

BEFORE THE NATIONAL GREEN TRIBUNAL SOUTHERN ZONE AT CHENNAI

See Rule 8(1)

[Under section 18(1) read with section 14 & 16 of the National Green Tribunal Act
2010] OA 225/2021 and IA 176/2021

**REJOINDER SUBMITTED AGAINST THE INCOMPLETE DEMOLITION NOTICE
ISSUED BY THE CZMA_KARNATAKA AND INTERPRETATION OF WORD BAY**

Vidyadhar Durgekar
B5-1103, Ramky One North
Dodballapur Road, Avalahalli.
Yelahanka,Bengaluru-560064

Applicant

Vs

1. **Chief Secretary,** Respondent No-1
Government of Karnataka,
Room No 320, 3rd Floor,
Vidhana Soudha,Bengaluru-560001
Phone:22252442 Email:cs@karnataka.gov.in
2. **Additional Chief Secretary,** Respondent No-2
Department of Public works ,Ports and IWT,
Government of Karnataka,
Room No 336, 3rd Floor, VikasaSoudha,Bengaluru560001
Phone No:22251449 Email:prs.pwd@gmail.com.
3. **Principal Secretary,** Respondent No-03
to Government of Karnataka
Ecology and Environment Department
Department of Forest, Ecology & Environment
Room No.710, 7th Floor, IV Gate, M. S. Building, Bangalore - 560 001.
Tel.No.: 080-22258377, 080-22032445 E-mail: ecoenv.dept@gmail.com
secyenv.fee@karnataka.gov.in
4. **Special Director (Technical Cell) & Member Secretary** Respondent No-04
Karnataka State Coastal Zone Management Authority,
Department of Forest, Ecology & Environment,



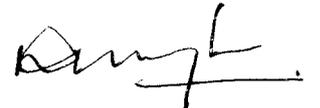
Room No.710, 7th Floor, IV Gate, M. S. Building, Bangalore - 560 001.
Tel.No.: 080-22353961, 080-22032206 E-mail: msksczma@gmail.com

5. **Regional Director(Environment)** Respondent No-05
CZMA,New KHB Colony, Parisara Bhavan,
Habbuwada, KARWAR-581301
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6. **The Deputy Commissioner** Respondent No-06
Uttara Kannada District, Karwar-581301.
dckarwar@gmail.comPh:08382-226303
7. **The Director** Respondent No-07
National Centre for sustainable Coastal Management
Ministry of Environment, Forest, and Climate Change,
Anna University Campus Chennai – 600025, Tamil Nadu
Ph: [91]-44-22200600 / 22200900
Email-data@ncscm.res.in; edcprojects@ncscm.org
8. **The Secretary,** Respondent No-08
Ministry of Environment, Forests and Climate Change,
Indira Paryavaran Bhawan, Jorbagh Road, New Delhi-110003
Email: secy-moef@nic.in ;sujit.baju@gov.in
9. The National Project Director & Member Secretary, Respondent No-09
Society of Integrated Coastal Management (NCZMA)
Ministry of Environment of Forest and Climate Change,
CGO Complex, Lodhi Road, New Delhi-1100003.
Ph:011-24360933 Email: asud.moefcc@gov.in; procurement.sicom@gov.in;

PAPER BOOK

(KINDLY SEE INSIDE FOR INDEX OF TYPE SETS)

APPLICANT AS PARTY IN PERSON SHRI VIDYADHAR DURGEKAR,
B5 1103,RAMKY ONE NORTH , DODBALLAPUR MAIN ROAD, YELAHANKA,
BENGALURU-560064



E-MAIL:DURGEKAR@GMAIL.COM

BEFORE THE NATIONAL GREEN TRIBUNAL SOUTHERN ZONE AT CHENNAI

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**[Under section 18(1) read with section 14 & 16 of the National Green Tribunal Act
2010]****OA 225/2021 and IA 176/2021**

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B5-1103, Ramky One North
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Yelahanka,Bengaluru-560064

Applicant

Vs

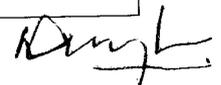
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Phone:22252442 Email:cs@karnataka.gov.in

Respondent No-1

And Others

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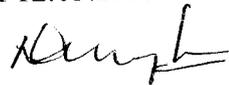
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Certified that documents are true copies of the original

Dated at Bengaluru On this day of 12.05.2023


Party in Person

BEFORE THE NATIONAL GREEN TRIBUNAL SOUTHERN ZONE AT CHENNAI

See Rule 8(1)

**[Under section 18(1) read with section 14 & 16 of the National Green Tribunal Act
2010] OA 225/2021**

Vidyadhar Durgekar
B5-1103, Ramky One North
Dodballapur Road, Avalahalli.
Yelahanka,Bengaluru-560064

Applicant

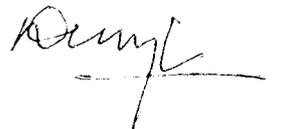
Vs

11. Chief Secretary,
Government of Karnataka,
Room No 320, 3rd Floor,
Vidhana Soudha,Bengaluru-560001
Phone:22252442 Email:cs@karnataka.gov.in

Respondent No-1

And Others**REJOINDER SUBMITTED AGAINST THE INCOMPLETE DEMOLITION NOTICE
ISSUED BY THE CZMA_KARNATAKA AND INTERPRETATION OF WORD BAY****Respectfully submitted that,**

- (1) The above-named Applicant (Party in Person) permanent resident of Bangalore temporarily residing in 103, Prime Splendour, Mangor Hill,Vasco Da Gama,Goa, is respectfully filing this Application for seeking relief under the provision of the Section 14 of the National Green Tribunal Act 2010, Rule 8 of National Green Tribunal (Practices and Procedures) 2011 Rules and CRZ Notification 2019 formed under section 3 of the Environment (Protection) Act, 1986 prays to consider the Karwar Beach front as the Seafront and apply the 500 metre CRZ area even if it is or not a Bay



as humbly prayed in Prayer no 4 of the the OA and IA 225 and 176 of 2021 respectively with the reasons sworn in the Affidavit.

(2) **KARWAR IS A SEAFRONT EVEN THOUGH THE BRITISH TERMED IT AS “BAY”:**

The Ministry of Environment and Forests has approved the Karnataka Coastal Zone Management 2019 Map vide their letter F.No IA3-12/14/2021-IA.III dated 2nd Sep 2022. The copy of MOEF final approval of CZMP 2019 letter is placed as **Annexure A1** (Page no 14) without much changes. The updated CZMP drawing has been uploaded this week by KCZMA for the public. Therefore it is necessary to grant the relief for the Prayer No 4 of OA 225/2021 that the Karwar beach should be considered as Sea front to give it 500 metre CRZ area. But the word of “Bay” has been erroneously applied to the whole process to consider this Seafront beach as “Bay”. This was brought to the notice of the respondents through various E-mails. The copy of Emails written to respondents are placed as **Annexure A2** (Page No 15). And also the telephonic talks with Dr Kharkiwal, Member Secretary NCZMA, is also relevant in this regard. But the same has remained unchanged.

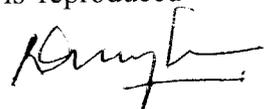
Further to my objection to Committee report regarding the interpretation of word word “BAY”. It also confirms for the first time in writing that Karwar beach is a Bay because of which only CRZ area of 100 metres will be considered. I had raised my grievances to the MOEF and CZMA. In reply to my grievance, Dr Kharkiwal, Scientist E of MOEF has sent directions to NCSCM and KCZMA as follows.

“Reference trailing e-mail.

It is requested to examine the nature and extent of alleged representations in respect of the all issues and submit reply to applicants directly under a copy to this Ministry. It is also requested that action applicable with law may be taken in the all grievance are affirmative before finalization of CZMP 2019 for Karwar district of Karnataka.”

In spite of all this directives and the grievance applications the KCZMA has been silent on the matter without heeding to the request to consider Karwar seafront as a Seafront.

The copy of this E-mail from Dr Kharkiwal, Scientist E, MOEF is placed at **Annexure A3** (Page No 19-22). The part of para 4.1 of the Committee report is reproduced below for evaluation.



“And with respect to the jurisdiction of CRZ area, since the Karwar is considered as Bay as per the National Hydrographic Chart prepared by NHO, Dehradun the CRZ boundary is fixed to 100mts from HTL towards land and the Road is outside CRZ limits.”

This is an argument with wrong interpretation of the CRZ Notification which is propagated by some Officers to serve the interest of some violators. The CRZ Notification 2019 have not stated anything about the Chart prepared by NHO. The CRZ Notification has identified two different forms of the water bodies. One is the Seafront and the other is the river, estuary, and creeks. The said Notification clearly states that it is the tidal-influenced water Bodies that have this reduced distance of 100 meters lengths in 2011 Notification which will become 50 metre in Notification 2019. Part of the Notification stating this is placed below for the perusal of the Court.

*“(i) The land area from High Tide Line (hereinafter referred to as the HTL) to **500 meters** on the landward side along the **Sea front**.*

*(ii) CRZ shall apply to the land area between HTL to 50 meters or width of the **creek**, whichever is less on the landward side along the tidal influenced water bodies that are connected to the sea and the distance up to which development along such **tidal influenced water bodies** is to be regulated shall be governed by the distance up to which the tidal effects are experienced which shall be determined based on **salinity concentration of five parts per thousand (ppt)** measured during the driest period of the year and distance up to which tidal effects are experienced shall be clearly identified and demarcated accordingly in the Coastal Zone Management Plan (hereinafter referred to as the CZMP): Provided that the CRZ limit of 50 meters or width of the creek whichever is less, shall be subject to revision and final approval of the respective CZMPs as per this notification.*

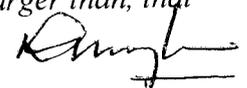
(iii) The “intertidal zone” means land area between the HTL and the Low Tide Line (hereinafter referred to as the LTL).

*(iv) **The water and the bed area between the LTL to the territorial water limit (12 Nm) in case of sea** and the water and the bed area between LTL at the bank to the LTL on the opposite side of the bank, of tidal influenced water bodies.”*



Karwar is on the sea coast of the Arabian Sea which is also stated by the KCZMA in their first line of the recent Action taken report with Demolition Notice submitted to Hon NGT. The copy of Demolition Notice placed below as **Annexure A4** (Page No 23). The Google Map picture of Karwar Beach is placed at **Annexure A5** (Page no 37). In the first paragraphs of the above portion only it is clearly stated that the Seafront will have 500 meters of length reference to identify the CRZ limits. The 50 meters is for the water bodies of estuary, creek, and river having the tidal influence from the bay. And not the bay itself. The ancient British Map stating that it is a Bay doesn't make it to follow these norms by misrepresenting the interpretation of the meaning of the English and legal Language given in the CRZ Notification 2019. The other condition is that of the tidal effects on the salinity of the water which should be within the **5ppt** measure during the driest period. This has been conveniently avoided by this committee. The Karwar beach salinity is that of sea salinity approximately around 23 ppt and near the river mouth. The tidal-influenced water bodies will be identified by this factor only and not any other. Therefore this argument of the Committee is void and misleading. If this is the case the **Bay of Bengal** is the world-famous Bay on the east coast having many beaches including the most beautiful Marina Beach of Chennai. If this applies to Karwar then it will have to apply to all the beaches including **Marina Beach of Chennai** which is ridiculous by the intent of those who have proposed this interpretation. The notification is very clear in its content and intent to identify the two different types of shores. The seafront and the river basin with the Salinity within 5 ppt. The seafront salinity always is more than 23 ppt anywhere in the world. In this regard, the article which gives the salinity of the Karwar Coast at 25 ppt during the driest period and average of 16 ppt published in the Journal of the Indian Fisheries Association. The copy of the Journal of the Indian Fisheries Association is placed in **Annexure A6** (Page no 38). The terminology used by NHO is as ancient as the British rule which has undergone changes in the last seven decades. Still it is for marking CRZ IV area only. The word being doesn't affect its status of being a Seafront. Seafront will remain a Seafront whatever word is used. The Oxford dictionary states that Bay is the indentation into the land. The copy pertaining to the Bay definition of the document of United Nations Convention at Sea placed **Annexure A7** (page no 50).

"For the purposes of this Convention, a bay is a well-marked indentation whose penetration is in such proportion to the width of its mouth as to contain land-locked waters and constitute more than a mere curvature of the coast. An indentation shall not, however, be regarded as a bay unless its area is as large as, or larger than, that



of the semi-circle whose diameter is a line drawn across the mouth of that indentation.”

The paragraph (iv) of the CRZ Notification 2019 also clearly states that the Seafront will have 12 NM and the LTL of opposite Banks in other cases. Therefore in Karwar beach case there is no other opposite bank but the 12 NM of the open sea to be considered which makes it amply clear on this issue of Karwar being a Seafront and only 500 metre CRZ area can be applied as per the Prayer no 4 of OA 225/2021. Therefore the Honorable NGT may take note to dismiss this argument completely and confirm the beach to be treated as a Seafront under the CRZ Notification 2019 and CZMP 2019..

(3) OTHER VIOLATIONS IGNORED IN DEMOLITION NOTICE:

And also the Action taken report of KCZMA no FEE 6 CRZ 2018 dated 16.02.2023 submitted by the Karnataka Coastal Zone Management Authority has issued direction for demolition of some illegal constructions but there are many still not attracted the demolition because the KCZMA has illegally approved it. There are other following constructions which have not been ordered to be demolished.

