

# LOCAL CUISINE AND ENVIRONMENTAL CONCERN - MALAYSIAN FISHERMEN JUSTIFICATION FOR SEA TURTLE EGG CONSUMPTION<sup>1</sup>

*Tsuji Shyuji*

## **Abstract**

Sea turtles in Malaysia are severely endangered. Turtle egg consumption is considered to be one of the greatest treats for the local population. However, a basic question remained unveiled; how do fishermen consider egg consumption. This study tries to elucidate latent mindset of fishermen concerning egg consumption through a systematic qualitative survey. The study is based on interviews conducted in two fishery villages in Kerteh, Southern Terengganu. The study reveals that fishermen are little aware of hazard of egg consumption and they have their own logic to justify consumption. Their reluctance to curb egg consumption shows clear contrast with their keen awareness on hazard of fishing activity on sea turtles. This paper offers to highlights present status of sea turtle conservation in Terengganu. It also discusses fishing gear regulation and reliance on government. These pave a path to our main concern, justification of egg consumption.

*Keywords: Sea turtles, conservation, egg consumption, awareness, and mindset*

## **Background**

Turtles are symbol of Terengganu state. The state was once known as one of only six places on the earth where the giant leatherback turtles nest. Terengganu is also well known for its diligent efforts for conservation lasting more than 40 years. The state has run hatcheries since 1960s, and enforce turtle act which allows fishery officers to arrest anybody poaching turtles without warrant. It also banned gill nets targeting rays for the purpose of conservation. Turtle conservation of the state focused on giant leatherback because of scarcity of the spice. However, as is shown in graph.1, only small number of the leatherback has nested since late 1990s. After this decline had become clear, conservation came to encompass other species. Recently, state government started paying serious consideration on green turtles.

Establishment of Ma'daerah turtle sanctuary in 1999 is one of the attempts to save green turtles in the state. Ma'daerah is a beach in Paka-Kertih rookery, composed of Paka syarikat; Rhu Kudung; Tanjung Batu; Cagar hutan and Madaerah. It is the second sanctuary in the state. Nesting number of sea turtles on Ma'daerah beach does not share great part in the state. The sanctuary accounts for only about 7 per cent of nesting number in the state and has had just 2 leather back turtles since its launching in 1999. However, the fact that the sanctuary locates nearby behemoth petrochemical complex bestows significance to the sanctuary.

Paka-Kerteh rookery has seen rapid change of the environment since offshore oil exploration started in 1979; advent of oil turned rustic beaches into petrochemical corridor. In spite of this dramatic change of circumstance, the cove has been kept untouched because a series of low hills conceal there. The only road access is through a steep trail cutting through secondary forest. As a result of this isolation, even inhabitants of the most vicinal village rarely visited there. Eventually, the sanctuary comes to bear a symbolic role as the last haven of the endangered reptile in the heavily industrialized district.

Involvement of local community also highlights feature of the project. It is one of the earliest conservation projects in Malaysia which enunciate to pursue community involvement.<sup>2</sup> Various activities to raise awareness among local community are practiced.<sup>3</sup> The programmes primly target at children and youngsters for the sake of long term sustainability. However, fishermen are also regarded as a crucial target for awareness campaign in order to ameliorate by-catch problem and hopefully to curb turtle egg consumption. 'Dialogue with fishermen' sessions, exhibitions, and annual beach clean-up are among programs for Fishermen. Worldwide fund for wildlife (hereafter, abbreviated as WWF) organizes voluntary group comprised of part of local inhabitants to provide the activities. The group is called MEKAR group, abbreviated from Persatuan Ma' Daerah Khazanah Rakyat. Here arises the core interest of the research: how do fishermen recognize these activities? Are they willing to accept idea of conservation? These are keys for tangibility of the program.

## **Methodology**

The study is based on a field research from June to August, 2007. During this period, the author lived in one of the studied villages and conducted semi-structured interview to fishermen as well as observe fishery operation and educational programs. Interviews were all held by the author himself in Malay language.

There are mainly four settlements around Ma'daerah sea turtle sanctuary-Kampung Labohan, Kampung Gulugor, Kampung Tengah, Kampung Telaga Papan. The author observed little difference in social stratification of fisher folks among these settlements. Therefore, the interviewer focused on Kampung Labohan and Kampung Tengah. Number of conducted interviews held was 6 in Kampung Labohan and 18 in Kampong Tengah. This corresponds to number of fisher folk households found in member list of fishermen's association of the settlements. In Kampung Labohan, all households are member of the association. In Kampung Tengah, there can be limited number of households which do not affiliate association according to head of the group.

The sampling strategy chosen for research was complete survey. Focusing on two villages ensured the author to invite fishermen from every household on the list. The author successfully invited from the head of fishermen's association to teen-age clues of a fishing boat.

