



# Workshop Report

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Mannar Region Systemic Solutions

**Marine Litter from Fisheries in The Gulf of Mannar and Palk Strait**

**Opening remarks**

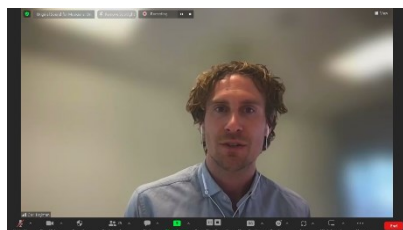
Dr. Shamen Vidanage, Country Representative, IUCN Sri Lanka

Mr. Carl Hojman, Group Manager, Marine Litter, SALT

Mrs. Cecilie Lind, CEO, the Norwegian Retailers Fund

Shamen

“There is a partnership between India and Sri Lanka now that became possible through Salt, whose research work has been extremely important.” Shamen thanks all the agencies and visitors and hopes we can come up with solutions based on this report.



Carl

“Stakeholders from India and Sri Lanka are key to building solutions. We hope to keep setting up new collaborations”.

Cecilie

“Litter is threatening us across the globe. Fisheries contribute significantly and pose a hazard to marine life.

I believe in three things: 1) we have to do it all at once; otherwise, we won't find the solutions in time 2) we have to put our differences aside and work together to solve the problems; marine litter does not know boundaries 3) we don't have the time to wait for the perfect solution. Therefore, we believe in piloting solutions.

Together we make a real impact and build the capacity needed locally and globally for the plastic crisis”.



**The Sri Lankan Government's vision to support the fishing sector to reduce marine litter**

Mr. H. M. K. J. B. Gunaratne, Director (Development), Ministry of Fisheries



“The fisheries industry is highly dependent on the natural environment, also considering other industries. It is more environmentally sensitive than other economic areas. Therefore, policy should be made based on scientific research”.

“Economic shocks of the last years have affected fishing by increasing all the prices for gear and fuels. This changed the consumption pattern. Fish became a luxury product. The unit price of fuel also increased, leading to more post-harvest losses.”

“The vision of the Ministry is for Sri Lanka to be the leader of conservations and aquatic resources in the South-Asia region. All the activities are in line with these objectives with different stakeholder groups, including sustainable management of resources, blue economy, climate, and natural disasters. The Ministry always tries to keep a balance between conservation and development because, without the communities, we can’t do it”.

### **Opportunities for science-based planning and financing in recovery and sustainability**

Dr. Ananda Mallawatantri, Advisor to the President of Sri Lanka (Environment, Climate Change, and Green Finance)



“We have many opportunities to work together in India and Sri Lanka. The Gulf of Mannar has great potential because it has rich biodiversity on both ends and to make it into a green zone in the future”. We need to work on climate change and ecosystem conservation and make systems more sustainable and resilient. We need science-based land use planning toward sus growth and make use of global conventions that we could

include like this topic of today”.

“We need to work together; there is no single party that can solve it. Several global initiatives working towards similar goals (Climate Change COP 27, Biodiversity COP15, EU Green Deal, EU social fund (we can address those if we get things right) and gets us to think about what is possible and what we can do”.

“We are in a process towards green growth with different elements: marine, terrestrial spatial planning, appropriate land use zoning, bringing in green financing tools and investments. This project will help straighten these elements in the long run”.

### **Conclusion**

- This project will minimize ghost fishing
- Enhance Sri Lanka’s position in adopting green financing
- Opportunity to use high-level technologies for effectiveness (remote sensing, robotics and AI)
- The use of economics to quantify all processes
- Frequent dialogues and sharing of lessons to improve project outcomes

### **Initiatives and partnerships of the Ministry of Environment for ocean pollution**

Dr. Anil Jasinghe, Secretary, Ministry of Environment



“No single country is responsible and can come up with solutions. Marine pollution is probably underrated and underestimated. When you cut a tree, you can see it. In the sea, it’s not easy to explore. It’s important we embark on this. We are now venturing into the sea. We have the responsibility of safeguarding the sea. 80% of marine

pollution, including plastics, is due to land-based pollution. We have to look into what we are doing on the land so the sea is safeguarded”.

Several actions have been taken by the Ministry:

- Plastic waste management road maps have been developed.
- At least five projects are going on plastic pollution and most have been successful. The emphasis is on reuse, reduce and recycle
- We are bound to remove certain plastic products. We drafted regulations on these products and have given them to local governments ready by June
- We are setting up material recovery places and the recycling rates are going up but not to our satisfaction yet. 4% is recycled now. Pet bottles 20%.
- We put pressure on producing companies
- We are creating amendments ready in the next month
- We are also restricting imports of plastic pallets with quotas.
- We need to get together with other countries in Asia

“It has come to dangerous levels, killing the livelihoods and environments of people here.”