- i. Sewage Water Tank recently constructed by the municipality on the beach approved by CZMA. The picture of STP water tank constructed on beach is placed at **Annexure A8** (Page no 77) .
- ii. Illegal slums constructed by the road contractors and silently allowed by Karwar Municipality and KCZMA. The picture of slums on the beach placed at **Annexure A9**(Page no 78).
- iii. Private Tourist Bus parking. Silently allowed by Karwar Municipality and KCZMA. The picture of private tourist bus stand on Karwar beach placed at **Annexure A10** (Page no 79).
- iv. Salumarada Timmakka Park
- v. Municipality Beach Garden constructed on the Karwar Beach. The picture of the Municipality Garden on the beach is placed at placed at **Annexure A11 & A12**(Page no 80 & 81)
- vi. Sand filling on the beach to grow grass. The picture of the Sand filled on the beach sand dunes and grass grown is placed at **Annexure A13 & A14** (Page no 82 & 83).



- vii. Kali river bank garden approved by KCZMA for Municipality and private contractor. The picture of the Kali river park is placed at **Annexure A15 & A16** (Page no 84 & 85).
- viii. Kali river Sunker Kadwad encroachment by filling sand and solid waste into the river water for constructing bund structure. Notice has been issued but the encroachment is persisting. The picture of the Kali river Sunker encroachment by Municipality is placed at **Annexure A17 & A18** (Page no 86 & 87).

Therefore, it is necessary to consider all these as non-compliant constructions and need demolition to restore the beach to its original form.

The reply dated 17.12.2022 submitted by the respected Deputy Commissioner in this regard lacks any evidence to fact and remains as a dry statement which is already dismissed by KCZMA may be dismissed by the Hon NGT.

It is also required to note that the committee has cleared the Kali river garden by not mentioning it as a violation. There was a small jetty earlier in part of this area. The Jetties are allowed as per the law. But there is no mention that they can convert the Jetty to a park with a private hotel by destroying the CRZ I area. This Park was constructed by expanding the Jetty area further which was the CRZ I area with the approval of the Officer of the KCZMA who was the member of this Committee. The report states in the Note of the Paragraph 4.3 Chart that the CRZ/CZMA Officer has issued the CRZ clearance for constructing the Park on the Kali river bank because there was a jetty before in its place. They failed to provide the provision of law which permits the construction of the Park on the river bank This is an irresponsible statement by the committee to cover up the blunder committee by them.

The Beach Garden and Greenville parks are also constructed on the beach CRZ I and III areas by the Karwar CMC. It is not known why these were not mentioned in the report. Finally, the committee declares the above-mentioned few constructions as violative of law and has calculated the meager Environment Compensation to presumably to legalize all the violations. These restaurants are known to charge Rupees one lakh per day for any function organized there. This Environment Compensation is just an eyewash to clear these violations by the Joint Committee comprising of Officers from the monitoring body. The whole Committee report is an eyewash and a waste of time. Therefore Honourable NGT may look into the legal perspectives and direct the concerned authorities to demolish all the construction on beach.



4. The copy of the IA has been served to all the respondents through the email

PRAYER

1. Therefore, it is respectfully prayed that to comply with the **prayer no 4** of OA 225/2021 a direction may be issued to the respondents 2,3,4,7 & 8 to reconsider the Karwar beach to be the Seafront and to apply 500 metre limit allowing the available beach land from the Highway to the sea as CRZ area and dismiss the argument of the Karwar Seafront to follow the 50 metre CRZ area claiming it to be a Bay.
2. And to comply with the **prayer no 2** of OA 225/2021 to remove all illegal constructions listed in the OA and IA.

PETITIONER



Party in Person (Applicant)

Dated at Mormugoa on this day of 12 May 2023

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SOUTHERN ZONE AT CHENNAI**

1. See Rule 8(1)

**[Under section 18(1) read with section 14 & 16 of the National Green Tribunal Act
2010]**

OA No 225/ 2021(SZ) IA No 176/2021(SZ)

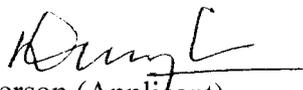
AFFIDAVIT

In the matter of

Vidyadhar Durgekar vs Chief Secretary, Government of Karnataka, and others

1. I Shri Vidyadhar Durgekar, Son of Late Shri M.P. Durgekar, aged 61 years residing at B5-1103, Ramky one North, Dodballapur Road, Yelahanka, Bengaluru a native of Karwar, Karnataka, an ex Officer of Indian Coast Guard and Ports, solemnly affirm and state as under.
2. That I am the Applicant appearing as the Party in Person, is also the authorized signatory.
3. All the statements made in the Statement above document are true to the best of my knowledge and understanding.
4. There are many other illegal constructions not listed in the demolition notice of KCZMA.
5. The word Bay used in the map can not change the status of Karwar Beach being a Seafront.
6. This Affidavit is without prejudice to the rights and contentions of the Respondents,
7. It is submitted that the present Affidavit is being filed for the convenience of this Honourable Court to take into considerations the principle of natural justice to provide equitable justice to the aggrieved.

DEPONENT


Party in Person (Applicant)

Dated at Mormugoa on this day of 12 May 2023

VERIFICATION

I, the above-named deponent do hereby verify that the contents of the above Affidavit are true to my knowledge. No part of the same is false and nothing has been concealed therefrom

VERIFIED ON THIS DAY OF 12 May 2023 AT BENGALURU

DEPONENT



Party in Person (Applicant)

Dated at Mormugoa on this day of 12 May 2023

F. No. IA3-12/14/2021-IA.III
Government of India
Ministry of Environment, Forest and Climate Change
IA-III (CRZ Division)

Indira Paryavaran Bhawan,
 Jor Bagh Road,
 New Delhi -110003
 Dated: 2nd September, 2022

To,

**The Member Secretary,
 Karnataka Coastal Zone Management Authority,
 Department of Forests, Ecology and Environment,
 IV Gate, Multi-storeyed Building, K.G. Road,
 Bengaluru – 560001 Karnataka.**

**Subject: Coastal Zone Management Plans of Karnataka as per CRZ Notification,
 2019 - regarding.**

Sir,

This has reference to letter No. D.O.No.FEE 99 CRZ 2021, dated 03/06/2022 furnishing therein the Coastal Zone Management Plans (CZMPs) of Karnataka, drawn as per the provisions of the Coastal Regulation Zone (CRZ) Notification, 2019.

2. In this regard, it is to state that based on recommendation of the National Coastal Zone Management Authority in its 45th meeting held on 01/09/2022, the Ministry of Environment, Forest and Climate Change hereby conveys its approval of the CZMPs for the State of Karnataka. Further, it is to inform that all proposals received henceforth for CRZ clearance shall be considered as per CRZ Notification, 2019 only. However, pending proposals under CRZ Notification 2011, if any, may be considered at the discretion of project proponent.

3. This issues with the approval of the Hon'ble Minister, EFCC.

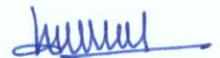
Yours faithfully,



(Dr. H. Kharkwal)
Scientist 'E' (CRZ)

Copy to:

1. The Additional Chief Secretary, Government of Karnataka, Department of Forest, Ecology and Environment, No.448, 4th floor, Gate No.2, M.S.Building, Dr. B.R.Ambedkar Veedhi, Bengaluru-560001, Karnataka.
2. The Deputy Director General of Forests (C), Integrated Regional Office, Bengaluru, Ministry of Environment, Forest and Climate Change, Kendriya Sadan, 4th Floor, E&F Wings, 17th Main Road, Koramangala II Block, Bangalore – 560034, Karnataka.
3. The Director, National Center for Sustainable Coastal Management, Anna University, Chennai, Tamil Nadu-600025.
4. Office copy / Guard file.



(Dr. H. Kharkwal)
Scientist 'E' (CRZ)



Vidyadhar Durgekar <durgekar@gmail.com>

CRZ-Maps-CZMP

2 messages

Vidyadhar Durgekar <durgekar@gmail.com>

22 July 2021 at 13:49

To: "ecoenv.dept@gmail.com" <ecoenv.dept@gmail.com>, "itstaff_ulb_karwar@yahoo.com" <itstaff_ulb_karwar@yahoo.com>, "janahitha@mrc.gov.in" <janahitha@mrc.gov.in>, "prs-fee@karnataka.gov.in" <prs-fee@karnataka.gov.in>, "rdekwr2010@gmail.com" <rdekwr2010@gmail.com>

Sir

Sub: CZMP errors-Suggestions.-Sheet No D 4311/SW Map No KA 35- Violations

The CRZ notification 2019 and CZMP have some serious issues as in a sketch in small details affecting the environment and social issues of the Karwar area. A map should be as per scale and should give engineering clarity and not be just a sketch. The CZMP lacks all the clarity of an engineering map and has remained as rough sketch resulting in vague details. With reference to the CRZ Notification and CZMP following few errors are observed and the suggestions for correction are given below:

1. The CZMP of Karwar beach indicates that the area of Karwar, Kodibag, Devbag and Majali fall under the CRZ1B area which is the land between HTL(High tide line) and LTL(Low Tide Line) as per CRZ cl 2.1.2. Next area is marked as CRZ II which is a developed area as per the notification. Whereas the beach areas are not developed areas as given in section 2.2 of the CRZ Notification 2019. The CRZ IA line passes vaguest inside the pink area of CRZ II.
2. The part of the beach area which is not covered by any tides and not developed in anyway but covered with sand dunes is vaguely identified as CRZ IA with a light green line passing inside CRZ II but not highlighted clearly as per the Coastal Regulations Zone notification 2019 section 2.1.1(a)(iii).
3. The beach area filled with sand dunes is neither CRZ IB nor CRZ II as indicated in the map but it is CRZ IA. The beach areas Universally are sand dune area which the common people and fishermen use it as their Public Trust right of natural heritage.
4. The maps should mark the beach names indicating their village names clearly giving the boundary. The Karwar beach has two beaches one belonging to Karwar town and other part belonging to Kodibag.
5. It is shocking and surprising to know that Department of Public works, Ports & Inland water transport, government of Karnataka, secretariat has passed a notification no PWD 113 PSP 2013 dated 21.01.2016 increasing the port limits to all the town, village beaches and coastal waters from Kawar till the Goa borders annexing all the sea coast in between without seeking consultation of the affected stake holders and CRZ authority. This is exercising a dictatorial authority of the department of PWD and Ports misusing the trust and confidence assigned by the Constitution of India to the government to hold the territory as a equitable trustee of good will and good administration. The authority given in the Section 5 of Indian Port Act 1908 prescribes

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that it can be done to join two ports or part of ports and not for annexation , but here they have joined the whole territory without any consultation and approval of other departments.

6. Please indicate the beach areas filled with sand in CRZ I A just after CRZ IB to be clearly visible in the Coastal Zone Management Plan Map.

Yours faithfully,

—Vidyadhar Durgekar
Ex Dy Commandant, EHS Auditor
Author and Poet

--

Regards,
Vidyadhar Durgekar

<http://www.vidyadhardurgekar.com>

<https://www.youtube.com/watch?v=jVpYQEEMcvc>

Vidyadhar Durgekar <durgekar@gmail.com>
To: pramod1ankola@gmail.com

9 January 2022 at 08:45

[Quoted text hidden]



Vidyadhar Durgekar <durgekar@gmail.com>

Erroneous interpretation of statute- Seafront is a seafront -500Metre CRZ rule should apply

9 messages

Vidyadhar Durgekar <durgekar@gmail.com>

22 May 2022 at 14:10

To: arvind.nautiyal@gov.in, asud.moefcc@gov.in, jsnpg.mefcc@gov.in, mefcc@gov.in, moef@gov.in, moef@nic.in, nobi.ep@nic.in, secy-moef@nic.in, sujit.baju@gov.in

Hon Minister for Environment and Forests

Government of India

New Delhi

The Secretary

Ministers of Environment and Forests

Government of India

New Delhi

THE 100 METER LIMITS ERRONEOUSLY APPLIED ON SOME SEA FRONT

In one of the report of a CRZ Committee following is stated deriving the inference from the CZMP prepared by NCSCM who interpreted a CRZ Statute without any competence and authority.

"And with respect to the jurisdiction of CRZ area, since the Karwar is considered as Bay as per the National Hydrographic chart prepared by NHO, Dehradun the CRZ boundary is fixed to 100mts from HTL towards land and the Road is outside CRZ limits."

The CRZ Notification 2011 and 2019 doesn't indicate any such things. This is an argument of the wrong interpretation of the CRZ Notification which is propagated by these Officers to serve the interest of some violators. The CRZ Notification 2011 has not stated anything about the Chart prepared by NHO. Even if yes, it doesn't matter at all because it is a Seafront. The CRZ has identified two different forms of the water bodies. One is the Seafront, and the other is the river, estuary, and creeks. The said Notification clearly states that it is the tidal-influenced water Bodies that have this reduced distance of 100 meters lengths in 2011 Notification which will become 50 metre in 2019 Notification. Part of the Notification stating this is placed below for the perusal of the Court.

"(i) The land area/from High Tide Line (hereinferred to as the HTL) to 500 meters on the landward side along the seafront.

