



ENVIRONMENTAL
FOUNDATION
(GUARANTEE) LIMITED

**The Report on the Visit
Carried Out to Proposed
Wedithalathive Aquapark Site
on the 21st and 22nd of August,
2017**

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Introduction

Wedithalathive is a town situated in the Northwest of Sri Lanka, along the coastline of Mannar Jaffna A32 main road. On February 25th, 2016, under the Fauna and Flora Protection Ordinance Wedithalathive was declared a Nature Reserve by Department of Wildlife Conservation, conspiring the extent, uniqueness and the ecological value of mangroves. Sea grasses and coral reefs of the area as it forms one contagious landscape and sea scape supporting an array of fauna some very critical such as Dugong, migratory birds (Figure1) Traditional fishing has been the main income of the dependent community who are mainly fishermen seasonally harvesting shrimps, crab and other pelagic fish. .

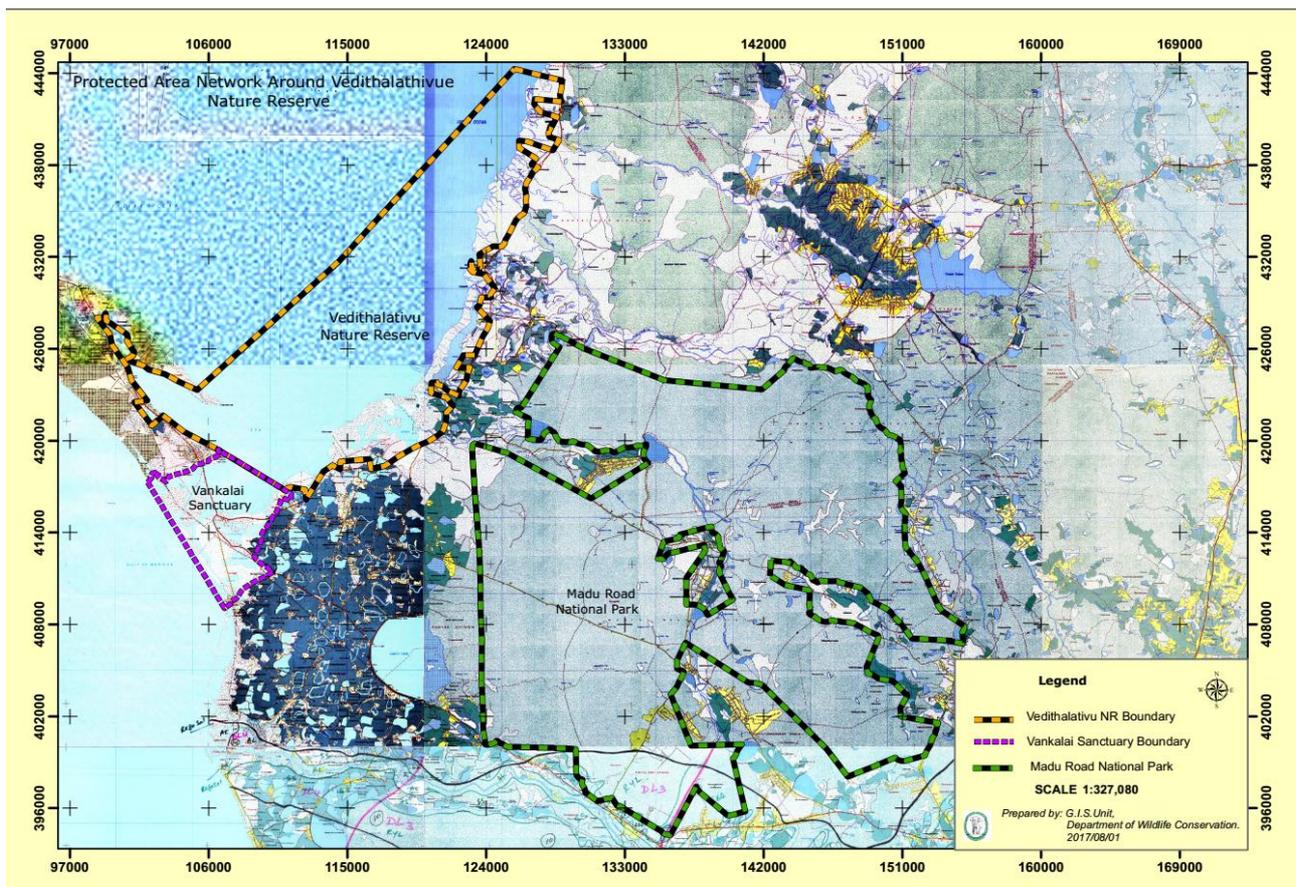


Figure 1 Location of Vedithalathive nature reserve in relation to other protected areas of the region

