

IS SAFETY BEING ADDRESSED IN KOLLAM BEACH?

VARUN.K

IT Integrated Communication Design
Kerala State Institute of Design, Chandanathope

I. INTRODUCTION

Kollam is a coastal town situated on southern part of Kerala. Known for its trading history, backwaters and beaches. The district takes pride in being a tourist destination as well as fishing hub of the state. Kollam has long stretches of beaches facing Arabian sea and network of backwaters on the other side. The “**Kollam beach**” also known as Mahatma Gandhi beach is one of the largest beaches in Kollam with life guard outpost. The beach lies adjacent to the Kollam port, which is second largest port in Kerala. It being in the vicinity (2 km) of the corporation attracts local people and tourists alike. The cold wind and a calm atmosphere is the main highlight. The beach has now become an integral part of Kollam town leisure points. In addition to it, the beach has a leisure park and a marine aquarium. However, the seabed slope is too high making it a no-swimming area. The beach is affected by unpredictable sea currents and local authorities don't have enough safety equipments to keep the visitors safe. This makes the beach a dangerous place for tourists^{[1][2]}



Fig 1: Kollam beach

II. THE BEACH

The Kollam beach is a yellow loamy soil also known as golden sand beach. The beach is maintained by District Tourism promotion council and tourism department though the area belongs to the central government. The official beach timings are from 7am to 7pm. The peak hours include early mornings from 6am to 9am and 4pm to 7pm. In autumn, from June to August, beach is closed off to public. Breakwater is constructed on the port side as a defense from the force of the wave; also taking into consideration the erosive nature of the beach. According to the lifeguards and police, there were 2 deaths in 2016 (Jan 1 - Feb 26)^{[2][3][6]}.

III. METHODOLOGY

The study area is ½ sq.km stretch of land which is officially the “**Kollam Beach** “on the coastal line 2km to the south of the city. The beach is a no-swimming area where people are only allowed to go to the sea till knee level. A survey was done to understand the awareness level and opinion of public. The survey was aimed at age groups from 10-70 at peak hours. Then it was compared to the observation done in various sites of the beach to deduce people’s behavior. The data was cross checked with police and lifeguards of the beach and they were interviewed about the current status of the site.

The collected data is then collated with findings from legible external sources like websites, media and research journals.

IV. OBSERVATIONS

The positive response to the survey indicates that public is hoping for a change in beach’s current status. The result shows that middle aged people were more aware about the safety.8 out of 10 knew about the steep slope of seabed and effects of breakwater on the beach. Still their actions and opinions points out that they are not taking the matter seriously. The age group 20-30 is more aggressive and is prone to accidents.

The testimony from life guard:

‘Domestic tourists are tough to handle. Foreign tourists willingly obey our instructions’

For the awareness and safety, 3 warning boards(blue) were put up by District Tourism Promotion Council and another 5(red) by City Police Commissioner.



Fig 4.1: signage installed by police commissioner



Fig 4.2: Danger warning boards by DTPC

Because of the intensity of light, bright colors are not highlighted in the beach and hence making the letters in red warning boards very hard to read. The condition of the blue boards and how it is placed makes it a bad choice for a warning sign. At least the flags should have been changed for a new one.

The youngest of the age groups rarely notice the signages whereas the senior citizens of age 60-70 are better observers.



Fig 4.3: An illustrated outline of Kollam beach and position of signages. Three arrow shows the direction in which majority of people enters the beach.



Fig 4.4 : view of the beach from entrance. None of the signages are being highlighted.

