

Shaping Relationships with Nature: Local Resource Nexuses in the Context of Development Corridors in Virunga National Park

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In the Democratic Republic of the Congo (DRC) and across Africa, intergovernmental organisations, international development, and donor agencies promote large-scale development corridors as a means to sustainable development. Such corridors often address the water-energy-food (WEF) nexus by promoting infrastructure projects that link WEF resources such as hydropower installations or irrigation schemes. However, rural communities in the DRC, one of the main beneficiaries of development corridors, have not experienced improvements in their livelihoods due to insufficient infrastructure.

WEF nexus approaches often seek to reduce trade-offs, enhance synergies, advance cross-sectoral collaboration between WEF sectors, and internalise social and environmental impacts. Yet, as most nexus concepts are mainly resource-centric, the role, agency, and importance of infrastructures for resource nexuses are rarely explicitly highlighted. Especially when built to alter the flow of resources, infrastructures also pose the questions of how nature and natural resources are perceived. The dichotomy between culture and nature drives the debate around infrastructures, where natural resources are viewed as having a productive capacity that serves economic and material growth. Autochthonous notions and anthropological theories, on the contrary, criticise assumptions of human dominion over nature and the commodification of nature. Most importantly, they reincorporate disintegrated thinking about social, ecological, and economic processes around infrastructures, thus bridging the gap in the culture-nature dichotomy. Local communities relate to natural resources in various ways; for example, they attribute spiritual powers relevant for resource use, access, and distribution to natural resources—an overlooked dimension of local resource management. For local communities, natural resources are imbued with several meanings simultaneously and are therefore often implicitly “nexused” and not considered as different sectors.

To understand the potential trade-offs and cascading effects within local resource nexuses, my research will focus on the relationship between local resource users and the changes in natural resources in the context of infrastructure development and how this affects local resource nexuses. A more grounded understanding of diverse local resource users is required to understand which new resource nexuses emerge in the context of large-scale infrastructure corridors and how they evolve. This includes the symbolic and cultural significance of natural resources, an important determinant of resource nexuses, essential in determining by whom, how, why, where, and when resources are used. I will also interrogate how notions of “modernity” put forward by infrastructure planners affect such symbolic and cultural meanings.

My research focuses on Virunga National Park as an emerging infrastructure corridor. In order to remedy the negative environmental impacts of increasing deforestation for charcoal production and subsistence agriculture, the park management has invested in infrastructure projects to provide alternative job opportunities and promote a green economy outside of the park. However, the resource use of local communities is only poorly understood, and deforestation rates continue to rise. That is, many local resource users associate their natural environment with cultural meanings where parts of their identity and traditional knowledge are intrinsically interwoven with natural resources and landscapes, conflicting with the purely ecological and economic perspective of infrastructure planners.