

**GUIDELINES FOR OPERATION OF HELMET DIVING/UNDERSEA
WALK IN A&N ISLANDS**

1.0 Purpose of Guidelines

The guideline for the Helmet Diving/Undersea walk is to ensure that the activity is performed with due regard to safety of all & conservation of environment. The standards for equipment and operating procedures defined herein are intended to establish the minimum acceptable norms for safe and responsible operation of the activity in the islands.

2.0 Definitions

2.1 Helmet Diving/Undersea walk means a recreational activity wherein:

-a person walks on the sea floor at a maximum depth of **7 meter** on high tide with the assistance of an overhead helmet and a hose connected to a free flow supply of fresh compressed air provided from the air compressor or cylinder found on a pleasure craft or platform and engage in a guided tour on the seabed to view the marine life in its natural habitat.

2.2 Site Manager means the person who shall be present on site at all times to supervise the operations and equipment. He shall also ensure the safety of users, cleanliness of the operation area and crafts.

2.3 Helmet Diver means the person going underwater for sea walk.

2.4 Underwater helmet means a breathing device worn over the head to ensure that the diver has sufficient volume of air at all times to breathe normally.

2.5 Underwater monitor means an experienced underwater guide who accompanies the helmet diver under the sea with scuba dive equipment and secondary air source for emergency.

2.6 Surface swimming monitor means an experienced surface swimmer using masks, snorkels and fins who shall follow the helmet divers whilst swimming on the surface and watch the overall safety of participants and render assistance as necessary.

2.7 Air Supply monitor means an experienced person who shall be responsible for ensuring that the required air supply is maintained at all times and that a reserve air supply is always readily available.

2.8 Operator means the firm/company /individual/organization who runs/manages the undersea walk/helmet dive activity with a valid permit/license/registration certificate issued by the Directorate of Tourism.

3.0 General Rules

3.1 Waiver and Release of Liability

The operator shall require ALL HELMET DIVERS of legal age or if a minor, a parent or legal guardian to read and sign an assumption of risk and release of liability waiver prior to participating in the activity as per *Standard Form* (ANNEXED)

3.2 Conditions attached to the Activity

3.2.1. Location

- (i) The Activity shall be carried out only along approved trails, be of a minimum distance of 1 to 5 meters from any corals and be determined according to the site and the region;
- (ii) The site of operation shall be selected at a convenient distance and safe sea conditions and its natural beauty displaying a variety of marine life, coral colony in a safe marine environment of **not more than 7 m depth** as measured at high tide and in calm water;
- (iii) The site shall not be at a distance more than **500 mts.** from the nearest land.
- (iv) The place where the walk is conducted on the surface should be even land and there should not be elevation difference of more than **2 meters.**

- (v) A minimum distance of **one meter** should be maintained from the coral reef.
- (vi) No guest/guide/diver should be allowed to touch any form of marine life.
- (vii) The site for the Activity shall not be moved at any point in time without prior *written* approval of the Administration(Directorate of Tourism);
- (viii) The proposed site shall remain a public domain.
- (ix) The operator shall place sign boards on **do's and don'ts** for the undersea walk activity/helmet diving at prominent places for prior knowledge of helmet divers

3.2.2. Other requirements

- (i) The operator shall show proof of having minimum equipment as listed at Para. 3.3 for the activity; and
- (ii) The operator shall have the minimum personnel requirements as listed at Para 3.4 for the activity with proof of qualifications.

The details mentioned on (i) & (ii) above to be submitted to the Directorate of Tourism, A&N Administration while seeking license/permit/registration of the activity.