Analysis of the interview records followed the procedure of Modified grounded theory approach, which is widely employed in field of social welfare.<sup>4</sup> Grounded theory approach was originally systematized in the 1960s by Anselm Strauss and Barney Glaser<sup>5</sup>. The Modified grounded theory approach, adopted in this study, is its simplified version and put special emphasis on studies based interview<sup>6</sup>. The practical operation of the analysis is as follows:

1. Making a transcript of a recorded interview word by word.
2. Reading through the transcript and marking up statements closely related to focal point of the study.
3. Coding marked up statements. The way of coding follows Strauss and Corbin<sup>7</sup>.
4. Conceptualizing ideas behind the statements. Name of a concept, its definition, variation of related statements, and theoretical questions are documented. Statements from another interview records are added to the format when they are considered as variations of concepts.
5. Generated concepts are cross-checked with properties and dimensions of the data so as not to isolate from original data.
6. Merging concepts into a schema. For this integration, relationships between concepts are examined following Strauss's coding paradigms: conditions, action and interaction, tactics and strategy, and consequence<sup>8</sup>.

The operational procedure is mainly indebted to Kinoshita<sup>9</sup>. Italicized words, appearing frequently in the following part of the study, represent concepts generated through the operation above.

## Results

### Awareness on Impact of Fishing Activity

Fishermen are basically aware of endangered status of sea turtles and also clearly recognize that some particular fishing gears are harmful for them. The awareness can be divided into *awareness on hazard* and *awareness on illegality*. *Awareness on hazard* means the recognition of fishermen admitting harm of two particular fishing gears, gill nets targeting rays and trawl nets, on sea turtles. Both of these gears frequently by-catch sea turtles and the former has been banned so as to protect them. *Awareness of illegality* terms that fishermen clearly recognize regulation on gill nets like:

Sekarang penyu kurang. Nelayan sendiri yang menggunakan pukot yang diharamkan oleh kerajaan, bila diharam nelayan pantai tidak punya pukot itu ambil kalau penyu tiap-tiap tahun naik ke pantai kita nelayan menahan pukot penyu tidak akan ke darat lagi, kalau dah kena mati penyu dah kurang dan bilangan penyu naik ke darat berkurangan. Itu lah nelayan yang menggunakan pukot yang diharamkan (case 8).

The definition is especially true to the cases that respondents know and mention detail of the regulation like following remarks:

Pukot pari punya fasal penyu jadi mangsa dia. Sebab itu pukot, penyu sangkut dan tidak boleh lepas. Pukot pari ini bukan kata mata kasar mata empat bekas inci sahaja. Mata empat inci lima inci pun sangkut

je mati jugak. Dia terus sudah kena tangan dia sudah sangkut tiba-tiba dia tidak boleh melepaskan diri dia (Case 3).

Sebab itulah perikanan sekarang dia buat satu tindakan hantar pekerja dia menyelidik nelayan-nelayan di kawasan kita menggunakan pukak yang larang. Mata pukak 6 inci ke bawah sahaja nelayan boleh pakailah, kalau 7,8,9,10 inci, memang salah (Case 8)

They witness sea turtle entangled in their nets. Moreover, by-catch is the focal agenda in 'dialogue with fishermen' sessions held by department of fishery. Consequently, by-catch is perceived as the most significant factor to drive sea turtles into extinction. Many respondents even regard by-catch as the sole cause of the decline.

Fishermen well understand that fishing operation gives impact on sea turtle population. However, it is true that restriction on fishing gear entails some costs. Gill net is a lucrative gear for small scale fishermen. A respondent explains as follows:

Dia kalau kita tahan pukak pari, sebetulnya nelayan memang suka pada pukak itu. Sebabnya hasilnya begitu lumayan. Dia tidak kira masalah kepada penyu (case 3).

Eventually, some fishermen among the community impulsively use the gear secretly:

Fasal sekarang ini aktiviti pukak pari ini dia jalankan lebih senyap, dia orang mencari yang pengguna pukak pari ini dia orang buat penyu jadi pupus dengan cara tidak selamat lagi lah (case19).

misalnya pukak pari kita boleh hapuskan terus, tetapi kita hendak hapuskan pukak pari memang susah, fasal pukak dia akan sentiasa ada dijual, kalau kita hendak halang dia memang susah jugak fasal dia buat aktiviti senyap (case 19).

Even though the community is not monolith, majority of the members regard the regulation as proper because they share *awareness on hazard* and *awareness on illegality*. However, they admit that a few particular fishermen abide by using the gear:

Nelayan tertentu sahaja. Bukan kata semua lah pukak pari. Orang yang tidak punya wawasan, tidak bertanggungjawab. Sebab itu dia masih menggunakan pukak itu (Case 3).

Pada pendapat saya penyu berkurangan pada sekarang ini disebabkan pupus kerana pukak-pukak lah. Seperti pukak tunda, pukak pari. Yang jadi dan ada juga pihak-pihak yang tidak bertanggungjawab menangkap penyu itu (Case 7).

