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Sustaining Seaweed Farming in Malaysia

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Abstract:

This paper provides an insight to three main issues pertaining to seaweed farming and its industry in Malaysia. The reporting of the issues is made based on the several field trips made to the islands in Semporna. Apart from fieldwork visit, focus group method was also used in collecting the data. The findings suggested that price of seaweed is not fully determined by the semi refinery factories, but rather by the quality of post harvested seaweed. Although there is contestation over the marine areas for farming, but the immigrants are considered to be a set workforce that fills in the gap of absence of local community farming seaweed on the field. The finding also suggested that middlemen play a positive role in helping the farmers to obtain their monetary need and does not manipulate the farmers as may reported or observed in other seaweed farming countries. Malaysia has good potential seaweed farming industry provided with sufficient labourers and quality and practices standard being established in obtaining world recognition.

Keywords: Seaweed farming, seaweed farmers, immigrants, middlemen

1. Introduction

For decades Malaysia has worked on several continuous economic plans that hoped to help the local economy, and eradicating poverty. Seaweed farming was one of the National Key Economic Activities in 10th Malaysia Plan. Malaysia was once the biggest producer for seaweed (*EuchemaCottonii*) that is in Semporna (Borneo Island), farming sites that accumulated almost the whole production of Malaysia seaweed farming. Alin (2013) reported that the account made by Datuk (Datu) Eranza¹ seaweed farming using wild stock was already started before 1970s, as was seconded by many seaweed farmers of older generations. The farming technique was brought by the Bajau and the Suluk from Tawi-Tawi Island, the Philippines. The account is seen to be plausible as Southern Mindanao and Western Visayas in the Philippines has already farming seaweed in the mid 1960s, (Hurtado, 1996). The dilemma faced by Malaysia now is, the less progressive seaweed farming in Semporna has made Malaysia slipped out being the main producer in the world. With that, economic activities for the industry starting from farming, to harvesting, and post harvesting until the refinery process is economically valuable. Hence, this article is sought to provide some perspectives on the issues in the seaweed farming industry of Sabah, Malaysia. In return, hoping that these issues can be resolved and making seaweed farming more sustainable.

2. Issues

2.1. Issue 1 - Seaweed farming among Malaysian Islanders and Immigrants

Back in 2004, more than half of total 2,061 individuals² including those who have document but questionable in its authenticity, excluding the sea gypsies - *BajauLaut* who due to the nature of their semi nomadic life, have no document (no birth, death or marriage certificates, etc) but none the less protected under the Universal Declaration of Human Rights and the Rights of the Child.

1. Datuk (Datu) Eranza Datu Saribu was the Chairman for Sabah Fish Marketing Sdn Bhd. in the 1990s and District Chief (OKK) for Semporna between 2004-2008, (Alin, 2013).
2. Sea gypsies are mobile cross border within Sulu Sulawesi. They are protected under United Convention relating to the Status of Stateless Person 1954 when they are in the Philippines but not in a non-signatory members Malaysia and Indonesia. The issues of nomadic people are being highlighted in Dana Declaration on Mobile Peoples and Conservation 2002 and UN Declaration on the Rights of Indigenous Peoples 2007 and IUCN World Conservation Congress resolution 1.53 on indigenous Peoples and Protected Areas 1996.

The individuals sometimes are being considered as stateless. Those individuals are living inside TunSakaran Marine Park, (18% are Malaysian citizen) were involved in seaweed farming one way or the other. The researchers have estimated that 90% of 3,095 metric tonnes (valued at wholesale price RM 5.572 million) of Sabah dried seaweed that year was produced by seaweed farmers inside TSMP. Almost all of the seaweeds in TSM were produced by the illegal immigrants. Seaweed farming is the ticket to a better life to the victims of civil wars and to the economically deprived fishermen coming from Mindanao, Basilan, Sulu, Tawi-tawi and Sibutu.

They risk life crossing Sulu Sea (infested with sea bandits and pirates), enduring unimaginable hardships not to mention the harassments from State authorities. The arrival of refugees³ in 1970s was followed by waves of immigrants from different linguistic groups of Bajau (Badjaos) and Suluks insisting coming back to their ancestral domain not intruding to another modern state territory. Over the years, a first generation outsider acclimatizes or integrates themselves with local islanders through intermarriages; their second generations eventually became citizen. Malaysian Islanders have similar genetic makeup with the newly arrived immigrants. With this strong blood ties, it is not surprising that they have not qualm to hiring newly arrived illegal immigrants to work on their farms.

