

Research Title: The interrelation of mangroves and the sustainability of local livelihoods in cyclone-affected areas of the Ayeyarwady Delta, Myanmar

Year: 2014

Place of fieldwork: Myanmar

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Key words: mangroves, land use, the Ayeyarwady Delta, Myanmar

- **Research background**

Since the 1960s, when human settlement was allowed in the Reserved Forests of the Ayeyarwady Delta, mangroves have mainly been cut for charcoal making and fuelwood. The over-cutting of mangroves for fuelwood in the Ayeyarwady Delta resulted in their degradation and these areas became used for paddy cultivation by clearing any remaining mangroves. Studies on land use changes and the livelihood transitions of local people in mangrove forests are limited in the Delta. As such, understanding both the history and current land use practices in cyclone-affected areas in the Ayeyarwady Delta is needed to consider proper management of natural resources of mangrove forests.

- **Research purpose and aim**

The research purpose is to conserve the remaining mangroves by promoting the livelihoods of paddy farmers in the Ayeyarwady Delta. Field research was conducted to identify land-use mapping at the household level in a mangrove forest and to examine livelihood transitions in cyclone-affected areas of the Delta.

- **Results and achievements of the fieldwork**

Fieldwork was carried out via a household interview survey between November and December 2014 in a small village in the Ayeyarywady Delta, Myanmar that was affected by cyclone Nargis in 2008. Participatory mapping was carried out to identify land use at the household level. Interview results revealed that most households (96.4% of respondents) were engaged mainly in farming and catching crabs, fish, and shrimp for their livelihoods. Paddy cultivation became the dominant land use of small over-cut patches of mangrove forest by local people since around 1992. Most farmers are cultivating paddies in protected mangrove forests, as they do not own farmland. Although most households had been involved in such agricultural practices within these protected mangrove forests, they were recently forced to stop paddy cultivation. Farming inside the protected mangrove forests became unstable, which may have resulted in future livelihood constraints.

- **Implications and impacts on future research**

Through this fieldwork research, I have observed that salinity surges occasionally happened in the study village due to tidal inundation. As a future work, I would like to do more research on the effects of soil salinity and soil properties on paddy production and mangroves vegetation.



Picture 1. Paddy fields in a mangrove forest in the study village



Picture 2. Rice in a paddy field flooded with salt-water in the study village



Picture 3. A man preparing to catch fish along a creek