Bridging the Gap of Land Administration and Disaster Risk Management: a Key Step in Climate Change Response

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SUMMARY

The necessity of integrating policies, practices and people associated with land administration (LA) and disaster risk management (DRM) is strongly advocated for, particularly with the escalation and increase in large-scale natural disasters caused by climate change. The 2030 Agenda for Sustainable Development with its defined Sustainable Development Goals (SDGs), together with other policies such as the Sendai Framework for Disaster Risk Reduction, or the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (VGGT) stimulate innovative and transformative approaches to secure land and property rights for all. Those calls have resulted in concepts, tools, and standards for better integrating the domains.

All different phases in the disaster risk management circle: risk-assessment, prevention, response, prediction and warning, mitigation and recovery require information about the people-land relationship. Though, in many high-risk contexts, such records are non-existent or not up to date. A model, LA-DRM, linking the domains of LA and DRM – with the goal of supporting resilience against natural disasters and providing an approach for collecting data once and using it multiple times addresses this issue and was applied in Nepal. A design approach was used to develop the model – with adaption of the international Land Administration Domain Model (LADM) standard, as published in (ISO, 2012) (Lemmen, 2012), (Hay, 2014), (Lemmen, et al., 2015), acting as a basis. Those adaptions and additional requirements are also relevant for any future enhancement of LADM.

Key features of the model include the support of interoperability through standardisation, the inclusion of all people-to-land relationships including those specific to disaster contexts, and the potential of an extension of the model through integrating other datasets and data sources relevant

to address natural disasters caused by climate change. The LADM model, and its aggregated models, such as the LA-DRM model, are suggested to be highly applicable in any land related SDG context where no land tenure information exists, or the national mapping authority already uses a LA system compatible with LADM. Overall, the LA-DRM model is considered as a step towards an implementable strategy for applying responsible LA in e.g. the context of DRM and serves as an example of how to address climate change and hence support other SDGs.

Whilst the conceptual and methodological advantages of integrated LA-DRM are demonstrated, in practice the domains remain disconnected: at national and even global levels the policies, laws, institutions, governance structures, financing arrangements, standards, data, technologies, educational program, and communication programs often remain in silos. As such, awareness raising, coordinated partnerships and advocacy activities are now key demands. This paper undertakes investigates in detail the contribution of the LA-DRM model based on the Nepal application. The results elaborate on how best to forward widespread uptake and implementation of LA-DRM in other countries most prone to natural disasters.