Abstract

The Government of India published the Coastal Regulation Zone (CRZ) Notification in 1991, approved the Coastal Zone Management Plan (CZMP) in 1996, and appointed the Kerala State Coastal Zone Management Authority (KCZMA) for implementing it in 1998. After two decades of its coming into being, the government says there are 26,000 buildings constructed in violation of the CRZ Rules in the State. Ernakulam district in the Central Kerala with a CRZ area of about 80 km$^2$ has 4200 violations, which means one violation per 20,000 m$^2$ of the CRZ land. A sizeable number of these violations have the signature of the Kerala High Court’s 2003 judgment in the petition filed by an activist against a hospital constructed on reclaimed CRZ land. The case was dismissed on the strength of three false statements presented by the counsel of the KCZMA. His presentation that the CZMP maps are not useful for assessing the CRZ status and more accurate maps are under preparation saved the building from demolition. However, the process demolished the CZMP and sent a soothing message on the burial of CRZ Rules to the builders and the buyers. The families who owned 325 apartments demolished by Maradu Municipality in January 2020 are among its recent victims. This paper explores the court drama, exposes the role of KCZMA in sabotaging the litigation and analyses the post-verdict performance of CRZ management in Kerala.
1. **Introduction**

1.1 The Government of India (GoI), Ministry of Environment, Forest and Climate Change (MoEFCC) issued the Coastal Regulation Zone (CRZ) Notification in 1991 to protect and conserve the coastal areas and the tidal influenced water bodies of the country. No new construction would be permitted within 500 metres of the High Tide Line (HTL) of CRZ-I consisting of ecologically sensitive coastal areas, fish breeding grounds, places of outstanding natural beauty and bio-diversity, and areas likely to experience the global-warming induced sea level rise.

1.2 For Kerala State, the implementing agency was the Kerala State Council for Science, Technology and Environment (KSCSTE), an autonomous body under the Government of Kerala (GoK). The Centre for Earth Science Studies (CESS, now the National Centre for Earth Science Studies – NCESS) prepared the Coastal Zone Management Plan (CZMP) consisting of 109 map sheets in 81 plates in 1995 under a contract from the KSCSTE. The MoEFCC approved the State’s CZMP in 1996.

1.3 There were criticisms against the pro-industry bias and anti-conservation outlook of the GoK within the first decade of CRZ Notification. In the first in-depth analysis of the implementation of CRZ Rules in Kerala, Chandanathil Pappachan Geevan wrote in 1996 that “despite political and ideological postures, the approach of different state governments is marked by a convergence with the views of the tourism industry which is set on a path of cultural and ecological destruction of the coast. On the enforcement of environmental Acts which is in the domain of the state government, Geevan said:

“The state government’s declared opposition to the law should be of serious concern to citizens. It also brings to the fore the need for independent regulatory authority in enforcing environmental protection laws. It is one thing for the state government to differ with the provisions at the appropriate time and quite another to side with those who want to violate the law!”

1.4 MoEFCC constituted the Kerala State Coastal Zone Management Authority (KCZMA) consisting of three administrative officers and four scientists in 1998. KCZMA was under the technical and administrative control of the KSCSTE and its principal secretary and the member secretary held the posts of KCZMA’s chairman and member secretary respectively till March 2016.
2. Lakeshore Hospital and Research Centre, Maradu, Kochi

2.1 In July 1996 the Lakeshore Hospital & Research Centre Pvt. Ltd started construction of a 10 storied, modern, well equipped, multispecialty hospital with 350 beds in Maradu village near Kochi, investing Rs 500 million. The Company received the licence to run the Hospital on 14\textsuperscript{th} November 2002.

2.2 The site is located on the shores of the Vembanad Lake, a Ramsar site and a beautiful wetland eco-system, which attracts thousands of migratory birds and tourists. The location of the buildings in the Google Earth image of 27 Sep 2002 is given in Figure A below. Tide-influenced water bodies can be seen on the North, East and South of the property. The Nettoor stream is 140 m to the East of the property and a 950 m long/ 25 m wide canal that connects the stream to the Kochi Backwaters is the northern boundary of the site. National Highway (NH) No 66 can be seen crossing this canal on the Western half of the image. The image dated 23 Feb 19 (Figure B) shows site as it is now.

