Toward Small-scale Mangrove Conservation

Case study: Thua Thien Hue Province, Vietnam

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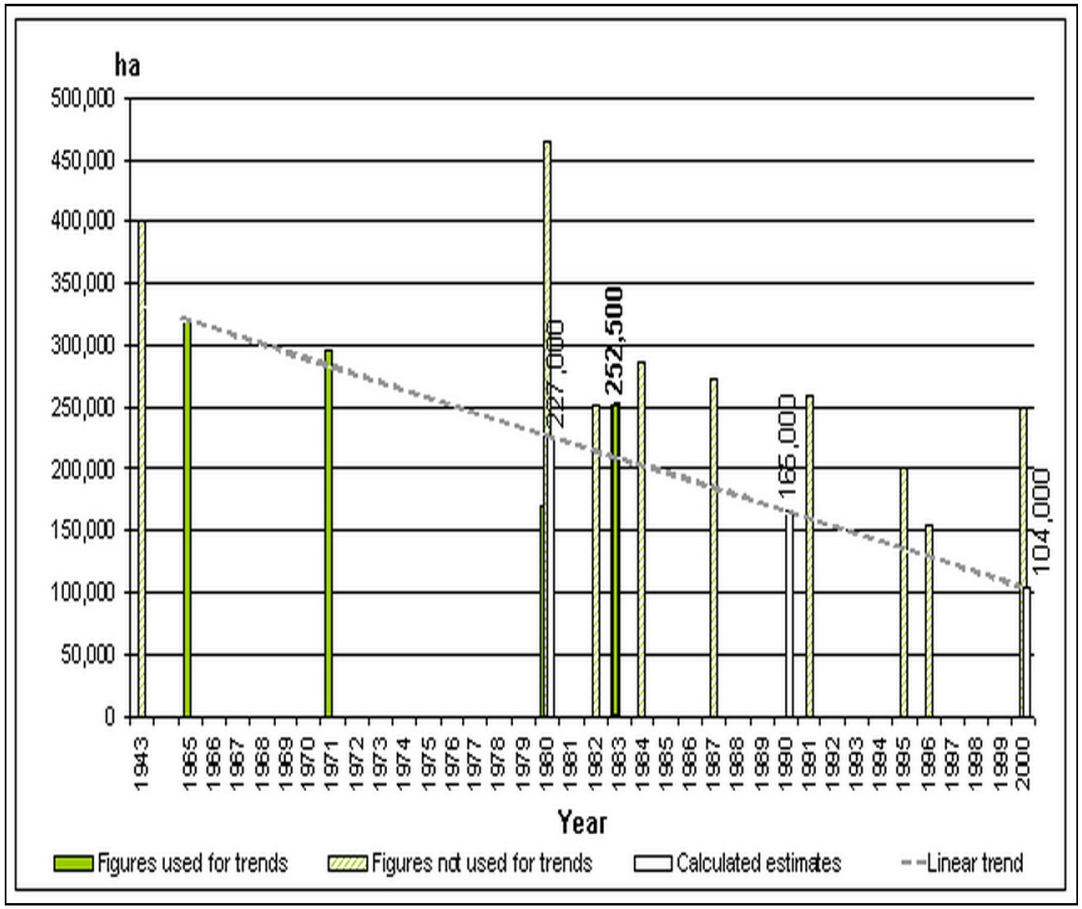
1. Background



- Mangrove forest area in Vietnam has been steadily decreasing, despite many initiatives now working on restoration (FAO, 2005).
- From 1980s to 1990s, significant area was converted to fish and shrimp ponds (FSIV, 2009)

Trends in estimated mangrove forest area 1965-2000 in Vietnam (FAO, 2005)

Previous studies are concentrated on relatively **large scale accumulation** in many aspects such as

- Mangrove plays important role in livelihood activities, especially income and benefits (Tran Thi Phung Ha 2013)
- Research on hydrological classification in Can Gio mangrove forest (A.F. van Loon 2007)
- Over time, the mangroves are becoming more fragmented and related to and affected by environmental elements (Karen C. Setoa 2007)
- Authorities and community (local people) effect on mangrove change. And income also impacts on the concern about mangrove when "the poorer households would like to participate in mangrove conservation more than richer families" (Pham Tien Dat 2013)

