

Despite the dangers, fish for a prosperous life: A case study from the Southeastern coast of Sri Lanka



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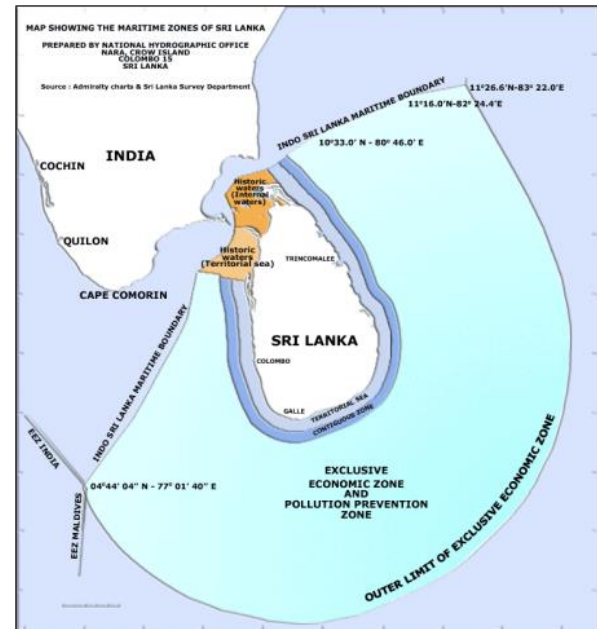
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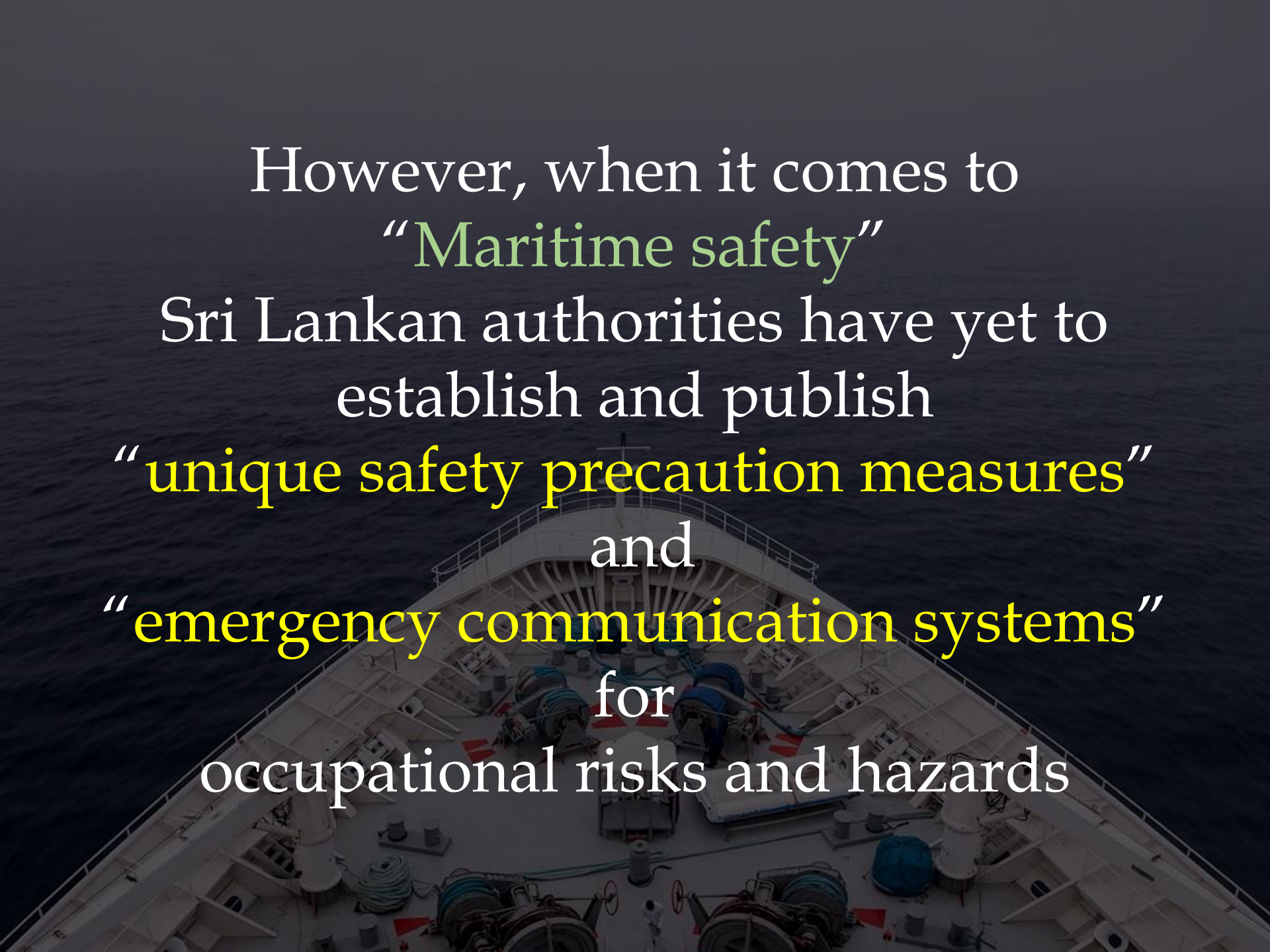
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INTRODUCTION