They are called irresponsible fishermen.

## Reliance on Government

In this subpart, three important concepts are explored. These are *sense of victim*, *powerless fishermen*, and *work of government*. *Sense of victim* and *powerless fishermen* are important mental backgrounds of dependency on government. *Work of government* is another perception of the fishermen, resulting in the dependency.

### *Sense of Victim*

Sense of victim is a key stone to understand mentality of local fishermen. They feel it because of *somebody else than me*, and *action of foreign countries*. Let us discuss each subconcepts.

Feeling of *somebody else than me* explains basic idea of fishermen concerning to decline of sea turtle and degrade of local marine eco-system. The idea attributes these problems to abuse of resources of anybody else than respondents themselves. Trawlers from bigger port and foreign countries are the most commonly criticized party:

Dhulu penyu pada tahun 70-an banyak di kawasan ini, semenjak ada pukot kokot, pukot pari, pukot yang jenis besar-besar boleh membunuh penyu dan penyu kurang. Semenjak 90-an juga (Case 10).

Pukot kokot itu tauke yang punya. Biasanya dia datang dari Kuantan, Kemaman pun ada (Case 10).

Besar yang menyumbangkan kepupusan daripada pukot kokot yang paling besar. Datang dari Johor dari Kuantan, dan Kuala Trengganu (Case 1)

In the second citation, the respondent mentioned two towns locating within 70km from the village. The third one adds name of another town in 120km north. These towns have ports with good facilities. Further, entrepreneurs in the towns run much greater capital than village fishermen; they own big fishing boats with modern gears including trawling nets. In perception of village fishermen, by-catch resulting from their operation is one of the greatest treat for sea turtles.

Another party accused commonly is foreign boats, especially from Thailand<sup>10</sup>. Their operation menaces local, traditional, and small scale fishermen:

Fasal pukot tunda ini keluar malam. Keluar malam dia berhampiran pantai. Dia tujuan dia nak sotong. Tapi penyu masuk. Tapi penyu tahu barang yang salah dia tak keluarkan masuk satu tempat tong dia terus. Hantar Siam. Jadi kerajaan tak tahu (Case 1).

Banyak kurang sebab pukot ah, sebab luar negara pun mari tangkap dia mari tangkap penyu di Malaysia, seperti Thailand...(Case 6).

These remarks well reflect the treat that local fishermen feel daily. Large scale operation of commercial fishery and encroachment of foreign boats are common

angst of them because of their impacts on local fishing resources. Local fishermen explain *damage on fishing resource* as follows:

Kita punya tempat sotong pun habis dia kokot. Jadi susah nak cari makan sekarang (Case 1)

Pukat tunda yang merosakan harta kehidupan dalam laut semua sekali. Telur-telur sotong biasa kita candat sotong sampai satu minggu paling kurang. Sekarang satu dua hari habis (Case 1).

In perception of most village fishermen, they are victim of outsiders with greater power. Increase of commercial boat triggers their *sense of victim*. These treats on fishing resource are so crucial concern of the local fishermen that they can regard declining process of sea turtles as coinciding with raise of commercial fishery:

Dhulu penyu pada tahun 70-an banyak di kawasan ini, semenjak ada pukat kokot, pukat pari, pukat yang jenis besar-besar boleh membunuh penyu dan penyu kurang. Semenjak 90-an juga (Case 10).

Besides these complain on fishing operation, accusation against *action of foreign countries* has more variations:

Sini susah nak dapat kalau ada pun bukan telur sini. Tetapi telur dari Indonesia kerana di Indonesia banyak penyu, Penyu dia tak makan telur tak makan juga, pasal itu dia banyak eksport. Saya pernah ke kepulauan Indonesia, dhulu pada tahun 70-an telur penyu dia main permainan bowling-bowling sahaja. Betul dia tak makan, kita terok guna dia suka! Betul dia tidak makan, sekarang kita pergi beli pun dia tidak jual, Cuma dia bagi free sahaja (Case 13).

Itu hari saya ada baca berita di sebelah Sarawak iaitu Jabatan Perikanan menangkap bot nelayan asing, bot Philipine merampas banyak penyu yang sudah mati. Di sebelah Thailand juga suka makan daging, aktiviti dia juga menahan pukat penyu. Kesan ketara yang menyebabkan kepupusan (Case 19).

Respondent no.13 knows international linkage of egg market. Respondent no.19 knows the fact that citizens of non-muslim countries in the region consume turtle meat as well as its eggs. A discourse regarding to turtle decline arises from these knowledge: Malaysia does its best to protect sea turtles while other countries do not. Even if Malaysian government would take any action to protect sea turtles, the effort is deemed to fail due to mindless *action of foreign countries*. This is a variation of *sense of victim*.

