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## Adding behavioural insights to improve the process of salinity adaptation in the Mekong Delta, Vietnam

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The Vietnamese Mekong Delta has been recognized as a hotspot of vulnerability to climate change and its effects. Under some climate change projections, the delta could face 40% inundation by the end of the century, presenting serious challenges to the sustainability of agricultural systems in the delta and suggesting the need for transformations to more climate-resilient livelihood models. The Vietnamese government acknowledges these threats and has initiated a policy process to offer solutions; the Mekong Delta Plan. A central goal for the coastal region is 'adaptation to salinity'. Adaptation to salinity does not only require an adjustment in the hydrological setting, but includes changes in livelihood practices as well. Therefore, this study aimed to add a bottom-up perspective to inform planning practices based on a behavioural perspective, centralizing the motivations and abilities of actors to act (MOTA).

In this this study, we conducted a MOTA assessment at two levels; an assessment of motivations and abilities at farm level and an assessment of local government actors to adapt their planning and implementation practices. The empirical work was conducted in coastal Ben Tre province and included 100 structured interviews of farmer households; three focus groups with a total of 27 farmers; and semi-structured interviews with 28 representatives of provincial and district level government agencies.

The analysis showed that the local setting is a very pluralistic one; the abilities to change differed greatly among the communes included in the analysis. The analysis discovered the underlying factors behind farmers' self-perceived motivation and abilities. Furthermore, the analysis shows that each of the communes has its own preferred livelihood model; from the safe rice model in Phu Ngai to oyster, mushroom and Lingzhi in Vinh Hoa. These differences can partly be explained by the physical (hydrological) conditions, such as the availability of fresh water. However, there are also differences that cannot be explained by the physical conditions, such as the (un)ability of farmers to cooperate in farmer cooperatives or the difference in motivation to change.

The analysis of the governance setting shows that salinity intrusion is primarily perceived as a threat. Coping with salinity is therefore not an opportunity for livelihood transformations, but salinity levels should be controlled and monitored. There is a high motivation to change, but this is a change towards 'controlling salinity' rather than 'adapting to salinity'. An additional threat is the (uncontrolled) shift towards brackish water aquaculture. Not only do these farms interfere in the fresh water system, but availability of fresh water stays important, for drinking water supply, but also to maintain the right levels of brackish water. The ability assessment shows a low ability to change for all actors. The actors state to a lack of finances, techniques, and institutional abilities to improve current situation.

This study also showed that with the MOTA bottom – up approach, the social adoptability i.e. whether or not farmers adopt plans, should be appropriately supported by governments and other organizations given their limited abilities.