- Fisheries is one of the most hazardous jobs on the planet.
- An average fatality rate of 15.96 deaths per 100,000 workers (Safety consultancy Arinite, 2021)
- Roughly 24,000 fatalities every year for the previous 20 years
- Majority of deaths occurring in Asia
 - There are 3.8 million fishing vessels and 36 million full and part-time fishermen

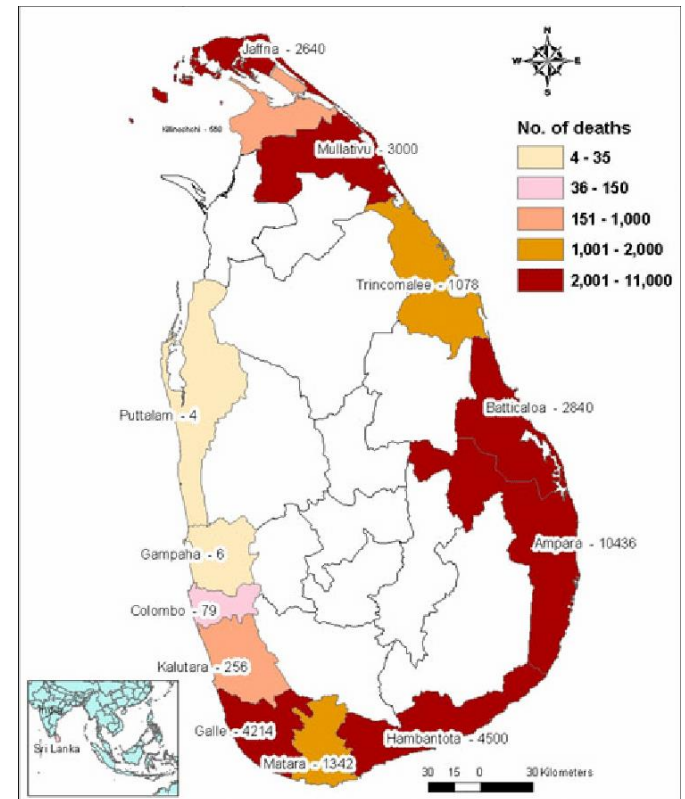
- Sri Lanka is one of the Asian countries that has traditionally relied on fish as its primary source of animal protein
- Annual fish consumption of 31.4 kilograms per person.
- This industry employs a large number of people in the areas of
 - Fishing
 - Processing
 - Distribution
 - Trading
 - Boat construction
 - Maintenance
- Fisheries sector employed 269,694 people, with women accounting for 7% of the workforce (FAO, 2022)



An aerial, high-angle view of the deck of a large ship, likely a fishing vessel or research ship. The deck is white and features several large, blue and silver mechanical winches or reels. Various pieces of equipment, including coiled hoses and smaller tools, are scattered across the deck surface. A person can be seen standing near the bottom center of the frame, providing a sense of scale. The ship's hull and railings are visible, and the dark blue ocean is seen in the background.

