

Hochschule für Technik und Wirtschaft - University of Applied Sciences Berlin  
Master Thesis: 'Natural Disaster Risk Management in Microfinance - Ex-ante Evaluation of GlobalAgRisk's Risk Pooling Concept'  
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## **Abstract**

Low-income households suffer from a limited microfinancial access in times of natural disasters, because the providers of microfinancial services themselves lack appropriate access to external financial resources. The existing risk transfer solutions the global financial market offers to microfinancial actors are too expensive. Microfinancial actors are distributed globally and natural disasters do not occur in every world region simultaneously. This coherence demonstrates the potential to transfer natural disaster related risks by pooling them among the microfinancial actors. The risen level of diversification lessens the funding needs for covering a certain extent of risks.

GlobalAgRisk intends to implement a natural disaster risks pooling concept among microfinancial actors in 2018. By the concept's objective to increase the microfinancial access in times of natural disasters, the natural disaster resiliency of low-and-middle-income households should be enhanced. The concept is targeted at ensuring a cost-efficient and reliable, i.e. fast and sufficient, access to external financial resources for microfinancial actors in times of natural disasters.

The thesis establishes and applies nine criteria to evaluate, whether GlobalAgRisk's concept is optimally designed in order to achieve its aims. The evaluation reaches the result that the concept most likely will fulfil partly what it is assigned to. A sole consideration of credit risks, potential profit extractions as a consequence from pooling the risks through a for-profit company and a limited ability to ensure financial access in times of the most severe disasters are a few of the identified shortcomings.

Drawing on these findings, the thesis portrays seven potential improvements to increase the concept's likelihood achieving its aims and depicts certain constraints for the potential improvement's implementation. To alleviate the mentioned shortcomings the thesis suggests the inclusion of insurance risks in the concept, establishing the global risk pool as a mutual or cooperative company and the elimination of certain payout restrictions.