(iii) CRZ shall apply to the land area between HTL to 50 meters or width of the creek, whichever is less on the landward side along the tidal influenced water bodies that are connected to the sea and the distance up to which development along such tidal influenced waterbodies is to be regulated shall be governed to the distance up to which the tidal effects are experienced which shall be

determined based on salinity concentration of five parts per thousand (ppt) measured during the spring period of the year and distance up to which tidal effects are experienced shall be clearly identified and demarcated accordingly in the Coastal Zone Management Plan

(hereinafter referred to as the CZMP). Provided that the CRZ limit of 50 meters or width of the creek whichever is less, shall be subject revision and final approval of the respective CZMPs as per this notification. "

It is fact that Karwar is on the seacoast of the Arabian Sea. In the first paragraphs of the CRZ notification it is clearly stated that the Seafront will have 500 meters of length reference to identify the CRZ limits. The 100 meters is for the water bodies of estuary, creek, and river having the tidal influence from the bay. And in addition to this the salinity requirement is given in the Notification. The reference to the NHO Map stating that it is a Bay doesn't qualify it to follow these norms by misrepresenting the interpretation of the meaning of the English and legal Language. Another condition in the CRZ Notification 2011 and 2019 of salinity of the water to be within the 5 PPT measure during the driest period has been conveniently ignored and avoided by this committee. The Karwar Coast salinity is sea salinity around 23% (235 PPT). The tidal-influenced water bodies will be identified by this factor only and not any other. Therefore, this argument of is void and misleading.

In case this is possible then the same should be applied to the Bay of Bengal being the world-famous Bay on the east coast of India identified on all Maps, having many beaches including the most beautiful Marina Beach in Chennai. If this applies to Karwar then it will have to apply to all the beaches including Marina Beach of Chennai which is ridiculous by the intent of those who have proposed this interpretation. The notification is noticeably clear in its content and intent to identify the two distinct types of shores. The seafront and the river basin are the two coastal zones identified. As per the CRZ Notification 2011 & 2019, their Salinity should be within 5 PPT. The seafront salinity always is always higher anywhere in the world. The Karwar Seafront Salinity is also much higher than the limits prescribed. In this regard, the article which gives the salinity of the Karwar Coast at 20.36" to 23.57"1, (235 PPT) during the driest period published in the Journal of the Indian Fisheries .

MOEF and other government agencies may take note of this fact to protect the beautiful beaches of Karwar , Bogmollo and Bay of Bengal by dismissing completely the argument that all bays are like river front. All seafront whether BAY OR NOT 500 METRE LIMITS Should be applied. Also henceforth NCSCM should not be allowed to interpret any statutes by themselves.

Regards

Vidyadhar Durgekar
Ex Dy Commandant
Auditor and Assessor
Environment & Sustainability
Author and Poet

--

Regards,
Vidyadhar Durgekar

<http://www.vidyadhardurgekar.com>

----- Forwarded message -----

From: Vidyadhar Durgekar <durgekar@gmail.com>

To: h.kharkeal@nic.in

Cc:

Bcc:

Date: Wed, 25 May 2022 12:05:45 +0530

Subject: Fwd: Erroneous interpretation of statute- Seafront is a seafront -500Metre CRZ rule should apply

----- Message truncated -----

Vidyadhar Durgekar <durgekar@gmail.com>

25 May 2022 at 13:26

To: h.kharkwal@nic.in

Sirji

As per the telecon for your kind information and necessary action

Regards

Vidyadhar Durgeka

Ex Dy Commandant

Environment & Sustainability Assessor

Author & Poet

Annexure A3

----- Forwarded message -----

From: **Vidyadhar Durgekar** <durgekar@gmail.com>

Date: Sun, 22 May 2022 at 14:10

Subject: Erroneous interpretation of statute- Seafront is a seafront -500Metre CRZ rule should apply

To: <arvind.nautiyal@gov.in>, <asud.moefcc@gov.in>, <jsnpg.mefcc@gov.in>, <mefcc@gov.in>, <moef@gov.in>,

<moef@nic.in>, <nobi.ep@nic.in>, <secy-moef@nic.in>, <sujit.baju@gov.in>

[Quoted text hidden]

[Quoted text hidden]

Dr. Harendra Kharkwal <h.kharkwal@nic.in>

30 May 2022 at 14:54

To: cs@karnataka.gov.in, secyenv fee <secyenv.fee@karnataka.gov.in>, msksczma@gmail.com, prs-fee@karnataka.gov.in,

Ramesh Ramachandran <ramesh_au@yahoo.com>, durgekar@gmail.com

Cc: Sujit Kumar Bajpayee <sujit.baju@gov.in>, "Dr. NOBI E. P" <nobi.ep@nic.in>, mayank sicom

<mayank.sicom@gmail.com>

**F. No. 19/33/2022-IA.III
Government of India
Ministry of Environment, Forest and Climate Change
IA.III Section (CRZ)**

To,

**Member Secretary,
Karnataka State Coastal Zone Management
Authority (KCZMA),
Department of Forests, Ecology and
Environment, Govt. of Karnataka,
IV Gate, Multi-storeyed Building
K.G. Road, Bengaluru – 560001
Karnataka**

Subject: **Erroneous interpretation of statute- Seafront is a seafront -500Metre CRZ rule should apply - regarding.**

Sir,

Annexure A3

Reference trailing e-mail.

It is requested to examine the nature and extent of alleged representations in respect of the all issues and submit reply to applicants directly under a copy to this Ministry. It is also requested that action applicable with law may be taken in the all grievance are affirmative before finalization of CZMP 2019 for Karwar district of Karnataka.

Copy to:

1. Director, NCSCM, Chennai, Tamil Nadu.

**2. Shri Vidyadhar Durgeka, Ex Dy Commandant, Environment & Sustainability Assessor
Author & Poet - Applicant**

With regards,

Dr. H. Kharkwal
Scientist 'E'
Ministry of Environment, Forest
and Climate Change
Indira Paryavaran Bhawan,
Prithivi Wing, 2nd Floor,
Jor Bag Road,
New Delhi-110003
E-mail: h.kharkwal@nic.in
Phone: 011-20819371

From: durgekar@gmail.com

To: "Dr. Harendra Kharkwal" <h.kharkwal@nic.in>

Sent: Wednesday, May 25, 2022 1:26:23 PM

Subject: Fwd: Erroneous interpretation of statute- Seafront is a seafront -500Metre CRZ rule should apply

[Quoted text hidden]



Vidyadhar Durgekar <durgekar@gmail.com>
To: "Dr. Harendra Kharkwal" <h.kharkwal@nic.in>

1 June 2022 at 09:22

Dear sir

Thank you for your reply. Sadly that reply is a routine posting letter. The relief sought from the Ministry of Environment and Forests of GOI is to interpret the statute on CRZ notification application with a controversy created by State government. CRZ Notification is a central government law which needs to be interpreted by central government but you have sent it back to do the necessary.

Dear sir, it is agreed that all the seas around the world have a salinity of more than 30 ppt. Therefore please give necessary subjective directions to the concerned state governments keeping the unreliable NCSCM which actually needs to be blacklisted for all the mess they have created in the west coast.

I humbly request you again to clarify on the applicability of the word "Bay" and it's erroneous interpretation to apply 50

Mtr CRZ zone to the open seafront. The interpretation of statutes require to apply the first applicable clause - which is seafront.

Thanking you

Regards
Vidyadhar Durgekar
Ex Dy Commandant
Environment Auditor

[Quoted text hidden]

Gmail - Erroneous interpretation of statute- Seafront is a seafront -500Metre CRZ rule should apply
<https://mail.google.com/mail/u/0/?ik=6dab709743&view=pt&search=all&permthid=thread-a%3Ar-8797654174838830288&simpl=msg-a%3Ar-5326912...> 7/8

Subject: *Erroneous interpretation of statute- Seafront is a seafront
-500Metre CRZ rule*

should apply - regarding.

Sir,

Reference trailing e-mail.

It is requested to examine the nature and extent of alleged representations in respect of the all issues and submit reply to applicants directly under a copy to this Ministry. It is also requested that action applicable with law may be taken in the all grievance are affirmative before finalization of CZMP 2019 for Karwar district of Karnataka.

Copy to:

- 1. Director, NCSCM, Chennai, Tamil Nadu.*
- 2. Shri Vidyadhar Durgeka, Ex Dy Commandant, Environment & Sustainability Assessor*

Author & Poet - Applicant

With regards,

Dr. H. Kharkwal

Scientist 'E'

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

Indira Paryavaran Bhawan,

Prithivi Wing, 2nd Floor,

Jor Bag Road,

New Delhi-110003

E-mail: h.kharkwal@nic.in

Phone: 011-20819371

BEFORE THE NATIONAL GREEN TRIBUNAL**SOUTHERN ZONE, CHENNAI**

Original Application No. 225 of 2021 (SZ) & I.A.Nos 69 & 91 of 2022 (SZ)

IN THE MATTER OF

Vidyadhar Durgekar

... Applicant(s)

Versus

The Chief Secretary
Government of Karnataka
Bengaluru and Ors

... Respondent(s)

NEXT DATE: 17-02-2023

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Chennai

Date: 16-02-2023

**REPLY STATEMENT OF REGIONAL DIRECTOR (ENVIRONMENT), KARWAR WITH RESPECT
TO ORIGINAL APPLICATION 225 OF 2021 BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI FILED BY SRI. VIDYADHAR DURGEKAR.**

Karwar town is situated on the Arabian Sea coast on western side and on Kali riverbank on northern side, so the land area from High Tide Line on landward side along sea front and river front are declared as Coastal Regulation Zone as per CRZ Notification 2011. It was found that several development activities are taken up in CRZ area, which falls in No development zone & CRZ-II zone as per approved Coastal Zone Management Plan (CZMP) as per CRZ Notification 1991 & 2011. The development activities taken up in CRZ area without prior permission from CRZ authorities are inspected and issued notices (Table of notices attached as **Annexure-I**) to the Departments and individuals who are taking up these development activities.

Some of the development activities taken up are listed as below:

1. Construction of Rock Garden Work at sea front has been taken up in CRZ-I&II area by Zilla Nirmithi Kendra, for which approval was given by Dr. Rabindranath Tagore Beach Development Conservation Committee, Karwar without obtaining prior CRZ clearance.
2. Construction of building near the Drive-in Hotel at Karwar beach on sea side which is in CRZ-I and partially in CRZ-II area without obtaining prior CRZ clearance.
3. Branded Food Court Building has been constructed on sea side at Karwar beach in CRZ I & Partially in CRZ-II area by Sri. Rajesh S. Kamath, for which the land has been given on lease by Dr. Rabindranath Tagore Beach Development Conservation Committee, Karwar without obtaining prior CRZ clearance.
4. Construction of Hostel building on Kali river bank at Sy. No. 6 A1A of Chittakula Village which is in NDZ of CRZ area has been taken up by Assistant Director, Youth Empowerment and Sports Department, Karwar without obtaining prior CRZ clearance.
5. Construction of building behind Mayurvarma Vedike and Temporary Fish Market Yard on sea side in CRZ -II area without obtaining prior CRZ clearance.
6. Construction of temporary fish market in order to facilitate fishermen during renovation of existing fish market in the town. But the area of this structure falls outside CRZ and presently no marketing activities are being carried out.
Construction of public toilet partially falls in CRZ-II and it is also presently not in use.
7. Construction of Kali river Garden on the southern bank of Kali river in place of an existing jetty which operated for transportation purpose before construction of Kali bridge. KSCZMA has issued NOC for this activity.

Sri. Balakrishna S. Pai Advocate, Karwar has given a legal notice on 09.01.2018 complaining that many permanent structures are being constructed on the Karwar beach in violation of CRZ notification.


Regional Director
Environment
Karwar (U.K.)

The subject was placed in the Karnataka State Coastal Zone Management Authority held on 15.02.2018. As per the provisions of CRZ notification prior clearance has to be taken for any activity in CRZ area. Hence the Authority decided to give directions to the Regional Director (Environment) to submit report whether CRZ clearance has been obtained or not.

In compliance to the KSCZMA directions, the detailed report was submitted with respect to the above listed development activities taken up in CRZ area without prior approval from CRZ authorities vide letter dated 03-04-2018 and 26-04-2018 (**Annexure-II**) The report was placed in KSCZMA meeting held on 27.04.2018. Since all the above activities had been taken up without obtaining CRZ clearance, the Authority considered this as CRZ violation and decided as below:

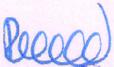
1. To issue notices of proposed directions (NPD) under section 5 of Environment (Protection) Act 1986 to the Additional Deputy Commissioner & Member Secretary, Dr. Rabindranath Tagore Beach Development Conservation Committee, Karwar for taking up the works at SL. No. 1,2,3 above in violation of CRZ notification 2011.
2. To issue notices of proposed directions (NPD) under section 5 of Environment (Protection) Act 1986 to the Assistant Director, Youth Empowerment and Sports Department, Karwar for taking up the works as above in violation of CRZ notification 2011.
3. To issue notices of proposed directions (NPD) under section 5 of Environment (Protection) Act 1986 to the Commissioner, City Municipal Council, Karwar for taking up the work at SL. No. 5 above in violation of CRZ notification 2011.

As per the decision of the Authority NPD was issued by KSCZMA on 12.06.2018. For the said notice, Additional Deputy Commissioner, Karwar had submitted reply to KSCZMA on 29.06.2018 stating that, only renovation of old existing buildings were taken up and no new construction was carried out.