However, when it comes to
“Maritime safety”
Sri Lankan authorities have yet to
establish and publish
“unique safety precaution measures”
and
“emergency communication systems”
for
occupational risks and hazards

- Term "Safety" ➔ used to describe the state of being shielded from or unlikely to cause danger, risk, or injury
- The lack of tsunami warning systems in Sri Lanka prior to December 26, 2004, resulted in the destruction of 16,101 fishing vessels.





- Apart from Natural calamity,
 - Large sea current systems
 - Monsoons are threatening the lives and vessels of Sri Lankan fishermen.
- Many multiday boats are at risk of
 - Engine failures
 - Navigational difficulties
 - Rudder damage
 - Fuel shortages
- As a result of insufficient **technical knowledge, awareness, and safety equipment,** resulting in drifting of fishing vessels in open sea to foreign seas or more dangerous sea regions.

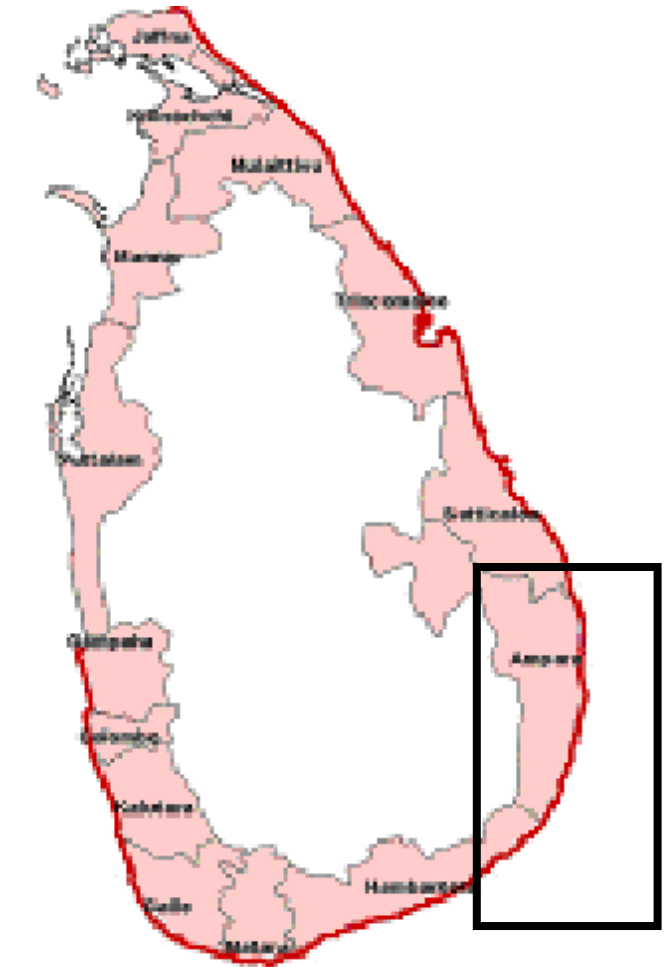
- Furthermore, most ships are not built-in accordance with internationally recognized safety and construction requirements
- However, in the past, there have been just a few studies in Sri Lanka that have focused on occupational health and safety issues at sea.
- No any previous studies conducted in **South Eastern Coast of Sri Lanka**, in which
 - There are significant fisheries activities.
 - Rich in marine resources
 - Fishing plays a vital role in the local economy

OBJECTIVES

- This study was designed to identify the safety-related problems and training needs of fishermen from South East coast of Sri Lanka
- To design “training and awareness programs” in collaboration with state *universities*, *local fisheries authorities*, and *district disaster management units*

METHODOLOGY

- This study included
 - 40 fishermen from the Southeastern coast who represented seven different fishermen societies
 - Three Department of Fisheries inspectors
 - Two representatives from the Ampara district disaster management unit.



Southeastern Coast



- Data were collected
- Through focus group discussions and questionnaire surveys
- From *June 2022 to December 2022.*

- **During the discussion, information was gathered on**
 - Common occupational risks faced by fishermen and the causes of those risks
 - The methods used to mitigate those risks
 - Their awareness of safety precautions and new technologies to mitigate risk
 - Training and practical needs of fishermen to avoid similar situations in the future
 - Available technologies with the department of fisheries
 - The contribution of the district disaster management unit.
- Several training needs were identified and indicated for further action based on the obtained data.