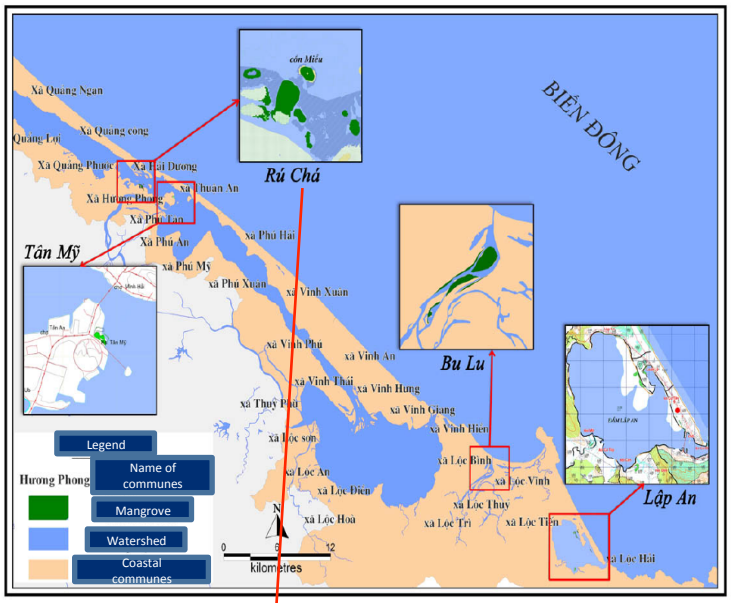
→ **The importance of mangrove in many aspects.**

Degradation of mangrove is related to population growth, development of aquaculture activities, conversion of land into paddy field and infrastructure development. (Pham Ngoc Dung 2013)

Regarding the **small scale mangrove**,

Despite the long coastal line and the largest lagoon in Southeast Asia, (Tam Giang – Cau Hai lagoon), remaining mangrove forest area is very small, only 30.23 ha (Hoang Cong Tin 2013).

Ru Cha, the largest concentration in the province, has **own value** with the direct economic value from firewood, medicinal plant, and indirect value micro-climate regulation, informatics, science (Tran Thi Thuy Hang 2012).



Ru Cha mangrove area: 11.5 ha (Hoang Cong Tin 2013)

Every coastal line of Vietnam has **a potential** of mangrove distribution, and those ecosystems should have played significant role not only for **the coastal environment** but also for the **local livelihood** and **culture**.

Assumed disadvantages/ advantages of small-scale forest conservation:

- Less scale merit for conservation
- Less attention is paid by higher level governments and societies
- Unclear legal settings of the forest

- Even small input can work effective
- Local government initiatives may be sufficient for the conservation
- Easier to be handled by local people

2. Objectives and methods

Ru Cha

Bu Lu

To find challenges and opportunities for these small-scale mangrove forest conservation,

- Legal settings of the forests
- Government initiatives
- Local people's perceptions

