Keuneneng: Local Knowledge Of Aceh Fishermen

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ABSTRACT

This article discusses the results of research related to local knowledge in Aceh's maritime community. The local knowledge discussed in this article concerns about astronomical knowledge in the fishing communities of Aceh. Where local knowledge in the current era is increasingly being eroded by technological advances, but on the other hand local knowledge is a treasure of the nation. This research was conducted in Aceh, using a qualitative approach. Then this study also uses concepts from interdisciplinary science, namely sociology, anthropology and history. This multi-disciplinary approach to gain a more comprehensive perspective. Based on this research, it can be described that local knowledge is a form of community adaptation to the natural environment in which they interact. One form of local adaptation which later became local knowledge was the astronomical knowledge of Aceh sailors. This astronomical knowledge in the people of Aceh is known as keuneneng. Keuneneng is knowledge in determining climate. Keuneneng is divided into twelve keuneneng, according to the number of months. Starting from the *keuneneng dua ploh lhei*, to the *keuneneng sa*. In addition to keuneneng, in Acehnese society, especially Acehnese sailors are also known for their knowledge of astrology. Apart from being a guide, this astrology is also used to detect natural threats at sea. This astronomical knowledge is a form of natural adaptation, which later becomes local knowledge in Aceh.

Keyword: Keuneneng, Local Knowledge, Development, Fishermen

INTRODUCTION

In the maritime world, astrology is a science that is commonly used. Especially by traditional fishermen who do not have technological sophistication such as compasses or radar. The science of astrology is more familiar with the term astronomy, or formerly it was also called the science of Falaq. For Indonesian sailors, long before the compass was invented, Indonesian sailors already had knowledge of how to read directions through the stars [1]. This knowledge is the main capital for sailors in exploring the ocean. In addition to knowing where to go west and east, this knowledge is needed to avoid threats at sea which have very high risks. Each region has different methods and characters regarding this astrological

knowledge. This difference is of course based on local knowledge or local wisdom that develops in every community. Knowledge of the astrology by Indonesian sailors is a form of response to the challenges faced by Indonesian sailors. So with the threat at sea or with the desire to sail the ocean, this knowledge is born from a form of adaptation based on challenges that must be conquered [2].

Based on ancient poems which show that the ancestors of the Indonesian people were sailors, ocean sailors. So before becoming a sailor, of course it must be preceded by knowledge to support becoming a sailor [3]. So local knowledge related to astrology must have been owned by Indonesian sailors who later inherited it as a legacy of traditional astronomical knowledge. In general, Indonesian sailors have their own knowledge and characteristics

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of the ability to navigate the sea. Likewise with Acehnese fishermen who also have their own wisdom in terms of shipping navigation knowledge. This archipelago marine knowledge has also been going on for a very long time, this can be seen from western sources which state that the Indonesian people have long mastered this knowledge. During the Magellan expedition in 1521, d'Elcano kidnapped a local sea guide boat to deliver his ships from the Philippines to Tidore. The first voyage by the Dutch was led by Cournelis de Houtman [4]. Apart from using the Portuguese who had come to Indonesia, the Dutch also made use of the knowledge and experience of the local knowledgeable people, for example, from sailing across the Sunda Strait to Banten. The Dutch ships that were the first to receive offers were boat owners he met in the Sunda Strait, to deliver them to Banten at a rental price of 5 reals [5]. information above shows that Indonesian sailors have had knowledge of shipping for a very long time.

Aceh sailors are one of the sailors who are in westernmost part of Indonesia. geographically has a strategic position in the maritime context, this is because Aceh is flanked by the Malacca Strait and the Indian Ocean. Naturally. the Acehnese sailors were already faced with the sea. So because of that, knowledge of the sea, astrology and wind direction is a necessity that must be possessed as a sailor nation [6]. The must here is of course that the Acehnese sailors will be educated by nature, so that knowledge about the stars and the sea will be quite capable. This understanding of the sea is inseparable from the natural challenges faced by fishermen in Aceh. In theory Louis Gottschalk mentions challenges and answers. So it can be seen that the knowledge of maritime navigation and astrology by Acehnese sailors is the answer from the natural challenges that they face. Adaptation of nature as knowledge and culture will be a legacy for the next generation from generation to generation [7]. This knowledge will be inherited by the next generation as capital in navigating the oceans. Departing from the explanation above, it can be said that every fisherman or sailor in Indonesia has a cultural heritage from his predecessors as sailors. Including fishermen or sailors in Aceh whose territory actually faces the sea. Aceh sailors are known as sailors who can reach the red sea in their shipping activities. Even Aceh is a maritime-based Islamic Kingdom, so that the sea will be inherent in the daily life of the Acehnese people[8]. The attachment of Aceh as a maritime kingdom is of course also one of the proofs that the sea cannot be separated in the daily lives of the people of Aceh [9].