\textbf{Google Earth Image 27 Sep 2002 and 23 Feb 2019}

2.3 Figure C is extracted from the 1996 CZMP Map No 33A for Maradu village. The meeting point of the canal and the NH66 can be seen on the N-W quadrangle in the map. The location of the hospital is in the area marked as FP (Filtration Pond- fish breeding ground) and therefore a Non Development Zone (NDZ) of CRZ I. Nettoor Stream to the East of the FP is also marked in the map. The construction is illegal as (i) the site in an FP, (ii) the canal on the Northern boundary and (iii) Nettoor stream, 140 m to the East. An extract of the CZMP map as per the CRZ Notification-2011, approved by the MoEFCC in February 2019 is shown as Figure 4. The filtration pond in the 1996 map has disappeared in 2019 map, which is proof of massive reclamations since 1995.
3 Complaint and Petitions in the High Court of Kerala

3.1 On receipt of a complaint from AC Antony, a resident of Maradu village and convenor of the Citizens Interest Agency, the KCZMA directed the Maradu Panchayat (village council) to take action against the builder on 22 October 2001. Some nine months later, the KCZMA reversed its position and forwarded an application for CRZ clearance of the project to the National CZMA “as a special case”. The ‘speciality’ of the case and the fate of this application are not known.

3.2 Antony then filed a petition (O.P. 34936 of 2001) in Kerala High Court against the hospital and a car show room (Moopans Motors) alleging CRZ violations on 17 Dec 2001. In another petition dated 30 Oct 2002, (OP No 32025 of 2002) Moopans Motors alleged that the Map No 33A of CZMP of Kerala, “is totally contrary to the facts, and it is, thus, illegal and should be quashed.” These two and four other related petitions were heard by a Division Bench of the Honourable Chief Justice Jawaharlal Gupta and Justice M. Ramachandran on 19 Feb 2003. The respondents were (1) MoEFCC- GoI, (2) GoK, (3) Maradu Municipality (4) KCZMA (5) KSCSTE, and (6) CESS, and three builders.
4. Disposal of the Petitions

4.1 The Bench dismissed the petition on three grounds, viz., (a) lack of clarity in the CZMP Maps, (b) the canal on the northern boundary is man-made and (c) the petitioners could not prove the alleged reclamation of land. Brief details of the grounds and comments on them are given below:

(a) Ground 1- clarity of the CZMP Maps –Paragraph No 33 of the judgment:

“33. Mr. Rajan Joseph learned Additional Advocate General appearing for the official respondents, states that the original plan (CZMP) was prepared on the basis of the plan given by the Survey of India and the Satellite imageries. These plans are prepared in 1:12,500 and 1:50,000 scale. He points out that depicting an area of 12,500 sq. km. in one inch is a difficult job. In view of this situation, the Government is preparing cadastral plans. Thereafter, a fresh plan and map shall be issued. In view of the factual position, learned Counsel states that the three petitions are premature.” (Italics added)

Comments on Para 33

A Map Scale refers to the relationship (or ratio) between the distance on a map and the corresponding distance on the ground. Since it is a ratio, if the first number is inch the second number also is an inch. In a 1:12,500 scale map one inch on the map is equal to 12,500 inches or 318 m on the ground. NOT 12,500 sq km as claimed by the KCZMA.

(b) Ground -2: New maps under preparation. Paragraphs No 6 of the judgment

“6. Hence, it will be difficult to arrive at exact conclusions on the CRZ status of the disputed area. The MoEFCC has directed the State Government to prepare local level CRZ maps in cadastral scale (1:3960 or the nearest scale) to ascertain the Coastal Regulation Zone. The actual status of the disputed construction can be “ascertained only with the help of such large scale map which has not been prepared for this purpose”.
Comments on Para 6

Though the MoEFCC had directed the state governments to prepare cadastral scale maps, it did not cancel or freeze the 1996 CZMP maps. Again, in 2003 the Government was not preparing the cadastral maps for CZMP. This work began after the publication of the CRZ Notification-2011 and CZMP-2011.