In line of this understanding, some fishermen assess impact of petrochemical industry as follows:

(Kawasan minyak<sup>11</sup> Tidak ada bahaya sebab apa air laut ini dia begitu besar, sebab dia lepas air minyak kotor-kotor dia sudah rawat, air

sudah proses kecuali datang kapal datang daripada luar negara masalah kapal pecah, kapar bocor, itu ada kesan juga lah (Case 17).

Kawasan minyak penyu tiada masalah, cuma kalau ada penyu ada masalah kesan-kesan minyak daripada kapal, itu yang ada masalah sedikit kalau ada tumpahan minyak daripada kapal (Case 18).

Both citations criticize *action of foreigners* which undermine Malaysian effort. These two respondents depict that Malaysia is innocent and nothing but a victim.

### *Sense of Powerlessness*

Fishermen tend to consider that their political and social resources are not sufficient to solve problems, especially those encompassing parties from outside of their own community. This *sence of powerless* leads fishermen to dependency on government:

Nelayan tidak boleh ambil tindakan. Yang boleh ambil tindakan ialah jabatan sahaja... Nelayan tidak mempunyai kuasa. Kita tiada kuasa kalau kita ambil tindakan kita tiada kuasa jadi orang pukak pulak akan terbabit (Case 3).

In line with community based conservation, fishermen's autonomous controll on *irresponsible fishermen* among the community should be pursued. As a result of community involvement efforts of WWF and Depatment of fishery, a few fishermen sometime chaide other fishermen considered to be irresponsible. Nonetheless, common results are *ignorance of caution* :

Kebaikan kesan memberi baik kepada kita dan tidak kesan buruk sebab sejak program ini dijalankan dia akan ada sedikit kesedaran pada diri kita. Itu lah kebaikan pada diri kita macam kadang-kadang kita di laut nasihat kepada kawan-kawan kita jangan buang dalam air, kita buang di darat. Ini kesan baik pada kita (Case 19).

Kalau kita nasihat itu orang dia tidak boleh terima apa yang di lakukan, dia tak nampak. kadang-kadang dia tak nampak masalah yang akan datang. Itu masalah sekarang tak ada duit dia buat hal (Case 19).

Causion to peer fishermen are not only ignored but also tend to invoke backlash<sup>12</sup>. Even powerful senior fishermen are afraid of being regarded as a 'betrayer' by community members and eventually losing their fame.

Another result of fishermen's own effort to control illegal net was *hide and seek*:

Contoh di waktu kita dalam operasi itu, dia pun buang pukak-pukak itu pari atau peralatan yang lain, jadi tidak ada bukti (Case 3).

After *ignorance of caution* or *hide and seek*, these respondents reached at a same conclusion: The only way to control illegal net properly is complete ban of selling the gear, which requires authority of government.

Fishermen find themselves powerless especially when they face problem stemming from outsiders. As is mentioned, big commercial boats both from bigger cities and foreign countries bother them as well as sea turtles. However, solution of this problem is beyond their ability.

*Sence of victim* and idea of *powerless fishermen* are intertwined in mindset of fishermen in the following way: Decrease of sea turtle is a problem resulted from *somebody else than me*, while great majority of the fishermen in the villages are totally innocent. The village fisher folks may well feel sympathy to sea turtles, another victim of mindless action of outsiders like themselves. However, saving turtles is not their own responsibility. They are nothing but *powerless fishermen*, lack of resource and authority to take action. They are so weak actors that they can even hardly reclaim *irresponsible fishermen* among their own community. Then, even though some fishermen have nascent idea of conservation, they feel that 'Yang boleh ambil tindakan ialah jabatan sahaja'(case3, op cite).

### *Conservation as a Work of Government*

The majority of the interviewed fishermen consider that government is the only party to take charge of sea turtle conservation and consider that the government takes charge of both control over illegal gear and hatchery exclusively:

Pihak perikanan memantau nelayan yang pukut pada 10 inci terus menahan (Case 9).

Masalah tidak ada apa-apa, setakat ini kira belum ada apa kira lepas, dia dok care maknanya benda tu dia lepas (Case 16)

Fishermen consider that *more stringent control on fishing gears* and *broader sanctuary* are remedy for sea turtle decrease. Especially, they support tightening regulation on hazardous fishing gears. Their *sense of victim* and *sense of powerlessness* discussed earlier underlies this support. These gears are also *harmful for fishery resources*, yet *powerless fishermen* can not take adequate action. They naturally expects that government tackle this problem on behalf of them:

Menambah memang boleh tetapi pemantauan itu lebih meningkatkan daripada jabatan, jabatan perikanan, kawalan yang lebih...(Case 3)

Dia buat kawasan larangan dari darat pukut tidak boleh diguna, pukut kokot tidak boleh, pukut pari tidak boleh (Case 12).