In determining the time, or dividing the time in the Acehnese rules, it is not only related to

keneneng. Melakan also has a month and day determination in Acehnese terms. Determination of month and day also has a very close relationship with *Keneneng* in reading nature. The Acehnese people have the knowledge of time division to understand taboos which are then believed to harm them. Determining the naming of Aceh months and days refers to the method of the qamariah calendar system. For the maritime world, the determination of the month and day is very much needed. Where this is a season marker or there are things that need to be avoided at certain time phases as prohibition in local knowledge [10].

However, what is interesting about the explanation above is the legacy of what knowledge the Acehnese sailors inherited from their predecessors. Especially with regard to his knowledge of astronomy. Including how Acehnese sailors understand threats at sea and how to respond to these threats with the knowledge they have as sailors. Why is that? because each region has a different character and cultural repertoire. Departing from that, it is interesting to see how knowledge and what characteristics are possessed by Acehnese sailors in understanding astrology in helping them to sail the sea.

METHODOLOGY

This study uses a qualitative research approach. Qualitative research is a scientific research that aims to understand a phenomenon in a natural social context by prioritizing a process of in-depth communication interaction between the researcher and the phenomenon being studied [11]. According to Keirl and Miller [12] what is meant by qualitative research is a certain tradition in social science that fundamentally depends on observing humans in their own area, and relating to these people in their language and terminology. In this qualitative research, the data collected was not in the form of numbers but in the form of texts of interview notes. Qualitative research in general can be used in research on society, history, behavior, organizational functionalization, social activities and others.

In addition, this research also requires a multi-disciplinary approach. The approach used in this research is sociology, anthropology and history. The sociological approach is used to look at the symptoms of society in practicing *keneneng*'s knowledge of the values of social institutions. Anthropology is used as an analytical tool for cultural existence in analyzing culture and astronomical knowledge in the concept of *Keneneng*. The historical approach is used to see how the cultural heritage of *Keneneng* is a legacy of past knowledge. With the

approach of the three disciplines mentioned above, it can be an analytical tool in understanding the concept of astronomical knowledge, knowledge of keneneng and calendar in Acehnese society.

RESULT AND DISCUSSION

Aceh seafarers have their own method of understanding nature through their traditional astronomical knowledge. This knowledge is unique to Aceh sailors in predicting the natural conditions of the sea. Especially regarding the season and the threats he will face at sea as a sailor. In Aceh sailors there is a term known as *keneneng*, this *Keneneng* is a way to see the seasons. Apart from *keneneng*, the fishing community also knows about astrology, where the stars can also be used as a natural kutika in predicting something, be it direction, natural threats lurking or its position at sea.

Knowledge in Determining Climate (*keneneng***)**

Knowledge regarding climate, wind direction and astrology is something that is very important for sailors or fishermen to have, because without this knowledge they cannot navigate the wide and deep sea [13]. Knowledge of climate, wind direction and astrology are the main assets for fishermen for navigation purposes, both in determining direction and detecting threats at sea, such as strong winds or sea storms and high waves [14]. This knowledge can prevent sailors from disasters at sea. One of the maritime disasters is the sinking of a ship or boat, one of the causes of this is usually a storm that hits, so knowledge about it is needed here to detect when a storm is coming, when the sea is safe from a storm. There are four main factors that cause a boat/ship/boat to sink or run aground, namely the first is mastery of marine geography, meaning here if there is no mastery of marine geography then there is a chance for a boat/ship to experience a disaster. Then the second is the weather (mastery of meteorological knowledge), the fishermen must understand this, especially the handlers, if there is no mastery of the weather then marine disasters are also very easy to occur. The third is war and the fourth is human negligence (human error) [7]. These four factors are common causes for a boat/boat/ship to sink or run aground in waters which are common throughout the world since the introduction of water transportation until now [7].