The matter was placed in the KSCZMA meeting held on 07.03.2019. After going through the reply given by the Additional Deputy Commissioner, the Authority directed the Additional Deputy Commissioner to produce all the necessary documents to prove that the buildings which have been taken up for renovation were existing building prior to 1991.

The Additional Deputy Commissioner, Karwar had replied to KSCZMA on 29.06.2018 and 22.05.2019 enclosing a few documents which were not visible and it was found that there were many discrepancies in the report regarding the purpose of the old structures and the activities being carried out now, for which clarification was sought by KSCZMA vide letter dated 09.09.2020.

However, no clarification has been received from the Additional Deputy Commissioner & Member Secretary, Dr. Rabindranath Tagore Beach Development Conservation Committee Karwar, and no reply from the Assistant Director, Youth Empowerment and Sports Department, Karwar and the Commissioner, City Municipal Council, Karwar for the above said CRZ violations for which NPD was issued on 12.06.2018.


Regional Director
Environment
Karwar (U.K.)

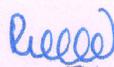
Further as per Hon'ble NGT direction to appoint a joint committee to inspect and report the factual, Regional Director (Environment), Karwar was nominated as member of the joint committee. The joint committee has inspected the area on 27 & 28th of January 2022 and the

committee report was submitted to KSCZMA, from Regional Director (Environment) office on 31st January 2022 for submission to the Hon'ble NGT for further decision.

Further KSCZMA meeting held on 06-02-2023 deliberated on the issue and since these activities had been taken up in violation of CRZ Notification, the Authority decided to issue Direction under section 5 of Environment (Protection) Act 1986 to the following violators.

1. To issue direction under section 5 of Environment (Protection) Act 1986 to the Member Secretary, Dr. Rabindranath Tagore Beach Development Conservation Committee, Karwar to demolish the constructions of Rock Garden, Unauthorised construction besides Drive-In Hotel and Branded Food court building at Karwar beach.
2. To issue direction under section 5 of Environment (Protection) Act 1986 to the Director, Youth Empowerment and Sports Department, Karwar, Commissioner City Municipal Council Karwar to demolish the construction of Sports Hostel Building in No Development Zone at Sy.No.6A1A of chittakula village .
3. To issue direction under section 5 of Environment (Protection) Act 1986 to the Commissioner, City Municipal Council, Karwar to demolish the Building constructed behind Mayurvarma vedike and Temporary Fish Market yard.
4. To issue direction under section 5 of Environment (Protection) Act 1986 to the Additional Deputy Commissioner to demolish all unauthorised constructions along the Beach of Karwar which are built in violation of CRZ Notification .

In compliance to the KSCZMA proceedings , Direction under section 5 of the Environment (Protection) Act 1986 have been issued to Commissioner, CMC Karwar, Additional Deputy Commissioner Karwar and Assistant Director Youth Empowerment and Sports Department Karwar to demolish all unauthorised constructions built in violation of CRZ Notification by KSCZMA vide FEE 6 CRZ 2018 dated 16-02-2023. And also directed to file compliance report before the authority within 30 days from the date of receipt of this direction failing which necessary action will be initiated in accordance with law.


Regional Director
Environment
Karwar (U.K.)

Translated

Extract of the Meeting Proceedings of Karnataka State Coastal Zone Management Authority (KSCZMA) held on 06.02.2023

Agenda No. 39.3.1; Developmental Works taken up by the Secretary, Uttara Kannada Tourist Places Development & Conservation Committee at Dr. Rabindranath Tagore Beach, Karwar (FEE 6 CRZ 2018)

Sri. Balakrishna S. Pai Advocate, Karwar has given a legal notice on 09.01.2018 complaining that many permanent structures are being constructed on the Karwar beach in violation of CRZ notification.

The subject was placed in the Karnataka State Coastal Zone Management Authority held on 15.02.2018. As per the provisions of CRZ notification prior clearance has to be taken for any activity in CRZ area. Hence the Authority decided to give directions to the Regional Director to submit report whether CRZ clearance has been obtained or not?

In compliance to the KSCZMA directions, the Regional Director, Karwar has reported as follows:

1. Construction of Rock Garden Work has been taken up in CRZ -I area by Zilla Nirmithi Kendra, for which approval was given by Dr. Rabindranath Tagore Beach Development Conservation Committee, Karwar without obtaining prior CRZ clearance.
2. Construction of building near the Drive-in Hotel at Karwar beach which is in CRZ-I and partially in CRZ-II area without obtaining prior CRZ clearance.
3. Branded Food Court Building has been constructed at Karwar beach in CRZ I & Partially in CRZ-II area by Sri. Rajesh S. Kamath, for which the land has been given on lease by Dr. Rabindranath Tagore Beach Development Conservation Committee, Karwar without obtaining prior CRZ clearance.
4. Construction of Hostel building at Sy. No. 6 A1A of Chittakula Village which is in NDZ of CRZ area has been taken up by Assistant Director, Youth Empowerment and Sports Department, Karwar without obtaining prior CRZ clearance.
5. Construction of building and temporary Fish Market Yard behind Mayurvarma Vedike in CRZ -II area without obtaining prior CRZ clearance.

The report of Regional Director, Karwar, was placed in KSCZMA meeting held on 27.04.2018. Since all the above activities had been taken up without obtaining CRZ clearance, the Authority considered this as CRZ violation and decided as below:

To issue Notices Of Proposed Directions (NPD) under section 5 of Environment (Protection) Act 1986 to the Additional Deputy Commissioner & Member Secretary, Dr. Rabindranath Tagore Beach Development Conservation Committee, Karwar for taking up the works at SL. No. 1,2,3 above in violation of CRZ notification 2011.

1. To issue notices of proposed directions (NPD) under section 5 of Environment (Protection) Act 1986 to the Assistant Director, Youth Empowerment and Sports Department, Karwar for taking up the works at SL. No. 4 above in violation of CRZ notification 2011.
2. To issue notices of proposed directions (NPD) under section 5 of Environment (Protection) Act 1986 to the Commissioner, City Municipal Council, Karwar for taking up the work at SL. No. 5 above in violation of CRZ notification 2011.

As per the decision of the Authority NPD was issued to the Additional Deputy Commissioner & Member Secretary, Dr. Rabindranath Tagore Beach Development Conservation Committee, Karwar, the Assistant Director, Youth Empowerment and Sports Department, Karwar and the Commissioner, City municipal Council, M.G. Road, Karwar. For the said notice, Additional Deputy Commissioner, Karwar had submitted reply on 29.06.2018 stating that, only renovation of old existing buildings were taken up and no new construction was carried out.

The matter was placed in the KSCZMA meeting held on 07.03.2019. After going through the reply given by the Additional Deputy Commissioner, the Authority directed the Regional Director, Karwar to revisit the site and submit a detailed report on the points stated in the reply given by the Additional Deputy Commissioner Karwar and also directed the Additional Deputy Commissioner to produce all the necessary documents to prove that the buildings which have been taken up for renovation were existing building prior to 1991, since there were many discrepancies in the report regarding the purpose of the old structures and the activities being carried out now, for which clarification was sought vide letter dated 09.09.2020. Since no reply has been received, a remainder letter was also addressed on 25.02.2022. However, no clarification has been received so far.

The Authority after detailed discussion and deliberation decided to issue direction under section 5 of the Environment (Protection) Act, 1986 for violation of CRZ notification as follows:

1. To issue direction under section 5 of the Environment (Protection) Act, 1986 to Dr. Rabindranath Tagore Beach Development Conservation Committee, Karwar to demolish the Rock Garden, building adjacent to the Drive-in Hotel & Branded Food Court Building at Karwar Beach .
2. To issue direction under section 5 of the Environment (Protection) Act, 1986 to the Assistant Director, Youth Empowerment and Sports Department, Karwar to demolish the Hostel building constructed in NDZ at Sy. No. 6 A1A of Chittakula Village .
3. To issue direction under section 5 of the Environment (Protection) Act, 1986 to Commissioner, City municipal Council, M.G. Road, Karwar to demolish the building constructed behind Mayurvarma Vedike & temporary Fish Market Yard.
4. To issue direction under section 5 of the Environment (Protection) Act, 1986 to Additional Deputy Commissioner, Karwar to demolish all the unauthorized construction works were taken up in Karwar beach, Uttara Kannada District in violation of CRZ notification.

Sd/-

R. Gokul)

Member Secretary, KSCZMA,
Commissioner (Technical Cell),
Forest, Ecology & Environment Department.



KARNATAKA STATE COASTAL ZONE MANAGEMENT AUTHORITY

(Constituted by MoEF & C.C Government of India, under Sub-Section (1) & (3) of E(P) Act 1986)

No. FEE 6 CRZ 2018

Date: 16.02.2023

Direction under Section 5 of the Environment (Protection) Act, 1986

1. Whereas, the Ministry of Environment and Forests, Government of India have issued CRZ Notification No. S.O. 19(E) dated 6th January 2011 with a view to ensure livelihood security to the fishermen and other local communities, living in the coastal areas and to conserve and protect coastal stretches, its unique environment and its marine area, under sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 read with clause (d) of sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986.
2. Whereas, all projects attracting this notification require prior CRZ Clearance from the concerned regulatory authority i.e., Karnataka State Coastal Zone Management Authority.
3. Whereas, certain activities are prohibited within the Coastal Regulation Zone as per para 8 III CRZ III A (ii) of the CRZ Notification 2011.
4. Whereas, Sri. Balakrishna S. Pai Advocate Karwar has given Legal Notice on 09.01.2018 and has stated that, some works are being carried out in CRZ areas at Karwar in violation of CRZ Notification 2011.
5. Whereas, the Karnataka State Coastal Zone Management Authority has considered this matter during the meeting held on 15.02.2018 and the Authority has given instructions to the Regional Director, Karwar to conduct spot inspection and submit a detailed report on this issue.
6. Whereas, the Regional Director (Env) Karwar, in his letter dated 26.04.2018 reported that you have taken up the Construction of building behind Mayurvarama Vedhike towards sea ward side of existing road in CRZ-II area, thereby violated the provisions of CRZ Notification 2011.
7. Whereas, the Karnataka State Coastal Zone Management Authority has examined this matter during the meeting held on 27.04.2018 and has considered this activity as violation of CRZ Notification. Hence, decided to give Notice of Proposed Directions (NPD) under section 5 of the Environment (Protection) Act, 1986, read with Rule 4 of the Environment (Protection) Rule 1986.

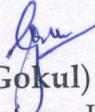
-2-

8. Whereas, as per the decision of the Authority, the NPD under section 5 of the Environment (Protection) Act, 1986 was issued to you on 12.06.2018 with a direction to submit reply within 15 days. But you have not submitted any reply so for
9. In the meanwhile an O.A. no.225/2021 has been filed before NGT (SZ) by Sri Vidyadhara Durgekar in the matter of unauthorized construction carried out in Karwar beach. The Hon'ble NGT in its order dated 19.12.2022, pointed out as to why the KSCZMA Authority was not taking any further action in this regard.
10. Whereas, the Authority in its meeting held on 06.02.2023 has decided to confirm the proposed directions issued under section 5 of Environment (Protection) Act, 1986 in exercise of the powers delegated to the Authority vide order no. S.O. 4650(E) dated 30th September 2022 of MoEF & CC, Government of India.

Direction

Wherefore, you, Commissioner, City municipal Council, M.G. Road, Karwar, Uttara Kannada District is hereby directed under section 5 of the Environment (Protection) Act, 1986 to demolish the constructed building behind Mayurvarama Vedhike for violation of the provisions of CRZ Notification 2011 as per para 8 II CRZ II (i).

Compliance report on the above direction shall be filed before the Authority within 30 days from the date of receipt of this direction, failing which the Authority will be constrained to initiate necessary action in accordance with the law.


(R. Gokul)

Member Secretary, KSCZMA,
Commissioner (Technical Cell),
Forest, Ecology & Environment Department.

To,

Commissioner,
City municipal Council,
M.G. Road, Karwar, Karnataka 581301.

Copy to:

1. The Deputy Commissioner, Uttara Kannada District & Chairman, DCZMC, Karwar for information and necessary action.
2. Additional Deputy Commissioner and Member Secretary, Dr. Rabindranath Tagore Beach Development and Conservation Committee (Rgd), Karwar for information and necessary action.
3. The Regional Director (Env) ,Parisara Bhavan, Habbuvad, Karwar for suitable action in this mater & report .



KARNATAKA STATE COASTAL ZONE MANAGEMENT AUTHORITY

(Constituted by MoEF & C.C Government of India, under Sub-Section (1) & (3) of E(P) Act 1986)

No. FEE 6 CRZ 2018

Date: 16.02.2023

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3. Whereas, certain activities are prohibited within the Coastal Regulation Zone as per para 8 III CRZ III A (ii) of the CRZ Notification 2011.
4. Whereas, Sri. Balakrishna S. Pai Advocate Karwar has given Legal Notice on 09.01.2018 and has stated that, some works are being carried out in CRZ areas at Karwar in violation of CRZ Notification 2011.
5. Whereas, the Karnataka State Coastal Zone Management Authority has considered this matter during the meeting held on 15.02.2018 and the Authority has given instructions to the Regional Director, Karwar to conduct spot inspection and submit a detailed report on this issue.
6. Whereas, the Regional Director (Env) Karwar, in his letter dated 26.04.2018 reported that you have taken up the Construction of Hostel Building for the trainees at Sy. No. 6A1A of Chittakula Village, Karwar in NDZ of CRZ III area, thereby violated the provisions of CRZ Notification 2011.
7. Whereas, the Karnataka State Coastal Zone Management Authority has examined this matter during the meeting held on 27.04.2018 and has considered this activity as violation of CRZ Notification. Hence, decided to give Notice of Proposed Directions (NPD) under section 5 of the Environment (Protection) Act, 1986, read with Rule 4 of the Environment (Protection) Rule 1986.

