



# Marine Mega Fauna Stranding Management Guidelines

Government of India  
Ministry of Environment, Forest and Climate Change



**JANUARY 2021**





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मंत्री  
पर्यावरण, वन एवं जलवायु परिवर्तन,  
सूचना एवं प्रसारण और  
भारी उद्योग एवं लोक उद्यम  
भारत सरकार



MINISTER  
ENVIRONMENT, FOREST & CLIMATE CHANGE,  
INFORMATION & BROADCASTING AND  
HEAVY INDUSTRIES & PUBLIC ENTERPRISES  
GOVERNMENT OF INDIA

प्रकाश जावडेकर  
*Prakash Javadekar*



### MESSAGE

Marine ecosystem is considered to be one of the richest ecosystems on earth. India, with its vast coastline of more than 7500 kms, spread across both mainland and islands, is home to one of the diverse and rich biodiversity. From Cetaceans like Whales and Dolphins, to Dugongs, Marine Turtles, Sharks, Rays, India has one of the matchless marine bounties in the globe. Government of India has been taking several measures for conservation of these species and their habitats.

However, India did not have a guideline for handling and managing such stranding situations. Now, I am happy to note that the Ministry has prepared a set of guidelines in the form of this document, i.e. 'The Marine Mega Fauna Stranding Management Guidelines' after a consultative process including Government Departments, Scientific Institutes, experts, etc. The Guidelines have also taken into account the global best practices in management of marine mega fauna stranding.

The Guidelines provide for a participatory approach and recognise importance of the local communities in partnering for conservation initiatives. The Guidelines will help the relevant stakeholders in better understanding and bringing much needed awareness on stranding of marine megafauna and also guide them in handling such situations in an effective manner with the purpose of saving lives of these species.

I strongly believe that the Guidelines will usher a new beginning in conserving the gentle giants in our seas.

With best wishes.

Date: 19.01.2021

  
(Prakash Javadekar)

॥ प्लास्टिक नहीं, कपड़ा सही ॥



# Babul Supriyo

Union Minister of State

Ministry of Environment, Forest & Climate Change  
Government of India



सत्यमेव जयते



# बाबुल सुप्रियो

केन्द्रीय राज्य मंत्री

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय  
भारत सरकार



## MESSAGE

I am delighted to know that Ministry of Environment, Forest and Change, Government of India has come up with very comprehensive "Marine Mega Fauna Stranding Management Guidelines" with an aim to improve coordination between Central/ State Governments and civil society organizations, responding to Marine megafauna stranding, research and management issues, support and share data. This will promote inter-sectoral coordination in the conservation of marine megafauna.

Marine mega fauna such as dolphins, whales, dugongs, turtles, whale sharks, etc. get stranded on shore either alive or dead as solitary or in mass due to various reasons such as fisheries bycatch, boat strikes, noise pollution, diseases, disorientation of their leader, etc.

These guidelines shall provide guidance for the proper handling/rescue of marine megafauna stranded on the shore or entrapped in shallow waters, bays and potentially unable to return to the sea. It is a step towards improving and maintaining the marine health of our country.

I extend my best wishes for successful implementation of the Guidelines "Marine Mega Fauna Stranding Management Guidelines" so that the marine mega fauna could be saved from stranding.

*Bestest  
Niche 5,*

*Babul  
Supriyo*  
(Babul Supriyo)