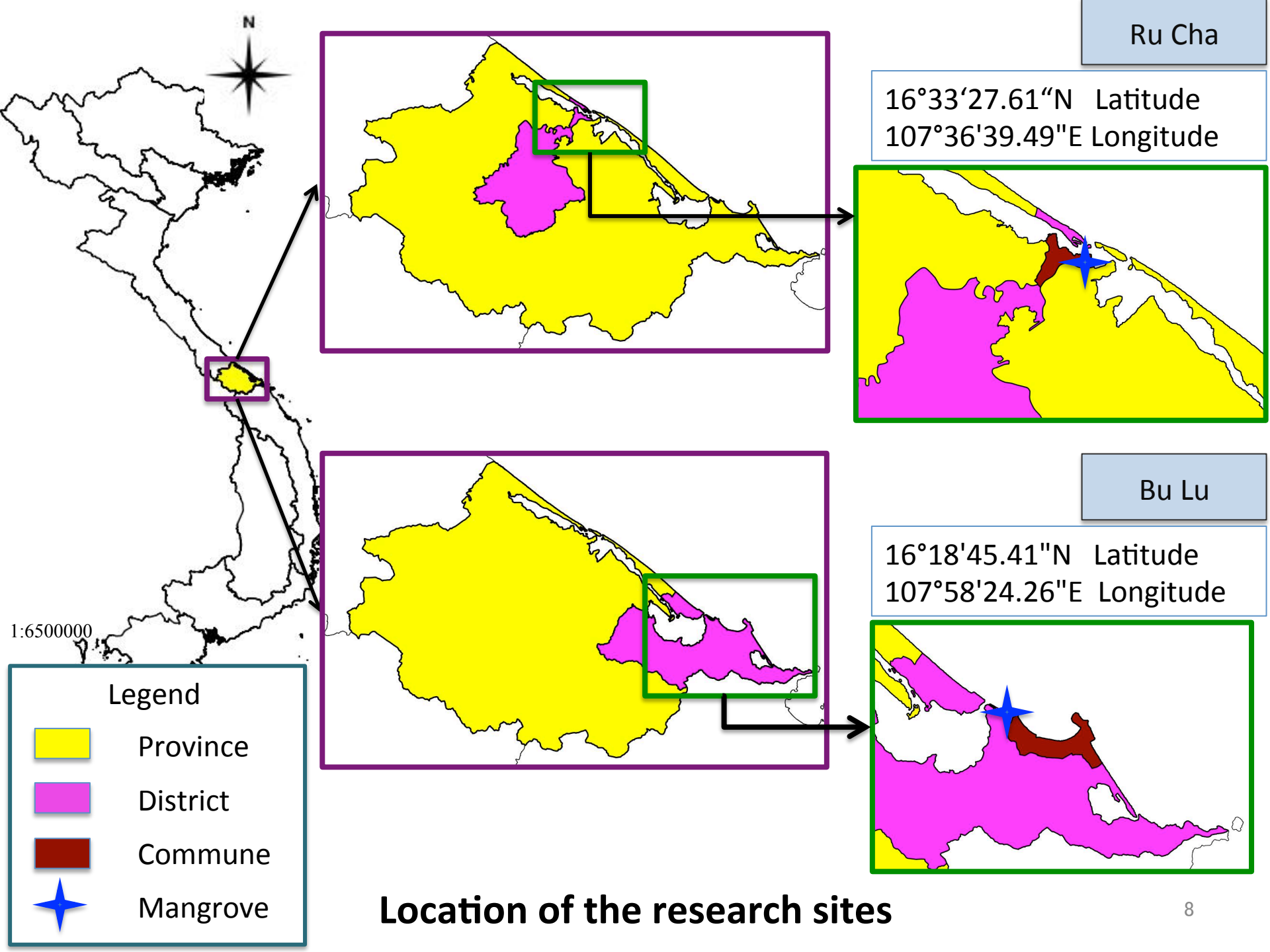
were examined.

Secondary data collection

- Socio-economics, geography, and population were collected at HP and LV People's Committee Communes.

Primary data collection

- I interviewed 76 households randomly selected from 420 households in CD village with a structured questionnaire.
- I made in-depth open-ended interviews to 5 households located nearby Ru Cha but far from the settelment of TH village.