Recent efforts to degazette this area for the establishment of an Aquaculture park has spurred the need to bring awareness to the area in an effort to preserve it due to its valuable ecosystems. Wedithalathive hosts three main ecosystems that are essential to the biodiversity repository of Sri Lanka and the world, the mangroves, coral reefs and sea grass beds. However, an Aquaculture park in this area will only destroy these ecosystems and the species that live in them. Chemicals that are used in the aquaculture park have the potential to seep out and contaminate the ocean, killing plants and animals alike, and especially affect the reefs just off the coast of Mannar. The consequences of an escape of the prawn species to be bred here into the marine ecosystem in this area could have devastating effects on local species populations. Furthermore, individuals of these species could carry diseases that local species are not resistant to, and could thus, detrimentally affect local populations. Additionally the freshwater withdrawals for aquaculture without proper estimates could impact the ground water. At present potable water remains a critical factor for the day to day activities of these communities. Supplying fresh water which is a must for aquaculture ponds to maintain salinity will have to rely on ground water as this is arid zone of Sri Lanka. Additionally, some of the proposed species to be culture will require a constant supply of small fish and invertebrates. This new market can trigger further bottom trawling thus destroying the current ecological balance. We already have lessons coming from countries like Thailand where fishers have lost their livelihood with the diminishing of small fish. The destruction of natural land for this Aquapark will also destroy natural habitat for the many species of migratory birds that frequent the place. Overall, this also impacts the local fishing communities, since crab, fish and prawn populations will decrease overtime. Given the detrimental consequences of this Aquaculture park project, efforts to degazette this land must be thwarted, and its status as Nature Reserve must be preserved.

The objective of the visit was to ascertain the local community's knowledge and opinions on the potential aquapark, and its possible/potential impacts on it and the rest of the various ecosystems in the area, especially the mangrove, seagrass beds and coral reefs. Thus, an estimate of the potential socioeconomic and environmental damage inflicted on the region by the project can be made.

Methodology

In order to gather information on the peoples' socioeconomic status and their ideas and opinions on the aquafarm, we selected individual fishermen and groups of fishermen at random and asked them a set series of questions, and depending on their answers, we pursued with more questions if they were willing to answer. We also spoke to the women in the fisher communities and observed their activities.

Questions Asked

1. How long/Since what age, have you been participating in your occupation (fishing/mending, making, sorting nets)?
2. Up to what level did you receive education?
3. When/what are the fishing seasons you follow?
4. What areas do you fish in? Do you go out to deep water to fish?
5. What kind of species do you catch?
6. What is your average daily income?
7. Are you aware of the aquaculture park that is to be built in the village? If so, what details are you aware of?
8. Are you aware of the harms brought by the aquaculture park, such as harmful chemicals and invasive species?
9. What do you intend to do if the community is harmfully affected by the aquaculture park?

For an understanding of the environmental status of the area, we visited the mangroves and coral reef by boat. Along the way we were also able to observe the seagrass beds, where we observed and identified some of the species of seagrass, and were able to witness some of the faunal species that used sea grass beds as nurseries, such as krill. We walked through the mangrove and were able to identify many of the mangrove plant species.

Observations and findings

Socioeconomic Status and Practices of the Community

1. The village population is over 300 individuals.
2. Individual receive their education up until their local Ordinary Levels or Advanced Levels, after which majority take an active role in the local fisheries industry. Very few go on to complete higher education or take up other occupations, such as teaching.
3. Many of the current fishermen have been fishing since a young age of 15-20 years old. These fishermen are all males as the case in most of the Sri Lankan fishing communities, and their occupation is commonly passed down to them from male peers. Each fisherman has a niche catch type that he restricts himself to, these are pelagic fish, crabs, and prawns.
4. Crabs, specifically Blue swimmer crab (*Portunus pelagicus*), bring the most profit. Observed species of prawn include, Black tiger prawn (*Penaeus monodon*) and other penaeid species such as *P. indicus*, *P semisulcatus* and *Metapenaeus* spp.