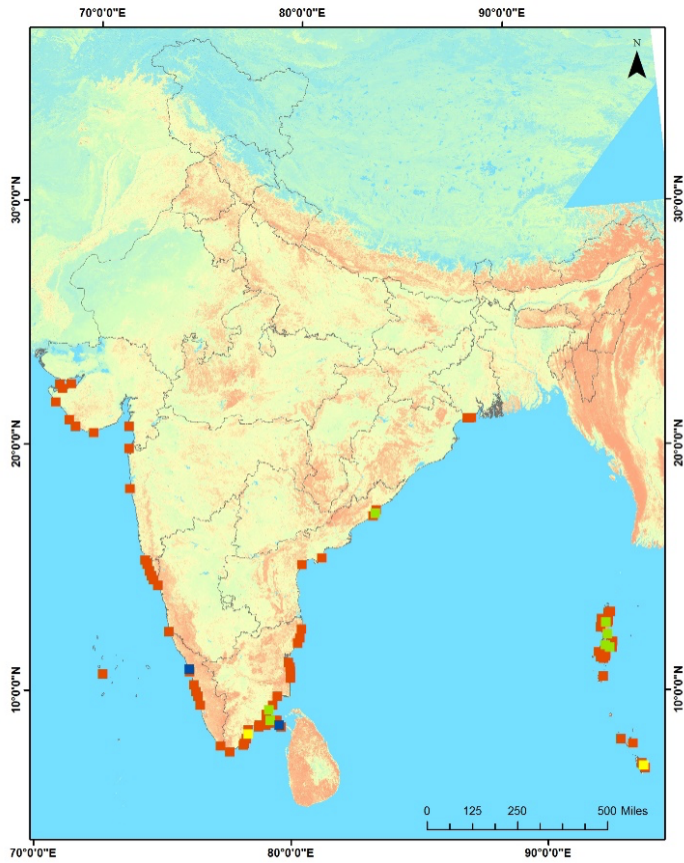
# Marine Mega Fauna Stranding Management Guidelines

## Background

Marine mega fauna such as whales, dolphins, dugongs, turtles, whale sharks, etc. are an important and integral element of the marine ecosystem. The population status of many species of marine mega fauna in India is largely unknown (Sivakumar, 2013). Lack of knowledge on distribution and abundance of most of these species in Indian waters has been the biggest hurdle for their conservation. As the socio-economic value of marine mega fauna in the region can grow via tourism, so too does the need for long-term conservation and management of such species and their habitats. Marine mega fauna strands on shore either alive or dead as solitary or in mass due to various reasons such as fisheries bycatch, boat strikes, noise pollution, diseases, disorientation of their leader, etc.

It is estimated that between 9,000-10,000 cetaceans are bycaught annually across India in mechanised vessels. Management of this along with beaching/washing ashore of cetaceans are being considered in these guidelines.





Marine Mammals Records India

**Legend**  
 No. of records in each 10x10 km grid  
 1 - 3    4 - 6    7 - 11    12 - 55

Figure 1  
 Marine mammals stranding hotspots of India  
 (Source: Sivakumar, 2019)

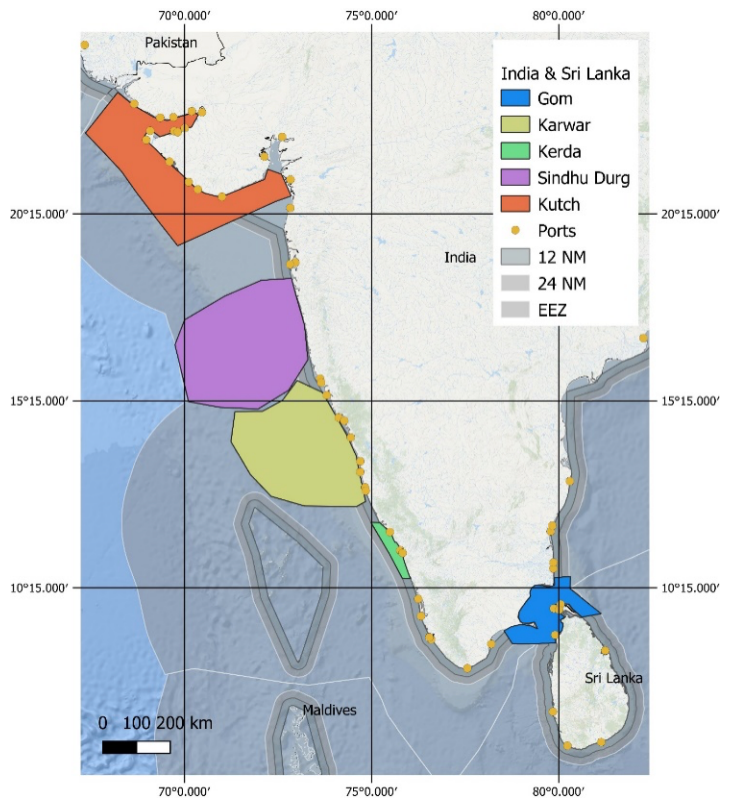


Figure 2  
 Bycatch hotspot areas in India. (source IWC, 2020)



# Objective

The objective of the guidelines on marine mega fauna stranding management is to improve coordination between various independent Government and civil society responding to Marine megafauna stranding, research and management issues, support, share data and thus promote inter-sectoral coordination in the conservation of marine megafauna.