3.2.3. Clearances/Permits/Registration

- (i) The operator shall hold a valid permit/clearance/registration for the activity issued by the Directorate of Tourism; and for this purpose would require to
 - a) Submit an application for registration in the prescribed form (attached) to the Director (Tourism) A&N Administration, Port Blair. It should, inter alia, mention whether the firm operating the activity is a partnership firm or proprietorship (if it is a partnership firm, copy of partnership deed to be submitted); and

- b) Submit Registration Certificate of the firm, under Shops and Establishment Act with the application form; and
 - c) Submit Pollution Control Clearance issued by the competent authority; and
 - d) Provide details on number of staff and their swimming certificates/Emergency First Responder training certificate, first-aid certificate etc.; and
 - e) Indicate the no. of helmets and manifolds to be used for the activity.
-
- (ii) The operator would be required to submit the site plan and the trails with a detailed description of the site including coral patch; etc. and
 - (iii) Copy of the proposed GPS coordinates submitted to PMB (if the water area for sea-walk falls within Port/IV limit), Pollution Control Committee; and
 - (iv) The clearance letter of PMB, Pollution Control Board together with the plan of activity; and
 - (v) Non-refundable Registration fee/annual renewal fee as applicable of Rs.10,000/- (ten thousand) drawn in favour of Sr. Accounts officer, Directorate of Tourism, A&N Administration.
 - (vi) The **validity** of the permit/license/registration issued for the activity shall be for a period of **one year** or the date by which the statutory registration of pleasure craft/pontoon/boat expires, whichever is earlier. For renewal of registration/permit/license operator would have to apply three months in advance of the date of expiry of registration repeating all procedure/formalities required for registration.
 - (vii) The operator shall hold or use a pleasure craft/pantoon/boat having a valid registration wherever required from the statutory authority concerned. All OBM vessels carrying tourists should

also be registered and insured. The OBM vessel carrying tourists should have a third party insurance cover. The firm should enclose copy of registration of pleasure craft/pantoon/OBM vessel along with its sea worthiness certificate while submitting the application form for registration.

(viii) The sea-walk activity should have a public liability insurance of **Rs.20.00 lakh (Twenty Lakhs) per accident** and a maximum coverage for four times i.e Rs.80.00 lakhs per annum. Besides, there should also be a minimum **Personal Accident Insurance** cover of **Rs.1.00 lakh** per person undergoing sea-walk activity at any point of time. Necessary documents establishing insurance cover as indicated above should be submitted along with the application form.

3.2.4. Hours of business

The operating hours for the Activity shall be between **6.00hrs and 16.30 hrs.**

3.3 Minimum requirements of equipment for operation

(i) Dive Helmet

- (a) Material: A breathing device worn over the head and made of Inox or Stainless Steel(SS) or fiber glass or unbreakable polycarbonate plastic. Each helmet should be of same size and shape
- (b) Design: The design shall be based on efficiency, comfort and safety.
- (c) Air Supply Control: The air supply monitor shall operate a pressure regulator that controls the pressure of air flowing into the helmet.
- (d) View Ports & Visual Field: the material used shall be of laminated glass or heat tempered glass or clear polycarbonate plastic. Diving helmet viewports shall:
 - (i) avoid underwater view distortion;

- (ii) be at least 7 mm thick for tempered or laminated glass, and 3-5 mm thick for polycarbonates; and
 - (iii) Provide good visibility in front, both sides and above.
- (e) **Helmet Fittings:** Material used shall be of stainless steel as far as practicable. Helmet hose connectors shall have a snap lock fitting and be self-sealing.
- (f) **Helmet Weight:** The helmet shall have negative buoyancy of between 5 and 10 kgs. when submerged and full of air. Each helmet should not weigh more than 36 kgs., and a negative buoyancy of at least 5 kgs. when submerged in water

(ii) Air delivery System

Solar or Electric or fuel motor driven air compressors or compressed air cylinder shall be available as the compressed air source. The operator shall keep record of maintenance and testing of air compressors and cylinders to be made available to relevant authorities on request.

(a) Air Compressor

- (i) There shall be regular maintenance of air compressor;
- (ii) The air filter shall be changed as and when required or according to manufacturer's specification; and
- (iii) Air purity shall be tested and recorded on an annual basis.
- (iv) A minimum 2 compressors should be used (1 being a backup in case of emergency).
- (v) Each compressor should have an independent storage tank of minimum 300lts each with at least 7.5hp engine to be able to fill the tank in a max of 8 minutes.

(vi) The filter cartridge normally contains activated charcoal and slice gel. The second filter is vacuumiser to remove all humidity from air. Thus the helmet diver should get pure and clean air to breathe. The filter cartridge and the second filter should be of the type fitted in high pressure breathing air compressors.