RESULTS AND DISCUSSION



**ஒலுவில் முகத்துவார பகுதியில்
மின்னல் தாக்கி ஒருவர் மரணம்**

இன்று பிற்பகல் 2 மணியளவில்
ஒலுவில் வெளிச்ச வீட்டு பிரதேசத்தில்
மின்னல் தாக்கி ஒருவர் ஸ்தலத்திலேயே
மரணம். மூன்று பேர் ஆபத்தான
நிலையில் வைத்தியசாலையில்
அனுமதிக்கப்பட்டுள்ளனர்.

07-10-2023

OLUVIL NEWS OLUVIL TV

A fisherman was instantly killed, and three others sustained serious injuries as a result of being struck by lightning while engaged in coastal fishing in Oluvil, Ampara (07-10-2023)

Lack of Awareness

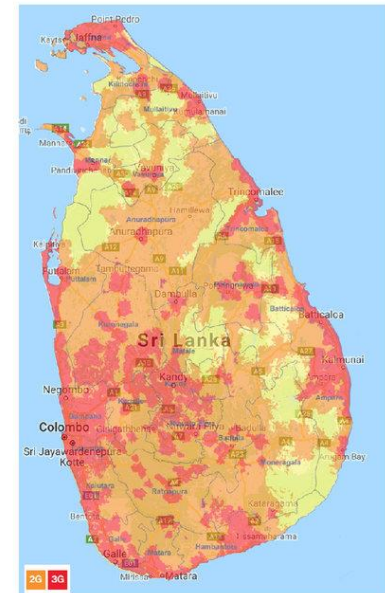
- **Some common risks faced by fishermen**

- Attacks by Lighting
- Nighttime collisions with other boats
- Decompression sickness (DCS) of underwater divers
- Repairs to the engine in the middle of the ocean
- Lack of communication facilities
- Accidentally crossing country borders and being apprehended by marine guards
- Unexpected weather conditions such as cyclones and strong currents
- Shark and whale attacks
- Minor injuries sustained during fishing activities

- Approximately 35% of the participants had nighttime collisions with other boats.
- One fisherman stated that
“He saved his life by attaching to a floating part of his boat, but that he lost his multiday boat and equipment worth **\$12,500 US (40 Mn LKR)** dollars as a result of the collision”

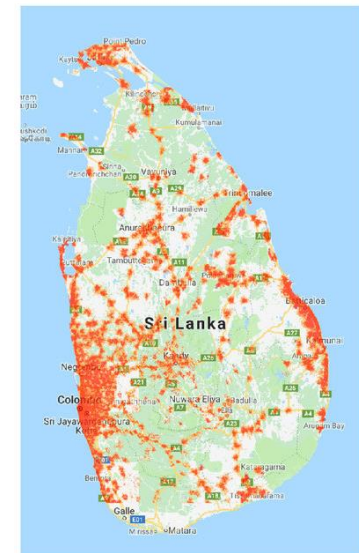


- **Lack of communication facilities**
 - Fisheries is happening nearly 32 nautical miles from the landing sites
 - After passing 7 *nautical miles* → no mobile network coverage.
 - No way of informing their relatives or the authorities in the event of an emergency.
 - Saved by other boat colleagues or navy boats in the majority of their high-risk scenarios.



Airtel –2G/ 3G Coverage

Ref : Bharati Airtel Lanka(PVT)LTD, www.airtel.lk



Hutch – 3G Coverage

Ref : Hutchison Telecommunications Lanka(PVT)LTD,
www.hutch.lk

- The bends → decompression sickness (DCS)
 - ✓ The central nervous system make them disabled and even death at least once in their lifetime
 - ✓ Deadly to SCUBA
- 10.5% of SCUBA divers have experienced
- Only 10-20% chance to recover → if proper treatment is given on time (within 48 hours)