Each region has its own wisdom in understanding seasons, namely those related to climate, wind direction and astrology related to geographical location. Acehnese sailors also have this system which has been passed down from generation to generation. In Aceh terms, knowledge of the season is called *keneng* or *keneneng*. *Keneng* is the

state of the seasons which is determined according to the meeting of the stars and the moon in the sky [15]. Between every two consecutive keneng there is always a period of 27 thirds of days so that during the solar year an average of 13,363 keuneng occur [14]. In other words, most of the solar year has 13 keneng, there are also 14, the period that separates the keneng from the previous new moon is greatest in the first month of the solar year. In the following months the period is reduced by two or three days each time because the actual month (outside the mont from one month to the next) is always two or three days (29.5302-27.3333) longer than the period that passes between two keneng [6]. However, in practice, the commonly found keuneng are 12 keuneng. Here's an example of keuneneng in 1997.

- Keuneng dua ploh lhei / keneng twenty three (23 Sya'ban 1417)= 4 January 1997).
 At night, the dry wind blows, the east-southeast wind at this season is dangerous for sailing to the north coast or the east coast
- 2. Keuneng dua ploh sa / keneng twenty one (21 Ramadhan 1417 H)= 30 January 1997. Generally in this keneneng there is a harvest season and also seed sowing or planting crops. In this or the next keneneng, the luah blang season begins (free season, that is the land is left empty or not yet planted).
- 3. Keuneng sikureung blah /keneng nineteen (19 syawal 1417 H) = 27 february 1997. Keunong which falls this month is almost the same as the previous season
- 4. Keuneng tujoh blah / keneng seventeen (17 Dzulqaidah 1417 H)= 26 March 1997 Sugarcane planted in this month will not grow flowers and will not give juice (water). During this month, milkfish (*muloh*) sometimes come from upstream to downstream. This fish takes a day to return to the upstream and at that time people can catch it. On this keneneng west season begins, as well as in the middle of the day it reaches its highest peak zenith (seunang mata uroe)
- Keuneng limeng blah/ keneng fifteen (15 Zulhijjah 14 17H) = 23 april 1997. Stormy winds at sea
- 6. Keuneng lhei blah / keneng thirteen (13 Muharram 1417 H)= 20 may 1997. The waves in the sea are still big
- 7. Keuneng siblah/ keneng eleven (11 Shafar 1417 H) = 16 June 1997. The westerly winds subside for 5 to 7 days,

and this time allows for safe sailing to the west coast

- Keuneng sikureng/ keneng nine

 (9 Rabiul Awal 1417 H)= 14 July 1997

 In this month the cassava and krill start to roam and they don't know their nest anymore

 In this month bingkong dan kerengkong start to roam and they don't know their nest
- 9. Keuneng tujoh / keneng seven (7 Rabiul Akhir 1417 H)= 10 August 1997. This keneneng is not much different from the seventeenth keneneng, and many dogs roam around, having marriages

anymore

- Keuneng limeng/ keneng five
 (5 Jumadil Awal 1417 H)= 7 September
 1997
 Starting to enter the east season (*Musem Timue*) there are a lot of fish and the wind
 has subsided. In this season fishermen get
 abundant fish yields
- 11. Keuneng lhee/ keneng Three (3 Jumadil Akhir 1417 H)= 5 October 1997 What a good time to take a cruise to the west coast. *Keneng lhee* come near to *keneng tujoh blah*
- 12. Keuneng sa / kenong satu
 (1 Rajab 1417 H) = 2 November 1997
 start down *ban ujeun kenong sa*, it rained heavily accompanied by the sound of thunder and the frogs were happy (Agus: 2000).

How to calculate the year expressed by the month of Christ, multiplied by two, minus with 25. Or by formula $K=C-2 \times B$

K= Keneneng

2= Fixed number for multiplication B= ongoing month in the Masehi

calendar.

Example: to look for $keneng\ limeng$ as the east season

According to Abdullah, a fisherman who is also a handler, he said that he could also count by adding the Masehi month with the Masehi month, then minus 25 (interview: Abdullah). This method is also not much different from the above method.