(b) Cylinder

There shall be regular maintenance and servicing along with visual inspection and pressure testing.

(c) Air bottle/storage tank

There should be a storage tank of minimum 500 lts. acting as a backup supply of air in case of power failure in the vessel/pontoon. The storage tank mould should at least be able to withstand higher pressure up to 300 bars. There should be regulator which would reduce the pressure to 5-6 bars as required by the diver which means the operator requires to have high pressure compressor. The storage will ensure adequate air throughout the day without running the compressor. The compressor should use only branded oil and not other engine oil.

(iii) Reserve Air Supply

A reserve air supply of 10 minutes for 9 divers shall be made available.

(iv) Control Panel

A Control Panel shall have an adjustable pressure regulator and pressure gauge showing the pressure of air being delivered to divers.

(a) A heavy duty Stainless Steel (SS) or Inox control panel with inlets and outlets or SS valves for up to 8 divers(+ one Underwater Monitor) shall be provided;

(b) The Air supply monitor shall control the air supplied to the helmet divers; and

(c) Each diver shall have a separate air supply.

(v) Manifold:

A manifold having minimum number of air outlets equal to the number of helmets used for diving .Each helmet should be provided with an independent pipe coming out of manifold.

(vi) Scuba equipment

(a) Diving cylinders used by guides/monitors should be well tested.

(b) Regular maintenance of Air compressor used for filling diving cylinders, also annual check on the air quality

(c) The place of filling of cylinders should be away from any other compressor/generator as toxic air will then be inhaled by divers causing serious hazard.

(vii) Generator

A) Generator of minimum KVA to be able to run two air compressors, scuba compressors, computers and other electrical equipment

B) The generator should have clearance from local pollution control board as any other standard generator

(viii) Pressure gauge

Pressure gauge on each compressor before and after the air bottle to regulate the pressure to be delivered to each helmet.

(ix) Hose and fittings

Type: breathing yellow air hose in accordance with AS 2299 and AS/NZS 1716 or any equivalent standards.

Reinforcing: Terylene braid with longitudinal supports along the entire length of the hose.

Outer material: U.V. & kink resistant and UV resistant for long life

Length of Hose: It shall be a maximum of 30 meters.

(x) Hose reel and stand

To eliminate hose entanglement, a Stainless Steel/galvanized/aluminum hose stand is recommended.

3.4 Personnel Requirements

All Helmet Diving operation bases shall be operated with trained staff all of whom shall be proficient in swimming, snorkeling, and hold valid, recognized and approved certification qualifying them in life saving and first aid techniques. Such first aid qualification shall include resuscitation techniques. These staff shall operate in the following capacity, regardless of whether 1 or 8 helmet divers make up the guided tour:

- (i) All persons who are monitoring/supervising under sea walkers/helmet divers should be qualified rescue divers having undergone training in EFR (Emergency First Responder) through a recognized dive association like PADI, NAUI, CMAS, BSAC etc.
- (ii) **One underwater monitor** shall guide the Helmet Divers around the site; minimum one monitor diver for every 4 persons; and

The guides should go in scuba dive equipment

The guides must be qualified rescue divers having undergone training in Emergency First Responder through a recognized dive associations, like PADI, NAUI, CMAS, BSAC etc.

Each guide should carry an alternate air source for emergency; and

- (iii) **Two surface swimming monitors** (certified in EFR) using masks, snorkels and fins shall follow the group of divers whilst swimming on the surface and watch the overall safety and well being of participants and

be able to render rapid assistance, as necessary. The surface swimming monitor should be a qualified rescue diver in scuba gear on the surface who can descend and stay down to give assistance;

- (iv) **One air supply monitor** (certified in EFR) on board (i.e. pleasure craft or platform) shall be responsible for ensuring that the required air supply is maintained at all times and that a reserve air supply of 10 minutes is always readily available;
- (v) **A Site Manager** (certified in EFR) shall be present on operation site at all times to supervise the overall operations and equipment. They shall also ensure the safety of clients, cleanliness of the operation area and crafts. The site manager should preferably a qualified dive instructor and overall in charge of helmet divers and other divers and of the complete platform.

