

Barriers to Implementation of Climate Change Adaptation Measures - The Case of Madagascar's Agricultural Sector Maike Voß | Humboldt-Universität zu Berlin | maike.voss@mailfence.com



Introduction

- Climate change adaptation can foster sustainable development and take countermeasures against deteriorating living conditions (Adger et al., 2003; Masson-Delmotte et al., 2018),
- Implementation of adaptation measures is a rather unexplored project phase with many barriers (Moser and Ekstrom, 2010).
- Madagascar is highly vulnerable to the impacts of climate change and one of the poorest countries in the world (Eckstein et al., 2018; UNDP, 2018),
- It has a high risk for extreme weather events, increasing temperatures and decreasing precipitation (World Bank Group, 2011; Zoaharimalala Rabefitia et al., 2008),
- 75% of Malagasy are employed in agricultural sector which is highly impacted due to its dependence on natural resources (Adger et al., 2003; MID et BNGRC, 2013).
- → Which barriers to the implementation of climate change adaptation measures exist in Madagascar's agricultural sector and how to overcome them?



Methods

- Qualitative questionnaire to diagnose barriers to implementation of six chosen adaptation measures in the agricultural sector,
- Distributed to mayors, development agents and land planning agents, technicians in different regional government levels,
- 48 questionnaires collected in two regions of Madagascar,



- Seven semi-structured expert interviews to gain further information about main barriers to implementation of adaptation projects and to obtain an inside perspective on project implementation,
- Experts were employees of non-governmental organizations and development agencies.

Results: Questionnaires

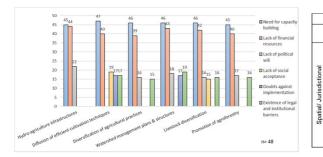


Fig. 3: Main barriers to implementation of six chosen adaptation options in the agricultural sector cording to questionnaire respondents

Fig. 4: Matrix classification of most stated barriers to implementation in questionnai

Lack of pe

Contemporary barriers

Lack of social

Pro

Remote

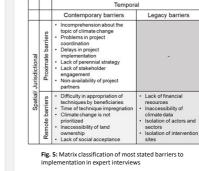
nporal

Legacy barriers

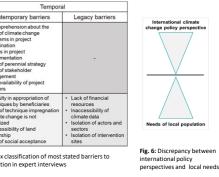
Lack of fi

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- Respondents lack the capacities to convince stakeholders of the benefits of adaptation, Most barriers are recently created (contemporary) and in control of the respondents (proximate).
- Proposed solutions to overcome barriers are clearly remote, shifting responsibilities to external institutions.



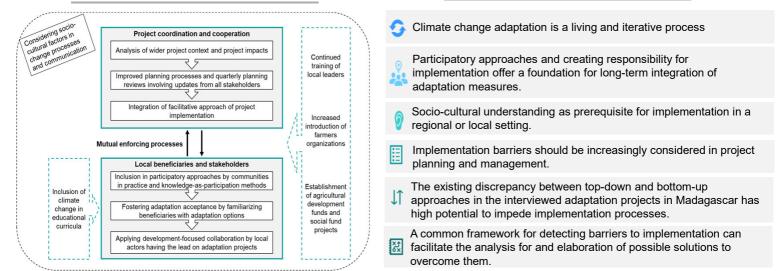
Results: Expert interviews



Experts see a need to transfer responsibility and improve subsistence of beneficiaries, Strategic approaches of interviewed projects impede

Conclusion

bottom-up approaches.



References: Adger, WA, Hug, S, Brown, K, Conway, D, and Hulme, M. (2003), "Adaptation to climate change in the developing word", Progress in Development Studies, Vol. 3 No. 3, pp. 179–195. Eckstein, D, Hutflis, M.-L. and Winges, M. (2018), Global Zimate Risk Index 2019: Who suffers most from extreme weather events? Weather-related bass events in 2017 and 1998 to 2017, Germanwatch e.V., Born, Masson-Delmotte, V. et al. (2018), Global Warning of 1.5°C. An IPCC Special Report on the impacts of global warning of 1.5°C above pre-industrial levels and related global greement, and efforts to endect a power and base of the first of climate change, sustainable development, and efforts to endect and power and BNGRC (2013), Plan de Contigence National Cyclones et Industrianable davelopment, and efforts to endect and power and BNGRC (2013), Plan de Contigence National Cyclones et Industrianable davelopment, and efforts to endect and power and BNGRC (2013), Plan de Contigence National Cyclones et Industrianable davelopment, and efforts to endect and power and BNGRC (2013), Plan de Contigence National Cyclones et Industrianable davelopment, and efforts to endect and power and BNGRC (2013), Plan de Contigence National Cyclones et Industrianable davelopment industrianable development industrianable davelopment industrianable davelopment. Disclopment industrianable davelopment industrianable davelopment industrianable davelopment industrianable davelopment. Mathematika Mathematika

Recommendations