K = C-B+B Description: $K = season \ conditions$ $C = fixed \ number \ is \ 25$ $B = ongoing \ month \ in \ the$

Masehi calendar.

$$K=C - B + B$$
= 25 - 10+10
= 25 - 20
= 5

Therefore, the number of Aceh *keuneng* starts with *keneng duaploh lhei* (*keuneng* twenty three), and ends with *keuneng sa* (keuneng one). This is because *keneng duaploh lhei* begins with the first month of Masehi calendar, namely month one, so one plus one is minus the number twenty five. The details are as follows in looking for *keneng* in month One when referring to K=C-B+B

Then the first keneng appeared, his name is *keneng duaploh lhei*. Likewise, it ends with *keneng sa*, because the month of Masehi ends with the twelfth month, then the number twelve plus twelve minus twenty five, the details are as follows:

$$K=C-B+B = 25-12+12 = 25-24 = 1$$

The Astrology From The Perspective of Acehnese Sailors

In addition to seeing the season, Acehnese fishermen are also able to see the stars as position recognition. This ability is to see the position where the boat / boat is sailing, usually the handler who is the leader of the boat reads this position or reads the position where the west and east are, so they know which direction to go home or go to the mainland. So to become a handler, this fishing knowledge must be mastered. In general, fishermen use natural signs to see this, both the direction and the danger that will threaten (Interview: Abdullah). These signs are like stars, birds and others. These stars are like the lhei star, the paroe star, the taileng star, then animals like seagulls. The following are some of the stars known by the Kembang Tanjong fishing community and the people of Aceh in general.

1. Bintang lhei (three stars)

This star is called a three star or *lehei star* because of the location of this star which is in a row of three, this star is used by fishermen as a compass (Agus: 2000). Bintang lhei ini merupakan bintang yang bisa pengganti kompas bagi nelayan ketika melaut. Apart from the *Lhei star*, fishermen can still use other pointers as compasses.

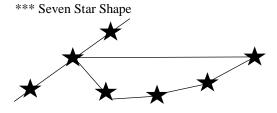
2. Bintang paroe

Parau star or stingray star is a star that resembles a *engkot paroe* (stingray) (Interview: Abdullah). If this star appears in the east, it means that the west season has arrived (Agus: 2000). The Acehnese sailors, in observing the seasons, apart from having a keneneng count, can also use natural kutika (Interview: Abdullah). So this star looks the same at *keneneng tujoh blah*.

3. *Bintang tujoh* (seven star)

Bintang tujoh (seven stars) is the most important star in determining the season. This star looks like a boat and sometimes this star is called a boat star [15]. Apart from the boat star, this star is also called the land star, because it is located on land, so if fishermen want to return from the sea to land, this star is one of the references. If there are seven stars connected by an imaginary line, they will describe a boat complete with its bow and stern. On the stern if connected will describe a rudder. The east direction is to the bow and the west direction is to the stern (interview: Abdullah).

If the east and west directions have been determined then the north and south directions can also be easily determined. as explained above that the three stars apart from being used as a compass can also be used as a direction determining star. This star also serves to see seasons and dangers, for example if the bintang tujoh (seven stars) set together with the sun it indicates bad weather and this indicates keneng limeng blah. Keneng limeng blah in the matter of keneng at sea there is a storm wind. Understanding this star is very helpful for fishermen in detecting danger and position, making it easier for fishermen to return home.



4. Bintang Taileng

Bintang Taileng (The taileng star) is a danger detection star. When the fishermen go out to sea at

dawn, the weather looks very calm and friendly, but if on the way the taileng star is seen, fishermen who understand this star will definitely come home, what else is using a small boat, because there will be very big waves and hit (bakat rayek dan disemepoh). When this star is seen, the weather is really good, as if even women can sail (ureng ineng jet ge melayeu), but later there will be very big waves and if the boat is not able to stay afloat it could break and sink. The taileng star is in the form of an animal, namely the taileng animal (pangolin beast). But this star is not always there, but this is a kutika that looks erratic. Of course the fishermen, especially the handlers, understand this star. Beginner fishermen will usually be fooled, this is because before big waves occur the atmosphere is very friendly, but after that the sea will be fierce (Interview: Abdullah).