3.5 Pleasure Craft transfer

- a) The operator shall ensure that the pleasure craft used for transfer of clients to the operating base is in possession of valid certificate and has been authorized to ferry clients from the designated embarkation point. The boat deployed for transportation of passenger to and from the site should be sea worthy with necessary certificates from appropriate authorities. The boat should contain adequate Life Saving Appliances as per rules. *The boat should also display prominently the approved maximum passenger capacity allowed on board for information of travelers.*
- b) The pantoon and the platform at the site should be periodically inspected for its sea worthiness. Thickness determination of the plates in the underwater sea should be done at least once in a year. An appropriate paint scheme should be applied to the underwater as well as surface structure to safe guard against corrosion. Periodic maintenance of structures to be carried out.
- c) Minimum number of life jackets and life buoys should always be available in the boat.

- d) One fire extinguisher should be available in the vessel/pontoon for emergency.
- e) First Aid kit be available
- f) The operator shall prominently display a notice board on board indicating maximum number of passenger allowed on board, registration, validity of registration of the pleasure craft and availability of items/compliance of requirements from **c** to **e** above.

3.6 Pre-Dive verbal and physical briefing

- (a) The Monitor or Manager in charge shall give a pre-dive verbal and physical briefing before any underwater activities commence.
- (b) It shall be the responsibility of the monitor in charge to ensure that pre-dive briefing is clearly understood by all participants and shall contain, inter alia the following information:
 - (i) A description of the activity;
 - (ii) Description of local marine life and conservation;
 - (iii) Safety precautions to be taken while proceeding to the site and along the walk trail;
 - (iv) Safety and life saving equipment locations;
 - (v) Warnings and procedures for unexpected events and in case of emergency;
 - (vi) Signals for basic underwater communication which must include “OK” and “I want to go back to the dive platform” (use of illustrated cards for these signals is recommended);
 - (vii) How to equalize pressure in the ears
 - (viii) No participant may enter or be in the water at a Helmet Diving site at any time unless having been instructed to do so;
 - (ix) Question and answer period; and

- (x) Exclusion of any passenger or participant who may be intoxicated. Persons suffering from asthma, heart problem, and pregnant women should not be allowed to go for undersea walk.
- (xi) The operator shall put up a notice board in compliance of instructions as per **3.6 a to b (x)** above at a prominent place.

3.7 Minimum age requirements

- a) No person of less than 7 years shall be allowed to undertake the activity. A child between 7 years and 15 years shall be accompanied by an adult during the underwater trail.
- b) The operator shall put up a notice board in compliance of instructions as per **3.7 (a)** above at a prominent place at site.

3.8 Underwater Trail

- (i) The Underwater monitor shall stand by at the foot of the ladder to receive and steady helmet divers as they descend from the platform to the sea floor by means of a secure ladder;
- (ii) The total number of helmet divers (including the Underwater Monitor) shall not exceed 9 persons;
- (iii) The activity shall be carried out in a maximum of 7 mts depth as measured at high tide and in calm waters;
- (iv) The maximum duration for the underwater part of the activity shall be 15/20 minutes; and
- (v) The tour shall take place within the allotted trail/space.

3.9 Daily equipment inspections and maintenance

Prior to operating, it shall be the responsibility of the Manager to have the underwater monitor inspect the helmet dive walking circuit to ensure it is clear and clean. They will carry out daily inspections of all helmet diving equipment to check for any damage and/or wear and if necessary, the items shall be immediately replaced or taken out of service.

Other related equipment shall also be properly maintained and in safe operating condition.

3.10 Boat traffic/right of way

At all times the “**divers down**” **Alpha flag** (with dimension 20x24 inches including a stiffener to keep the flag unfurled) or rigid replica and visible *from* at least **30** meters away and from any direction shall be fixed on the platform while the activity is being carried out. Boat traffic shall not be allowed within a distance of **30** meters from the approved trail except for transfer of clients to the operating boat/platform and security craft. The zone shall be demarcated by the operator with floats during the operation.

4.0 Weather Conditions

4.1 Pre-Dive Weather Evaluation

It shall be the responsibility of the operator to evaluate and determine if both weather and sea conditions are favorable for the safe operation of the activity.

4.1.1 Weather Warnings

The activity shall not be carried out once a cyclone warning is in force or any adverse conditions exist.