Fishermen also welcome *broader hatchery*. Especially, those who collect and consume eggs support hatchery with expectation of greater harvest in the future:

Untuk mendapatkan tambahan bilangan penyu, maknanya saya rasa lah untuk lebih buka lagi kawasan penyu itu ada untuk penyu itu naik



untuk tempat menjadikan tempat eram-eram... Iaitu penetasan, makna tambah lagi selain daripada makna kalau ada tempat-tempat lain kalau ada untuk buka lagi lah tempat itu (Case7)

Tiada masalah. Menambahkan projek ini untuk buat menambahkan pun berfaedah (Case 2)

Support for hatchery underlies expectation for 'faedah', some tangible benefit, in the future. In other words, such fishermen support hatchery as a tool for resource management: An idea that sea turtle is a kind of fishery resource enable them to accept management, regardless of level of awareness on value of a rare species. It is also a comfortable idea for them that running hatcheries is a *work of government* conducted by public servants or other professionals. The idea condones them to be free-riders<sup>13</sup> of the project.

Ironically, great presence of government as a result of its devotion for decades helps fishermen to have a fixed idea; sea turtle conservation is a *work of government* whose measures are hatchery and head-starting. The notion appears in following statements of MEKAR group members:

Projek perlindungan penyu ini oleh MEKAR dan TUMEC<sup>14</sup> ini saya rasa berjaya lah sebab dia ada kan satu rumah untuk benih-benih penyu itu untuk mendapatkan anak. Saya rasa berjaya lah (Case 7)

Ini kalau kata nak dapat faedah tindakan penyu menetas kita untuk komuniti rakyat Malaysia sebab itu kerajaan persatuan buat tempat penyu untuk menambahkan anak-anak penyu untuk menambah lebih banyak lagi (Case 8)

The first statement trivializes Ma'daerah project. In understanding of the person, conservation is simply a synonym of hatchery and function of MEKAR group is incubating eggs. The second respondent regards government as the party in charge while he describes community merely as recipient of benefit. These statements articulate transformation of idea of community based conservation in fishermen's perception due to great presence of the government.

An important premise of these arguments is *trust for government* as a result of good governance of the country<sup>15</sup>. This trust manifests itself well in fishermen's understanding on relationship between petrochemical industry and turtle decrease:

Bagi pendapatan saya, kalau kita melihat dari segi mata kasar, kalau bahaya sekadar daripada kesan-kesan minyak itu, tidak terlalu serius, sebab, kerajaan juga memantau, kerajaan memantau secara bagaimana membuang sisa-sisa toksik untuk mendatangkan bahaya kepada hidupan laut. Orang kata bukan sahaja penyu, malahan kita juga manusia terdugut (Case 21)

The citation above premises capability of the government to solve problem effectively. Criticism against foreign crude oil carriers cited earlier shares the idea too. The trust eventually assigns government to handle conservation issues exclusively.

As far as fishermen regard government as the sole party taking charge of the issue, they may well consider that government must bear all the responsibility pertaining to conservation. Consequently, they attribute decrease of nesting number to insufficient performance of government:

Ada lah, makna pendapat masalah itu adalah contoh orang perikananlah. Masalah penyu mati dialah yang bertanggungjawab (Case 16).

Perikanan akan bertanggungjawab benda ini, dia akan sampai masa dia menetas dia akan lepas ke laut lah. Yang sebab penyu kurang ini dia ada sebab-sebab (Case 17).

The usage of the word, 'tanggungjawab', is worth an argument. In the context of the second citation, the word refers to full responsibility to manage sea turtles. However, in the context of argument on *irresponsible fishermen*, 'tanggungjawab' merely refers to compliance with regulations posed on fishing gears. This difference of usage reveals that, in mindset of fishermen, government is absolutely the prime actor for conservation. Concerning to sea turtle conservation, fishermen's threshold so far is to comply given rule; more active and uphill efforts are regarded as *work of government*. In line with this perception, what can be accepted at most is co-management. More radical, grass-root style autonomy would hardly be accepted by them.

### **Justification for Egg Consumption**

Demand for eggs always overshadows our previous discussions. Finally, we are on stage to argue justification for egg consumption. Main concepts explored earlier resurface in this part and they are merged into a mental map. Topics explored are as follows:

- a. Leaving eggs – a voluntary effort
- b. Existence of hatchery
- c. Officially authorized resource

These topics correspond to three main discourses fishermen employ to justify egg consumption.

#### ***Leaving Eggs – a Voluntary Effort***

*Leaving eggs* refers to custom of egg collectors to avoid harvesting all of the nested eggs voluntary. This is the simplest excuse for egg harvest:

Tapi cara orang ambil telur memang sekarang ini kerajaan pelihara penyu bertelur sepuluh biji, lima biji mesti dia tinggal untuk anak (Case 1).

