

People and Mangroves

The role of community forests for climate change adaptation in the Ayeyarwady Delta, Myanmar

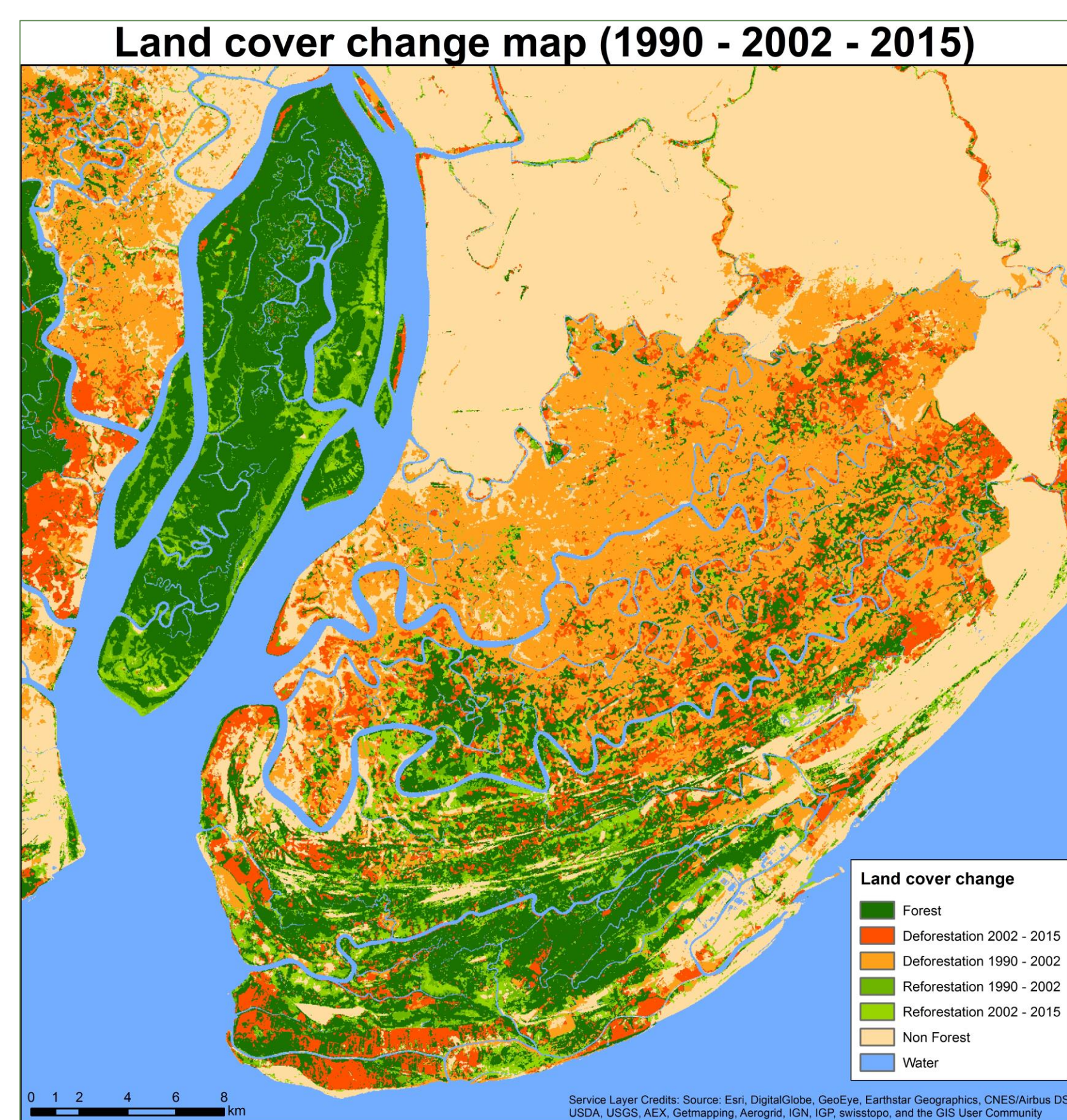
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Problem

The densely populated Ayeyarwady Delta is highly exposed to sea level rise, changing rainfall patterns and impacts from extreme weather events such as cyclone Nargis in 2008. Vulnerability has increased additionally due to historical mangrove deforestation and degradation. Since 2000, mangrove reforestation coupled with community forestry schemes have aimed to improve livelihoods, ecosystem services and resilience to climate change in the lower delta.