4.1.2 Sea Condition

- a) The operator shall assess the sea conditions throughout the day, both on the surface and underwater, to determine if conditions are safe for diving. A dive shall not be operated in seas where current or wave action affect the ability of participants to walk or maintain their balance under water or if underwater visibility is less than **4 meters**.
- b) The operator shall display provisions of this clause (point 4.0) prominently as a notice board at the site for information of users.

5.0 Environmental Conditions

All operators shall comply with the environmental guidelines issued by the Env't. & Forest Department from time to time. The proposed site shall have prior approval of PCCF, PMB, Directorate

of Tourism and Fisheries Department and shall remain a public domain;

- (i) The platform or boat used for the activity shall be anchored at the space allotted by *PMB* on a sandy bottom devoid of corals, sea grass bed and seaweed. The anchored platform shall not be displaced;
- (ii) No coral shall be removed or broken;
- (iii) No marine organism shall be removed from the site;
- (iv) No marine organism, dead or alive shall be imported to the site;
- (v) Feeding of fish shall not be allowed;
- (vi) All measures shall be taken by the operator to ensure that the marine ecosystem is not disturbed or damaged; and
- (vii) The hose used for supply of breathing air shall not damage corals and other marine organisms.
- (viii) The operator shall display provisions of the clause **5.0** above at a prominent place on site for public information.

5.1 Other conditions

- (i) The operator shall monitor the site and submit a report (including photos) every 6 months and a yearly report (including a video), on the state of the marine environment, to the Env't. & Forest Department, Tourism, Fisheries; and
- (ii) The operator /promoter shall ensure that participants stay clear of organisms and do not block or attempt to alter their natural path.
- (iii) *The operator shall maintain and make available a complaint/suggestion book on site and availability of complaint book should be prominently displayed in the notice board.*
- (iv) *The operator shall display tariff/ fee applicable for the activity prominently in the premises by notice board. The applicable charges/tariff/ fee structure and also changes taking place in tariff should also be intimated to the Tourism department.*
- (v) *The name and contact numbers of officers of the Administration who can be contacted in the event of*

emergency should be displayed on site for information of all users. The contact details are as under:

In South Andaman District

District Control Room: 1070

Police Control Room: 100

*Harbor Master, Port Management Board, Port Blair, Ph: 03192-237804
(WLL 200 630)*

*Deputy Commissioner (South Andaman), Port Blair Ph: 03192-233089
(94342 80018)*

*Superintend of Police (South Andaman) Port Blair: 03192-236641
(94342 89897)*

*Director (Tourism), A&N Administration, Port Blair Telefax: 03192-230933
(95318 56933) e-mail:thedirectortourism@gmail.com*

In North and Middle Andaman District

District Control Room: 201205, 273137

Police Control Room: 100

*Dy. Commissioner (North and Middle Andaman) Mayabunder Ph: 03192- 262999
(94342 86261)*

*Superintend of Police (North & Middle Andaman) Mayabunder Ph: 03192 -
273344(94342 87533)*

*Harbor Master, Port Management Board, Port Blair, Ph: 03192-237804
(WLL 200 630)*

*Director (Tourism), A&N Administration, Port Blair Telefax: 03192-230933
(95318 56933) e-mail:thedirectortourism@gmail.com*

- (vi) *The operator should submit list of persons responsible for operation of Sea walk activity along with their photographs to the respective Deputy Commissioner and Tourism department for information*

6.0 Safety Requirements/Drills

- (i) The operator shall be held responsible for any negligence or incident or accident during the activity;
- (ii) The operator shall establish and practice an emergency drill every month involving all staff during which staff will demonstrate their ability to support on the surface and swim with a person a distance of 30 meters to the ladder and remove this person from the water without any assistance from the person involved ;
- (iii) All staff shall be familiar with the procedures to be followed in case of emergency. (i.e. emergency phone numbers shall be displayed on the platform such as medical, Police, Coast Guard and other relevant authorities); and

- (iv) Under no circumstances may alcohol be brought onto the operation area/ base or consumed by any staff or participants engaged in the activity.
- (v) Safety distance requirement from one sea walk area to another be maintained (**10 meter**).
- (vi) Given co-ordinates and depth of the sea are subject to certification by competent authority
- (vii) Area of sea walk to be secured/ netted by the operator

7.0 Safety Equipment

7.1. Safety Equipment

- (i) Operator shall use only approved items of equipment in good condition; and
- (ii) All pleasure crafts/platforms shall be fitted or provided with the items of equipment as prescribed under relevant statute.