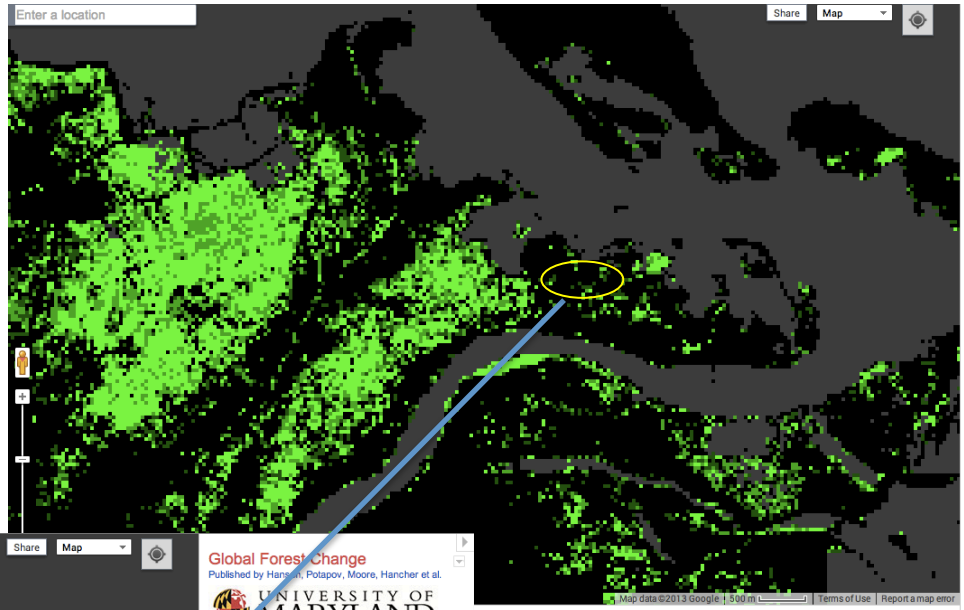
Location of the research sites

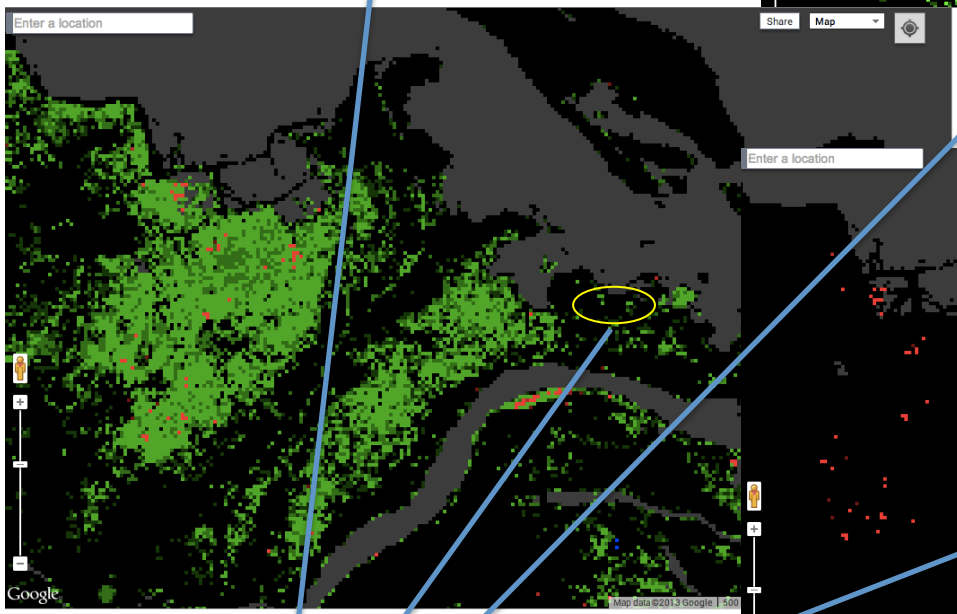
Clear forest
Rừng thưa

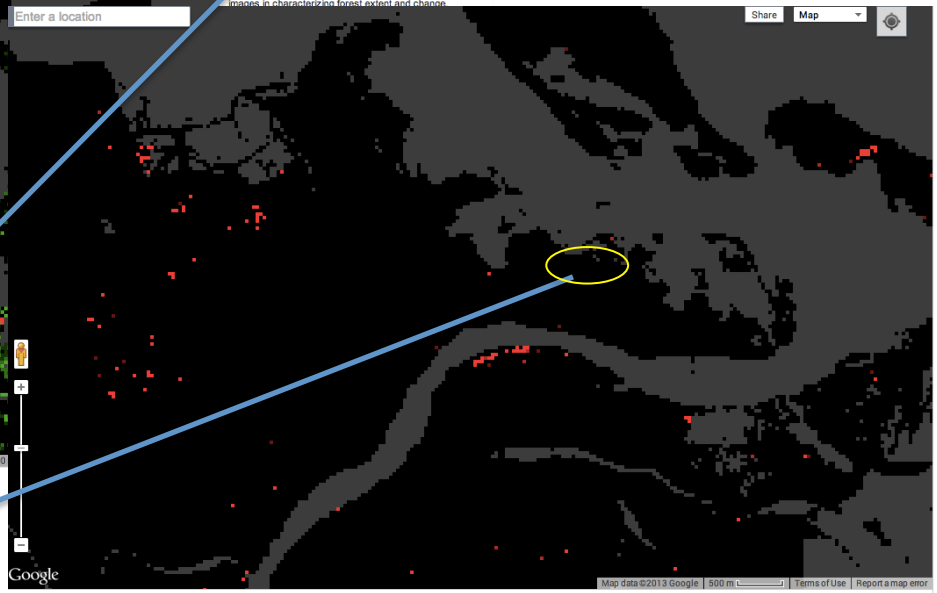
Scale Tỷ-lệ 1:50,000

Published by the U.S.Army Topographic Command, Washington, D.C, 1970

http://earthenginepartners.appspot.com/science-2013-global-forest