Apart from the stars, knowing the position can also be done with the sun, of course this can be done during the day. From the sun, you can know the location of the cardinal points and can control the position of the bow [16]. Weather conditions at sea can also change unexpectedly, for example there is heavy rain or cloudy skies. These weather conditions sometimes make it difficult for sailors to see the stars. Under these conditions sailors still have alternatives. namely using the direction of the waves and currents. The guideline was taken because the waves will always head for land. However, it is not uncommon for fishermen to delay their return home, this is because the currents are difficult to read, not knowing the currents to the west or east (hana tatuho ie tarek ubarat atau u timur) so that the new fishermen go home after being able to take weather readings again (Interview: Abdullah).

Apart from that, the position can also use other signs such as mountain peaks, tall trees, seagulls (cama laot), these signs are used when approaching land so that we don't mistake the estuary location. This knowledge that makes fishermen survive. Even though the sea is harsh and cruel, the fishermen can still read when the sea is friendly and when it will be rough. The obstacles that exist at sea can be overcome with the knowledge of the fishermen. Fishermen can position themselves appropriately based on this knowledge, fishermen will know when their sails are raised and when their sails must be rolled up [17].

Sea Threats In Aceh's Perspective

Each region has its own beliefs in the structure of society, including the fishing community in Aceh. Like the sea threat which is considered mystical, in addition to the realistic threat to Acehnese fishermen there is also a mystical threat. Realistic threats are

like the threat of big waves and stern winds that can sink fishing boats or boats. However, the fishing community in Aceh also believes that the sea has mystical powers or sea ghosts which are also a separate threat to Acehnese sailors [18]. However, this threat also has local knowledge that can be faced or overcome with local knowledge as well. Like the threat of the wind that can be overcome with the ability to read the stars with the magicians as explained above.

1. Natural threats

The sea is not always safe and calm for sailors. Sometimes the sea is rough and threatens the safety of sailors. Of course this is common for sailors in dealing with threats at sea. In the fishing community of Aceh, natural threats are usually detected by natural signs as well [19]. The fishermen detect natural threats through the bintang taileng. Through this star, fishermen detect boh ase winds. This wind is hitting and slamming the ship. This wind usually comes in suddenly. Fishermen have natural instincts through the utilization of knowledge in reading the stars. This star knowledge is used to anticipate these natural threats. Another marine natural threat is a storm accompanied by rain and lightning. However, this threat is one of the common natural threats for fishermen. Even so, this threat is still included in the natural threat that can be detected with natural cuticles [20].

2. Mystical threat

Each region has a belief in mystical powers which will then pose a threat to humans. The mystical powers that are believed to exist certainly do not only exist on land, but also in the sea. For fishermen in Aceh, it is believed that this mystical threat exists, so that guardians or sea ghosts have their own names and terms. Of course each region has its own name for the mystical power that exists in the sea waters. For example, on the island of Java, they are known as Nyai Roro Kidul for the lord of the southern seas and Dewi Lanjar for the North Sea. This magical value also develops in Aceh in a different perspective, but of course it also has similarities in a magical view which believes that the sea has its own power in a magical context [21].

Naming of Months And Days In The Perspective Of Aceh

In Acehnese society it is also known as the naming of months in Acehnese terms, not only months, but also days. The naming of months in Acehnese terms is also inseparable from the season.

This means that naming this month will make it easier to predict the season, or make it easier to see what trends will occur. The season itself in general can be seen from two sides [20]. The first side is the season presented by nature itself, so here it will help people in reading nature's kutika. So it is not surprising that in the month of Aceh there are certain months that contain a lot of prohibitions or taboos. On the other hand, the season here is customary season. In X month, for example, there will be traditional rituals that are repeated every month. The habit that is repeated every month in Acehnese society is also known as the season. Such as the Musem Teut apam (the season for baking apam cakes in the month of Apam), or the musem moled khanduri (the season for celebrating of the prophet birthdays in the Melet month).

The distribution of time and calendar in Aceh is guided by the qamariah calendar system. They use the same calculation as the qamariah count. But it's just that they give a different naming than the naming of the month of Qamariah. Even though it's like that, it still has an influence on the mention of names. The name of the month in Aceh is called an Arabic name, but the dialect or style of mention uses the Acehnese dialect or style. Included in the mention of the name of the day, the naming of the day is very visible with Arabic names but has been reduced to the influence of Aceh.