7.2 Additional equipment for Pleasure Craft/Platform.

At all times the pleasure craft or recreational platform when operational must be equipped with:

- a) At least one reliable ship to shore two way communication onboard
- b) 2 First Aid Kits (1 for emergency and 1 for day to day use);
- c) A back up form of communication, such as a cellular phone;
- d) At least 2 large dry towels ;
- e) At least 2 blankets.
- f) The ladder leading down from the platform has to be all the way down to the bottom. There should be one ladder for helmet divers to go up. The second helmet diver should start descending only after the first one has reached the bottom.

8.0 Log Book

A log book shall be kept at all times on board craft/platform and shall, inter alia, contain the following:

- Number of helmet divers ;
- Duration of the running hours of the air compressor;
- Daily equipment inspections;
- Record of all Emergency drills held including date and names of participants;
- Weather and sea condition readings before every operation session;
- Maintenance report;
- Record of safety drills held with date and names of participants

9.0 Documents for Inspection

Documents such as the following shall be made available for inspection whenever asked for:

- Log Book
- Registration certificate of Pleasure Craft and the vessel from where the activity is taking place or copies of same
- First aid qualifications
- Record of maintenance and testing of air compressor and cylinder
- Pollution Control Certificate from DOE
- Documentary proof for space allotted by PMB.

10.0 Insurance

The activity of helmet diving/undersea walk shall be covered by a public liability insurance of **Rs.20.00 lakh per accident** and maximum coverage for four times i.e Rs.80.00 lakhs per annum. Besides there should also be a minimum **Personal Accident Insurance** cover of **Rs.1.00 lakh** per person under going sea-walk activity at any point of time

11.0 Conduct of Operator

The Operator shall adhere to the following minimum guidelines:

- a) He shall observe a zero tolerance policy for deviation from these guidelines which shall be considered as a minimum standard and must at all times place user's safety first;
- b) He must file an incident report to the Authority concerned , immediately upon any incident involving injury or rescue which requires medical attention,

- c) A copy of the emergency procedures manual and incident report must be kept on board the vessel at all times while in operation;
- d) Any breach of the above conditions would entail action as per law.

12. Penalty clause

In the event of any breach of terms and conditions herein contained by the operator or receipt of any complaint against the operator which upon due enquiry if found to be valid, besides action as per law, the department may impose fines as follow :

- a) fine of Rs. 1000/- on first violation of complaint received and found correct*
- b) fine of Rs. 10000/- on second complaint /violation of terms and condition laid down in the guidelines*
- c) Suspension of operation for 7 or 14 days in view of serious complaint /third complaint.*

**Form for liability Release and assumption of risk
agreement with person undertaking under Sea-Walk**

- ❖ I am voluntarily engaging in the recreational activity which includes sea walking, a unique under sea activity carried out at the depth of 6-7 mtrs.
- ❖ I certify that I am fully aware of the risks involved in the activity and I have been briefed about the safety procedures, do's and don'ts, medical restrictions & local govt. regulations.
- ❖ I state that I am physically fit to undertake the activity and not suffering from any **Heart problem. Blood pressure, Sinus, Asthma or any other serious medical problem.**
- ❖ I further state that I am of lawful age and legally competent to sign this liability release agreement or that I have obtained the written consent of my parent or guardian.
- ❖ I understand and agree that neither M/s.....(name of the firm) or its affiliates or subsidiary corporations, nor the owners, employees, agents contractors may be held liable or responsible in any way for any injury, death or other damages to me.
- ❖ I understand the terms herein are contractual and not a mere recital and that I have signed this agreement of my own free act with the knowledge that I hereby agree to waive my legal rights.

Guest Name..... Guardians Name.....

Cell No.....

Present Address:.....

Guest Signature:..... Guardian signature.....

Date:.....