“We have to take actions that lead to significant results.”

### **Potential international collaborations to reduce discarded and lost fishing gears**

Beate Langset, Counsellor, Norwegian Embassy, New Delhi

“It is important to have discussions throughout the chain and find suitable ways. India and Norway have cooperated on oceans and the Blue Economy since the 1950s, which has been strengthened with a formal task force on Blue Economy for Sustainable Development in 2019. An MoU was signed by both governments, which states that both countries regularly interact and cooperate on topics of mutual interest, such as fisheries. The Blue Economy is the cornerstone of the relationship, and today five pilot projects (waste management, recycling, and community engagement) can be scaled all over India. After the summer of 2023, The Norwegian Embassy will also take over the responsibility of Sri Lanka.”

### **Report launch: Key findings by SALT, IUCN Sri Lanka, and SDMRI India**



Dr. Edward Patterson, SDMRI India

Arjan Rajasooriya, Marine and Coastal Expert, IUCN

Dinithi Samarathunga, Integrated Water Resources Management, IUCN

Mr. Carl Hojman, Business Area Manager, SALT

Arjan, Carl, Dr. Patterson, and Dinithi present the most important finding of the report. Then answer questions in a panel discussion. Moderated by Professor Terney Pradeep Kumara, Professor in Oceanography, University of Ruhuna

### **1<sup>st</sup> plenary discussion and Q&A with Edward, Arjan, Dinithi, and Carl**

Guest 1, former employer Ministry of Fisheries

Suggestions

- We need muscle. How can we give teeth to carry these things out?
- We need incentives to pick waste up
- We also need manufacturers for recycling



- Fisher licenses need to be checked more strictly
- Information needs to be given about the dos and don'ts to fisherman
- Bottom crawlers need to be restricted cause they do the most damage

Guest 2 from HELPO

We want to collect 200 abandoned fishing nets in the next two years. We would like to have a future collaboration with the Gulf of Mannar. We can collect the nets but we need to be connected. We also give an incentive for fishers. Can you support us with that?

- Dinithi: "We have studied your project. We are talking to the Ministry of Environment and looking into your project because we see a lot of synergies."

Guest 3 from UN project services

Works in waste management

*Is there a reason why you looked at the abundance and concentration of plastic pollutants?*

- Carl: "Issues need to be quantified. Wanted to focus on the same thing as other studies for this location where there was no data about litter yet. We need a baseline understanding to start navigating from. We need to keep doing these kinds of research to see if our actions have an effect and the concentration goes up and down."

*How do you capture waste coming from the local government?*

- Dinithi: "Local government is not really engaged in this round yet. Topic for the next stage. We do know that the engagement of local governments is low".
- Prof. Kumara: "There are different types of waste in Sri Lanka (streets, households, etc.). Nobody collects what is called beach waste because they are regulations. There is a vacuum. Because the local government says it's not their mandate, so it relies on voluntary work".

Guest 4 employee Ministry of Fisheries

100% of boats are made of fiberglass. Please find a solution for fiberglass in this regard

- Carl: "Has been discussed in this project, but out of scope for now. We had to focus and could not take all challenges into account. There are initiatives to take in old boats in Norway, but they are not effective enough yet".

Guest 5 from the University of Colombo

Suggestion to the panel. With new technologies (aerial photographs etc.), areas can be detected where plastic and nets accumulate, and then we can take actions

Guest 6 from Pearl Protectors

Raising attention to nets that get entangled on reefs. What is missing in the report is the negligence of the fishing communities. They put a net at night and leave it, and it gets entangled and wipes off the corals. *How would you remove these nets from reefs?*

- Patterson: "Difficult to monitor. Only professional divers and volunteers that know the reef can do it. It takes time to do it".
- Arjan: "How can we prevent it? It is difficult. It is forbidden to lay nets on reefs. The net gets lost in currents. Lobster nets are laid directly on the reefs, which are very destructive. The problem is that the value of the price is so high that fishermen can discard the nets, and they end up at the beach. I don't have a ready solution for this. How do we educate the fishermen not to do this? Authorities and the Ministry of

Fishery must work together here. Fishermen don't change if others don't change: "I won't stop if others don't stop." You also can't monitor it because there are 1000 fishermen everywhere.