Ground- 3: Water bodies near and around the Property - Para 22 of the judgment

“22. A copy of the (building) plan has been produced. A perusal of this plan shows that Nettoor River runs at a considerable distance from the buildings. However, there is a canal passing by the side of the buildings. This canal, according to the counter-affidavit filed by CZMA, the 4th respondent, is a man-made canal.” (Italics added)

Comments on Para 22

i. **Nettoor River**: The distance between the eastern boundary of the plot and the Nettoor River is 140 m, far below the CRZ-I limit of 500 m from high tide line (HTL).

ii. **Man-made Canals**: There are several human-made canals which connect various natural lakes and rivers in Kerala. There is no exception for man-made canals in any of the three CRZ Notifications issued so far. Human-made canals are included as CRZ areas in the new CZMP maps based on CRZ Notification-2011 also. For instance, in the 2011 CZMP of Malappuram district, the Conolly Canal dug during 19th century is marked as CRZ (tide influenced water body).

4.2 **Quality of Kerala’s CZMP Maps.**

The 1996 CZMP maps had several limitations, which have been studied in details. However, the maps of Kerala CZMP were not as bad as projected by the KCZMA. For determining the high tide line (HTL), other coastal states in India used the High Water Line (HWL) in the Survey of India (SoI) Toposheets, marked in the surveys conducted during fair weather. HTLs in Keralas CZMP were marked during the monsoon season in 1995. In a comparative study of CZMPs of all coastal States in India, D. Nandakumar and M. Muralikrishna,(1999)
praise the Kerala CZMP as a unique one, “well appreciated by the MoEFCC”. Excerpts from their report:

“Except in the case of Kerala, all other states followed Survey of India (SOI) topographic sheets to mark the High Tide Line (HTL) fixed 30 years back, and the recent satellite data to update it wherever there are drastic changes in the shoreline. In 1995 CESS made detailed field measurements to fix the HTL at every one-km interval and used satellite data to interpolate the rest of the values.”

5. **Impacts of Lakeshore judgment on coastal Zone regulation**

5.1 The KCZMA’s ‘scientific’ presentation about the map-scale, and stories about the Nettoor Stream and the man-made canal saved a 350 bed hospital from demolition. Incidentally, all those who were involved in the planning, preparation, scrutiny and approval of the 1996 CZMP – CESS, KSCSTE and MoEF – were silent witnesses of KCZMA’s hara-kiri. This might have pained the field staff, cartographers and scientists who spent their quality time with dedication on this important project.

5.2 The Division Bench dismissed the second petition for scrapping of the 1996 CZMP on the basis of KCZMA’s submission that “the Government is preparing cadastral plans, thereafter, a fresh plan and map shall be issued”. This judgment rendered the 1996 CZMP invalid and also sent a soothing message to the builders and buyers of water-front villas that the CRZ Notification is dead for all practical purposes and it is business as usual. As expected, the Lakeshore judgment was quoted in six judgments of the High Courts of Kerala and Madras.

6. **KCZMA’s Double Standards**

As the Lakeshore judgment invalidated the 1996 CZMP the KCZMA should have gone out of existence in 2003 till the approval of a new CZMP. (The CZMP for CRZ-Notification-2011 received the MoEFCC’s approval in February 2019.) Rather than evaporating into insignificance, the technocracy prospered during 2003-19, as they could uphold or deny the existence of map when it suited their interests. Details of approved projects in NDZ would be known only after scrutiny of all applications. Summaries of a few cases in which the
proponents of the rejected projects sought legal remedies are given in the following paragraphs.

6.1 Case 1: Tourist Hotel on the shore of Ashtamudi Lake - 2007

On 30 Nov 2007, the Kerala High Court directed the KCZMA to reconsider a rejected application for construction of a tourist hotel on the shores of Ashtamudi Lake in Kollam district. In the hearing before the KCZMA, the applicant quoted the Lakeshore judgment and argued that the Low Tide Line and High Tide Line are not properly marked in the CZMP. Summary of this presentation is included in the minutes (pp 11-12) of is 29th meeting on 28 Feb 2009. The minutes could not be found on KCZMA website, the agenda is available, but it does not list this case (Item No 29.3.13). The KCZMA’s decision as recorded in the minutes was:

“The facts and circumstances of the Lakeshore case relate to land reclamation, applicability of CRZ norms where manmade canals exist, etc and so this has no bearing on the petitioner’s case.”

