponsored by the Energy Technology Innovation Policy research group of the Belfer Center on Science and International Affairs and the Consortium for Energy Policy Research at the Mossavar-Rahmani Center for Business and Government.