#### Guest 7

##### Suggestions

- This is the time to push the local government for regulations
- Involve the public. Beach cleaning can be done voluntarily
- From a joined fishing ban in Sri Lanka and India

Jost Dittkirst, involved in a recycling project in Galle with the Ministry of Environment

- *How do we stop fishermen from discarding gear?* It's all about incentive schemes. That's what we try to do. We give them a small incentive for bringing the nets, and we recycle a part of it. This has been successfully tested in Ghana because the nets have value, and we just have to get them into the value chain and get the business running
- I want to mention the Basel Convention because it is relevant for plastic waste with the amendments that were adopted. Sri Lanka is a party to this convention, and fishing nets fall under the amendments.

Mr. Janaka, IUCN Ocean Team Switzerland

- I want to talk about the circular economy. How are producers responsible in this discussion?
- What are the economic costs of the tourism sector in Sri Lanka?
- Arjan: "No one likes to see dead reefs. We have to see how to prevent it. The garbage keeps coming even if we clean. We need larger conventions with more parties to address this"

## 2nd plenary discussion

### Panel members

Ms. Kalyani Hewapathirana, Director, Department of Fisheries

Mr. S. Ranawaka, Director General, Department of Coast Conservation and Coastal Resources Management

Dr. Sajith Edirisinghe, Secretary, Sri Lanka Medical Association

Mr. Sreeram Sirinivasan, Former Chief Project Director, Tamil Nadu Green Climate Company

### Moderator

Prof. Terney Pradeep Kumara



*What actions have you taken so far to control this program?*

- Kalyani: "Our goal is to protect biodiversity and the environment. We identified the effects of the plastics issue. We are strengthening the legislation on how to retrieve and include it in the fishing logs book."

*Where are we now?*

- Kalyani: "All marine fish-related issues have been signed on gillnets and marine plastic pollution. We now take action to finish the legislation and then implement it. We conduct new actions to prevent pollution in harbors and how to dispose. We also restricted fishermen that no more than 5-liter bottles are allowed at sea, and they have to report the bottle they take and bring back."

*How is it affecting you?*

- Ranawaka: "Problems have been identified with waste on the coasts. We are preparing a management plan. Controlling coastal pollution has been included separately to clean the beaches. The attitude of fishermen needs to be changed. We should incentive them. Why can't we come up with degradable packaging in Sri Lanka?"

*What actions have you taken?*

- Sirinivasan: "We should think about prevention, not just cleaning up. Address circular economy solutions. We also checked what flows in rivers and dumping spots and how we can replace them. Other points I want to make are we want to cut off the supply chain, and we need to provide people with a better opportunity. Otherwise, how can we ask them to change? EPR has been implemented for all plastic products but not for fishing nets. India has done some replacement projects with plastic materials and is trying to identify the sources and more preventive actions."

*What actions can we take?*

- Edirisinghe: "We have written a book to educate the general public. Ultimately, the plastics in the environments don't stay there, but they come into our bodies in many ways at micro levels. The proposal is we need to educate the public on the human impact. Otherwise, they won't understand it will affect them and the next generations. My proposal is to educate in simple language. We need to start at the school level. Studies have shown that microplastics cross the mother's placenta and enter the fetus. This might help the mother to bring in plastic."

Kumara: in the second round, we focus on future aspects and solutions. *From that point of view, will you impose new regulations?*

- Kalyani: "We will follow FAO guidelines, but now we don't have an arrangement for retrieval and recycling yet. We propose to have hand-over locations in harbors. The agencies have to work together to find a solution for this."

Kumara: are you feeling any internal pressures to control this (students etc.)?

- Kalyani: "This is becoming more of a thing now as they are raising issues and they bring proposals. For fishing gear, initiatives are there to change from gillnets to more targeted fishing, like with long lines. But for some species, fishers need gillnets. We need awareness programs and how to let them know not to put coral reefs. For lobster catching, there is no other way than that. It's difficult to change this. We need research institutes to help us here."

Kumara: *Do you want to take any actions from a legal point of view?*

- Ranawaka: "This is difficult. How do you collect this litter without harming the environment? The coastal management plan has to be updated every five years."

Kumara: *What is your advice to Sri Lanka to protect the coasts?*

- Edirisinghe: "I can't really give advice, but I have learned a lot. I will keep interacting with you. Government agencies need to involve all stakeholders is what comes to mind. First, school encouragement and participation are also important, as we did in the Green School project. We went to the most underprivileged schools and not the low-hanging fruits. We need to take that approach, in my opinion. Second, we should take it to a realistic understanding and look at data comprehensively before we take action".

Kumara: *What actions should someone take to avoid these problems?*

- Sirinivasan: "Microplastics are everywhere in your food etc. We eat 5 grams a week. Filters are really expensive and, therefore, difficult. We should use glass bottles more."