The applicant did not argue that a judgment of the High Court is the law of the land. On its part, KCZMA forgot its submission in the Lakeshore case about lack of clarity of the 1996 maps and the new maps under preparation.

6.2 Case 2: Tourist Hotel in Thiruvananthapuram – 2006 to 2016

Construction work of a hotel in the ‘No Development Zone’ of CRZ-III in Vizhinjam Panchayat of Thiruvananthapuram district started before 2005. Citing violation of CRZ Rules, the Panchayat issued a stop memo and the builder challenged this in the Kerala HC on 11 August 2006 (WP(C) 21527/2006). After the first hearing in August 2006, further hearings happened in 2013 and 2016. The standing counsel for the KCZMA submitted that according to the CRZ Notification-2011, the petitioner's property is located within CRZ-II, where new constructions are permitted. On 01 February, 2016 the Hon’ble Justice Muhamed Mustaque directed the KCZMA “to take appropriate decision in the matter, classifying the area where the hotel situates as CRZ-II, in accordance with 2011 notification.”
6.3  **Case 3: Star Hotel in Kollam Town - 2016**

The construction of a five star deluxe hotel near the town of Kollam commenced in 2001 on land located in CRZ-III (NDZ) according to CZMP-1996 and in CRZ-II as per CRZ Notification-2011. The site had several buildings constructed in 1965. Only renovation of roof structure, strengthening of wall etc was carried out without demolishing the existing structures and the hotel was inaugurated in 2011. In May 2015, KCZMA served notice to stop all activities in the complex and remove the illegal constructions from the 'NDZ'. A writ petition filed against the notice came up before the Hon'ble Justice Shaji P Chali (WP(C).No. 403 of 2016). KCZMA said in its affidavit that the construction/re-construction of the buildings was done prior to 2011 when CZMP-1996 was applicable; the writ petition is unsustainable and therefore liable to be dismissed. On 10 August 2016, the learned Judge directed the KCZMA to include the petitioner’s properties under CRZ-II category while CZMP is prepared in accordance with CRZ Notification, 2011. The KCZMA was also reminded about is position in the case decided by the High Court (see para 6.2 above) seven months ago. KCZMA’s website does not show the agenda and minutes of the 69th meeting of KCZMA which decided to file the above petition.

6.4  **Case 4: Eco-tourism project in Mangrove Forest in Kannur 2011**

Pappinissery Eco Tourism Society established a Mangrove Theme Park in CRZ I area on the banks of Valapattanam River in Kannur District. The MoEFCC ordered its closure for violation of CRZ Rules. Challenging the said order (Ext.P-1), the promoters filed a writ (W.P. (C) No. 22707 of 2010) for declaring Map No. 66A of the Kerala State CZMP as arbitrary and illegal. KCZMA forgot its earlier submission in Lakeshore case and upheld the validity of the 1996 CZMP.

6.5.  **Case5: Precedence of KCZMA.**

Application for construction of a residential building with plinth area of 106.2 m² from Shri Asokan, Panikkassery House, Cheri, Pallipuram Panchayat, Ernakulam District came up before the 104th Meeting of the KCZMA on 16.11.2019. The site is at a distance of 13.92 m from the HTL of paddy field (30m) and the area is No Development Zone of CRZ III.
Excerpts from the Agenda (Item No.104.01.10) Notes:

As per CRZ notification 2011 clause 8 III A (ii), NO construction shall be permitted within NDZ except for repairs or reconstruction of existing authorized structure not exceeding existing floor space index, plinth area etc. Comments: The proposed construction is permissible as per the precedence of KCZMA. Hence the proposal is placed before KCZMA meeting. (Emphasis added).

6.6 The meeting declined clearance as the applicant is not from the eco-system people or a local inhabitant. A similar application from Kadakkara village in Ernakulam (Agenda Item No.103.01.04), recommended by the secretariat as permissible as per the precedence of KCZMA was rejected in the 103rd meeting also. The precedence means that similar cases were approved earlier. The criteria for this relaxation are not known.