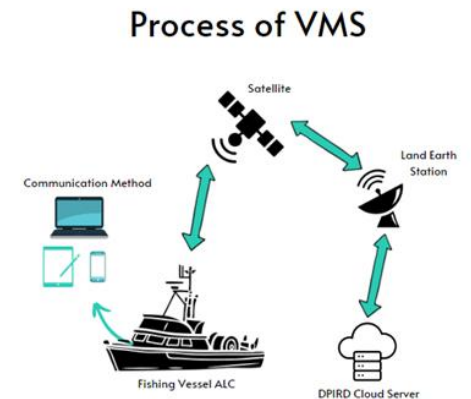


- The foremost reason behind all the risk is “Lack of awareness”
- Most of the fishermen exposed to the bulk of natural disaster-related dangers due to their ignorance of government-issued weather alerts
- Lack of technical knowledge of fishermen in
 - Operating GPS equipment
 - Conducting simple repairs on their boat engine failures
 - Lifesaving abilities
 - Performing first aid at the scene of injuries

- Lack of technological facilities
- Lack of infrastructure facilities
- Lack of treatment facilities
- ✓ Hyperbaric recompression chamber to treat Bends →
 - Only available in NAVY hospital of Trinco
 - More than 200 kms from landing sites



- Identified solutions to track the fishermen's movement on the ocean and to report and respond to risk or emergency conditions
- The importance of establishing vessel monitoring systems (VMS)
- Providing satellite telephones for fishermen → Earlier prohibited due to civil war
- Installing high-quality GPS Navigation units with pre-marked locations



- The Department of Biosystems Technology at South Eastern University of Sri Lanka, Disaster Management Unit Ampara and The Department of Fisheries were collaborated to design training sessions for fishermen



Disaster Management Centre

for Safer Communities & Sustainable Development in Sri Lanka

Ministry of Defense



**Department of Fisheries
and Aquatic Resources**





- Identified training sessions for fishermen

1. Life-saving tactics
2. Basic first-aid and rescue
3. Basic boat repair and maintenance (**2 sessions were conducted**)
4. Operating methods of GPS and other fishery-related technological devices
5. Training fishermen on fisheries regulations (**1 session was conducted**)
6. DO's and DON'Ts at open ocean fishery operations

- Important to Establish Early warning systems and Technological infrastructure
- Not at Zero but not up to the requirements in Sri Lanka → Not reached the end user

Natural Disaster Alert & coordination system in Ampara District
Dr, Tharik, Dr, Electrical, Mr, Muhajideen, Ramees, Safeek, Salaam, +94 77 653 8910, +94 75 761 9515, +94 77 358 5984, +94 77 670...