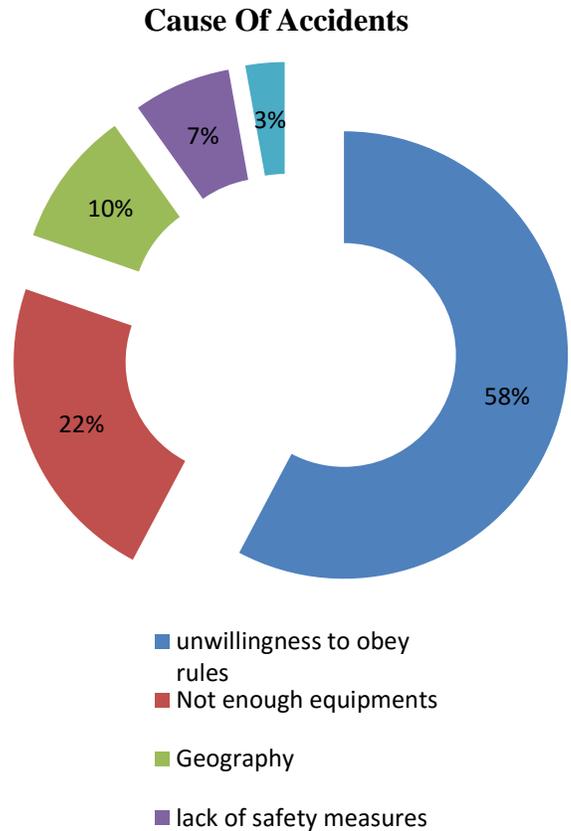


Fig 4.5: statistics on cause of accidents.

According to the survey, the primary reason for accidents in Kollam beach is due to negligence of people. Another interesting find is the influence of anti-social elements in the beach. A lot of complaints were reported destroying public property built to help tourists.

V. LIFE GUARDS

In their 29 years of service, the lifeguards have saved countless lives of tourists visiting Kollam Beach. Appointed by tourism department, the unit has 8 employees working in shifts. They save approx. 300 people per year. They have

been honored by Press club, Rotary club and Kalavedi, Kollam.



Fig 5.1: Life guard tower and the guards Ponnappan and Ambili on duty

The people have good reputation for the guards. Still their excellences have not given them a permanent job status. The equipments they have are rescue board, Life buoy, rescue tube, stretcher and a portable umbrella post. The lack of equipments like red flags, ropes, iron rods, alarms, resuscitation equipments and binoculars affects their efficiency^[5]

‘Altercation between lifeguards and visitors are common when the former try to block the latter from entering the waters. Lifeguards say the waves which generally look calm may suddenly turn dangerous after hitting the shore.’

An excerpt from THE HINDU newspaper^[6]

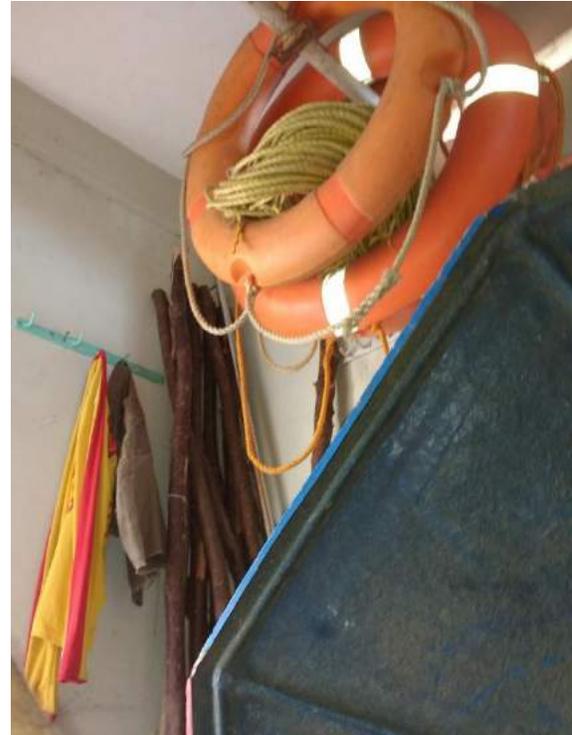


Fig 5.2: life guard gear, uniform and equipments

VI. EFFECTS OF NATURE

The Kollam beach seabed has a steep slope to the sea. The loamy soil has small percentage of clay in the soil. The uneven beach terrain is 3m deep closer to shore and goes 60-80m in 30m distance. This makes the sea unpredictable which makes normal waves indistinguishable from backwash.