Table 1. Month Names in Arabic and Acehnese

No	The name of the month in Arabic	The name of the month in Acehnese
1	Muharram	Asan-Usen (so called that to commemorate the deaths of Hasan and Husain on the 10th of this month)
2	Safar	Sapha
3	Rabi'al-awwal	Molot (in Arabic, Maulud is the celebration of the birth of the Prophet Muhammad SAW)
4	Rabi'al-akhir	Adoe Molot (Maulud is also still being held in Aceh this month. This month is considered a derivative of the month above, so it is called Adoe Molod or if translated Adik Molod)

5	Jumada al- awwal	Molot Seuneulheueh (the last column, this month is still dedicated to commemorating the maulud of the last month)
6	Jumada al- akhir	Khanduri Boh Kayei (this month in the Aceh area give a fruit alms to others. Or offerings of fruit that have religious value)
7	Rajab	Khanduri Apam (celebration of Apam cake. In this month, the people of Aceh carry out celebration in the form of a cake, namely apam)
8	Sya'ban	Khanduri Bu (this month the people of Aceh do a rice feast. So this month is called Khanduri Bu)
9	Ramadhan	Puasa (It is called fasting because in the month of Ramadan Muslims do fasting)
10	Syawwal	Uroe raya or Chawai
11	Dzu'l-qa'dah	Meuapet (cramped month)
12	Dzu'l-hijjah	Haji or Dolhijjah

Source: data processed by researchers

The names of the months that have been compiled above have an important position in Acehnese society as a calendar system. The names of these months symbolize the seasons and religious rituals. Traditional and religious ritual activities can be seen or reflected in certain months. For example, in the month of khanduri apam, in that month in Aceh there will be religious rituals of khanduri apam. This has become a culture or custom in Acehnese society. Religion and custom are two things that cannot be separated in Acehnese society. This means that the customary values that develop in Aceh should not conflict with the values of the religion itself. In fact, in Acehnese society there is hadih maja or Acehnese proverb. Where it is stated that "agama ngen adat lagei zat ngen sifeut", that means is religion and custom are like substances with properties. So every customary activity has religious values in it.

In addition to the name of the month, the name of the day also has a naming from an Acehnese perspective. The names of the days in Acehnese terms also use Arabic terms. So that the thickness of Arabic nuances in naming days in the Acehnese language has not eliminated Arabic identity. The following is the naming of the day in Acehnese society.

Table 2. Day Names in Indonesian and Acehnese

No	The name of the day in	The name of the day
	Indonesia	in Aceh terms
1	Sunday	Aleuhat
2	Monday	Seunanyan/Selanyan
3	Tuesday	Seulasa
4	Wednesday	Rabu
5	Thursday	Hameh
6	Friday	Jeumeuah, Jemeat
7	Saturday	Satu

Source: data processed by researchers

In Acehnese rules, the name of the day also makes its own contribution in determining good or bad times. Even on certain days it is considered abstinence, it is not permissible to do any work that is considered bad or forbidden. For example Friday, Friday for the people of Aceh has a special value. This is of course inseparable from the concept that adat and religion in the view of Acehnese culture cannot be separated. On Friday, in fishing communities it is abstinence from going to sea. In mountain or agrarian communities on Friday abstinence from climbing trees. The concept of abstinence is a transformation of religious values that Friday is a glorious day. So this concept is translated as not good for work, because on that day men have to perform the obligation of Friday prayers at the mosque. At the same time, work that takes a long time, such as going to sea or climbing trees, is prohibited because it will affect the implementation of Friday services. However, the value of this abstinence has become a legacy that is believed to be a taboo.

CONCLUSION

In the Acehnese system, there is an astronomical system known as keuneneng. Keneneng knowledge is used as a method to see the seasons. Both seasons at sea, and on land. For fishermen, kenenang is a method to see the season in terms of fishing. if on land the keuneneng is used as a guide to see the planting season in anticipating pests. Keneuneng usually starts from keneng duaploh lhei, to keneng sa.

from Apart keneneng, Aceh's astronomical knowledge is also known as reading the stars. Reading the stars is a local knowledge owned by Acehnese sailors. Aceh sailors use this knowledge to detect threats that will be faced by fishermen at sea. The star is also used as a guide by fishermen in wading through the sea. This local maritime knowledge is the local wisdom possessed by the people of Aceh in determining the seasons. In the current era of technological onslaught, this local knowledge is no longer mastered by the younger generation. Including by young fishermen, because they have been equipped with technology such as a compass.

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