The guidelines shall broadly follow the extant provisions under the various rules and regulations framed under Indian Fisheries Act, 1897, the Marine Fishing Regulation Acts (MFRA) of the maritime States of India, Coastal Aquaculture Authority Act, 2005, The Biodiversity Act, 2002, Wild Life (Protection) Act, 1972, Trade Unions (Amendment) Act 2001, Environment Protection Act, 1986, Marine Products Export Development Authority Act, 1972, Merchant Shipping Act 1958, The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006; Coastal Regulation Zone Notification and The Territorial Waters, Continental Shelf, Exclusive Economic Zone and Other Maritime Zones Act, 1976.

This guideline also provides guidance for the management of marine megafauna stranded on the shore or entrapped in shallow waters, bays and potentially unable to return to the sea.



*Whale shark*

*Photo: Lachlan-Ross*

# Key steps for live/dead stranding on the beach

**STEP 1:** Contact State Stranding Coordinator or nearest Local Stranding Network Coordinator.

**STEP 2:** Local Stranding Coordinator will contact nearest Forest Department Office, Government Veterinarians and Scientists.

**STEP 3:** First responder from the Local Stranding Network preferably trained in stranding response will help to collect all data and if necessary, help in refloating a live animal. Coast Guard / Coastal Police / Marine Police will also be informed

**STEP 4:** First Responder and staff will assemble personnel (veterinary doctors/researchers/students/fishermen) and manage trained volunteers to handle the event. If no researcher or veterinarian is available, trained volunteers should collect as much data as possible based on accepted protocols and submit to Local Stranding Coordinator or person-in charge of stranding response.

**STEP 5:** If it is a dead stranding: Responders will use precaution – use gloves and masks, and collect Level A and detailed biological information, photographs specimen measurements according to approved standardized data form (Annexure 4). After the morphometric measurements of dead animal, it should be buried in nearby areas in presence of local Forest Officer, Veterinary Officer and the Nodal Officer of Local Stranding Network.

**STEP 6:** Stranded specimen(s) need to be transported to a lab for necropsy (applies to small cetaceans, not large whales). If specimen is too degraded, safe and approved disposal techniques should be used to bury specimen.

**STEP 7:** If it is a live stranding: Veterinary expertise to be sought immediately to determine state of animal. If animal is deemed to be returned to sea, then appropriate actions need to be taken to ensure animal and human safety (Annexure 5)

The Local Stranding Coordinator or Designated Personnel will oversee the rescue of the stranded marine animal following Standard Response Protocols with the help of 'Rapid Response Team'. Assistance from the Coast Guard, Navy, and Forest Officials to be sought to enable safe release of the Marine megafauna.





Trained volunteers, naturalists, researchers and fishing community members can provide additional assistance during mass stranding.

Before animal is returned to sea, Level A data needs to be collected including photographs, gender, measurements, and skin and blood samples. All responders must use gloves and masks. Each rescued marine animal may be satellite tagged, if the health of the stranded animals is good, for later identification and to track movements after release. The Chief Wildlife Warden of the respective state will take decision on this.

To identify whether the released animal, is stranded elsewhere, all such animals may be tagged with a non-expensive marker tag (ear tag) / flipper tags (in case of sea turtles). A basic data sheet of the tagged animals needs to be maintained regarding the tagging. Animals that need to be euthanized will be evaluated on a case by case basis based on veterinary advice as well as based on safety, logistic, and other constraints.

**Step 8:** Any data collected from a live/dead stranding episode must be provided to the State and National Centre within fifteen days of the reported stranding. In case of unusual mortality events, detailed investigative reports need to be made available to the National Stranding Centre. Any scientific research carried out using biological samples must be submitted in published form or report to the State and National Stranding Centres.

# Key steps for handling bycatch or entangled animals at sea

**STEP 1:** Immediately notify the entanglement to the nearest Stranding Centres, if the network is available

**STEP 2:** A bycaught animal should be safely and humanely released in the water, before the fishing gear is brought aboard.