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8. Whereas, as per the decision of the Authority, the NPD under section 5 of the Environment (Protection) Act, 1986 was issued to you on 12.06.2018 with a direction to submit reply within 15 days. But you have not submitted any reply so for.
9. In the meanwhile an O.A. no.225/2021 has been filed before NGT (SZ) by Sri Vidyadhara Durgekar in the matter of unauthorized construction carried out in Karwar beach. The Hon'ble NGT in its order dated 19.12.2022, pointed out as to why the KSCZMA Authority was not taking any further action in this regard.
10. Whereas, the Authority in its meeting held on 06.02.2023 has decided to confirm the proposed directions issued under section 5 of Environment (Protection) Act, 1986 in exercise of the powers delegated to the Authority vide order no. S.O. 4650(E) dated 30th September 2022 of MoEF & CC, Government of India.

Direction

Wherefore, you, Assistant Director, Youth Empowerment and Sports Department, Karwar, Uttara Kannada District is hereby directed under section 5 of the Environment (Protection) Act, 1986 to demolish the Hostel Building constructed in Sy. No. 6A1A of Chittakula Village, Karwar in CRZ -III NDZ area for violation of the provisions of CRZ Notification 2011 as per para 8 III CRZ III A (ii).

Compliance report on the above direction shall be filed before the Authority within 30 days from the date of receipt of this direction, failing which the Authority will be constrained to initiate necessary action in accordance with the law.


(R. Gokul)

Member Secretary, KSCZMA,
Commissioner (Technical Cell),
Forest, Ecology & Environment Department.

To,

Assistant Director,
Youth Empowerment and Sports Department,
Karwar.

Copy to:

1. The Deputy Commissioner, Uttara Kannada District & Chairman, DCZMC, Karwar for information and necessary action.
2. Additional Deputy Commissioner and Member Secretary, Dr. Rabindranath Tagore Beach Development and Conservation Committee (Rgd), Karwar for information and necessary action.
3. The Regional Director (Env), Parisara Bhavan, Habbuvad, Karwar for suitable action in this matter & report.



KARNATAKA STATE COASTAL ZONE MANAGEMENT AUTHORITY
(Constituted by MoEF & C.C Government of India, under Sub-Section (1) & (3) of E(P) Act 1986)

No. FEE 6 CRZ 2018

Date: 16.02.2023

Direction under Section 5 of the Environment (Protection) Act, 1986

1. Whereas, the Ministry of Environment and Forests, Government of India have issued CRZ Notification No. S.O. 19(E) dated 6th January 2011 with a view to ensure livelihood security to the fishermen and other local communities, living in the coastal areas and to conserve and protect coastal stretches, its unique environment and its marine area, under sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 read with clause (d) of sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986.
2. Whereas, all projects attracting this notification require prior CRZ Clearance from the concerned regulatory authority i.e., Karnataka State Coastal Zone Management Authority.
3. Whereas, certain activities are prohibited within the Coastal Regulation Zone (CRZ) as per para 8I CRZ I(i) and 8 II CRZ II (i) of CRZ Notification 2011.
4. Whereas, Sri. Balakrishna S. Pai Advocate Karwar has given Legal Notice on 09.01.2018 and has stated that, some works are being carried out in CRZ areas at Karwar in violation of CRZ Notification 2011.
5. Whereas, the Karnataka State Coastal Zone Management Authority has considered this matter during the meeting held on 15.02.2018 and the Authority has given instructions to the Regional Director, Karwar to conduct spot inspection and submit a detailed report on this issue.
6. Whereas, the Regional Director (Env) Karwar, in his letter dated 26.04.2018 reported that you have taken up the following works in CRZ areas at Karwar in violation of the provisions of CRZ Notification 2011.
 1. Construction of Rock garden in CRZ I and CRZ II areas.
 2. Construction of building adjacent to Drive in Hotel in CRZ I and CRZ II areas.
 3. Construction of Branded Food Court in CRZ I and CRZ II areas

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7. Whereas, the Karnataka State Coastal Zone Management Authority has examined this matter during the meeting held on 27.04.2018 and considered these activities as violation as per para 8I CRZ I(i) and 8 II CRZ II (i) of CRZ Notification. Hence, decided to give Notice of Proposed Directions (NPD) under section 5 of the Environment (Protection) Act, 1986, read with Rule 4 of the Environment (Protection) Rule 1986.
8. Whereas, as per the decision of the Authority, the NPD under section 5 of the Environment (Protection) Act, 1986 was issued to you on 12.06.2018 with a direction to submit reply within 15 days.
9. Whereas, for the said notice, you had submitted reply on 29.06.2018, for which it was instructed vide even letter dated 09.09.2020 to produce all the necessary documents to prove that the buildings which have been taken up for renovation were existing building prior to 1991. However, no clarification has been received so far.
10. In the meanwhile an O.A. no.225/2021 has been filed before NGT (SZ) by Sri Vidyadhara Durgekar in the matter of unauthorized construction carried out in Karwar beach. The Hon'ble NGT in its order dated 19.12.2022, pointed out as to why the KSCZMA Authority was not taking any further action in this regard.
11. Whereas, the Authority in its meeting held on 06.02.2023 has decided to confirm the proposed directions issued under section 5 of Environment (Protection) Act, 1986 in exercise of the powers delegated to the Authority vide order no. S.O. 4650(E) dated 30th September 2022 of MoEF & CC, Government of India.

Direction

Wherefore, you, Additional Deputy Commissioner and Member Secretary, Dr. Rabindranath Tagore Beach Development and Conservation Committee (Rgd), Karwar, Uttara Kannada District is hereby directed under section 5 of the Environment (Protection) Act, 1986 to demolish, 1) Rock garden Constructed in CRZ I & partially in CRZ II, 2) Building Constructed adjacent to Drive in Hotel in CRZ I & partially in CRZ II, 3) Branded Food Court constructed in CRZ I & partially in CRZ II for violation of the provisions of CRZ Notification 2011 as per para 8 I CRZ I (i) & para 8 II CRZ II (i).

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Compliance report on the above direction shall be filed before the Authority within 30 days from the date of receipt of this direction, failing which the Authority will be constrained to initiate necessary action in accordance with the law.


(R. Gokul)

Member Secretary, KSCZMA,
Commissioner (Technical Cell),
Forest, Ecology & Environment Department.

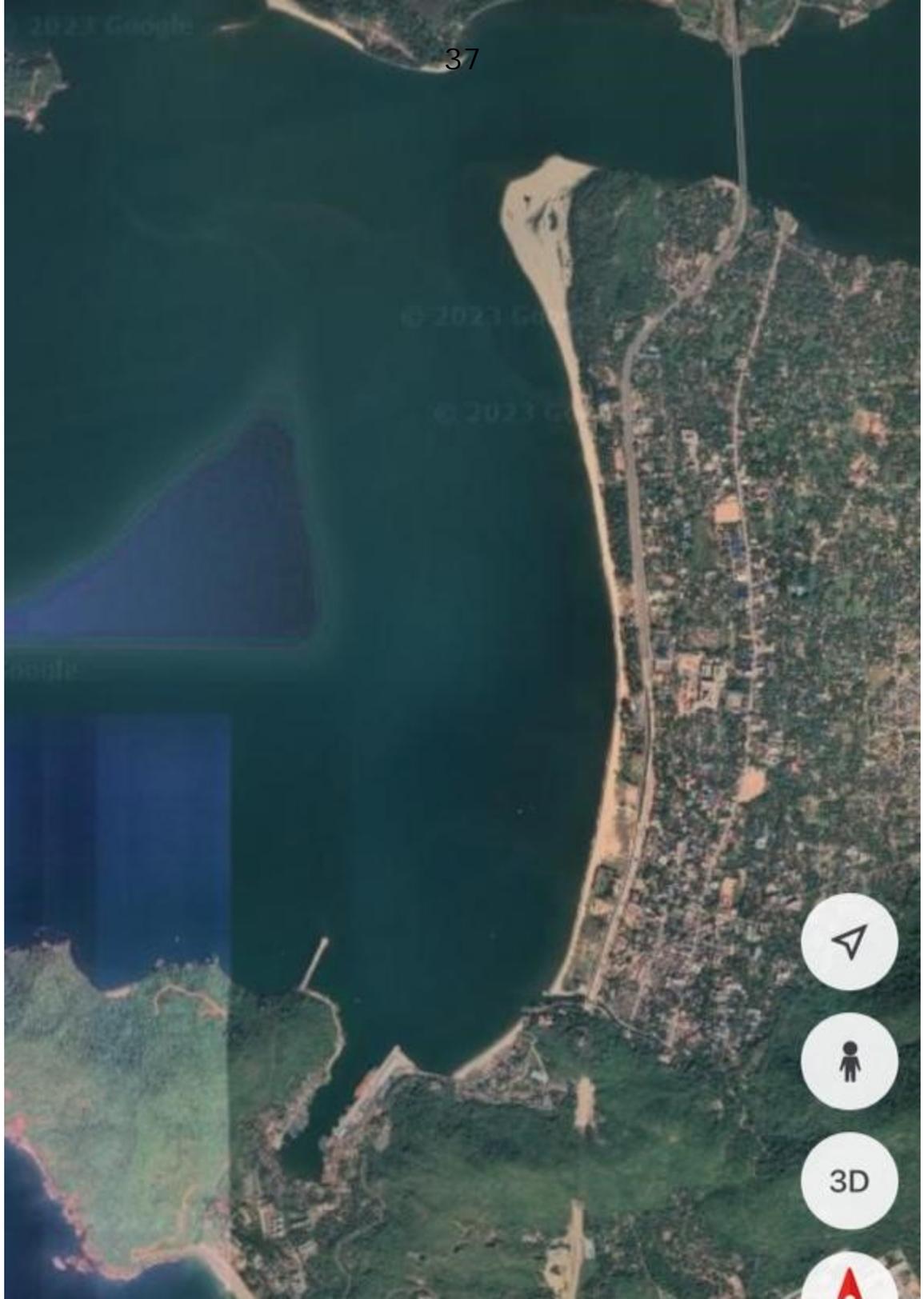
To,

Additional Deputy Commissioner and
Member Secretary,
Dr. Rabindranath Tagore
Beach Development and
Conservation Committee (Rgd),
Karwar.

Copy to:-

1. The Deputy Commissioner, Uttara Kannada District & Chairman, DCZMC, Karwar for information and necessary action.
2. The Regional Director (Env), Karwar for information.

Direction



ENVIRONMENTAL CHARACTERISTICS OF THE MARINE AND
ESTUARINE HABITATS OF KARWAR - AN OVERVIEW

U.G. BHAT, B. NEELAKANTAN, N. KUSUMA AND U.G. NAIK

Department of Marine Biology Karnatak University Kodibag, KARWAR 581303.

INTRODUCTION

The Karwar coast, on the central west coast of India (Fig.1) lies in the northern limits of the Uttara Kannada coast and is unique in many respects. A few rocky islands lie scattered in the inshore waters. The coast is predominantly rocky with relatively short stretches of sandy beaches and capes projecting into the sea. The coastline in this division is rugged. Karwar bay is one of the many sheltered coastal waters, frequented by three fringing islands at the bay mouth. Among the four rivers joining the sea in Uttara Kannada coast, the northernmost river Kali drains into Karwar bay at this northern boundary. The continental shelf extends to a width of about 96 kms. off Karwar. Sediment gradation at the sea bottom is from sandy near the inshore, to muddy farther away.

There has been a fairly good attempt to characterise the environmental features of the inshore, intertidal and estuarine habitats of Karwar (Annigeri, 1968, 1972, 1979; Ramamurthy, 1967; Noble, 1968; Harkantra, 1975; Ansari, 1978; Gopinath and Joseph 1980; Sudarshana, 1980, 1983; Sudarshana *et al*, 1988, Bhat, 1984, 1985, 1986; Naik, 1986 (a) and (b); Sujatha, 1987; Naik, 1987, Shetty *et al*, 1988; Neelakantan, *et al*, 1988; Veerayya and Pankajakshan, 1988 etc.). But the lack of an effort to compile and co-ordinate these results has been felt since long. Therefore, in this review, it has been attempted to delineate the environmental features of Karwar waters in the light of some of the previous investigations.

ENVIRONMENTAL FEATURE

As elsewhere on the Indian coastline, the environmental features of Karwar waters owe much of its variation to the

prevailing three major seasons namely pre-monsoon (February-May), monsoon (June-September) and post-monsoon (October-January). While the pre-monsoon season is identified by high temperature and salinity, the monsoon season is characterised by heavy rainfall, greater riverine discharge and consequent dilution of the inshore water. The post-monsoon season is known for stable environmental conditions and a high biological productivity.

The monsoon season in Karwar waters spreads over June through September. The onset is characterised by drastic changes in both meteorological and hydrological factors.