5. Women and girls support the fisheries industry by making, cleaning, sorting and mending fishing nets.
6. The fishing seasons fluctuate. On peak days fishermen can earn more than 10,000 LKR. However, they can experience lows of up to 0-750 LKR a day. However, the fishermen do note that there has been a marked increase in catch quantities, since the establishment of a non-strict nature reserve two years ago.
7. The highest catches are obtained during the new moon and full moon, however, fewer go out to sea at the time since it is rougher than usual during these periods.
8. Fishing is restricted to the lagoon and fishermen do not reach the deep sea, and thus do not encounter Indian fishermen.
9. Fishing harvest recorded declines gradually in the past and about 2 years back it recorded the lowest harvests. The Fisheries Officer affiliated to the Department of Fisheries advised them to allow a no-fishing zone and carry out fishing beyond that. They identified the no - fishing zone

as the mangrove patch, and another 200m from the mangrove patch, seaward. Everyone conforms to this restriction and at present, a consistent harvest is observed due to this step.

10. A Fisheries Association functions with the majority of the fishermen in the area, with the membership of 250. There is a newly constructed office with a Community Rainwater Harvesting system, which is out of function at the moment.

Community Understanding of the Aquapark

When asked about the Aquapark, individuals had the following to say about it;

1. They were under the impression that only 250 acre of the land would be used for the Aquapark, however XX is actually being utilized for it.
2. Individuals in the fishing communities were promised jobs and opportunities associated with it, and thus profits.
3. When asked if they were aware of the potential for disease outbreak and seepage of chemicals from the aquapark into the ocean and its harm to the ecosystem, they were unaware and not informed of it.
4. They claimed that if this were to happen, they would protest, but did not seem to have nay preemptive plan to prevent this from occurring.
5. They were also unaware of the unsustainable and temporary nature of projects such as this Aquapark.
6. They expect the government to ensure their safety and security with the establishment of the Aquapark, and thus were not expecting to feel any impacts from it.
7. There are currently no permanent DWC officials, however there is a group of youth who are being trained to manage and sustain local ecotourism ventures in a sustainable manner.

Overall, the impression set by the individuals in the fishing community of the village was that they were misinformed and underinformed of the nature of the Aquaculture project that will potentially be underway. Due to this, it is understood that if the construction had already been underway, the community would be severely unprepared to deal with the consequences of the Aquapark.

Environmental Status of Wedithalathive

Mangrove Ecosystem

A least disturbed, contiguous mangrove ecosystem.

FAMILY	SCIENTIFIC NAME	IUCN STATUS
Avicenniaceae	<i>Avicennia marina</i> (Forsk.) Vierh.	LC
Combretaceae	<i>Lumnitzera racemose</i> Willd	NT
Euphorbiaceae	<i>Exoecaria agallocha</i> (L.)	LC
Rhizophoraceae	<i>Bruguiera cylindrica</i> (L.) Blume	EN
	<i>Ceriops tagal</i> (Perr.) C.B Robinson	NT
	<i>Rhizophora mucronate</i> Lamk.	LC



Sea Grass Beds

Wedithalathive contains sea grass beds that are ideal for the subsistence of *Dugong dugon*.

SCIENTIFIC NAME	COMMON NAME	IUCN STATUS
<i>Halophila ovalis</i> (R.Br.) Hook.f.	Paddle Weed Spoon Grass Dugong Grass	LC
<i>Halodule uninervis</i> (Forssk.) Boiss.	Narrowleaf Sea Grass	LC
<i>Thalassia hemprichii</i> (Ehrenb. ex Solms) Asch.	Turtle Grass	LC
<i>Ehalus spp.</i>		

Coral Reef

There is evidence of a large stretch of coral reef. There are patches live coral, however there is evidence of rampant dynamiting. It is situated 5 Nautical miles from the shore.

Legal Analysis

Fauna and Flora Protection Ordinance Act No. 2 of 1937 (as amended)

The following regulations have to be followed in the disestablishment of a Nature Reserve in terms of the Fauna and Flora Protection Ordinance (as amended) for it to be valid;

In terms of Section 2 (4) (a) of the Act “The Minister may by Order published in the Gazette declare that from a specified date –

(ii) any National Reserve or part thereof shall cease to be a National Reserve;”

Section 2 (4) (b) further states, “An Order made by the Minister under this subsection shall have no effect unless it has been approved by Parliament and the notification of such approval is published in the Gazette.”