**STEP 3:** Remove the entangling materials as early as possible without any harm to the animals. If required, cut the fishing nets and release the animals on priority. The net should be cut carefully along the axis of the animal, so it can then be rolled to facilitate its release and soft landing back into the water.

**STEP 4:** If animal is caught on fishing hook then gently approach the animal by manoeuvring the vessel towards it. Do not use any kind of hook or any other sharp objects to bring the animal closer, as this will further injure it. Cut the line using an appropriate implement, as close as possible to the animal. Only under exceptional circumstances should any attempt be made to remove the hook

**STEP 5:** Do not cover or block the blowhole, or spray water in or near it, to allow uninterrupted breathing

**STEP 6:** If the animal is held aboard a boat or vessel for an extended period, apply Vaseline around the exterior surface of the blowhole to maintain skin condition (using gloves), although this should be done carefully to ensure none comes into contact with the interior surfaces of the nasal passage.

**STEP 7:** Avoid placing the animal downwind of exhaust fumes and where possible, the crew/fishermen should avoid being downwind of the blowhole

**STEP 8:** Under no circumstances should the jaw be used to move or hold the animal, despite looking robust

**STEP 9:** Fishers should avoid placing their hands or feet inside the mouth, as they may be easily injured

**STEP 10:** In case, the bycaught animal is found dead then the carcass should be photographed for identification and record, and leave carcass in the sea where it was found dead.

# Key steps for handling of stranded/entangled animals on the board of vessel/boat

**STEP 1:** Ideally, the bycaught/entangled animal should remain in the water and be released there. Crew members attempting to release an animal should try to avoid entering the water to do so.

**STEP 2:** On the board of a vessel or boat, handle the stranded/entangled animal in a way that avoids pushing, pulling or twisting its appendages, as this may cause painful injuries that can decrease the chances of survival.

**STEP 3:** Stay clear of the tail fluke and rostrum to avoid injury to crew/fishermen.

**STEP 4:** Whenever possible, use lifting 'stretchers', which are safer for the animals and the crew

**STEP 5:** Do not cover or block the blowhole, or spray water in or near it, to allow uninterrupted breathing.

**STEP 6:** Make all efforts to keep the animal in the upright position at all times, including when moving, or when returning to the water

**STEP 7:** Use props, such as sand bags or rolled towels placed on either side of the animal, to gently hold it upright and in a 'natural' position.

**STEP 8:** If the animal is held aboard a vessel for an extended period, apply Vaseline around the exterior surface of the blowhole to maintain skin condition (using gloves), although this should be done carefully to ensure none comes into contact with the interior surfaces of the nasal passage.

**STEP 9:** Avoid placing the animal downwind of exhaust fumes and where possible, the crew should avoid being downwind of the blowhole.

**STEP 10:** Under no circumstances should the jaw be used to move or hold the animal, despite looking robust.

**STEP 11:** Crew should avoid placing their hands or feet inside the mouth, as they may be easily injured.



**STEP 12:** For animals being held aboard the vessel for extended periods, wet towels should be carefully placed over the animal to ensure they are kept moist, using water collected from overboard that is of ambient temperature.

**STEP 13:** Due to limited or complete lack of support, the crew are not to provide more than basic first aid care to the bycaught animal.

**STEP 14:** If the animal is already injured then keep the animal in a physically stable position aboard, cover with wet towels, carefully and humanely remove net or embedded objects, stop bleeding by applying pressure over the wound site, and make sure the blowhole and mouth are free from obstructions. If possible, seek advice from a pre-arranged source, such as a vet, or a stranding network. Informed advice may improve the survival prospects of the bycaught animal. After first aid, the animal should be released back to the sea safely.

**STEP 15:** In case the stranded or entangled animal is found dead then the carcass should be photographed for record and identification. The animal should be freed from entangled materials and be left in the sea where it was found dead.



*Fishers disentangle a whale shark accidentally caught in a fishing net. Photograph by Wildlife Trust of India*

# Management Actions

## **a) Establishment of National Stranding Centre (NSC)**

The role of the NSC is to primarily maintain the national level knowledge management system on marine animals stranding and their bycatch, facilitate the permission process, facilitate funding and grant applications, and carry out annual meetings to assess the functioning of State-wise centres. The location, Terms of Reference and other such details of the National Stranding Centre would be framed by MoEFCC. A guideline for the National Stranding Centre is placed at **Annexure – 1**.