Ru Cha

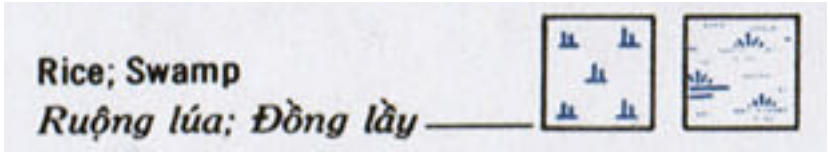
Result: Ru Cha

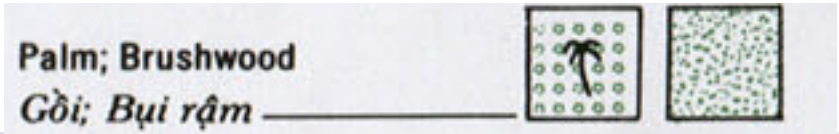
Events and mangrove forest in Ru Cha

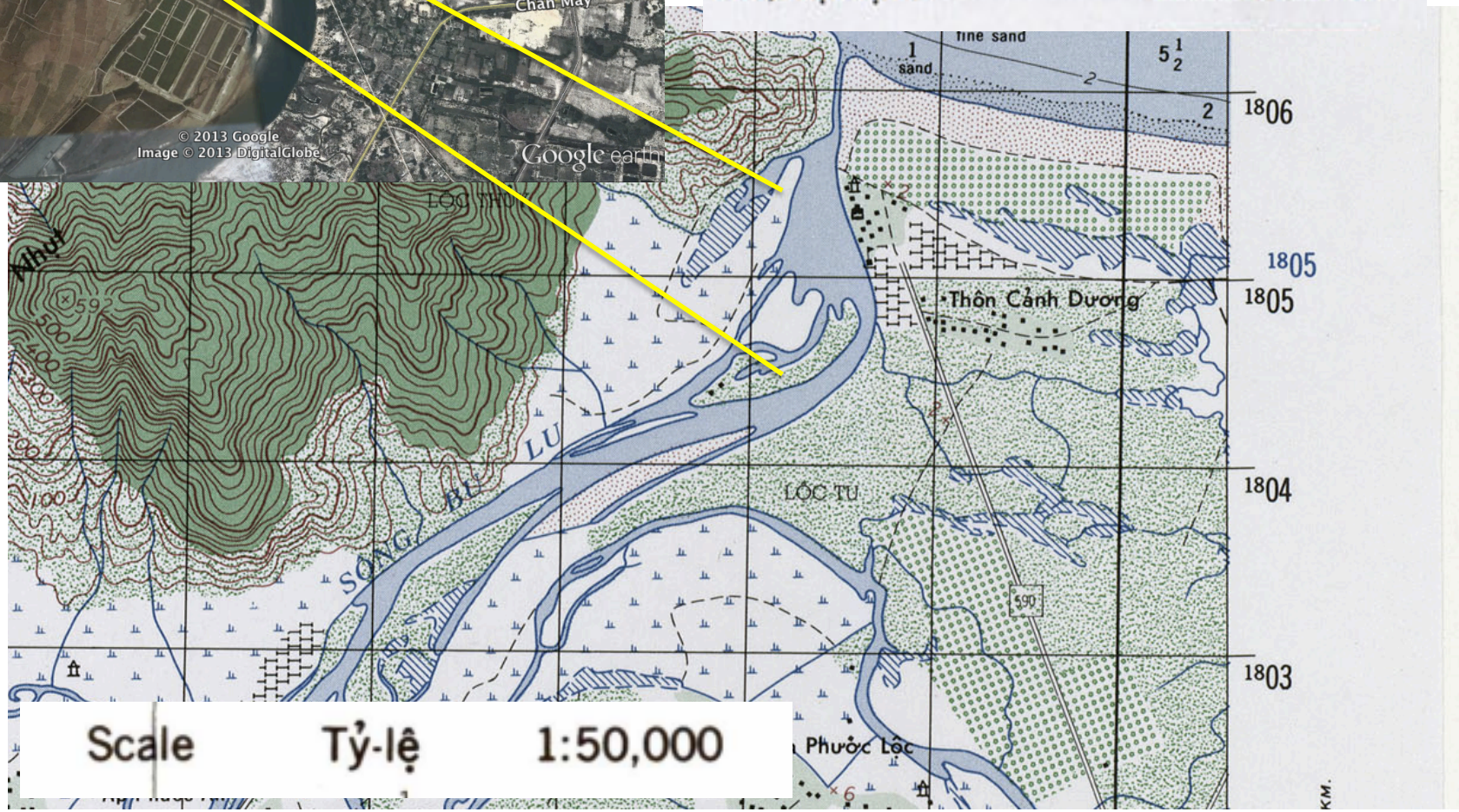
	Before 1956	1956	1963	1970	1975	1985	Current	(2000-2012)
Events		A big typhoon attacked.	The village temple was moved from Ru Cha to TH village.	Map	A command from the government to fell the trees.	A big typhoon attacked.		
Results	Ru Cha mangrove forest was the protectorate forest for the village temple.	The forest was devastated.	Less attention has been paid to the conservation.		70% of Ru Cha area was lost.	20% of Ru Cha area was lost.	11.5 ha ⇩ Shrank to about one fifth compared to before.	No change