The prevailing winds are south westerly during the South West monsoon season with a velocity range between 1.3 and 10.8 knots while the north easterlies of North East monsoon period range from 0.7 to 3.5 knots. The winds are subjected to variation during October and March-May. The period of the year other than the two monsoons may be further divided into a cold dry season (December to February) and a summer (March to May), depending more on the profile of atmospheric temperature. While the cold dry season is characterised by a monthly range in air temperature between 18.7 and 32.0°C respectively (Gopinath and Joseph, 1980).

Currents : The major currents along the west coast of India are seen to be in association with the prevailing monsoons and the speed and direction of them are modulated by the coastal conformations (Sewell, 1929 & 1955; Ramamurthy, 1967). In the more open areas of the sea, the currents drift easterly during the North East monsoon period. The circulation near the coast during the peak of North East monsoon (November to January) is anticlockwise to the equator and flows north and north-westerly. From February to April when the North East monsoon weakens, the direction of the coastal current is reversed resulting in a clockwise circulation which is attributed to the formation of a current covered by temperature differences. With the onset of South West monsoon the clockwise circulation is strengthened.

The physical features of nearshore waters of Binge Bay (Fig.1) was studied by Gopinath and Joseph (1980). Very little change in the hydrographic properties with depth was observed except during August to October, when waters of low temperature (24°C), high salinity (35.5‰) and low dissolved oxygen (3 ml/L) were observed at depths more than 5 m. The resultant currents, compiled from hourly current data over a complete tidal cycle

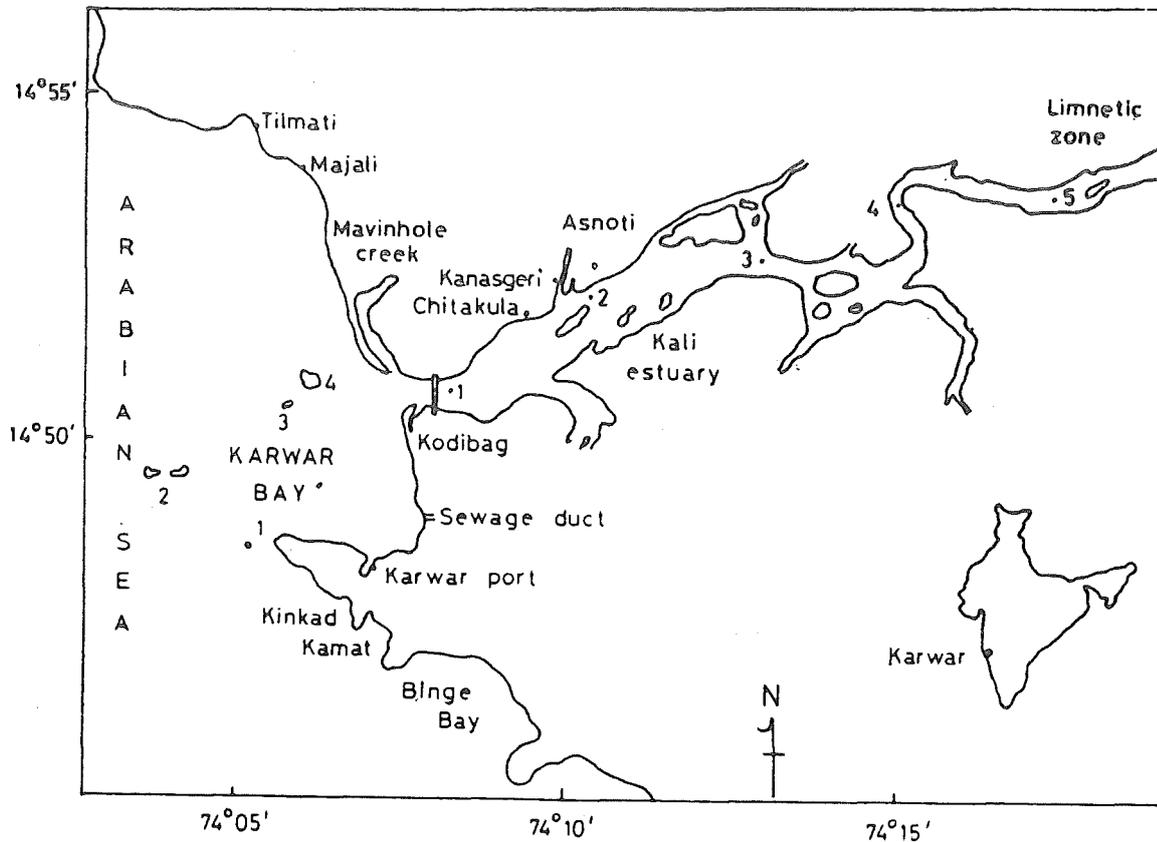


Fig.1 : Map of Karwar Region

at the inshore waters to be westerly in November, west north westerly in December, north westerly in January and south-easterly in September. The currents were relatively stronger (9.6 - 16.5 cm/sec) during November and December and weaker (3.7 to 5.8 cm/sec) during January and September. The resultant surface wind was strong (3.28 m/sec) and north-easterly in December and weak (0.24 m/sec) and northerly in September. Computed resulted speeds and directions of surface wind and currents near surface, middle depth and near bottom and percentage constancies during different months were also investigated.

Waves : Recently, the wave pattern of Karwar inshore region has been investigated by Veerayya and Pankajakshan (1988). They observed that certain stretches of open ocean beaches located on either side of Kali river and the headland bay beaches south of Karwar head experience relatively higher wave heights for IW and WSW waves, the latter being more prone to higher wave heights for waves from SW. The higher wave energy zones shift towards the central northern sectors of the beaches, as the direction of wave approach changes from WNW to SW. The northern and southern stretches of headland bay beaches receive partial shelter from the headlands for predominant waves approaching from northerly and southerly quadrants respectively. The Karwar port as well as a greater stretch of the Karwar-

Kodibag beach being on the lee side of Karwar head, receives good shelter for WSW and SW waves and only the extreme northern part of the Karwar beach is affected by these waves.

Further, they found that the converging currents observed for W and WSW waves along these open ocean beaches are similar to those identified along similar beaches on the west coast of India.

Hydrology of inshore waters : Annigeri (1968) was the first to carryout a comprehensive study of the seasonal distribution of temperature, salinity, oxygen, phosphates, nitrites and silicates in the inshore waters of Karwar Bay at surface, middle and bottom levels during 1964-1966. On similar lines he further continued his studies (1972-1979). The annual temperature values exhibited a bimodal distribution with the primary and secondary peaks in April/May and October/November periods, and their falls during August/September and December/January respectively. pH values varied around 8.2. Salinity which was very low during monsoon months, raised gradually towards the month of May. Dissolved oxygen exhibited a bimodal variation. Inorganic phosphorus recorded a single peak during September/October whereas the nitrite distribution did not have any annual rhythm. Silicate and salinity values exhibited an inverse relationship.

While investigating the plankton distribution, Naik (1986) noted a range in water temperature of 28.77 - 29.87°C in different localities of Karwar Bay. Salinity varied between 23.83 and 25.83‰ while dissolved oxygen and pH values did not show much variation in their values (4.59 - 4.69 ml/L and 8.2 respectively). Variation in the values of suspended load (0.67 - 0.73 gm/L), vertical extinction coefficient (1.70 - 2.67), Phosphate (0.43 - 0.65 ug at/L); Nitrite (0.33 - 0.42 ug at/L) and Silicate (87.79 - 157.49 ug at/L) were also recorded.

Bottom features of the bay : Sudarshana (1983), while investigating the benthic ecology of Karwar bay observed that the depth varied from 2 to 15 metres. Temperature and salinity of bottom waters attained highest values during March and May, being similar to the findings of Noble (1968) in these waters. The mean salinity observed was between 20.36 and 23.57‰. Temperature showed the mean lowest of 26.92°C in station 2 of Karwar bay (Fig.1). Better oxygenated conditions prevailed in all the stations, the range being 1.635 to 3.237 ml/L. The enormous supply of suspended load of SW monsoon by Kali estuary was found to be responsible for the decline in dissolved oxygen values.

Nutrient (Phosphate, Nitrate) concentrations were considerably high (P:0.56-2.85;N:0.84-2.14 ug at/L). Suspended load was as high as 0.306 gm/L during monsoon.

Colour of sediment was dark greyish green and the nature of bottom was sandy silt except near the estuarine mouth, where it was predominantly sandy. Organic matter content of sediment varied between 1.02 and 3.12%.

INTERTIDAL ENVIRONMENT

The Karwar beach has diversified habitats ranging from a near estuarine environment to a typical sandy beach of the open sea. The major changes occurring in the environment are during the monsoon season which is characterised by high precipitation.

Sujatha (1987) observed that the water quality of the surface water does not vary drastically along the beach. The seasonal changes in the hydrological parameters except during monsoon was considerably low. But some parameters like primary production nutrients and salinity are influenced by nutrient rich water from the Kali estuary and also from the sewage outfall resulting in high nutrient content and primary production and relatively low salinity in the region close to the sources.

She further noted that the slope of the beach and sediment characteristics of the study stations vary widely. The northern part of the beach comprises of coarser to medium sized grains while the southern part of the beach had a higher percentage of medium and fine sand grains. She attributed it to the tidal currents coupled with estuarine currents, which demarcates geologically the Karwar beach into two regions. These changes are not only brought about by the physical parameters like waves, tide etc., but also due to human activity like dredging and reclamation of land. The eroding activity of estuarine current is also fairly evident, especially in the northern part of the beach as it is indicated by the low gradient of the intertidal region.

The case study of an intertidal stretch, 1 km. south of estuarine mouth (Naik, 1987) revealed that the area is more of an accretion or constructive beach than erosion and the beach is predominantly sandy in nature. Accretion and erosion occurred simultaneously during pre-monsoon and early monsoon period (January-July) whereas peak monsoon period (August) marked

the period of continuous accretion, followed by a post-monsoon erosion phase (September-October). He came across a subtidal depression, followed by a sand bar parallel to the shoreline, and protrusion of the shoreline towards the north of the study site, which are indications of the presense of probable longshore current and a rip current at the study site. He attributed the high range in salinity (2.23 - 27.5‰) and dissolved oxygen values (2.9 - 4.12 ml/L) of the intertidal water, to the massive monsoon discharge of Kali estuary.

The spatial and temporal changes in the foreshore zone of the same intertidal stretch by an earlier group of investigators (Sudarshana *et al*, 1983) exhibits the active hydrodynamic processes in its foreshore area. Short variations in space and time within the foreshore fractions of various beach profiles were described by them with their correlations to waves and tides.

A city sewage duct emptying about 1,87,000 litre/day of untreated domestic sewage is seen at the southern limits of Karwar beach (Fig.1) and its impacts on the intertidal environment has been studied recently (Shetty *et al*, 1988). The sewage is characterised by human refuse, excreta, animal waste etc. During the summer season it imparts foul smell all around, whereas during rainy season it gets diluted substantially and makes the flow uninterrupted. The physico-chemical features recorded at the sewage disposal site reveals that it is strong enough to enhance the nutrient budget of the disposal site and nearby waters.

ESTUARINE ENVIRONMENT

Among the four estuarine systems of Uttara Kannada coast, Kali is the major one, which spreads approximately 23 kms. in axis, draining into the Karwar Bay (Fig.1). Its terrigenous transport into the coastal waters has been found to enhance the nutrient budget of the area, consequently supporting a rich biological production. Accordingly, several workers have investigated the estuarine environment for characterising the water, sediment and biological components (Harkantra, 1975; Bhat, 1984 Naik, 1986; Neelakantan *et al*, 1988 etc.).

The seasonal variation in various parameters Neelakantan *et al* (1988) reveals that temperature was comparatively low during monsoon (20.63 - 28.04°C), increasing during post-monsoon (27.13 - 31.20°C) and reaching maximum in the pre-monsoon (30.20 - 33.55°C) period. Salinity was high during pre-monsoon

season (mean value was 16.21 ‰), with lesser values observed during monsoon (5.51 ‰) and post-monsoon periods (11.03‰). Dissolved oxygen values varied between 2.76 - 5.29 ml/L, with moderately high values during monsoon (4.36 ml/L) and post-monsoon (4.02 ml/L) seasons. An increasing trend in suspended load values was noticed from pre-monsoon (0.0965 g/L) to monsoon (0.3349 g/L) with intermittent values in post-monsoon (0.1085 g/L) period. The nutrient budget was influenced by south-west monsoon, with the high silicate values at the upper stretches of the estuary (Neelakantan *et al*, 1988).

While studying the hydrology of bottom waters of Kali, Bhat (1985) has observed that temperature and salinity had similar trends of variation while salinity and silicate values had an inverse relationship. Primary production increased in the post-monsoon period to reach its peak in November, following that of the nutrients. Peak of primary production was followed by that of suspended load which he has attributed to the sinking of organic matter and detritus, produced in the water column. He concluded that post-monsoon (September-December) is the period when the estuarine water gets enriched with nutrients and basic food.

The sediment nature of estuarine bed varied from sandy silt (at stations 1, 3 & 4) to sandy (at stations 2 & 5) and the sandy silt sediment was found to contain comparatively higher concentration of organic matter (4.06%) and interstitial water (33.04 %) as observed by Bhat (1985). Further, stations 1, 3 and 4 (Fig.1) had comparatively well sorted sediment than that of stations 2 and 5. The sediment grain size ranged from 0.03 mm (at station 4) to 0.22 mm (at station 1).