## **b) Establishment of State Stranding Centres (SSC)**

The primary role of SSC is to maintain the State level database on marine animals stranding and their bycatch, and to coordinate with all local stranding networks. Location, Terms of Reference and other such details of the Centre to be formulated by the respective state governments based on consultations. A guideline for the State Stranding Centre is placed at **Annexure – 2**

## **c) Establishment of Local Stranding Networks/Volunteer Networks/Stranding Coordinators**

The Local Stranding Network shall be established by the respective State/UT Governments. The details and Terms of Reference and other such details of the Local Stranding Network shall be formulated by the respective state governments based on consultations. A guideline for the Local Stranding Networks/Voluntary Networks/Stranding Coordinators is placed at **Annexure-3**.

## **d) Establishment of Rapid Response Team (RRT)**

Rapid Response Team (RRT) shall be constituted in order to take immediate action in case of stranding of live marine megafauna from the Local Stranding Networks. RRT shall be constituted with adequate training, capacity and logistics with help of Forest, Fisheries, Police, Fire Services, Indian Coast Guard, Indian Navy, Marine Police, Fishermen, Local NGOs, etc.

The National Stranding Centre may publish basic data from all State Stranding Centres for the annual report and make the same publicly available every year. The agencies/groups/networks that collect the data to be acknowledged in the publications. Annual report can also be published in the regional languages by the concerned State Stranding Centres for effective awareness.

One RRT may be equipped with suitable rescue equipment such as access to speed boat, vehicle, phones/communication devices, GPS tracking devices/buckets, sheets, sufficient nylon nets for making soft mesh trap, torches, first aid box etc.

Skill training of all RRT towards Rescue and Handling of stranded animals will be done immediately as soon as RRTs are constituted. Capacity Building of RRT may be conducted at regular intervals after the initial training.

Capacity Building and Exposure visits to best practicing areas including in other countries shall be carried out at various levels.

Minimum one RRT is proposed for each 'marine megafauna stranding hotspots' of the States/UTs. One RRT may cover about 200 km long coastal stretch.

#### **e) Creation of National database**

A National Stranding Database of marine megafauna would consist of all information from the State Stranding Centres. The Database will have basic stranding data like Date, Time, Location, Species, photos/samples taken, person to contact and also have basic data on the species rescued (e.g. length, sex, weight, etc). All data collected by the Local Stranding Networks to be reported to State Stranding Centres or affiliates in each state.

Additional biological data as part of the stranding investigation to be housed in the relevant State Stranding Centres or approved labs that includes, but is not limited to: histopathology, osteology, morphometric, stomach contents, reason for stranding and other biological information pertaining to the stranded specimen under investigation. They must register with the State and National Stranding Centres and on the Database for easy sharing.

The National Stranding Centre may publish basic data from all State Stranding Centres for the annual report and make the same publicly available every year. The agencies/groups/networks that collect the data to be acknowledged in the publications. Annual report can also be published in the regional languages by the concerned State Stranding Centres for effective awareness.

#### **f) Guidance for Stranding Response**

i. The person first on scene or reporting stranding must contact telephone hotline (toll free number) for local stranding centre or State Stranding Centres / Coordinator.





*Marine Wildlife Stranding Response  
Network, Goa.  
Photograph by Drishti Marine*

Once the Forest Official/Coast Guard receives the information about the stranding, they should coordinate with the Local Stranding Networks/ Coordinator / State Stranding Centre to respond to the stranding event with help of 'Rapid Response Team' if the stranded animal(s) is/are alive. The coordinator must take up responsibility of crowd management at the stranding site.

Any individual can respond to a stranding event , provided they have training and notify concerned authorities including relevant stranding centre immediately of the event before collection of any data.

If no stranding centre or assistance is available, person responding to the event, should collect as much information as possible (Annexure 4) and provide information to the Concerned State Forest Officers and the State Stranding Centre.

At the scene of the incident, the Stranding Coordinator and designated personnel shall assume full responsibility for handling a response. They

will take appropriate measures to notify officials including the Coast Guard and Forest Officials.