The custom serves as a subjective relief for fishermen rather than real remedy for resource degrade. Here emerges a question: Do fishermen know that very small ratio of sea turtles surviving to be an adult? Yet, this question is meaningless. It is more precise to consider that the discourse can be used tactically regardless of one's actual knowledge of turtle ecology. The following remark of the same informant suggests that he knows the ratio:

Kalau sekarang seratus seekor je hidup. Mungkin saya rasa kalaulah besar itu mungkin lah dia kata lima ekor je hidup (Case 1).

Even leaving a few eggs from a nest enable an egg collector to persist on his good practice. Number to be left solely depends upon one's own volition. Then, even fishermen themselves do not always believe its effect:

Bila ada telur ada juga yang tidak menetas, tapi dia tinggal juga telur satu biji, dua biji, tetapi tak ramai. Boleh jadi penyu kuranglah (Case 15).

Argument above suggests that provision of biological knowledge does not promise successful conservation; fishermen are more nimble.

Selling eggs to hatchery is a variation of *leaving eggs*. The fact that government runs hatcheries provide stronger sense of legitimacy for fishermen comparing with simply *leaving eggs* in the nest:

Kekurangan itu fasal orang makan telur itu kita dok ri, bukan semuanya telur itu orang makan, yang lain itu dia biak-biak lah.... (Case 16).

Betul orang kampung ada makan penyu, tetapi ada had, ini untuk membiakan ianya sebahagian untuk dijual (Case 17).

By selling eggs for government hatchery, fishermen can leave government as for the rest.

### *Existence of Hatchery*

Existence of hatchery can justify daily egg consumption in two ways: If *hatcheries are successful*, it should compensate egg consumption sooner or later. Even if *hatcheries are abortive* and hardly compensate egg harvest, it simply depicts that *work of government* shows insufficient performance. Greater effort of the government for technical innovation would raise the performance high enough to replenish loss of eggs later.

Most fishermen depict that performance of hatchery is high enough. Further, not a few of them state existence of hatchery in itself proves success of conservation. Its performance does not matter:

Berjaya Sebab dia melahirkan anak-anak penyu yang menetas (Case 5).

Program penyu ini berjaya. Sebabnya anak-anak penyu sudah ada (Case 11).

Fasal dia bertelur. Dalam satu bulan satu kali dia lepas membiak. Jadi bilangan banyaklah (Case 11).

Respondent no.5 and no.11 respectively replied to the researcher's question 'Do you think what is benefit of sea turtle for us?' as follows:

Telurnya boleh dimakan kepada orang-orang kampung (Case 5).

Ada faedah kepada kita. Boleh makan telur ah! (Case 11).

They would not hesitate consume eggs because of their optimism pertaining to hatcheries.

There is also criticism that *hatcheries are abortive*. Several fishermen criticize hatcheries because they consider their performance are insufficient. In their opinion, head-starting is wasteful. If more mature turtles were released, their survival rate would be much higher:

Masalah memang masalah lah, kalau dia buat cara macam sekarang memang masalah, masalah penyu ini memang membazir je (Case 1).

Tidak ada keistimewaan buat cara mana pun habis berjuta-juta pun biakan penyu ini tidak ada dapat hasil pun pada tidak ada kesanlah.... Pupus macam... fasal apa? Anak mati habis (Case 1).

Untuk pandangan saya lah, masalah memang adalah maknanya perlindungan penyu ini anak-anak penyu, sebab apabila tetas anak penyu yang baru-baru inch besar kita lepas mungkin penyu itu tidak akan hidup seratus peratus sebab anak penyu itu akan dimakan oleh ikan yu, ikan besar, jadi adalah sikit-sikit yang hidup jadi begitulah masalah jugak lah (Case 7).

These complaint, however, does not propose abolishment of hatcheries. Instead of that, these mearely ask technical improvement. As far as fishermen concieve that hatcheries aim at increasing nesting number, which eventually triggers drop of egg price, they do not halt supporting the practice. They simply worry that performance of the hatchery might not be well enough to sustain egg harvest in the future. Thier worry is amplified being combined with *sence of victim*; lax regulation on hazardous fishing activities of *somebody else than me*, especially of powerful outsiders, will also result in decrease of nesting numbers. This type of fishermen attribute decline of nesting number to failure of *work of government* rather than consumption of eggs in itself. In these ways, existence of hatchery unintentionally bolsters egg consumption.

Another point that one should not overlook here is that idea of these fishermen faithfully mirrors strategy of the department of fishery. The department tries to raise nesting number by technical progress and crackdown over illegal fishing gears. The strategy coresponds to traditional methods for fishery resource

management emphasizing technical and legal measures. At the same time, hatchery management was once obviously a *work of government*. Fishermen community had not played even adjunctive role for a long time. Eventually, even after experiment to instill community-based management, fishermen abide by role with which they have already familiar. Decades of management conducted by the department of fishery moulds fishermen too firmly to reform within several years.