Additionally, Section 2 (5) provides that, “In the case of any change of boundaries or the disestablishment of a National Reserve or Sanctuary or Managed Elephant Reserve, a study shall be conducted and such study shall include an investigation of the ecological consequences of the proposed change.”

National Environmental Act No.47 of 1980 (as amended) and National Environmental

(Procedure for Approval of Projects) Regulation No 01 of 1993 (Gazette No. 772/22 of 24.06.1993)

Part IV(C) of the National Environmental Act outlines the procedure for the approval of projects under the Act. Under section 23AA of the NEA, notwithstanding the provisions of any other written law, from and after the coming into operation of the Act, all prescribed projects undertaken in Sri Lanka by any Government Department, Corporation, Statutory Board, Local Authority, Company, Firm or an individual are required to be approved under the Act by the appropriate project approving authority for their implementation. 23BB (1) of the Act imposes a duty on all project approving agencies to require that project proponents of prescribed projects submit, within a specified time, an Initial Environmental Examination Report (IEER) or an Environmental Impact Assessment Report (EIAR), as required by the project approving agency, relating to such project and containing such information and particulars as may be prescribed by the Minister for the purpose.

By order under section 23Z, published in *Gazette* notification 772/22 of 24.06.1993, the

- (a) Conversion of Forest covering into non-forest uses;
- (b) Aquaculture development projects of extent exceeding 4 hectares;

are prescribed projects for the implementation of which approval must be sought under Section 23AA (1) of the NEA.

As per section 23BB (2) and (3) of the Act supported by regulations 7 (ii) and (iii) and 11 (i) and (ii), reports presented under section 23BB (1) must be available for public inspection and for this purpose, the project approving agency must, upon receipt of the reports, notify the public by notice published in the *Gazette* and in one newspaper each in Sinhala, Tamil and English languages, of the place and times at which such report shall be available for public viewing and invite the public to make its comments on the report, if any, within thirty days of the date of first appearance of the notice in the *Gazette* or the newspaper. The project approving may, where it considers appropriate in the public interest, afford, to any person who has made comments to the project-approving agency in pursuance of the aforesaid notice, the opportunity of being heard in support of his comments. The project approving authorities are bound to have regard to such

comments and any other materials if any, elicited at any such hearing, in determining whether to grant its approval for the implementation of such prescribed project (section 23 BB (3)).

Section 23 BB (4) together with regulation 15 under the *Gazette* notification number 772/22 mandates the project approving agency to publish by way of publication in the *Gazette* and in one newspaper each in Sinhala, Tamil and English languages, when approvals are granted for the implementation of any prescribed project.

However, as per the information received from the Cabinet office, in terms of the Right to Information Act No. 12 of 2016 and the Department of Wildlife it appears that the relevant legal procedures and/or regulations have not been adhered to. As mentioned hereinabove, it is necessary for the Ministry of Fisheries to obtain the relevant approvals as per the provisions of the National Environmental Act No. 47 of 1980 (as amended) which mandates that an Initial Environmental Examination Report (IEER) or an Environmental Impact Assessment Report (EIAR), be carried out prior to any approval and/or release being granted for the establishment of an Aquaculture Park, be it within a Nature Reserve or otherwise. The absence of any such Initial Environmental Examination Report (IEER) or an Environmental Impact Assessment Report (EIAR) would render any such approval and/or permission and/or release illegal, null and void and of no force and avail in law.

Furthermore, Economynext reported¹ that the Minister of Wildlife and Sustainable Development has tabled a proposal for the re-demarcation of the Nature Reserve in Parliament on the 29th of August. The provisions of the Fauna and Flora Protection Ordinance (as amended) provide that a 'study' be conducted and that such study should include an investigation of the ecological consequences of the proposed change to the boundary and/or the disestablishment of the Nature Reserve. Nevertheless, it appears that the Department of Wildlife Conservation is yet to adhere to this requirement.