### **g) Dolphin/Whale/Dugong/Turtles/Whale shark entanglement**

Dolphins and whales can get injured and entangled in fishing gear, marine debris (plastic and other discarded trash, ghost nets) with sometimes very fatal consequence leading to death. If dolphin/whale/dugong is entangled at sea, trained personnel at Stranding Centres, trained fishermen, Coast Guard, or Navy should be notified and an appropriate response mounted to remove entangling material. However, untrained individuals should not attempt to rescue or remove gear from an entangled dolphin or whale as this may lead to unnecessary risk and injury. However, under exceptional circumstance such as when fisherman, boat or human safety is compromised, measures can be taken to disentangle gear from affected species. In all cases, proper authorities should be notified.

### **h) Priority areas for the marine mega fauna stranding response action plan**

Reduction in bycatch of marine animals in fishing gears through increased awareness among the fishermen communities and other stakeholders through various outreach programmes

Paramount is the need to identify the bycatch and stranding hotspots of each State/UT of India with spatio-temporal overlays of critical marine mammal habitats and fishing grounds to establish the Local Stranding Volunteer Networks

Regional, national, and international training for fishermen, managers, scientists in latest fishing technology, better fishing practices, and improved gear development to minimize bycatch of protected marine animal species

Capacity building and training in marine animal stranding rescue, response, rehabilitation (live/dead), disentanglement of marine animals at sea, stakeholders training to reduce illegal, unregulated, unreported fishing, and incidental catch of protected marine species and juveniles. This should involve regional cooperation with neighbouring countries sharing India's territorial waters

Establish bycatch/stranding monitoring network at State level with involvement of citizens and civil societies to maintain database on marine animal stranding as well as bycatch by using a customised mobile app, etc.

# **Guidelines for Establishment of National Stranding Centre (NSC)**

1. NSC will coordinate the annual monitoring programme for the marine animal stranding in all the coastal states by inviting the coordinators of all the State Stranding Centres.
2. NSC will coordinate with the State Stranding Centres, Indian Navy, Coast Guard Marine Police and National Disaster Response Force etc., during the case of large animal stranding or during the mass stranding incidents.
3. NSC will develop the web-site for marine animal stranding composing of State Stranding Centres, toll free numbers of State Stranding Centres, nearest contact of the Local Stranding Networks and Stranding Coordinators.
4. NSC will manage the national Marine Animal Stranding Database.
5. NSC will coordinate with the other Ministries for permission and necessary actions as required for the State Stranding Centres.



# **Guidelines for State Stranding Centres (SSC)**

1. Location, Terms of Reference, etc. of the State Stranding Centre to be formulated based on consultations.
2. A stranding management helpline (toll-free phone number) should be operated by the State Stranding Centre for the entire State which will provide for efficient communication between the First Responders on the site with the Local Stranding Network.
3. The State Stranding Centre shall contain the officials of Forest Departments, Police, Fire Service, Indian Coast Guard, Indian Navy, Animal Husbandry Department (Veterinarian), Marine Police/Coastal Police, State Disaster Management Authority, State Fisheries Department, Members from local Fishermen Associations, State Fisheries/Research Institutes, Scientist from Central Marine Fisheries Research Institute (CMFRI)/ Centre for Marine Living Resources & Ecology (CMLRE)/ Fishery Survey of India (FSI)/other institutes or organizations, Members from NGOs working on the marine animals and Research Institutes. The Chief Wildlife Warden of the respective state will be the Chairman of the State Stranding Centre.
4. The State Stranding Centre shall be responsible for state-level stranding data management, set up the stranding network, resource mobilization, using the available advance technologies in Marine Stranding detection and response,
5. The State Stranding Centre shall conduct the Stranding Response Networks meeting once in six months to assess the stranding incidents. The frequency of the meeting may be increased if any frequent stranding happens.
6. Most often, fishermen in the deep sea are the first ones to notice the stranded animals. Special fishermen friendly mobile applications can be prepared for recording the marine animal stranding, sightings, entanglements and rescues/releases.
7. The State Stranding Centre will work out and propose the appropriate compensation programme in due consultation with the State Forest Department for successful release of Marine Animals entangled in the fishermen nets, rewards for the volunteers who play a crucial role in releasing of live stranded animals etc.