It is an irony that the descendent of immigrants who are now a Malaysian citizen concerns about clear and present dangers of illegal immigrants in terms of national security and sovereignty. They are feeling aggravated and threatened by the overwhelming numbers of Filipinos, and yet co-existing with them. The Malaysian islander has been complaining about losing rights to access marine resources. Older generation of seaweed farmers' are very bitter towards the State and Sabah Parks for failing to safeguard the customary rights over marine tenure especially spatial ownership of reef tops. They are very nostalgic about good life prior to 1970s; Sulu sea was very pristine, reefs teeming with life⁴.

The contestation over marine resources between newly arrived illegal immigrants consisted of Bajau (Ubian, Simunul, Mapun), Taosug, BajauLaut and the Malaysian islanders manifested in island population being segregated along ethno-linguistic lines (shown in table 1). Tougher outsiders refused to respect the pre-existing exclusive rights of Malaysian to using marine resources resulting in the environments being degraded⁵. Unable to exclude outsiders from using marine resources, local islanders have no incentive to care for environment they lived in. Why should they refrain themselves from fish bombing when it benefits the outsiders⁶? Malaysian islanders reluctantly share their islands with the newly arrived non-Malaysian Bajau and Suluk who settled down as squatters⁷. With zoning, most areas in TSMP declared off-limit for fishing, they are now in a head to head collision with the squatters over spatial or rights to using marine resources.

Overlapping claims over farming sites happened all the time⁸, most are settled by one party withdrawal while few cases escalated into an isolated physical violent. Amidst well entrenched inter and intra ethnic mistrust or hatred and deep-rooted racial prejudice, emerged an evolving convention - the first possession as solution to the conflict⁹. The essence of such conflict can be captured in a Hawk-Dove Games name refers to the idea that players can play either aggressive (hawkish) or passive (dovish) strategies.

2.2. Issue 2 - Seaweed Farmers and Middlemen

Middlemen are perceived by government agencies and the third party observers as exploiting the hardcore poor seaweed farmers (alternatively working as artisanal fishermen). Literature on the role of middlemen in fishing industry has strong natural bias against middlemen. Firth, R. (1966) and Eliston, G.R.(1967) both described the pervasive problem of middlemen exploiting poor fishermen in most fishing villages in Peninsular Malaysia. The fishermen (mainly Malay) are the helpless proletariats in a class struggle against the exploitative capitalists- the middlemen (mainly Chinese ethnic). Artisanal fishermen are too poor to afford storage (ice boxes) and

3. Refugees according to Convention to the Status of Refugees 1951 A(2) as .."owing to well-founded fear of being prosecuted for reason of race, religion, nationality, membership of a particular social group or political opinion, is unwilling to avail himself of the protection of that country; who, not having a nationality and being outside the country of his former habitualresidence as a result of such events, is unable or, owing to such fear, is unwilling t return to it."
4. Historical accounts on the abundance of marine and coastal biodiversity is in Shimomoto, Y.(2010); Warren, J.F.(2002); warren, J.F.(1981); Khoo Kay Kim, compiler (1981) and Cook O. (1924 reprinted 2007).
5. Older generation local islanders suspected it was outsiders, who brought all the destructive technologies such as fish bombing, pump boat and cyanide poisoning.
6. Fish bombing and cyanide poisoning fishing will caused serious damage to seaweed farming because both take place at the reefs top. Our fieldwork notes from Semporna, LahadDatu, Tawau, Kunak ,Banggi, Kudat and Green Island near Roxas city in Palawan, Philippines recorded that blasts from explosive under water 1km away from farm can have devastating effects to seaweed growing on monocline. If seaweed farmers use bomb or cyanidefor fishing he will do it further away from his farm or if he wanted revenge and he will do it near someone else unattended farm.
7. Underpinning logic behind squatters is similar to homesteading and theft; both are examples of rent seeking. Thief spends time and efforts in order that he rather than local islander will end up possessing the space or accessing the marine resources. Homesteader spends resources in order he rather than the next claimant, will end up possessing a particular piece of island or farming space. Inside TSMP, squatters and illegal settlers have been occupying most islands including State Land Title; they are like the rough frontiersmen bidding for the land they are already farming.
8. It was documented among others by Wood, et al (2008).
9. Details on the conflict resolution among the BajauLaut the Sea Gypsies are given by Torres III, W.M. (2004).

high cost of transportation to the nearest markets, they have no choice but to sell their fish cheap to unscrupulous and greedy middlemen who in turn will re-sell it dear. When the weather is too rough fishermen unable to go fishing, middlemen will offer loans by charging usurious interest rate. Or in the event of delayed repayment or default on loans, middlemen will forfeit future catches or borrower's fishing gears and boat.