FUTURE PROSPECTS

Of late, the inshore intertidal and estuarine waters of Karwar have been found to be subjected to greater and greater stress (Fig.2). With the establishment of an all weather port during 1987, the dredging of a channel became inevitable. This resulted in increased wave energy acting upon the adjacent intertidal region and the subsequent mass erosion of beach, especially during the south-west monsoon season. Needless to say, the sediment nature of the area would necessarily alter due to intense dredging activity, making the bottom inhospitable for the existing life forms. Also, due to the increased activity of fishing and commercial water crafts, the impairment of inshore waters is becoming manifold (Fig.2.)

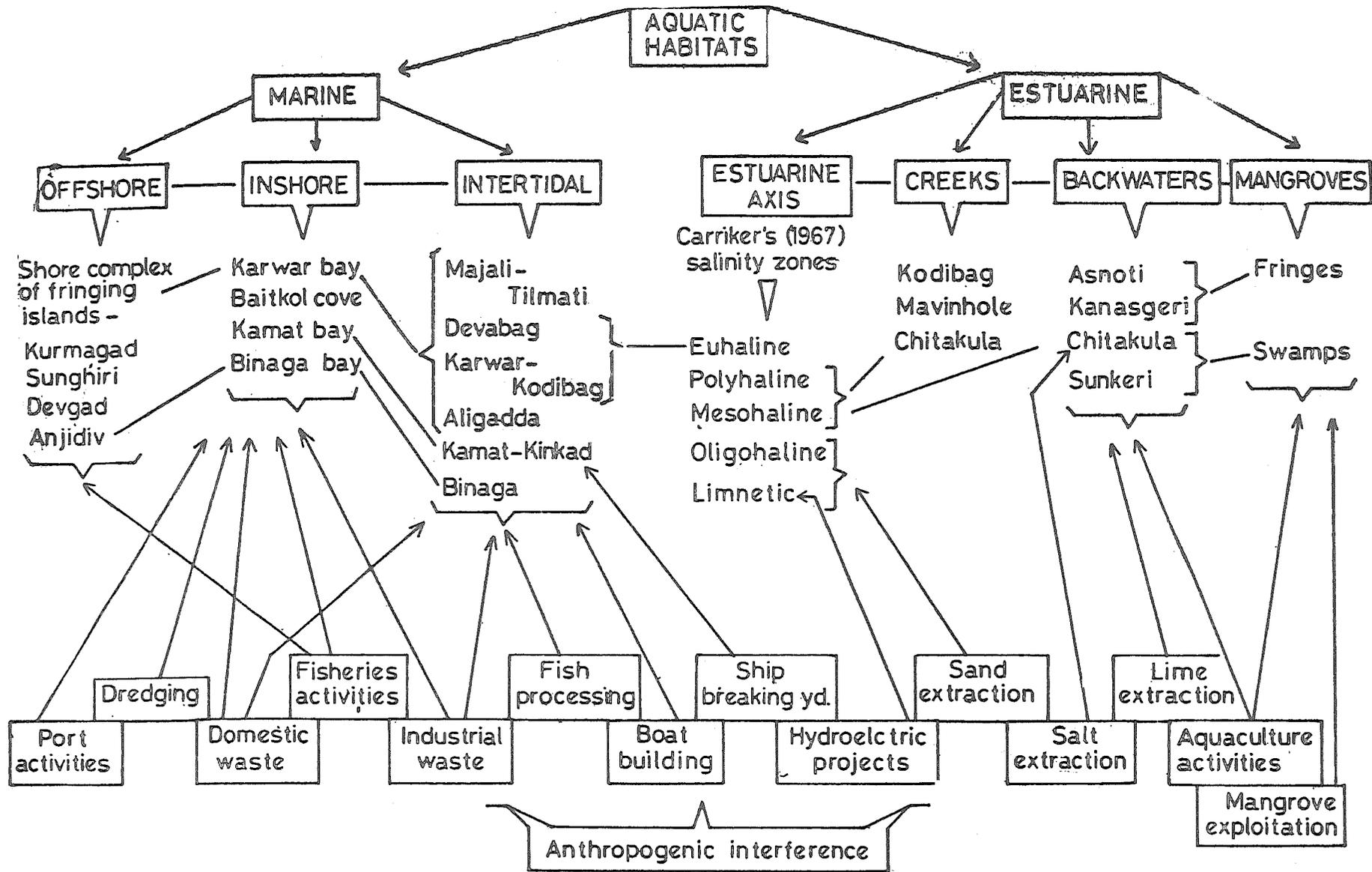


Fig. 2 : Schematic representation of the habitat coherence and anthropogenic interference in the marine and estuarine habitats of Karwar.

While considering the industrial wastes, there exists only a single caustic soda factory, emptying its effluents into the Binaga Bay of Karwar, the impacts of which on the inshore waters is worth monitoring. Other sources of wastes are the fish processing centres and domestic sewage, both of which are bound to increase at the instance of increased fishing activity and enhanced urban habitation.

If the Karwar coast is well known for a lucrative fishery resource, it owes much to the Kali estuary, which serves as an ideal nursery ground for the young-ones of the fin-fish and shell-fish (Nagaraj and Neelakantan, 1982). But very recently it has been observed that the salinity profile is gradually changing, which is attributed by the altered freshwater discharge, affected by the hydro-electric projects established near the distal end of the estuary (Fig.2). In the near future it may lead to shifting of the productive mangrove environments (nursery grounds), thereby affecting the fish and shell-fish seed resources of the locality.

Yet another impact of the developmental projects that are being undertaken in the Karwar region is the indiscriminate exploitation of river sand for the purpose of erecting concrete structures. This, apart from interfering with the natural flow pattern of the estuary, may finally alter the topography, sediment nature and productivity of low lying areas.

It can be concluded by stating that, due to more and more anthropogenic influence on the diversified habitats of Karwar (Fig.2), there is a drastic change in the overall environment, over a period of time. The alleged decline of commercial fishing resources of the coast, though not entirely but partially can be attributed to the impairment of the environment through human interference. Added to this, some more major development projects such as 'Sea bird' naval project and Kaiga atomic power plant are coming up. Under these circumstances, the present review would serve as a document of the past history in order to monitor the unhealthy alterations of the environment in future.

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PREAMBLE

The States Parties to this Convention,

Prompted by the desire to settle, in a spirit of mutual understanding and cooperation, all issues relating to the law of the sea and aware of the historic significance of this Convention as an important contribution to the maintenance of peace, justice and progress for all peoples of the world,

Noting that developments since the United Nations Conferences on the Law of the Sea held at Geneva in 1958 and 1960 have accentuated the need for a new and generally acceptable Convention on the law of the sea,

Conscious that the problems of ocean space are closely interrelated and need to be considered as a whole,

Recognizing the desirability of establishing through this Convention, with due regard for the sovereignty of all States, a legal order for the seas and oceans which will facilitate international communication, and will promote the peaceful uses of the seas and oceans, the equitable and efficient utilization of their resources, the conservation of their living resources, and the study, protection and preservation of the marine environment,

Bearing in mind that the achievement of these goals will contribute to the realization of a just and equitable international economic order which takes into account the interests and needs of mankind as a whole and, in particular, the special interests and needs of developing countries, whether coastal or land-locked,

Desiring by this Convention to develop the principles embodied in resolution 2749 (XXV) of 17 December 1970 in which the General Assembly of the United Nations solemnly declared *inter alia* that the area of the seabed and ocean floor and the subsoil thereof, beyond the limits of national jurisdiction, as well as its resources, are the common heritage of mankind, the exploration and exploitation of which shall be carried out for the benefit of mankind as a whole, irrespective of the geographical location of States,

Believing that the codification and progressive development of the law of the sea achieved in this Convention will contribute to the strengthening of peace, security, cooperation and friendly relations among all nations in conformity with the principles of justice and equal rights and will promote the economic and social advancement of all peoples of the world, in accordance with the Purposes and Principles of the United Nations as set forth in the Charter,

Affirming that matters not regulated by this Convention continue to be governed by the rules and principles of general international law,

Have agreed as follows:

PART I

INTRODUCTION

Article 1 *Use of terms and scope*

1. For the purposes of this Convention:
 - (1) "Area" means the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction;
 - (2) "Authority" means the International Seabed Authority;
 - (3) "activities in the Area" means all activities of exploration for, and exploitation of, the resources of the Area;
 - (4) "pollution of the marine environment" means the introduction by man, directly or indirectly, of substances or energy into the marine environment, including estuaries, which results or is likely to result in such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities;
 - (5) (a) "dumping" means:
 - (i) any deliberate disposal of wastes or other matter from vessels, aircraft, platforms or other man-made structures at sea;
 - (ii) any deliberate disposal of vessels, aircraft, platforms or other man-made structures at sea;
 - (b) "dumping" does not include:
 - (i) the disposal of wastes or other matter incidental to, or derived from the normal operations of vessels, aircraft, platforms or other man-made structures at sea and their equipment, other than wastes or other matter transported by or to vessels, aircraft, platforms or other man-made structures at sea, operating for the purpose of disposal of such matter or derived from the treatment of such wastes or other matter on such vessels, aircraft, platforms or structures;
 - (ii) placement of matter for a purpose other than the mere disposal thereof, provided that such placement is not contrary to the aims of this Convention.
2. (1) "States Parties" means States which have consented to be bound by this Convention and for which this Convention is in force.
 - (2) This Convention applies *mutatis mutandis* to the entities referred to in article 305, paragraph 1(b), (c), (d), (e) and (f), which become Parties to this Convention in accordance with the conditions relevant to each, and to that extent "States Parties" refers to those entities.

PART II
TERRITORIAL SEA AND CONTIGUOUS ZONE

SECTION 1. GENERAL PROVISIONS

Article 2

*Legal status of the territorial sea, of the air space
over the territorial sea and of its bed and subsoil*

1. The sovereignty of a coastal State extends, beyond its land territory and internal waters and, in the case of an archipelagic State, its archipelagic waters, to an adjacent belt of sea, described as the territorial sea.
2. This sovereignty extends to the air space over the territorial sea as well as to its bed and subsoil.
3. The sovereignty over the territorial sea is exercised subject to this Convention and to other rules of international law.

SECTION 2. LIMITS OF THE TERRITORIAL SEA

Article 3

Breadth of the territorial sea

Every State has the right to establish the breadth of its territorial sea up to a limit not exceeding 12 nautical miles, measured from baselines determined in accordance with this Convention.

Article 4

Outer limit of the territorial sea

The outer limit of the territorial sea is the line every point of which is at a distance from the nearest point of the baseline equal to the breadth of the territorial sea.

Article 5

Normal baseline

Except where otherwise provided in this Convention, the normal baseline for measuring the breadth of the territorial sea is the low-water line along the coast as marked on large-scale charts officially recognized by the coastal State.

Article 6

Reefs

In the case of islands situated on atolls or of islands having fringing reefs, the baseline for measuring the breadth of the territorial sea is the seaward low-water line of the reef, as shown by the appropriate symbol on charts officially recognized by the coastal State.

Article 7
Straight baselines

1. In localities where the coastline is deeply indented and cut into, or if there is a fringe of islands along the coast in its immediate vicinity, the method of straight baselines joining appropriate points may be employed in drawing the baseline from which the breadth of the territorial sea is measured.

2. Where because of the presence of a delta and other natural conditions the coastline is highly unstable, the appropriate points may be selected along the furthest seaward extent of the low-water line and, notwithstanding subsequent regression of the low-water line, the straight baselines shall remain effective until changed by the coastal State in accordance with this Convention.

3. The drawing of straight baselines must not depart to any appreciable extent from the general direction of the coast, and the sea areas lying within the lines must be sufficiently closely linked to the land domain to be subject to the regime of internal waters.

4. Straight baselines shall not be drawn to and from low-tide elevations, unless lighthouses or similar installations which are permanently above sea level have been built on them or except in instances where the drawing of baselines to and from such elevations has received general international recognition.

5. Where the method of straight baselines is applicable under paragraph 1, account may be taken, in determining particular baselines, of economic interests peculiar to the region concerned, the reality and the importance of which are clearly evidenced by long usage.

6. The system of straight baselines may not be applied by a State in such a manner as to cut off the territorial sea of another State from the high seas or an exclusive economic zone.

Article 8
Internal waters

1. Except as provided in Part IV, waters on the landward side of the baseline of the territorial sea form part of the internal waters of the State.

2. Where the establishment of a straight baseline in accordance with the method set forth in article 7 has the effect of enclosing as internal waters areas which had not previously been considered as such, a right of innocent passage as provided in this Convention shall exist in those waters.

Article 9
Mouths of rivers

If a river flows directly into the sea, the baseline shall be a straight line across the mouth of the river between points on the low-water line of its banks.

Article 10
Bays

1. This article relates only to bays the coasts of which belong to a single State.

2. For the purposes of this Convention, a bay is a well-marked indentation whose penetration is in such proportion to the width of its mouth as to contain land-locked waters and constitute more than a mere curvature of the coast. An indentation shall not, however, be regarded as a bay unless its area is as large as, or larger than, that of the semi-circle whose diameter is a line drawn across the mouth of that indentation.

