The changing mental models of East African fisheries development interventions

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Development aid is characterized by strong mental models of how the system works: the problems that need to be addressed, the causes of these problems and the solutions. These mental models often linearise the system and do not take into consideration complex feedbacks and nonlinear dynamics that may exist. Within the Western Indian Ocean region there is continuing investment into fisheries development projects that often struggle to deliver sustainable poverty alleviation. The design of WIO projects has changed over the last few decades, from primarily capital intensive solutions to projects based increasingly on stakeholder engagement. Here, we look at the changing mental models behind East African fisheries interventions and whether they take into account nonlinear dynamics of the system they seek to change. The World Bank is used as the focal organisation, and East African fisheries interventions are sampled systematically from the available data so that they cover two distinct time periods. The intervention documentation is coded using a coding structure from mental model literature, and where possible causal connections are recorded. The results from the two time periods are compared to investigate how mental models have changed over time, and whether they have become more or less complex. The results are interpreted using a framework developed by a recent paper by Lade et al (2017). Here the poverty trap concept is framed within a resilience approach to explain why some designs of agricultural interventions have serious social ecological consequences. The sampled interventions are categorized according to the design typologies developed by Lade et al (2017) and it is considered whether these can be linked to the mental models defined in the analysis. We reflect on how this framework can help understand WIO fisheries development interventions and help design future investments that take better account of complex systems dynamics.