Objectives

- Evaluate vulnerabilities and adaptive capacities of local people's livelihoods
- Examine the role of community forests for climate change adaptation



Methodology

Target area

- 4 villages in the delta
- Brackish water zone

General methods

- Satellite image analysis
- Forest inventory
- Household survey (n=110)

Participatory research

- Focus group discussions
- Key informant interviews
- Resource and hazard mapping
- Seasonal calendar
- Transect walks
- Wealth ranking



Results

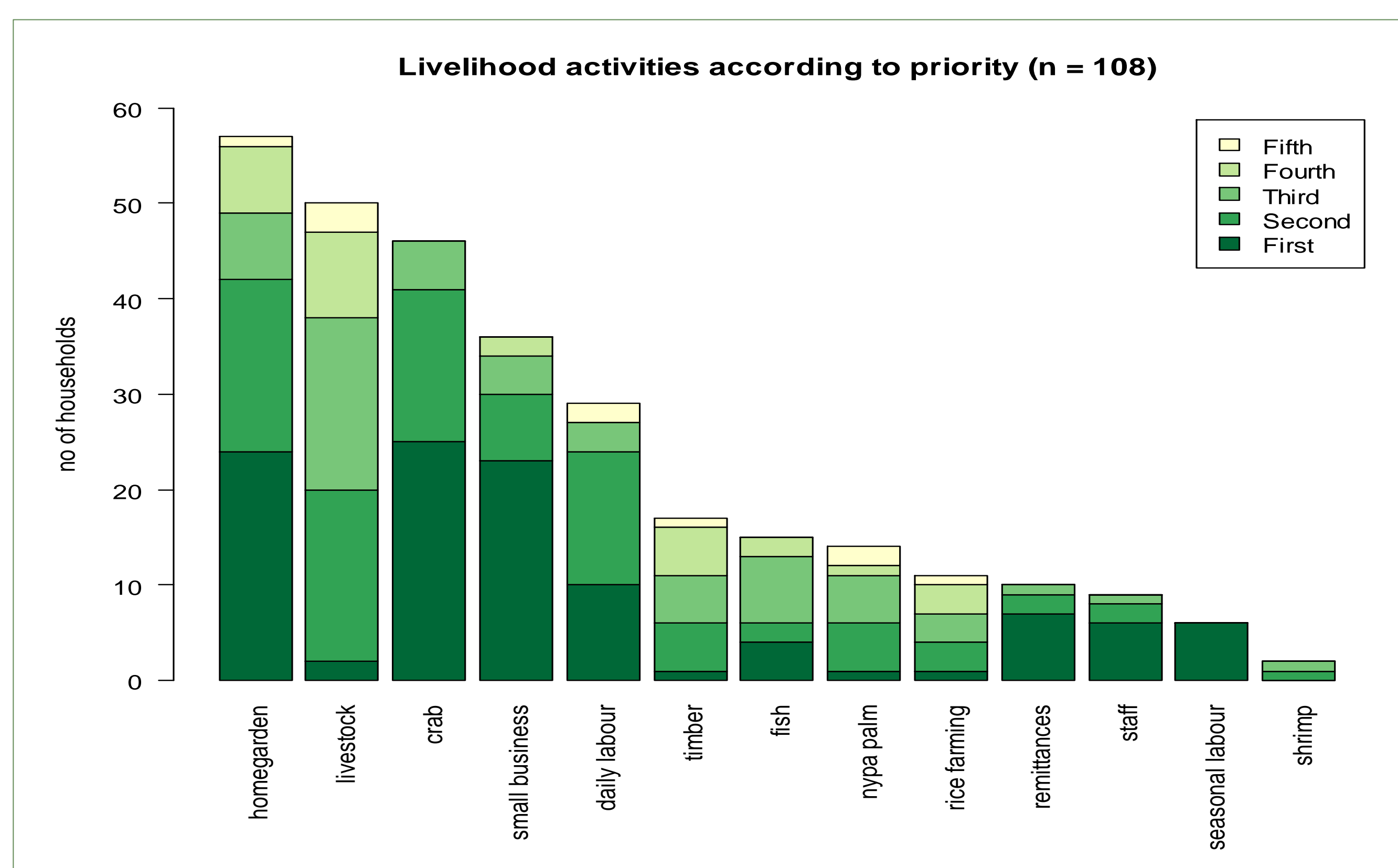
Vulnerabilities

- Low education
- Few job opportunities
- Natural resource degradation
- Limited infrastructure

