



Institutional approaches to flood risk management in Vietnam and Germany - a comparison

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Flooding is a regularly recurring event and causes major damage worldwide every year. Due to urbanization and the associated sealing of land, more and more retention areas are being lost, which, in conjunction with the effects of climate change, further increases flooding in urban areas. In addition, settlement development worldwide, including in Germany and Vietnam, is partly taking place in floodplains, which poses a major threat to the health of the population and causes high reconstruction costs in both countries. However, economic development continues to be given higher priority than flood protection. Severe flood events in the recent past in both countries, accompanied by large losses of lives and asset values, show that current strategies are reaching their limits and new approaches are needed.

Based on a GIS analysis, this study derives and compares the legal bases and strategies of both countries, which represents a new scientific approach. The results show that both countries still have some hurdles to overcome on the way to integrated flood risk management and can learn a lot from each other. For example, Vietnam can make use of some aspects of the legal framework in Germany. In addition to addressing flood risk through the creation of comprehensive flood hazard and risk maps (§74 WHG) and the preservation of natural retention areas (§67 WHG), the dismantling of "top-down" mechanisms through the early involvement of the population in planning processes (§3 Para. 1 BauGB) is also a high priority for the country. In another direction, however, Germany can also take up some aspects of the Vietnamese principles. For example, in addition to a much closer link between disaster control and meteorological services (Art. 7 in conjunction with Art. 24 and Art. 42 No. 3c of the Law on Natural Disaster Prevention and Control) and the participation of the population or the consideration of traditional experiences in the creation of flood hazard maps (Art. 1 Para. 1 No. 6 National Strategy for Disaster Prevention, Response, and Mitigation), raising awareness and creating a positive risk perception among the population (Art. 21 No. 3c Law on Natural Disaster Prevention and Control) as well as smart city approaches can also represent an important extension of their own strategy. Both countries should pay particular attention to the protection of their ecosystems, which make an important contribution to integrated flood risk management. The here presented work shows that Vietnam and Germany face similar challenges and would benefit from drawing on each other's experience. Despite the different climatic and political conditions, both countries could expand their strategy through co-development and establish a sustainable flood risk management.