	A	B	C	D	E	F	G	H	I	J	K
1	Name of District	Severity (0-5)	2019	2020	2021	2022	2023	2024	2025	2026	2027
2	Amber	1	1	1	1	1	1	1	1	1	1
3	Orange	2	2	2	2	2	2	2	2	2	2
4	Yellow	3	3	3	3	3	3	3	3	3	3
5	Green	4	4	4	4	4	4	4	4	4	4
6	Blue	5	5	5	5	5	5	5	5	5	5
7	Red	6	6	6	6	6	6	6	6	6	6
8	Black	7	7	7	7	7	7	7	7	7	7
9	White	8	8	8	8	8	8	8	8	8	8
10	Grey	9	9	9	9	9	9	9	9	9	9
11	Light Blue	10	10	10	10	10	10	10	10	10	10
12	Light Green	11	11	11	11	11	11	11	11	11	11
13	Light Yellow	12	12	12	12	12	12	12	12	12	12
14	Light Orange	13	13	13	13	13	13	13	13	13	13
15	Light Red	14	14	14	14	14	14	14	14	14	14
16	Light Purple	15	15	15	15	15	15	15	15	15	15
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20	Light Blue	19	19	19	19	19	19	19	19	19	19
21	Light Green	20	20	20	20	20	20	20	20	20	20
22	Light Yellow	21	21	21	21	21	21	21	21	21	21
23	Light Orange	22	22	22	22	22	22	22	22	22	22
24	Light Red	23	23	23	23	23	23	23	23	23	23
25	Light Purple	24	24	24	24	24	24	24	24	24	24
26	Light Brown	25	25	25	25	25	25	25	25	25	25
27	Light Pink	26	26	26	26	26	26	26	26	26	26
28	Light Grey	27	27	27	27	27	27	27	27	27	27
29	Light Blue	28	28	28	28	28	28	28	28	28	28
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33	Light Red	32	32	32	32	32	32	32	32	32	32
34	Light Purple	33	33	33	33	33	33	33	33	33	33
35	Light Brown	34	34	34	34	34	34	34	34	34	34
36	Light Pink	35	35	35	35	35	35	35	35	35	35
37	Light Grey	36	36	36	36	36	36	36	36	36	36
38	Light Blue	37	37	37	37	37	37	37	37	37	37
39	Light Green	38	38	38	38	38	38	38	38	38	38
40	Light Yellow	39	39	39	39	39	39	39	39	39	39
41	Light Orange	40	40	40	40	40	40	40	40	40	40
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43	Light Purple	42	42	42	42	42	42	42	42	42	42
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45	Light Pink	44	44	44	44	44	44	44	44	44	44
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63	Light Pink	62	62	62	62	62	62	62	62	62	62
64	Light Grey	63	63	63	63	63	63	63	63	63	63
65	Light Blue	64	64	64	64	64	64	64	64	64	64
66	Light Green	65	65	65	65	65	65	65	65	65	65
67	Light Yellow	66	66	66	66	66	66	66	66	66	66
68	Light Orange	67	67	67	67	67	67	67	67	67	67
69	Light Red	68	68	68	68	68	68	68	68	68	68
70	Light Purple	69	69	69	69	69	69	69	69	69	69
71	Light Brown	70	70	70	70	70	70	70	70	70	70
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73	Light Grey	72	72	72	72	72	72	72	72	72	72
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75	Light Green	74	74	74	74	74	74	74	74	74	74
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77	Light Orange	76	76	76	76	76	76	76	76	76	76
78	Light Red	77	77	77	77	77	77	77	77	77	77
79	Light Purple	78	78	78	78	78	78	78	78	78	78
80	Light Brown	79	79	79	79	79	79	79	79	79	79
81	Light Pink	80	80	80	80	80	80	80	80	80	80
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83	Light Blue	82	82	82	82	82	82	82	82	82	82
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97	Light Purple	96	96	96	96	96	96	96	96	96	96
98	Light Brown	97	97	97	97	97	97	97	97	97	97
99	Light Pink	98	98	98	98	98	98	98	98	98	98
100	Light Grey	99	99	99	99	99	99	99	99	99	99

காற்று சுழற்சியின் வருகையில் தாமதம்.

அந்தமான் கடல் பிராந்தியத்தில் தற்போது காணப்படுகின்ற காற்று சுழற்சியானது நாளைய தினம் (06.01.2024) இலங்கையை அண்மிப்பதனால் நாளை முதல் சில நாட்களுக்கு மழை பெய்யும் என எதிர்வுகூறப்பட்டது.

ஆனால் இந்த காற்று சுழற்சி இலங்கை அண்மைப்பகுதி ஒரு நாள் தாமதமாக நடைபெற இருப்பதன் காரணத்தினால் மழையானது ஒரு நாள் தாமதமாக எதிர்வரும் 07ஆம் திகதி முதல் 11ஆம் திகதி வரை பெய்யும் என எதிர்பார்க்கப்படுகின்றது. (இன்றுள்ள வானிலை அமைப்பின்படி)



WhatsApp groups to provide weather and disaster updates in their local languages



Ministry of Fisheries



கிஃலு தமிழ்

Sitemap



A A A

[Click here to View Opportunities](#)

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Weather

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Warnings

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Code of Conduct for Safety
at Sea

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Code of Conduct for
Responsible Fishing

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Conclusion

- This short study establishes a baseline of safety-related issues and training needs among fishermen on Sri Lanka's southeast coast
- The findings can be used to inform future research on fishermen's occupational health and safety in South Eastern Coast of Sri Lanka

ACKNOWLEDGMENT

- Food and Agriculture Organization (FAO) of the United Nations
- U.S. National Institute for Occupational Safety and Health (NIOSH)
- Northeast Center for Occupational Safety and Health (NEC).
- Department of Fisheries, Eastern Province
- Disaster Management Unit, Ampara
- Fishermen of Southeastern Coast
- South Eastern University of Sri Lanka

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Thank you