8. The State Stranding Centre will prepare the modules for awareness and outreach strategies regarding Marine Animals Stranding and executed through the volunteers/Local Stranding Networks.
9. The State Stranding Centre will develop plans and execute various training required for volunteers groups, Forest Officials, Coast Guards, Indian Navy, Veterinarians regarding the Marine Animal Stranding.
10. State Stranding Centre will decide the use of advance technologies like Unmanned Aerial Systems (UAS), commonly referred to as drones and Saildrone to locate the Marine Animal Stranding. The State Stranding Centres will be in touch / discuss with the defence officials to get permissions to use the advance technologies and avoid any regulation outpace by technology. The State Stranding Centres shall coordinate with the defence officials to utilize their set ups like vessels, UAS, Radar Systems, Mobile/remotely operated instrument based services to monitor the Marine Animal Stranding.
11. Large bodied Marine animals can be detected with very high resolution (VHR) satellite imagery for the places where traditional survey methods are limited or impractical. The State Stranding Centres will coordinate with the National Space Centres or National Remote Sensing Authorities in this regard.

# **Guidelines for Local Stranding Networks/ Volunteers and Stranding Coordinators**

1. Local Stranding Networks or Volunteer Stranding Networks should be established for all coastal districts. Location, Terms of Reference etc., of the Volunteer Stranding networks to be formulated based on consultations. From the Local Stranding Networks, a 'Rapid Response Team' should be established to respond to the stranding of live marine animal(s).
2. The concerned regional Range Forest Officers should be the coordinators of these groups.
3. The regional Deputy Conservator of Forests/Divisional Forest Officer /Wildlife Warden can be the Nodal officer of such a network for a particular district.
4. These networks should comprise of people who are interested and willing to volunteer during stranding events (Panchayati Raj institutions, people from local NGOs, educational institutions, fishermen communities, etc.). Since the marine animals which get stranded are protected under the Wildlife (Protection) Act, 1972, it is necessary that officials from the Forest Department, Marine/Coastal Police Department, Animal Husbandry (local veterinarians), Nearest Indian Navy and Coast Guard officials are a part of this group.
5. A meeting of the Local Stranding Networks should be arranged under the Chairmanship of the concerned Deputy Conservator of Forests/Divisional Forest Officer/Wildlife Warden for every district once in six months.
6. Local Municipal Corporations/Village Heads shall be involved in the process so that the carcasses are not cut up and burnt before data has been collected.
7. Most often, fishermen in the deep sea are the first ones to notice the stranded animals. Therefore, they should pass on the information about the stranded animals to the Local Stranding Network Co-ordinator.
8. In many cases, the stranded animal might be injured and it will require medical attention. Hence it is necessary to have a group of veterinary doctors as a part of the Local Stranding Network who would attend to the injured animal.

9. The people who are a part of the Local Stranding Network should undergo a training or capacity building workshop regarding handling of stranded marine animals (this should be organised by the concerned Forest Dept.).
10. The members of these Local Stranding Networks need to be equipped with a 'First Responder Kit' which will be used to collect basic data regarding the stranded animal (such a kit contains hand gloves, mask, measuring tape, checklist of the basic data to be collected, notepad and pen).
11. The Range Forest Officers (coordinators of the stranding response groups) should also be equipped with DNA sample kits which can be used to take a DNA sample of a dead stranded marine animal (this will help in species identification especially for cetaceans) which should be sent to the National Marine Animal Research and Response Centre (NAARC).
12. In locations where local networks exist already – these can be formalised by the State Stranding Centre. These local networks should get proper licenced training, provided on an annual basis, and connection with the Forest Department be maintained. A Forest Department official and a local network member will form the Local Stranding Coordinator team.



# **Guidelines for Data Collection on stranded Marine megafauna specimen**

Types of Data Collected by Local Stranding Network team

- i. Photographs must be taken using standard practises to help identify species, signs of external injury or signs of disease.
- ii. Measurements may be taken using standard protocol.
- iii. Type of Stranding: Live or Dead. This will decide next line of Action.
- iv. If Dead, assess Condition of Carcass and collect all data
- v. If live work with Veterinarians to try and refloat the animal.
- vi. Collect biological samples as prescribed by veterinary norms and resolutions.