¹ http://www.economynext.com/Sri_Lanka_govt_shrinks_nature_reserve_for_fish_farm-3-8617-13.html

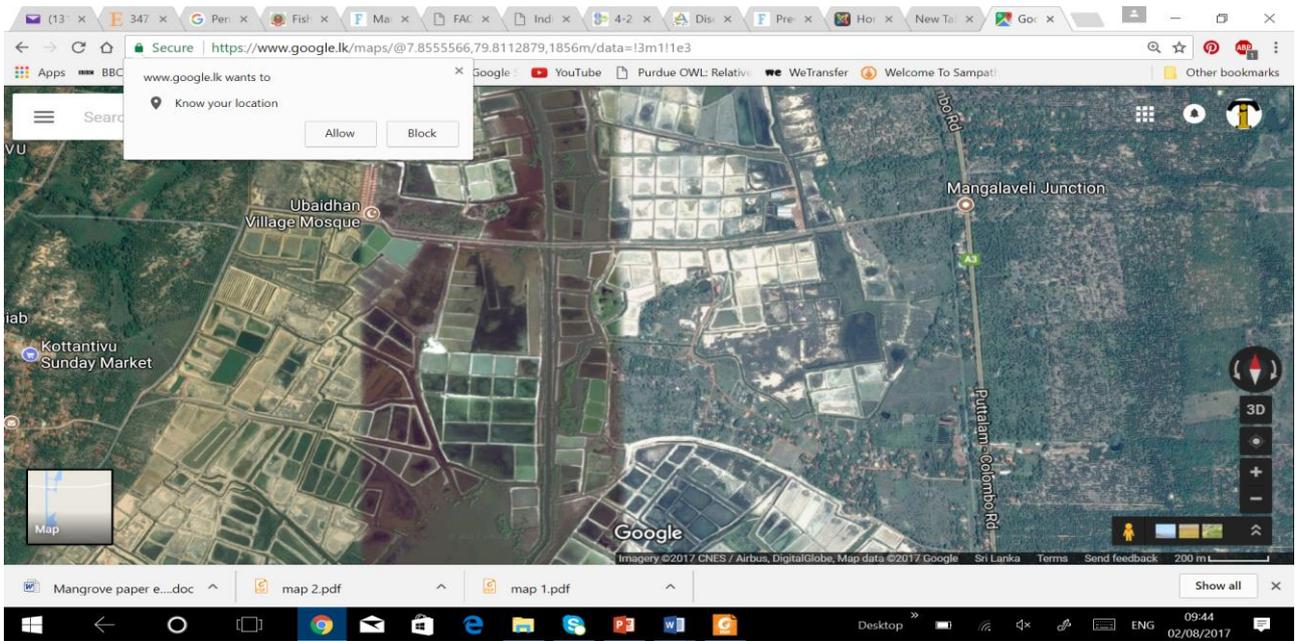
Conclusion

Overall it can be concluded that the local fisher community of Wedithalathive is unaware or misinformed of the potential impacts on their occupations and their income. If the Wedithalathive aquapark is followed through on, it is very likely that these individuals will be unprepared to deal with the socioeconomic and environmental consequences of the project. Their solutions and suggested efforts were those that would be taken after feeling the effects of the aquaculture projects. Some of the impacts, especially on the environment will be long term, especially those that involve contamination of water with chemicals and invasive species, that could detrimentally decrease native species populations. These will be extremely difficult to recover from, and thus the most suitable preemptive measure to be taken would be to halt the construction of the aquapark, on this protected Nature Reserve land. Furthermore, the precedent set by this case will also be harmful for protected land in the future, as it provides less deterrence from de-gazetting and exploiting Nature Reserves, at the expense of local communities as well.

NAQDA has utilized pristine mangroves from Chillaw to Vanathavilluwa to culture black tiger shrimp *P monodon* in the past and the area now is almost abandoned due to disease and bad water management. Small scale farmers continue the industry in isolated patches. The mangroves removed has not reestablished in the abandoned land and at present is remains as one of the largest stretch of land with least ecological or environmental service. With the removal of mangroves we have exposed the country to Tsunami and storm surges.

This practice of destroying pristine mangrove and other coastal ecosystems for very short term aquaculture practices and then moving onto another pristine area without restoring the already used place Sri Lankan aquaculture in the similar scale of chena (sash and burn) cultivation.

The greatest barrier in this area that can protect the country from storm surges, climatic change as well as the lung of the region that settles sediments, cycle nutrients and through that process supply a wealth of oceanic resources that we directly consume, if valued surpass any mere income that can be earned by aquaculture. Further the withdrawals of freshwater will have impacts on communities and their access to potable water.



Abandoned shrimp farms in Chillaw area

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