

# **Mangrove and Human Coexistence in Strait of Malacca**

-An examination of charcoal making-

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Place of fieldwork: Indonesia

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## **Research background and purpose**

Mangroves have immediate use as the fuel, wood, and the tannin use, etc. Their greater effect has been demonstrated indirectly in terms of their prevention of coastal erosion and meteorological disasters, marine resources training, biodiversity conservation, etc. (FAO 2007). Their current development as industrial sites and their conversion to agricultural land, salt farms, shrimps and fishes cultivation ponds, etc. have expanded as a result of modern means of physical distribution, overseas capital, etc. These are likely the key factors at play in the destruction of mangrove forests and their ecosystem.

In this study, Batam Island on the Riau Archipelago (Indonesia) and Singapore, which is located in the Strait of Malacca, are the investigation ground. My goal in Batam is to clarify the modern using of mangroves, which is one of the most developing areas. The human impact is considered on the basis of the time-series variation obtained through continuous research on the mangrove forests of the Batam Island that have been surveyed so far. I seek a better understanding of the relationships of the mangrove ecosystem, their regional use, and the influence that globalization has on these relationships as well as the current states, maintenance situation, and problems of the mangrove forest ecosystem.

## **Results and achievements by fieldwork**

In Indonesia, mangrove deforestation is prohibited by law. However, inquiry at a local public office revealed that there were 30 charcoal kilns that can be considered publicly recognized. Thus, there is a current state that a complete prohibition cannot be done though the deforestation of the mangrove is prohibited in the law. However, it is said that the recurrence of traditional use is personally feature of the mangrove use on the Batam Island. If mangrove deforestation will be to be dealt with, either of the following two methods can be employed:

1. Managing deforestation is difficult, but the use of mangrove product can be managed.
2. Mangroves must be used within the range that can be reproduced.

## **Implications and impacts on future research**

When asked why this work was begun, I was told “There was no other work” and “The income from the fishery alone is insufficient.” I was also told that “The sea has become polluted and it is impossible to catch enough fish. The current state of the fish harvest and the number of fishery workers are, however, actually increasing (Table 3.4). This data alone cannot provide a clear explanation. An examination into the fishery is

needed. An analysis of the material regarding the fish harvest etc. is currently underway.



Photo 1. Abandoned charcoal kilns (12t)



Photo 2. In-use charcoal kilns (2t)



Photo 3. Charcoal shipment work is carried out by all villagers (Tiang Wang Kang)