Nature + **Human**

Mangrove in Bu Lu river







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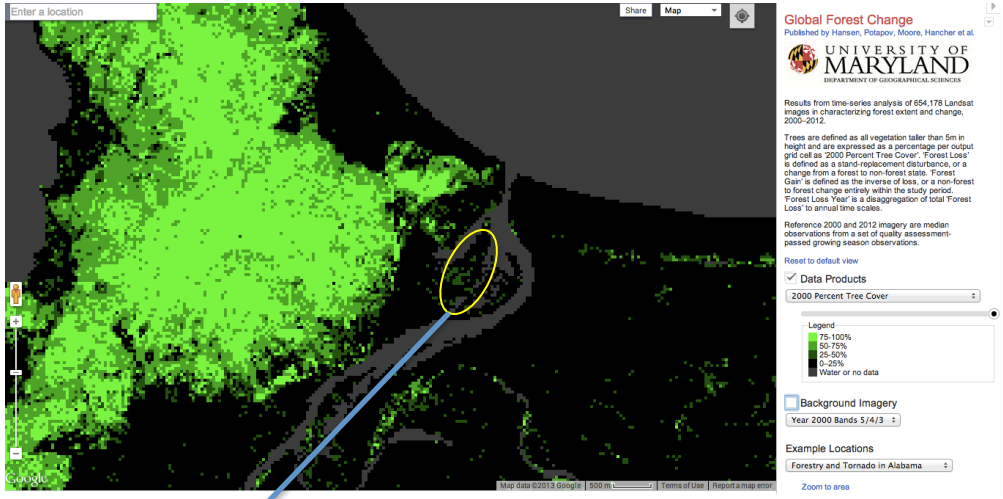
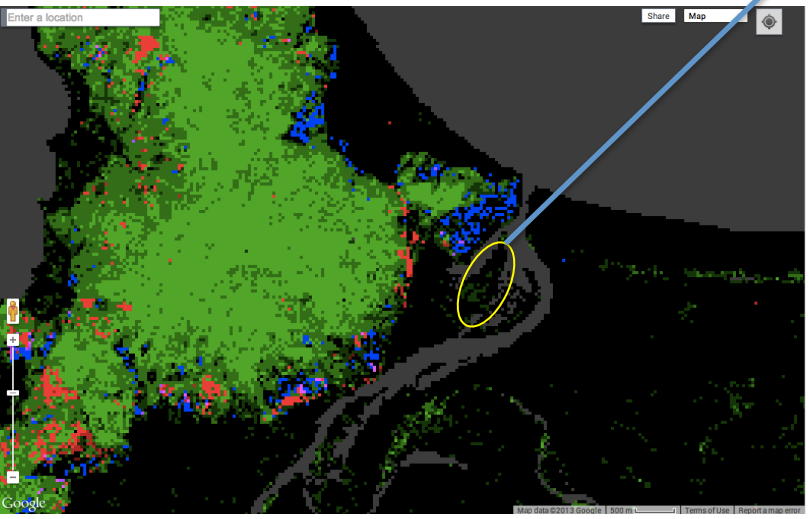
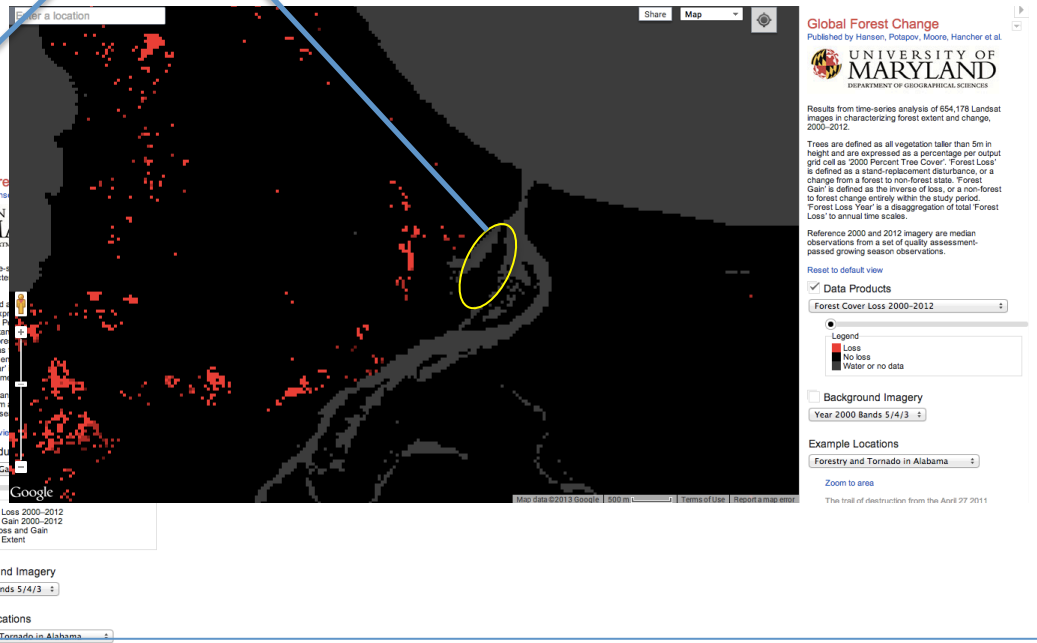