### *Officially Authorized Resource*

A question emerges here; do fishermen feel sense of guilty for collecting and consuming eggs? Comparing with their keen *awareness on hazard* of particular fishing gears, their *awareness on hazard* of egg consumption is astonishingly dull. While every respondent mentioned harm of particular gears on sea turtles, few referred to negative impact of egg consumption. Core difference between using particular fishing gears and collecting eggs is obvious: the former is illegal while the latter is legal. Actually, turtle eggs are *officially authorized resource* under a license system:

Dhulu kerajaan mendapati ini kawasan penyu, ini dia panggil 'pejak'. Tiap-tiap tahun barapa ribu-berapa ribu pun dia bayar ke kerajaanlah (Case 8).

Penyu pada masa itu tujuan pihak berkenaan iaitu pihak perikanan dia ada macam peraturan. Contoh barang sesiapa yang ambil dia akan ditangkap polis dia pajak dari sini sampai pantai Kemasik. Dia pajak beberapa ribu ringgit pula jadi orang tidak boleh mencuri. Dia mencuri kena tangkap. Contoh dia boleh pajak harga dalam 5 ribu, boleh tak boleh pun dia akan jaga (Case 15).

Eggs are not so-called *commons* under free-access system. Government systematically control its collection and fishermen pay significant amount of cost to obtain licenses. Anecdotes of conflicts between villagers and outsiders who tried to collect without licence corroborates status of eggs as an *officially authorized resource*:

Ada! seperti orang kerja orang Paka, Dia selalu merebut penyu, telur penyu di kawasan kita (Case 6).

Ada jugak orang yang tangkap kerana mencuri ini dia cakap tak salah, sebab itu yang mencuri ini. Tetapi pihak kerajaan dia kawal tidak bagi berlaku kecurian, ada setengah yang kata boleh makan tidak salah, tiada halal. Ada masa dahulu (Case 15).

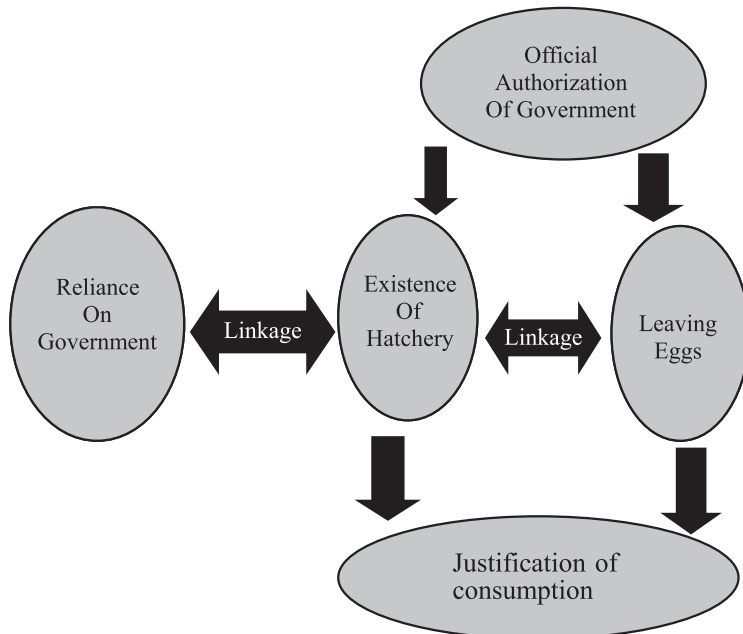
Kalau lah sekiranya sebelum itu TUMEC atau perikanan mengambil alih, makna mungkin ada satu pergaduhan sebab ada yang kata mencuri dan sebab itu kerajaan dia keluar satu tender untuk TUMEC pegang kerajaan keluar satu tender kepada pemajak-pemajak supaya mengelak satu pergaduhan tetapi pergaduhan ini tidak lah begitu kerap berlaku (Case 7).

Paka mentioned in the first citation is a town locating 14km north of the studied villages. Inhabitants of three small towns in the area, Paka, Kertih, and Kemasik, crept into beaches of the other towns to aquire eggs<sup>16</sup>. These attempts always induced conflicts. It shows that fishermen had already regarded eggs on proximate beach as their exclusive resource, while government's control on beaches was not stringent enough then. The control was fortified eventually to decrease disputes. The process gives greater tangibility to fishermen's rights on eggs and results in boosting fishermen's belief that eggs are *officially authorized resource*.

Concerning to fishing gears, awareness on hazard and awareness on illegallness interact to amplify each other. However, the interaction is not true to eggs. Legal backing rather abates their *awareness on hazard*. This situation stems from unsettled discrepancy between the department of fishery and WWF. While the former keeps on authorizing egg collection, the latter insists on total ban of the business. Without consensus on this issue, effort of the latter to curb egg consumption through awareness raising campaigns were as if a house built on sand.