### **Q&A with panel members**

Quest: *There are little landing sites in harbors. Is there any monitoring there, and what can the government do?*

- Kalyani: "We have 21 designated harbors managed by coast guards and officers. There are 800+ small landing sites. We don't have monitoring systems there. We need a zonation at the highest level to manage the parking of boats so we can monitor it. We don't have our own monitoring units yet, but we do need it. The costs are very high. So, it's a financial issue. With the water bottle issue, we also checked if it's possible to have filtered water on boats for fishermen, but we need assistance."

Arjan: *The licensing has to be linked to the fishers. No fishers now have licenses. We have to move towards a situation where training is a must. I want to bring that up.*

Martijn, IUCN: *"What have you done so far, and what was the effect? How do we reach more people? And what is the first step? What could we do without the government?"*

- Sirinivasan: "We have conducted sessions to educate university students and in different rural setups to develop a community of entrepreneurs to collect plastic and turn it into money. I conduct sessions at temples on Sundays about this issue. Education is one. Research is two, so we write a book that can be used in schools. Unless you stop the supply chain of plastics to the environment, it won't serve this country. This is where education should come from. People with education get the idea, but at the community level, you have to talk in a very simple language, and this is the crowd that I am targeting. You go to the groups, and you teach them in a way that they understand. I have collaborated with other organizations to organize webinars and create more awareness to stop the supply chain. Educating school children is most promising as it is a long-term investment. They also take the message home to their parents, who can be more difficult to educate."



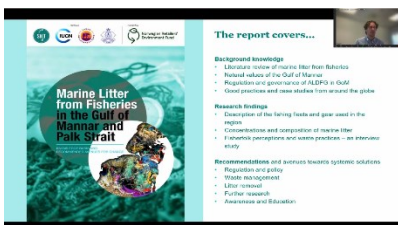
Director General of the Coast Guard: “We have 26 fishing monitoring points. When trollers go out at sea, we have to count how many 5L bottles they take. We also take turtles out of fishing nets. Fishermen can also give debris to us, and we clear it”.

Meleesha, Pearl Protectors: “*Microbeats have not been addressed yet. Is research conducted on that?*”

- Sirinivasan: “No zero plastic products are in Sri Lanka yet. The industry will find loopholes in the regulations, and we have examples of that. In toothpaste, there are plastics, for instance. There are apps you can check if there are plastics in it. Consumers should reject products that contain plastics, and then the industry will change for biodegradable alternatives”.
- Kumara: “There are some research papers available from Sri Lanka context market-based and policy-wise. CEA, we advocate a long list of items that should be banned. Of the 30 we selected, only four came through. The rest was cut, including the string hopper plates. We also have to make bold decisions. In Nairobi, they banned plastic in one night and gave high fines. It’s very clean now, and that has worked.”
- Edirisinghe: “We need to connect with people and back it up with evidence. Awareness is most key.”
- Sirinivasan: “Microplastics issue is not an area for scientists and doctors. It is the area where the common people come in. Entrepreneurs can turn waste into money. Arts can create beautiful stories that touch the human heart to attract kids. Films and picture books can be made about the effects of plastics and can be shown at festivals and social media.”

## Summaries of discussion in plenary

Mr. Carl Hojman, SALT



Thanks everyone for their input.

“I’ve heard about the health effects. We also heard that removal is possible, but it takes time and a lot of work. We need to work on preventive actions at the same time. How do we do this? We touched on several ways: economic incentives to create a value chain, creating jobs and income for people. I also heard encouraging news with regulations

coming into place with the fisheries act with aspects of ALDFG and coast management plans that are being updated to tailor to this. It is encouraging to see many people in the public authorities backing this up. I also encourage you to look at some solutions that are already in place and happening on a small scale that could be scaled up.”

Encourages everyone to stay and mingle and have more discussions and thanks the whole project team for getting the conference together.

## Closing Remarks and Way Forward

Dr. Sandun Perera, program coordinator, IUCN

“We see a great collaboration happening here with everybody involved. The other key message is the need for awareness in society, starting from the kids to the adults.”

Introduces himself and in his new role in IUCN.



Annexure: Photos of the Event



**Natural values in the Gulf of Mannar and Palk Strait..**

Over 4000 species recorded including:

- Sea turtles: 5 species
- Whales, dolphins & dugong
- Hard & Soft Corals
- Sponges
- Seagrass
- Mangroves



**Major components of fisheries related litter in the Gulf of Mannar**

D debris category

- ALDFG
- Other macrobiotic
- ALDFG item
- Rope
- Fishing nets
- Fish and bouys
- Loose and fine
- Traps and gear
- Vessel fragments
- Associated items
- Other ALDFG

Ropes stand out as the most abundant litter item.

There are many different types of items in the litter. In addition there are many other types of items that contribute to marine litter such as fishing nets, bouys

General or specific mitigation approaches?