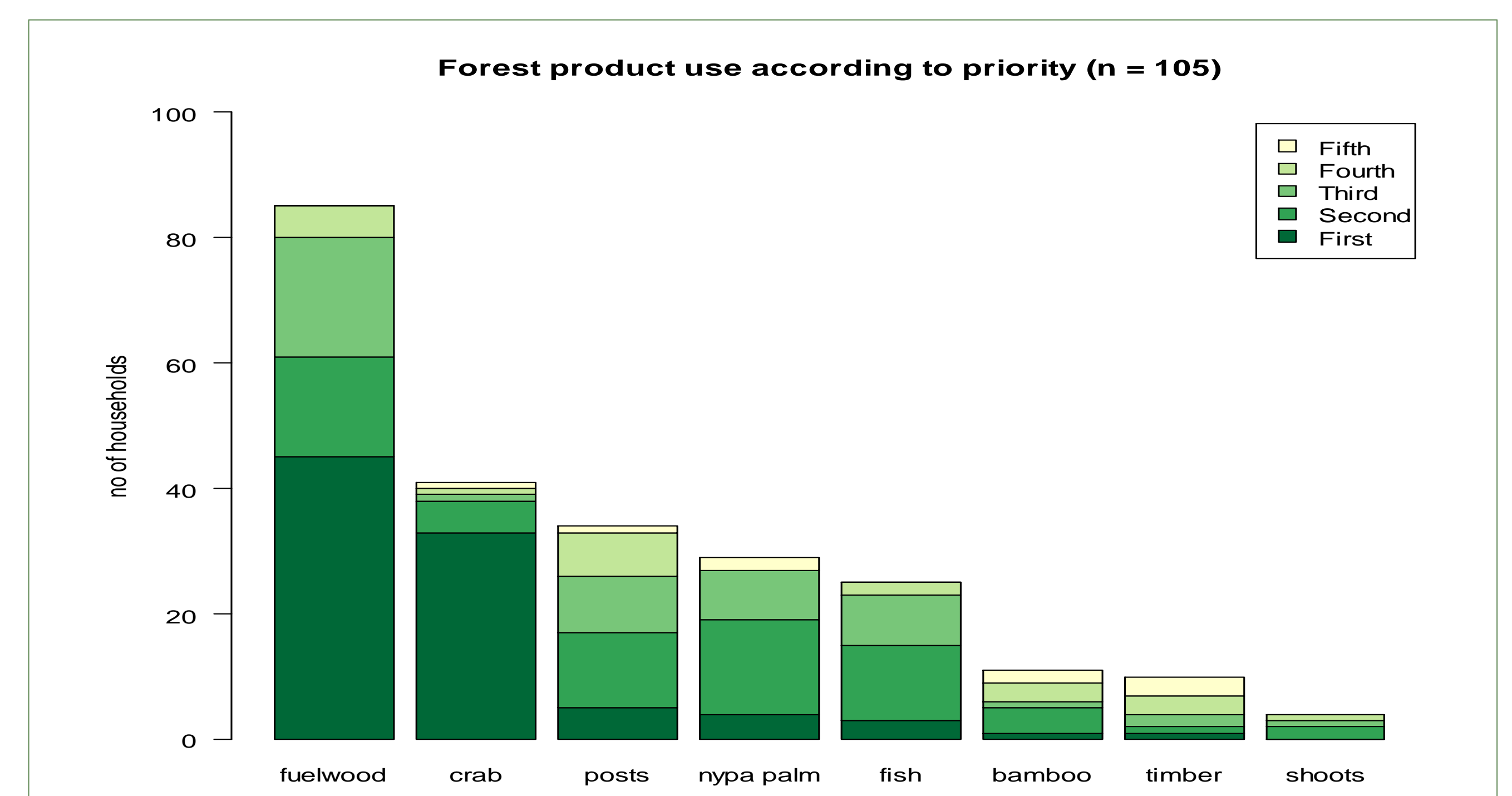
Adaptive capacities

- Strong social cohesion
- Good local knowledge
- Diverse natural assets
- Easy market access

Livelihood strategies



Benefits of mangrove community forests



Opportunities

- Commitment of forest user groups
- Local knowledge and use of mangrove products
- Experience with mangrove restoration

Challenges

- Overuse of fuelwood and non-timber forest products
- Small-scale illegal logging
- Lack of alternative income sources

Conclusion

Communities in the delta's brackish water zone highly depend on natural resources for their livelihood. Mangroves are not only a resilient ecosystem, but also provide a range of non-timber forest products for subsistence and income, such as crabs or nypa (*Nypa fruticans*). However, overuse of fuelwood and other mangrove products, as well as illegal timber logging, cause major challenges for sustainable forest management. While coastal community forests are vital for people to adapt to climate change, mangrove restoration is only effective if other measures, such as law enforcement and the support for alternative livelihoods, are taken in parallel. Above all, the local people's knowledge and commitment to sustainable resource management is a key asset for climate change adaptation.