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Configuring allocated mangroves as a coastal protection strategy for adaptation to climate change and sea level rise: A case study in Kien Giang, Vietnam

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A llocation of coastal mangrove areas at the ratio of 30:70 for protection and livelihood improvement, despite being an adopted management practice in Kien Giang has been limited success due to a low level of local participation and improper technical guidance on the configuration of allocated areas. Meanwhile, a 500 meter continuous mangrove green belt has been strategically planned for adaptation to climate change and sea level rise. Private coastal lands have been intensively used for agriculture and aquaculture. The study was undertaken using mixed methods with the Kien Giang communities' involvement in developing technical guidelines for the current 30 (use)/70 (protection) allocation policy that aims to establish a continuous mangrove belt and protect local livelihoods. Local awareness of the severity of the local issues has been improved. Seventy percent (70%) of active and abandoned ponds was proposed to be restored for protection using ecologically appropriate mangrove regeneration methods with 30%, close to a sea dyke system, being used for aquaculture purposes. Configuration of private coastal lands was proposed to be undertaken at a ratio of 70 (use)/30 (protection), with 70%, close to a sea dyke system, to be used for agriculture purposes and 30% for mangrove restoration for protection. The majority of the Kien Giang coastal communities were committed to testing the proposed configuration. The proposed configuration, if properly undertaken, would be a technical reference regarding mangrove and livelihood protection in Kien Giang Province, the lower Mekong Delta region and Vietnam.

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