

Spatial Planning Influences Mangrove Forest Development in Kim Son District of Ninh Binh Province

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SUMMARY

Mangrove forests provide critical ecosystem services and support the livelihoods of many coastal communities. They can store 10 times more carbon than rainforests, and provide crucial shoreline protection by reducing the impacts of storms and tidal surges on coastal villages. Spatial planning in the early 19th Century expanded land seaward resulting in the creation of new administrative areas, including Kim Son district in northern Vietnam, and ultimately the establishment of new communities along the coastline. In this study we investigate the influence of changes in land use and sea dyke construction on mangrove forest in Kim Trung commune, Kim Son district following the establishment of two coastal villages over the last 2 decades and discuss how the changes have been reflected in the livelihoods of the local communities in the Kim Trung commune of Ninh Binh Province. The results show that 3 dykes have been constructed over this time period and a 4th dyke is being planned. As a result of mangrove planting the mangrove forest is moving seawards rapidly and its area is increasing. The dykes have also led to fragmentation of the mangrove forest and land use change as land is incorporated behind the dyke system. These changes are reflected in changing livelihoods. These changes in mangrove forests and livelihoods will have implications for the future trajectories of mangrove socio-ecological systems of Kim Trung

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