Our debates can be summarized in chart 1. *Officially authorized resource* serves as a premise. Existence of hatchery is the cornerstone to merge this subpart with earlier subparts. It relates with *reliance on government*. Behind this dependency, there exists *sense of victim* and *sense of powerless fishermen* hampering ownership of fishermen. *Existence of hatcheries* also has linkage with *leaving eggs*, considering that selling eggs to hatchery is an important variation of the latter. As far as hatcheries exist, and as far as the government runs them, fishermen do not feel seriously worry for their consumption. *Leaving eggs* is enough for showing their compliance; anything needed further is *a work of government*.

**Chart 1: Mental Schema of Justification of turtle egg consumption of fishermen**



(Source: Written by the author)

## Conclusion

This study tried to reconstruct daily way of thinking of fishermen, the managed. As discussed, fishermen have keen awareness on hazard of fishing gears on sea turtles. They even wish rigid control on trawling boats which menaces the reptile as well as local fishing resource. On the contrary, their awareness regarding to impact of egg consumption is dull. This study revealed that past conservation strategy in Terengganu formed this perception: Government had exclusively taken charge of conservation through hatcheries and head-starting. They banned particular fishing gears and confiscated them from fishermen. Great presence of the government in mindset of the fishermen is remnant of these past efforts. At the same time, local fishermen have notion that they are powerless victim of the outsiders. Combination of great presence of government and the notion deprives ownership of the fishermen.

Turtle conservation might win the heart of fishermen by more lucid linkage with fishery resource management. However, as long as ambiguous compromise between the department of fishery and WWF Malaysia pertaining to the license system remains, emotional appeal for affinity through education programs would not solve the problem. Justification of egg consumption comes neither from simple ignorance nor culture, so called. Instead of them, certain local history and institution underlie perception of the inhabitants.

## Endnotes

---

<sup>1</sup> This study is greatly indebted on turtle and marine ecosystem centre, department of fishery Malaysia, and WWF Malaysia. More importantly, without tolerance of fishermen in Kampong Labohan and Kampong Tengah, the author could never conduct the field work.

<sup>2</sup> Few conservation projects have manifested itself as community-based projects in Malaysia, however, it is noteworthy that community involvement has been practiced under the name of social forestry in Northern Borneo. The experience has great potential to promote community involvement in the countries.

<sup>3</sup> Department of fishery Malaysia, Worldwide Fund for wildlife for Malaysia, BP Malaysia. *MA'Daerah marine turtle sanctuary centre* (Kuala Lumpur: Department of fishery Malaysia, Worldwide Fund for wildlife for Malaysia, BP Malaysia, 2004).

<sup>4</sup> M. Mike, *Aid and aid infrastructure development for life rehabilitation: a model building attempt for hospital discharge based on grounded theory approach*, (Tokyo: Aikawa Shobou, 2003); Yamauchi, R., "A study on role of family in elder care facilities: Role seeking process of children in nursery homes," (M.A. thesis., Sophia University. 2006).

<sup>5</sup> Glaser. B.G., Strauss, A. L., "The discovery of grounded theory: strategies for qualitative research," Aldine Publishing Company, 1967.

<sup>6</sup> Y. Kinoshita, *Practice of Grounded Theory approach: An invitation to qualitative research*, (Tokyo: Koubundou, 2003).

<sup>7</sup> Anselm L. Strauss, and J. Corbin, *Basics of Qualitative Research: Grounded theory procedure and technique*, (New York: Sage Publications, 1994).

<sup>8</sup> Anselm L. Strauss, *Qualitative analysis for social scientist*, (Cambridge: Cambridge University Press, 1987), p. 87.

<sup>9</sup> Y. Kinoshita, *Practice of Grounded Theory approach*, pp. 167-237.

<sup>10</sup> After degrade of fishing resource in Thai gulf, illegal opperation of Thai boats is a commonplace in Malaysian water.

<sup>11</sup> The words in bracket are added by the author.

<sup>12</sup> This description is based on informal interview and observation during the author's stay at a studied village. Especially it is indebted to information from Mr. R, head of fishermen's association.

<sup>13</sup> The term 'free rider' here is borrowed from micro economics. It refers to those who gain benefits from external economy without paying any costs.

<sup>14</sup> TUMEC is abbreviated from turtle and marine ecology centre. The institute takes charge of research of sea turtles.

<sup>15</sup> Even though there is political competition between the national alliance and Islamic party in the east coast of the peninsular, disputed issues tend to concentrate on religious matters and performance of poverty reduction. Hence, as far as conservation issues concerns, legitimacy of the government remains unquestioned.

<sup>16</sup> This description is based on two resources: Interview to Mr. R, head of fishermen association of Kertih and Kemasik and information from rangers in Ma'daerah sanctuary. Two old rangers of the sanctuary, who were born and raised in Kampong Labohan, informed me several anecdotes similar to the cited one.