**Format for Data collection on stranded Marine megafauna specimen**

**(LIVE ANIMAL OR CARCASS)**

NUMBER: \_\_\_\_\_  
\_\_\_\_\_

CODE: \_\_\_\_\_

DATE: \_\_\_\_\_ DATA COLLECTOR: \_\_\_\_\_

SPECIES \_\_\_\_\_  
\_\_\_\_\_

LOCATION (GPS) with photo \_\_\_\_\_

EXTERNAL INJURY : YES \_\_\_\_\_ NO \_\_\_\_\_

TOTAL LENGTH : \_\_\_\_\_ TOTAL WEIGHT \_\_\_\_\_

MALE: \_\_\_\_\_ FEMALE : \_\_\_\_\_

MEASUREMENT TAKEN : YES \_\_\_\_\_ NO \_\_\_\_\_

SEX: MALE \_\_\_\_\_ FEMALE: \_\_\_\_\_

COMMENTS : \_\_\_\_\_  
\_\_\_\_\_

PHOTOGRAPH : LATERAL/VENTRAL/DORSAL VIEWS / GENITAL REGION DORSAL  
FIN

IF IT IS DEAD : STATE OF CARCASS (NUMBER OF DAYS OLD):

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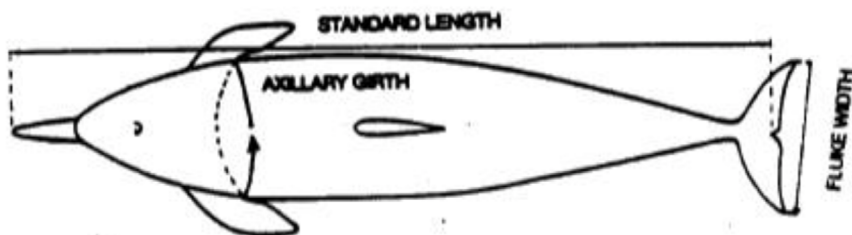
1-2 Days

3-5 Days

>7 Days

>15 days

>1 month



# **SOP for handling of Live Stranded marine megafauna with special reference to Cetaceans**

1. Find out if the animal is still alive – This is typically indicated by movements of the animal’s tail or body and breathing, though the breathing could be lethargic and infrequent. If the animal is alive, it needs to be provided supportive care. If it is still in the water, make sure the blowhole is not covered and the animal can breathe. If possible, count and note down the number of breaths per minute—typical rates for dolphins are 4–5 breaths per minute. Monitor the animal until a veterinary professional or expert is there to attend to it. Small dolphins and porpoises may be supported by hand, but extra precautions need to be taken to handle a whale. Care must be taken not to damage the animal’s skin, which is delicate. Make certain that the animal never lies on its own flippers or is upside down as this can restrict circulation and affect survival. Remove sand from under the flippers and the flukes so that it can rest. Ensure that sand or water does not enter the blowhole.
2. Erect a shelter to provide shade – The greatest problem facing a stranded cetacean is over-heating. Build a make-shift shelter to provide shade. Do not apply sunblock lotion to the animal’s skin.
3. Keep the animal’s skin moist – A stranded animal is susceptible to sunburn and over-heating, even in cold weather. Cover the animal’s body with a light wet sheet or towel, and keep these moist by pouring water over them. Take care never to cover the blowhole or to pour water into it. It is vital to get expert help as quickly as possible.
4. Keep the area around the animal quiet – Since the animal is in extreme stress, it is important that people do not crowd around it. Only essential persons needed to provide supportive care should be near the animal. Media persons and the public should be provided guidance, an explanation of what has occurred and what will be done to avoid confusion and misinformation. At night, make certain that no lights or flash bulbs are shone directly into the eyes of the animal. Maintain limited contact with the animal. Always approach an animal from the front or side so that it can see you.

5. Move the animal very carefully – Never push or pull on the flippers—these are very easily injured. Try not to touch the head or the tail flukes. Never roll the animal on to its side underwater or use any hooks or crowbars. The most effective way of moving a small cetacean is with a sling, which can be improvised from towels, blankets or tarpaulin. Since the animal is likely to be heavy, mobilise sufficient manpower. Carry the animal into water deep enough to support its weight and release the sling once it is clear that the animal can keep itself upright and swim.



**Government of India**  
**Ministry of Environment, Forest and Climate Change**