3. For the purpose of measurement, the area of an indentation is that lying between the low-water mark around the shore of the indentation and a line joining the low-water mark of its natural entrance points. Where, because of the presence of islands, an indentation has more than one mouth, the semi-circle shall be drawn on a line as long as the sum total of the lengths of the lines across the different mouths. Islands within an indentation shall be included as if they were part of the water area of the indentation.

4. If the distance between the low-water marks of the natural entrance points of a bay does not exceed 24 nautical miles, a closing line may be drawn between these two low-water marks, and the waters enclosed thereby shall be considered as internal waters.

5. Where the distance between the low-water marks of the natural entrance points of a bay exceeds 24 nautical miles, a straight baseline of 24 nautical miles shall be drawn within the bay in such a manner as to enclose the maximum area of water that is possible with a line of that length.

6. The foregoing provisions do not apply to so-called "historic" bays, or in any case where the system of straight baselines provided for in article 7 is applied.

Article 11
Ports

For the purpose of delimiting the territorial sea, the outermost permanent harbour works which form an integral part of the harbour system are regarded as forming part of the coast. Off-shore installations and artificial islands shall not be considered as permanent harbour works.

Article 12
Roadsteads

Roadsteads which are normally used for the loading, unloading and anchoring of ships, and which would otherwise be situated wholly or partly outside the outer limit of the territorial sea, are included in the territorial sea.

Article 13
Low-tide elevations

1. A low-tide elevation is a naturally formed area of land which is surrounded by and above water at low tide but submerged at high tide. Where a low-tide elevation is situated wholly or partly at a distance not exceeding the breadth of the territorial sea from the mainland or an island, the low-water line on that elevation may be used as the baseline for measuring the breadth of the territorial sea.

2. Where a low-tide elevation is wholly situated at a distance exceeding the breadth of the territorial sea from the mainland or an island, it has no territorial sea of its own.

Article 14
Combination of methods for determining baselines

The coastal State may determine baselines in turn by any of the methods provided for in the foregoing articles to suit different conditions.

Article 15
Delimitation of the territorial sea between States with opposite or adjacent coasts

Where the coasts of two States are opposite or adjacent to each other, neither of the two States is entitled, failing agreement between them to the contrary, to extend its territorial sea beyond the median line every point of which is equidistant from the nearest points on the baselines from which the breadth of the territorial seas of each of the two States is measured. The above provision does not apply, however, where it is necessary by reason of historic title or other special circumstances to delimit the territorial seas of the two States in a way which is at variance therewith.

Article 16
Charts and lists of geographical coordinates

1. The baselines for measuring the breadth of the territorial sea determined in accordance with articles 7, 9 and 10, or the limits derived therefrom, and the lines of delimitation drawn in accordance with articles 12 and 15 shall be shown on charts of a scale or scales adequate for ascertaining their position. Alternatively, a list of geographical coordinates of points, specifying the geodetic datum, may be substituted.

2. The coastal State shall give due publicity to such charts or lists of geographical coordinates and shall deposit a copy of each such chart or list with the Secretary-General of the United Nations.

SECTION 3. INNOCENT PASSAGE IN THE TERRITORIAL SEA

SUBSECTION A. RULES APPLICABLE TO ALL SHIPS

Article 17
Right of innocent passage

Subject to this Convention, ships of all States, whether coastal or land-locked, enjoy the right of innocent passage through the territorial sea.

Article 18
Meaning of passage

1. Passage means navigation through the territorial sea for the purpose of:
 - (a) traversing that sea without entering internal waters or calling at a roadstead or port facility outside internal waters; or
 - (b) proceeding to or from internal waters or a call at such roadstead or port facility.
2. Passage shall be continuous and expeditious. However, passage includes stopping and anchoring, but only in so far as the same are incidental

to ordinary navigation or are rendered necessary by *force majeure* or distress or for the purpose of rendering assistance to persons, ships or aircraft in danger or distress.

Article 19
Meaning of innocent passage

1. Passage is innocent so long as it is not prejudicial to the peace, good order or security of the coastal State. Such passage shall take place in conformity with this Convention and with other rules of international law.

2. Passage of a foreign ship shall be considered to be prejudicial to the peace, good order or security of the coastal State if in the territorial sea it engages in any of the following activities:

- (a) any threat or use of force against the sovereignty, territorial integrity or political independence of the coastal State, or in any other manner in violation of the principles of international law embodied in the Charter of the United Nations;
- (b) any exercise or practice with weapons of any kind;
- (c) any act aimed at collecting information to the prejudice of the defence or security of the coastal State;
- (d) any act of propaganda aimed at affecting the defence or security of the coastal State;
- (e) the launching, landing or taking on board of any aircraft;
- (f) the launching, landing or taking on board of any military device;
- (g) the loading or unloading of any commodity, currency or person contrary to the customs, fiscal, immigration or sanitary laws and regulations of the coastal State;
- (h) any act of wilful and serious pollution contrary to this Convention;
- (i) any fishing activities;
- (j) the carrying out of research or survey activities;
- (k) any act aimed at interfering with any systems of communication or any other facilities or installations of the coastal State;
- (l) any other activity not having a direct bearing on passage.

Article 20
Submarines and other underwater vehicles

In the territorial sea, submarines and other underwater vehicles are required to navigate on the surface and to show their flag.

Article 21
Laws and regulations of the coastal State relating to innocent passage

1. The coastal State may adopt laws and regulations, in conformity with the provisions of this Convention and other rules of international law, relating to innocent passage through the territorial sea, in respect of all or any of the following:

- (a) the safety of navigation and the regulation of maritime traffic;
- (b) the protection of navigational aids and facilities and other facilities or installations;
- (c) the protection of cables and pipelines;

- (d) the conservation of the living resources of the sea;
- (e) the prevention of infringement of the fisheries laws and regulations of the coastal State;
- (f) the preservation of the environment of the coastal State and the prevention, reduction and control of pollution thereof;
- (g) marine scientific research and hydrographic surveys;
- (h) the prevention of infringement of the customs, fiscal, immigration or sanitary laws and regulations of the coastal State.

2. Such laws and regulations shall not apply to the design, construction, manning or equipment of foreign ships unless they are giving effect to generally accepted international rules or standards.

3. The coastal State shall give due publicity to all such laws and regulations.

4. Foreign ships exercising the right of innocent passage through the territorial sea shall comply with all such laws and regulations and all generally accepted international regulations relating to the prevention of collisions at sea.

Article 22

Sea lanes and traffic separation schemes in the territorial sea

1. The coastal State may, where necessary having regard to the safety of navigation, require foreign ships exercising the right of innocent passage through its territorial sea to use such sea lanes and traffic separation schemes as it may designate or prescribe for the regulation of the passage of ships.

2. In particular, tankers, nuclear-powered ships and ships carrying nuclear or other inherently dangerous or noxious substances or materials may be required to confine their passage to such sea lanes.

3. In the designation of sea lanes and the prescription of traffic separation schemes under this article, the coastal State shall take into account:

- (a) the recommendations of the competent international organization;
- (b) any channels customarily used for international navigation;
- (c) the special characteristics of particular ships and channels; and
- (d) the density of traffic.

4. The coastal State shall clearly indicate such sea lanes and traffic separation schemes on charts to which due publicity shall be given.

Article 23

Foreign nuclear-powered ships and ships carrying nuclear or other inherently dangerous or noxious substances

Foreign nuclear-powered ships and ships carrying nuclear or other inherently dangerous or noxious substances shall, when exercising the right of innocent passage through the territorial sea, carry documents and observe special precautionary measures established for such ships by international agreements.

Article 24
Duties of the coastal State

1. The coastal State shall not hamper the innocent passage of foreign ships through the territorial sea except in accordance with this Convention. In particular, in the application of this Convention or of any laws or regulations adopted in conformity with this Convention, the coastal State shall not:

- (a) impose requirements on foreign ships which have the practical effect of denying or impairing the right of innocent passage; or
- (b) discriminate in form or in fact against the ships of any State or against ships carrying cargoes to, from or on behalf of any State.

2. The coastal State shall give appropriate publicity to any danger to navigation, of which it has knowledge, within its territorial sea.

Article 25
Rights of protection of the coastal State

1. The coastal State may take the necessary steps in its territorial sea to prevent passage which is not innocent.

2. In the case of ships proceeding to internal waters or a call at a port facility outside internal waters, the coastal State also has the right to take the necessary steps to prevent any breach of the conditions to which admission of those ships to internal waters or such a call is subject.

3. The coastal State may, without discrimination in form or in fact among foreign ships, suspend temporarily in specified areas of its territorial sea the innocent passage of foreign ships if such suspension is essential for the protection of its security, including weapons exercises. Such suspension shall take effect only after having been duly published.

Article 26
Charges which may be levied upon foreign ships

1. No charge may be levied upon foreign ships by reason only of their passage through the territorial sea.

2. Charges may be levied upon a foreign ship passing through the territorial sea as payment only for specific services rendered to the ship. These charges shall be levied without discrimination.

**SUBSECTION B. RULES APPLICABLE TO
MERCHANT SHIPS AND GOVERNMENT SHIPS
OPERATED FOR COMMERCIAL PURPOSES**

Article 27
Criminal jurisdiction on board a foreign ship

1. The criminal jurisdiction of the coastal State should not be exercised on board a foreign ship passing through the territorial sea to arrest any person or to conduct any investigation in connection with any crime committed on board the ship during its passage, save only in the following cases:

- (a) if the consequences of the crime extend to the coastal State;







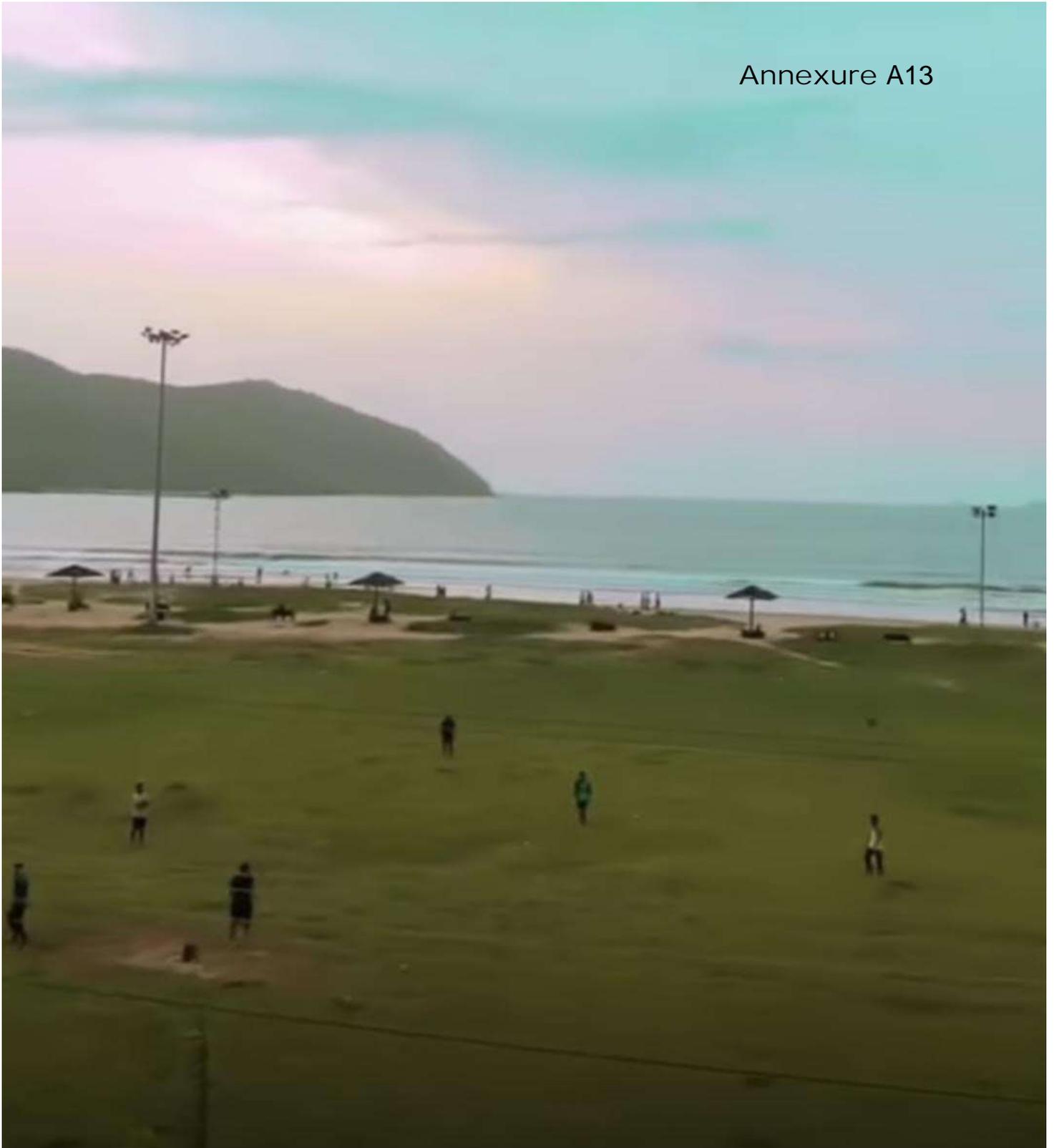
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Annexure A11



Annexure A13



Annexure A14







Annexure A17



Annexure A18



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Annexure A19

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