‘When a wave breaks, water is washed up the beach - this is called the swash. Then the water runs back down the beach - this is called the backwash. With a constructive wave, the swash is stronger than the backwash. With a dangerous wave, the backwash is stronger than the swash. That is when tragedy strikes’

An excerpt from THE HINDU newspaper^[6]

VII. EROSION AND BREAKWATER



Fig 7.1: View of breakwater from the beach

The sand in beach is not static. It is eroded and then replenished every year. The Kollam beach is replenish in summer season and sand is taken away in autumn. The major sand sedimentation for the beach is from ashtamudi lake and nearby estuaries. [3][8] Because of river mining for construction, the sand never makes it to the beach. [9]. Also the breakwaters block significant amount of sand from entering the shore and blocking it from the whole process. This may form even larger slopes on the shore.

‘A breakwater is a structure constructed for the purpose of forming an artificial harbour with a basin so protected from the effect of waves as to provide safe berthing for fishing vessels.’

Definition of breakwaters from Fishing harbour planning construction and management [7]

The breakwater was constructed for the Kollam port to minimize wave energy in the area. The construction was successful and has made the port much safer. [1][9]. But the beach got adversely affected by it. The survey samples and testimony from police suggests that the wave force increased after breakwater construction.

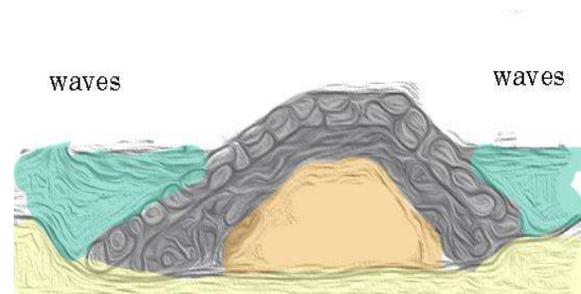


Fig 7.2: breakwater illustration [7]

To minimize this effect, a process called ‘beach nourishment’ should be initiated. The process simply deposits soil to the beach [9].

VIII. CONCLUSION

The safety measure of the beach is an emergency issue the beach is facing. The fact that the authorities are not paying much attention to resolve the issue increases its severity. The issue cannot be solved just by setting up facilities to beach guards. But a considerable upgradation in their equipments and allowances may improve the beach safety and guard's morale.

Due to construction blockades and river mining, the beach sand is not replenished on a recommended scale. This causes an increase in beach bed inclination making the area more dangerous year by year. A long term plan to replenish the lost sand or finding a new way to channel beach sand to the beach may prove to be fruitful.

The increasing force of the wave, negligence of tourists, lack of safety measures adds to the problems which need to be addressed in a holistic manner.

IX. REFERENCES

- [1].<https://en.wikipedia.org/wiki/Kollam>
- [2] https://en.wikipedia.org/wiki/Kollam_Beach
- [3].AJU C D, RAICY M C,
Assessment of Granulometry and Environment of Deposition of Coastal Sediments from Kollam beach to Marattadi, Kerala, India, 2013, Vol 4, Issue 4,2015, pp 1-3
- [5] *The HINDU Newspaper article, Kollam edition, para 3, July 10,2014*
- [6]<http://www.thehindu.com/news/national/kerala/bengaluru-man-drowns-boy-missing-off-kollam/article7725089.ece>
- [7] *Fishing harbour planning construction and management, pg 1-3, pg 10-12, chap 7 breakwaters*
- [8] *status of wetlands in Kollam district, geographical survey of India, 2012, pg 15-16*
- [9]http://www.beachapedia.org/Shoreline_Structures