Mangrove in Bu Lu river



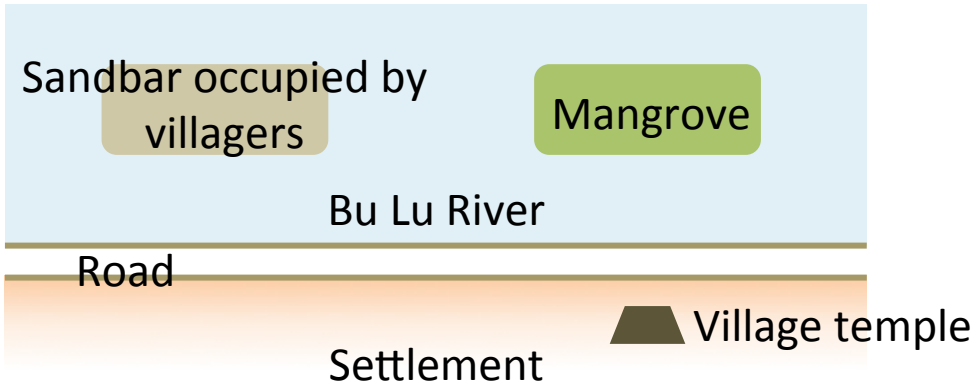


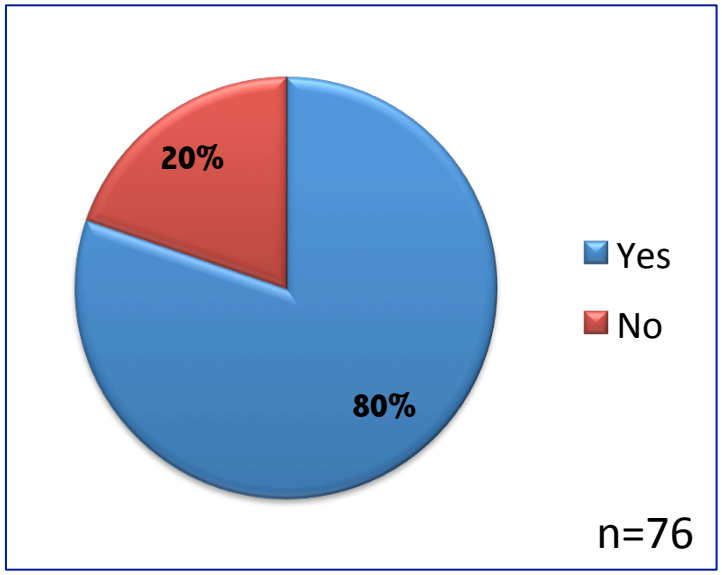
http://earthenginepartners.appspot.com/science-2013-global-forest

Result: Bu Lu

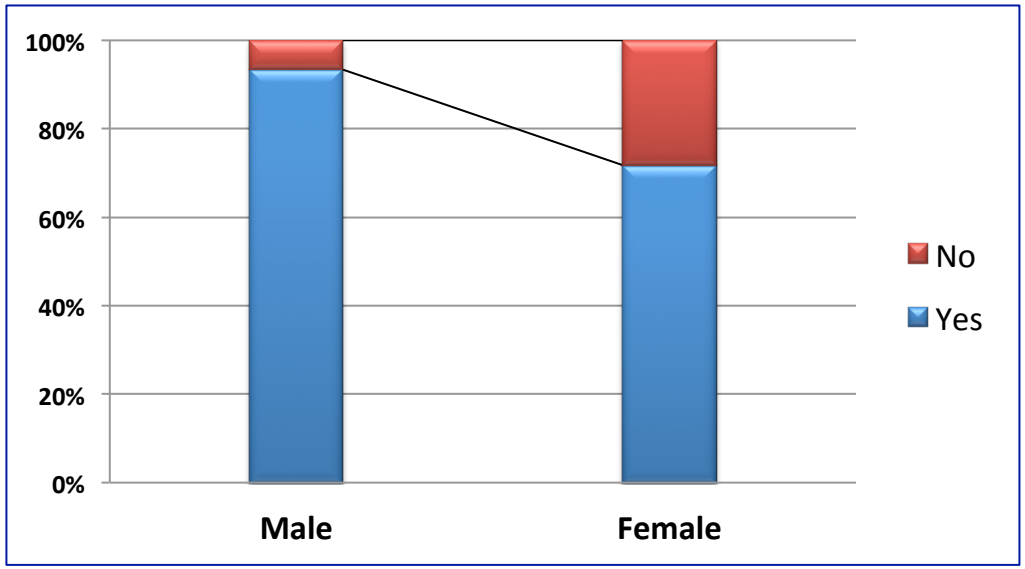
Mangrove forest remains on a sandbar

Village temple facing the river and the mangrove forest





Necessity to expand the mangrove area



Necessity to expand the mangrove area by gender

	Male	Female
Yes	28	33
No	2	13

4. Future Work

- Analyze the remaining factors and policy related to mangrove issue
- Literature Review

Recognize:

- Challenges and opportunities to conserve the mangrove
- Propose recommendations for the mangrove conservation

Thank you for your attendance