National boundaries and the fragmentation of governance systems: Amur-Okhotsk ecosystem from the legal, political perspective

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The Amur-Okhotsk Project has recently found that primary production in the Sea of Okhotsk and the neighboring Oyashio region has been dependent on dissolved iron transport from the Amur River. And in the Amur River basin, dissolved iron originates mainly in wetland and forest. Our project calls this ecological linkage between the continent and open waters as "Giant" Fish-Breeding Forest system. This means that in order to conserve the marine living resources in the Sea of Okhotsk and Oyashio region, it is also necessary to protect the environment in the Amur River basin, especially wetland and forest.

From the legal and political perspective, this "Giant" Fish-Breeding Forest system has two different kinds of boundaries; national boundaries (transboundary) and regime boundaries (fragmentation of governance systems). This system cuts across borders between China, Russia, Mongolia and Japan, and they do not share the same benefit and cost on the conservation of this system, suffering from the "free riding" problem. In addition, some aspects of environmental factors in this area has already been regulated by international and national law, but these management regimes have been concluded and implemented independently, and sometimes overlap or conflict, therefore are not appropriate for the conservation of the whole system of "Giant" Fish-Breeding Forest.

Discussing problems cause by these two human-made boundaries, this paper will try to show that, so as to manage this ecosystem effectively, it is important to coordinate the existing legal systems and policies in an integrated manner as well as to make the common understanding among countries in this system.

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