Firth, R. (1966), Eliston, G.R. (1967) and as well as Yap, C.L.(1978) proposed the State to intervene more than just giving aid schemes, government should set up its own marketing agencies (Sabah Fish Marketing SdnBhd (SAFMA), FAMA, Lembaga Kemajuan Ikan Malaysia), Fisheries Department should provide loans with lowest interest rates and encourages formation of cooperatives (today known as PersatuanNelayanKawasan). Despite all the efforts of the State (government) to provide loans and to act as marketing agency, middlemen persisted among the fishing community. Trono, G.C. (1989) and (1990) attributed the ex-farm gate price fluctuation due to speculative bubble and bust involving farmers, intermediaries and world markets. Monzales, O. (2006) on behalf of the seaweed farmers association in Zamboaga, had listed existence of middlemen as one of biggest and pressing challenges for seaweed markets. Study conducted in Kudat by Rosnah Ismail (2004, in Malay language) concluded that the success of any development program (including PPRL) is depending on attitudes and awareness of the target group. Rural communities, according to her, are highly dependent on government and lacking awareness on the importance of participating in development projects. They are pessimistic, passive and lazy to put extra efforts, they are easily contented. She also said that lack of information dissemination are one of the factors why participant does not have basic knowledge of seaweed culture.

Some of them are not interested to know, reluctant to participate. Fadzilah Majid Cooke (2004: 397) provided an ethnography account of seaweed farmers in Banggi Island, she observed that:

“The ability to rely on women's boating skill and labour within households was a key factor in the successful adoption of seaweed at Kaligau. Consequently, seaweed's further success would depend on the extent to which those could be organized to become endogenously motivated...currently, what keeps them working at seaweed, despite relatively low returns to labour investment, is the social status that has come to be associated with the crop. These include the social status attached to the surau, and the sense of group worth that emanated from Bajau interpretation of governmental and non-governmental assistance as a sign of their being accepted as worthy citizens, as good as, if not better than their Kagayan neighbors”.

Ahemad Sade, et al.(2006:107) took similar view to those of Monzales O.(2006), by reporting that seaweed was successful in part because it was a household enterprise. This report is good reading for beginner for it provide an overview of the culture methods and production trends. Inter alia, it pointed out that manpower or labour shortage as one of the weaknesses or threat to seaweed industry.

Furthermore, the report said, there are two most important and common issues facing seaweed industry in Asian country notably seasonal disease and market price fluctuation. The report has many unsubstantiated claims but one that really puzzling are;

“it has been proven that seaweed farming activities are essential not only to improve the income of fishermen or as an effective tool for poverty eradication, but also as the perfect solution for the conservation of coral reefs” (Ahemad Sade,2006:98).

Alin (2013) concluded that Informal credit markets are pretty far removed from perfect competition and smooth functioning, resulting in symbiotic bilateral relationship between seaweed farmer (fishermen) and middlemen (intermediary) to evolve. Evidence presented here failed to support the hypothesis in which market exchanges between the middlemen and seaweed farmers are not always as voluntary as we expected. Seaweed farmers might be desperately poor, but that not necessarily mean they are lacking the ability to bargain on fair terms. The revealed preferences and verbal descriptions of seaweed farmers of their business dealing with middlemen shows that their market choice is a free and fair choice, notwithstanding inequalities in the background conditions of seaweed farmers.

2.3. Issues 3 – Seaweed Quality, Pricing and Semi Refinery Companies

The quality of dried seaweed in Sabah is a lot better compared to dried seaweed produced by Philippines and Indonesia. However, since the seaweed from Sabah is being sold to the Philippines, the quality has been downgraded because it is mixed with those from the Philippines that are relatively of low quality. Basically, the price of dried seaweed is decided by the factory and it causes uneasy feelings among the producers, both company and household farmers. Between 2008 and 2009, the price once reached RM7.00 per kilogram, but then the price decreased to RM2.50 to RM2.70 per kilogram. One collection centre should be built to facilitate the farmers and the centre will be managed by a department or agency appointed by the government. The centre will also record and keep the data of the registered farmers and their production level. Security has been an issue for the farmers, both the company and the household farmers, since the farm was quite far from one another and from the mainland. Tubing especially, is located between Kapalai and Mabul which is a bit isolated compared to other islands. Farmers suggested that the government should be alert about the security issue; moreover, there have been cases of kidnapping reported in Sebangkat as discussed by Alin (2011).

3. Conclusions

Seaweed market in Malaysia is yet recognized by world market, small farmers and companies have to go through Philippines and Indonesia to export their dried seaweed. This is due to the fact that there is no specific standard for Malaysian produce of seaweed. Therefore, Malaysia has to have an agency to establish an appropriate standard to ensure the standard is practiced and accepted by other countries. The Philippines has the Philippines Management Grade (PMG) for quality control of the country's seaweed production. The participants agreed that government enforcement is the key to all matters that have been discussed. Therefore, they agreed that a unit should be formed to manage the industry as a whole in order to make sure the industry succeeded and sustain. They cited some examples such as Malaysian Cocoa Board and Malaysian Rubber Board, which oversee the running of the industry in Malaysia.

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