6.7 Transparency at KCZMA

Sadly, this statutory body controls about 15% of the land in the State, most of which was the common land of the ecosystem people, who ensured our food sovereignty for generations. The KCZMA has a mandate to publish its minutes and other important documents on its website. During the 20 years of its existence, the Authority held 106 meetings in which the fate of thousands of building applications was sealed. in some of these meetings.

Box: Discussion on transparency in the 77th meeting of KCZMA – 03 Sep 16

Chairman welcomed members to the meeting. After initial deliberations, it was decided that transparency to the proceedings will go a long way in enforcing the CRZ regulations in Kerala. It was decided to put all available information relating to KCZMA in the website. The website should be made more meaningful in its design, content and use. In order to make available the details regarding the High Tide Line, No Development Zone etc. to the public and also to the needy it was decided to develop a GPS enabled Mobile Application. The Agenda and Minutes of the KCZMA meetings will be uploaded in the Website immediately on approval of the minutes. It was decided to provide facility in the website of KCZMA for uploading complaints under CRZ. The website shall provide the details of complaint, action taken, follow up required etc. in it. The meeting opined that the KCZMA cannot afford to have the integrity of the Authority and its officers under cloud.
The 77th meeting of KCZMA held on 03 September 2016 realized that it “cannot afford to have the integrity of the Authority and its officers under cloud” and so it resolved to become transparent. Transparency is not a window that can be opened and shut at will. Four and a half years down the line, none of the items listed in the meeting (See Box above) has been implemented. The agenda notes and minutes of more than half the meetings held so far are still not available on the website. It appears that the selective withholding of the documents is intentional. The hidden documents contain information about cases of corruption reported in the media.

7. Conclusion

7.1 The Lakeshore judgment is the product of the 12500 km$^2$ lie and others invented by the KCZMA. Though the statement of Adv General Rajan Joseph has been quoted in several judgments, the lie remained undetected all these years. The profound statement by the counsel of a technocracy consisting of high ranking scientists and administrators stands out not because of the complex and arcane algorithms behind it, but because of its sheer mediocrity. The people of the State are already ‘enjoying’ the comics in the name of coastal management. According to the World Meteorological Organisation (WMO), the Kerala flood of August 2018 was among the five major extreme flooding events in the world between 2015 and 2019. This event caused about 425 deaths and estimated economic loss of Rs 310 billion. While heavy rains and release of stored water from the reservoirs were the primary causes, massive constructions on the coast and the wetlands obstructed the flow of the flood waters.

7.3 The membership of the KCZMA in 2003 included six senior Indian Administrative Service (IAS) officers and four renowned scientists. The names of the IAS officers are not given in the Gazette of India notification on the appointment of KCZMA members. The scientists’ names are there. They include the directors of the CESS and the Central Marine Fisheries Research Institute (CMFRI), an emeritus scientist at KSCSTE and a former dean of Sciences Division in Cochin University for Science and Technology (CUSAT).

7.4 It is hoped that its creators of this scientific stupidity will do their best to undo the damages it caused to their own credibility and also that of the nation’s judicial system. The 12500 km$^2$ lie has been with us for 17 years, resurfacing at regular intervals in judicial pronouncements. Each lie has its own shelf life. Several other lies around us had longer
shelf lives, like the Chernobyl lie that lingered for over three decades. In a television series which exposed those lies, the script-writer Craig Mazin reminds us that “Every lie we tell incurs a debt to the truth; sooner or later, the debt is paid”.

**ABBREVIATIONS**

Centre for Earth Science Studies                  CESS,  
Coastal Regulation Zone                           CRZ)  
Coastal Zone Management Plan                      CZMP  
Filtration Pond- fish breeding ground             FP  
Government of India                               GoI,  
Government of Kerala                              GoK  
High Tide Line                                    HTL  
Kerala State Coastal Zone Management Authority    KCZMA  
Kerala State Council for Science, Technology and Environment KSCSTE  
Ministry of Environment, Forest and Climate Change MoEFCC  
National Centre for Earth Science Studies –       NCESS  
Non Development Zone                               NDZ  
Cochin University for Science and Technology      CUSAT